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Straight cylindrical involute splines — Metric module, side fit — Generalities, dimensions and inspection

AMENDMENT 1 : Section three : Inspection

Cannelures cylindriques droites à flancs en développante — Module métrique, à centrage sur flancs — Généralités, dimensions et vérification

AMENDEMENT 1 : Section trois : Vérification

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Amendment 1 to International Standard ISO 4156 : 1981 was prepared by Technical Committee ISO/TC 14, *Shafts for machinery and accessories,* Sub-Committee 2, *Couplings*.

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Straight cylindrical involute splines — Metric module, side fit — Generalities, dimensions and inspection

AMENDMENT 1 : Section three : Inspection

Warning

Some of the symbols used in this addendum could seem to have two meanings. For instance Z means either the number of teeth (as is customary in the ISO Standards for spline or gears) or the distance between the centre of the tolerance zone of new GO gauges for shafts and the GO workpiece limit (see ISO/R 1938).

The authors have not thought it necessary to distinguish them, since the context will always preclude any ambiguity.

Section three : Inspection

15 Scope

This addendum provides guidance and data necessary for the inspection of straight (non-helical) cylindrical involute splines.

16 Reference temperature

The standard reference temperature for industrial length measurements is 20 °C. The dimensional requirements for parts and gauges are defined at that temperature and inspection shall also normally be carried out at that same temperature.

If measurements are taken at another temperature, the results shall be corrected using the expansion coefficients of parts and gauges respectively.

Unless otherwise specified, all measurements shall be made under zero measuring load.

If measurements are made under a non-zero load, the results shall be corrected accordingly. However, such correction is not required for comparison measurements made with the same comparison means and under the same measuring load, between similar components of the same material and with the same surface condition.

17 Inspection with limit gauges

17.1 Introduction

The procedures for inspection of straight cylindrical involute splines are defined below for cases where use is made of limit gauges. However, it is not mandatory to use such gauges and direct measurement is acceptable provided that this method has been agreed by the parties concerned under conditions to be defined so as to meet the requirements of this addendum.

By convention, a part is deemed acceptable when its splines are found satisfactory using gauges meeting the requirements of this addendum, which is the authority for gauging. Consequently, the choice of gauge shall be agreed between customer and manufacturer in the contract, so that, if the customer uses his own gauges for acceptance purposes, they shall be close enough to the prescribed external limits not to reject splines already deemed acceptable by the manufacturer's gauges. In case of dispute, both the manufacturer and the customer shall make their gauges available to each other for checking on their own premises. In the event of a continuing dispute, the gauges shall be referred to a calibration authority recognized by the two parties.

17.2 Inspection methods

Three methods of inspection are provided in table 120, "Positions of gauge tolerances", for gauge inspection of splines :

— the "standard method";

— the "alternative method A";

— the "alternative method B".

The selected method of inspection shall be described explicitly.

These different methods of inspection on the NOT GO side lead to the following conclusions for H/h fit :

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Table 117 — Inspection methods

Inspection method[1)]	Theoretical maximum clearance between mating parts (zero-form variation)	Maximum variation of form in each part (zero clearance)
Standard	$2\,(T + \lambda)$	$T + \lambda$
A	$2\,T$	$T + \lambda$
B	$2\,T$	Undetermined

1) In the rest of this addendum, the terms "standard method", "method A" and "method B" are used for simplicity's sake.

For fits other than H/h, the theoretical maximum clearance will vary as a function of the fundamental deviations.

17.2.1 Inspection on the GO side

In the three above-mentioned methods, GO composite gauges are used to check

— that the effective limits of space width or tooth thicknesses are not exceeded on the GO side, to ensure the desired fit;

— the form diameter of the part, thus ensuring that the desired tolerances are respected for the full specified involute depth.

17.2.2 Inspection on the NOT GO side

17.2.2.1 Standard method

In the "standard method", NOT GO sector spline gauges with sector teeth check the actual limits of space width or tooth thickness at the minimum material conditions of the parts.

17.2.2.2 Method A

In "method A", two types of NOT GO gauges are provided :

— one covers NOT GO sector spline gauges which check (as for the "standard method") the actual limits of space width or tooth thickness at the minimum material conditions of the parts;

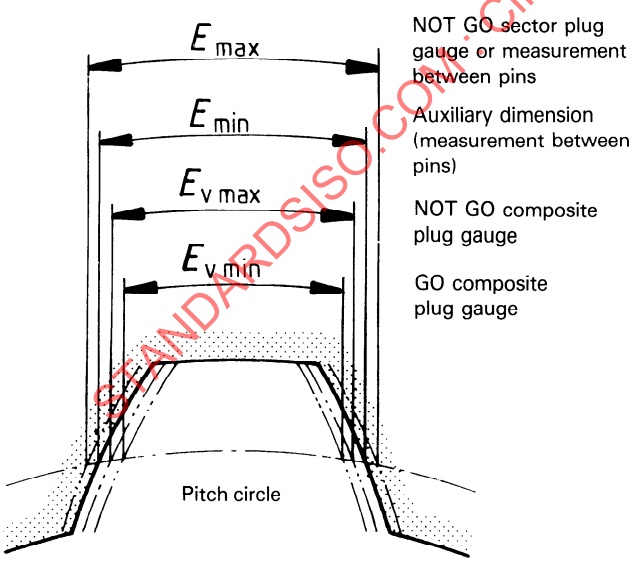
— the other covers NOT GO composite spline gauges which check the effective limits of space width or tooth thickness to ensure the desired conditions of use (variation allowances are in this case checked globally).

17.2.2.3 Method B

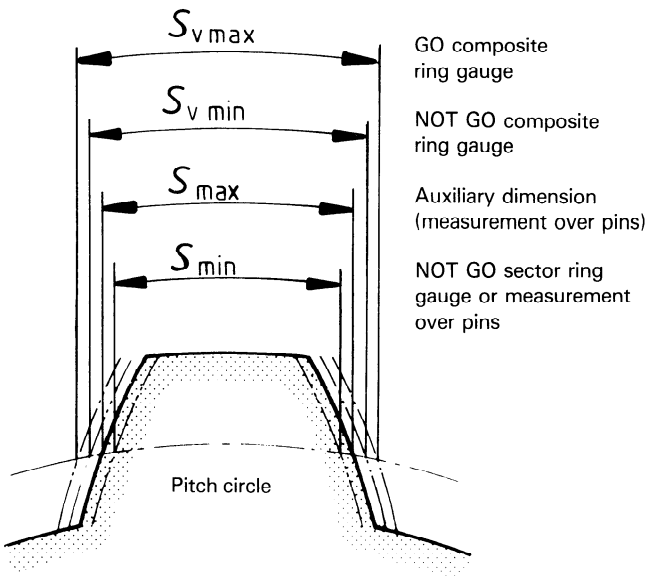
In "method B", NOT GO composite gauges check (as for "method A") the effective limits of space width or tooth thickness not to be exceeded on the NOT GO side (the actual limits of space width or tooth thickness at the minimum material condition of parts are not checked in this case).

17.2.2.4 Control using measuring pins or balls

Control using measuring pins or balls is permissible instead of NOT GO sector ring or plug gauges.



a) Internal spline



b) External spline

Figure 16 — Relationship between the dimensions of the parts and gauges used

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17.2.3 GO and NOT GO inspection of diameter at tooth top (D_{ii} or D_{ee})

All these inspection methods require measuring the tooth top (internal minor diameter, D_{ii}, or external major diameter, D_{ee}) using GO and NOT GO plain (plug or ring) gauges or other acceptable measuring devices.

17.3 Additional inspection

Checking splines using a GO composite spline (plug or ring) gauge does not identify, if a part is rejected by the gauge, the defective dimensional elements causing the rejection.

If such cases are required to be reported, additional inspection (specifically instructed) must be made by analytical inspection (see clause 23) of separate dimensional measurement of actual space width or tooth thickness using two balls or pins, total cumulative pitch variation, total profile variation, and lead variation.

The choice between balls or pins for space width or tooth thickness measurement shall be specified.

Because of the difference in flank contact and of spline tooth lead variations or surface condition, measuring balls and pins will probably not provide the same measurement results for space width or tooth thickness.

17.4 Influence of the "active spline length" and of the "length of engagement" [see figure 17, a) and b)]

The definitions of length of engagement, g_γ, and of active length, g_w, are given in clause 2.

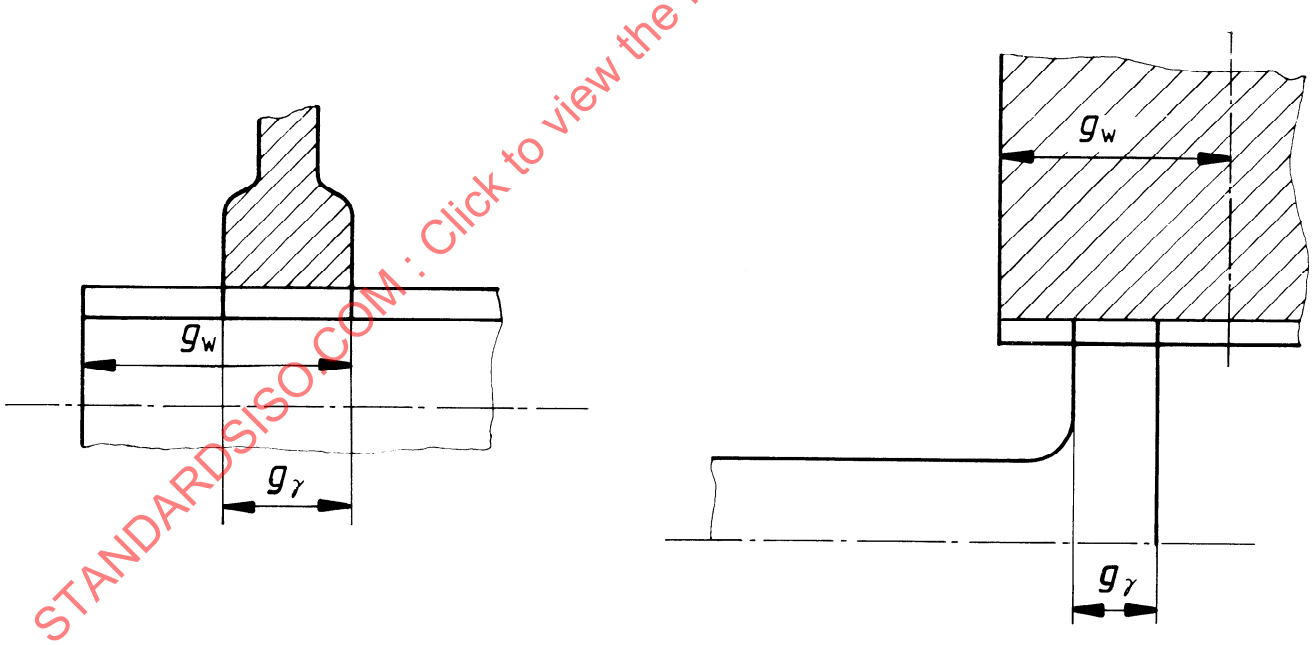
Since check gauges are often shorter than the parts to be checked, the "active length" and "length of engagement" may influence the maximum permissible alignment of splines (parallelism error of the splines with respect to the axis).

If the "length of engagement" is smaller than or equal to half the pitch diameter, and if the "active length" is equal to the "length of engagement", alignment variations of splines can generally, unless otherwise specified, be included in the total tolerances $(T + \lambda)$ (defined in clause 6), and checked simultaneously by limit gauges according to the inspection methods specified in 17.2.1, 17.2.2 and 17.2.3.

In the case where the "length of engagement" is greater than half the pitch diameter and the "active length" is greater than or equal to the "length of engagement", it might be necessary to prescribe spline alignment tolerances independent of the total tolerance $(T + \lambda)$; these tolerances may then have to be checked separately by "analytical inspection".

If particular spline alignment tolerances are specified, account should be taken that they should generally be proportionally all the smaller since the "active length" or the "length of engagement" or both will be greater.

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a) Shaft longer than hole

b) Hole longer than shaft

Figure 17 — Active length and length of engagement

17.5 Conditions for use of gauges

17.5.1 GO side

GO composite gauges (spline ring or plug) shall pass over the specified spline length without forcing. The gauge weight or a specified load may be used.

A small movement may be imparted to the gauge in order to minimize the effects of friction.

17.5.2 NOT GO side

NOT GO gauges are used in the same way as the gauges for checking plain cylindrical parts; checking is made at least in three angular positions as equally distributed as possible.

17.6 Limiting dimensions of use for gauges

Practical use for gauges is limited by gauge weight and dimensions.

Parts with a pitch diameter $D \leqslant 180$ mm can normally be checked by limit gauges.

Parts with a pitch diameter $D > 180$ mm can be checked by limit gauge only if agreed between the customer and the supplier. Wherever possible, the weight of the gauge shall not exceed 10 kg.

17.7 Inspection of gauges

17.7.1 Dimensional inspection

17.7.1.1 The actual dimensions of composite or sector spline plug gauges are normally checked by direct measurement and by balls or plain cylindrical pins. The choice between balls or pins checking shall be specified explicitly and checking shall involve all tooth spaces.

It should be noted that due to their geometry, measuring balls or pins do not integrate the defects of checked parts in an equivalent manner, especially surface condition or lead variations.

17.7.1.2 The dimensions of composite or sector splines ring gauges are normally checked by "master" composite plug gauges and by balls or plain cylindrical pins.

"Master" plug gauges are tapered on one side of all teeth and are themselves normally checked by direct measurement and by balls in well-defined planes.

17.7.1.3 Plain (ring or plug) gauges are checked in the same conditions as those gauges used for plain cylindrical part inspection.

17.7.2 Inspection of gauge variation allowance

Gauges may show total index variations, total profile variation, and lead variation.

If these variations should be checked, this can be done by "analytical inspection" (see clause 23) which allows inspection of each variation separately. In principle, analytical inspection only applies to plug gauges or "master" plug gauges. It can apply to ring gauges only in the case where no "master" plug gauge is available for checking.

It should be noted that this analytical inspection of ring gauges is more severe than inspection by "master" plug gauge because of the fact that variation allowances are inspected independently of dimensions, which may lead at the maximum material condition limits to the rejection of ring gauges which would otherwise have been accepted by a "master" plug gauge.

18 Manufacturing tolerances for spline gauges

This addendum specifies a unique grade for spline gauges, based upon the spline tolerance class 6.

Manufacturing tolerances for GO and NOT GO gauges and for wear limits on the GO side are given in tables 118 to 121.

NOTES

1 Tables 118 to 121 concern especially actual limits of gauge space width or gauges tooth thickness.

2 Form errors of gauges are always independent of dimensional tolerances. Their individual values are indicated in table 124 and their cumulated values (E, E_1) in tables 118 to 121.

3 In the limiting cases where gauges are manufactured at the maximum material condition, form errors lead to a displacement of the limits of acceptance of the parts.

18.1 Positions of tolerance zone and wear limits in relation to the limits of the part to be checked

The relative positions are shown in terms of diagrams in table 120.

NOTE — A wear limit is required and provided only for GO gauges.

18.2 Values for gauge tolerances

The definition of the range of the dimensional tolerance zone for space width and tooth thickness of gauges is based on the same principle as for the total tolerance ($T + \lambda$) of the parts in tolerance class 6 (see clause 6).

Gauge tolerances are based on the ISO fundamental tolerances (IT) of grades 3 to 5, as given in table 118.

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Table 118 — Manufacturing tolerances for gauges — Unique grade

Unique tolerance grade applicable to parts of tolerance class	Tolerance qualities of part	Tolerances for plug gauges				Tolerances for ring gauges			
		H^*	E^{***}	Z^{**}	Y^{****}	H_1^*	E_1^{***}	Z_1^{**}	Y_1^{****}
4	IT6* + IT9**	GO plug gauge				GO ring gauge			
5	IT7* + IT10**	IT3	—	IT5	$\frac{IT3}{2}$	IT4	—	IT5	$\frac{IT4}{2}$
6	IT8* + IT11**	NOT GO plug gauge				NOT GO ring gauge			
7	IT9* + IT12**	IT3	—	—	—	IT4	—	—	—

* Tolerance based on pitch diameter.

** Tolerance based on theoretical space width or tooth thickness, see note 2 below.

*** For the calculation of E and E_1, see note 1 below.

**** $Y = H/2$ and $Y_1 = H_1/2$; tolerance based on pitch diameter, see note 3 below.

NOTES

1 Values given for H and H_1 (dimensional tolerances of the gauges) are in accordance with those given in ISO/R 1938, *ISO system of limits and fits — Part 2 : Inspection of plain workpieces.*

E and E_1 (cumulative form tolerances of the gauges) are calculated from the equation :

$$E \text{ or } E_1 = 0{,}6\sqrt{(\text{profile variation})^2 + (\text{index variation})^2 + (\text{lead variation})^2}$$

applied to table 124, taking account of the measuring length of gauges given in tables 122 and 123. The values of E and E_1 given in table 121 are rounded values.

2 The values given for Z and Z_1 (corresponding to the position of the GO gauge tolerance zone, in relation to the GO limit of the workpiece; see table 120) are the part of the gauge tolerance which is based on the theoretical space width or tooth thickness.

3 The values given for Y and Y_1 (corresponding to the displacement, outside the GO workpiece limit, of the wear limit of gauge; see table 120) have been selected respectively equal to $H/2$ and $H_1/2$.

18.3 Special provisions

18.3.1 If agreed between customer and manufacturer, gauges of grades other than the unique grade can be created, in accordance with ISO/R 1938 and taking account of the tolerance class of the part to be checked, as shown in table 119.

Table 119 — Manufacturing tolerances for gauges — Grades other than the unique grade

Tolerance grades applicable to parts of tolerance class	Tolerance qualities of the part	Tolerances for plug gauges				Tolerances for ring gauges			
		H^*	E^{***}	Z^{**} *****	Y^{****} *****	H_1^*	E_1^{***}	Z_1^{**} *****	Y_1^{****} *****
4	IT6* + IT9**	IT2	—	IT3	$\frac{IT2}{2}$	IT3	—	IT4	$\frac{IT3}{2}$
5	IT7* + IT10**	IT3	—	IT3	$\frac{IT3}{2}$	IT3	—	IT4	$\frac{IT3}{2}$
6	IT8* + IT11**	IT3	—	IT5	$\frac{IT3}{2}$	IT4	—	IT5	$\frac{IT4}{2}$
7	IT9* + IT12**	IT3	—	IT5	$\frac{IT3}{2}$	IT4	—	IT5	$\frac{IT4}{2}$

* Tolerance based on pitch diameter.

** Tolerance based on theoretical space width or tooth thickness, see note 2 in 18.2.

*** For the calculation of E and E_1, see note 1 in 18.2.

**** $Y = H/2$ and $Y_1 = H_1/2$; tolerance based on pitch diameter, see note 3 in 18.2.

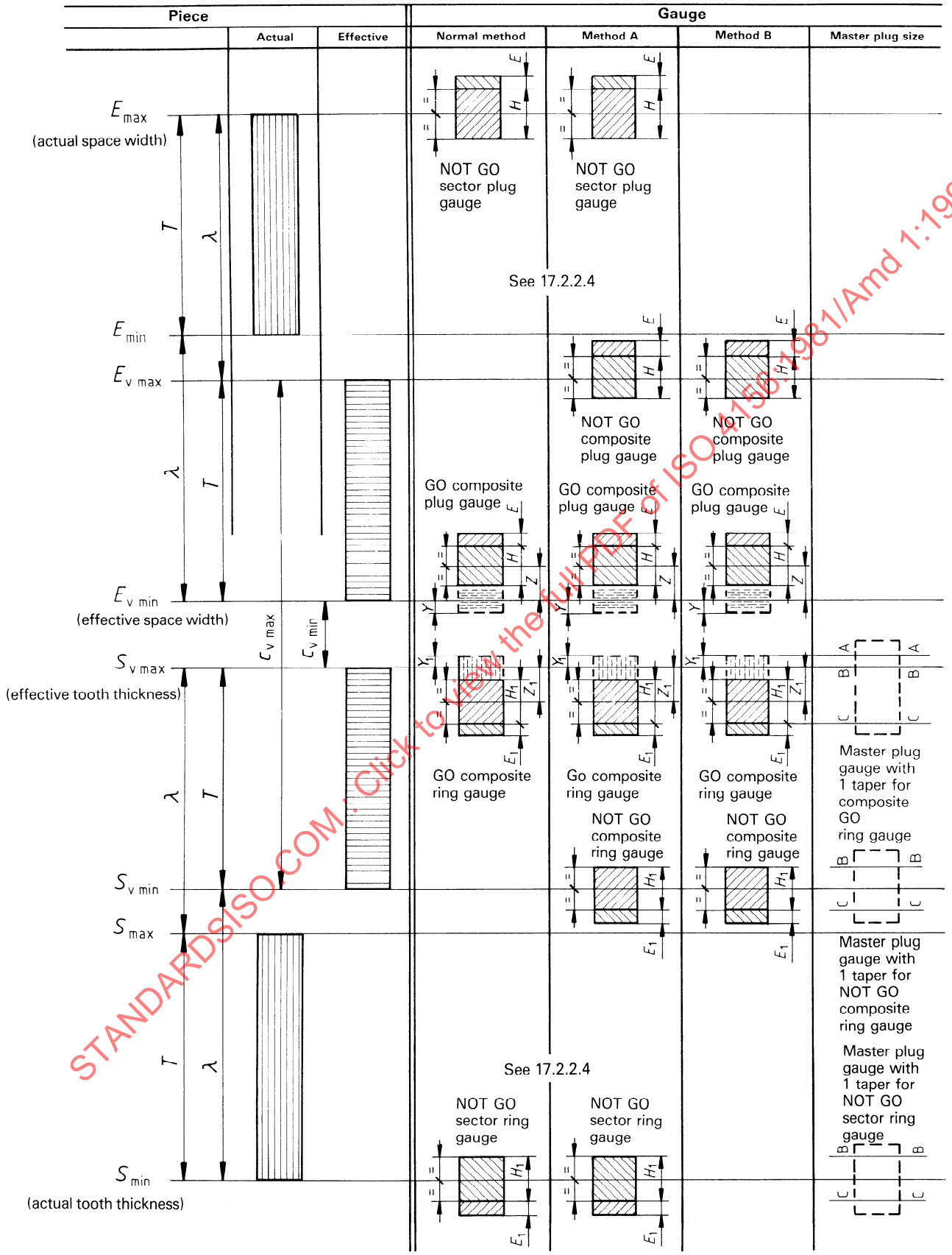
***** For GO gauges only.

18.3.2 Spline gauges with a pitch diameter $D > 180$ mm shall be created according to the same rules as stated above.

However, for the part of the gauge tolerance based on the pitch diameter, a shift of the NOT GO gauge tolerance zone and of the wear limit of the GO gauge with respect to the checked limits of pieces shall be taken into account.

The shift, for which values α for plug gauges and α_1 for ring gauges are given in ISO/R 1938, is intended to compensate measuring uncertainties of gauges.

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Table 120 — Positions of gauge tolerances

Table 121 — Values of dimensional tolerances of spline gauges for the recommended grade

Tolerances in micrometres

Pitch diameter D mm	GO and NOT GO plug gauges					GO and NOT GO ring gauges				
	Tolerance	Theoretical circular space width, E (mm)				Tolerance	Theoretical circular tooth thickness, S (mm)			
		$0 < E \leqslant 3$	$3 < E \leqslant 6$	$6 < E \leqslant 10$	$10 < E \leqslant 18$		$0 < S \leqslant 3$	$3 < S \leqslant 6$	$6 < S \leqslant 10$	$10 < S \leqslant 18$
$1 \leqslant D \leqslant 3$	H	2				H_1	3			
	E	5				E_1	5			
	Z	4				Z_1	4			
	Y	1				Y_1	1,5			
$3 < D \leqslant 10$	H	2,5				H_1	4			
	E	5				E_1	5			
	Z	4				Z_1	4			
	Y	1,25				Y_1	2			
$10 < D \leqslant 18$	H	3	3			H_1	5	5		
	E	5	5			E_1	5	5		
	Z	4	5			Z_1	4	5		
	Y	1,5	1,5			Y_1	2,5	2,5		
$18 < D \leqslant 30$	H	4	4	4		H_1	6	6	6	
	E	5	5	5		E_1	5	5	5	
	Z	4	5	6		Z_1	4	5	6	
	Y	2	2	2		Y_1	3	3	3	
$30 < D \leqslant 50$	H	4	4	4	4	H_1	7	7	7	7
	E	5	5	5	5	E_1	5	5	5	5
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	2	2	2	2	Y_1	3,5	3,5	3,5	3,5
$50 < D \leqslant 80$	H	5	5	5	5	H_1	8	8	8	8
	E	5	5	5	5	E_1	5	5	5	5
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	2,5	2,5	2,5	2,5	Y_1	4	4	4	4
$80 < D \leqslant 100$	H	6	6	6	6	H_1	10	10	10	10
	E	5	5	5	5	E_1	5	5	5	5
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	3	3	3	3	Y_1	5	5	5	5
$100 < D \leqslant 120$	H	6	6	6	6	H_1	10	10	10	10
	E	6	6	6	6	E_1	6	6	6	6
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	3	3	3	3	Y_1	5	5	5	5
$120 < D \leqslant 150$	H	8	8	8	8	H_1	12	12	12	12
	E	6	6	6	6	E_1	6	6	6	6
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	4	4	4	4	Y_1	6	6	6	6
$150 < D \leqslant 180$	H	8	8	8	8	H_1	12	12	12	12
	E	7	7	7	7	E_1	7	7	7	7
	Z	4	5	6	8	Z_1	4	5	6	8
	Y	4	4	4	4	Y_1	4	4	6	4
	Corresponding standardized modules (mm)									
		0,25 0,5 0,75 1 1,25 1,5 1,75	2 2,5 3	4 5 6	8 10		0,25 0,5 0,75 1 1,25 1,5 1,75	2 2,5 3	4 5 6	8 10

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19 Length of measuring part of gauges

19.1 GO or NOT GO gauges

The values given for the minimum length of the measuring part of GO or NOT GO plain or spline gauges are those in ISO 3670, *Blanks for plug gauges and handles (taper lock and trilock) and ring gauges — Design and general dimensions.*

The length of the composite GO gauges shall comply with ISO 3670. In the case where the length of engagement is greater than 1,5 times the value given in tables 122 or 123, the active length of the GO composite spline plug or ring gauge should be increased. A gauge length of 75 % of the length of engagement is usually satisfactory. This shall be subject to prior agreement between purchaser and manufacturer.

NOTE — GO and NOT GO spline gauges may include a non-measuring part (plain cylindrical part or chamfer) intended for making gauge entrance easier.

Table 122 — Measuring part of ring gauges — Minimum length

Dimensions in millimetres

Pitch diameter of splines D	Minimum length of spline or plain ring gauges	
	GO	NOT GO
$1 \leqslant D \leqslant 2{,}5$	6	4
$2{,}5 < D \leqslant 5$	10	5
$5 < D \leqslant 10$	12	8
$10 < D \leqslant 15$	14	10
$15 < D \leqslant 20$	16	12
$20 < D \leqslant 25$	18	14
$25 < D \leqslant 32$	20	16
$32 < D \leqslant 40$	24	18
$40 < D \leqslant 50$	32	20
$50 < D \leqslant 60$	32	20
$60 < D \leqslant 70$	32	24
$70 < D \leqslant 80$	32	24
$80 < D \leqslant 90$	32	24
$90 < D \leqslant 100$	32	24
$100 < D \leqslant 110$	40	24
$110 < D \leqslant 120$	40	24
$120 < D \leqslant 140$	45	24
$140 < D \leqslant 180$	50	30

Table 123 — Measuring part of plug gauges — Minimum length

Dimensions in millimetres

Pitch diameter of splines D	Minimum length of spline or plain plug gauges	
	GO	NOT GO
$1 \leqslant D \leqslant 3$	6,5	4,5
$3 < D \leqslant 6$	8	6
$6 < D \leqslant 10$	10	7
$10 < D \leqslant 14$	12	8
$14 < D \leqslant 18$	14	10
$18 < D \leqslant 24$	16	12
$25 < D \leqslant 30$	18	14
$30 < D \leqslant 40$	20	15
$40 < D \leqslant 50$	25	18
$50 < D \leqslant 65$	30	18
$65 < D \leqslant 80$	35	25
$80 < D \leqslant 90$	35	25
$90 < D \leqslant 95$	35	25
$95 < D \leqslant 100$	35	25
$100 < D \leqslant 110$	35	25
$110 < D \leqslant 120$	40	25
$120 < D \leqslant 140$	45	30
$140 < D \leqslant 180$	50	30

19.2 Tapered tooth master plug gauges

19.2.1 GO master gauges

The length of the measuring part of the GO master plug gauge shall be determined taking into account the following cumulative elements :

a) a lead length corresponding to the minimum length of the measuring part of the checked GO ring;

b) a checking length, function of the mating side taper of the GO master plug gauge (see 17.7.1.2) and of the range of the dimensional tolerance of the checked GO ring;

c) a wear length, function of the side taper of the GO master plug gauge and of the range of the wear tolerance of the checked GO ring.

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19.2.2 NOT GO master gauges

The length of the measuring part of the NOT GO master plug gauge (composite or sector) shall be determined based on the following cumulative elements:

a) a lead length, corresponding to the minimum length of the measuring part of the checked NOT GO ring;

b) a checking length, function of the mating side taper of the NOT GO master plug gauge and of the range of the dimensional tolerance of the checked NOT GO ring.

19.3 Spline gauges of pitch diameters $D > 180$ mm

For spline gauges having a pitch diameter $D > 180$ mm it is advisable to choose a measuring length equal to

— 30 % of the pitch diameter for GO gauges;

— 20 % of the pitch diameter for NOT GO gauges.

20 Grips of spline gauges

The grips of spline gauges shall be those currently permitted in ISO 3670 for plain or threaded gauges of similar dimensions.

Plug gauges of pitch diameter $D \leqslant 50$ mm may be integral.

21 Values of variation allowances of spline gauges

The variations of form checked on spline gauges are the same as those checked on corresponding parts, i.e.:

— total cumulative pitch variation (index variations);

— total profile variation;

— total lead variation.

Whatever the accuracy of the gauge, the values accepted for variation allowances are those indicated in table 124.

NOTE — GO spline gauges may show a plain cylindrical thoroughly machined proof diameter intended for possible inspection of the radial run-out of the gauge teeth and the product run-out (after the part has been mounted on the gauge).

Table 124 — Variation allowances of spline gauges

Tolerances in micrometres

Pitch diameter D mm	Total profile variation (see 23.2.2)	Total index variation (see 23.2.1)	Total lead variation for a measuring length of the gauge		Radial run-out (see note)	
			less than or equal to 25 mm (see 23.2.3)	greater than 25 mm (see 23.2.3)	Ring	Plug
$D \leqslant 100$	5	5	3	5	10	7
$100 < D \leqslant 150$	5	8	3	5	15	10
$150 < D \leqslant 180$	5	10	—	5	15	10

NOTE — Inspection made with respect to the centre line for plugs, with respect to a cylindrical external band for rings. The cumulative amount of profile variation, index variation and lead variation is given by the value E or E_1 (see note 1 in 18.2).

21.1 Cumulation of variation allowances

The cumulation of gauge variation allowances shall be considered as follows (see figure 18).

— On the control circle, the envelope of the total profile variation measured over 360° and defined by arc AB shall always lie within the envelope of the total index variation measured over 360° and defined by arc CD.

— The lead variation shall be checked independently of all the above-mentioned variations, over the whole measuring length of the gauge at the control circle level.

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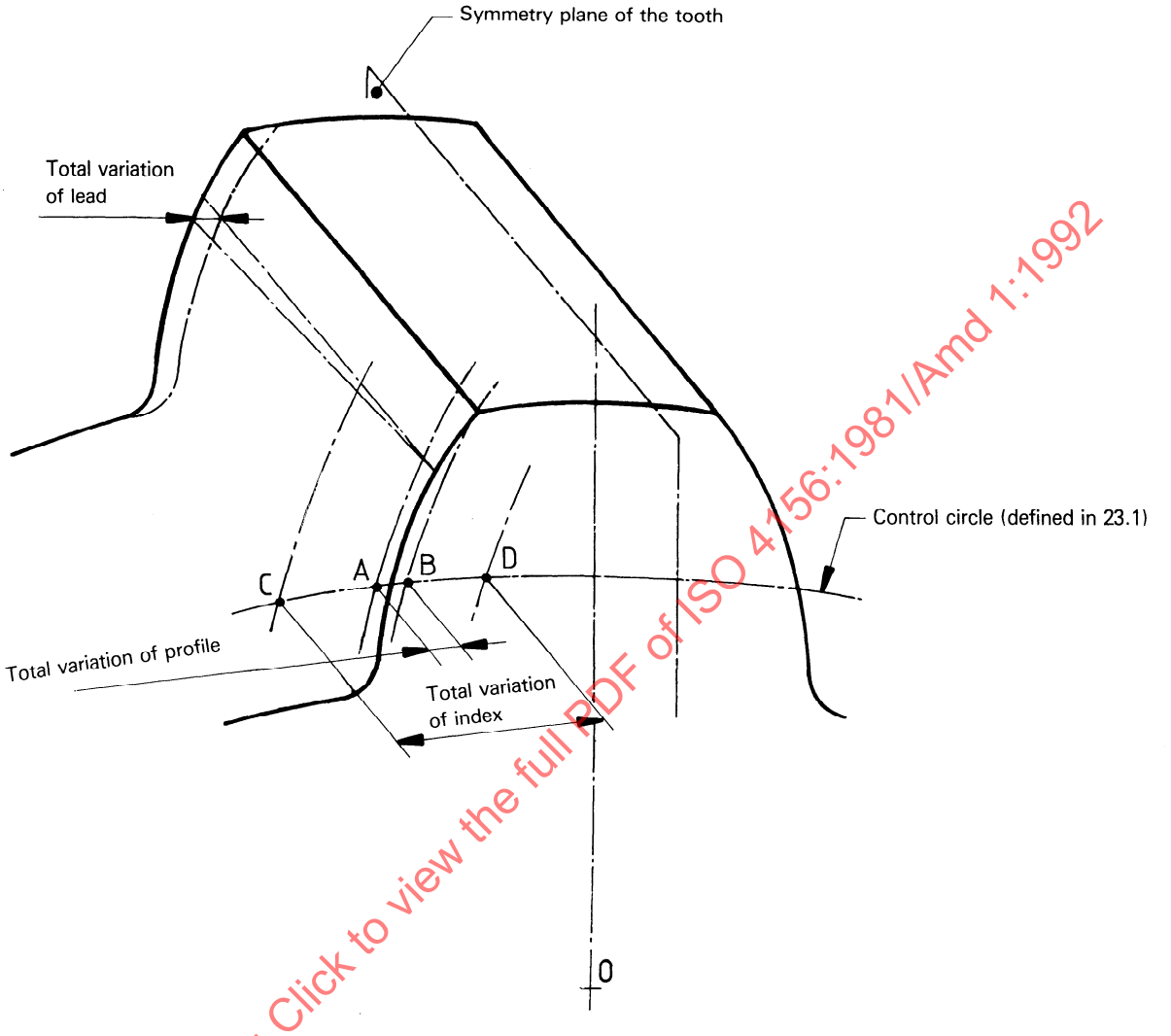


Figure 18 — Cumulation of gauge variation allowances

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21.2 Spline gauges of pitch diameters $D > 180$ mm

For spline gauges having a pitch diameter $D > 180$ mm it is advisable to choose the following values for the variation allowances :

- total profile variation : 7 µm
- total index variation : 12 µm
- total lead variation : 8 µm

For cumulated variation allowances, see clause 21.1.

22 Dimensions, designation and marking of gauges

The dimensions, designation and marking of gauges are specified in 22.1 to 22.3.

22.1 Inspection of external splines

22.1.1 GO composite ring gauge

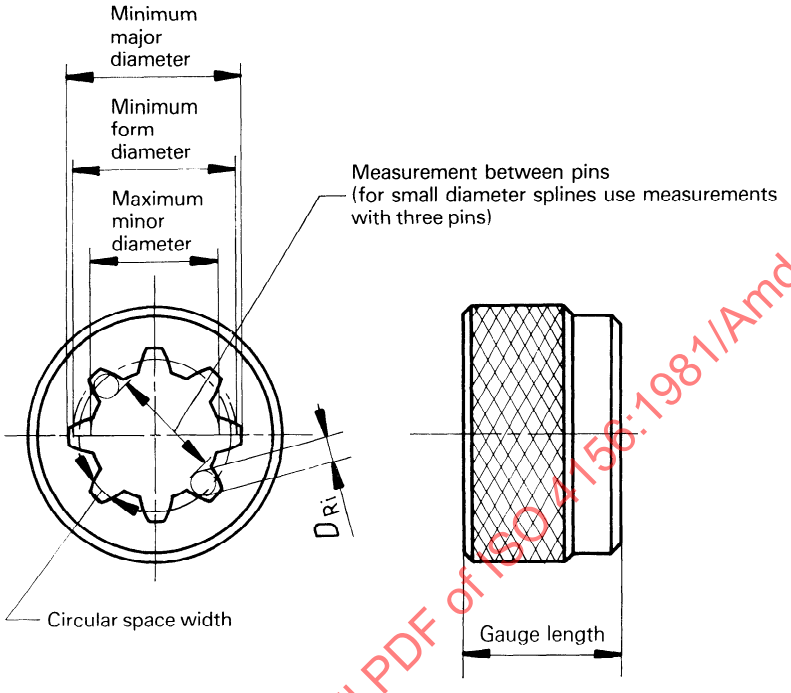


Figure 19 — GO composite ring gauge

Table 125 — Dimensions and tolerances of GO composite ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Minimum major diameter	$D_{ee\ max} + 2\,c_F{}^* + 0{,}1\,m$	
Minimum form diameter	$D_{ee\ max} + 2\,c_F$	
Maximum minor diameter	$D_{Fe\ max}$	K7**
Circular space width at pitch diameter	$S_{v\ max} = S$ displaced by the amount of the fundamental deviation of the part	
New gauge	$S_{v\ max} = S - c_{v\ min}$	$- Z_1 \pm H_1/2$
Wear limit	$S_{v\ max} + Y_1$	
Variation of form	E_1	
Pin diameter	D_{Ri} (the same as for corresponding internal spline)	
Measurement between pins : New gauge	see 23.3.4.1.2	
Worn gauge	see 23.3.4.1.2	
The minimum major diameter shall clear the pin diameter.		
Calibrating length of the ring, see table 122.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See tables 121 for the values of H_1, Z_1, Y_1 and E_1.

Gauge designation

Taking the example from 12.3, a GO composite ring for external spline

EXT 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

GO 24Z × 2,5 m × 30R × 5f ISO 4156

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22.1.2 Tapered tooth master plug gauge for GO composite ring gauge

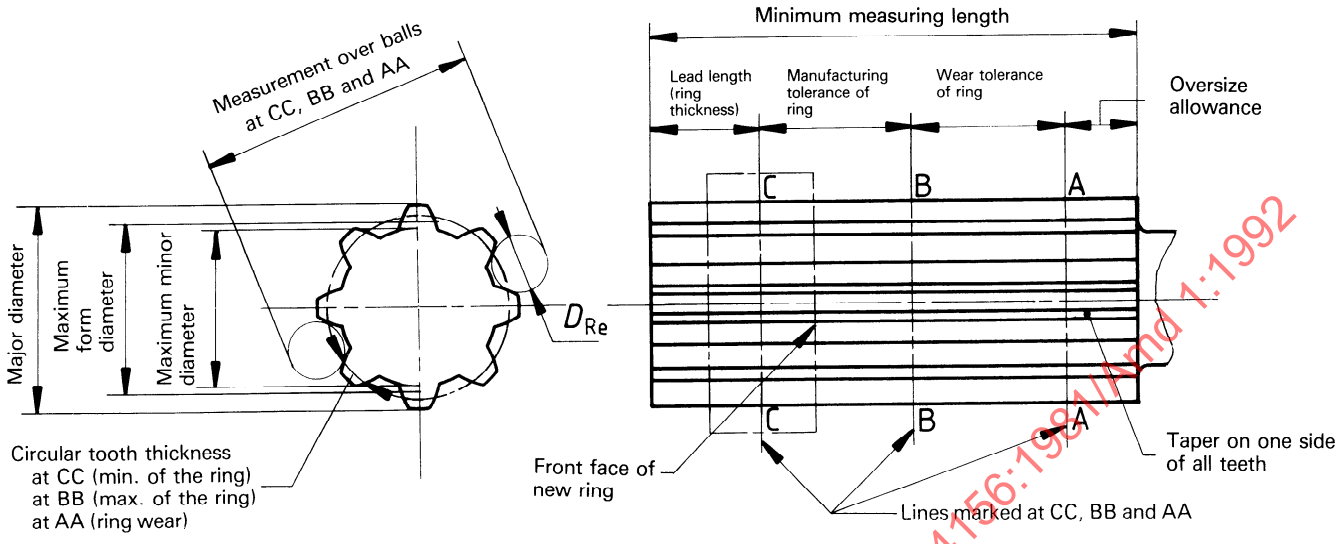


Figure 20 — Tapered tooth master plug gauge for GO composite ring gauge

Table 126 — Dimensions and tolerances of tapered tooth master plug gauges for GO composite ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	h8**
Major diameter	$D_{ee\ min} - 2\,c_F$*	
Maximum form diameter	$D_{Fe\ max} - 0{,}1\,m$	
Circular tooth thickness		
at CC (minimum of the ring)	$S_{v\ max} - Z_1 - H_1/2$	
at BB (maximum of the ring)	$S_{v\ max} - Z_1 + H_1/2$	
at AA (ring wear)	$S_{v\ max} + Y_1$	
Variation of form	E_1	
Taper on one side	0,02 % min.	
Maximum minor diameter	$D_{Fe\ max} - 2\,c_F$	
Ball diameter	D_{Re} (the same as for corresponding external spline)	
Measurement over balls	see 23.3.4.1.1	
The maximum minor diameter shall clear the ball diameter.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H_1, Z_1, Y_1 and E_1.

Gauge designation

Taking the example from 12.3, a master plug gauge for ring

GO 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

master GO ring 24Z × 2,5 m × 30R × 5f ISO 4156

(or master GO ring may be replaced by M.G.R.)

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22.1.3 NOT GO two-sector ring gauge

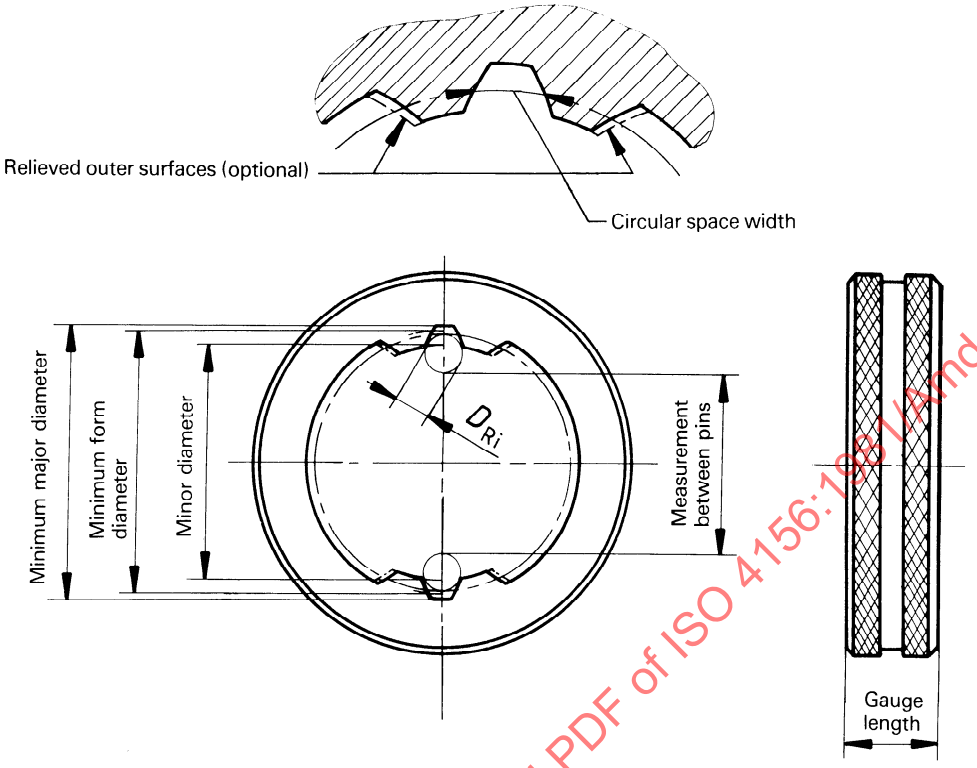


Figure 21 — NOT GO two-sector ring gauge

Table 127 — Dimensions and tolerances of NOT GO two-sector ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Minimum major diameter	$D_{ee\ max} + 2\,c_F{}^* + 0{,}1\,m$	
Minimum form diameter	$D_{ee\ max} + 2\,c_F$	
Minor diameter	$\dfrac{D + 2\,D_{Fe\ max}}{3}$	JS8**
Variation of form	E_1	
Circular space width at pitch diameter	S_{min}	$\pm\ H_1/2$
Pin diameter	D_{Ri} (the same as for corresponding internal part)	
Measurement between pins	see 23.3.4.1.2	
The minimum major diameter shall clear the pin diameter.		
Calibrating length of ring, see table 122.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H_1 and E_1.

Gauge designation

Taking the example from 12.3, a NOT GO sector ring gauge for external splines

EXT 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

NOT GO 24Z × 2,5 m × 30R × 5f ISO 4156

Number of sector teeth

Table 128 — Number of sector teeth

Total number of product teeth, Z	$6 < Z \leqslant 30$	$31 < Z \leqslant 44$	$45 < Z \leqslant 58$	$59 < Z \leqslant 72$	$73 < Z \leqslant 86$	$87 < Z \leqslant 100$	$Z > 100$
Number of space widths in each sector	2	3	4	5	6	7	0,075 Z

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22.1.4 Tapered tooth master plug gauge for NOT GO two-sector ring gauge

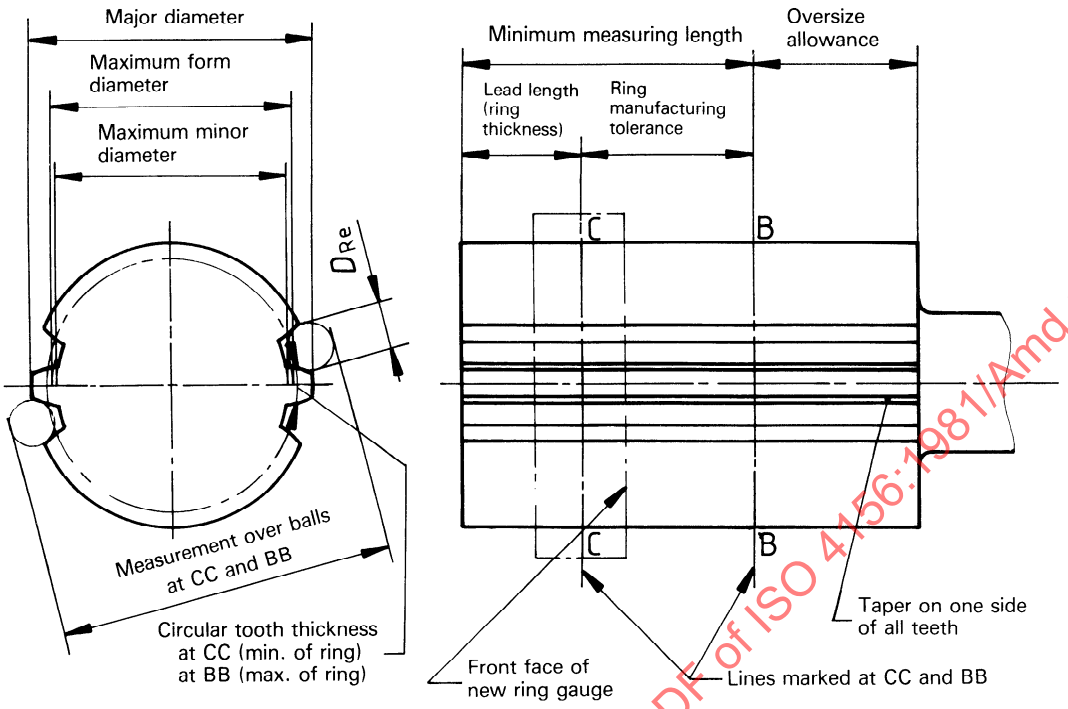


Figure 22 — Tapered tooth master plug gauge for NOT GO two-sector ring gauge

Table 129 — Dimensions and tolerances of tapered tooth master plug gauges for NOT GO two-sector ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Major diameter	$D_{ee\ min} - 2\,c_F$*	h8**
Maximum form diameter	$\frac{D + 2\,D_{Fe\ max}}{3} - 0{,}1\,m$	
Circular tooth thickness		
at CC (minimum of ring)	$S_{min} - H_1/2$	
at BB (maximum of ring)	$S_{min} + H_1/2$	
Variation of form	E_1	
Taper on one side	0,02 % min.	
Maximum minor diameter	$\frac{D + 2\,D_{Fe\ max}}{3} \quad 0{,}2\,m$	
Ball diameter	D_{Re} (the same as for corresponding external spline)	
Measurement over balls	see 23.3.4.1.1	
The maximum minor diameter shall clear the ball diameter.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H_1 and E_1.

Gauge designation

Taking the example from 12.3, a master plug gauge for sector ring

NOT GO 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

master NOT GO ring 24Z × 2,5 m × 30R × 5f ISO 4156

(or master NOT GO ring may be replaced by M.N.G.R.)

Number of sector teeth

The number of teeth of each master plug gauge sector shall always be equal to the number of space widths of each sector of the checked NOT GO ring.

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22.1.5 NOT GO composite ring gauge

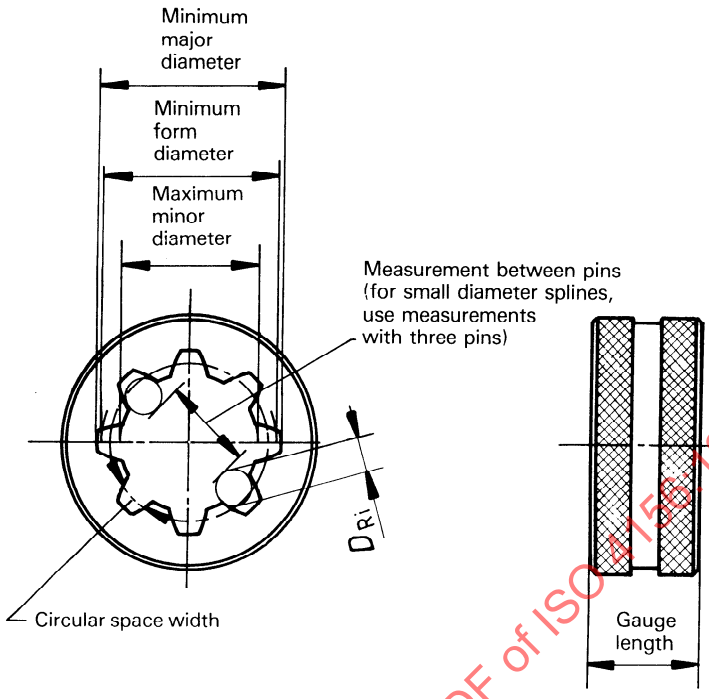


Figure 23 — NOT GO composite ring gauge

Table 130 — Dimensions and tolerances of NOT GO composite ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Minimum major diameter	$D_{ee\ max} + 2\,c_F^* + 0{,}1\,m$	
Minimum form diameter	$D_{ee\ max} + 2\,c_F$	
Maximum minor diameter	$\frac{D + 2\,D_{Fe\ max}}{3}$	JS8**
Circular space width at pitch diameter	$S_{min} + \lambda$	$\pm\ H_1/2$
Variation of form	E_1	
Pin diameter	D_{Ri} (the same as for hub pin)	
Measurement between pins	see 23.3.4.1.2	
The minimum major diameter shall clear the pin diameter.		
Calibrating length of ring : see table 122.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H_1 and E_1.

Gauge designation

Taking the example from 12.3, a NOT GO composite ring gauge for external splines

EXT 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

NOT GO 24Z × 2,5 m × 30R × 5f ISO 4156

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22.1.6 Tapered tooth master plug gauge for NOT GO composite ring gauge

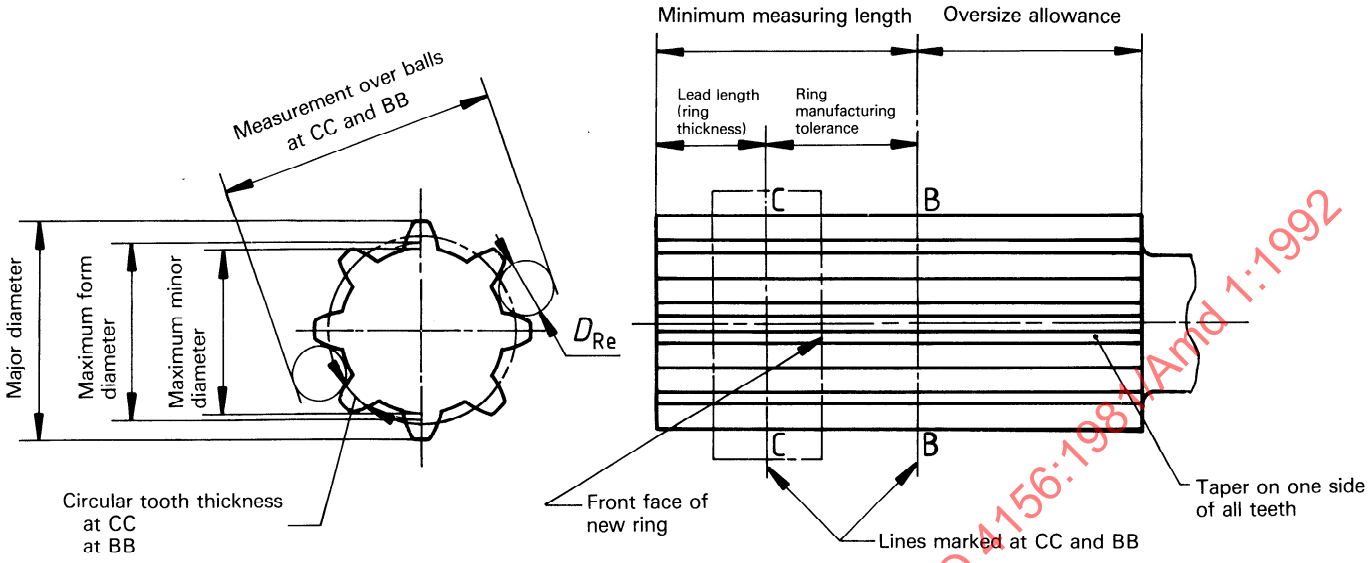


Figure 24 — Tapered tooth master plug gauge for NOT GO composite ring gauge

Table 131 — Dimensions and tolerances for tapered tooth master plug gauges for NOT GO composite ring gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Major diameter	$D_{ee\ min} \quad 2\,c_F$*	h8**
Maximum form diameter	$\frac{D + 2\,D_{Fe\ max}}{3} \quad 0{,}1\,m$	
Circular tooth thickness		
at CC (minimum of ring)	$S_{v\ min} - H_1/2$	
at BB (maximum of ring)	$S_{v\ min} + H_1/2$	
Taper on one side	0,02 % min.	
Maximum minor diameter	$\frac{D + 2\,D_{Fe\ max}}{3} - 0{,}2\,m$	
Variation of form	E_1	
Ball diameter	D_{Re} (same as for the corresponding external spline)	
Measurement over balls	see 23.3.4.1.1	
The maximum minor diameter shall clear the ball diameter.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H_1 and E_1.

Gauge designation

Taking the example from 12.3, a master plug gauge for composite ring

NOT GO 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

master NOT GO ring 24Z × 2,5 m × 30R × 5f ISO 4156

(or master NOT GO ring may be replaced by M.N.G.R.)

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22.2 Inspection of internal splines

22.2.1 Go composite plug gauge

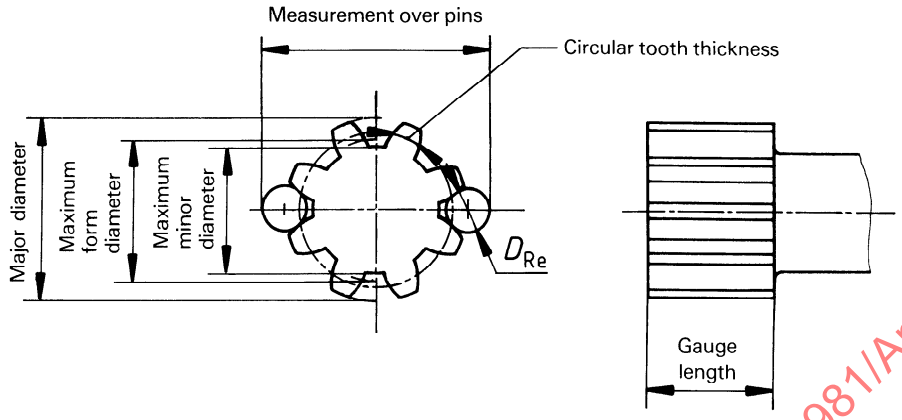


Figure 25 — GO composite plug gauge

Table 132 — Dimensions and tolerances of GO composite plug gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Major diameter	$D_{Fi\ min}$	k7**
Maximum form diameter	$D_{ii\ min} - 2\,c_F$*	
Maximum minor diameter	$D_{ii\ min} - 2\,c_F - 0{,}1\,m$	
Circular tooth thickness at pitch diameter :		
New gauge	$E_{v\ min}$	$+\,Z \pm H/2$
Wear limit	$E_{v\ min} - Y$	
Variation of form	E	
Pin diameter	D_{Re} (same as for the corresponding external spline)	
Measurement over pins : New gauge	see 23.3.4.1.1	
Worn gauge	see 23.3.4.1.1	
The maximum minor diameter shall clear the form diameter and the pin diameter.		
Calibrating length of the plug : see table 123.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H, Z, Y and E.

Gauge designation

Taking the example from 12.3, a GO composite plug gauge for internal splines

INT 24Z × 2,5 m × 30R × 5H ISO 4156

shall be marked

GO 24Z × 2,5 m × 30R × 5H ISO 4156

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22.2.2 NOT GO two-sector plug GAUGE

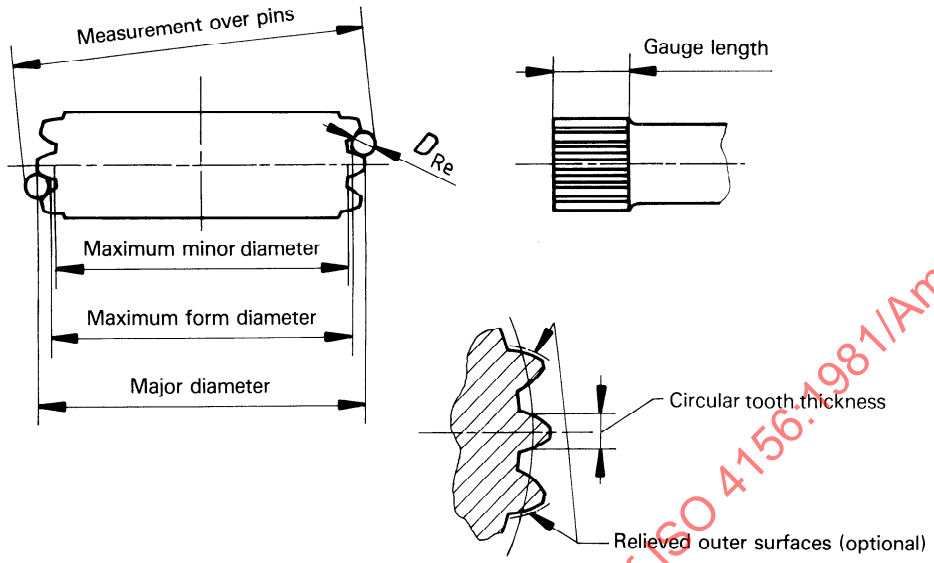


Figure 26 — NOT GO two-sector plug gauge

Table 133 — Dimensions and tolerances of NOT GO two-sector plug gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Major diameter	$\frac{D + 2\,D_{Fi\,min}}{3}$	js8**
Maximum form diameter	$D_{ii\,min} - 2\,c_F$*	
Maximum minor diameter	$D_{ii\,min} - 2\,c_F - 0{,}1\,m$	
Circular tooth thickness at pitch diameter	E_{max}	$\perp H/2$
Variation of form	E	
Pin diameter	D_{Re} (the same as for corresponding external product)	
Measurement over pins	see 23.3.4.1.1	
The maximum minor diameter shall clear the pin diameter.		
Plug calibrating length : see table 123.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H and E.

Gauge designation

Taking the example from 12.3, a NOT GO sector plug gauge for internal spline

INT 24Z × 2,5 m × 30R × 5H ISO 4156

shall be marked

NOT GO 24Z × 2,5 m × 30R × 5H ISO 4156

Number of sector teeth

Table 134 — Number of sector teeth

Total number of product teeth, Z	$6 < Z \leqslant 30$	$31 < Z \leqslant 44$	$45 < Z \leqslant 58$	$59 < Z \leqslant 72$	$73 < Z \leqslant 86$	$87 < Z \leqslant 100$	$Z > 100$
Number of teeth in each sector	2	3	4	5	6	7	0,075 Z

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22.2.3 NOT GO composite plug gauge

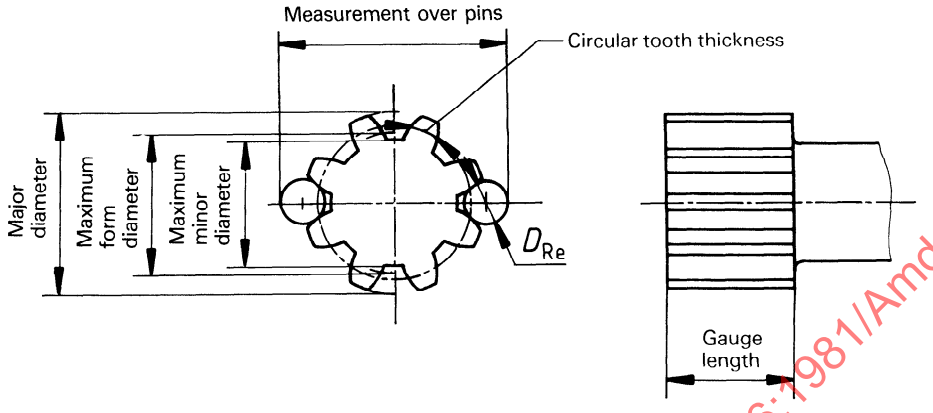


Figure 27 — NOT GO composite plug gauge

Table 135 — Dimensions and tolerances of NOT GO composite plug gauges

Gauge dimensions	Formulas	Manufacturing tolerances
Pitch diameter	D	
Major diameter	$\frac{D + 2\,D_{Fi\,min}}{3}$	js8**
Maximum form diameter	$D_{ii\,min} - 2\,c_F$*	
Maximum minor diameter	$D_{ii\,min} - 2\,c_F - 0{,}1\,m$	
Circular tooth thickness at pitch diameter	$E_{max} - \lambda$	$\pm\, H/2$
Variation of form	E	
Pin diameter	D_{Re} (the same as for corresponding external spline)	
Measurement over pins	see 23.3.4.1.1	
The maximum minor diameter shall clear the pin diameter.		
Plug calibrating length : see table 123.		

* $c_F = 0{,}1\,m$

** See ISO 286, *ISO system of limits and fits.*

NOTE — See table 121 for the values of H and E.

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Gauge designation

Taking the example from 12.3, a NOT GO composite plug gauge for internal spline

INT 24Z × 2,5 m × 30R × 5H ISO 4156

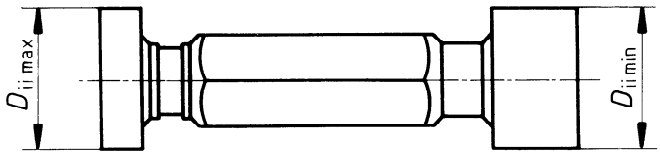
shall be marked

NOT GO 24Z × 2,5 m × 30R × 5H ISO 4156

22.3 Inspection with plain gauges for internal and external splines

22.3.1 Inspection of minor diameter — internal spline

Double plain gauge for toleranced minor diameter (D_{ii}) inspection of internal splines



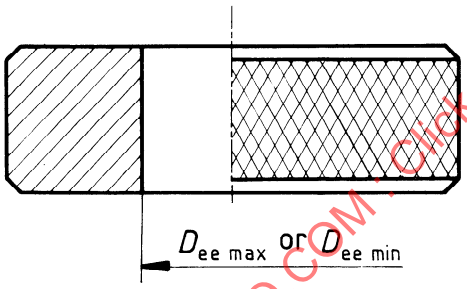
H10 for $0{,}25 \leqslant m \leqslant 0{,}75$
H11 for $1 \leqslant m \leqslant 1{,}75$
H12 for $2 \leqslant m \leqslant 10$

Figure 28 — Double plain gauge

Gauge blanks : in accordance with ISO 3670.

22.3.2 Inspection of major diameter — external spline

GO plain ring and NOT GO plain ring for toleranced major (D_{ee}) diameter inspection of external splines



h10 for $0{,}25 \leqslant m \leqslant 0{,}75$
h11 for $1 \leqslant m \leqslant 1{,}75$
h12 for $2 \leqslant m \leqslant 10$

Figure 29 — GO or NOT GO plain ring

Gauge blanks : in accordance with ISO 3670

22.3.3 Gauge designation

Taking the example from 12.3, a double plain gauge (TLD) for internal spline

INT 24Z × 2,5 m × 30R × 5H ISO 4156

or a GO (or NOT GO) plain ring for external spline

EXT 24Z × 2,5 m × 30R × 5f ISO 4156

shall be marked

DII H10 or **DII H11** or **DII H12**

GO DEE h10 or **GO DEE h11** or **GO DEE h12**

NOT GO DEE h10 or **NOT GO DEE h11** or **NOT GO DEE h12**

23 Analytical inspection

Analytical inspection is characterized by the fact that it consists of an inspection element by element of each dimensional or variation of form.

Analytical inspection allows each variation to be evaluated separately (whereas inspection with limit gauges is a "composite" inspection) and thus permits, in case a part is rejected by the gauge, identification of the element(s) of this part causing rejection.

Analytical inspection as described below mainly concerns :

a) the analytical control of variations of form (total profile variation, total index variation, total lead variation);

b) the measurement over pins (for external splines) or between pins (for internal splines);

c) the measurement over k number of teeth (for external splines).

NOTE — Analytical inspection applies to both parts and gauges.

23.1 General

Analytical inspection is the measurement of individual dimensions and variations.

It allows checking of roundness and concentricity if required. It also allows, when inspecting the profile, the checking of form diameters and the tooth tip chamfers.

Inspection need not be carried out at the pitch diameter, provided it occurs at a well defined circle, to be determined by agreement between the purchaser and the supplier and indicated in the inspection report.

Other inspection methods than those specified below can be used but in case of dispute only those specified in 23.2 and 23.3 shall be used as reference.

23.2 Measurement of spline variations

The effect of these variations is dealt with in clause 9.

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23.2.1 Total index variation

Index variations are the variations in the spacing of all corresponding tooth profiles from theoretical spacing with respect to the arbitrarily selected tooth side in the corresponding flanks series.

The total index variation is the sum of the absolute values of the two greatest variations of opposite sign (this value of total index variation includes excentricity) (see 8.3).

The total index variation may be measured directly or obtained indirectely by measuring circular pitch variations, which are the variations from the theoretical pitch variations.

The measurement of circular pitch variations is of little value for splines unless converted to total index variation.

23.2.1.1 Index variation of tooth profiles is not identical with the index variation of the centrelines of spaces or teeth. Measurement of either variation is acceptable, since only a percentage of the total index variation is assumed to be reflected in the fit. Where readings must be repeatable, it is necessary to describe in detail the manner of inspection. Measurements taken on the centreline of internal spaces and external teeth may be more suitable for determining the effective variation since they are not influenced by space width and tooth thickness variations. Furthermore, determination of the spacing of tooth profiles permits contact analysis and separate inspection of drive and coast sides. Index variation is usually measured normal to the tooth surface as shown in figure 31 b). This practice yields readings smaller than the variation at the pitch circle [see figure 31 a)] but is generally accepted.

23.2.1.2 The total index variation may be inspected directly by means of precision indexing devices. Readings may be recorded as shown in figure 32. However, the readings may be affected by excentricity. It is therefore useful to dissociate index variation from excentricity of the splines as a whole and a proposed method is described below.

When recordings are taken (as shown on figure 32) on perfect splines rotated about an axis offset from their true axis, the apparent error due to the excentricity is given by

$$E_r \cos (i\varepsilon_z + \beta)$$

where

E_r is the excentric radial offset;

ε_z is the theoretical angular pitch $\varepsilon_z = \left(\frac{360}{Z}\right)$;

β is a phase angle relating the inclination of the offset E_r and the position of the first tooth measured;

i is an integer defining the tooth considered and has values 0, 1, 2, ..., $Z - 1$.

For an actual group of splines, the most probable values of E_r and β can be determined by a harmonic analysis of the measured variation curve (see figure 32).

Such an analysis will yield the values of the coefficients of a Fourier series; the general form can be written

$$f_n(i) = A_0 + A_1 \cos (i\varepsilon_z) + B_1 \sin (i\varepsilon_z) + A_2 \cos (2i\varepsilon_z) + \\ + B_2 \sin (2i\varepsilon_z) + \ldots$$

Only A_0, A_1 and B_1 are needed to separate index and excentricity errors, given by

$$\tan \beta = \frac{-B_1}{A_1}$$

$$E_r = \frac{A_1}{\cos \beta} = \frac{-B_1}{\sin \beta} = \sqrt{A_1^2 + B_1^2}$$

(Some computer harmonic analysis programs may give E_r and β directly.)

A_0 is the mean height of the measured variation curve and shall be subtracted from each measurement for direct comparison with the excentricity effect as indicated in the following example.

Example :

12 tooth splines with measured index variation, as shown in figure 32.

$$\varepsilon_z = 360°/12 = 30°$$

From a harmonic analysis (see figure 32) it follows that :

$$A_0 = 2$$

$$A_1 = 2{,}805\ 4$$

$$B_1 = -5{,}011\ 2$$

hence

$$\tan \beta = 1{,}786\ 27$$

$$E_r = 5{,}743$$

$$\beta = 60{,}758\ 8°$$

and the following table can now be drawn up.

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Table 136 — Measurement results

Values in micrometres

Number of teeth	Measured variation F_p	Measured variation in relation to A_0	Influence of excentricity $E_r \cos(iz + \beta)$ measured from mean height	Residual index variation[1]
0	+ 4	+2	+2,8	−0,8
1	+ 6	+4	−0,08	+4,08
2	0	−2	−2,94	+0,94
3	− 6	−8	−5,01	−2,99
4	− 2	−4	−5,14	+1,14
5	− 6	−8	−4,94	−3,06
6	− 2	−4	−2,81	−1,19
7	+ 4	+2	+0,08	+1,92
8	+10	+8	+2,94	+5,06
9	+ 4	+2	+5,01	−3,01
10	+ 6	+4	+5,14	−1,14
11	+ 6	+4	+4,34	−0,34

1) Residual index variation $= F_p - A_0 - E_r \cos(iz + \beta)$

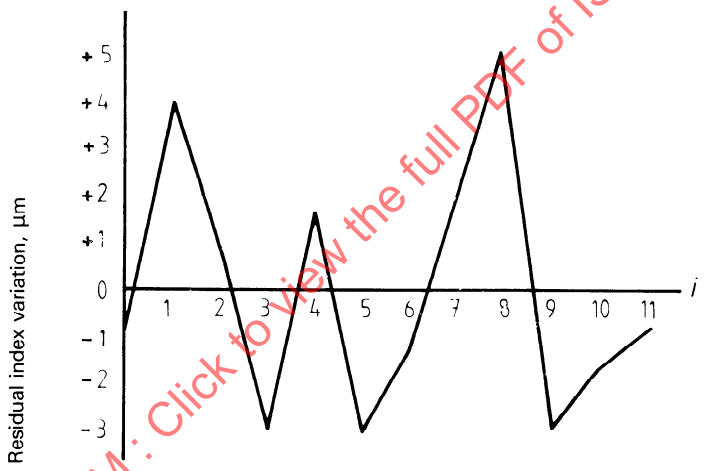


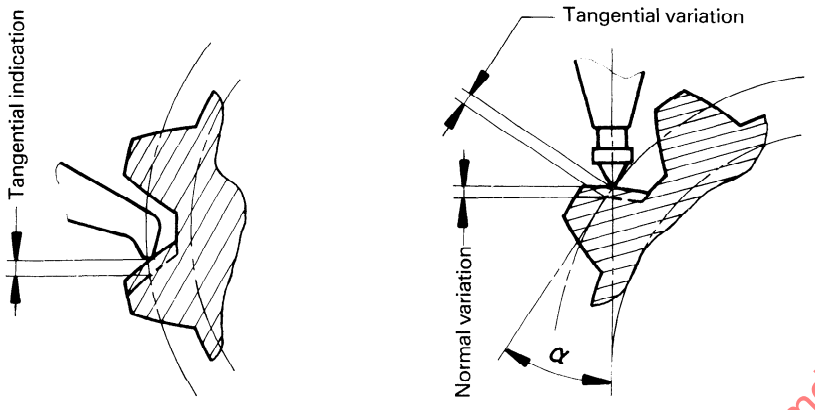
Figure 30 — Graph of residual variation

Table 137 — Results of inspection

Values in micrometres

Excentricity	5,743
Maximum residual variation, positive	5,06
Maximum residual variation, negative	−3,06
Maximum deviation	8,12

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a) Variation at the pitch circle b) Index variation

Figure 31 — Measuring method

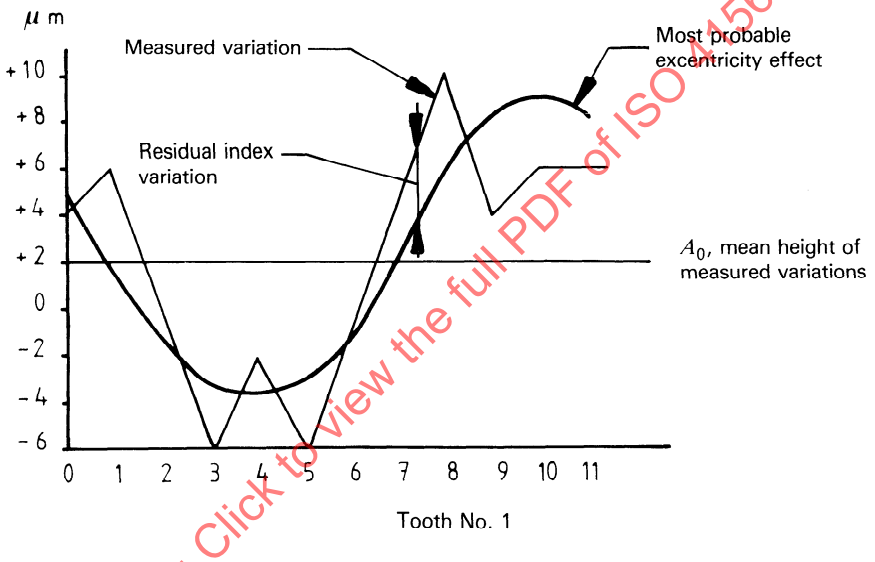
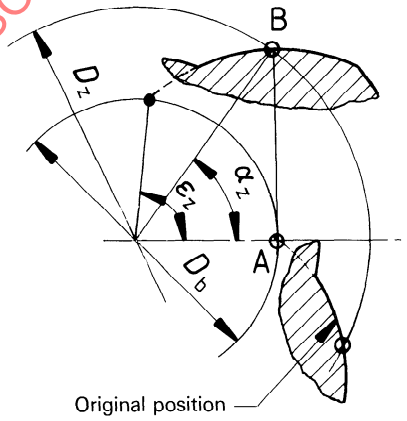


Figure 32 — Measurement results



D_z = any diameter

α_z = pressure angle at D_z

ε_z = roll angle at D_z

$$\frac{D_z}{D_b} = \sec \alpha_z$$

$$\varepsilon_z = \frac{180°}{\pi} \tan \alpha_z \text{ (degrees)}$$

$$AB = \frac{D_b \varepsilon_z \pi}{360}$$

Figure 33 — Theoretical representation

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23.2.1.3 The total index variation can be determined indirectly by measuring the actual circular pitches on the control circles and recording their deviations with respect to the theoretical control circular pitch (see figure 32).

The theoretical control circular pitch is the arithmetical mean of all actual circular pitches measured on the control circle.

The total index variation examined indirectly according to the above method in fact determines an "apparent" index variation including other variations as well.

23.2.2 Total profile variation

The total profile variation is the sum of the absolute values of the two greatest positive and negative profile variations (see 8.4 and figure 7).

The total profile variation is determined by recording the positive or negative deviation of the actual profiles over involute portions included between the two form diameters with respect to a theoretical involute plotted in accordance with the principles of figure 33.

The machines for checking the involute profile are currently based on these principles.

23.2.3 Total lead variation

The total lead variation is the sum of the absolute values of the two greatest positive and negative deviations in spline side direction with respect to the theoretical direction (see 8.5).

The total lead variation is determined by recording the positive or negative deviations of side direction at the control circle level over the whole spline length, in accordance with the principle of figures 31 a) and 31 b).

The machines for checking the actual lead variation are currently based on these principles.

The "negative" or "positive" direction of recorded deviations shall be defined by agreement between the purchaser and the supplier and indicated in the inspection report, if any.

23.3 Measurement with pins (or balls)

Actual space widths or tooth thicknesses are checked using plain cylindrical pins or balls.

The values given below correspond to measurements with two pins or two balls (see clause 26 for H/h fit class).

23.3.1 Selection of pins (or balls)

The pin or ball diameter shall be selected from the preferred number series R40[1] at a value equal to or immediately greater than the diameter tangent to the two adjacent profiles (corresponding to the minimum actual tooth thickness S_{min} or the maximum actual space width E_{max}, of tolerance grade 7) at the level of the mean diameter between the maximum major diameter, external spline ($D_{ee\ max}$), and the minimum minor diameter, internal spline ($D_{ii\ min}$).

In cases where it is not possible to select a size of pin or ball from tables 140 to 250, the size chosen shall satisfy the conditions of contact required for satisfactory measurements. The size to be used shall be subject to prior agreement between purchaser and manufacturer.

The mean diameter is equal to $\frac{D_{ee\ max} + D_{ii\ min}}{2}$ with

— for the internal spline, $D_{ii\ min}$ corresponding always to the fundamental deviation H for the shaft, whatever the assembly fit;

— for the external spline, $D_{ee\ max}$ corresponding to the fundamental deviation selected for the shaft.

In some cases it will be necessary to make a flat on the pin or ball to avoid the contact on the bottom of splines.

NOTE — Pins or balls for internal splines will not necessarily have the same diameter or flat as those for external splines.

The choice between ball or pin inspection shall be specified explicitly. Ball inspection is preferred.

It should be noted that due to their geometry, measuring balls or pins do not integrate checked part variations in the same way, and especially surface conditions or lead variations.

Pin and ball accuracies are given in table 138 with the length of the pin measuring part as a function of pin diameter.

Table 138 — Pin and ball accuracies and pin measuring length

Values in millimetres

Nominal diameter of pins or balls (D_{Re} or D_{Ri})	Tolerances on diameter (including all variations)	Pin measuring length
$0{,}32 \leqslant D_{Re}$ or $D_{Ri} \leqslant 1$	± 0,001	20 ± 5
$1{,}06 \leqslant D_{Re}$ or $D_{Ri} \leqslant 5$		30 ± 5
$5{,}3 \leqslant D_{Re}$ or $D_{Ri} \leqslant 15$		40 ± 5
$16 \leqslant D_{Re}$ or $D_{Ri} \leqslant 25$		50 ± 5
D_{Re} or $D_{Ri} \geqslant 26{,}5$	± 0,001 5	60 ± 5

1) See ISO 3, *Preferred numbers — Series of preferred numbers.*

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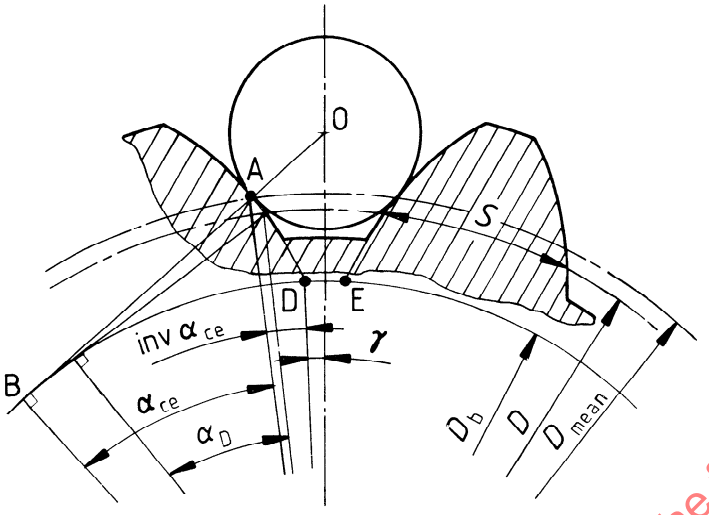
23.3.2 Use and marking of pins

Pins shall be usable over their whole length in any area of the spline length to be checked.

They shall be marked with their nominal diameter.

23.3.3 Calculation of pin (or ball) diameter (D_{Re} or D_{Ri})

23.3.3.1 External spline



$$D_{mean} = \frac{D_{ee\ max} + D_{ii\ min}}{2} \text{ (see 23.3.1)}$$

$$\frac{D_b}{D_{mean}} = \cos \alpha_{ce}, \text{ which yields } \alpha_{ce} \text{ and inv } \alpha_{ce}$$

S = minimum actual tooth thickness (S_{min}), of tolerance grade 7 of fit considered

$$DE = p_b - (S \cos \alpha_D + D_b \text{ inv } \alpha_D)$$

$$BA = \frac{D_b}{2} \tan \alpha_{ce}$$

$$\gamma = \frac{DE}{D_b}$$

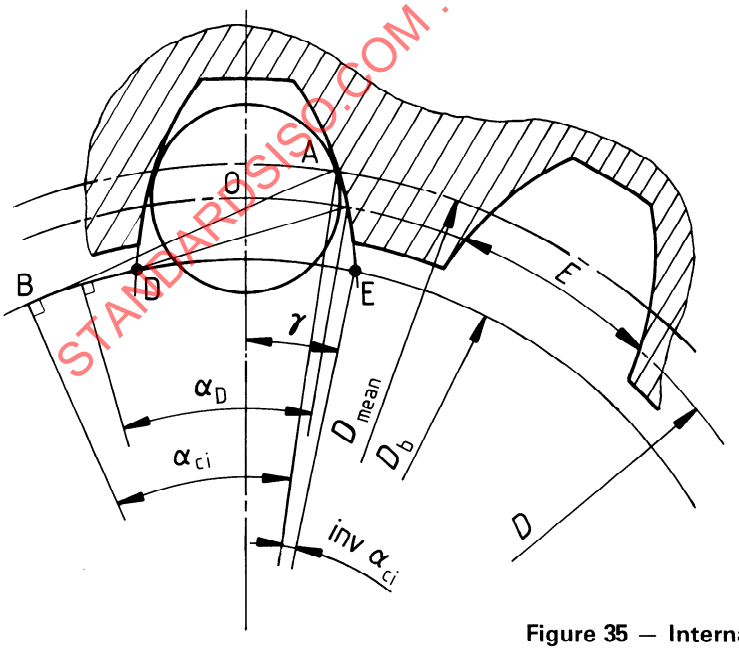
$$BO = \frac{D_b}{2} \tan (\alpha_{ce} + \text{inv } \alpha_{ce} + \gamma)$$

Theoretical ball diameter = 2 (BO − BA)

Take D_{Re} as the next greater nominal diameter in the preferred number series R40.

Figure 34 — External spline

23.3.3.2 Internal spline



$$\frac{D_b}{D_{mean}} = \cos \alpha_{ci}, \text{ which yields } \alpha_{ci} \text{ and inv } \alpha_{ci}$$

E = maximum actual space width (E_{max}), of tolerance grade 7 of fit H

$$DE = E \cos \alpha_D + D_b \text{ inv } \alpha_D$$

$$\gamma = \frac{DE}{D_b}$$

$$BA = \frac{D_b}{2} \tan \alpha_{ci}$$

$$BO = \frac{D_b}{2} \tan (\alpha_{ci} + \text{inv } \alpha_{ci} - \gamma)$$

Theoretical ball diameter = 2 (BA − BO)

Take D_{Ri} as the next greater nominal diameter in the preferred number series R40.

Figure 35 — Internal spline

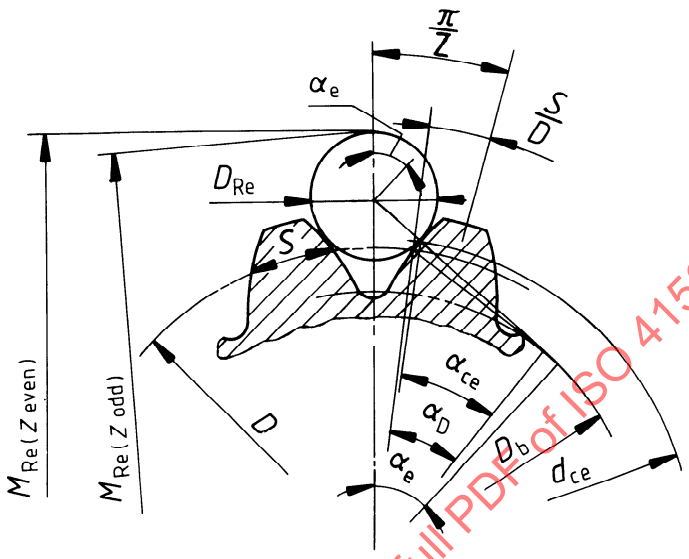
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23.3.4 Calculation of dimensions for pin (or ball) inspection (Part and gauge inspection)

23.3.4.1 Exact calculation

23.3.4.1.1 Measurement over two pins — External splines (M_{Re})

S = actual circular tooth thickness to be checked



D_{Re} = pin diameter — see value in inspection dimension tables

$$\text{inv}\,\alpha_e = \frac{S}{D} + (\text{inv}\,\alpha_D + \frac{D_{Re}}{D_b} - \frac{\pi}{Z})$$

give α_e in degrees, to five decimal places*

$$M_{Re}\ (\text{for } Z \text{ even}) = \frac{D_b}{\cos\alpha_e} + D_{Re} \text{ or } = D_b \sec\alpha_e + D_{Re}$$

$$M_{Re}\ (\text{for } Z \text{ odd}) = \frac{D_b \cos\frac{90^\circ}{Z}}{\cos\alpha_e} + D_{Re} \text{ or}$$

$$= (D_b \cos\frac{90^\circ}{Z}) \sec\alpha_e + D_{Re}$$

$$\tan\alpha_{ce} = \tan\alpha_e - \frac{D_{Re}}{D_b}$$

$$d_{ce} = \frac{D_b}{\cos\alpha_{ce}} \text{ or } = D_b \sec\alpha_{ce}$$

In the formula for inv α_e leading to $M_{Re\ min}$ or $M_{Re\ max}$, S is the minimum or maximum actual tooth thickness of tolerance grade selected for the fit considered.

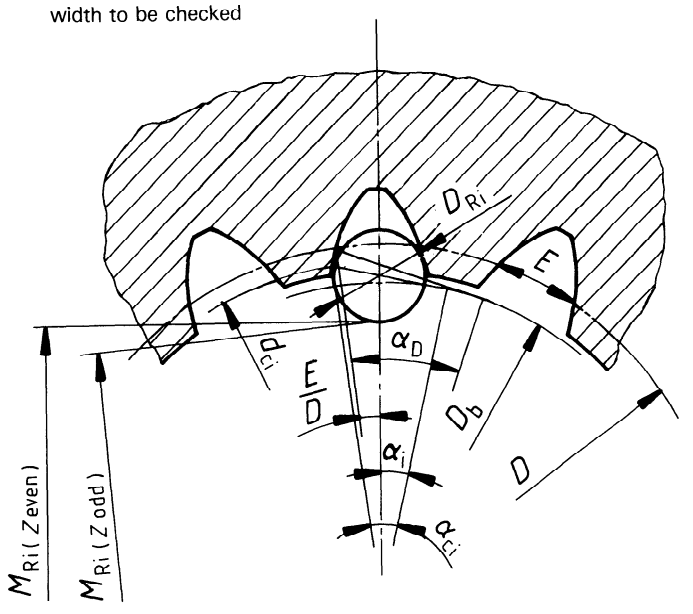
Figure 36 — Measurement over two pins

* Decimal degrees, for use with computers.

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23.3.4.1.2 Measurement between two pins — Internal splines (M_{Ri})

E = actual circular space width to be checked



D_{Ri} = pin diameter — see value in inspection dimensions tables

$$\text{inv}\,\alpha_i = \frac{E}{D} + \left(\text{inv}\,\alpha_D - \frac{D_{Ri}}{D_b}\right)$$

give α_i in degrees, to five decimal places*

$$M_{Ri}\ (\text{for } Z \text{ even}) = \frac{D_b}{\cos\alpha_i} - D_{Ri} \quad \text{or} = D_b \sec\alpha_i - D_{Ri}$$

$$M_{Ri}\ (\text{for } Z \text{ odd}) = \frac{D_b \cos\frac{90^\circ}{Z}}{\cos\alpha_i} - D_{Ri} \quad \text{or}$$

$$= \left(D_b \cos\frac{90^\circ}{Z}\right)\sec\alpha_i - D_{Ri}$$

$$\tan\alpha_{ci} = \tan\alpha_i - \frac{D_{Ri}}{D_b}$$

$$d_{ci} = \frac{D_b}{\cos\alpha_{ci}} \quad \text{or} = D_b \sec\alpha_{ci}$$

In the formula for inv α_i leading to $M_{Ri\,min}$ or $M_{Ri\,max}$, E is the minimum or maximum actual space width of tolerance grade selected for fit H.

Figure 37 — Measurement between two pins

23.3.4.2 Approximation factor

23.3.4.2.1 General

See 8.7 2.2 e).

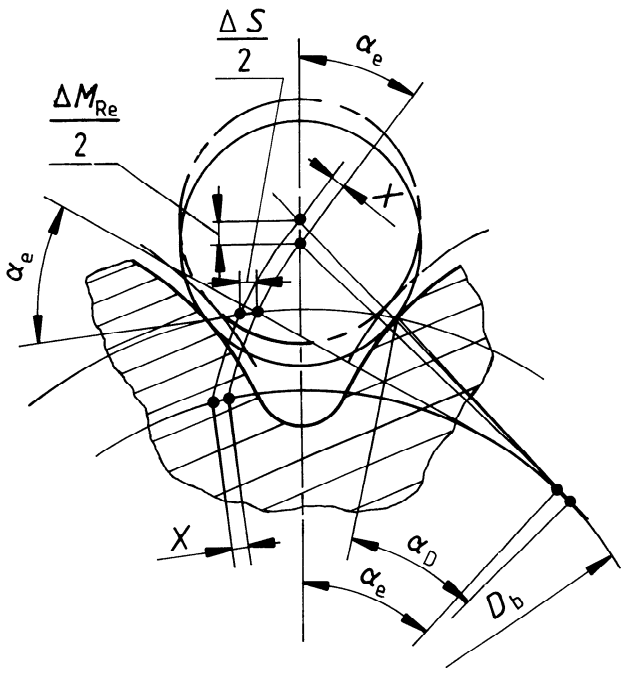
The approximation factor (K_e for external splines, K_i for internal splines) is the variation of inspection dimensions with respect to the variation of corresponding tooth thicknesses or space widths.

The use of factors K_e or K_i leads to values of inspection dimensions which are all the more accurate since the tooth thickness or space width to be checked are closer to the minimal actual tooth thickness values (S_{min}) or the maximum actual space width values (E_{max}) of tolerance grade 7 for the fit considered.

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* Decimal degrees, for use with computers.

23.3.4.2.2 Calculation of the approximation factor K_e



$$X \text{ (approximate)} = \frac{\Delta M_{Re}}{2} \sin \alpha_e{}^{*}$$

$$\frac{\Delta S}{2} = \frac{X}{\cos \alpha_D} = \frac{\Delta M_{Re} \sin \alpha_e}{2 \cos \alpha_D}$$

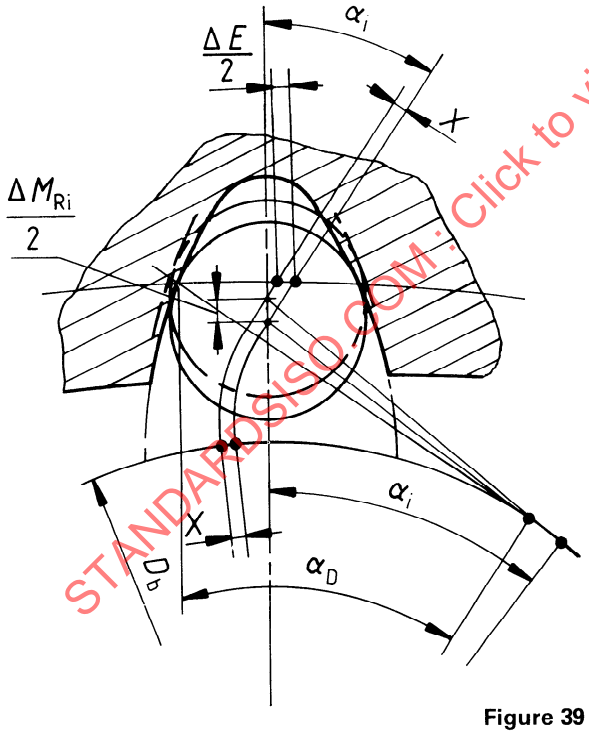
$$\frac{\Delta M_{Re}}{\Delta S} = \frac{\cos \alpha_D}{\sin \alpha_e} = K_e \text{ (for an even number of teeth)}$$

For an odd number of teeth

$$K_e = \frac{\cos \alpha_D}{\sin \alpha_e} \cos \frac{90^\circ}{Z}$$

Figure 38 — Calculation of K_e

23.3.4.2.3 Calculation of the approximation factor K_i



$$X \text{ (approximate)} = \frac{\Delta M_{Ri}}{2} \sin \alpha_i{}^{**}$$

$$\frac{\Delta E}{2} = \frac{X}{\cos \alpha_D} = \frac{\Delta M_{Ri} \sin \alpha_i}{2 \cos \alpha_D}$$

$$\frac{\Delta M_{Ri}}{\Delta E} = \frac{\cos \alpha_D}{\sin \alpha_i} = K_i \text{ (for an even number of teeth)}$$

For an odd number of teeth

$$K_i = \frac{\cos \alpha_D}{\sin \alpha_i} \cos \frac{90^\circ}{Z}$$

Figure 39 — Calculation of K_i

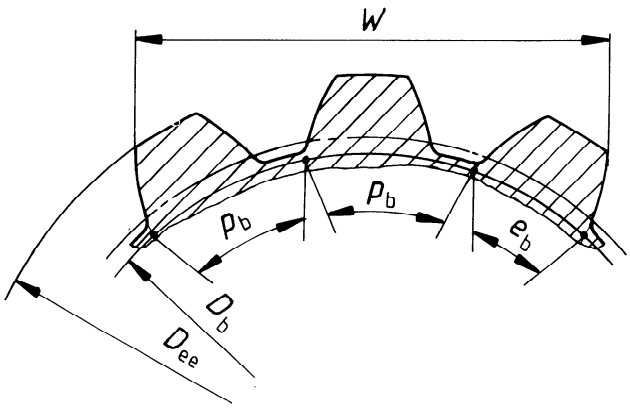
* For the calculation of α_e, see 23.3.4.1.1 and take S = minimum actual tooth thickness (S_{min}) of tolerance grade 7 for the fit considered.

** For the calculation of α_i, see 23.3.4.1.2 and take E = maximum actual space width (E_{max}) of tolerance grade 7 for fit H.

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23.4 Measurement over k teeth — External splines (W)

23.4.1 Calculation of W



$$W = (k - 1)\, p_b + e_b$$

where

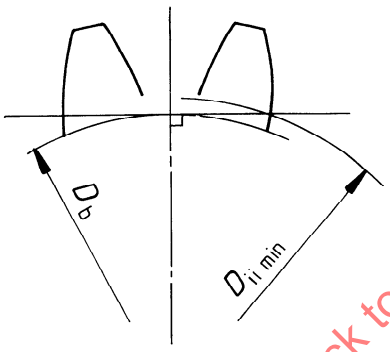
k is the number of teeth considered (see inspection dimensions tables);

p_b is the base pitch $= \pi\, m \cos \alpha_D$;

e_b is the circular base tooth thickness $= S \cos \alpha_D + D_b \operatorname{inv} \alpha_D$

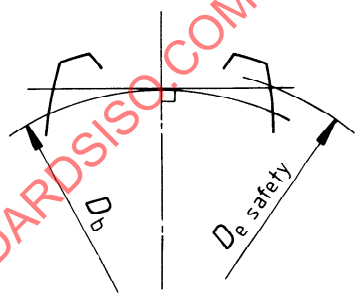
For the calculation of W, use S = the minimum or maximum actual tooth thickness of the tolerance grade chosen for the fit considered.

23.4.2 Choice of k



$$W_{min} = 2 \sqrt{\left(\frac{D_{ii\ min}}{2}\right)^2 - \left(\frac{D_b}{2}\right)^2}$$

Figure 41 — Minimum tangential dimension



Safety = 0,4 m for module 0,25
= 0,3 m for module 0,5 to 4
= 0,2 m for module 5 to 10

$$D_{e\ safety} = D_{ee\ max} - \text{safety}$$

$$W_{max} = 2 \sqrt{\left(\frac{D_{e\ safety}}{2}\right)^2 - \left(\frac{D_b}{2}\right)^2}$$

Figure 42 — Maximum tangential dimension

$$\frac{W_{max} - e_b}{p_b} = \ldots\ldots = k_p \text{ (integer)}$$

Check that $p_b\,(k_p) + e_b \geqslant W_{min}$*

- If this condition is not satisfied, then it is impossible to take a dimension over k teeth.
- If this condition is satisfied, then $k = k_p + 1$

For the calculation of k_p and W_{min}, use S = minimum actual tooth thickness (S_{min}) of tolerance grade 7 for the fit considered.

* For the calculation of p_b, see 23.4.1.

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24 Conversion of circle divisions into angle values

Table 139 — Conversion of circle divisions into angle values

Z number of divisions	$90°/Z$ Degrees	$\cos(90°/Z)$ 1)	$360°/Z$ Degrees
1			
2			
3			
4			
5	18	0,951 056 5	72
6	15		60
7	12,857 142 8	0,974 927 9	51,428 571 2
8	11,25		45
9	10	0,984 807 8	40
10	9		36
11	8,181 818 1	0,989 821 4	32,727 272 5
12	7,5		30
13	6,923 076 9	0,992 708 9	27,692 307 7
14	6,428 571 4		25 714 285 6
15	6	0,994 521 9	24
16	5,625		22,5
17	5,294 117 6	0,995 734 2	21,176 470 5
18	5		20
19	4,736 842 1	0,996 584 5	18,947 368 4
20	4,5		18
21	4,285 714 3	0,997 203 8	17 142 857 1
22	4,090 909 1		16,363 636 3
23	3,913 043 5	0,997 668 8	15,652 173 9
24	3,75		15
25	3,6	0,998 026 7	14,4
26	3,461 538 5		13,846 153 9
27	3,333 333 3	0,998 308 2	13,333 333 4
28	3,214 285 7		12,857 142 8
29	3,103 448 3	0,998 533 4	12,413 793 1
30	3		12
31	2,903 225 8	0,998 716 5	11,612 903 2
32	2,812 5		11,25
33	2,727 272 7	0,998 867 3	10,909 090 9
34	2,647 058 8		10,588 235 3
35	2,571 428 6	0,998 993 1	10,285 714 3
36	2,5		10
37	2,432 432 4	0,999 099	9,729 729 8
38	2,368 421		9,473 684 2
39	2,307 692 3	0,999 189	9,230 769 3
40	2,25		9
41	2,195 121 9	0,999 266 2	8,780 487 8
42	2,142 857 1		8,571 428 5
43	2,093 023 3	0,999 332 8	8,372 093 1
44	2,045 454 5		8,181 818 1
45	2	0,999 390 8	8
46	1,956 521 7		7,826 086 9
47	1,914 893 6	0,999 441 6	7,659 574 4
48	1,875		7,5
49	1,836 734 7	0,999 486 2	7,346 938 8
50	1,8		7,2

Z number of divisions	$90°/Z$ Degrees	$\cos(90°/Z)$ 1)	$360°/Z$ Degrees
51	1,764 705 9	0,999 525 7	7,058 823 5
52	1,730 769 2		6,923 076 9
53	1,698 113 2	0,999 560 8	6,792 452 8
54	1,666 666 7		6 666 666 7
55	1,636 363 6	0,999 592 2	6,545 454 6
56	1,607 142 8		6,428 571 4
57	1,578 947 4	0,999 620 3	6,315 789 5
58	1,551 724 1		6,206 896 5
59	1,525 423 7	0,999 645 6	6,101 694 9
60	1,5		6
61	1,475 409 8	0,999 668 5	5,901 639 3
62	1,451 612 9		5,806 451 6
63	1,428 571 4	0,999 689 2	5,714 285 7
64	1,406 25		5,625
65	1,384 615 4	0,999 708	5,538 461 6
66	1,363 636 4		5,454 545 4
67	1,343 283 6	0,999 725 2	5,373 134 3
68	1,323 529 4		5,294 117 6
69	1,304 347 8	0,999 740 9	5,217 391 3
70	1,285 714 3		5,142 857 1
71	1,267 605 6	0,999 755 3	5,070 422 5
72	1,25		5
73	1,232 876 7	0,999 768 5	4,931 506 8
74	1,216 216 2		4, 864 864 8
75	1,2	0,999 780 7	4,8
76	1,184 210 5		4,736 842 1
77	1,168 831 2	0,999 791 9	4,675 324 7
78	1,153 846 2		4,615 384 6
79	1,139 240 5	0,999 802 3	4,556 962
80	1,125		4,5
81	1,111 111 1	0,999 812	4,444 444 4
82	1,097 561		4,390 243 9
83	1,084 337 4	0,999 820 9	4,337 349 4
84	1,071 428 6		4,285 714 3
85	1,058 823 5	0,999 829 2	4,235 294 1
86	1,046 511 6		4, 186 046 5
87	1,034 482 8	0,999 837	4,137 931
88	1,022 727 3		4,090 909 1
89	1,011 236	0,999 844 3	4,044 943 8
90	1		4
91	0,989 011	0,999 851	3,956 044
92	0,978 260 9		3,913 043 5
93	0,967 741 9	0,999 857 4	3,870 967 7
94	0,957 446 8		3,829 787 2
95	0,947 368 4	0,999 863 3	3,789 473 7
96	0,937 5		3,75
97	0,927 835 1	0,999 868 9	3,711 340 7
98	0,918 367 3		3,673 469 4
99	0,909 090 9	0,999 874 1	3,636 363 6
100	0,9		3,6

1) For Z odd only.

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25 Inspection dimensions

The inspection dimension tables in this addendum correspond to splines with spline fit class H/h, which has a minimum effective clearance equal to zero. Selection of a spline fit class having a different deviation allowance requires adjustment to the external spline dimensions (see 8.7.2.2) and, consequently, to the corresponding inspection dimensions, M_{Re} and W (see 23.3.4.1.1 and 23.4.1).

25.1 Measurement between two pins — Internal splines (M_{Ri})

Tables 140 to 153 give measurements between two pins, M_{Ri}, for internal splines with 30° pressure angle flat root side fit or fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation H.

Tables 154 to 167 give measurements between two pins, M_{Ri}, for internal splines with 37,5° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation H.

Tables 168 to 176 give measurements between two pins, M_{Ri}, for internal splines with 45° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation H.

25.2 Measurement over two pins — External splines (M_{Re})

Tables 177 to 190 give measurements over two pins, M_{Re}, for external splines 30° pressure angle flat root side fit or fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation h.

Tables 191 to 204 give measurements over two pins, M_{Re}, for external splines with 37,5° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation h.

Tables 205 to 213 give measurements over two pins, M_{Re}, for external splines with 45° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation h.

25.3 Measurement over k teeth — External splines (W)

Tables 214 to 227 give measurements over k teeth, W, for external splines with 30° pressure angle flat root side fit or fillet root side fit for tolerance grades 4, 5, 6 and 7 and for fundamental deviation h.

Tables 228 to 241 give measurements over k teeth, W, for external splines with 37,5° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation h.

Tables 242 to 250 give measurements over k teeth, W, for external splines with 45° pressure angle fillet root side fit for tolerance classes 4, 5, 6 and 7 and for fundamental deviation h.

25.4 Inspection dimension values

The inspection dimension values in part 3 of this amendment are calculated from the formulas given in 23.3.3, 23.3.4 and 23.4.

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Table 140 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 0.50

$E_{v\,min}$ = minimum effective circular space width = 0.785

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	0.90	*******	*******	*******	*******	*******	*******	*******	1.700	21.6564
7	0.90	*******	*******	*******	*******	*******	*******	*******	2.180	2.9902
8	0.90	*******	*******	*******	*******	*******	2.673	*******	2.778	2.5753
9	0.95	*******	*******	*******	*******	*******	*******	*******	3.020	3.3292
10	0.95	*******	*******	*******	*******	*******	3.487	*******	3.606	2.7873
11	0.95	*******	3.832	3.771	3.895	3.827	3.968	3.881	4.069	3.4999
12	0.95	4.376	4.426	4.396	4.473	4.423	4.537	4.463	4.631	2.3729
13	0.95	4.865	4.906	4.881	4.948	4.903	5.006	4.938	5.095	2.2544
14	0.95	5.427	5.464	5.441	5.503	5.462	5.559	5.495	5.646	2.1979
15	0.95	5.902	5.938	5.916	5.975	5.936	6.028	5.967	6.112	2.1305
16	1.00	6.245	6.286	6.261	6.328	6.284	6.387	6.319	6.480	2.2980
17	1.00	6.729	6.766	6.744	6.806	6.765	6.863	6.798	6.952	2.2235
18	1.00	7.275	7.311	7.289	7.349	7.309	7.405	7.341	7.492	2.1812
19	1.00	7.755	7.789	7.768	7.826	7.788	7.881	7.819	7.967	2.1319
20	1.00	8.293	8.327	8.307	8.363	8.326	8.417	8.356	8.502	2.1047
21	1.00	8.773	8.805	8.786	8.841	8.805	8.894	8.835	8.978	2.0695
22	1.00	9.306	9.338	9.319	9.374	9.338	9.426	9.367	9.510	2.0506
23	1.00	9.786	9.818	9.799	9.852	9.817	9.904	9.847	9.987	2.0244
24	1.00	10.316	10.347	10.329	10.382	10.347	10.433	10.376	10.516	2.0102
25	1.00	10.797	10.827	10.809	10.862	10.827	10.913	10.856	10.995	1.9897
26	1.00	11.323	11.354	11.336	11.389	11.354	11.439	11.383	11.521	1.9789
27	1.00	11.805	11.835	11.818	11.869	11.835	11.919	11.864	12.001	1.9623
28	1.00	12.330	12.360	12.342	12.394	12.360	12.444	12.388	12.526	1.9538
29	1.00	12.812	12.842	12.825	12.875	12.842	12.926	12.871	13.007	1.9402
30	1.00	13.335	13.364	13.347	13.398	13.365	13.448	13.393	13.530	1.9331
31	1.00	13.818	13.847	13.831	13.881	13.848	13.931	13.877	14.012	1.9219
32	1.00	14.339	14.368	14.351	14.402	14.369	14.452	14.398	14.534	1.9161
33	1.00	14.823	14.852	14.836	14.886	14.854	14.936	14.881	15.017	1.9063
34	1.00	15.343	15.372	15.356	15.406	15.373	15.455	15.401	15.537	1.9017
35	1.06	15.628	15.658	15.641	15.693	15.659	15.744	15.688	15.828	1.9528
36	1.06	16.147	16.177	16.160	16.212	16.178	16.263	16.208	16.347	1.9461
37	1.06	16.633	16.663	16.647	16.697	16.665	16.748	16.694	16.833	1.9362
38	1.06	17.152	17.181	17.164	17.215	17.183	17.267	17.212	17.351	1.9307
39	1.06	17.638	17.667	17.651	17.702	17.669	17.753	17.699	17.838	1.9219
40	1.06	18.155	18.184	18.168	18.219	18.186	18.270	18.216	18.354	1.9173
41	1.06	18.643	18.671	18.655	18.706	18.674	18.757	18.703	18.841	1.9097
42	1.06	19.159	19.187	19.172	19.222	19.189	19.273	19.219	19.357	1.9055
43	1.06	19.646	19.675	19.659	19.710	19.678	19.761	19.706	19.845	1.8987
44	1.06	20.162	20.190	20.175	20.224	20.193	20.276	20.223	20.360	1.8951
45	1.06	20.649	20.678	20.663	20.713	20.681	20.764	20.711	20.849	1.8890
46	1.06	21.164	21.193	21.177	21.227	21.196	21.278	21.225	21.363	1.8859
47	1.06	21.653	21.681	21.666	21.715	21.684	21.767	21.713	21.851	1.8806
48	1.06	22.166	22.195	22.180	22.229	22.198	22.281	22.228	22.366	1.8774
49	1.06	22.656	22.684	22.669	22.718	22.687	22.770	22.716	22.854	1.8728
50	1.06	23.169	23.197	23.183	23.231	23.201	23.283	23.231	23.368	1.8701
51	1.06	23.659	23.686	23.671	23.721	23.690	23.772	23.719	23.857	1.8658
52	1.06	24.171	24.199	24.184	24.233	24.203	24.285	24.232	24.370	1.8634
53	1.06	24.660	24.689	24.674	24.723	24.693	24.775	24.723	24.860	1.8594
54	1.06	25.173	25.201	25.186	25.236	25.205	25.287	25.235	25.372	1.8573
55	1.06	25.662	25.691	25.676	25.726	25.696	25.777	25.725	25.863	1.8535
56	1.06	26.175	26.203	26.188	26.237	26.207	26.289	26.237	26.375	1.8516
57	1.06	26.665	26.693	26.678	26.727	26.697	26.779	26.727	26.864	1.8484
58	1.06	27.177	27.204	27.190	27.238	27.209	27.290	27.238	27.377	1.8464
59	1.06	27.667	27.695	27.680	27.729	27.700	27.782	27.730	27.866	1.8436
60	1.06	28.177	28.206	28.192	28.240	28.211	28.292	28.240	28.378	1.8418
61	1.06	28.669	28.696	28.683	28.731	28.702	28.783	28.732	28.869	1.8390
62	1.06	29.179	29.207	29.192	29.242	29.212	29.294	29.243	29.380	1.8375
63	1.06	29.671	29.698	29.684	29.733	29.703	29.785	29.733	29.871	1.8347
64	1.06	30.181	30.208	30.194	30.244	30.214	30.295	30.244	30.381	1.8334
65	1.06	30.671	30.700	30.686	30.734	30.705	30.786	30.735	30.873	1.8310
66	1.06	31.182	31.210	31.195	31.244	31.215	31.296	31.246	31.383	1.8297
67	1.06	31.674	31.701	31.687	31.736	31.707	31.789	31.737	31.875	1.8274
68	1.06	32.184	32.211	32.197	32.245	32.216	32.298	32.247	32.384	1.8263
69	1.06	32.675	32.703	32.689	32.737	32.708	32.789	32.739	32.877	1.8239
70	1.06	33.184	33.212	33.198	33.247	33.218	33.299	33.249	33.387	1.8228
71	1.06	33.676	33.703	33.690	33.739	33.710	33.791	33.741	33.879	1.8208
72	1.06	34.185	34.213	34.199	34.248	34.219	34.301	34.250	34.388	1.8199
73	1.06	34.677	34.705	34.692	34.741	34.711	34.793	34.742	34.881	1.8179
74	1.06	35.187	35.214	35.200	35.249	35.220	35.302	35.252	35.389	1.8170
75	1.06	35.679	35.706	35.693	35.742	35.713	35.794	35.743	35.881	1.8153
76	1.06	36.187	36.214	36.202	36.250	36.221	36.303	36.253	36.390	1.8144
77	1.06	36.680	36.706	36.694	36.743	36.714	36.795	36.746	36.883	1.8127
78	1.06	37.188	37.215	37.202	37.251	37.222	37.304	37.254	37.392	1.8118
79	1.06	37.681	37.709	37.696	37.744	37.715	37.797	37.747	37.886	1.8102
80	1.06	38.189	38.215	38.204	38.252	38.224	38.305	38.255	38.393	1.8095
81	1.06	38.682	38.709	38.696	38.745	38.717	38.797	38.749	38.887	1.8079
82	1.06	39.191	39.218	39.204	39.253	39.224	39.306	39.256	39.395	1.8072
83	1.06	39.683	39.710	39.698	39.746	39.718	39.799	39.749	39.888	1.8058
84	1.06	40.191	40.217	40.205	40.254	40.226	40.308	40.257	40.396	1.8051
85	1.06	40.684	40.710	40.698	40.747	40.719	40.800	40.751	40.889	1.8038
86	1.06	41.191	41.218	41.206	41.255	41.227	41.309	41.259	41.397	1.8030
87	1.06	41.684	41.711	41.700	41.747	41.720	41.802	41.753	41.891	1.8017
88	1.06	42.192	42.219	42.206	42.256	42.228	42.309	42.259	42.398	1.8016
89	1.06	42.686	42.713	42.700	42.748	42.721	42.802	42.754	42.892	1.7999
90	1.06	43.193	43.219	43.208	43.256	43.229	43.310	43.261	43.400	1.7993
91	1.06	43.686	43.714	43.701	43.750	43.722	43.804	43.754	43.894	1.7981
92	1.06	44.194	44.221	44.209	44.257	44.229	44.311	44.262	44.400	1.7976
93	1.06	44.687	44.714	44.702	44.751	44.724	44.805	44.757	44.895	1.7965
94	1.06	45.194	45.221	45.209	45.258	45.230	45.311	45.263	45.403	1.7959
95	1.06	45.689	45.715	45.703	45.752	45.724	45.806	45.756	45.897	1.7949
96	1.06	46.195	46.221	46.209	46.257	46.231	46.312	46.264	46.403	1.7943
97	1.06	46.689	46.716	46.704	46.752	46.726	46.807	46.758	46.898	1.7933
98	1.06	47.196	47.223	47.210	47.260	47.232	47.313	47.265	47.405	1.7928
99	1.06	47.691	47.717	47.705	47.753	47.726	47.807	47.759	47.898	1.7919
100	1.06	48.196	48.223	48.212	48.259	48.233	48.314	48.266	48.404	1.7915

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Table 141 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 0.75

$E_{v\,min}$ = minimum effective circular space width = 1.178

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.32	*******	*******	*******	*******	*******	*******	*******	2.600	0.0716
7	1.32	*******	*******	*******	*******	*******	3.147	*******	3.305	2.9604
8	1.32	*******	3.915	*******	3.998	3.890	4.085	3.969	4.200	2.5663
9	1.40	*******	*******	*******	*******	*******	*******	*******	4.537	3.4857
10	1.40	*******	*******	*******	5.174	*******	5.284	5.130	5.417	2.8514
11	1.40	5.791	5.860	5.816	5.919	5.849	5.998	5.897	6.113	2.5391
12	1.40	6.676	6.728	6.694	6.779	6.720	6.849	6.760	6.956	2.4017
13	1.40	7.394	7.440	7.410	7.485	7.433	7.551	7.469	7.652	2.2769
14	1.40	8.230	8.273	8.245	8.316	8.267	8.379	8.301	8.478	2.2165
15	1.40	8.939	8.980	8.954	9.021	8.974	9.081	9.007	9.178	2.1468
16	1.40	9.759	9.799	9.773	9.838	9.793	9.898	9.825	9.993	2.1128
17	1.40	10.468	10.506	10.482	10.545	10.501	10.603	10.532	10.698	2.0672
18	1.50	10.900	10.942	10.916	10.988	10.938	11.053	10.973	11.157	2.2607
19	1.50	11.620	11.661	11.636	11.705	11.657	11.768	11.691	11.870	2.2009
20	1.50	12.428	12.468	12.443	12.511	12.464	12.573	12.491	12.673	2.1656
21	1.50	13.148	13.187	13.162	13.228	13.183	13.289	13.206	13.388	2.1239
22	1.50	13.949	13.986	13.962	14.027	13.983	14.088	14.005	14.186	2.0996
23	1.50	14.669	14.706	14.683	14.746	14.703	14.806	14.734	14.903	2.0691
24	1.50	15.463	15.499	15.477	15.540	15.497	15.600	15.529	15.696	2.0513
25	1.50	16.184	16.220	16.198	16.260	16.218	16.319	16.250	16.415	2.0275
26	1.50	16.974	17.010	16.988	17.050	17.008	17.109	17.040	17.205	2.0142
27	1.50	17.697	17.733	17.711	17.772	17.731	17.830	17.762	17.925	1.9954
28	1.50	18.484	18.519	18.498	18.559	18.518	18.617	18.549	18.712	1.9849
29	1.50	19.208	19.243	19.222	19.282	19.241	19.337	19.276	19.435	1.9693
30	1.50	19.992	20.027	20.005	20.066	20.025	20.124	20.057	20.218	1.9609
31	1.50	20.716	20.751	20.730	20.790	20.750	20.848	20.781	20.942	1.9482
32	1.50	21.498	21.532	21.512	21.571	21.532	21.629	21.563	21.724	1.9413
33	1.50	22.224	22.258	22.239	22.297	22.258	22.355	22.289	22.449	1.9303
34	1.50	23.004	23.038	23.018	23.076	23.037	23.134	23.069	23.228	1.9247
35	1.50	23.731	23.765	23.745	23.804	23.765	23.861	23.796	23.955	1.9153
36	1.50	24.509	24.542	24.523	24.581	24.543	24.639	24.574	24.734	1.9102
37	1.50	25.237	25.270	25.251	25.309	25.271	25.366	25.302	25.461	1.9023
38	1.50	26.013	26.046	26.027	26.085	26.047	26.143	26.078	26.238	1.8979
39	1.50	26.743	26.775	26.757	26.814	26.777	26.871	26.807	26.966	1.8909
40	1.50	27.517	27.550	27.531	27.589	27.551	27.646	27.583	27.741	1.8873
41	1.50	28.247	28.280	28.261	28.319	28.281	28.376	28.313	28.471	1.8811
42	1.50	29.020	29.053	29.035	29.091	29.055	29.150	29.087	29.244	1.8779
43	1.50	29.751	29.784	29.766	29.823	29.785	29.880	29.818	29.976	1.8722
44	1.50	30.523	30.556	30.538	30.595	30.558	30.652	30.590	30.747	1.8695
45	1.50	31.255	31.288	31.270	31.326	31.289	31.384	31.321	31.479	1.8645
46	1.50	32.026	32.058	32.041	32.097	32.061	32.156	32.093	32.251	1.8620
47	1.50	32.758	32.791	32.773	32.829	32.793	32.888	32.825	32.983	1.8574
48	1.50	33.529	33.561	33.543	33.601	33.564	33.658	33.596	33.754	1.8551
49	1.50	34.261	34.293	34.276	34.332	34.296	34.391	34.329	34.486	1.8512
50	1.50	35.031	35.063	35.045	35.102	35.066	35.160	35.099	35.256	1.8491
51	1.50	35.765	35.796	35.780	35.836	35.799	35.894	35.833	35.989	1.8455
52	1.50	36.533	36.566	36.549	36.604	36.569	36.662	36.601	36.758	1.8437
53	1.50	37.268	37.300	37.282	37.338	37.303	37.397	37.336	37.493	1.8402
54	1.50	38.035	38.067	38.051	38.106	38.072	38.164	38.104	38.261	1.8385
55	1.50	38.770	38.801	38.785	38.841	38.806	38.899	38.839	38.996	1.8354
56	1.50	39.537	39.569	39.552	39.608	39.572	39.667	39.606	39.763	1.8340
57	1.50	40.273	40.304	40.287	40.343	40.309	40.402	40.342	40.498	1.8311
58	1.50	41.039	41.071	41.053	41.109	41.075	41.169	41.108	41.266	1.8297
59	1.50	41.775	41.805	41.789	41.845	41.811	41.904	41.844	42.002	1.8269
60	1.50	42.540	42.571	42.555	42.611	42.577	42.670	42.610	42.768	1.8257
61	1.50	43.276	43.308	43.291	43.347	43.313	43.406	43.347	43.504	1.8233
62	1.50	44.042	44.074	44.057	44.113	44.078	44.173	44.112	44.271	1.8220
63	1.50	44.778	44.810	44.793	44.849	44.815	44.909	44.849	45.006	1.8199
64	1.50	45.543	45.576	45.558	45.615	45.580	45.674	45.615	45.771	1.8189
65	1.50	46.279	46.311	46.295	46.351	46.317	46.411	46.351	46.509	1.8166
66	1.50	47.045	47.077	47.061	47.116	47.082	47.175	47.116	47.273	1.8157
67	1.50	47.782	47.814	47.797	47.853	47.820	47.913	47.853	48.011	1.8137
68	1.50	48.547	48.577	48.562	48.618	48.584	48.677	48.618	48.776	1.8127
69	1.50	49.283	49.314	49.299	49.355	49.321	49.415	49.355	49.514	1.8108
70	1.60	49.734	49.766	49.749	49.806	49.772	49.867	49.806	49.966	1.8356
71	1.60	50.472	50.504	50.487	50.545	50.510	50.605	50.545	50.705	1.8333
72	1.60	51.236	51.266	51.251	51.307	51.274	51.369	51.310	51.468	1.8321
73	1.60	51.975	52.006	51.990	52.045	52.012	52.107	52.048	52.208	1.8300
74	1.60	52.737	52.768	52.752	52.809	52.775	52.870	52.811	52.971	1.8288
75	1.60	53.475	53.507	53.491	53.548	53.514	53.609	53.550	53.709	1.8269
76	1.60	54.238	54.270	54.254	54.310	54.277	54.372	54.312	54.473	1.8257
77	1.60	54.977	55.007	54.993	55.050	55.017	55.111	55.052	55.212	1.8239
78	1.60	55.740	55.771	55.757	55.812	55.778	55.874	55.814	55.975	1.8228
79	1.60	56.478	56.510	56.495	56.551	56.518	56.611	56.553	56.714	1.8211
80	1.60	57.241	57.271	57.257	57.313	57.281	57.375	57.316	57.477	1.8202
81	1.60	57.981	58.011	57.996	58.053	58.021	58.113	58.056	58.217	1.8185
82	1.60	58.743	58.773	58.758	58.814	58.781	58.877	58.819	58.979	1.8176
83	1.60	59.481	59.513	59.499	59.555	59.522	59.617	59.557	59.717	1.8162
84	1.60	60.243	60.274	60.260	60.316	60.283	60.378	60.320	60.480	1.8152
85	1.60	60.983	61.013	61.000	61.055	61.024	61.119	61.061	61.219	1.8139
86	1.60	61.745	61.775	61.761	61.817	61.785	61.878	61.822	61.983	1.8129
87	1.60	62.484	62.517	62.500	62.557	62.525	62.619	62.562	62.723	1.8115
88	1.60	63.245	63.276	63.261	63.319	63.286	63.380	63.323	63.484	1.8108
89	1.60	63.986	64.016	64.002	64.057	64.027	64.121	64.063	64.224	1.8095
90	1.60	64.747	64.777	64.763	64.819	64.788	64.881	64.825	64.986	1.8087
91	1.60	65.488	65.519	65.505	65.559	65.527	65.621	65.564	65.727	1.8074
92	1.60	66.247	66.278	66.264	66.321	66.290	66.383	66.327	66.486	1.8069
93	1.60	66.989	67.019	67.006	67.061	67.029	67.124	67.067	67.227	1.8056
94	1.60	67.748	67.780	67.765	67.821	67.789	67.883	67.827	67.988	1.8050
95	1.60	68.491	68.520	68.507	68.562	68.532	68.624	68.568	68.729	1.8038
96	1.60	69.250	69.280	69.268	69.322	69.292	69.385	69.328	69.488	1.8033
97	1.60	69.991	70.021	70.009	70.064	70.033	70.127	70.070	70.232	1.8020
98	1.60	70.751	70.781	70.769	70.824	70.793	70.886	70.830	70.991	1.8015
99	1.60	71.492	71.523	71.511	71.563	71.534	71.629	71.573	71.732	1.8005
100	1.60	72.252	72.282	72.268	72.324	72.293	72.387	72.330	72.491	1.7999

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Table 142 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 1.00

$E_{v\,min}$ = minimum effective circular space width = 1.571

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.70	*******	*******	*******	*******	*******	3.533	*******	3.713	3.0934
7	1.80	*******	*******	*******	*******	*******	*******	*******	*******	*******
8	1.80	*******	*******	*******	*******	*******	*******	*******	5.350	3.5047
9	1.80	*******	5.941	*******	6.034	5.909	6.136	5.993	6.273	2.7515
10	1.80	7.098	7.163	7.120	7.222	7.150	7.304	7.194	7.426	2.5116
11	1.80	8.051	8.104	8.069	8.155	8.093	8.228	8.132	8.341	2.3293
12	1.80	9.185	9.234	9.201	9.281	9.224	9.350	9.260	9.459	2.2505
13	1.90	9.699	9.757	9.719	9.813	9.746	9.892	9.789	10.015	2.4796
14	1.90	10.826	10.878	10.844	10.930	10.869	11.004	10.908	11.122	2.3739
15	1.90	11.780	11.827	11.796	11.876	11.819	11.947	11.856	12.060	2.2736
16	1.90	12.877	12.922	12.892	12.969	12.915	13.039	12.950	13.149	2.2198
17	1.90	13.827	13.870	13.842	13.915	13.863	13.983	13.898	14.090	2.1591
18	1.90	14.907	14.950	14.923	14.995	14.944	15.061	14.978	15.167	2.1268
19	1.90	15.858	15.900	15.873	15.944	15.894	16.008	15.927	16.114	2.0853
20	1.90	16.929	16.970	16.944	17.013	16.964	17.078	16.997	17.183	2.0634
21	1.90	17.881	17.922	17.896	17.965	17.917	18.028	17.949	18.132	2.0333
22	1.90	18.944	18.984	18.959	19.027	18.979	19.090	19.012	19.194	2.0178
23	1.90	19.900	19.939	19.914	19.981	19.935	20.044	19.967	20.148	1.9948
24	1.90	20.956	20.996	20.971	21.037	20.992	21.101	21.024	21.204	1.9833
25	1.90	21.915	21.953	21.930	21.995	21.949	22.057	21.982	22.160	1.9652
26	1.90	22.966	23.005	22.981	23.046	23.002	23.109	23.034	23.211	1.9563
27	1.90	23.927	23.965	23.942	24.006	23.962	24.068	23.994	24.170	1.9416
28	1.90	24.975	25.012	24.989	25.054	25.009	25.116	25.042	25.219	1.9343
29	1.90	25.937	25.975	25.952	26.016	25.973	26.078	26.004	26.180	1.9222
30	1.90	26.982	27.019	26.996	27.060	27.017	27.122	27.049	27.224	1.9164
31	1.90	27.946	27.984	27.961	28.025	27.981	28.087	28.013	28.189	1.9060
32	2.00	28.657	28.695	28.672	28.739	28.694	28.802	28.727	28.907	1.9560
33	2.00	29.625	29.663	29.641	29.706	29.662	29.770	29.695	29.874	1.9445
34	2.00	30.665	30.703	30.679	30.745	30.702	30.809	30.735	30.914	1.9379
35	2.00	31.634	31.671	31.650	31.714	31.670	31.777	31.705	31.883	1.9281
36	2.00	32.671	32.708	32.687	32.751	32.708	32.815	32.741	32.920	1.9226
37	2.00	33.641	33.678	33.658	33.721	33.678	33.785	33.713	33.891	1.9140
38	2.00	34.677	34.714	34.693	34.757	34.714	34.820	34.748	34.925	1.9096
39	2.00	35.649	35.686	35.664	35.728	35.686	35.792	35.720	35.897	1.9019
40	2.00	36.682	36.718	36.697	36.761	36.720	36.825	36.753	36.930	1.8979
41	2.00	37.655	37.691	37.671	37.735	37.693	37.798	37.727	37.903	1.8914
42	2.00	38.686	38.723	38.702	38.766	38.724	38.829	38.758	38.934	1.8879
43	2.00	39.661	39.697	39.676	39.740	39.699	39.803	39.732	39.909	1.8818
44	2.00	40.690	40.726	40.706	40.770	40.728	40.833	40.763	40.939	1.8788
45	2.00	41.665	41.702	41.681	41.745	41.703	41.808	41.738	41.915	1.8734
46	2.00	42.695	42.730	42.711	42.773	42.732	42.836	42.768	42.943	1.8708
47	2.00	43.670	43.706	43.686	43.748	43.708	43.813	43.743	43.919	1.8660
48	2.00	44.697	44.733	44.714	44.776	44.737	44.840	44.770	44.946	1.8637
49	2.00	45.674	45.711	45.690	45.753	45.713	45.817	45.747	45.923	1.8594
50	2.00	46.701	46.737	46.717	46.778	46.739	46.844	46.774	46.950	1.8570
51	2.00	47.678	47.714	47.694	47.757	47.717	47.821	47.752	47.928	1.8531
52	2.00	48.703	48.740	48.719	48.781	48.742	48.846	48.777	48.953	1.8511
53	2.00	49.682	49.718	49.699	49.760	49.721	49.826	49.756	49.933	1.8475
54	2.00	50.706	50.741	50.722	50.784	50.745	50.849	50.781	50.956	1.8458
55	2.00	51.684	51.721	51.702	51.763	51.724	51.827	51.761	51.936	1.8425
56	2.00	52.710	52.743	52.725	52.787	52.748	52.851	52.783	52.958	1.8410
57	2.00	53.688	53.723	53.704	53.767	53.729	53.832	53.763	53.939	1.8378
58	2.00	54.710	54.745	54.728	54.789	54.752	54.855	54.787	54.961	1.8364
59	2.00	55.691	55.726	55.707	55.769	55.731	55.835	55.767	55.942	1.8336
60	2.00	56.713	56.747	56.730	56.791	56.752	56.857	56.788	56.965	1.8321
61	2.00	57.694	57.729	57.711	57.773	57.734	57.838	57.771	57.945	1.8296
62	2.00	58.716	58.751	58.732	58.793	58.756	58.859	58.792	58.966	1.8284
63	2.00	59.696	59.732	59.714	59.775	59.737	59.840	59.774	59.949	1.8260
64	2.00	60.717	60.752	60.734	60.796	60.757	60.862	60.794	60.970	1.8247
65	2.00	61.698	61.734	61.716	61.777	61.740	61.844	61.777	61.951	1.8226
66	2.00	62.718	62.753	62.736	62.796	62.759	62.863	62.796	62.971	1.8215
67	2.00	63.703	63.735	63.719	63.779	63.744	63.845	63.779	63.954	1.8194
68	2.00	64.721	64.754	64.738	64.799	64.763	64.863	64.799	64.973	1.8184
69	2.00	65.704	65.738	65.721	65.781	65.744	65.849	65.784	65.958	1.8163
70	2.00	66.721	66.755	66.739	66.801	66.764	66.868	66.801	66.975	1.8155
71	2.00	67.706	67.741	67.723	67.784	67.746	67.849	67.784	67.961	1.8135
72	2.00	68.722	68.758	68.740	68.802	68.765	68.868	68.802	68.979	1.8126
73	2.00	69.708	69.742	69.724	69.786	69.750	69.852	69.787	69.964	1.8109
74	2.00	70.725	70.760	70.742	70.803	70.766	70.871	70.806	70.980	1.8101
75	2.00	71.709	71.743	71.727	71.788	71.752	71.855	71.789	71.965	1.8086
76	2.00	72.727	72.761	72.744	72.805	72.767	72.872	72.808	72.983	1.8077
77	2.00	73.710	73.745	73.729	73.790	73.755	73.857	73.793	73.967	1.8063
78	2.00	74.729	74.761	74.745	74.806	74.771	74.873	74.809	74.984	1.8055
79	2.00	75.713	75.746	75.730	75.792	75.756	75.858	75.795	75.971	1.8040
80	2.00	76.729	76.762	76.746	76.807	76.772	76.876	76.812	76.987	1.8033
81	2.00	77.715	77.749	77.732	77.793	77.759	77.860	77.796	77.973	1.8019
82	2.00	78.731	78.762	78.748	78.810	78.772	78.875	78.813	78.989	1.8012
83	2.00	79.715	79.750	79.734	79.795	79.760	79.861	79.798	79.973	1.8001
84	2.00	80.732	80.763	80.749	80.809	80.774	80.876	80.814	80.990	1.7994
85	2.00	81.717	81.752	81.734	81.795	81.763	81.863	81.802	81.978	1.7981
86	2.00	82.732	82.766	82.752	82.810	82.777	82.878	82.817	82.991	1.7976
87	2.00	83.720	83.753	83.738	83.796	83.764	83.866	83.804	83.978	1.7965
88	2.00	84.734	84.767	84.752	84.811	84.778	84.880	84.819	84.994	1.7959
89	2.00	85.721	85.754	85.739	85.799	85.766	85.867	85.805	85.980	1.7948
90	2.00	86.735	86.767	86.754	86.813	86.779	86.881	86.819	86.994	1.7943
91	2.00	87.721	87.754	87.740	87.800	87.765	87.869	87.807	87.981	1.7933
92	2.00	88.734	88.769	88.754	88.816	88.781	88.882	88.819	88.995	1.7928
93	2.00	89.723	89.754	89.743	89.801	89.768	89.870	89.809	89.983	1.7918
94	2.00	90.736	90.770	90.754	90.814	90.782	90.885	90.822	90.997	1.7913
95	2.00	91.724	91.756	91.744	91.804	91.768	91.873	91.810	91.986	1.7903
96	2.00	92.736	92.770	92.756	92.817	92.784	92.886	92.825	93.001	1.7898
97	2.00	93.726	93.759	93.743	93.804	93.771	93.874	93.812	93.988	1.7889
98	2.00	94.738	94.771	94.757	94.817	94.784	94.888	94.825	95.001	1.7885
99	2.00	95.726	95.759	95.747	95.805	95.772	95.875	95.814	95.991	1.7875
100	2.00	96.738	96.772	96.759	96.818	96.784	96.888	96.827	97.002	1.7872

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Table 143 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 1.25

$E_{v\,min}$ = minimum effective circular space width = 1.963

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.12	*******	*******	*******	*******	*******	*******	*******	4.599	3.3806
7	2.12	*******	5.392	5.314	5.470	5.366	5.566	5.429	5.700	2.5750
8	2.24	*******	*******	*******	*******	*******	*******	*******	6.664	3.7242
9	2.24	*******	7.473	7.372	7.565	7.445	7.675	7.519	7.826	2.8205
10	2.24	8.916	8.985	8.938	9.048	8.968	9.135	9.015	9.268	2.5518
11	2.24	10.101	10.158	10.119	10.212	10.145	10.290	10.185	10.413	2.3572
12	2.24	11.516	11.568	11.532	11.619	11.556	11.693	11.594	11.811	2.2718
13	2.24	12.682	12.731	12.698	12.779	12.720	12.850	12.756	12.964	2.1787
14	2.36	13.590	13.644	13.608	13.700	13.633	13.779	13.674	13.906	2.3848
15	2.36	14.778	14.829	14.795	14.881	14.820	14.957	14.858	15.079	2.2819
16	2.36	16.147	16.196	16.164	16.247	16.188	16.320	16.224	16.440	2.2272
17	2.36	17.333	17.380	17.349	17.429	17.372	17.500	17.408	17.617	2.1653
18	2.36	18.683	18.729	18.699	18.777	18.721	18.848	18.757	18.964	2.1321
19	2.36	19.870	19.915	19.886	19.963	19.908	20.032	19.944	20.146	2.0903
20	2.36	21.208	21.252	21.223	21.299	21.246	21.368	21.281	21.481	2.0683
21	2.36	22.399	22.442	22.414	22.488	22.436	22.557	22.471	22.669	2.0377
22	2.36	23.726	23.770	23.743	23.816	23.764	23.883	23.798	23.995	2.0221
23	2.36	24.920	24.963	24.936	25.008	24.958	25.076	24.992	25.187	1.9987
24	2.36	26.241	26.283	26.257	26.329	26.278	26.396	26.313	26.507	1.9868
25	2.36	27.439	27.480	27.454	27.525	27.476	27.592	27.510	27.702	1.9686
26	2.36	28.752	28.794	28.768	28.839	28.790	28.906	28.824	29.017	1.9594
27	2.36	29.953	29.994	29.968	30.039	29.990	30.105	30.024	30.215	1.9447
28	2.36	31.263	31.303	31.278	31.348	31.300	31.415	31.334	31.525	1.9373
29	2.36	32.465	32.506	32.481	32.550	32.503	32.617	32.537	32.728	1.9248
30	2.36	33.771	33.811	33.786	33.855	33.808	33.923	33.843	34.032	1.9190
31	2.36	34.976	35.016	34.992	35.061	35.013	35.128	35.048	35.237	1.9086
32	2.36	36.277	36.318	36.294	36.361	36.315	36.428	36.349	36.539	1.9037
33	2.36	37.486	37.524	37.501	37.570	37.523	37.636	37.557	37.746	1.8949
34	2.36	38.783	38.823	38.799	38.867	38.822	38.934	38.856	39.045	1.8907
35	2.50	39.537	39.577	39.553	39.623	39.577	39.692	39.612	39.805	1.9369
36	2.50	40.832	40.874	40.849	40.920	40.872	40.989	40.908	41.102	1.9310
37	2.50	42.047	42.086	42.064	42.132	42.086	42.201	42.122	42.315	1.9221
38	2.50	43.341	43.380	43.357	43.426	43.380	43.494	43.417	43.608	1.9173
39	2.50	44.555	44.595	44.571	44.640	44.595	44.710	44.631	44.824	1.9092
40	2.50	45.847	45.886	45.864	45.932	45.886	46.000	45.922	46.115	1.9051
41	2.50	47.064	47.102	47.079	47.149	47.102	47.218	47.139	47.331	1.8983
42	2.50	48.351	48.391	48.369	48.437	48.393	48.506	48.429	48.620	1.8945
43	2.50	49.570	49.609	49.587	49.655	49.611	49.723	49.646	49.838	1.8883
44	2.50	50.857	50.897	50.874	50.941	50.897	51.012	50.935	51.126	1.8850
45	2.50	52.077	52.115	52.092	52.162	52.116	52.230	52.155	52.344	1.8796
46	2.50	53.362	53.399	53.379	53.446	53.404	53.516	53.439	53.632	1.8765
47	2.50	54.583	54.621	54.599	54.667	54.624	54.736	54.660	54.850	1.8718
48	2.50	55.867	55.904	55.883	55.951	55.907	56.020	55.944	56.134	1.8692
49	2.50	57.088	57.126	57.105	57.172	57.129	57.242	57.167	57.357	1.8647
50	2.50	58.370	58.409	58.387	58.454	58.411	58.525	58.448	58.640	1.8623
51	2.50	59.593	59.630	59.610	59.675	59.633	59.746	59.673	59.861	1.8584
52	2.50	60.873	60.912	60.891	60.958	60.914	61.028	60.953	61.143	1.8562
53	2.50	62.098	62.134	62.113	62.182	62.140	62.250	62.176	62.366	1.8525
54	2.50	63.377	63.415	63.394	63.461	63.418	63.531	63.458	63.648	1.8505
55	2.50	64.600	64.638	64.619	64.685	64.644	64.754	64.682	64.871	1.8473
56	2.50	65.879	65.918	65.898	65.965	65.923	66.033	65.961	66.149	1.8456
57	2.50	67.104	67.141	67.121	67.190	67.147	67.259	67.187	67.375	1.8424
58	2.50	68.381	68.419	68.400	68.466	68.425	68.536	68.464	68.654	1.8407
59	2.50	69.607	69.646	69.625	69.694	69.652	69.762	69.691	69.879	1.8379
60	2.50	70.886	70.922	70.904	70.970	70.928	71.040	70.967	71.157	1.8364
61	2.50	72.112	72.149	72.130	72.195	72.155	72.266	72.195	72.385	1.8336
62	2.50	73.388	73.426	73.407	73.473	73.432	73.542	73.470	73.660	1.8324
63	2.50	74.614	74.652	74.633	74.700	74.658	74.771	74.698	74.887	1.8299
64	2.50	75.891	75.927	75.907	75.974	75.933	76.044	75.972	76.163	1.8286
65	2.50	77.117	77.155	77.136	77.202	77.162	77.272	77.202	77.392	1.8263
66	2.50	78.391	78.428	78.411	78.475	78.436	78.546	78.475	78.665	1.8252
67	2.50	79.621	79.656	79.638	79.704	79.666	79.776	79.707	79.893	1.8231
68	2.50	80.894	80.931	80.912	80.978	80.939	81.051	80.980	81.167	1.8220
69	2.50	82.123	82.159	82.141	82.208	82.169	82.279	82.208	82.397	1.8200
70	2.50	83.397	83.433	83.415	83.480	83.440	83.552	83.483	83.672	1.8189
71	2.50	84.625	84.661	84.643	84.709	84.672	84.782	84.712	84.900	1.8171
72	2.50	85.899	85.933	85.918	85.981	85.944	86.055	85.985	86.173	1.8161
73	2.50	87.129	87.163	87.148	87.212	87.174	87.283	87.215	87.405	1.8143
74	2.50	88.400	88.435	88.420	88.484	88.446	88.557	88.488	88.677	1.8134
75	2.50	89.632	89.667	89.649	89.713	89.676	89.787	89.717	89.906	1.8118
76	2.50	90.900	90.936	90.920	90.987	90.947	91.058	90.991	91.177	1.8110
77	2.50	92.133	92.169	92.153	92.217	92.177	92.289	92.221	92.410	1.8094
78	2.50	93.403	93.439	93.423	93.487	93.451	93.561	93.492	93.679	1.8087
79	2.50	94.633	94.670	94.654	94.719	94.682	94.791	94.724	94.914	1.8071
80	2.50	95.903	95.940	95.924	95.990	95.953	96.061	95.995	96.183	1.8064
81	2.50	97.135	97.173	97.156	97.220	97.184	97.294	97.226	97.415	1.8050
82	2.50	98.406	98.440	98.427	98.491	98.453	98.564	98.495	98.685	1.8043
83	2.50	99.640	99.674	99.657	99.722	99.687	99.796	99.728	99.918	1.8030
84	2.50	100.906	100.941	100.928	100.992	100.954	101.064	100.998	101.188	1.8023
85	2.50	102.141	102.177	102.159	102.226	102.188	102.297	102.230	102.418	1.8012
86	2.50	103.409	103.444	103.429	103.494	103.458	103.566	103.498	103.689	1.8005
87	2.50	104.641	104.677	104.663	104.727	104.691	104.800	104.732	104.922	1.7993
88	2.50	105.908	105.945	105.931	105.996	105.959	106.070	106.000	106.191	1.7987
89	2.50	107.142	107.179	107.165	107.228	107.193	107.301	107.235	107.423	1.7976
90	2.50	108.410	108.447	108.433	108.495	108.462	108.571	108.504	108.695	1.7969
91	2.50	109.644	109.680	109.664	109.730	109.692	109.802	109.738	109.928	1.7958
92	2.50	110.913	110.947	110.932	110.995	110.961	111.073	111.005	111.195	1.7954
93	2.50	112.146	112.183	112.168	112.232	112.198	112.306	112.242	112.429	1.7943
94	2.50	113.413	113.448	113.433	113.497	113.463	113.572	113.507	113.696	1.7938
95	2.50	114.650	114.685	114.670	114.733	114.698	114.806	114.740	114.932	1.7928
96	2.50	115.915	115.950	115.935	116.001	115.965	116.074	116.011	116.199	1.7923
97	2.50	117.148	117.184	117.168	117.235	117.199	117.309	117.245	117.433	1.7914
98	2.50	118.418	118.449	118.438	118.501	118.464	118.573	118.511	118.698	1.7910
99	2.50	119.652	119.686	119.673	119.736	119.699	119.809	119.748	119.936	1.7900
100	2.50	120.917	120.951	120.938	121.002	120.967	121.076	121.012	121.201	1.7896

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Table 144 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 1.50

$E_{v\,min}$ = minimum effective circular space width = 2.356

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.50	*******	*******	*******	5.362	*******	5.504	*******	5.668	2.8969
7	2.65	*******	*******	*******	*******	*******	*******	*******	*******	*******
8	2.65	*******	*******	*******	*******	*******	7.931	*******	8.126	3.2727
9	2.65	9.093	9.179	9.120	9.252	9.156	9.352	9.211	9.500	2.6697
10	2.65	10.877	10.941	10.896	11.002	10.924	11.089	10.969	11.224	2.6656
11	2.65	12.276	12.332	12.293	12.387	12.318	12.467	12.358	12.593	2.2993
12	2.65	13.965	14.017	13.981	14.070	14.004	14.146	14.042	14.269	2.2280
13	2.80	14.760	14.821	14.779	14.881	14.807	14.968	14.850	15.104	2.4486
14	2.80	16.434	16.491	16.453	16.547	16.478	16.630	16.520	16.762	2.3514
15	2.80	17.854	17.907	17.871	17.960	17.896	18.040	17.935	18.167	2.2560
16	2.80	19.493	19.545	19.510	19.597	19.534	19.674	19.573	19.799	2.2060
17	2.80	20.913	20.962	20.929	21.013	20.953	21.088	20.990	21.211	2.1472
18	2.80	22.531	22.580	22.548	22.630	22.571	22.704	22.608	22.825	2.1168
19	2.80	23.953	24.000	23.970	24.050	23.993	24.124	24.029	24.243	2.0767
20	2.80	25.558	25.604	25.573	25.654	25.597	25.726	25.633	25.846	2.0561
21	2.80	26.985	27.030	27.001	27.079	27.023	27.151	27.060	27.270	2.0269
22	2.80	28.577	28.623	28.594	28.670	28.616	28.742	28.652	28.861	2.0122
23	2.80	30.009	30.054	30.024	30.102	30.048	30.173	30.084	30.291	1.9899
24	2.80	31.592	31.638	31.609	31.684	31.631	31.756	31.666	31.874	1.9789
25	2.80	33.029	33.073	33.045	33.120	33.068	33.191	33.104	33.308	1.9611
26	2.80	34.605	34.649	34.622	34.696	34.644	34.767	34.681	34.884	1.9526
27	2.80	36.045	36.089	36.061	36.136	36.084	36.206	36.120	36.324	1.9380
28	2.80	37.616	37.659	37.633	37.707	37.656	37.777	37.691	37.894	1.9313
29	2.80	39.058	39.101	39.076	39.148	39.098	39.220	39.134	39.337	1.9192
30	2.80	40.625	40.667	40.642	40.714	40.663	40.785	40.700	40.902	1.9137
31	2.80	42.070	42.114	42.088	42.161	42.110	42.231	42.147	42.348	1.9036
32	2.80	43.631	43.675	43.649	43.722	43.673	43.792	43.709	43.909	1.8991
33	3.00	44.426	44.470	44.443	44.518	44.468	44.592	44.506	44.713	1.9609
34	3.00	45.984	46.028	46.002	46.078	46.026	46.151	46.065	46.272	1.9538
35	3.00	47.438	47.482	47.457	47.530	47.480	47.604	47.519	47.725	1.9433
36	3.00	48.995	49.038	49.013	49.086	49.036	49.160	49.076	49.282	1.9370
37	3.00	50.452	50.493	50.468	50.542	50.493	50.617	50.532	50.736	1.9280
38	3.00	52.003	52.045	52.020	52.094	52.045	52.167	52.084	52.290	1.9226
39	3.00	53.461	53.503	53.478	53.553	53.505	53.626	53.542	53.746	1.9148
40	3.00	55.012	55.052	55.028	55.102	55.052	55.175	55.093	55.297	1.9102
41	3.00	56.469	56.511	56.488	56.562	56.513	56.635	56.553	56.756	1.9032
42	3.00	58.017	58.060	58.036	58.108	58.060	58.183	58.101	58.302	1.8994
43	3.00	59.479	59.521	59.497	59.571	59.521	59.643	59.561	59.765	1.8929
44	3.00	61.023	61.066	61.041	61.114	61.066	61.188	61.107	61.309	1.8896
45	3.00	62.487	62.526	62.505	62.576	62.529	62.650	62.571	62.773	1.8839
46	3.00	64.029	64.071	64.047	64.119	64.074	64.192	64.111	64.314	1.8811
47	3.00	65.494	65.535	65.513	65.584	65.537	65.659	65.578	65.781	1.8758
48	3.00	67.035	67.074	67.052	67.125	67.077	67.198	67.116	67.321	1.8732
49	3.00	68.500	68.540	68.517	68.588	68.543	68.664	68.583	68.787	1.8686
50	3.00	70.038	70.079	70.058	70.129	70.082	70.203	70.123	70.326	1.8662
51	3.00	71.505	71.546	71.523	71.595	71.550	71.668	71.589	71.793	1.8620
52	3.00	73.042	73.082	73.060	73.131	73.088	73.206	73.128	73.331	1.8598
53	3.00	74.511	74.552	74.530	74.599	74.555	74.675	74.596	74.800	1.8560
54	3.00	76.047	76.087	76.066	76.137	76.092	76.211	76.133	76.335	1.8540
55	3.00	77.517	77.556	77.533	77.605	77.561	77.680	77.602	77.805	1.8505
56	3.00	79.051	79.091	79.068	79.141	79.094	79.216	79.138	79.338	1.8488
57	3.00	80.520	80.559	80.539	80.611	80.566	80.685	80.607	80.808	1.8457
58	3.00	82.054	82.093	82.072	82.143	82.100	82.219	82.141	82.342	1.8439
59	3.00	83.525	83.564	83.543	83.614	83.572	83.689	83.613	83.814	1.8410
60	3.00	85.056	85.095	85.077	85.146	85.103	85.223	85.146	85.348	1.8393
61	3.00	86.529	86.567	86.549	86.619	86.575	86.693	86.617	86.818	1.8367
62	3.00	88.058	88.100	88.079	88.149	88.107	88.224	88.149	88.350	1.8353
63	3.00	89.533	89.571	89.552	89.621	89.578	89.698	89.621	89.821	1.8329
64	3.00	91.062	91.101	91.081	91.151	91.108	91.228	91.151	91.352	1.8316
65	3.00	92.535	92.575	92.555	92.626	92.583	92.702	92.626	92.826	1.8292
66	3.00	94.065	94.106	94.085	94.154	94.114	94.231	94.154	94.358	1.8279
67	3.00	95.538	95.578	95.558	95.628	95.587	95.706	95.632	95.830	1.8258
68	3.00	97.069	97.106	97.086	97.157	97.115	97.232	97.159	97.358	1.8247
69	3.00	98.544	98.582	98.561	98.633	98.590	98.709	98.633	98.834	1.8226
70	3.00	100.068	100.107	100.089	100.158	100.120	100.236	100.163	100.362	1.8215
71	3.00	101.545	101.585	101.567	101.635	101.593	101.712	101.637	101.840	1.8195
72	3.00	103.070	103.110	103.092	103.161	103.119	103.239	103.164	103.365	1.8186
73	3.00	104.548	104.586	104.568	104.636	104.595	104.713	104.640	104.840	1.8169
74	3.00	106.074	106.113	106.094	106.163	106.122	106.241	106.168	106.368	1.8159
75	3.00	107.549	107.591	107.572	107.642	107.600	107.716	107.646	107.845	1.8142
76	3.00	109.076	109.113	109.095	109.165	109.128	109.241	109.170	109.369	1.8134
77	3.00	110.553	110.591	110.574	110.641	110.603	110.718	110.646	110.848	1.8117
78	3.00	112.078	112.117	112.098	112.166	112.127	112.243	112.173	112.373	1.8109
79	3.00	113.555	113.594	113.575	113.644	113.604	113.723	113.651	113.852	1.8094
80	3.00	115.079	115.119	115.099	115.168	115.128	115.249	115.173	115.374	1.8087
81	3.00	116.557	116.598	116.578	116.648	116.608	116.724	116.653	116.854	1.8072
82	3.00	118.082	118.118	118.102	118.171	118.133	118.251	118.179	118.380	1.8064
83	3.00	119.562	119.599	119.583	119.650	119.611	119.729	119.656	119.859	1.8050
84	3.00	121.082	121.119	121.103	121.171	121.135	121.251	121.182	121.381	1.8044
85	3.00	122.564	122.602	122.586	122.652	122.612	122.730	122.660	122.859	1.8032
86	3.00	124.085	124.123	124.106	124.177	124.136	124.252	124.182	124.383	1.8025
87	3.00	125.563	125.602	125.585	125.656	125.618	125.733	125.662	125.865	1.8012
88	3.00	127.084	127.123	127.106	127.176	127.140	127.256	127.184	127.384	1.8007
89	3.00	128.564	128.604	128.587	128.654	128.620	128.733	128.665	128.868	1.7994
90	3.00	130.086	130.126	130.109	130.177	130.140	130.256	130.188	130.388	1.7989
91	3.00	131.568	131.608	131.591	131.659	131.619	131.737	131.668	131.867	1.7979
92	3.00	133.090	133.125	133.113	133.177	133.142	133.258	133.188	133.390	1.7973
93	3.00	134.570	134.608	134.590	134.661	134.623	134.737	134.673	134.870	1.7962
94	3.00	136.090	136.125	136.113	136.179	136.143	136.262	136.191	136.394	1.7956
95	3.00	137.574	137.610	137.592	137.664	137.625	137.743	137.673	137.874	1.7946
96	3.00	139.091	139.128	139.116	139.183	139.146	139.262	139.195	139.393	1.7942
97	3.00	140.571	140.608	140.596	140.663	140.626	140.743	140.676	140.873	1.7933
98	3.00	142.095	142.132	142.114	142.182	142.145	142.263	142.194	142.394	1.7928
99	3.00	143.576	143.614	143.598	143.664	143.629	143.746	143.676	143.878	1.7918
100	3.00	145.094	145.132	145.116	145.183	145.148	145.266	145.196	145.400	1.7913

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Table 145 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 1.75

$E_{v\,min}$ = minimum effective circular space width = 2.749

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.00	*******	*******	*******	7.356	*******	7.552	*******	7.743	*******
7	3.00	*******	*******	*******	9.582	9.486	9.684	9.539	9.835	3.1214
8	3.00	9.426	9.509	9.450	11.180	11.102	11.266	11.145	11.401	2.6389
9	3.00	11.057	11.121	11.076	12.554	12.455	12.660	12.511	12.821	2.3661
10	3.15	12.393	12.477	12.420						2.7453
11	3.15	14.068	14.135	14.088	14.198	14.118	14.291	14.163	14.434	2.4808
12	3.15	16.053	16.114	16.073	16.173	16.100	16.259	16.142	16.397	2.3626
13	3.15	17.691	17.747	17.709	17.803	17.733	17.885	17.774	18.015	2.2493
14	3.15	19.624	19.678	19.641	19.732	19.666	19.811	19.705	19.941	2.1951
15	3.15	21.263	21.315	21.279	21.366	21.303	21.444	21.341	21.570	2.1297
16	3.15	23.166	23.216	23.182	23.268	23.206	23.344	23.244	23.469	2.0993
17	3.15	24.811	24.861	24.827	24.911	24.851	24.987	24.888	25.110	2.0560
18	3.15	26.694	26.743	26.710	26.793	26.734	26.868	26.770	26.991	2.0366
19	3.35	27.643	27.695	27.661	27.749	27.686	27.829	27.725	27.961	2.1578
20	3.35	29.518	29.570	29.535	29.622	29.561	29.702	29.600	29.832	2.1283
21	3.35	31.188	31.237	31.204	31.290	31.230	31.368	31.268	31.496	2.0916
22	3.35	33.047	33.097	33.065	33.150	33.090	33.227	33.129	33.355	2.0711
23	3.35	34.720	34.770	34.739	34.822	34.763	34.898	34.802	35.025	2.0434
24	3.35	36.571	36.619	36.589	36.672	36.613	36.748	36.652	36.874	2.0282
25	3.35	38.248	38.296	38.266	38.347	38.290	38.423	38.329	38.550	2.0066
26	3.35	40.090	40.137	40.107	40.188	40.132	40.264	40.170	40.391	1.9949
27	3.35	41.771	41.818	41.788	41.868	41.813	41.945	41.851	42.070	1.9777
28	3.35	43.605	43.650	43.622	43.703	43.646	43.777	43.685	43.904	1.9684
29	3.35	45.290	45.335	45.308	45.387	45.332	45.462	45.370	45.588	1.9543
30	3.35	47.116	47.162	47.135	47.214	47.160	47.289	47.199	47.414	1.9471
31	3.35	48.807	48.850	48.824	48.902	48.848	48.978	48.888	49.102	1.9351
32	3.35	50.628	50.673	50.647	50.723	50.671	50.799	50.711	50.926	1.9280
33	3.35	52.320	52.365	52.337	52.415	52.363	52.490	52.402	52.615	1.9189
34	3.35	54.138	54.183	54.156	54.232	54.181	54.309	54.221	54.434	1.9137
35	3.35	55.831	55.875	55.850	55.926	55.875	56.003	55.915	56.128	1.9050
36	3.35	57.645	57.688	57.665	57.741	57.688	57.816	57.729	57.943	1.9006
37	3.35	59.342	59.387	59.362	59.438	59.387	59.513	59.426	59.639	1.8931
38	3.35	61.153	61.196	61.171	61.247	61.196	61.322	61.237	61.449	1.8893
39	3.35	62.852	62.896	62.870	62.946	62.896	63.023	62.936	63.149	1.8827
40	3.35	64.658	64.701	64.677	64.753	64.704	64.829	64.745	64.956	1.8794
41	3.35	66.360	66.404	66.379	66.455	66.404	66.531	66.446	66.658	1.8735
42	3.35	68.164	68.207	68.184	68.259	68.210	68.334	68.250	68.462	1.8706
43	3.35	69.868	69.912	69.888	69.962	69.915	70.039	69.953	70.165	1.8655
44	3.35	71.669	71.712	71.690	71.763	71.714	71.839	71.756	71.968	1.8628
45	3.35	73.376	73.417	73.395	73.470	73.420	73.545	73.463	73.674	1.8581
46	3.35	75.174	75.218	75.193	75.269	75.221	75.346	75.263	75.472	1.8559
47	3.35	76.881	76.924	76.901	76.976	76.927	77.052	76.970	77.181	1.8516
48	3.35	78.677	78.721	78.698	78.771	78.724	78.849	78.768	78.978	1.8496
49	3.35	80.388	80.429	80.408	80.480	80.436	80.560	80.477	80.685	1.8460
50	3.35	82.183	82.225	82.204	82.277	82.228	82.355	82.270	82.483	1.8439
51	3.35	83.895	83.934	83.913	83.988	83.941	84.064	83.983	84.191	1.8406
52	3.35	85.688	85.728	85.706	85.779	85.733	85.857	85.776	85.987	1.8388
53	3.35	87.397	87.439	87.418	87.491	87.446	87.570	87.487	87.699	1.8356
54	3.35	89.188	89.230	89.210	89.284	89.238	89.361	89.280	89.489	1.8342
55	3.35	90.903	90.945	90.922	90.996	90.949	91.075	90.992	91.205	1.8311
56	3.35	92.693	92.735	92.713	92.787	92.741	92.863	92.783	92.994	1.8298
57	3.35	94.407	94.450	94.426	94.499	94.454	94.581	94.499	94.708	1.8272
58	3.35	96.195	96.237	96.216	96.291	96.245	96.368	96.287	96.498	1.8259
59	3.35	97.912	97.952	97.930	98.007	97.960	98.083	98.002	98.213	1.8234
60	3.35	99.699	99.739	99.718	99.791	99.748	99.869	99.791	99.999	1.8223
61	3.35	101.414	101.458	101.436	101.508	101.464	101.585	101.511	101.718	1.8199
62	3.35	103.202	103.243	103.220	103.296	103.251	103.372	103.296	103.503	1.8189
63	3.35	104.919	104.960	104.939	105.012	104.969	105.092	105.014	105.220	1.8167
64	3.35	106.704	106.746	106.723	106.796	106.755	106.875	106.796	107.006	1.8157
65	3.35	108.424	108.461	108.443	108.515	108.471	108.593	108.518	108.726	1.8136
66	3.35	110.205	110.248	110.229	110.301	110.258	110.377	110.301	110.513	1.8126
67	3.35	111.925	111.967	111.947	112.020	111.976	112.098	112.020	112.231	1.8108
68	3.35	113.710	113.750	113.730	113.801	113.759	113.883	113.804	114.013	1.8100
69	3.35	115.428	115.468	115.451	115.521	115.481	115.602	115.526	115.733	1.8082
70	3.35	117.209	117.250	117.232	117.306	117.260	117.383	117.306	117.516	1.8074
71	3.35	118.932	118.971	118.953	119.025	118.984	119.103	119.031	119.239	1.8057
72	3.35	120.711	120.753	120.732	120.806	120.764	120.885	120.811	121.017	1.8051
73	3.35	122.434	122.474	122.456	122.528	122.485	122.608	122.533	122.742	1.8034
74	3.35	124.214	124.254	124.236	124.309	124.265	124.390	124.314	124.521	1.8028
75	3.35	125.937	125.978	125.959	126.030	125.989	126.110	126.036	126.243	1.8014
76	3.35	127.714	127.753	127.737	127.809	127.770	127.890	127.815	128.025	1.8006
77	3.35	129.439	129.479	129.462	129.533	129.490	129.615	129.541	129.746	1.7993
78	3.35	131.218	131.255	131.238	131.312	131.272	131.393	131.318	131.525	1.7987
79	3.35	132.942	132.983	132.965	133.035	132.994	133.116	133.041	133.251	1.7973
80	3.55	134.098	134.139	134.122	134.194	134.153	134.278	134.203	134.412	1.8150
81	3.55	135.822	135.863	135.845	135.916	135.878	135.998	135.928	136.137	1.8134
82	3.55	137.599	137.640	137.623	137.694	137.655	137.778	137.706	137.916	1.8126
83	3.55	139.325	139.367	139.349	139.421	139.379	139.506	139.430	139.639	1.8112
84	3.55	141.102	141.145	141.127	141.200	141.157	141.280	141.206	141.418	1.8104
85	3.55	142.830	142.867	142.852	142.923	142.886	143.007	142.936	143.144	1.8090
86	3.55	144.603	144.647	144.628	144.700	144.659	144.785	144.709	144.921	1.8083
87	3.55	146.333	146.371	146.355	146.428	146.390	146.511	146.434	146.645	1.8071
88	3.55	148.106	148.144	148.132	148.202	148.164	148.286	148.215	148.422	1.8064
89	3.55	149.835	149.874	149.857	149.929	149.890	150.014	149.942	150.151	1.8051
90	3.55	151.612	151.648	151.631	151.704	151.664	151.790	151.717	151.926	1.8044
91	3.55	153.339	153.376	153.359	153.432	153.392	153.512	153.446	153.653	1.8033
92	3.55	155.114	155.147	155.134	155.208	155.167	155.289	155.215	155.428	1.8026
93	3.55	156.839	156.877	156.863	156.931	156.897	157.020	156.945	157.157	1.8015
94	3.55	158.611	158.652	158.638	158.708	158.670	158.791	158.721	158.929	1.8010
95	3.55	160.342	160.380	160.362	160.436	160.397	160.520	160.446	160.657	1.8000
96	3.55	162.114	162.153	162.139	162.209	162.174	162.294	162.223	162.433	1.7993
97	3.55	163.843	163.878	163.864	163.935	163.900	164.021	163.950	164.165	1.7982
98	3.55	165.616	165.655	165.641	165.713	165.673	165.793	165.728	165.938	1.7976
99	3.55	167.346	167.382	167.368	167.441	167.404	167.521	167.455	167.668	1.7967
100	3.55	169.116	169.153	169.142	169.212	169.175	169.294	169.227	169.438	1.7962

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Table 146 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 2.00

$E_{v\,min}$ = minimum effective circular space width = 3.142

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.35	*******	*******	*******	*******	*******	7.142	*******	7.383	3.4665
7	3.35	8.718	8.810	8.746	8.887	8.783	8.991	8.838	9.146	2.6032
8	3.55	*******	*******	*******	*******	*******	*******	*******	10.635	4.0476
9	3.55	12.000	12.112	12.035	12.205	12.082	12.328	12.151	12.507	2.9095
10	3.55	14.414	14.489	14.436	14.559	14.468	14.660	14.519	14.818	2.6015
11	3.55	16.290	16.355	16.309	16.417	16.337	16.508	16.381	16.652	2.3907
12	3.55	18.545	18.605	18.563	18.663	18.590	18.750	18.631	18.890	2.2971
13	3.55	20.405	20.461	20.423	20.518	20.448	20.600	20.488	20.735	2.1991
14	3.55	22.609	22.664	22.626	22.718	22.651	22.800	22.690	22.932	2.1544
15	3.55	24.476	24.529	24.494	24.583	24.518	24.662	24.556	24.792	2.0961
16	3.75	25.919	25.976	25.938	26.035	25.965	26.121	26.007	26.263	2.2556
17	3.75	27.814	27.869	27.831	27.925	27.857	28.009	27.899	28.148	2.1894
18	3.75	29.973	30.027	29.991	30.083	30.017	30.167	30.057	30.302	2.1533
19	3.75	31.870	31.924	31.888	31.979	31.914	32.060	31.955	32.193	2.1092
20	3.75	34.010	34.061	34.028	34.116	34.052	34.198	34.094	34.330	2.0853
21	3.75	35.913	35.964	35.931	36.018	35.957	36.098	35.996	36.230	2.0531
22	3.75	38.038	38.088	38.055	38.141	38.080	38.221	38.121	38.353	2.0363
23	3.75	39.947	39.997	39.965	40.050	39.990	40.130	40.030	40.260	2.0118
24	3.75	42.060	42.108	42.076	42.162	42.103	42.241	42.142	42.372	1.9991
25	3.75	43.973	44.022	43.993	44.075	44.017	44.154	44.058	44.284	1.9800
26	3.75	46.078	46.126	46.094	46.178	46.120	46.257	46.160	46.388	1.9700
27	3.75	47.997	48.043	48.014	48.098	48.039	48.176	48.080	48.306	1.9545
28	3.75	50.091	50.138	50.109	50.191	50.134	50.269	50.175	50.399	1.9471
29	3.75	52.016	52.063	52.033	52.114	52.059	52.194	52.099	52.322	1.9342
30	3.75	54.103	54.150	54.121	54.204	54.148	54.282	54.188	54.411	1.9277
31	3.75	56.031	56.079	56.049	56.130	56.077	56.210	56.116	56.339	1.9169
32	3.75	58.113	58.161	58.132	58.211	58.158	58.291	58.199	58.421	1.9116
33	3.75	60.045	60.093	60.065	60.145	60.090	60.223	60.130	60.353	1.9025
34	3.75	62.122	62.169	62.140	62.221	62.166	62.299	62.208	62.428	1.8982
35	3.75	64.058	64.104	64.077	64.157	64.104	64.236	64.144	64.365	1.8901
36	3.75	66.129	66.176	66.148	66.229	66.176	66.307	66.218	66.437	1.8865
37	3.75	68.068	68.114	68.088	68.168	68.114	68.246	68.157	68.377	1.8794
38	3.75	70.137	70.182	70.155	70.235	70.183	70.315	70.226	70.444	1.8763
39	3.75	72.078	72.123	72.099	72.175	72.126	72.255	72.166	72.388	1.8700
40	3.75	74.144	74.188	74.163	74.242	74.188	74.321	74.232	74.451	1.8673
41	3.75	76.088	76.133	76.107	76.185	76.133	76.266	76.175	76.397	1.8618
42	3.75	78.148	78.194	78.168	78.247	78.194	78.324	78.237	78.457	1.8594
43	3.75	80.096	80.140	80.117	80.192	80.144	80.272	80.185	80.405	1.8544
44	3.75	82.156	82.198	82.173	82.250	82.201	82.331	82.243	82.462	1.8524
45	3.75	84.105	84.148	84.122	84.201	84.151	84.281	84.194	84.412	1.8480
46	3.75	86.159	86.203	86.178	86.255	86.207	86.337	86.250	86.467	1.8461
47	3.75	88.109	88.153	88.130	88.206	88.157	88.285	88.202	88.419	1.8421
48	3.75	90.164	90.207	90.184	90.261	90.211	90.339	90.253	90.472	1.8404
49	4.00	91.322	91.368	91.345	91.421	91.372	91.506	91.418	91.642	1.8739
50	4.00	93.376	93.419	93.395	93.474	93.427	93.557	93.470	93.692	1.8715
51	4.00	95.332	95.376	95.352	95.428	95.380	95.513	95.426	95.647	1.8672
52	4.00	97.381	97.426	97.401	97.479	97.430	97.562	97.475	97.699	1.8648
53	4.00	99.340	99.381	99.360	99.436	99.390	99.520	99.436	99.656	1.8609
54	4.00	101.387	101.430	101.408	101.485	101.438	101.567	101.481	101.706	1.8587
55	4.00	103.345	103.386	103.364	103.443	103.395	103.527	103.443	103.664	1.8552
56	4.00	105.392	105.432	105.410	105.491	105.441	105.571	105.488	105.711	1.8532
57	4.00	107.349	107.394	107.372	107.449	107.403	107.531	107.449	107.670	1.8500
58	4.00	109.396	109.438	109.415	109.494	109.447	109.578	109.494	109.714	1.8483
59	4.00	111.358	111.400	111.377	111.455	111.410	111.538	111.457	111.677	1.8452
60	4.00	113.398	113.441	113.422	113.499	113.451	113.582	113.499	113.718	1.8437
61	4.00	115.364	115.403	115.384	115.462	115.413	115.541	115.462	115.681	1.8409
62	4.00	117.401	117.446	117.426	117.501	117.456	117.587	117.501	117.723	1.8393
63	4.00	119.366	119.407	119.387	119.463	119.417	119.551	119.469	119.690	1.8366
64	4.00	121.405	121.449	121.431	121.504	121.462	121.587	121.509	121.729	1.8353
65	4.00	123.369	123.412	123.396	123.470	123.425	123.555	123.473	123.693	1.8329
66	4.00	125.410	125.453	125.431	125.506	125.463	125.593	125.512	125.734	1.8316
67	4.00	127.378	127.416	127.400	127.476	127.430	127.559	127.476	127.696	1.8295
68	4.00	129.414	129.453	129.436	129.514	129.470	129.598	129.514	129.738	1.8281
69	4.00	131.381	131.420	131.403	131.477	131.434	131.562	131.482	131.704	1.8261
70	4.00	133.418	133.458	133.441	133.516	133.470	133.599	133.522	133.741	1.8249
71	4.00	135.382	135.426	135.405	135.481	135.440	135.569	135.487	135.710	1.8229
72	4.00	137.421	137.463	137.442	137.516	137.474	137.605	137.522	137.742	1.8220
73	4.00	139.388	139.430	139.412	139.484	139.442	139.569	139.490	139.714	1.8200
74	4.00	141.422	141.465	141.447	141.520	141.477	141.606	141.526	141.747	1.8191
75	4.00	143.392	143.433	143.414	143.491	143.448	143.572	143.498	143.716	1.8174
76	4.00	145.425	145.466	145.447	145.522	145.478	145.610	145.529	145.750	1.8165
77	4.00	147.394	147.436	147.420	147.490	147.452	147.579	147.503	147.721	1.8148
78	4.00	149.425	149.470	149.451	149.528	149.483	149.612	149.535	149.756	1.8139
79	4.00	151.400	151.440	151.420	151.499	151.453	151.584	151.505	151.723	1.8125
80	4.00	153.432	153.471	153.451	153.528	153.485	153.611	153.538	153.758	1.8116
81	4.00	155.403	155.443	155.423	155.497	155.457	155.585	155.511	155.728	1.8102
82	4.00	157.429	157.470	157.456	157.531	157.490	157.617	157.538	157.757	1.8095
83	4.00	159.402	159.444	159.430	159.499	159.461	159.589	159.513	159.732	1.8080
84	4.00	161.436	161.474	161.457	161.534	161.492	161.618	161.541	161.763	1.8073
85	4.00	163.405	163.448	163.433	163.504	163.462	163.590	163.519	163.733	1.8061
86	4.00	165.436	165.475	165.461	165.533	165.497	165.619	165.547	165.764	1.8053
87	4.00	167.411	167.447	167.432	167.505	167.469	167.593	167.520	167.739	1.8040
88	4.00	169.438	169.475	169.461	169.534	169.497	169.623	169.549	169.771	1.8033
89	4.00	171.412	171.449	171.434	171.509	171.471	171.599	171.524	171.741	1.8022
90	4.00	173.441	173.478	173.463	173.539	173.501	173.626	173.554	173.774	1.8015
91	4.00	175.416	175.454	175.439	175.515	175.473	175.599	175.527	175.745	1.8005
92	4.00	177.441	177.484	177.469	177.538	177.499	177.627	177.554	177.771	1.7999
93	4.00	179.415	179.454	179.438	179.516	179.477	179.603	179.532	179.748	1.7988
94	4.00	181.445	181.485	181.469	181.540	181.500	181.627	181.556	181.778	1.7982
95	4.00	183.416	183.456	183.440	183.520	183.480	183.608	183.532	183.753	1.7971
96	4.00	185.447	185.488	185.471	185.544	185.504	185.634	185.561	185.780	1.7966
97	4.00	187.420	187.461	187.445	187.518	187.481	187.608	187.535	187.757	1.7956
98	4.00	189.444	189.485	189.473	189.543	189.510	189.634	189.559	189.784	1.7951
99	4.00	191.426	191.460	191.451	191.518	191.485	191.610	191.536	191.758	1.7942
100	4.00	193.450	193.484	193.476	193.543	193.510	193.637	193.565	193.781	1.7938

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Table 147 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H

30 degree pressure angle — Flat root or fillet root — Module = 2.50

$E_{v\ min}$ = minimum effective circular space width = 3.927

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	4.25	*******	*******	*******	*******	*******	*******	*******	*******	*******
7	4.25	*******	10.544	*******	10.720	*******	10.882	10.624	11.092	3.1371
8	4.25	13.638	13.723	13.663	13.800	13.697	13.910	13.752	14.079	2.6472
9	4.25	15.935	16.004	15.954	16.069	15.984	16.164	16.029	16.316	2.3714
10	4.50	17.687	17.784	17.717	17.874	17.758	17.998	17.821	18.189	2.8954
11	4.50	20.083	20.160	20.107	20.233	20.140	20.339	20.191	20.507	2.5682
12	4.50	22.922	22.991	22.942	23.058	22.973	23.156	23.021	23.316	2.4242
13	4.50	25.261	25.325	25.281	25.388	25.309	25.481	25.354	25.632	2.2962
14	4.50	28.023	28.084	28.043	28.145	28.070	28.236	28.113	28.384	2.2334
15	4.50	30.365	30.422	30.382	30.481	30.409	30.571	30.452	30.714	2.1615
16	4.50	33.083	33.140	33.101	33.199	33.127	33.286	33.170	33.428	2.1268
17	4.50	35.434	35.490	35.453	35.547	35.479	35.632	35.520	35.773	2.0799
18	4.50	38.124	38.178	38.142	38.236	38.169	38.321	38.210	38.461	2.0578
19	4.50	40.485	40.539	40.504	40.595	40.529	40.680	40.571	40.818	2.0249
20	4.50	43.153	43.207	43.172	43.262	43.198	43.346	43.239	43.484	2.0099
21	4.50	45.524	45.577	45.543	45.633	45.570	45.716	45.610	45.854	1.9851
22	4.50	48.177	48.228	48.194	48.284	48.220	48.368	48.263	48.504	1.9741
23	4.75	49.712	49.768	49.734	49.826	49.760	49.914	49.805	50.056	2.0461
24	4.75	52.354	52.409	52.375	52.467	52.403	52.554	52.446	52.697	2.0309
25	4.75	54.750	54.804	54.770	54.861	54.798	54.948	54.841	55.089	2.0092
26	4.75	57.381	57.431	57.399	57.491	57.427	57.576	57.470	57.718	1.9975
27	4.75	59.780	59.832	59.801	59.890	59.828	59.977	59.873	60.119	1.9800
28	4.75	62.400	62.453	62.420	62.508	62.448	62.594	62.493	62.738	1.9706
29	4.75	64.808	64.858	64.826	64.916	64.855	65.000	64.897	65.142	1.9565
30	4.75	67.416	67.468	67.438	67.525	67.465	67.611	67.509	67.754	1.9489
31	4.75	69.827	69.879	69.850	69.936	69.879	70.022	69.921	70.164	1.9369
32	4.75	72.432	72.483	72.450	72.539	72.480	72.623	72.524	72.765	1.9310
33	4.75	74.849	74.898	74.867	74.954	74.895	75.041	74.941	75.182	1.9207
34	4.75	77.443	77.494	77.465	77.552	77.494	77.636	77.539	77.779	1.9155
35	4.75	79.864	79.914	79.884	79.970	79.914	80.057	79.957	80.198	1.9068
36	4.75	82.455	82.503	82.475	82.561	82.506	82.647	82.551	82.790	1.9023
37	4.75	84.877	84.927	84.898	84.983	84.930	85.069	84.973	85.213	1.8948
38	4.75	87.463	87.514	87.484	87.569	87.514	87.657	87.561	87.798	1.8910
39	4.75	89.891	89.940	89.914	89.997	89.944	90.084	89.989	90.225	1.8844
40	4.75	92.474	92.521	92.493	92.579	92.524	92.665	92.571	92.807	1.8811
41	4.75	94.903	94.951	94.923	95.007	94.955	95.095	94.999	95.237	1.8752
42	4.75	97.482	97.527	97.503	97.585	97.532	97.672	97.577	97.814	1.8723
43	4.75	99.914	99.960	99.935	100.019	99.964	100.104	100.011	100.250	1.8669
44	4.75	102.489	102.536	102.510	102.593	102.541	102.680	102.584	102.821	1.8645
45	4.75	104.925	104.970	104.943	105.028	104.974	105.115	105.023	105.257	1.8598
46	4.75	107.495	107.540	107.515	107.600	107.545	107.687	107.595	107.830	1.8573
47	4.75	109.931	109.978	109.955	110.039	109.985	110.124	110.034	110.270	1.8530
48	4.75	112.499	112.547	112.523	112.605	112.552	112.691	112.600	112.837	1.8510
49	4.75	114.939	114.988	114.963	115.047	114.993	115.131	115.042	115.277	1.8472
50	4.75	117.504	117.550	117.527	117.610	117.560	117.696	117.605	117.843	1.8453
51	4.75	119.947	119.993	119.972	120.054	120.003	120.142	120.049	120.287	1.8417
52	4.75	122.510	122.557	122.530	122.615	122.562	122.702	122.615	122.847	1.8402
53	4.75	124.953	125.001	124.977	125.061	125.007	125.147	125.061	125.293	1.8369
54	4.75	127.513	127.560	127.535	127.617	127.568	127.705	127.617	127.854	1.8353
55	4.75	129.963	130.008	129.986	130.064	130.016	130.154	130.064	130.300	1.8324
56	4.75	132.520	132.565	132.543	132.622	132.571	132.711	132.622	132.858	1.8310
57	4.75	134.967	135.011	134.988	135.069	135.022	135.162	135.075	135.309	1.8282
58	4.75	137.523	137.567	137.546	137.626	137.576	137.713	137.629	137.862	1.8271
59	4.75	139.973	140.018	139.997	140.075	140.027	140.166	140.081	140.312	1.8246
60	4.75	142.527	142.570	142.551	142.631	142.582	142.718	142.631	142.867	1.8234
61	4.75	144.976	145.022	145.001	145.082	145.032	145.170	145.085	145.322	1.8209
62	4.75	147.531	147.576	147.551	147.634	147.589	147.723	147.640	147.871	1.8199
63	4.75	149.985	150.027	150.004	150.089	150.040	150.177	150.089	150.324	1.8178
64	4.75	152.529	152.576	152.556	152.635	152.589	152.728	152.642	152.875	1.8168
65	4.75	154.987	155.034	155.014	155.091	155.048	155.182	155.095	155.331	1.8147
66	4.75	157.533	157.581	157.560	157.642	157.594	157.732	157.646	157.880	1.8138
67	4.75	159.992	160.037	160.016	160.096	160.051	160.186	160.103	160.337	1.8118
68	4.75	162.535	162.585	162.563	162.641	162.599	162.733	162.648	162.883	1.8110
69	4.75	164.994	165.037	165.023	165.102	165.055	165.188	165.109	165.340	1.8093
70	4.75	167.543	167.586	167.564	167.645	167.601	167.736	167.652	167.886	1.8085
71	4.75	169.998	170.042	170.024	170.102	170.057	170.194	170.113	170.347	1.8067
72	4.75	172.544	172.585	172.570	172.645	172.604	172.740	172.657	172.891	1.8060
73	4.75	175.007	175.045	175.029	175.106	175.064	175.197	175.117	175.351	1.8044
74	4.75	177.546	177.588	177.573	177.650	177.604	177.744	177.658	177.892	1.8038
75	4.75	180.004	180.051	180.032	180.114	180.067	180.201	180.122	180.355	1.8022
76	4.75	182.548	182.592	182.572	182.652	182.612	182.748	182.664	182.900	1.8015
77	4.75	185.010	185.054	185.038	185.115	185.070	185.208	185.127	185.362	1.8001
78	4.75	187.551	187.592	187.575	187.657	187.612	187.748	187.666	187.900	1.7996
79	4.75	190.011	190.057	190.036	190.119	190.077	190.210	190.127	190.361	1.7983
80	4.75	192.553	192.599	192.578	192.658	192.616	192.751	192.671	192.904	1.7976
81	4.75	195.016	195.063	195.046	195.122	195.080	195.217	195.131	195.367	1.7964
82	4.75	197.555	197.598	197.581	197.663	197.619	197.749	197.671	197.906	1.7959
83	4.75	200.016	200.059	200.042	200.121	200.086	200.217	200.138	200.372	1.7946
84	4.75	202.555	202.600	202.582	202.662	202.617	202.755	202.680	202.911	1.7941
85	4.75	205.023	205.068	205.050	205.127	205.086	205.221	205.140	205.375	1.7930
86	4.75	207.559	207.600	207.582	207.664	207.623	207.755	207.682	207.911	1.7926
87	4.75	210.025	210.071	210.053	210.126	210.090	210.223	210.145	210.376	1.7915
88	4.75	212.557	212.604	212.585	212.669	212.622	212.763	212.678	212.913	1.7910
89	4.75	215.030	215.068	215.054	215.134	215.091	215.228	215.153	215.300	1.7900
90	4.75	217.563	217.601	217.591	217.668	217.629	217.763	217.687	217.917	1.7895
91	4.75	220.028	220.072	220.057	220.135	220.096	220.231	220.154	220.387	1.7885
92	4.75	222.591	222.610	222.591	222.669	222.630	222.767	222.689	222.924	1.7880
93	4.75	225.029	225.074	225.059	225.138	225.098	225.232	225.158	225.386	1.7872
94	4.75	227.563	227.608	227.593	227.673	227.633	227.763	227.693	227.924	1.7867
95	4.75	230.033	230.073	230.063	230.144	230.103	230.235	230.159	230.393	1.7859
96	4.75	232.567	232.608	232.598	232.669	232.633	232.772	232.690	232.926	1.7855
97	4.75	235.039	235.080	235.064	235.142	235.101	235.235	235.163	235.391	1.7847
98	4.75	237.569	237.610	237.595	237.678	237.636	237.773	237.699	237.930	1.7842
99	4.75	240.037	240.079	240.068	240.142	240.105	240.238	240.164	240.397	1.7835
100	4.75	242.572	242.615	242.599	242.679	242.636	242.776	242.701	242.931	1.7831

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Table 148 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 3.00

$E_{v\,min}$ = minimum effective circular space width = 4.712

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	5.00	*******	*******	*******	*******	*******	10.714	*******	11.015	3.7786
7	5.00	13.197	13.294	13.225	13.380	13.264	13.499	13.323	13.680	2.6828
8	5.00	16.818	16.894	16.839	16.965	16.870	17.067	16.919	17.232	2.4402
9	5.30	18.141	18.257	18.175	18.359	18.225	18.501	18.296	18.711	3.0109
10	5.30	21.720	21.805	21.746	21.885	21.782	22.000	21.837	22.183	2.6656
11	5.30	24.522	24.597	24.546	24.668	24.577	24.771	24.627	24.939	2.4258
12	5.30	27.900	27.969	27.921	28.036	27.952	28.136	27.999	28.297	2.3239
13	5.30	30.688	30.753	30.708	30.817	30.737	30.911	30.782	31.066	2.2200
14	5.30	33.991	34.054	34.011	34.117	34.039	34.210	34.085	34.363	2.1718
15	5.30	36.790	36.851	36.810	36.912	36.838	37.003	36.882	37.153	2.1107
16	5.30	40.047	40.106	40.067	40.167	40.095	40.258	40.138	40.406	2.0831
17	5.30	42.862	42.921	42.882	42.980	42.909	43.070	42.953	43.216	2.0422
18	5.60	45.036	45.097	45.057	45.160	45.087	45.258	45.133	45.414	2.1676
19	5.60	47.882	47.941	47.902	48.004	47.932	48.099	47.977	48.253	2.1214
20	5.60	51.088	51.148	51.109	51.211	51.138	51.303	51.185	51.458	2.0964
21	5.60	53.944	54.002	53.965	54.063	53.994	54.156	54.040	54.308	2.0632
22	5.60	57.130	57.186	57.150	57.248	57.179	57.341	57.224	57.492	2.0454
23	5.60	59.992	60.048	60.013	60.110	60.041	60.201	60.086	60.351	2.0204
24	5.60	63.160	63.215	63.180	63.278	63.210	63.369	63.255	63.518	2.0073
25	5.60	66.032	66.085	66.053	66.149	66.082	66.237	66.126	66.388	1.9874
26	5.60	69.186	69.238	69.205	69.300	69.236	69.390	69.280	69.541	1.9773
27	5.60	72.064	72.119	72.084	72.178	72.113	72.269	72.160	72.418	1.9614
28	5.60	75.207	75.259	75.226	75.321	75.256	75.410	75.302	75.560	1.9532
29	5.60	78.091	78.145	78.113	78.206	78.142	78.296	78.190	78.446	1.9399
30	5.60	81.223	81.277	81.243	81.337	81.273	81.428	81.320	81.577	1.9334
31	5.60	84.116	84.168	84.137	84.227	84.168	84.318	84.213	84.466	1.9225
32	5.60	87.237	87.291	87.259	87.349	87.291	87.440	87.338	87.591	1.9170
33	5.60	90.138	90.188	90.156	90.246	90.186	90.337	90.235	90.489	1.9074
34	5.60	93.251	93.302	93.271	93.364	93.302	93.454	93.352	93.604	1.9029
35	5.60	96.152	96.204	96.176	96.265	96.208	96.358	96.253	96.505	1.8949
36	5.60	99.260	99.314	99.285	99.373	99.314	99.465	99.364	99.617	1.8907
37	5.60	102.170	102.221	102.191	102.282	102.221	102.372	102.273	102.522	1.8838
38	5.60	105.271	105.324	105.293	105.382	105.324	105.475	105.373	105.624	1.8805
39	5.60	108.182	108.233	108.205	108.297	108.237	108.384	108.288	108.537	1.8742
40	5.60	111.279	111.331	111.303	111.392	111.336	111.482	111.383	111.635	1.8712
41	5.60	114.195	114.248	114.219	114.307	114.253	114.399	114.302	114.551	1.8656
42	5.60	117.287	117.336	117.311	117.401	117.344	117.491	117.391	117.643	1.8631
43	5.60	120.210	120.256	120.230	120.318	120.264	120.410	120.312	120.563	1.8581
44	5.60	123.295	123.348	123.321	123.406	123.353	123.501	123.400	123.649	1.8559
45	5.60	126.219	126.268	126.241	126.327	126.273	126.419	126.327	126.572	1.8515
46	5.60	129.303	129.352	129.325	129.413	129.358	129.508	129.408	129.658	1.8494
47	5.60	132.226	132.277	132.254	132.339	132.285	132.430	132.334	132.585	1.8453
48	5.60	135.306	135.359	135.330	135.417	135.364	135.510	135.417	135.665	1.8435
49	5.60	138.239	138.286	138.263	138.346	138.292	138.441	138.346	138.594	1.8399
50	5.60	141.317	141.365	141.338	141.426	141.371	141.517	141.426	141.671	1.8383
51	5.60	144.246	144.295	144.271	144.358	144.302	144.451	144.358	144.601	1.8350
52	5.60	147.320	147.367	147.345	147.428	147.377	147.523	147.428	147.677	1.8334
53	5.60	150.302	150.350	150.276	150.364	150.312	150.458	150.367	150.611	1.8304
54	5.60	153.326	153.373	153.346	153.432	153.383	153.525	153.436	153.686	1.8289
55	5.60	156.257	156.308	156.284	156.372	156.318	156.464	156.372	156.617	1.8263
56	5.60	159.329	159.378	159.356	159.440	159.388	159.530	159.440	159.689	1.8249
57	5.60	162.267	162.316	162.294	162.379	162.327	162.471	162.379	162.627	1.8224
58	5.60	165.334	165.377	165.355	165.441	165.391	165.535	165.449	165.694	1.8212
59	5.60	168.270	168.321	168.300	168.380	168.336	168.475	168.387	168.637	1.8188
60	5.60	171.339	171.384	171.362	171.443	171.399	171.540	171.451	171.698	1.8178
61	5.60	174.282	174.327	174.304	174.388	174.342	174.486	174.395	174.639	1.8157
62	5.60	177.337	177.383	177.368	177.453	177.399	177.546	177.457	177.701	1.8147
63	5.60	180.285	180.332	180.308	180.395	180.347	180.489	180.402	180.647	1.8126
64	5.60	183.342	183.390	183.366	183.453	183.406	183.549	183.461	183.710	1.8116
65	5.60	186.287	186.335	186.315	186.400	186.351	186.498	186.408	186.653	1.8097
66	6.00	188.098	188.147	188.123	188.211	188.163	188.308	188.219	188.470	1.8359
67	6.00	191.051	191.091	191.075	191.157	191.112	191.256	191.165	191.420	1.8335
68	6.00	194.105	194.150	194.130	194.213	194.171	194.313	194.230	194.472	1.8324
69	6.00	197.054	197.100	197.079	197.164	197.122	197.266	197.172	197.428	1.8300
70	6.00	200.110	200.153	200.136	200.222	200.170	200.317	200.231	200.481	1.8289
71	6.00	203.056	203.108	203.086	203.169	203.126	203.266	203.187	203.433	1.8269
72	6.00	206.114	206.158	206.141	206.225	206.176	206.323	206.238	206.488	1.8257
73	6.00	209.064	209.109	209.091	209.177	209.127	209.272	209.190	209.435	1.8240
74	6.00	212.115	212.161	212.143	212.225	212.179	212.326	212.243	212.492	1.8228
75	6.00	215.070	215.116	215.098	215.181	215.135	215.284	215.195	215.442	1.8211
76	6.00	218.123	218.170	218.151	218.236	218.189	218.331	218.246	218.492	1.8202
77	6.00	221.073	221.120	221.101	221.187	221.139	221.283	221.201	221.446	1.8185
78	6.00	224.127	224.166	224.152	224.234	224.195	224.331	224.253	224.497	1.8176
79	6.00	227.081	227.125	227.110	227.189	227.149	227.287	227.208	227.455	1.8159
80	6.00	230.127	230.172	230.157	230.237	230.197	230.337	230.257	230.507	1.8150
81	6.00	233.084	233.130	233.115	233.195	233.155	233.297	233.216	233.459	1.8136
82	6.00	236.133	236.174	236.158	236.246	236.199	236.343	236.261	236.512	1.8126
83	6.00	239.088	239.135	239.114	239.197	239.156	239.301	239.218	239.468	1.8112
84	6.00	242.133	242.175	242.164	242.248	242.206	242.343	242.264	242.512	1.8105
85	6.00	245.092	245.139	245.118	245.203	245.161	245.304	245.225	245.470	1.8092
86	6.00	248.137	248.180	248.170	248.245	248.202	248.353	248.267	248.515	1.8085
87	6.00	251.094	251.138	251.127	251.209	251.170	251.312	251.225	251.477	1.8071
88	6.00	254.136	254.180	254.169	254.252	254.213	254.357	254.268	254.523	1.8064
89	6.00	257.095	257.140	257.129	257.207	257.174	257.308	257.230	257.476	1.8053
90	6.00	260.138	260.183	260.172	260.251	260.217	260.353	260.274	260.524	1.8046
91	6.00	263.101	263.147	263.135	263.215	263.170	263.319	263.238	263.485	1.8034
92	6.00	266.145	266.191	266.174	266.261	266.214	266.354	266.284	266.528	1.8028
93	6.00	269.111	269.152	269.134	269.218	269.181	269.322	269.240	269.487	1.8017
94	6.00	272.144	272.191	272.179	272.263	272.215	272.358	272.286	272.530	1.8011
95	6.00	275.112	275.154	275.136	275.220	275.184	275.328	275.244	275.497	1.8000
96	6.00	278.147	278.195	278.183	278.262	278.219	278.365	278.286	278.536	1.7994
97	6.00	281.118	281.155	281.142	281.228	281.185	281.327	281.253	281.499	1.7984
98	6.00	284.153	284.196	284.178	284.265	284.227	284.364	284.289	284.538	1.7979
99	6.00	287.114	287.165	287.152	287.227	287.190	287.328	287.252	287.504	1.7969
100	6.00	290.150	290.201	290.188	290.264	290.226	290.366	290.290	290.544	1.7964

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Table 149 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 4.00

$E_{v\,min}$ = minimum effective circular space width = 6.283

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	6.70	*******	*******	*******	*******	*******	*******	*******	14.297	6.0980
7	6.70	17.394	17.516	17.428	17.622	17.478	17.769	17.554	17.988	2.9296
8	6.70	22.267	22.355	22.293	22.437	22.328	22.556	22.385	22.746	2.5618
9	6.70	25.882	25.959	25.906	26.032	25.937	26.137	25.987	26.310	2.3221
10	7.10	28.791	28.887	28.818	28.981	28.862	29.115	28.927	29.328	2.7993
11	7.10	32.549	32.630	32.573	32.711	32.610	32.829	32.665	33.022	2.5139
12	7.10	37.060	37.137	37.084	37.213	37.119	37.324	37.172	37.508	2.3872
13	7.10	40.783	40.854	40.806	40.926	40.838	41.033	40.889	41.207	2.2690
14	7.10	45.192	45.259	45.213	45.330	45.244	45.433	45.295	45.606	2.2116
15	7.10	48.925	48.993	48.947	49.062	48.980	49.163	49.028	49.331	2.1438
16	7.10	53.271	53.334	53.293	53.404	53.324	53.504	53.373	53.669	2.1120
17	7.10	57.026	57.089	57.049	57.156	57.080	57.255	57.127	57.418	2.0675
18	7.10	61.326	61.389	61.347	61.455	61.379	61.553	61.428	61.717	2.0468
19	7.10	65.099	65.161	65.122	65.227	65.153	65.324	65.203	65.487	2.0152
20	7.10	69.366	69.428	69.389	69.493	69.420	69.589	69.467	69.752	2.0011
21	7.10	73.157	73.219	73.180	73.282	73.210	73.381	73.261	73.542	1.9771
22	7.50	76.046	76.111	76.069	76.179	76.105	76.280	76.155	76.451	2.0648
23	7.50	79.868	79.928	79.890	79.997	79.924	80.098	79.975	80.267	2.0379
24	7.50	84.090	84.153	84.113	84.220	84.146	84.320	84.200	84.489	2.0235
25	7.50	87.919	87.982	87.943	88.048	87.978	88.151	88.031	88.315	2.0027
26	7.50	92.126	92.185	92.151	92.255	92.181	92.352	92.233	92.521	1.9913
27	7.50	95.966	96.024	95.990	96.090	96.024	96.192	96.075	96.357	1.9746
28	7.50	100.154	100.214	100.178	100.280	100.210	100.382	100.263	100.547	1.9656
29	7.50	104.003	104.062	104.029	104.126	104.062	104.229	104.113	104.396	1.9516
30	7.50	108.180	108.238	108.202	108.304	108.238	108.403	108.291	108.569	1.9446
31	7.50	112.034	112.094	112.062	112.158	112.094	112.261	112.145	112.424	1.9330
32	7.50	116.201	116.254	116.225	116.321	116.259	116.422	116.311	116.588	1.9271
33	7.50	120.061	120.120	120.086	120.185	120.120	120.285	120.175	120.451	1.9171
34	7.50	124.214	124.271	124.240	124.338	124.276	124.442	124.328	124.609	1.9119
35	7.50	128.089	128.143	128.111	128.212	128.148	128.309	128.202	128.476	1.9036
36	7.50	132.231	132.286	132.258	132.352	132.291	132.458	132.347	132.620	1.8994
37	7.50	136.108	136.165	136.136	136.233	136.170	136.331	136.225	136.498	1.8919
38	7.50	140.245	140.298	140.269	140.369	140.304	140.470	140.363	140.636	1.8882
39	7.50	144.131	144.186	144.155	144.253	144.192	144.350	144.246	144.522	1.8815
40	7.50	148.258	148.314	148.283	148.380	148.320	148.483	148.376	148.648	1.8785
41	7.50	152.143	152.201	152.169	152.266	152.208	152.369	152.266	152.538	1.8726
42	7.50	156.269	156.322	156.296	156.389	156.329	156.492	156.389	156.662	1.8698
43	7.50	160.158	160.213	160.185	160.281	160.226	160.383	160.281	160.555	1.8647
44	7.50	164.276	164.332	164.304	164.402	164.339	164.500	164.399	164.669	1.8623
45	7.50	168.173	168.231	168.202	168.295	168.238	168.396	168.295	168.569	1.8576
46	7.50	172.289	172.341	172.311	172.407	172.348	172.510	172.407	172.681	1.8554
47	7.50	176.189	176.242	176.215	176.313	176.253	176.411	176.313	176.582	1.8512
48	7.50	180.298	180.348	180.321	180.414	180.360	180.522	180.422	180.689	1.8492
49	7.50	184.199	184.254	184.230	184.325	184.266	184.428	184.325	184.595	1.8454
50	7.50	188.300	188.356	188.332	188.421	188.369	188.527	188.429	188.697	1.8437
51	7.50	192.212	192.261	192.237	192.336	192.278	192.435	192.336	192.610	1.8401
52	7.50	196.309	196.359	196.334	196.431	196.376	196.537	196.435	196.707	1.8385
53	7.50	200.223	200.274	200.248	200.343	200.292	200.447	200.352	200.621	1.8353
54	7.50	204.314	204.367	204.340	204.437	204.384	204.543	204.446	204.712	1.8340
55	7.50	208.229	208.283	208.256	208.355	208.301	208.454	208.359	208.626	1.8311
56	7.50	212.323	212.374	212.351	212.443	212.387	212.544	212.452	212.719	1.8297
57	7.50	216.238	216.294	216.266	216.360	216.308	216.463	216.369	216.642	1.8269
58	7.50	220.326	220.379	220.355	220.450	220.393	220.555	220.460	220.728	1.8257
59	7.50	224.250	224.298	224.279	224.366	224.317	224.473	224.376	224.649	1.8232
60	7.50	228.330	228.380	228.360	228.454	228.399	228.558	228.469	228.737	1.8220
61	7.50	232.251	232.307	232.282	232.372	232.322	232.483	232.392	232.656	1.8199
62	7.50	236.334	236.385	236.365	236.457	236.406	236.560	236.468	236.735	1.8189
63	7.50	240.263	240.315	240.294	240.388	240.336	240.493	240.399	240.666	1.8166
64	7.50	244.343	244.391	244.369	244.465	244.412	244.571	244.476	244.742	1.8157
65	7.50	248.273	248.316	248.295	248.392	248.338	248.500	248.403	248.674	1.8136
66	7.50	252.350	252.394	252.372	252.471	252.416	252.570	252.482	252.746	1.8129
67	7.50	256.276	256.326	256.303	256.393	256.348	256.505	256.415	256.684	1.8108
68	7.50	260.348	260.405	260.382	260.473	260.428	260.575	260.485	260.758	1.8100
69	7.50	264.286	264.332	264.309	264.401	264.355	264.511	264.424	264.690	1.8082
70	7.50	268.355	268.401	268.390	268.472	268.425	268.583	268.495	268.765	1.8074
71	7.50	272.286	272.334	272.322	272.405	272.358	272.512	272.429	272.691	1.8059
72	7.50	276.357	276.405	276.393	276.477	276.429	276.586	276.501	276.768	1.8051
73	7.50	280.294	280.343	280.324	280.416	280.367	280.526	280.434	280.699	1.8036
74	7.50	284.366	284.415	284.390	284.484	284.440	284.589	284.502	284.770	1.8029
75	7.50	288.295	288.345	288.333	288.421	288.371	288.529	288.440	288.712	1.8014
76	7.50	292.369	292.413	292.394	292.484	292.445	292.599	292.509	292.779	1.8007
77	7.50	296.303	296.355	296.335	296.420	296.381	296.536	296.445	296.719	1.7993
78	7.50	300.365	300.417	300.404	300.490	300.444	300.602	300.510	300.780	1.7988
79	7.50	304.303	304.357	304.343	304.430	304.383	304.544	304.450	304.718	1.7975
80	7.50	308.367	308.421	308.407	308.488	308.448	308.597	308.515	308.787	1.7969
81	7.50	312.310	312.364	312.344	312.433	312.392	312.543	312.460	312.721	1.7958
82	7.50	316.374	316.423	316.402	316.499	316.457	316.610	316.520	316.791	1.7951
83	7.50	320.321	320.363	320.349	320.434	320.392	320.546	320.462	320.730	1.7940
84	7.50	324.373	324.430	324.409	324.501	324.458	324.608	324.530	324.787	1.7936
85	7.50	328.324	328.367	328.353	328.439	328.396	328.555	328.468	328.736	1.7924
86	7.50	332.377	332.428	332.413	332.501	332.464	332.610	332.523	332.801	1.7918
87	7.50	336.324	336.376	336.361	336.450	336.406	336.554	336.480	336.746	1.7907
88	7.50	340.385	340.430	340.415	340.505	340.460	340.610	340.535	340.805	1.7903
89	7.50	344.329	344.375	344.359	344.450	344.405	344.556	344.481	344.746	1.7894
90	7.50	348.384	348.430	348.414	348.506	348.460	348.614	348.537	348.798	1.7890
91	7.50	352.331	352.377	352.362	352.455	352.408	352.563	352.486	352.750	1.7880
92	7.50	356.386	356.433	356.417	356.512	356.464	356.621	356.543	356.810	1.7875
93	7.50	360.336	360.384	360.368	360.463	360.416	360.575	360.495	360.750	1.7867
94	7.50	364.393	364.441	364.425	364.505	364.473	364.618	364.537	364.811	1.7862
95	7.50	368.338	368.387	368.379	368.460	368.427	368.574	368.492	368.761	1.7854
96	7.50	372.387	372.436	372.420	372.518	372.469	372.625	372.551	372.815	1.7850
97	7.50	376.344	376.394	376.377	376.460	376.427	376.576	376.493	376.759	1.7842
98	7.50	380.394	380.436	380.427	380.519	380.477	380.629	380.553	380.822	1.7837
99	7.50	384.345	384.396	384.379	384.463	384.429	384.582	384.497	384.769	1.7830
100	7.50	388.395	388.438	388.430	388.524	388.472	388.627	388.558	388.816	1.7827

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Table 150 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H

30 degree pressure angle — Flat root or fillet root — Module = 5.00

$E_{v\,min}$ = minimum effective circular space width = 7.854

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	8.00	*******	19.191	*******	19.280	*******	19.406	*******	19.606	2.5621
7	8.00	*******	23.514	*******	23.588	*******	23.697	*******	23.873	2.2534
8	8.50	27.235	27.346	27.268	27.449	27.316	27.496	27.388	27.628	2.0755
9	8.50	31.839	31.926	31.865	32.011	31.902	32.175	31.961	32.334	1.9467
10	8.50	37.585	37.667	37.612	37.746	37.646	37.863	37.702	38.054	1.8583
11	8.50	42.149	42.225	42.174	42.300	42.208	42.410	42.260	42.592	2.2247
12	9.00	45.812	45.897	45.838	45.984	45.878	46.112	45.940	46.321	2.5236
13	9.00	50.491	50.571	50.518	50.653	50.556	50.771	50.615	50.970	2.3689
14	9.00	56.014	56.092	56.042	56.170	56.077	56.287	56.133	56.479	2.2413
15	9.00	60.698	60.772	60.725	60.848	60.760	60.961	60.814	61.147	2.2091
16	9.00	66.136	66.208	66.160	66.283	66.195	66.394	66.252	66.578	2.1672
17	9.00	70.838	70.908	70.862	70.982	70.898	71.091	70.955	71.272	2.1151
18	9.00	76.219	76.286	76.243	76.359	76.278	76.468	76.331	76.648	2.0851
19	9.00	80.941	81.009	80.966	81.081	81.001	81.189	81.055	81.367	2.0528
20	9.00	86.276	86.344	86.303	86.416	86.337	86.523	86.392	86.701	2.0350
21	9.00	91.020	91.086	91.045	91.158	91.082	91.264	91.136	91.441	2.0081
22	9.00	96.323	96.387	96.346	96.459	96.385	96.565	96.439	96.742	1.9953
23	9.00	101.086	101.148	101.110	101.219	101.147	101.325	101.201	101.501	1.9746
24	9.00	106.361	106.422	106.382	106.493	106.421	106.599	106.474	106.775	1.9649
25	9.00	111.139	111.199	111.162	111.270	111.198	111.376	111.253	111.551	1.9483
26	9.00	116.387	116.450	116.412	116.521	116.450	116.627	116.508	116.803	1.9408
27	9.00	121.180	121.242	121.205	121.313	121.240	121.418	121.296	121.594	1.9272
28	9.00	126.414	126.474	126.440	126.545	126.477	126.651	126.530	126.826	1.9212
29	9.00	131.219	131.278	131.241	131.349	131.279	131.455	131.334	131.630	1.9099
30	9.00	136.432	136.494	136.461	136.565	136.495	136.671	136.553	136.847	1.9050
31	9.00	141.247	141.309	141.277	141.380	141.312	141.488	141.372	141.662	1.8954
32	9.50	144.835	144.893	144.859	144.967	144.900	145.078	144.959	145.258	1.9446
33	9.50	149.667	149.725	149.692	149.798	149.729	149.908	149.790	150.089	1.9338
34	9.50	154.854	154.917	154.886	154.990	154.924	155.100	154.982	155.282	1.9281
35	9.50	159.695	159.757	159.728	159.830	159.761	159.940	159.827	160.122	1.9188
36	9.50	164.875	164.938	164.909	165.011	164.943	165.121	165.005	165.303	1.9139
37	9.50	169.726	169.788	169.754	169.859	169.797	169.968	169.853	170.151	1.9059
38	9.50	174.896	174.956	174.925	175.029	174.965	175.139	175.027	175.322	1.9017
39	9.50	179.752	179.811	179.782	179.884	179.820	179.994	179.880	180.177	1.8946
40	9.50	184.917	184.972	184.940	185.044	184.983	185.156	185.041	185.339	1.8910
41	9.50	189.774	189.833	189.806	189.907	189.846	190.017	189.910	190.200	1.8847
42	9.50	194.932	194.987	194.956	195.060	194.997	195.171	195.063	195.354	1.8816
43	9.50	199.794	199.853	199.828	199.927	199.870	200.038	199.929	200.222	1.8760
44	9.50	204.942	204.999	204.968	205.073	205.012	205.184	205.072	205.369	1.8732
45	9.50	209.815	209.872	209.842	209.946	209.887	210.057	209.949	210.241	1.8682
46	9.50	214.953	215.011	214.980	215.085	215.026	215.197	215.090	215.382	1.8657
47	9.50	219.835	219.889	219.863	219.963	219.900	220.074	219.966	220.259	1.8612
48	9.50	224.969	225.022	224.998	225.096	225.036	225.208	225.103	225.394	1.8589
49	9.50	229.848	229.904	229.878	229.978	229.917	230.090	229.986	230.276	1.8549
50	9.50	234.979	235.032	235.009	235.108	235.049	235.218	235.119	235.405	1.8528
51	9.50	239.862	239.918	239.893	239.993	239.934	240.105	240.006	240.292	1.8491
52	9.50	244.988	245.041	245.019	245.116	245.061	245.228	245.124	245.415	1.8473
53	9.50	249.874	249.931	249.907	250.006	249.949	250.119	250.014	250.306	1.8439
54	9.50	254.994	255.049	255.026	255.124	255.070	255.237	255.136	255.425	1.8422
55	9.50	259.893	259.943	259.915	260.018	259.960	260.131	260.027	260.320	1.8391
56	9.50	265.005	265.057	265.034	265.132	265.074	265.246	265.142	265.434	1.8376
57	9.50	269.900	269.954	269.929	270.030	269.975	270.143	270.045	270.332	1.8347
58	9.50	275.010	275.064	275.045	275.140	275.081	275.254	275.152	275.443	1.8333
59	9.50	279.909	279.964	279.945	280.041	279.987	280.155	280.054	280.344	1.8307
60	9.50	285.017	285.070	285.054	285.147	285.090	285.261	285.164	285.451	1.8294
61	9.50	289.926	289.974	289.951	290.051	290.001	290.165	290.064	290.356	1.8269
62	9.50	295.025	295.077	295.050	295.153	295.101	295.268	295.171	295.459	1.8257
63	9.50	299.931	299.983	299.963	300.060	300.009	300.175	300.074	300.366	1.8235
64	9.50	305.032	305.082	305.059	305.159	305.112	305.275	305.178	305.466	1.8224
65	9.50	309.934	309.992	309.974	310.069	310.015	310.184	310.095	310.376	1.8202
66	9.50	315.039	315.088	315.066	315.165	315.121	315.281	315.189	315.473	1.8192
67	9.50	319.949	320.000	319.976	320.077	320.032	320.193	320.101	320.386	1.8172
68	9.50	325.042	325.093	325.070	325.171	325.127	325.287	325.197	325.480	1.8163
69	9.50	329.960	330.008	329.988	330.085	330.031	330.202	330.103	330.395	1.8144
70	9.50	335.041	335.098	335.085	335.176	335.129	335.292	335.202	335.487	1.8135
71	9.50	339.966	340.015	339.996	340.093	340.040	340.210	340.114	340.404	1.8118
72	9.50	345.050	345.103	345.080	345.181	345.133	345.298	345.200	345.493	1.8109
73	9.50	349.987	350.021	349.998	350.100	350.059	350.217	350.127	350.412	1.8093
74	9.50	355.053	355.107	355.084	355.185	355.138	355.303	355.208	355.499	1.8085
75	9.50	359.977	360.028	360.008	360.107	360.055	360.224	360.134	360.421	1.8070
76	9.50	365.065	365.111	365.097	365.190	365.144	365.308	365.224	365.505	1.8062
77	9.50	369.979	370.034	370.011	370.113	370.068	370.231	370.140	370.428	1.8048
78	9.50	375.069	375.115	375.102	375.194	375.151	375.313	375.224	375.510	1.8041
79	9.50	379.989	380.040	380.022	380.119	380.072	380.238	380.155	380.436	1.8027
80	9.50	385.064	385.119	385.098	385.198	385.148	385.317	385.232	385.515	1.8021
81	9.50	389.989	390.045	390.023	390.125	390.074	390.244	390.160	390.443	1.8007
82	9.50	395.066	395.122	395.101	395.202	395.152	395.322	395.239	395.521	1.8001
83	9.50	399.996	400.051	400.031	400.131	400.084	400.250	400.171	400.450	1.7989
84	9.50	405.075	405.126	405.111	405.206	405.164	405.326	405.235	405.524	1.7983
85	9.50	410.011	410.056	410.046	410.136	410.100	410.256	410.172	410.458	1.7971
86	9.50	415.073	415.129	415.109	415.209	415.164	415.330	415.246	415.530	1.7966
87	9.50	420.013	420.061	420.050	420.141	420.105	420.262	420.179	420.463	1.7955
88	9.50	425.077	425.132	425.114	425.213	425.170	425.334	425.245	425.535	1.7950
89	9.50	430.022	430.085	430.060	430.146	430.098	430.267	430.192	430.469	1.7939
90	9.50	435.087	435.135	435.125	435.216	435.183	435.338	435.259	435.540	1.7934
91	9.50	440.018	440.070	440.056	440.151	440.114	440.272	440.192	440.475	1.7924
92	9.50	445.084	445.138	445.123	445.219	445.182	445.341	445.260	445.544	1.7919
93	9.50	450.019	450.074	450.058	450.155	450.117	450.278	450.197	450.481	1.7909
94	9.50	455.086	455.141	455.126	455.223	455.186	455.345	455.266	455.549	1.7905
95	9.50	460.025	460.078	460.065	460.160	460.126	460.282	460.207	460.486	1.7896
96	9.50	465.093	465.144	465.134	465.226	465.185	465.348	465.267	465.553	1.7891
97	9.50	470.036	470.082	470.077	470.164	470.119	470.287	470.201	470.492	1.7883
98	9.50	475.106	475.146	475.137	475.228	475.189	475.352	475.273	475.557	1.7879
99	9.50	480.031	480.086	480.073	480.168	480.137	480.292	480.221	480.497	1.7870
100	9.50	485.102	485.149	485.145	485.231	485.188	485.355	485.273	485.561	1.7866

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Table 151 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 6.00

$E_{v\,min}$ = minimum effective circular space width = 9.425

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	9.50	*******	23.436	*******	23.522	*******	23.446	*******	23.847	2.4404
7	10.00	26.352	26.478	26.388	26.592	26.442	26.755	26.524	27.006	2.9531
8	10.00	33.602	33.699	33.632	33.791	33.674	33.926	33.738	34.144	2.5736
9	10.00	39.005	39.089	39.030	39.171	39.067	39.292	39.126	39.490	2.3297
10	10.60	43.402	43.509	43.436	43.613	43.484	43.766	43.561	44.010	2.8151
11	10.60	49.014	49.105	49.042	49.196	49.086	49.331	49.152	49.551	2.5240
12	10.60	55.771	55.856	55.797	55.942	55.839	56.070	55.900	56.280	2.3947
13	10.60	61.347	61.426	61.373	61.508	61.412	61.630	61.470	61.831	2.2744
14	10.60	67.952	68.030	67.979	68.111	68.017	68.231	68.077	68.428	2.2165
15	10.60	73.553	73.626	73.578	73.705	73.614	73.822	73.673	74.014	2.1481
16	10.60	80.067	80.139	80.092	80.217	80.129	80.333	80.188	80.524	2.1155
17	10.60	85.696	85.767	85.723	85.844	85.760	85.958	85.818	86.146	2.0707
18	10.60	92.144	92.215	92.169	92.291	92.210	92.404	92.265	92.592	2.0459
19	10.60	97.803	97.873	97.831	97.948	97.866	98.061	97.925	98.247	2.0180
20	10.60	104.205	104.270	104.230	104.346	104.264	104.458	104.323	104.644	2.0036
21	10.60	109.888	109.955	109.914	110.030	109.950	110.142	110.009	110.327	1.9797
22	10.60	116.249	116.313	116.273	116.388	116.311	116.500	116.368	116.685	1.9692
23	11.20	117.875	120.022	117.906	120.100	117.945	120.217	118.015	120.411	2.0407
24	11.20	124.228	126.357	124.256	126.435	124.298	126.552	124.363	126.745	2.0260
25	11.20	129.991	132.099	130.020	132.177	130.059	132.293	130.128	132.485	2.0049
26	11.20	136.309	138.406	136.336	138.483	136.377	138.599	136.445	188.792	1.9936
27	11.20	142.082	144.163	142.110	144.241	142.154	144.356	142.220	144.548	1.9766
28	11.20	148.373	150.446	148.402	150.523	148.448	150.639	148.511	150.831	1.9676
29	11.20	154.156	156.217	154.186	156.294	154.228	156.410	154.295	156.601	1.9536
30	11.20	160.426	162.479	160.457	162.556	160.502	162.672	160.565	162.864	1.9464
31	11.20	166.220	168.263	166.253	168.340	166.299	168.456	166.359	168.647	1.9347
32	11.20	172.473	174.507	172.500	174.585	172.548	174.700	172.611	174.892	1.9287
33	11.20	178.279	180.303	178.308	180.380	178.351	180.496	178.415	180.688	1.9187
34	11.20	184.513	186.532	184.543	186.609	184.587	186.725	184.654	186.917	1.9137
35	11.20	190.329	192.338	190.360	192.415	190.398	192.531	190.468	192.723	1.9051
36	11.20	196.544	198.553	196.576	198.631	196.624	198.747	196.688	198.940	1.9008
37	11.20	202.369	204.368	202.402	204.446	202.443	204.562	202.509	204.755	1.8933
38	11.20	208.577	210.572	208.611	210.650	208.654	210.766	208.722	210.960	1.8896
39	11.20	214.403	216.396	214.438	216.474	214.483	216.590	214.553	216.784	1.8830
40	11.20	220.600	222.589	220.636	222.667	220.682	222.784	220.746	222.978	1.8798
41	11.20	226.440	228.420	226.468	228.498	226.515	228.615	226.581	228.810	1.8740
42	11.20	232.622	234.604	232.661	234.682	232.700	234.799	232.767	234.994	1.8712
43	11.20	238.473	240.443	238.502	240.521	238.542	240.638	238.611	240.833	1.8660
44	11.20	244.647	246.617	244.677	246.696	244.728	246.813	244.789	247.009	1.8635
45	11.20	250.493	252.463	250.524	252.541	250.576	252.659	250.649	252.855	1.8588
46	11.20	256.667	258.629	256.699	258.708	256.742	258.826	256.817	259.023	1.8566
47	11.20	262.525	264.481	262.558	264.560	262.602	264.678	262.668	264.875	1.8524
48	11.20	268.682	270.641	268.710	270.720	268.766	270.838	268.834	271.036	1.8504
49	11.20	274.545	276.498	274.580	276.577	274.626	276.696	274.695	276.894	1.8465
50	11.20	280.692	282.651	280.728	282.730	280.775	282.849	280.846	283.048	1.8447
51	11.20	286.558	288.513	286.594	288.593	286.642	288.712	286.715	288.911	1.8413
52	11.20	292.713	294.660	292.750	294.740	292.799	294.860	292.861	295.059	1.8396
53	11.20	298.584	300.528	298.622	300.608	298.660	300.727	298.735	300.927	1.8364
54	11.20	304.721	306.669	304.759	306.749	304.811	306.869	304.876	307.069	1.8350
55	11.20	310.595	312.541	310.635	312.621	310.688	312.742	310.754	312.942	1.8320
56	11.20	316.739	318.677	316.766	318.757	316.820	318.878	316.901	319.079	1.8307
57	11.20	322.616	324.553	322.650	324.634	322.698	324.755	322.781	324.956	1.8280
58	11.20	328.752	330.684	328.780	330.765	328.836	330.886	328.906	331.088	1.8267
59	11.20	334.629	336.565	334.672	336.646	334.715	336.767	334.786	336.969	1.8242
60	11.20	340.756	342.691	340.800	342.773	340.844	342.894	340.916	343.097	1.8231
61	11.20	346.646	348.575	346.676	348.657	346.735	348.779	346.810	348.982	1.8207
62	11.20	352.764	354.698	352.809	354.779	352.855	354.902	352.930	355.105	1.8197
63	11.20	358.652	360.585	358.698	360.667	358.744	360.790	358.821	360.994	1.8175
64	11.20	364.774	366.704	364.821	366.786	364.868	366.909	364.946	367.113	1.8166
65	11.20	370.673	372.595	370.705	372.677	370.753	372.800	370.832	373.005	1.8145
66	11.20	376.784	378.710	376.816	378.792	376.881	378.915	376.954	379.121	1.8136
67	11.20	382.678	384.604	382.719	384.686	382.777	384.810	382.843	385.016	1.8117
68	11.20	388.793	390.715	388.826	390.798	388.877	390.922	388.960	391.128	1.8109
69	11.20	394.693	396.612	394.731	396.695	394.782	396.819	394.868	397.026	1.8091
70	11.20	400.799	402.720	400.834	402.803	400.885	402.928	400.972	403.135	1.8083
71	11.20	406.696	408.620	406.740	408.703	406.801	408.828	406.872	409.035	1.8067
72	11.20	412.810	414.725	412.854	414.809	412.908	414.934	412.979	415.142	1.8059
73	11.20	418.707	420.628	418.743	420.711	418.797	420.836	418.888	421.045	1.8044
74	11.20	424.815	426.730	424.852	426.814	424.907	426.939	424.990	427.148	1.8037
75	11.20	430.730	432.635	430.767	432.719	430.814	432.844	430.898	433.054	1.8022
76	11.20	436.823	438.734	436.861	438.818	436.918	438.944	436.994	439.154	1.8016
77	11.20	442.727	444.641	442.766	444.726	442.823	444.852	442.900	445.062	1.8002
78	11.20	448.823	450.738	448.862	450.823	448.921	450.949	448.998	451.160	1.7996
79	11.20	454.735	456.648	454.774	456.733	454.834	456.859	454.912	457.071	1.7983
80	11.20	460.834	462.742	460.874	462.827	460.934	462.954	461.014	463.166	1.7977
81	11.20	466.753	468.654	466.793	468.739	466.834	468.866	466.935	469.078	1.7964
82	11.20	472.834	474.746	472.875	474.831	472.937	474.959	473.019	475.172	1.7959
83	11.20	478.760	480.660	478.802	480.745	478.843	480.873	478.937	481.086	1.7947
84	11.20	484.844	486.750	484.886	486.836	484.949	486.965	485.033	487.179	1.7942
85	11.20	490.756	492.666	490.798	492.752	490.862	492.881	490.948	493.096	1.7931
86	11.20	496.841	498.754	496.884	498.840	496.949	498.970	497.036	499.185	1.7926
87	11.20	502.770	504.672	502.803	504.758	502.869	504.888	502.956	505.104	1.7915
88	11.20	508.847	510.757	508.891	510.844	508.958	510.974	509.047	511.191	1.7910
89	11.20	514.771	516.677	514.816	516.764	514.883	516.894	514.962	517.111	1.7900
90	11.20	520.861	522.761	520.907	522.848	520.952	522.979	521.043	523.196	1.7896
91	11.20	526.791	528.682	526.814	528.769	526.883	528.900	526.975	529.119	1.7886
92	11.20	532.861	534.764	532.907	534.852	532.965	534.983	533.047	535.202	1.7882
93	11.20	538.796	540.687	538.820	540.775	538.891	540.906	538.985	541.126	1.7873
94	11.20	544.868	546.767	544.915	546.855	544.963	546.987	545.058	547.207	1.7868
95	11.20	550.785	552.692	550.833	552.780	550.905	552.912	550.977	553.133	1.7860
96	11.20	556.882	558.770	556.906	558.859	556.979	558.991	557.064	559.212	1.7856
97	11.20	562.804	564.696	562.841	564.785	562.902	564.918	563.001	565.139	1.7847
98	11.20	568.878	570.773	568.928	570.862	568.978	570.996	569.077	571.218	1.7844
99	11.20	574.805	576.701	574.855	576.790	574.906	576.924	575.006	577.144	1.7836
100	11.20	580.881	582.776	580.932	582.865	580.983	583.000	581.085	583.223	1.7832

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Table 152 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 8.00

$E_{v\,min}$ = minimum effective circular space width = 12.566

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	12.50	*******	31.878	*******	31.966	*******	32.094	*******	32.303	2.3215
7	13.20	35.792	35.909	35.829	36.021	35.880	36.182	35.962	36.430	2.7209
8	13.20	45.352	45.450	45.384	45.546	45.428	45.689	45.498	45.920	2.3890
9	14.00	49.058	49.193	49.100	49.324	49.166	49.514	49.262	49.814	2.1347
10	14.00	58.462	58.569	58.497	58.677	58.549	58.837	58.631	59.096	2.7166
11	14.00	65.883	65.977	65.914	66.074	65.962	66.219	66.033	66.455	2.4653
12	14.00	74.864	74.955	74.896	75.048	74.943	75.186	75.012	75.414	2.3532
13	14.00	82.278	82.362	82.308	82.451	82.350	82.584	82.417	82.802	2.2431
14	14.00	91.077	91.158	91.107	91.246	91.149	91.376	91.218	91.591	2.1912
15	14.00	98.530	98.609	98.557	98.694	98.602	98.822	98.667	99.032	2.1273
16	14.00	107.209	107.287	107.238	107.372	107.280	107.498	107.347	107.704	2.0977
17	14.00	114.711	114.784	114.738	114.867	114.779	114.992	114.848	115.199	2.0553
18	14.00	123.301	123.377	123.330	123.460	123.375	123.585	123.440	123.791	2.0362
19	14.00	130.843	130.916	130.869	130.999	130.912	131.122	130.981	131.327	2.0058
20	14.00	139.372	139.444	139.401	139.526	139.446	139.650	139.509	139.855	1.9926
21	15.00	143.565	143.642	143.598	143.730	143.642	143.861	143.713	144.080	2.1057
22	15.00	152.063	152.137	152.092	152.225	152.139	152.356	152.210	152.574	2.0841
23	15.00	159.699	159.774	159.730	159.861	159.774	159.991	159.849	160.207	2.0555
24	15.00	168.147	168.222	168.180	168.309	168.226	168.438	168.299	168.654	2.0396
25	15.00	175.810	175.880	175.838	175.966	175.886	176.096	175.956	176.310	2.0174
26	15.00	184.214	184.290	184.251	184.376	184.295	184.505	184.369	184.719	2.0053
27	15.00	191.894	191.968	191.925	192.054	191.979	192.182	192.049	192.396	1.9875
28	15.00	200.275	200.345	200.307	200.431	200.356	200.560	200.429	200.774	1.9779
29	15.00	207.973	208.042	208.006	208.127	208.049	208.256	208.125	208.469	1.9633
30	15.00	216.325	216.391	216.352	216.477	216.405	216.606	216.476	216.820	1.9555
31	15.00	224.031	224.105	224.068	224.190	224.114	224.319	224.188	224.532	1.9433
32	15.00	232.364	232.431	232.393	232.517	232.440	232.645	232.517	232.859	1.9369
33	15.00	240.092	240.159	240.122	240.245	240.171	240.374	240.251	240.587	1.9265
34	15.00	248.397	248.465	248.428	248.551	248.479	248.680	248.552	248.894	1.9211
35	15.00	256.136	256.207	256.179	256.293	256.222	256.422	256.296	256.636	1.9122
36	15.00	264.428	264.494	264.461	264.581	264.516	264.710	264.583	264.925	1.9076
37	15.00	272.181	272.249	272.215	272.335	272.272	272.464	272.341	272.679	1.8998
38	15.00	280.455	280.520	280.490	280.607	280.537	280.736	280.620	280.952	1.8959
39	15.00	288.226	288.286	288.256	288.373	288.311	288.502	288.384	288.718	1.8891
40	15.00	296.478	296.543	296.515	296.630	296.565	296.760	296.640	296.976	1.8857
41	15.00	304.261	304.320	304.287	304.406	304.338	304.537	304.415	304.753	1.8796
42	15.00	312.499	312.564	312.539	312.651	312.591	312.782	312.671	312.999	1.8766
43	15.00	320.290	320.350	320.317	320.437	320.371	320.568	320.453	320.785	1.8713
44	15.00	328.525	328.583	328.553	328.670	328.608	328.801	328.692	329.019	1.8686
45	15.00	336.318	336.377	336.347	336.465	336.404	336.598	336.490	336.814	1.8638
46	15.00	344.534	344.599	344.578	344.687	344.622	344.819	344.711	345.038	1.8614
47	15.00	352.340	352.402	352.370	352.490	352.430	352.622	352.506	352.841	1.8571
48	15.00	360.550	360.615	360.596	360.703	360.642	360.835	360.720	361.055	1.8549
49	15.00	368.366	368.425	368.397	368.513	368.460	368.645	368.539	368.866	1.8510
50	15.00	376.568	376.629	376.600	376.717	376.665	376.850	376.745	377.071	1.8491
51	15.00	384.391	384.446	384.424	384.535	384.473	384.667	384.556	384.889	1.8455
52	15.00	392.583	392.642	392.617	392.731	392.668	392.864	392.752	393.086	1.8437
53	15.00	400.411	400.465	400.445	400.554	400.497	400.688	400.583	400.910	1.8405
54	15.00	408.593	408.656	408.628	408.743	408.681	408.877	408.769	409.100	1.8389
55	15.00	416.422	416.483	416.458	416.573	416.512	416.707	416.602	416.930	1.8359
56	15.00	424.610	424.665	424.644	424.754	424.702	424.889	424.793	425.113	1.8344
57	15.00	432.439	432.500	432.477	432.590	432.533	432.724	432.626	432.949	1.8316
58	15.00	440.614	440.675	440.652	440.765	440.709	440.900	440.805	441.125	1.8303
59	15.00	448.460	448.515	448.499	448.606	448.557	448.741	448.635	448.966	1.8277
60	15.00	456.621	456.684	456.660	456.775	456.720	456.911	456.818	457.137	1.8265
61	15.00	464.463	464.530	464.503	464.621	464.563	464.757	464.664	464.983	1.8241
62	15.00	472.628	472.693	472.669	472.784	472.730	472.921	472.822	473.148	1.8230
63	15.00	480.484	480.544	480.526	480.635	480.588	480.773	480.672	481.001	1.8207
64	15.00	488.643	488.702	488.675	488.794	488.739	488.932	488.824	489.161	1.8197
65	15.00	496.503	496.567	496.546	496.649	496.589	496.787	496.697	497.016	1.8176
66	15.00	504.656	504.710	504.699	504.803	504.743	504.941	504.842	505.171	1.8167
67	15.00	512.518	512.569	512.551	512.662	512.607	512.800	512.696	513.031	1.8147
68	15.00	520.652	520.718	520.697	520.811	520.765	520.950	520.855	521.182	1.8138
69	15.00	528.526	528.581	528.572	528.674	528.618	528.813	528.710	529.046	1.8120
70	15.00	536.663	536.725	536.709	536.818	536.780	536.959	536.861	537.192	1.8112
71	15.00	544.525	544.592	544.573	544.685	544.644	544.826	544.739	545.059	1.8094
72	15.00	552.695	552.732	552.713	552.826	552.786	552.967	552.870	553.201	1.8087
73	15.00	560.530	560.602	560.587	560.696	560.648	560.837	560.734	561.073	1.8070
74	15.00	568.681	568.738	568.731	568.833	568.781	568.975	568.880	569.211	1.8063
75	15.00	576.552	576.612	576.590	576.707	576.666	576.849	576.754	577.085	1.8048
76	15.00	584.686	584.745	584.737	584.840	584.788	584.982	584.891	585.220	1.8041
77	15.00	592.554	592.621	592.606	592.716	592.670	592.859	592.761	593.098	1.8027
78	15.00	600.690	600.750	600.730	600.846	600.809	600.990	600.888	601.228	1.8020
79	15.00	608.580	608.630	608.607	608.726	608.687	608.870	608.767	609.109	1.8007
80	15.00	616.706	616.756	616.733	616.852	616.814	616.997	616.896	617.237	1.8000
81	15.00	624.592	624.639	624.619	624.735	624.701	624.880	624.783	625.121	1.7988
82	15.00	632.693	632.762	632.748	632.858	632.804	633.004	632.915	633.245	1.7982
83	15.00	640.586	640.647	640.643	640.744	640.699	640.890	640.797	641.132	1.7970
84	15.00	648.718	648.767	648.746	648.864	648.831	649.010	648.917	649.254	1.7964
85	15.00	656.591	656.655	656.648	656.752	656.706	656.899	656.807	657.143	1.7953
86	15.00	664.724	664.772	664.753	664.870	664.826	665.017	664.929	665.262	1.7947
87	15.00	672.605	672.662	672.649	672.760	672.723	672.908	672.811	673.153	1.7936
88	15.00	680.711	680.777	680.771	680.875	680.831	681.023	680.920	681.260	1.7932
89	15.00	688.613	688.669	688.658	688.768	688.719	688.917	688.825	689.164	1.7921
90	15.00	696.721	696.781	696.767	696.880	696.828	697.029	696.951	697.277	1.7916
91	15.00	704.630	704.676	704.661	704.776	704.723	704.925	704.847	705.173	1.7908
92	15.00	712.725	712.786	712.772	712.885	712.835	713.035	712.945	713.285	1.7902
93	15.00	720.625	720.683	720.673	720.783	720.736	720.933	720.831	721.183	1.7892
94	15.00	728.721	728.790	728.786	728.890	728.850	729.041	728.946	729.292	1.7888
95	15.00	736.628	736.689	736.676	736.790	736.757	736.941	736.855	737.193	1.7879
96	15.00	744.742	744.794	744.775	744.895	744.840	745.047	744.955	745.299	1.7875
97	15.00	752.638	752.695	752.688	752.797	752.754	752.949	752.853	753.202	1.7866
98	15.00	760.737	760.798	760.787	760.900	760.871	761.052	760.972	761.306	1.7862
99	15.00	768.656	768.701	768.689	768.803	768.757	768.956	768.859	769.211	1.7854
100	15.00	776.739	776.802	776.791	776.904	776.876	777.058	776.979	777.313	1.7850

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Table 153 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Flat root or fillet root — Module = 10.00

$E_{v\,min}$ = minimum effective circular space width = 15.708

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	16.00	38.161	38.277	38.196	38.391	38.251	38.557	38.339	38.623	2.7161
7	16.00	*******	46.937	*******	47.032	*******	47.173	*******	47.403	2.3321
8	17.00	54.426	54.563	54.471	54.698	54.539	54.894	54.644	55.206	3.0745
9	17.00	63.641	63.747	63.677	63.856	63.730	64.018	63.813	64.281	2.5928
10	17.00	75.139	75.237	75.171	75.339	75.223	75.490	75.303	75.737	2.4213
11	17.00	84.267	84.359	84.301	84.455	84.348	84.597	84.423	84.831	2.2702
12	17.00	95.433	95.521	95.465	95.614	95.513	95.754	95.586	95.984	2.2072
13	17.00	104.632	104.718	104.665	104.809	104.714	104.945	104.784	105.168	2.1288
14	18.00	111.997	112.088	112.028	112.188	112.083	112.339	112.163	112.586	2.3315
15	18.00	121.361	121.451	121.396	121.548	121.449	121.694	121.529	121.934	2.2416
16	18.00	132.242	132.325	132.271	132.421	132.321	132.564	132.400	132.801	2.1947
17	18.00	141.644	141.727	141.676	141.821	141.725	141.962	141.806	142.195	2.1387
18	18.00	152.403	152.485	152.438	152.578	152.485	152.718	152.562	152.949	2.1099
19	18.00	161.849	161.930	161.881	162.022	161.932	162.161	162.008	162.389	2.0712
20	18.00	172.525	172.601	172.552	172.693	172.606	172.830	172.682	173.059	2.0518
21	18.00	182.010	182.086	182.039	182.178	182.090	182.315	182.170	182.541	2.0233
22	18.00	192.614	192.689	192.645	192.780	192.700	192.917	192.770	193.144	2.0093
23	18.00	202.138	202.211	202.171	202.302	202.220	202.438	202.295	202.664	1.9875
24	18.00	212.686	212.759	212.721	212.850	212.773	212.986	212.843	213.212	1.9769
25	18.00	222.241	222.313	222.278	222.404	222.324	222.540	222.406	222.765	1.9595
26	18.00	232.746	232.816	232.775	232.906	232.833	233.042	232.910	233.268	1.9513
27	18.00	242.330	242.399	242.360	242.489	242.410	242.625	242.491	242.851	1.9372
28	18.00	252.785	252.853	252.827	252.953	252.880	253.083	252.954	253.316	1.9306
29	18.00	262.405	262.471	262.438	262.562	262.493	262.698	262.569	262.924	1.9188
30	18.00	272.830	272.902	272.865	272.993	272.922	273.130	273.002	273.356	1.9135
31	18.00	282.458	282.534	282.494	282.625	282.554	282.761	282.637	282.988	1.9035
32	18.00	292.869	292.936	292.906	293.027	292.956	293.164	293.042	293.391	1.8991
33	18.00	302.514	302.588	302.559	302.679	302.604	302.816	302.693	303.043	1.8906
34	18.00	312.892	312.966	312.932	313.057	312.985	313.194	313.064	313.423	1.8868
35	18.00	322.568	322.636	322.609	322.727	322.664	322.865	322.746	323.093	1.8794
36	18.00	332.920	332.991	332.963	333.083	333.019	333.221	333.104	333.450	1.8762
37	18.00	342.605	342.678	342.649	342.770	342.707	342.908	342.788	343.137	1.8697
38	18.00	352.941	353.014	352.986	353.107	353.047	353.245	353.122	353.475	1.8669
39	18.00	362.642	362.716	362.688	362.808	362.750	362.947	362.828	363.177	1.8612
40	18.00	372.974	373.035	373.006	373.127	373.070	373.266	373.150	373.498	1.8588
41	18.00	382.684	382.750	382.716	382.843	382.782	382.982	382.865	383.214	1.8537
42	18.00	392.994	393.053	393.028	393.146	393.078	393.286	393.172	393.518	1.8516
43	18.00	402.715	402.781	402.758	402.874	402.811	403.014	402.897	403.247	1.8470
44	19.00	409.850	409.911	409.885	410.007	409.937	410.150	410.041	410.387	1.8788
45	19.00	419.595	419.656	419.631	419.751	419.684	419.894	419.773	420.133	1.8737
46	19.00	429.870	429.934	429.906	430.030	429.970	430.174	430.061	430.413	1.8710
47	19.00	439.623	439.689	439.670	439.785	439.726	439.929	439.810	440.168	1.8664
48	19.00	449.881	449.956	449.939	450.052	449.996	450.196	450.092	450.436	1.8640
49	19.00	459.658	459.719	459.697	459.816	459.756	459.960	459.854	460.201	1.8598
50	19.00	469.917	469.975	469.957	470.072	470.017	470.218	470.108	470.457	1.8576
51	19.00	479.684	479.748	479.725	479.845	479.786	479.991	479.889	480.233	1.8538
52	19.00	489.933	489.993	489.975	490.091	490.038	490.237	490.122	490.480	1.8518
53	19.00	499.706	499.774	499.749	499.872	499.813	500.018	499.909	500.262	1.8483
54	19.00	509.943	510.010	509.987	510.108	510.053	510.255	510.140	510.500	1.8465
55	19.00	519.742	519.798	519.786	519.896	519.831	520.044	519.942	520.289	1.8433
56	19.00	529.965	530.025	530.011	530.124	530.079	530.272	530.170	530.518	1.8417
57	19.00	539.764	539.820	539.811	539.919	539.857	540.068	539.962	540.315	1.8387
58	19.00	549.972	550.040	550.020	550.139	550.091	550.288	550.185	550.536	1.8373
59	19.00	559.770	559.841	559.818	559.941	559.890	560.090	559.987	560.339	1.8345
60	19.00	569.984	570.053	570.033	570.153	570.107	570.303	570.206	570.553	1.8332
61	19.00	579.802	579.861	579.852	579.961	579.902	580.111	580.002	580.362	1.8306
62	19.00	589.998	590.045	590.049	590.166	590.113	590.317	590.215	590.568	1.8294
63	19.00	599.810	599.879	599.862	599.980	599.926	600.131	600.017	600.383	1.8270
64	19.00	610.012	610.077	610.065	610.179	610.118	610.331	610.223	610.584	1.8258
65	19.00	619.841	619.896	619.868	619.998	619.949	620.150	620.056	620.404	1.8236
66	19.00	630.023	630.088	630.077	630.190	630.132	630.343	630.241	630.598	1.8226
67	19.00	639.842	639.912	639.897	640.015	639.953	640.168	640.064	640.424	1.8205
68	19.00	650.028	650.099	650.084	650.201	650.141	650.356	650.253	650.617	1.8195
69	19.00	659.862	659.928	659.919	660.031	659.977	660.185	660.091	660.443	1.8176
70	19.00	670.054	670.109	670.083	670.212	670.170	670.367	670.257	670.625	1.8166
71	19.00	679.874	679.942	679.933	680.046	679.992	680.202	680.110	680.461	1.8148
72	19.00	690.055	690.118	690.100	690.222	690.160	690.378	690.281	690.638	1.8139
73	19.00	699.904	699.956	699.935	700.060	700.011	700.217	700.118	700.478	1.8122
74	19.00	710.075	710.127	710.106	710.232	710.184	710.389	710.292	710.651	1.8114
75	19.00	719.907	719.969	719.954	720.074	720.016	720.232	720.142	720.495	1.8098
76	19.00	730.066	730.135	730.130	730.241	730.193	730.399	730.289	730.663	1.8090
77	19.00	739.925	739.981	739.958	740.087	740.038	740.246	740.151	740.511	1.8075
78	19.00	750.072	750.143	750.138	750.250	750.203	750.409	750.301	750.675	1.8068
79	19.00	759.927	759.993	759.977	760.100	760.043	760.260	760.160	760.526	1.8054
80	19.00	770.094	770.151	770.128	770.258	770.212	770.419	770.330	770.686	1.8047
81	19.00	779.944	780.005	779.978	780.112	780.063	780.273	780.183	780.541	1.8033
82	19.00	790.098	790.158	790.132	790.266	790.218	790.428	790.339	790.697	1.8027
83	19.00	799.958	800.015	799.993	800.124	800.063	800.286	800.203	800.556	1.8014
84	19.00	810.115	810.165	810.150	810.274	810.221	810.437	810.327	810.708	1.8008
85	19.00	819.949	820.026	820.021	820.135	820.093	820.298	820.201	820.570	1.7996
86	19.00	830.110	830.172	830.146	830.282	830.237	830.446	830.346	830.719	1.7990
87	19.00	839.972	840.036	840.027	840.145	840.100	840.310	840.211	840.584	1.7978
88	19.00	850.117	850.179	850.154	850.289	850.228	850.454	850.359	850.729	1.7973
89	19.00	859.969	860.045	860.044	860.156	860.120	860.321	860.233	860.597	1.7962
90	19.00	870.136	870.185	870.174	870.296	870.251	870.462	870.365	870.739	1.7957
91	19.00	879.997	880.054	880.036	880.165	880.113	880.337	880.229	880.610	1.7946
92	19.00	890.129	890.191	890.168	890.303	890.246	890.470	890.363	890.749	1.7941
93	19.00	899.998	900.063	900.037	900.175	900.116	900.343	900.235	900.623	1.7931
94	19.00	910.132	910.197	910.172	910.309	910.252	910.478	910.372	910.759	1.7926
95	19.00	920.009	920.071	920.049	920.184	920.130	920.353	920.251	920.635	1.7917
96	19.00	930.145	930.203	930.186	930.316	930.268	930.485	930.391	930.768	1.7912
97	19.00	940.030	940.080	940.072	940.193	940.154	940.363	940.278	940.647	1.7903
98	19.00	950.128	950.208	950.211	950.322	950.274	950.493	950.379	950.777	1.7899
99	19.00	960.020	960.088	960.062	960.202	960.147	960.373	960.274	960.659	1.7890
100	19.00	970.162	970.213	970.204	970.328	970.290	970.500	970.418	970.787	1.7886

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Table 154 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 0.50

$E_{v\ min}$ = minimum effective circular space width = 0.785

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	0.95	*******	*******	*******	*******	*******	*******	*******	1.516	3.0326
7	0.95	*******	1.799	*******	1.849	1.794	1.906	1.839	1.983	2.0085
8	0.95	2.404	2.435	2.416	2.467	2.432	2.511	2.459	2.570	1.8146
9	1.00	2.683	2.717	2.697	2.751	2.715	2.798	2.743	2.869	1.8729
10	1.00	3.277	3.306	3.288	3.335	3.304	3.377	3.328	3.444	1.7604
11	1.00	3.750	3.775	3.759	3.802	3.773	3.841	3.796	3.904	1.6579
12	1.00	4.313	4.337	4.322	4.363	4.336	4.401	4.357	4.463	1.6171
13	1.06	4.587	4.612	4.597	4.639	4.611	4.680	4.633	4.744	1.6717
14	1.06	5.142	5.166	5.151	5.193	5.165	5.232	5.187	5.295	1.6320
15	1.06	5.616	5.639	5.625	5.665	5.638	5.703	5.659	5.764	1.5841
16	1.06	6.161	6.184	6.170	6.209	6.183	6.247	6.204	6.308	1.5622
17	1.06	6.635	6.658	6.644	6.682	6.657	6.719	6.677	6.779	1.5308
18	1.06	7.174	7.196	7.183	7.221	7.195	7.257	7.216	7.317	1.5170
19	1.06	7.649	7.671	7.657	7.695	7.670	7.731	7.690	7.791	1.4948
20	1.06	8.183	8.205	8.191	8.229	8.204	8.265	8.224	8.324	1.4853
21	1.06	8.659	8.681	8.668	8.705	8.680	8.741	8.700	8.800	1.4686
22	1.06	9.190	9.211	9.198	9.235	9.211	9.271	9.231	9.330	1.4618
23	1.06	9.668	9.689	9.676	9.713	9.689	9.749	9.709	9.807	1.4488
24	1.06	10.195	10.217	10.204	10.241	10.217	10.276	10.236	10.335	1.4436
25	1.12	10.502	10.523	10.511	10.548	10.523	10.584	10.544	10.644	1.4648
26	1.12	11.027	11.049	11.037	11.074	11.049	11.110	11.070	11.170	1.4587
27	1.12	11.509	11.530	11.518	11.555	11.531	11.591	11.551	11.651	1.4482
28	1.12	12.033	12.054	12.042	12.078	12.054	12.115	12.075	12.175	1.4435
29	1.12	12.515	12.536	12.524	12.561	12.536	12.597	12.557	12.657	1.4349
30	1.12	13.037	13.058	13.046	13.083	13.059	13.119	13.079	13.179	1.4310
31	1.12	13.520	13.541	13.529	13.565	13.542	13.602	13.562	13.662	1.4237
32	1.12	14.041	14.062	14.050	14.086	14.062	14.122	14.083	14.183	1.4205
33	1.12	14.525	14.546	14.534	14.570	14.546	14.606	14.567	14.666	1.4143
34	1.12	15.044	15.065	15.053	15.089	15.066	15.125	15.086	15.186	1.4116
35	1.12	15.529	15.549	15.538	15.574	15.551	15.610	15.571	15.671	1.4062
36	1.12	16.047	16.068	16.056	16.092	16.068	16.128	16.089	16.189	1.4039
37	1.12	16.532	16.553	16.541	16.577	16.554	16.614	16.575	16.674	1.3992
38	1.12	17.049	17.070	17.058	17.094	17.071	17.131	17.092	17.192	1.3972
39	1.12	17.535	17.556	17.545	17.580	17.557	17.617	17.578	17.678	1.3931
40	1.12	18.051	18.072	18.061	18.097	18.074	18.133	18.094	18.194	1.3914
41	1.12	18.538	18.559	18.547	18.583	18.560	18.620	18.581	18.681	1.3877
42	1.12	19.053	19.074	19.062	19.099	19.076	19.135	19.097	19.196	1.3863
43	1.12	19.540	19.561	19.550	19.586	19.563	19.622	19.584	19.684	1.3830
44	1.12	20.055	20.076	20.064	20.100	20.077	20.137	20.099	20.199	1.3816
45	1.12	20.543	20.564	20.552	20.588	20.565	20.625	20.586	20.686	1.3787
46	1.12	21.057	21.077	21.066	21.102	21.079	21.139	21.100	21.201	1.3775
47	1.12	21.545	21.565	21.554	21.590	21.568	21.627	21.589	21.689	1.3748
48	1.12	22.058	22.078	22.068	22.104	22.081	22.141	22.102	22.202	1.3738
49	1.12	22.547	22.567	22.556	22.592	22.570	22.629	22.591	22.691	1.3714
50	1.12	23.060	23.080	23.069	23.105	23.083	23.142	23.104	23.204	1.3704
51	1.12	23.549	23.569	23.558	23.594	23.572	23.631	23.593	23.693	1.3682
52	1.12	24.061	24.081	24.071	24.106	24.084	24.144	24.105	24.206	1.3674
53	1.12	24.550	24.571	24.560	24.595	24.573	24.633	24.595	24.695	1.3653
54	1.12	25.062	25.083	25.072	25.107	25.086	25.145	25.107	25.207	1.3646
55	1.12	25.552	25.572	25.561	25.598	25.575	25.635	25.597	25.697	1.3627
56	1.12	26.063	26.083	26.073	26.109	26.087	26.147	26.109	26.209	1.3620
57	1.12	26.553	26.574	26.563	26.599	26.577	26.637	26.598	26.699	1.3603
58	1.12	27.064	27.084	27.074	27.110	27.088	27.148	27.109	27.210	1.3596
59	1.12	27.555	27.575	27.564	27.600	27.578	27.638	27.600	27.701	1.3580
60	1.12	28.065	28.085	28.075	28.110	28.089	28.149	28.111	28.212	1.3574
61	1.12	28.556	28.576	28.565	28.602	28.579	28.639	28.602	28.703	1.3559
62	1.12	29.066	29.086	29.076	29.112	29.090	29.150	29.113	29.213	1.3554
63	1.12	29.557	29.577	29.567	29.603	29.581	29.641	29.604	29.705	1.3540
64	1.12	30.067	30.087	30.077	30.112	30.091	30.151	30.113	30.214	1.3535
65	1.18	30.395	30.415	30.405	30.441	30.419	30.479	30.442	30.543	1.3606
66	1.18	30.905	30.924	30.915	30.950	30.929	30.989	30.951	31.054	1.3600
67	1.18	31.395	31.416	31.406	31.442	31.421	31.481	31.443	31.545	1.3587
68	1.18	31.905	31.926	31.916	31.951	31.930	31.990	31.952	32.055	1.3581
69	1.18	32.397	32.417	32.408	32.443	32.422	32.482	32.444	32.546	1.3568
70	1.18	32.906	32.926	32.916	32.953	32.931	32.991	32.954	33.056	1.3562
71	1.18	33.398	33.418	33.409	33.444	33.423	33.483	33.446	33.547	1.3551
72	1.18	33.907	33.927	33.917	33.953	33.932	33.992	33.954	34.057	1.3545
73	1.18	34.399	34.419	34.409	34.445	34.424	34.484	34.447	34.549	1.3534
74	1.18	34.908	34.928	34.918	34.955	34.933	34.993	34.956	35.058	1.3529
75	1.18	35.400	35.420	35.410	35.446	35.426	35.485	35.448	35.551	1.3519
76	1.18	35.908	35.929	35.919	35.955	35.934	35.994	35.957	36.059	1.3515
77	1.18	36.401	36.421	36.412	36.448	36.426	36.487	36.450	36.552	1.3505
78	1.18	36.910	36.929	36.920	36.956	36.934	36.995	36.958	37.061	1.3500
79	1.18	37.403	37.422	37.412	37.448	37.427	37.487	37.450	37.553	1.3491
80	1.18	37.910	37.930	37.921	37.957	37.936	37.996	37.959	38.061	1.3487
81	1.18	38.403	38.423	38.414	38.450	38.429	38.489	38.452	38.554	1.3478
82	1.18	38.910	38.931	38.922	38.957	38.936	38.997	38.960	39.063	1.3474
83	1.18	39.404	39.424	39.415	39.451	39.430	39.490	39.453	39.556	1.3466
84	1.18	39.911	39.931	39.922	39.958	39.937	39.998	39.961	40.064	1.3462
85	1.18	40.404	40.424	40.416	40.451	40.430	40.491	40.455	40.558	1.3454
86	1.18	40.912	40.931	40.923	40.959	40.937	40.998	40.961	41.064	1.3451
87	1.18	41.406	41.425	41.417	41.452	41.431	41.491	41.455	41.558	1.3443
88	1.18	41.913	41.933	41.923	41.960	41.939	41.999	41.962	42.065	1.3440
89	1.18	42.406	42.426	42.417	42.453	42.432	42.493	42.457	42.560	1.3432
90	1.18	42.914	42.933	42.924	42.960	42.939	43.000	42.964	43.067	1.3430
91	1.18	43.407	43.426	43.417	43.454	43.434	43.493	43.457	43.561	1.3423
92	1.18	43.914	43.933	43.924	43.960	43.940	44.000	43.964	44.067	1.3420
93	1.18	44.408	44.427	44.418	44.455	44.434	44.495	44.459	44.562	1.3413
94	1.18	44.914	44.934	44.926	44.961	44.940	45.002	44.965	45.068	1.3411
95	1.18	45.409	45.428	45.419	45.455	45.435	45.495	45.459	45.563	1.3404
96	1.18	45.915	45.935	45.925	45.962	45.942	46.002	45.966	46.070	1.3402
97	1.18	46.409	46.429	46.419	46.456	46.436	46.496	46.460	46.564	1.3396
98	1.18	46.915	46.936	46.926	46.962	46.942	47.003	46.967	47.071	1.3393
99	1.18	47.409	47.429	47.420	47.457	47.436	47.497	47.461	47.565	1.3388
100	1.18	47.916	47.936	47.927	47.962	47.943	48.003	47.968	48.071	1.3385

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Table 155 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 0.75

$E_{v\,min}$ = minimum effective circular space width = 1.178

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.40	*******	*******	*******	*******	*******	*******	*******	2.295	3.0788
7	1.40	2.753	2.805	2.772	2.850	2.796	2.910	2.832	2.996	2.0183
8	1.40	3.693	3.728	3.705	3.763	3.722	3.812	3.749	3.889	1.8204
9	1.50	4.013	4.055	4.028	4.095	4.048	4.151	4.079	4.237	1.9847
10	1.50	4.907	4.941	4.918	4.975	4.935	5.024	4.962	5.103	1.8296
11	1.50	5.616	5.647	5.627	5.678	5.642	5.724	5.666	5.797	1.7062
12	1.50	6.461	6.490	6.471	6.520	6.486	6.565	6.509	6.637	1.6546
13	1.50	7.164	7.191	7.173	7.220	7.187	7.263	7.210	7.333	1.5937
14	1.50	7.990	8.017	7.999	8.045	8.013	8.087	8.035	8.157	1.5685
15	1.50	8.693	8.720	8.703	8.748	8.716	8.789	8.738	8.857	1.5314
16	1.50	9.507	9.534	9.517	9.561	9.530	9.602	9.552	9.670	1.5168
17	1.60	9.914	9.941	9.924	9.970	9.938	10.012	9.960	10.083	1.5691
18	1.60	10.723	10.749	10.732	10.778	10.746	10.820	10.769	10.890	1.5421
19	1.60	11.436	11.462	11.446	11.490	11.459	11.532	11.481	11.601	1.5171
20	1.60	12.237	12.263	12.247	12.291	12.261	12.333	12.282	12.402	1.5056
21	1.60	12.952	12.978	12.962	13.006	12.976	13.047	12.997	13.115	1.4872
22	1.60	13.748	13.774	13.758	13.801	13.771	13.843	13.793	13.911	1.4788
23	1.60	14.465	14.491	14.475	14.518	14.488	14.559	14.510	14.628	1.4645
24	1.60	15.257	15.282	15.266	15.310	15.280	15.351	15.302	15.419	1.4584
25	1.60	15.976	16.001	15.986	16.028	15.999	16.069	16.021	16.137	1.4470
26	1.60	16.764	16.788	16.774	16.816	16.787	16.857	16.809	16.925	1.4422
27	1.60	17.484	17.510	17.494	17.537	17.508	17.578	17.530	17.646	1.4328
28	1.60	18.270	18.294	18.280	18.322	18.293	18.363	18.315	18.431	1.4290
29	1.60	18.992	19.017	19.002	19.044	19.016	19.085	19.037	19.153	1.4212
30	1.60	19.774	19.799	19.784	19.827	19.798	19.868	19.820	19.936	1.4180
31	1.60	20.498	20.522	20.508	20.550	20.522	20.591	20.544	20.660	1.4115
32	1.60	21.279	21.303	21.289	21.331	21.302	21.372	21.325	21.440	1.4089
33	1.60	22.004	22.028	22.014	22.056	22.028	22.097	22.050	22.165	1.4033
34	1.60	22.782	22.807	22.793	22.834	22.807	22.876	22.829	22.945	1.4011
35	1.60	23.509	23.533	23.519	23.560	23.533	23.602	23.555	23.671	1.3962
36	1.60	24.286	24.309	24.296	24.338	24.310	24.379	24.332	24.448	1.3943
37	1.60	25.014	25.037	25.024	25.065	25.038	25.106	25.060	25.176	1.3900
38	1.60	25.789	25.812	25.799	25.840	25.813	25.882	25.836	25.951	1.3885
39	1.60	26.517	26.541	26.528	26.569	26.542	26.610	26.565	26.679	1.3847
40	1.60	27.292	27.315	27.302	27.343	27.316	27.385	27.338	27.454	1.3833
41	1.60	28.021	28.045	28.031	28.072	28.046	28.114	28.068	28.184	1.3799
42	1.60	28.794	28.817	28.804	28.845	28.818	28.887	28.841	28.957	1.3786
43	1.60	29.524	29.548	29.534	29.576	29.549	29.618	29.572	29.687	1.3757
44	1.60	30.296	30.320	30.307	30.347	30.320	30.389	30.344	30.459	1.3746
45	1.70	30.751	30.775	30.761	30.803	30.776	30.846	30.800	30.917	1.3867
46	1.70	31.522	31.546	31.533	31.575	31.548	31.617	31.571	31.688	1.3853
47	1.70	32.254	32.278	32.265	32.307	32.280	32.350	32.304	32.421	1.3824
48	1.70	33.024	33.049	33.035	33.077	33.050	33.119	33.074	33.191	1.3812
49	1.70	33.757	33.781	33.768	33.810	33.783	33.853	33.807	33.924	1.3786
50	1.70	34.527	34.551	34.538	34.579	34.553	34.622	34.576	34.694	1.3774
51	1.70	35.260	35.284	35.271	35.312	35.286	35.356	35.310	35.427	1.3750
52	1.70	36.028	36.052	36.040	36.081	36.055	36.124	36.079	36.196	1.3740
53	1.70	36.763	36.786	36.774	36.815	36.789	36.858	36.813	36.931	1.3718
54	1.70	37.531	37.554	37.541	37.582	37.557	37.627	37.581	37.699	1.3709
55	1.70	38.265	38.288	38.276	38.318	38.291	38.361	38.316	38.433	1.3689
56	1.70	39.032	39.055	39.043	39.084	39.059	39.128	39.083	39.200	1.3681
57	1.70	39.767	39.791	39.779	39.820	39.794	39.864	39.819	39.935	1.3662
58	1.70	40.534	40.557	40.545	40.587	40.561	40.630	40.585	40.703	1.3654
59	1.70	41.270	41.293	41.280	41.322	41.296	41.366	41.321	41.438	1.3637
60	1.70	42.035	42.059	42.046	42.088	42.062	42.132	42.087	42.204	1.3630
61	1.70	42.771	42.795	42.782	42.824	42.798	42.868	42.823	42.940	1.3615
62	1.70	43.537	43.561	43.548	43.589	43.564	43.634	43.588	43.706	1.3608
63	1.70	44.274	44.297	44.284	44.326	44.301	44.370	44.325	44.443	1.3593
64	1.70	45.037	45.061	45.049	45.091	45.065	45.135	45.091	45.208	1.3587
65	1.70	45.775	45.797	45.787	45.828	45.803	45.872	45.828	45.945	1.3573
66	1.70	46.540	46.562	46.550	46.592	46.566	46.637	46.592	46.710	1.3567
67	1.70	47.276	47.299	47.288	47.330	47.303	47.374	47.330	47.447	1.3555
68	1.70	48.040	48.064	48.051	48.093	48.068	48.138	48.093	48.211	1.3550
69	1.70	48.776	48.801	48.790	48.831	48.805	48.875	48.831	48.949	1.3538
70	1.70	49.542	49.565	49.553	49.595	49.569	49.638	49.595	49.713	1.3533
71	1.70	50.280	50.302	50.292	50.333	50.308	50.377	50.333	50.452	1.3521
72	1.70	51.043	51.065	51.055	51.096	51.071	51.141	51.096	51.214	1.3517
73	1.70	51.781	51.804	51.793	51.834	51.810	51.879	51.835	51.953	1.3506
74	1.70	52.543	52.567	52.555	52.596	52.572	52.641	52.598	52.716	1.3502
75	1.70	53.282	53.306	53.293	53.335	53.310	53.380	53.337	53.455	1.3491
76	1.70	54.045	54.067	54.056	54.097	54.073	54.143	54.098	54.217	1.3488
77	1.70	54.783	54.807	54.795	54.837	54.811	54.882	54.838	54.956	1.3479
78	1.70	55.546	55.568	55.557	55.599	55.575	55.643	55.601	55.718	1.3475
79	1.70	56.285	56.308	56.296	56.337	56.314	56.383	56.340	56.458	1.3466
80	1.70	57.047	57.068	57.058	57.100	57.075	57.145	57.102	57.220	1.3462
81	1.70	57.785	57.809	57.798	57.839	57.815	57.885	57.841	57.959	1.3454
82	1.70	58.548	58.570	58.560	58.601	58.577	58.645	58.603	58.721	1.3450
83	1.70	59.287	59.310	59.299	59.339	59.317	59.386	59.343	59.461	1.3442
84	1.70	60.049	60.072	60.061	60.101	60.077	60.147	60.105	60.223	1.3439
85	1.70	60.787	60.810	60.800	60.841	60.818	60.887	60.844	60.962	1.3432
86	1.70	61.549	61.571	61.560	61.602	61.578	61.649	61.605	61.725	1.3428
87	1.70	62.289	62.311	62.302	62.342	62.318	62.387	62.345	62.464	1.3421
88	1.70	63.050	63.072	63.063	63.103	63.079	63.149	63.107	63.226	1.3418
89	1.70	63.790	63.813	63.801	63.843	63.820	63.889	63.846	63.966	1.3411
90	1.70	64.550	64.572	64.563	64.604	64.580	64.650	64.608	64.726	1.3409
91	1.70	65.291	65.314	65.302	65.345	65.322	65.390	65.348	65.467	1.3402
92	1.70	66.051	66.074	66.064	66.105	66.082	66.151	66.109	66.227	1.3400
93	1.70	66.791	66.815	66.805	66.846	66.822	66.891	66.850	66.968	1.3393
94	1.70	67.551	67.575	67.565	67.605	67.583	67.652	67.609	67.728	1.3391
95	1.70	68.292	68.314	68.304	68.346	68.322	68.393	68.350	68.469	1.3385
96	1.70	69.053	69.075	69.065	69.106	69.083	69.152	69.110	69.230	1.3382
97	1.70	69.793	69.815	69.805	69.846	69.823	69.893	69.852	69.971	1.3376
98	1.70	70.554	70.574	70.566	70.605	70.583	70.653	70.612	70.730	1.3375
99	1.70	71.294	71.317	71.307	71.347	71.326	71.395	71.353	71.473	1.3369
100	1.70	72.054	72.077	72.066	72.106	72.085	72.153	72.113	72.232	1.3367

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Table 156 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 1.00

$E_{v\,min}$ = minimum effective circular space width = 1.571

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.80	*******	3.021	*******	3.092	2.996	3.172	3.058	3.280	2.2710
7	1.80	3.960	4.000	3.972	4.037	3.990	4.091	4.018	4.175	1.8287
8	1.90	4.785	4.829	4.799	4.871	4.819	4.931	4.851	5.024	1.7650
9	1.90	5.731	5.767	5.743	5.803	5.759	5.854	5.786	5.937	1.7497
10	1.90	6.885	6.919	6.896	6.952	6.911	7.001	6.936	7.080	1.5932
11	1.90	7.810	7.841	7.820	7.873	7.835	7.919	7.858	7.995	1.6099
12	2.00	8.609	8.642	8.620	8.676	8.635	8.724	8.660	8.805	1.6776
13	2.00	9.546	9.577	9.556	9.609	9.571	9.657	9.595	9.734	1.6120
14	2.00	10.648	10.678	10.658	10.709	10.673	10.756	10.696	10.833	1.5839
15	2.00	11.586	11.616	11.596	11.646	11.610	11.692	11.633	11.767	1.5444
16	2.00	12.672	12.701	12.682	12.732	12.696	12.777	12.719	12.852	1.5282
17	2.00	13.614	13.643	13.624	13.673	13.638	13.718	13.661	13.792	1.5014
18	2.00	14.689	14.717	14.699	14.747	14.712	14.792	14.735	14.866	1.4910
19	2.00	15.634	15.663	15.645	15.692	15.659	15.737	15.681	15.811	1.4717
20	2.12	16.350	16.379	16.361	16.410	16.375	16.456	16.399	16.532	1.5092
21	2.12	17.303	17.332	17.314	17.363	17.328	17.408	17.352	17.484	1.4904
22	2.12	18.365	18.393	18.375	18.423	18.389	18.469	18.413	18.544	1.4819
23	2.12	19.320	19.349	19.331	19.379	19.346	19.424	19.369	19.499	1.4674
24	2.12	20.376	20.403	20.386	20.434	20.401	20.480	20.424	20.555	1.4610
25	2.12	21.334	21.362	21.344	21.392	21.359	21.437	21.382	21.512	1.4495
26	2.12	22.384	22.412	22.395	22.442	22.410	22.488	22.433	22.563	1.4445
27	2.12	23.345	23.373	23.356	23.403	23.371	23.448	23.394	23.524	1.4350
28	2.12	24.392	24.419	24.403	24.450	24.418	24.496	24.441	24.570	1.4311
29	2.12	25.355	25.382	25.365	25.413	25.380	25.458	25.404	25.533	1.4232
30	2.12	26.398	26.426	26.409	26.456	26.424	26.501	26.448	26.577	1.4200
31	2.12	27.364	27.390	27.374	27.421	27.389	27.466	27.413	27.542	1.4134
32	2.12	28.404	28.431	28.415	28.461	28.430	28.507	28.453	28.583	1.4107
33	2.12	29.371	29.398	29.381	29.428	29.397	29.474	29.420	29.549	1.4050
34	2.12	30.409	30.436	30.420	30.466	30.435	30.512	30.458	30.587	1.4028
35	2.12	31.377	31.404	31.388	31.434	31.403	31.480	31.427	31.556	1.3978
36	2.12	32.413	32.440	32.424	32.470	32.439	32.516	32.464	32.592	1.3959
37	2.12	33.383	33.409	33.393	33.440	33.409	33.486	33.433	33.562	1.3916
38	2.12	34.416	34.443	34.428	34.474	34.443	34.519	34.467	34.596	1.3899
39	2.12	35.388	35.415	35.399	35.445	35.415	35.491	35.439	35.567	1.3861
40	2.12	36.420	36.446	36.431	36.477	36.447	36.523	36.471	36.600	1.3846
41	2.12	37.393	37.418	37.403	37.449	37.419	37.496	37.444	37.572	1.3812
42	2.12	38.423	38.449	38.434	38.479	38.450	38.526	38.475	38.603	1.3800
43	2.12	39.397	39.423	39.408	39.453	39.424	39.500	39.449	39.577	1.3770
44	2.12	40.426	40.452	40.437	40.482	40.453	40.529	40.478	40.607	1.3758
45	2.12	41.400	41.426	41.412	41.457	41.428	41.504	41.453	41.581	1.3731
46	2.12	42.429	42.454	42.440	42.485	42.455	42.531	42.481	42.609	1.3721
47	2.12	43.404	43.430	43.415	43.460	43.432	43.508	43.457	43.585	1.3696
48	2.12	44.431	44.456	44.442	44.487	44.459	44.535	44.483	44.612	1.3687
49	2.12	45.407	45.433	45.419	45.464	45.435	45.511	45.461	45.589	1.3664
50	2.12	46.433	46.458	46.444	46.489	46.461	46.536	46.487	46.615	1.3656
51	2.12	47.411	47.435	47.421	47.467	47.438	47.514	47.464	47.592	1.3636
52	2.12	48.435	48.460	48.446	48.491	48.463	48.539	48.488	48.617	1.3629
53	2.12	49.413	49.439	49.425	49.470	49.442	49.518	49.468	49.596	1.3609
54	2.12	50.436	50.463	50.448	50.493	50.465	50.540	50.490	50.620	1.3603
55	2.12	51.416	51.441	51.428	51.473	51.444	51.521	51.470	51.599	1.3585
56	2.12	52.437	52.463	52.449	52.495	52.466	52.543	52.494	52.622	1.3579
57	2.12	53.417	53.443	53.429	53.474	53.446	53.522	53.473	53.602	1.3563
58	2.24	54.112	54.137	54.125	54.170	54.142	54.219	54.169	54.299	1.3653
59	2.24	55.092	55.119	55.105	55.151	55.122	55.199	55.149	55.279	1.3637
60	2.24	56.114	56.140	56.127	56.172	56.144	56.221	56.170	56.301	1.3630
61	2.24	57.095	57.121	57.108	57.154	57.126	57.202	57.152	57.282	1.3614
62	2.24	58.116	58.141	58.127	58.175	58.146	58.222	58.173	58.303	1.3607
63	2.24	59.097	59.123	59.109	59.156	59.128	59.204	59.156	59.285	1.3593
64	2.24	60.118	60.143	60.130	60.176	60.148	60.224	60.176	60.305	1.3587
65	2.24	61.101	61.125	61.113	61.157	61.131	61.207	61.157	61.287	1.3573
66	2.24	62.119	62.144	62.131	62.176	62.149	62.225	62.176	62.307	1.3567
67	2.24	63.102	63.127	63.114	63.160	63.133	63.208	63.160	63.291	1.3554
68	2.24	64.121	64.145	64.134	64.179	64.151	64.227	64.179	64.310	1.3549
69	2.24	65.104	65.129	65.117	65.163	65.134	65.210	65.163	65.292	1.3538
70	2.24	66.123	66.148	66.134	66.180	66.153	66.228	66.180	66.312	1.3532
71	2.24	67.106	67.131	67.119	67.164	67.137	67.213	67.164	67.295	1.3521
72	2.24	68.123	68.149	68.137	68.181	68.155	68.230	68.183	68.312	1.3517
73	2.24	69.108	69.132	69.120	69.166	69.138	69.215	69.166	69.298	1.3506
74	2.24	70.125	70.149	70.137	70.182	70.155	70.233	70.184	70.315	1.3502
75	2.24	71.109	71.134	71.122	71.167	71.140	71.217	71.169	71.300	1.3491
76	2.24	72.126	72.152	72.139	72.183	72.158	72.234	72.185	72.316	1.3488
77	2.24	73.111	73.136	73.123	73.168	73.142	73.219	73.170	73.301	1.3479
78	2.24	74.127	74.152	74.140	74.185	74.159	74.235	74.187	74.317	1.3475
79	2.24	75.112	75.136	75.125	75.171	75.145	75.220	75.174	75.303	1.3466
80	2.24	76.129	76.153	76.142	76.187	76.160	76.236	76.189	76.319	1.3462
81	2.24	77.114	77.139	77.127	77.172	77.145	77.222	77.175	77.306	1.3454
82	2.24	78.129	78.154	78.143	78.187	78.161	78.236	78.191	78.321	1.3450
83	2.24	79.115	79.141	79.129	79.173	79.148	79.224	79.176	79.308	1.3442
84	2.24	80.129	80.155	80.143	80.188	80.162	80.239	80.192	80.322	1.3440
85	2.24	81.117	81.140	81.130	81.174	81.150	81.226	81.178	81.309	1.3432
86	2.24	82.131	82.155	82.145	82.189	82.165	82.239	82.193	82.324	1.3429
87	2.24	83.118	83.142	83.132	83.176	83.150	83.227	83.181	83.310	1.3422
88	2.24	84.132	84.157	84.145	84.191	84.164	84.241	84.194	84.325	1.3419
89	2.24	85.118	85.143	85.133	85.177	85.153	85.227	85.182	85.312	1.3412
90	2.24	86.133	86.158	86.146	86.191	86.166	86.242	86.196	86.328	1.3409
91	2.24	87.120	87.145	87.135	87.178	87.153	87.229	87.183	87.314	1.3403
92	2.24	88.133	88.159	88.148	88.192	88.167	88.244	88.198	88.327	1.3400
93	2.24	89.121	89.147	89.135	89.181	89.154	89.230	89.186	89.317	1.3393
94	2.24	90.135	90.158	90.148	90.193	90.169	90.244	90.198	90.331	1.3391
95	2.24	91.123	91.147	91.136	91.182	91.155	91.233	91.187	91.317	1.3385
96	2.24	92.135	92.159	92.148	92.194	92.170	92.246	92.200	92.330	1.3383
97	2.24	93.122	93.146	93.138	93.182	93.157	93.234	93.187	93.319	1.3377
98	2.24	94.137	94.160	94.151	94.195	94.170	94.248	94.200	94.332	1.3375
99	2.24	95.125	95.147	95.139	95.183	95.158	95.234	95.189	95.321	1.3369
100	2.24	96.138	96.160	96.152	96.197	96.171	96.248	96.203	96.333	1.3368

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Table 157 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 1.25

$E_{v\,min}$ = minimum effective circular space width = 1.963

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.24	*******	3.821	3.751	3.890	3.797	3.975	3.852	4.093	2.3166
7	2.24	4.983	5.025	4.996	5.066	5.014	5.123	5.043	5.214	1.8450
8	2.36	6.037	6.084	6.051	6.128	6.072	6.192	6.104	6.291	1.9892
9	2.36	7.212	7.251	7.224	7.289	7.241	7.344	7.268	7.433	1.7722
10	2.36	8.652	8.688	8.663	8.724	8.679	8.776	8.705	8.862	1.6952
11	2.36	9.805	9.839	9.816	9.873	9.831	9.923	9.856	10.005	1.6115
12	2.50	10.757	10.793	10.769	10.829	10.785	10.882	10.811	10.969	1.6937
13	2.50	11.928	11.963	11.939	11.997	11.955	12.048	11.980	12.132	1.6246
14	2.50	13.305	13.339	13.316	13.372	13.332	13.423	13.356	13.506	1.5943
15	2.50	14.479	14.511	14.489	14.544	14.504	14.593	14.529	14.675	1.5532
16	2.50	15.836	15.867	15.846	15.900	15.862	15.949	15.886	16.031	1.5359
17	2.50	17.013	17.044	17.024	17.077	17.039	17.126	17.063	17.206	1.5083
18	2.50	18.356	18.387	18.367	18.420	18.383	18.469	18.406	18.549	1.4971
19	2.50	19.539	19.570	19.550	19.602	19.565	19.650	19.589	19.730	1.4772
20	2.50	20.872	20.903	20.883	20.935	20.898	20.983	20.922	21.063	1.4695
21	2.50	22.059	22.090	22.070	22.122	22.086	22.170	22.109	22.249	1.4544
22	2.50	23.384	23.414	23.395	23.446	23.410	23.494	23.434	23.574	1.4488
23	2.65	24.147	24.177	24.157	24.210	24.173	24.258	24.198	24.340	1.4720
24	2.65	25.466	25.496	25.477	25.529	25.493	25.578	25.517	25.659	1.4653
25	2.65	26.664	26.694	26.675	26.727	26.690	26.775	26.715	26.856	1.4534
26	2.65	27.977	28.007	27.988	28.039	28.004	28.089	28.028	28.170	1.4402
27	2.65	29.178	29.207	29.189	29.240	29.205	29.289	29.230	29.371	1.4385
28	2.65	30.486	30.516	30.497	30.549	30.513	30.597	30.539	30.679	1.4344
29	2.65	31.690	31.719	31.701	31.752	31.717	31.801	31.742	31.882	1.4264
30	2.65	32.994	33.024	33.005	33.056	33.022	33.105	33.047	33.187	1.4231
31	2.65	34.200	34.229	34.211	34.262	34.227	34.311	34.253	34.393	1.4162
32	2.65	35.501	35.530	35.513	35.563	35.529	35.612	35.554	35.694	1.4135
33	2.65	36.709	36.738	36.720	36.771	36.737	36.820	36.763	36.902	1.4076
34	2.65	38.006	38.035	38.018	38.069	38.034	38.118	38.060	38.200	1.4053
35	2.65	39.217	39.246	39.228	39.280	39.245	39.329	39.271	39.411	1.4002
36	2.65	40.512	40.541	40.523	40.574	40.541	40.624	40.566	40.705	1.3983
37	2.65	41.724	41.753	41.736	41.786	41.752	41.836	41.778	41.917	1.3939
38	2.65	43.017	43.045	43.029	43.078	43.045	43.128	43.072	43.210	1.3921
39	2.65	44.231	44.260	44.242	44.292	44.260	44.342	44.286	44.425	1.3882
40	2.65	45.521	45.549	45.533	45.582	45.549	45.632	45.575	45.714	1.3867
41	2.65	46.737	46.765	46.749	46.798	46.765	46.848	46.792	46.930	1.3832
42	2.65	48.025	48.053	48.036	48.086	48.054	48.135	48.080	48.219	1.3819
43	2.65	49.242	49.270	49.253	49.303	49.270	49.352	49.297	49.436	1.3788
44	2.65	50.528	50.557	50.541	50.590	50.557	50.639	50.584	50.723	1.3777
45	2.65	51.746	51.774	51.758	51.807	51.776	51.858	51.802	51.942	1.3748
46	2.65	53.031	53.059	53.043	53.092	53.060	53.143	53.088	53.226	1.3738
47	2.65	54.250	54.278	54.263	54.311	54.280	54.363	54.308	54.447	1.3713
48	2.65	55.533	55.562	55.546	55.596	55.564	55.646	55.591	55.730	1.3704
49	2.65	56.754	56.782	56.767	56.816	56.785	56.867	56.812	56.952	1.3680
50	2.65	58.036	58.065	58.050	58.098	58.066	58.149	58.095	58.233	1.3672
51	2.65	59.258	59.285	59.270	59.320	59.289	59.371	59.316	59.456	1.3651
52	2.65	60.539	60.567	60.551	60.600	60.570	60.651	60.596	60.736	1.3644
53	2.65	61.761	61.790	61.774	61.824	61.791	61.874	61.820	61.959	1.3624
54	2.65	63.042	63.069	63.054	63.102	63.071	63.153	63.100	63.238	1.3618
55	2.65	64.264	64.292	64.277	64.326	64.296	64.378	64.324	64.463	1.3600
56	2.65	65.543	65.569	65.556	65.604	65.573	65.655	65.602	65.741	1.3593
57	2.65	66.767	66.794	66.781	66.829	66.798	66.881	66.827	66.966	1.3577
58	2.65	68.045	68.073	68.057	68.107	68.077	68.158	68.105	68.244	1.3571
59	2.65	69.271	69.297	69.283	69.331	69.301	69.384	69.331	69.469	1.3556
60	2.65	70.546	70.573	70.559	70.608	70.579	70.659	70.608	70.746	1.3551
61	2.65	71.773	71.800	71.785	71.835	71.804	71.886	71.834	71.972	1.3537
62	2.65	73.048	73.075	73.061	73.110	73.080	73.163	73.110	73.248	1.3532
63	2.65	74.275	74.303	74.288	74.338	74.308	74.390	74.336	74.475	1.3519
64	2.65	75.549	75.578	75.564	75.613	75.582	75.664	75.611	75.750	1.3514
65	2.65	76.777	76.804	76.790	76.839	76.810	76.891	76.839	76.979	1.3501
66	2.65	78.052	78.079	78.065	78.113	78.084	78.166	78.113	78.253	1.3497
67	2.65	79.280	79.307	79.294	79.342	79.312	79.393	79.342	79.482	1.3486
68	2.65	80.554	80.579	80.568	80.615	80.586	80.667	80.615	80.754	1.3482
69	2.65	81.781	81.808	81.796	81.844	81.815	81.896	81.844	81.985	1.3471
70	2.65	83.054	83.081	83.068	83.117	83.088	83.168	83.117	83.256	1.3468
71	2.65	84.284	84.311	84.296	84.346	84.316	84.398	84.348	84.487	1.3457
72	2.65	85.555	85.583	85.570	85.618	85.590	85.670	85.620	85.758	1.3454
73	2.65	86.785	86.813	86.800	86.848	86.820	86.902	86.850	86.989	1.3444
74	2.65	88.057	88.082	88.071	88.118	88.090	88.173	88.121	88.261	1.3441
75	2.65	89.288	89.314	89.301	89.348	89.322	89.403	89.351	89.490	1.3432
76	2.65	90.558	90.585	90.572	90.619	90.593	90.673	90.622	90.763	1.3429
77	2.65	91.789	91.816	91.803	91.851	91.824	91.905	91.854	91.994	1.3420
78	2.65	93.060	93.085	93.074	93.120	93.093	93.175	93.126	93.265	1.3417
79	2.65	94.290	94.318	94.304	94.354	94.326	94.406	94.357	94.495	1.3410
80	2.65	95.559	95.587	95.575	95.624	95.596	95.677	95.626	95.767	1.3407
81	2.65	96.791	96.819	96.808	96.853	96.828	96.907	96.859	96.999	1.3399
82	2.80	97.656	97.683	97.670	97.718	97.691	97.773	97.724	97.864	1.3460
83	2.80	98.889	98.915	98.903	98.952	98.923	99.007	98.955	99.097	1.3452
84	2.80	100.158	100.185	100.173	100.220	100.194	100.276	100.226	100.367	1.3448
85	2.80	101.390	101.417	101.405	101.452	101.426	101.509	101.458	101.598	1.3441
86	2.80	102.658	102.685	102.673	102.721	102.694	102.775	102.727	102.868	1.3437
87	2.80	103.891	103.918	103.906	103.955	103.927	104.009	103.961	104.101	1.3430
88	2.80	105.159	105.187	105.175	105.224	105.196	105.276	105.227	105.369	1.3427
89	2.80	106.394	106.419	106.410	106.456	106.428	106.512	106.462	106.603	1.3420
90	2.80	107.660	107.688	107.676	107.723	107.698	107.780	107.729	107.872	1.3417
91	2.80	108.896	108.922	108.909	108.957	108.931	109.014	108.963	109.104	1.3411
92	2.80	110.163	110.189	110.176	110.224	110.199	110.279	110.231	110.373	1.3408
93	2.80	111.397	111.423	111.410	111.459	111.433	111.515	111.466	111.607	1.3402
94	2.80	112.662	112.688	112.678	112.728	112.701	112.780	112.734	112.873	1.3400
95	2.80	113.897	113.924	113.914	113.961	113.934	114.018	113.967	114.108	1.3393
96	2.80	115.165	115.189	115.179	115.226	115.201	115.284	115.233	115.375	1.3391
97	2.80	116.399	116.426	116.413	116.460	116.437	116.519	116.471	116.611	1.3385
98	2.80	117.664	117.692	117.682	117.726	117.702	117.785	117.737	117.875	1.3383
99	2.80	118.899	118.927	118.917	118.962	118.937	119.018	118.972	119.112	1.3377
100	2.80	120.165	120.193	120.183	120.228	120.204	120.285	120.236	120.377	1.3375

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Table 158 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 1.50

$E_{v\,min}$ = minimum effective circular space width = 2.356

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.65	4.706	4.771	4.725	4.827	4.752	4.904	4.793	5.019	2.1747
7	2.80	5.471	5.548	5.495	5.612	5.527	5.697	5.575	5.822	2.3030
8	2.80	7.366	7.413	7.380	7.458	7.400	7.523	7.432	7.626	1.9460
9	2.80	8.761	8.821	8.773	8.840	8.790	8.897	8.818	8.990	1.7483
10	2.80	10.483	10.521	10.495	10.559	10.511	10.614	10.538	10.704	1.6786
11	3.00	11.214	11.255	11.226	11.294	11.245	11.354	11.273	11.450	1.7739
12	3.00	12.905	12.943	12.917	12.982	12.935	13.039	12.962	13.132	1.7055
13	3.00	14.311	14.347	14.322	14.384	14.339	14.438	14.365	14.528	1.6339
14	3.00	15.963	15.998	15.974	16.035	15.991	16.089	16.017	16.177	1.6019
15	3.00	17.371	17.405	17.382	17.441	17.398	17.493	17.424	17.580	1.5597
16	3.00	18.999	19.033	19.010	19.069	19.027	19.121	19.052	19.208	1.5415
17	3.00	20.413	20.446	20.424	20.481	20.440	20.532	20.465	20.618	1.5132
18	3.00	22.025	22.058	22.035	22.092	22.052	22.144	22.077	22.229	1.5016
19	3.00	23.444	23.476	23.455	23.511	23.471	23.562	23.496	23.647	1.4813
20	3.00	25.043	25.076	25.054	25.110	25.071	25.161	25.096	25.246	1.4732
21	3.00	26.468	26.501	26.479	26.534	26.495	26.586	26.521	26.671	1.4577
22	3.00	28.057	28.089	28.069	28.124	28.085	28.175	28.110	28.260	1.4519
23	3.00	29.488	29.520	29.499	29.553	29.516	29.605	29.541	29.689	1.4398
24	3.00	31.069	31.101	31.080	31.135	31.097	31.186	31.123	31.271	1.4354
25	3.00	32.504	32.535	32.515	32.569	32.532	32.621	32.557	32.705	1.4257
26	3.15	33.655	33.686	33.666	33.721	33.682	33.773	33.709	33.859	1.4459
27	3.15	35.095	35.126	35.107	35.161	35.123	35.213	35.150	35.299	1.4364
28	3.15	36.665	36.697	36.677	36.731	36.694	36.783	36.720	36.870	1.4324
29	3.15	38.109	38.140	38.121	38.175	38.138	38.226	38.164	38.313	1.4245
30	3.15	39.674	39.705	39.686	39.739	39.703	39.792	39.729	39.879	1.4212
31	3.15	41.121	41.153	41.133	41.187	41.150	41.238	41.177	41.325	1.4146
32	3.15	42.681	42.712	42.693	42.747	42.711	42.799	42.738	42.887	1.4118
33	3.15	44.132	44.162	44.144	44.196	44.162	44.249	44.188	44.336	1.4061
34	3.15	45.688	45.719	45.701	45.754	45.718	45.806	45.745	45.893	1.4039
35	3.15	47.140	47.171	47.153	47.206	47.171	47.258	47.198	47.346	1.3989
36	3.15	48.694	48.724	48.706	48.760	48.724	48.812	48.752	48.900	1.3969
37	3.15	50.148	50.180	50.161	50.214	50.178	50.267	50.207	50.354	1.3926
38	3.15	51.700	51.729	51.712	51.765	51.729	51.818	51.757	51.906	1.3909
39	3.15	53.157	53.187	53.169	53.223	53.187	53.274	53.214	53.363	1.3870
40	3.15	54.705	54.735	54.717	54.769	54.736	54.822	54.763	54.911	1.3856
41	3.15	56.162	56.193	56.175	56.228	56.193	56.281	56.222	56.369	1.3822
42	3.15	57.708	57.738	57.721	57.774	57.739	57.827	57.767	57.916	1.3809
43	3.15	59.168	59.198	59.181	59.234	59.200	59.287	59.229	59.376	1.3778
44	3.15	60.712	60.741	60.726	60.778	60.743	60.831	60.771	60.919	1.3767
45	3.15	62.173	62.204	62.188	62.240	62.205	62.293	62.234	62.382	1.3739
46	3.15	63.715	63.744	63.728	63.781	63.748	63.835	63.776	63.923	1.3729
47	3.15	65.179	65.209	65.192	65.245	65.211	65.298	65.239	65.387	1.3704
48	3.15	66.718	66.749	66.732	66.784	66.751	66.838	66.780	66.927	1.3695
49	3.15	68.184	68.214	68.198	68.249	68.216	68.303	68.245	68.392	1.3673
50	3.15	69.722	69.752	69.736	69.788	69.754	69.841	69.784	69.930	1.3665
51	3.15	71.187	71.218	71.201	71.253	71.220	71.307	71.251	71.398	1.3643
52	3.15	72.725	72.754	72.737	72.790	72.756	72.845	72.788	72.934	1.3636
53	3.15	74.193	74.221	74.206	74.257	74.225	74.311	74.255	74.402	1.3617
54	3.15	75.726	75.757	75.741	75.792	75.759	75.847	75.790	75.938	1.3610
55	3.15	77.196	77.225	77.210	77.261	77.228	77.315	77.259	77.405	1.3593
56	3.15	78.729	78.759	78.743	78.796	78.764	78.848	78.793	78.940	1.3587
57	3.15	80.199	80.227	80.213	80.265	80.232	80.318	80.262	80.410	1.3570
58	3.15	81.732	81.760	81.746	81.796	81.765	81.851	81.796	81.944	1.3564
59	3.15	83.201	83.230	83.215	83.266	83.235	83.322	83.266	83.415	1.3549
60	3.15	84.733	84.762	84.747	84.799	84.767	84.854	84.799	84.945	1.3545
61	3.15	86.205	86.233	86.220	86.270	86.238	86.326	86.270	86.417	1.3531
62	3.15	87.736	87.764	87.749	87.802	87.769	87.856	87.800	87.949	1.3526
63	3.15	89.207	89.235	89.222	89.274	89.243	89.329	89.274	89.421	1.3513
64	3.15	90.736	90.765	90.752	90.802	90.771	90.858	90.802	90.951	1.3508
65	3.15	92.210	92.240	92.224	92.275	92.245	92.332	92.278	92.424	1.3496
66	3.15	93.738	93.769	93.752	93.804	93.774	93.862	93.806	93.953	1.3492
67	3.15	95.213	95.241	95.227	95.280	95.249	95.335	95.280	95.428	1.3481
68	3.15	96.739	96.769	96.756	96.807	96.776	96.861	96.807	96.955	1.3477
69	3.15	98.216	98.242	98.231	98.280	98.251	98.337	98.283	98.430	1.3466
70	3.15	99.741	99.770	99.756	99.808	99.778	99.864	99.811	99.958	1.3463
71	3.15	101.218	101.245	101.233	101.283	101.254	101.340	101.286	101.432	1.3453
72	3.15	102.744	102.771	102.759	102.810	102.780	102.866	102.813	102.961	1.3449
73	3.15	104.220	104.248	104.236	104.285	104.256	104.343	104.288	104.435	1.3440
74	3.15	105.744	105.772	105.760	105.812	105.781	105.868	105.814	105.962	1.3437
75	3.15	107.221	107.248	107.236	107.287	107.258	107.346	107.292	107.439	1.3428
76	3.15	108.748	108.773	108.761	108.812	108.783	108.869	108.815	108.965	1.3425
77	3.15	110.222	110.251	110.239	110.290	110.261	110.345	110.294	110.443	1.3416
78	3.15	111.748	111.774	111.765	111.814	111.784	111.870	111.817	111.965	1.3414
79	3.15	113.225	113.255	113.241	113.291	113.261	113.348	113.294	113.445	1.3405
80	3.15	114.748	114.778	114.765	114.815	114.785	114.873	114.819	114.967	1.3403
81	3.35	115.688	115.715	115.704	115.755	115.725	115.813	115.758	115.907	1.3467
82	3.35	117.211	117.238	117.228	117.276	117.248	117.334	117.282	117.430	1.3463
83	3.35	118.690	118.718	118.704	118.756	118.728	118.815	118.761	118.909	1.3455
84	3.35	120.211	120.239	120.228	120.277	120.249	120.337	120.284	120.432	1.3452
85	3.35	121.692	121.721	121.706	121.756	121.728	121.817	121.763	121.913	1.3444
86	3.35	123.214	123.242	123.228	123.278	123.251	123.340	123.286	123.434	1.3441
87	3.35	124.694	124.719	124.708	124.759	124.730	124.818	124.766	124.916	1.3433
88	3.35	126.216	126.242	126.231	126.282	126.253	126.340	126.286	126.438	1.3430
89	3.35	127.694	127.724	127.711	127.761	127.735	127.821	127.769	127.919	1.3423
90	3.35	129.217	129.244	129.232	129.281	129.255	129.342	129.289	129.439	1.3421
91	3.35	130.697	130.724	130.712	130.762	130.735	130.823	130.770	130.919	1.3414
92	3.35	132.217	132.244	132.233	132.283	132.256	132.341	132.291	132.442	1.3411
93	3.35	133.699	133.726	133.714	133.765	133.738	133.824	133.773	133.922	1.3405
94	3.35	135.220	135.247	135.236	135.285	135.259	135.343	135.293	135.442	1.3402
95	3.35	136.699	136.727	136.715	136.767	136.739	136.827	136.775	136.924	1.3396
96	3.35	138.221	138.245	138.237	138.285	138.259	138.346	138.294	138.444	1.3394
97	3.35	139.701	139.730	139.717	139.767	139.742	139.828	139.775	139.927	1.3388
98	3.35	141.220	141.249	141.236	141.286	141.261	141.348	141.296	141.446	1.3386
99	3.35	142.701	142.731	142.718	142.768	142.743	142.827	142.777	142.928	1.3380
100	3.35	144.221	144.250	144.238	144.288	144.263	144.348	144.297	144.445	1.3378

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Table 159 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 1.75

$E_{v\,min}$ = minimum effective circular space width = 2.749

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.15	*******	*******	*******	5.312	*******	5.432	5.239	5.586	2.6328
7	3.15	6.914	6.964	6.928	7.011	6.949	7.078	6.982	7.185	1.9362
8	3.15	9.014	9.057	9.026	9.098	9.045	9.159	9.073	9.258	1.7797
9	3.35	9.926	9.972	9.939	10.016	9.959	10.082	9.990	10.187	1.8748
10	3.35	11.952	11.994	11.964	12.035	11.983	12.097	12.012	12.196	1.7632
11	3.35	13.574	13.614	13.586	13.653	13.604	13.710	13.631	13.805	1.6610
12	3.35	15.532	15.570	15.544	15.608	15.561	15.665	15.588	15.757	1.6204
13	3.35	17.156	17.193	17.168	17.230	17.185	17.285	17.211	17.376	1.5668
14	3.35	19.078	19.113	19.089	19.150	19.105	19.205	19.132	19.295	1.5463
15	3.35	20.711	20.747	20.723	20.783	20.739	20.836	20.765	20.925	1.5127
16	3.55	22.012	22.049	22.025	22.086	22.042	22.142	22.068	22.235	1.5625
17	3.55	23.664	23.700	23.675	23.736	23.692	23.792	23.719	23.883	1.5315
18	3.55	25.545	25.580	25.557	25.617	25.574	25.672	25.601	25.764	1.5178
19	3.55	27.203	27.238	27.215	27.274	27.231	27.329	27.259	27.419	1.4957
20	3.55	29.069	29.104	29.081	29.140	29.098	29.194	29.124	29.285	1.4864
21	3.55	30.733	30.767	30.745	30.804	30.762	30.858	30.788	30.948	1.4698
22	3.55	32.588	32.622	32.600	32.658	32.617	32.713	32.644	32.803	1.4630
23	3.55	34.257	34.291	34.270	34.327	34.287	34.381	34.313	34.471	1.4502
24	3.55	36.103	36.136	36.115	36.172	36.132	36.226	36.159	36.316	1.4451
25	3.55	37.777	37.810	37.789	37.846	37.806	37.901	37.834	37.990	1.4346
26	3.55	39.615	39.648	39.627	39.684	39.645	39.738	39.672	39.828	1.4306
27	3.55	41.294	41.327	41.306	41.363	41.324	41.418	41.351	41.508	1.4221
28	3.55	43.125	43.158	43.137	43.194	43.155	43.248	43.182	43.338	1.4189
29	3.55	44.808	44.841	44.821	44.876	44.838	44.931	44.866	45.022	1.4117
30	3.55	46.633	46.666	46.646	46.702	46.663	46.756	46.691	46.847	1.4092
31	3.55	48.321	48.353	48.333	48.390	48.351	48.443	48.379	48.534	1.4031
32	3.55	50.141	50.173	50.154	50.210	50.171	50.264	50.200	50.355	1.4009
33	3.55	51.831	51.864	51.845	51.899	51.862	51.954	51.890	52.045	1.3957
34	3.55	53.647	53.680	53.660	53.716	53.678	53.770	53.707	53.862	1.3939
35	3.55	55.341	55.373	55.354	55.409	55.371	55.463	55.400	55.555	1.3893
36	3.55	57.153	57.185	57.167	57.221	57.185	57.277	57.212	57.367	1.3878
37	3.55	58.849	58.881	58.863	58.918	58.881	58.973	58.910	59.065	1.3837
38	3.75	60.105	60.137	60.119	60.175	60.137	60.230	60.166	60.322	1.3981
39	3.75	61.806	61.837	61.818	61.874	61.837	61.930	61.867	62.023	1.3940
40	3.75	63.611	63.642	63.624	63.680	63.644	63.736	63.673	63.830	1.3923
41	3.75	65.313	65.345	65.326	65.382	65.347	65.438	65.377	65.532	1.3886
42	3.75	67.117	67.147	67.130	67.185	67.149	67.241	67.180	67.336	1.3871
43	3.75	68.820	68.852	68.834	68.889	68.853	68.946	68.883	69.039	1.3839
44	3.75	70.622	70.652	70.636	70.690	70.654	70.747	70.684	70.841	1.3826
45	3.75	72.328	72.359	72.340	72.396	72.361	72.452	72.392	72.546	1.3796
46	3.75	74.125	74.157	74.140	74.195	74.159	74.251	74.191	74.345	1.3785
47	3.75	75.834	75.865	75.847	75.902	75.867	75.959	75.897	76.053	1.3758
48	3.75	77.631	77.662	77.644	77.698	77.664	77.756	77.696	77.850	1.3748
49	3.75	79.338	79.370	79.354	79.409	79.372	79.464	79.404	79.561	1.3723
50	3.75	81.133	81.164	81.147	81.204	81.168	81.260	81.199	81.354	1.3714
51	3.75	82.845	82.876	82.859	82.914	82.878	82.972	82.909	83.065	1.3692
52	3.75	84.636	84.668	84.650	84.707	84.672	84.763	84.704	84.859	1.3683
53	3.75	86.348	86.381	86.363	86.418	86.383	86.476	86.416	86.571	1.3663
54	3.75	88.139	88.170	88.155	88.208	88.175	88.267	88.208	88.362	1.3656
55	3.75	89.855	89.883	89.868	89.922	89.888	89.980	89.920	90.076	1.3637
56	3.75	91.643	91.675	91.659	91.712	91.678	91.771	91.712	91.867	1.3630
57	3.75	93.358	93.388	93.372	93.426	93.393	93.485	93.426	93.581	1.3612
58	3.75	95.146	95.176	95.160	95.215	95.182	95.273	95.215	95.370	1.3606
59	3.75	96.860	96.891	96.877	96.931	96.897	96.990	96.931	97.086	1.3590
60	3.75	98.648	98.679	98.665	98.716	98.685	98.777	98.716	98.873	1.3584
61	3.75	100.366	100.396	100.381	100.433	100.401	100.492	100.433	100.591	1.3569
62	3.75	102.150	102.182	102.168	102.221	102.188	102.278	102.221	102.376	1.3564
63	3.75	103.870	103.900	103.885	103.939	103.906	103.997	103.939	104.094	1.3550
64	3.75	105.653	105.682	105.669	105.722	105.692	105.781	105.722	105.880	1.3545
65	3.75	107.372	107.400	107.388	107.441	107.410	107.501	107.441	107.598	1.3532
66	3.75	109.156	109.185	109.172	109.226	109.194	109.283	109.226	109.382	1.3527
67	3.75	110.877	110.906	110.890	110.945	110.913	111.003	110.945	111.101	1.3515
68	3.75	112.659	112.687	112.673	112.728	112.695	112.788	112.728	112.883	1.3511
69	3.75	114.377	114.407	114.394	114.447	114.416	114.508	114.451	114.605	1.3500
70	3.75	116.161	116.188	116.175	116.229	116.198	116.290	116.232	116.389	1.3495
71	3.75	117.882	117.910	117.896	117.951	117.920	118.009	117.954	118.110	1.3485
72	3.75	119.660	119.692	119.678	119.730	119.699	119.790	119.734	119.891	1.3481
73	3.75	121.384	121.413	121.398	121.452	121.423	121.512	121.455	121.612	1.3471
74	3.75	123.164	123.192	123.178	123.232	123.203	123.293	123.236	123.391	1.3468
75	3.75	124.887	124.916	124.902	124.956	124.923	125.015	124.960	125.114	1.3458
76	3.75	126.664	126.694	126.683	126.734	126.705	126.794	126.738	126.894	1.3455
77	3.75	128.386	128.416	128.405	128.458	128.428	128.518	128.461	128.620	1.3445
78	3.75	130.164	130.195	130.183	130.237	130.206	130.298	130.241	130.397	1.3442
79	3.75	131.889	131.920	131.908	131.959	131.932	132.021	131.966	132.121	1.3434
80	3.75	133.668	133.696	133.684	133.739	133.708	133.798	133.743	133.900	1.3431
81	3.75	135.392	135.423	135.408	135.463	135.431	135.523	135.467	135.622	1.3423
82	3.75	137.168	137.200	137.184	137.240	137.208	137.301	137.244	137.402	1.3420
83	3.75	138.894	138.922	138.910	138.963	138.934	139.024	138.971	139.126	1.3413
84	3.75	140.671	140.700	140.687	140.741	140.712	140.803	140.745	140.902	1.3410
85	3.75	142.394	142.424	142.411	142.465	142.436	142.528	142.474	142.629	1.3403
86	3.75	144.173	144.202	144.190	144.241	144.211	144.304	144.249	144.406	1.3400
87	3.75	145.898	145.928	145.916	145.967	145.939	146.031	145.976	146.130	1.3394
88	3.75	147.674	147.704	147.691	147.743	147.713	147.804	147.752	147.908	1.3391
89	3.75	149.401	149.427	149.419	149.471	149.441	149.533	149.480	149.634	1.3385
90	3.75	151.173	151.204	151.190	151.244	151.217	151.306	151.253	151.408	1.3382
91	3.75	152.902	152.929	152.920	152.972	152.942	153.032	152.978	153.136	1.3376
92	3.75	154.674	154.706	154.692	154.747	154.715	154.806	154.756	154.911	1.3374
93	3.75	156.403	156.433	156.419	156.475	156.447	156.534	156.484	156.641	1.3368
94	3.75	158.179	158.207	158.193	158.248	158.221	158.309	158.258	158.412	1.3366
95	3.75	159.907	159.935	159.921	159.973	159.947	160.039	159.987	160.143	1.3360
96	3.75	161.676	161.705	161.695	161.748	161.719	161.809	161.757	161.914	1.3358
97	3.75	163.406	163.435	163.425	163.478	163.450	163.541	163.488	163.642	1.3353
98	3.75	165.181	165.208	165.195	165.249	165.220	165.312	165.259	165.415	1.3351
99	3.75	166.908	166.937	166.927	166.976	166.952	167.040	166.991	167.144	1.3346
100	3.75	168.678	168.708	168.698	168.752	168.723	168.812	168.762	168.917	1.3344

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Table 160 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 2.00

$E_{v\,min}$ = minimum effective circular space width = 3.142

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.55	6.171	6.255	6.196	6.325	6.229	6.418	6.280	6.557	2.3633
7	3.55	8.086	8.136	8.100	8.181	8.120	8.248	8.152	8.355	1.8614
8	3.75	9.749	9.804	9.764	9.854	9.787	9.928	9.823	10.046	2.0253
9	3.75	11.618	11.663	11.631	11.707	11.650	11.772	11.681	11.877	1.7932
10	3.75	13.918	13.960	13.930	14.002	13.948	14.063	13.977	14.164	1.7061
11	3.75	15.760	15.800	15.772	15.839	15.789	15.898	15.817	15.994	1.6220
12	3.75	17.991	18.031	18.003	18.070	18.021	18.127	18.048	18.223	1.5696
13	4.00	19.074	19.115	19.087	19.156	19.105	19.216	19.134	19.316	1.6467
14	4.00	21.278	21.317	21.290	21.357	21.308	21.417	21.336	21.516	1.6125
15	4.00	23.155	23.193	23.167	23.232	23.185	23.291	23.212	23.388	1.5685
16	4.00	25.327	25.364	25.339	25.403	25.356	25.461	25.384	25.557	1.5492
17	4.00	27.211	27.248	27.223	27.286	27.240	27.343	27.268	27.438	1.5200
18	4.00	29.360	29.397	29.373	29.435	29.390	29.492	29.418	29.587	1.5077
19	4.00	31.253	31.289	31.265	31.327	31.282	31.383	31.310	31.477	1.4867
20	4.00	33.385	33.421	33.398	33.459	33.415	33.516	33.442	33.610	1.4782
21	4.00	35.286	35.320	35.297	35.358	35.316	35.415	35.343	35.509	1.4623
22	4.00	37.405	37.440	37.417	37.477	37.435	37.534	37.463	37.628	1.4562
23	4.00	39.312	39.347	39.324	39.384	39.342	39.440	39.370	39.534	1.4438
24	4.00	41.420	41.454	41.432	41.492	41.451	41.550	41.479	41.642	1.4392
25	4.00	43.333	43.367	43.345	43.405	43.364	43.461	43.391	43.555	1.4292
26	4.00	45.433	45.467	45.446	45.505	45.464	45.561	45.492	45.656	1.4255
27	4.00	47.351	47.386	47.364	47.423	47.382	47.480	47.411	47.573	1.4173
28	4.00	49.443	49.477	49.456	49.514	49.474	49.572	49.503	49.666	1.4144
29	4.00	51.366	51.400	51.379	51.438	51.398	51.495	51.426	51.589	1.4074
30	4.00	53.452	53.485	53.465	53.523	53.484	53.581	53.513	53.675	1.4051
31	4.00	55.380	55.413	55.393	55.451	55.412	55.508	55.442	55.602	1.3992
32	4.25	56.763	56.798	56.775	56.836	56.796	56.893	56.825	56.990	1.4190
33	4.25	58.696	58.729	58.710	58.769	58.729	58.827	58.759	58.922	1.4130
34	4.25	60.773	60.805	60.787	60.845	60.805	60.903	60.834	61.000	1.4104
35	4.25	62.710	62.743	62.724	62.780	62.741	62.839	62.773	62.936	1.4052
36	4.25	64.780	64.814	64.794	64.853	64.814	64.912	64.844	65.008	1.4030
37	4.25	66.720	66.754	66.735	66.792	66.754	66.851	66.784	66.948	1.3984
38	4.25	68.787	68.821	68.801	68.860	68.821	68.919	68.852	69.015	1.3965
39	4.25	70.731	70.763	70.745	70.803	70.765	70.860	70.795	70.957	1.3925
40	4.25	72.794	72.828	72.809	72.867	72.828	72.925	72.859	73.024	1.3908
41	4.25	74.739	74.773	74.754	74.812	74.773	74.869	74.805	74.968	1.3872
42	4.25	76.799	76.832	76.815	76.872	76.834	76.931	76.865	77.029	1.3858
43	4.25	78.748	78.779	78.761	78.820	78.782	78.879	78.813	78.976	1.3826
44	4.25	80.806	80.839	80.820	80.878	80.841	80.936	80.871	81.034	1.3813
45	4.25	82.755	82.788	82.769	82.826	82.791	82.886	82.822	82.984	1.3784
46	4.25	84.811	84.842	84.825	84.881	84.845	84.943	84.879	85.041	1.3773
47	4.25	86.761	86.793	86.776	86.833	86.798	86.893	86.831	86.991	1.3747
48	4.25	88.815	88.846	88.831	88.887	88.851	88.946	88.884	89.046	1.3736
49	4.25	90.768	90.799	90.784	90.841	90.805	90.899	90.836	90.999	1.3712
50	4.25	92.818	92.850	92.834	92.891	92.856	92.950	92.888	93.049	1.3704
51	4.25	94.773	94.806	94.789	94.847	94.811	94.907	94.844	95.006	1.3681
52	4.25	96.824	96.854	96.838	96.894	96.860	96.955	96.894	97.054	1.3674
53	4.25	98.779	98.811	98.793	98.851	98.816	98.911	98.851	99.011	1.3653
54	4.25	100.827	100.857	100.842	100.897	100.862	100.959	100.897	101.059	1.3646
55	4.25	102.783	102.816	102.801	102.858	102.822	102.917	102.855	103.016	1.3628
56	4.25	104.828	104.862	104.846	104.901	104.868	104.962	104.901	105.063	1.3621
57	4.25	106.790	106.820	106.805	106.861	106.827	106.923	106.861	107.022	1.3604
58	4.25	108.831	108.862	108.847	108.904	108.869	108.967	108.904	109.065	1.3598
59	4.25	110.794	110.823	110.807	110.865	110.830	110.926	110.865	111.027	1.3582
60	4.25	112.835	112.868	112.851	112.907	112.874	112.969	112.907	113.072	1.3576
61	4.25	114.797	114.830	114.813	114.870	114.837	114.930	114.870	115.031	1.3561
62	4.25	116.839	116.870	116.853	116.911	116.877	116.972	116.911	117.074	1.3556
63	4.25	118.802	118.834	118.816	118.872	118.840	118.934	118.875	119.038	1.3542
64	4.25	120.840	120.872	120.858	120.914	120.879	120.974	120.914	121.077	1.3537
65	4.25	122.804	122.836	122.822	122.876	122.843	122.940	122.879	123.041	1.3525
66	4.25	124.844	124.873	124.858	124.916	124.884	124.978	124.916	125.081	1.3520
67	4.25	126.800	126.837	126.823	126.882	126.849	126.941	126.882	127.045	1.3508
68	4.25	128.846	128.876	128.861	128.917	128.883	128.981	128.921	129.083	1.3504
69	4.25	130.810	130.840	130.829	130.882	130.852	130.947	130.886	131.051	1.3492
70	4.25	132.845	132.876	132.865	132.919	132.888	132.981	132.923	133.086	1.3489
71	4.25	134.813	134.845	134.833	134.888	134.854	134.947	134.892	135.054	1.3478
72	4.25	136.850	136.878	136.866	136.922	136.890	136.982	136.926	137.087	1.3475
73	4.25	138.817	138.846	138.833	138.890	138.858	138.951	138.894	139.057	1.3465
74	4.25	140.852	140.881	140.868	140.922	140.893	140.988	140.930	141.091	1.3461
75	4.25	142.818	142.851	142.837	142.893	142.860	142.956	142.897	143.061	1.3452
76	4.25	144.854	144.883	144.871	144.926	144.894	144.990	144.930	145.092	1.3449
77	4.25	146.823	146.853	146.840	146.896	146.862	146.956	146.900	147.064	1.3440
78	4.25	148.856	148.886	148.873	148.926	148.895	148.991	148.934	149.096	1.3437
79	4.25	150.823	150.854	150.841	150.899	150.868	150.961	150.903	151.067	1.3428
80	4.25	152.858	152.885	152.876	152.929	152.898	152.992	152.934	153.100	1.3425
81	4.25	154.828	154.855	154.846	154.901	154.869	154.964	154.905	155.069	1.3418
82	4.25	156.859	156.886	156.877	156.933	156.900	156.992	156.937	157.099	1.3415
83	4.25	158.829	158.860	158.846	158.902	158.874	158.967	158.911	159.074	1.3407
84	4.25	160.859	160.887	160.878	160.930	160.902	160.996	160.939	161.105	1.3405
85	4.25	162.830	162.863	162.849	162.906	162.873	162.968	162.911	163.074	1.3398
86	4.25	164.863	164.892	164.877	164.935	164.904	164.998	164.940	165.105	1.3395
87	4.25	166.836	166.865	166.850	166.907	166.875	166.973	166.914	167.076	1.3389
88	4.25	168.860	168.892	168.880	168.934	168.905	168.999	168.944	169.108	1.3386
89	4.25	170.835	170.865	170.855	170.910	170.880	170.973	170.920	171.081	1.3380
90	4.25	172.865	172.893	172.880	172.936	172.906	173.003	172.947	173.110	1.3377
91	4.25	174.837	174.868	174.858	174.909	174.884	174.976	174.920	175.084	1.3371
92	4.25	176.863	176.895	176.884	176.936	176.910	177.004	176.947	177.111	1.3369
93	4.25	178.837	178.869	178.859	178.911	178.885	178.980	178.922	179.085	1.3364
94	4.25	180.864	180.896	180.886	180.939	180.912	181.003	180.950	181.115	1.3361
95	4.25	182.840	182.873	182.862	182.916	182.883	182.980	182.927	183.088	1.3356
96	4.25	184.868	184.895	184.885	184.939	184.912	185.004	184.950	185.113	1.3354
97	4.25	186.841	186.874	186.863	186.918	186.890	186.984	186.929	187.089	1.3349
98	4.25	188.869	188.897	188.886	188.942	188.914	189.008	188.953	189.114	1.3347
99	4.25	190.843	190.871	190.866	190.916	190.888	190.984	190.928	191.091	1.3342
100	4.25	192.867	192.901	192.890	192.941	192.913	193.009	192.958	193.118	1.3340

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Table 161 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 2.50

$E_{v\,min}$ = minimum effective circular space width = 3.927

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	4.50	*******	*******	*******	7.502	*******	7.666	*******	7.863	2.9281
7	4.50	9.866	9.924	9.883	9.978	9.906	10.056	9.942	10.180	1.9980
8	4.50	12.868	12.918	12.882	12.965	12.903	13.034	12.935	13.147	1.8125
9	4.75	14.298	14.350	14.313	14.400	14.335	14.472	14.369	14.591	1.8739
10	4.75	17.186	17.233	17.199	17.279	17.220	17.347	17.251	17.459	1.7632
11	4.75	19.498	19.542	19.511	19.586	19.531	19.650	19.560	19.757	1.6610
12	4.75	22.291	22.335	22.305	22.378	22.323	22.441	22.353	22.546	1.6204
13	4.75	24.610	24.652	24.623	24.693	24.641	24.755	24.671	24.851	1.5670
14	4.75	27.354	27.394	27.366	27.435	27.384	27.496	27.413	27.598	1.5465
15	4.75	29.685	29.725	29.698	29.766	29.716	29.826	29.745	29.926	1.5130
16	5.00	31.653	31.695	31.666	31.736	31.686	31.799	31.716	31.902	1.5544
17	5.00	34.009	34.049	34.022	34.090	34.041	34.153	34.070	34.255	1.5245
18	5.00	36.696	36.735	36.709	36.777	36.727	36.839	36.757	36.941	1.5117
19	5.00	39.061	39.101	39.074	39.141	39.093	39.202	39.123	39.304	1.4903
20	5.00	41.727	41.765	41.740	41.806	41.760	41.867	41.787	41.969	1.4816
21	5.00	44.102	44.141	44.115	44.181	44.135	44.242	44.165	44.343	1.4654
22	5.00	46.751	46.790	46.764	46.830	46.784	46.891	46.814	46.992	1.4591
23	5.00	49.134	49.172	49.148	49.213	49.167	49.274	49.196	49.375	1.4464
24	5.00	51.770	51.808	51.785	51.848	51.803	51.909	51.834	52.010	1.4417
25	5.00	54.162	54.198	54.176	54.239	54.195	54.300	54.226	54.402	1.4314
26	5.00	56.786	56.823	56.799	56.863	56.820	56.924	56.850	57.026	1.4277
27	5.00	59.184	59.220	59.199	59.262	59.217	59.322	59.249	59.424	1.4193
28	5.00	61.799	61.835	61.813	61.877	61.834	61.939	61.865	62.039	1.4163
29	5.00	64.204	64.239	64.217	64.281	64.237	64.341	64.268	64.444	1.4093
30	5.00	66.811	66.847	66.824	66.887	66.845	66.950	66.875	67.051	1.4068
31	5.00	69.219	69.257	69.235	69.296	69.255	69.358	69.286	69.461	1.4009
32	5.00	71.820	71.857	71.834	71.898	71.855	71.958	71.888	72.061	1.3988
33	5.00	74.234	74.270	74.249	74.311	74.270	74.373	74.302	74.478	1.3937
34	5.00	76.829	76.864	76.842	76.906	76.864	76.968	76.897	77.070	1.3920
35	5.00	79.248	79.282	79.262	79.323	79.282	79.387	79.316	79.488	1.3875
36	5.00	81.836	81.872	81.850	81.914	81.872	81.975	81.904	82.077	1.3860
37	5.30	83.431	83.464	83.445	83.507	83.467	83.571	83.500	83.676	1.3991
38	5.30	86.014	86.050	86.028	86.092	86.050	86.156	86.085	86.259	1.3972
39	5.30	88.441	88.479	88.459	88.519	88.479	88.582	88.514	88.689	1.3931
40	5.30	91.024	91.057	91.037	91.099	91.060	91.164	91.094	91.268	1.3915
41	5.30	93.452	93.490	93.468	93.532	93.492	93.594	93.524	93.701	1.3878
42	5.30	96.031	96.064	96.045	96.108	96.067	96.171	96.102	96.276	1.3864
43	5.30	98.464	98.498	98.478	98.540	98.501	98.605	98.535	98.710	1.3832
44	5.30	101.035	101.073	101.052	101.113	101.075	101.177	101.110	101.285	1.3819
45	5.30	103.474	103.507	103.489	103.551	103.513	103.614	103.545	103.721	1.3790
46	5.30	106.041	106.078	106.059	106.120	106.081	106.185	106.114	106.292	1.3778
47	5.30	108.482	108.516	108.498	108.560	108.520	108.623	108.554	108.729	1.3752
48	5.30	111.048	111.083	111.064	111.124	111.086	111.188	111.121	111.298	1.3741
49	5.30	113.489	113.525	113.505	113.567	113.528	113.630	113.594	113.738	1.3718
50	5.30	116.052	116.086	116.069	116.129	116.092	116.196	116.129	116.304	1.3708
51	5.30	118.496	118.530	118.513	118.574	118.537	118.639	118.571	118.746	1.3687
52	5.30	121.056	121.091	121.074	121.133	121.098	121.200	121.133	121.309	1.3678
53	5.30	123.504	123.536	123.519	123.579	123.544	123.644	123.579	123.755	1.3658
54	5.30	126.061	126.094	126.080	126.138	126.102	126.204	126.138	126.314	1.3650
55	5.30	128.510	128.544	128.525	128.584	128.551	128.652	128.584	128.760	1.3632
56	5.30	131.067	131.101	131.082	131.143	131.105	131.207	131.143	131.318	1.3625
57	5.30	133.515	133.550	133.530	133.592	133.557	133.658	133.592	133.767	1.3608
58	5.30	136.071	136.102	136.087	136.146	136.110	136.213	136.146	136.320	1.3602
59	5.30	138.522	138.554	138.538	138.598	138.562	138.662	138.598	138.772	1.3586
60	5.30	141.072	141.105	141.089	141.150	141.113	141.216	141.150	141.327	1.3580
61	5.30	143.525	143.558	143.542	143.600	143.567	143.667	143.604	143.780	1.3565
62	5.30	146.074	146.108	146.091	146.155	146.117	146.219	146.155	146.330	1.3560
63	5.30	148.529	148.563	148.546	148.606	148.572	148.671	148.611	148.784	1.3546
64	5.30	151.080	151.111	151.098	151.155	151.120	151.221	151.160	151.334	1.3541
65	5.30	153.535	153.567	153.553	153.612	153.576	153.679	153.616	153.791	1.3528
66	5.30	156.081	156.113	156.099	156.158	156.126	156.226	156.163	156.336	1.3524
67	5.30	158.536	158.569	158.555	158.615	158.582	158.684	158.619	158.796	1.3512
68	5.30	161.084	161.116	161.102	161.163	161.126	161.229	161.168	161.343	1.3507
69	5.30	163.544	163.572	163.558	163.620	163.587	163.687	163.625	163.797	1.3497
70	5.30	166.089	166.118	166.103	166.166	166.132	166.234	166.171	166.346	1.3492
71	5.30	168.544	168.578	168.563	168.622	168.588	168.691	168.627	168.805	1.3482
72	5.30	171.090	171.120	171.110	171.165	171.135	171.235	171.175	171.346	1.3478
73	5.30	173.549	173.580	173.570	173.625	173.595	173.697	173.636	173.809	1.3468
74	5.30	176.093	176.124	176.108	176.170	176.139	176.237	176.175	176.351	1.3465
75	5.30	178.551	178.587	178.571	178.629	178.598	178.697	178.639	178.812	1.3455
76	5.30	181.096	181.127	181.112	181.170	181.138	181.239	181.180	181.356	1.3452
77	5.30	183.557	183.589	183.573	183.632	183.600	183.702	183.643	183.816	1.3443
78	5.30	186.093	186.126	186.115	186.175	186.142	186.241	186.181	186.355	1.3440
79	5.30	188.558	188.592	188.578	188.636	188.603	188.708	188.647	188.819	1.3432
80	5.30	191.096	191.129	191.118	191.174	191.148	191.247	191.185	191.360	1.3429
81	5.30	193.559	193.593	193.581	193.638	193.610	193.706	193.650	193.826	1.3421
82	5.30	196.098	196.132	196.121	196.178	196.146	196.247	196.190	196.363	1.3418
83	5.30	198.564	198.599	198.584	198.642	198.610	198.709	198.651	198.826	1.3411
84	5.30	201.104	201.134	201.122	201.181	201.151	201.252	201.193	201.364	1.3408
85	5.30	203.567	203.597	203.585	203.645	203.615	203.717	203.657	203.831	1.3401
86	5.30	206.103	206.133	206.121	206.182	206.151	206.251	206.194	206.370	1.3398
87	5.30	208.569	208.600	208.587	208.649	208.618	208.716	208.661	208.833	1.3392
88	5.30	211.106	211.137	211.125	211.180	211.156	211.255	211.193	211.367	1.3390
89	5.30	213.572	213.606	213.594	213.650	213.619	213.719	213.663	213.839	1.3382
90	5.30	216.107	216.139	216.126	216.183	216.158	216.253	216.196	216.374	1.3380
91	5.30	218.572	218.604	218.591	218.656	218.623	218.720	218.668	218.842	1.3374
92	5.30	221.111	221.137	221.131	221.189	221.157	221.254	221.202	221.375	1.3373
93	5.30	223.579	223.605	223.599	223.655	223.625	223.724	223.671	223.845	1.3366
94	5.30	226.110	226.140	226.133	226.186	226.160	226.259	226.199	226.379	1.3364
95	5.30	228.576	228.610	228.597	228.657	228.630	228.728	228.671	228.846	1.3359
96	5.30	231.111	231.145	231.132	231.190	231.159	231.261	231.207	231.377	1.3357
97	5.30	233.584	233.611	233.601	233.660	233.632	233.728	233.673	233.846	1.3352
98	5.30	236.113	236.141	236.134	236.189	236.162	236.263	236.207	236.381	1.3350
99	5.30	238.581	238.616	238.602	238.658	238.630	238.735	238.679	238.848	1.3345
100	5.30	241.114	241.146	241.132	241.196	241.168	241.267	241.210	241.381	1.3343

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Table 162 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 3.00

$E_{v\,min}$ = minimum effective circular space width = 4.712

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	5.30	9.378	9.467	9.404	9.543	9.439	9.649	9.491	9.811	2.4262
7	5.30	12.210	12.266	12.226	12.317	12.248	12.394	12.283	12.517	1.8817
8	5.60	14.709	14.771	14.727	14.829	14.752	14.913	14.792	15.050	2.0498
9	5.60	17.502	17.554	17.518	17.604	17.539	17.678	17.573	17.799	1.8056
10	5.60	20.948	20.997	20.963	21.045	20.983	21.115	21.016	21.231	1.7186
11	5.60	23.708	23.754	23.723	23.800	23.742	23.866	23.773	23.977	1.6291
12	5.60	27.099	27.068	27.144	27.088	27.210	27.119	27.320	1.5954	
13	5.60	29.830	29.873	29.843	29.917	29.862	29.981	29.892	30.088	1.5468
14	6.00	31.908	31.953	31.922	31.998	31.942	32.067	31.975	32.181	1.6249
15	6.00	34.723	34.766	34.738	34.811	34.757	34.879	34.790	34.991	1.5789
16	6.00	37.980	38.024	37.994	38.068	38.015	38.135	38.047	38.246	1.5581
17	6.00	40.806	40.850	40.822	40.893	40.841	40.959	40.874	41.069	1.5277
18	6.00	44.030	44.073	44.045	44.117	44.066	44.182	44.097	44.292	1.5147
19	6.00	46.870	46.911	46.884	46.954	46.904	47.021	46.936	47.129	1.4929
20	6.00	50.068	50.109	50.083	50.153	50.103	50.219	50.135	50.327	1.4839
21	6.00	52.918	52.959	52.933	53.003	52.953	53.067	52.985	53.174	1.4677
22	6.00	56.098	56.138	56.112	56.182	56.132	56.246	56.165	56.354	1.4611
23	6.00	58.958	58.997	58.972	59.041	58.994	59.105	59.025	59.213	1.4483
24	6.00	62.121	62.160	62.135	62.204	62.157	62.268	62.188	62.377	1.4434
25	6.00	64.991	65.029	65.005	65.073	65.025	65.137	65.158	65.245	1.4331
26	6.00	68.140	68.178	68.155	68.222	68.174	68.288	68.209	68.396	1.4292
27	6.00	71.016	71.056	71.032	71.098	71.052	71.165	71.086	71.272	1.4208
28	6.00	74.154	74.194	74.171	74.238	74.192	74.303	74.225	74.411	1.4177
29	6.00	77.041	77.078	77.056	77.121	77.078	77.187	77.111	77.295	1.4107
30	6.00	80.169	80.207	80.184	80.251	80.205	80.315	80.239	80.425	1.4081
31	6.00	83.061	83.099	83.075	83.141	83.096	83.208	83.132	83.315	1.4021
32	6.00	86.179	86.218	86.196	86.263	86.218	86.327	86.253	86.436	1.4000
33	6.00	89.076	89.114	89.094	89.158	89.114	89.224	89.150	89.334	1.3948
34	6.00	92.189	92.226	92.205	92.271	92.229	92.337	92.263	92.446	1.3931
35	6.00	95.092	95.130	95.109	95.174	95.130	95.240	95.166	95.350	1.3885
36	6.00	98.198	98.237	98.215	98.280	98.237	98.348	98.274	98.456	1.3871
37	6.00	101.106	101.144	101.123	101.187	101.147	101.254	101.182	101.366	1.3830
38	6.00	104.208	104.244	104.223	104.289	104.247	104.355	104.283	104.467	1.3817
39	6.00	107.118	107.155	107.136	107.201	107.158	107.266	107.195	107.378	1.3782
40	6.00	110.214	110.252	110.230	110.297	110.252	110.360	110.290	110.472	1.3771
41	6.00	113.130	113.166	113.146	113.211	113.169	113.277	113.205	113.389	1.3740
42	6.30	115.396	115.432	115.412	115.479	115.439	115.545	115.475	115.658	1.3849
43	6.30	118.319	118.353	118.336	118.400	118.359	118.468	118.397	118.581	1.3816
44	6.30	121.403	121.441	121.420	121.486	121.444	121.553	121.483	121.668	1.3804
45	6.30	124.329	124.364	124.347	124.411	124.368	124.479	124.407	124.590	1.3776
46	6.30	127.412	127.448	127.426	127.492	127.452	127.562	127.489	127.676	1.3764
47	6.30	130.336	130.373	130.355	130.418	130.381	130.486	130.418	130.603	1.3738
48	6.30	133.417	133.452	133.436	133.498	133.459	133.567	133.498	133.683	1.3729
49	6.30	136.345	136.384	136.364	136.427	136.388	136.498	136.427	136.613	1.3705
50	6.30	139.423	139.459	139.439	139.504	139.463	139.572	139.504	139.690	1.3696
51	6.30	142.353	142.390	142.374	142.436	142.398	142.506	142.436	142.621	1.3675
52	6.30	145.428	145.462	145.445	145.508	145.470	145.580	145.508	145.694	1.3667
53	6.30	148.364	148.398	148.381	148.445	148.407	148.514	148.445	148.631	1.3647
54	6.30	151.434	151.469	151.452	151.513	151.478	151.584	151.518	151.698	1.3640
55	6.30	154.370	154.406	154.388	154.451	154.415	154.523	154.451	154.635	1.3622
56	6.30	157.436	157.472	157.454	157.518	157.481	157.587	157.523	157.706	1.3615
57	6.30	160.375	160.413	160.394	160.459	160.422	160.529	160.459	160.646	1.3598
58	6.30	163.440	163.478	163.459	163.525	163.487	163.592	163.525	163.711	1.3592
59	6.30	166.382	166.416	166.402	166.465	166.426	166.532	166.469	166.649	1.3577
60	6.30	169.445	169.480	169.465	169.529	169.490	169.598	169.529	169.717	1.3570
61	6.30	172.385	172.420	172.405	172.471	172.435	172.541	172.476	172.657	1.3556
62	6.30	175.451	175.482	175.467	175.533	175.492	175.600	175.538	175.718	1.3551
63	6.30	178.393	178.429	178.414	178.476	178.440	178.544	178.481	178.664	1.3538
64	6.30	181.451	181.488	181.473	181.536	181.499	181.605	181.541	181.722	1.3533
65	6.30	184.399	184.431	184.415	184.480	184.442	184.550	184.485	184.669	1.3520
66	6.30	187.455	187.488	187.477	187.537	187.504	187.608	187.543	187.729	1.3515
67	6.30	190.403	190.437	190.420	190.487	190.448	190.559	190.492	190.676	1.3504
68	6.30	193.456	193.496	193.479	193.541	193.507	193.614	193.547	193.734	1.3499
69	6.30	196.410	196.444	196.427	196.490	196.456	196.559	196.496	196.680	1.3489
70	6.30	199.459	199.494	199.483	199.541	199.512	199.617	199.553	199.734	1.3485
71	6.30	202.413	202.448	202.430	202.496	202.460	202.567	202.501	202.685	1.3474
72	6.30	205.464	205.500	205.482	205.548	205.512	205.621	205.554	205.741	1.3471
73	6.30	208.417	208.447	208.435	208.496	208.465	208.569	208.508	208.691	1.3461
74	6.30	211.467	211.501	211.489	211.551	211.513	211.622	211.557	211.743	1.3458
75	6.30	214.421	214.452	214.440	214.503	214.471	214.575	214.515	214.698	1.3448
76	6.30	217.470	217.502	217.489	217.553	217.521	217.623	217.559	217.745	1.3445
77	6.30	220.425	220.458	220.445	220.503	220.471	220.581	220.516	220.700	1.3436
78	6.30	223.470	223.503	223.490	223.555	223.522	223.627	223.568	223.752	1.3433
79	6.30	226.430	226.463	226.449	226.509	226.476	226.582	226.562	226.705	1.3425
80	6.30	229.476	229.509	229.496	229.557	229.523	229.631	229.570	229.752	1.3422
81	6.30	232.433	232.467	232.453	232.514	232.480	232.590	232.528	232.706	1.3415
82	6.30	235.474	235.508	235.494	235.557	235.529	235.633	235.571	235.758	1.3412
83	6.30	238.434	238.469	238.455	238.518	238.483	238.588	238.532	238.715	1.3404
84	6.30	241.477	241.512	241.498	241.562	241.526	241.633	241.576	241.761	1.3402
85	6.30	244.434	244.470	244.456	244.520	244.488	244.592	244.535	244.714	1.3395
86	6.30	247.478	247.514	247.500	247.565	247.529	247.638	247.580	247.762	1.3392
87	6.30	250.438	250.475	250.461	250.519	250.490	250.597	250.534	250.719	1.3386
88	6.30	253.484	253.514	253.506	253.566	253.536	253.641	253.581	253.764	1.3384
89	6.30	256.440	256.478	256.463	256.523	256.493	256.599	256.538	256.727	1.3377
90	6.30	259.487	259.518	259.502	259.564	259.533	259.640	259.586	259.770	1.3375
91	6.30	262.447	262.478	262.470	262.528	262.501	262.601	262.547	262.725	1.3369
92	6.30	265.487	265.518	265.511	265.565	265.542	265.644	265.589	265.769	1.3367
93	6.30	268.450	268.481	268.473	268.529	268.497	268.608	268.544	268.734	1.3361
94	6.30	271.487	271.523	271.507	271.571	271.539	271.643	271.587	271.771	1.3359
95	6.30	274.449	274.481	274.473	274.529	274.505	274.610	274.554	274.732	1.3354
96	6.30	277.492	277.524	277.508	277.573	277.541	277.647	277.590	277.778	1.3351
97	6.30	280.451	280.484	280.476	280.534	280.509	280.608	280.551	280.741	1.3346
98	6.30	283.487	283.521	283.512	283.571	283.546	283.646	283.596	283.780	1.3344
99	6.30	286.458	286.483	286.475	286.534	286.509	286.610	286.559	286.737	1.3340
100	6.30	289.495	289.521	289.512	289.572	289.546	289.649	289.598	289.777	1.3338

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Table 163 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
30 degree pressure angle — Fillet root — Module = 4.00

$E_{v\,min}$ = minimum effective circular space width = 6.283

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	7.10	12.301	12.416	12.335	12.513	12.380	12.644	12.448	12.842	2.6684
7	7.10	16.152	16.214	16.169	16.273	16.194	16.360	16.234	16.500	1.9464
8	7.10	20.918	20.973	20.934	21.028	20.957	21.107	20.993	21.237	1.7859
9	7.50	23.215	23.272	23.232	23.328	23.256	23.412	23.294	23.548	1.8450
10	7.50	27.815	27.869	27.831	27.922	27.854	28.001	27.891	28.130	1.7448
11	7.50	31.500	31.551	31.516	31.602	31.538	31.676	31.573	31.800	1.6481
12	7.50	35.964	36.014	35.980	36.063	36.001	36.137	36.037	36.258	1.6105
13	7.50	39.666	39.715	39.681	39.762	39.704	39.834	39.738	39.954	1.5590
14	7.50	44.051	44.099	44.067	44.146	44.089	44.218	44.123	44.337	1.5399
15	7.50	47.780	47.824	47.794	47.871	47.816	47.942	47.850	48.059	1.5074
16	8.00	50.633	50.681	50.649	50.730	50.672	50.805	50.709	50.927	1.5633
17	8.00	54.403	54.449	54.419	54.498	54.442	54.571	54.478	54.691	1.5323
18	8.00	58.701	58.747	58.717	58.796	58.740	58.869	58.777	58.990	1.5186
19	8.00	62.487	62.531	62.502	62.580	62.524	62.652	62.561	62.771	1.4966
20	8.00	66.752	66.795	66.768	66.845	66.790	66.916	66.826	67.036	1.4873
21	8.00	70.552	70.594	70.567	70.643	70.590	70.715	70.625	70.834	1.4706
22	8.00	74.789	74.834	74.806	74.882	74.830	74.955	74.865	75.074	1.4638
23	8.00	78.604	78.647	78.619	78.695	78.643	78.768	78.680	78.887	1.4509
24	8.00	82.821	82.862	82.837	82.911	82.860	82.983	82.897	83.104	1.4458
25	8.00	86.647	86.688	86.664	86.737	86.686	86.810	86.722	86.927	1.4354
26	8.00	90.845	90.889	90.863	90.935	90.886	91.007	90.922	91.127	1.4314
27	8.00	94.683	94.726	94.699	94.774	94.723	94.843	94.760	94.964	1.4228
28	8.00	98.867	98.909	98.883	98.956	98.909	99.029	98.945	99.147	1.4197
29	8.00	102.712	102.756	102.730	102.802	102.756	102.875	102.794	102.996	1.4124
30	8.00	106.885	106.925	106.900	106.973	106.925	107.046	106.964	107.166	1.4099
31	8.00	110.738	110.782	110.757	110.830	110.782	110.902	110.820	111.023	1.4037
32	8.00	114.899	114.941	114.915	114.987	114.941	115.063	114.981	115.182	1.4016
33	8.00	118.762	118.802	118.782	118.853	118.806	118.925	118.843	119.044	1.3964
34	8.00	122.912	122.954	122.930	123.004	122.954	123.074	122.997	123.198	1.3945
35	8.00	126.783	126.822	126.801	126.873	126.826	126.946	126.866	127.067	1.3899
36	8.00	130.923	130.964	130.942	131.013	130.968	131.089	131.010	131.210	1.3884
37	8.00	134.800	134.843	134.820	134.889	134.847	134.963	134.885	135.084	1.3844
38	8.00	138.935	138.975	138.951	139.023	138.979	139.100	139.019	139.220	1.3830
39	8.00	142.815	142.857	142.836	142.906	142.861	142.980	142.902	143.104	1.3794
40	8.00	146.943	146.986	146.964	147.032	146.990	147.109	147.028	147.232	1.3783
41	8.00	150.831	150.870	150.853	150.922	150.879	150.997	150.918	151.119	1.3751
42	8.00	154.954	154.994	154.972	155.043	154.999	155.115	155.039	155.241	1.3741
43	8.00	158.846	158.883	158.865	158.934	158.892	159.007	158.934	159.132	1.3713
44	8.00	162.958	163.001	162.977	163.048	163.005	163.124	163.048	163.247	1.3704
45	8.00	166.858	166.896	166.877	166.945	166.906	167.022	166.945	167.144	1.3678
46	8.00	170.966	171.006	170.986	171.056	171.016	171.130	171.056	171.255	1.3670
47	8.00	174.866	174.907	174.887	174.958	174.917	175.034	174.958	175.157	1.3647
48	8.00	178.976	179.012	178.991	179.064	179.022	179.137	179.064	179.262	1.3639
49	8.00	182.879	182.916	182.900	182.970	182.927	183.044	182.970	183.167	1.3618
50	8.00	186.978	187.016	187.000	187.071	187.027	187.147	187.071	187.273	1.3611
51	8.50	189.524	189.562	189.546	189.617	189.573	189.693	189.617	189.820	1.3708
52	8.50	193.625	193.659	193.642	193.715	193.670	193.787	193.715	193.916	1.3699
53	8.50	197.536	197.575	197.556	197.627	197.587	197.701	197.627	197.833	1.3678
54	8.50	201.632	201.667	201.649	201.719	201.678	201.795	201.725	201.924	1.3671
55	8.50	205.543	205.584	205.566	205.638	205.596	205.709	205.638	205.840	1.3652
56	8.50	209.638	209.675	209.656	209.723	209.687	209.802	209.729	209.930	1.3644
57	8.50	213.554	213.591	213.573	213.641	213.604	213.721	213.653	213.852	1.3627
58	8.50	217.643	217.681	217.662	217.731	217.693	217.807	217.738	217.940	1.3620
59	8.50	221.563	221.602	221.582	221.653	221.615	221.730	221.660	221.859	1.3604
60	8.50	225.644	225.683	225.670	225.735	225.696	225.814	225.742	225.945	1.3598
61	8.50	229.574	229.607	229.594	229.660	229.620	229.740	229.667	229.867	1.3583
62	8.50	233.652	233.692	233.672	233.740	233.706	233.821	233.753	233.951	1.3577
63	8.50	237.577	237.612	237.598	237.667	237.633	237.743	237.674	237.875	1.3563
64	8.50	241.659	241.694	241.680	241.744	241.709	241.828	241.758	241.955	1.3558
65	8.50	245.587	245.622	245.608	245.673	245.637	245.751	245.687	245.888	1.3544
66	8.50	249.658	249.695	249.680	249.753	249.716	249.833	249.760	249.964	1.3540
67	8.50	253.594	253.631	253.616	253.682	253.645	253.764	253.690	253.890	1.3528
68	8.50	257.669	257.699	257.691	257.759	257.721	257.834	257.766	257.970	1.3523
69	8.50	261.597	261.635	261.620	261.688	261.650	261.765	261.704	261.902	1.3511
70	8.50	265.667	265.706	265.691	265.760	265.722	265.838	265.776	265.970	1.3507
71	8.50	269.602	269.642	269.626	269.697	269.658	269.776	269.705	269.910	1.3496
72	8.50	273.676	273.708	273.692	273.764	273.724	273.844	273.780	273.980	1.3492
73	8.50	277.610	277.643	277.634	277.699	277.667	277.781	277.716	277.911	1.3483
74	8.50	281.679	281.712	281.704	281.769	281.728	281.844	281.782	281.984	1.3478
75	8.50	285.611	285.653	285.636	285.703	285.669	285.786	285.719	285.920	1.3469
76	8.50	289.682	289.716	289.699	289.767	289.733	289.852	289.784	289.988	1.3465
77	8.50	293.620	293.654	293.646	293.706	293.672	293.792	293.723	293.925	1.3457
78	8.50	297.686	297.721	297.703	297.773	297.738	297.851	297.790	297.991	1.3453
79	8.50	301.620	301.656	301.647	301.718	301.682	301.797	301.735	301.930	1.3445
80	8.50	305.689	305.724	305.707	305.778	305.742	305.859	305.796	305.993	1.3442
81	8.50	309.629	309.665	309.656	309.719	309.683	309.801	309.738	309.938	1.3433
82	8.50	313.690	313.727	313.713	313.782	313.745	313.865	313.801	313.999	1.3431
83	8.50	317.635	317.668	317.654	317.719	317.691	317.803	317.738	317.943	1.3423
84	8.50	321.690	321.728	321.718	321.784	321.746	321.869	321.803	322.002	1.3420
85	8.50	325.640	325.669	325.659	325.726	325.697	325.812	325.745	325.946	1.3413
86	8.50	329.696	329.730	329.716	329.783	329.754	329.871	329.803	330.006	1.3410
87	8.50	333.642	333.676	333.661	333.730	333.700	333.818	333.749	333.955	1.3403
88	8.50	337.700	337.730	337.720	337.789	337.760	337.869	337.809	338.008	1.3401
89	8.50	341.640	341.680	341.670	341.735	341.700	341.820	341.760	341.961	1.3394
90	8.50	345.700	345.731	345.720	345.791	345.761	345.873	345.812	346.015	1.3392
91	8.50	349.644	349.685	349.675	349.736	349.705	349.819	349.757	349.963	1.3385
92	8.50	353.706	353.737	353.727	353.789	353.758	353.873	353.821	354.018	1.3383
93	8.50	357.654	357.686	357.675	357.738	357.717	357.822	357.770	357.970	1.3377
94	8.50	361.708	361.740	361.729	361.793	361.761	361.878	361.825	362.016	1.3375
95	8.50	365.659	365.692	365.681	365.745	365.713	365.831	365.767	365.972	1.3369
96	8.50	369.704	369.742	369.737	369.802	369.769	369.878	369.824	370.020	1.3368
97	8.50	373.659	373.692	373.681	373.747	373.720	373.835	373.775	373.978	1.3362
98	8.50	377.705	377.739	377.739	377.805	377.772	377.883	377.828	378.028	1.3360
99	8.50	381.664	381.698	381.687	381.754	381.721	381.833	381.777	381.979	1.3355
100	8.50	385.712	385.746	385.734	385.803	385.769	385.882	385.825	386.030	1.3353

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Table 164 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 5.00

$E_{v\,min}$ = minimum effective circular space width = 7.854

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	8.50	17.044	17.113	17.064	17.178	17.091	17.273	17.135	17.427	2.0004
7	9.00	19.709	19.782	19.729	19.851	19.760	19.953	19.807	20.117	2.1005
8	9.00	25.716	25.778	25.733	25.838	25.760	25.927	25.801	26.074	1.8629
9	9.00	30.258	30.315	30.275	30.369	30.300	30.452	30.338	30.586	1.7001
10	9.00	35.962	36.016	35.978	36.070	36.003	36.149	36.041	36.282	1.6450
11	9.50	38.976	39.030	38.993	39.087	39.018	39.169	39.057	39.305	1.6863
12	9.50	44.565	44.617	44.581	44.672	44.606	44.753	44.645	44.886	1.6403
13	9.50	49.201	49.253	49.218	49.306	49.241	49.384	49.280	49.516	1.5829
14	9.50	54.687	54.736	54.704	54.789	54.727	54.868	54.765	54.998	1.5600
15	9.50	59.351	59.401	59.367	59.452	59.393	59.530	59.430	59.658	1.5245
16	9.50	64.767	64.816	64.784	64.867	64.809	64.944	64.846	65.073	1.5111
17	9.50	69.460	69.508	69.476	69.560	69.502	69.635	69.539	69.763	1.4867
18	9.50	74.824	74.874	74.842	74.923	74.865	74.999	74.905	75.126	1.4780
19	9.50	79.543	79.589	79.560	79.640	79.585	79.716	79.623	79.842	1.4602
20	10.00	83.433	83.480	83.451	83.533	83.476	83.611	83.515	83.742	1.4894
21	10.00	88.185	88.231	88.202	88.282	88.228	88.359	88.267	88.489	1.4726
22	10.00	93.481	93.528	93.499	93.579	93.525	93.657	93.564	93.787	1.4657
23	10.00	98.249	98.295	98.268	98.347	98.293	98.424	98.333	98.553	1.4526
24	10.00	103.520	103.566	103.537	103.618	103.563	103.696	103.604	103.824	1.4474
25	10.00	108.303	108.348	108.321	108.400	108.348	108.476	108.388	108.607	1.4368
26	10.00	113.550	113.598	113.570	113.649	113.595	113.726	113.637	113.854	1.4328
27	10.00	118.347	118.394	118.367	118.444	118.394	118.521	118.434	118.652	1.4241
28	10.00	123.576	123.622	123.597	123.674	123.622	123.751	123.664	123.881	1.4209
29	10.00	128.367	128.430	128.405	128.481	128.430	128.561	128.474	128.689	1.4137
30	10.00	133.599	133.645	133.618	133.698	133.645	133.774	133.686	133.903	1.4110
31	10.00	138.419	138.462	138.438	138.513	138.466	138.592	138.509	138.723	1.4049
32	10.00	143.619	143.660	143.636	143.714	143.665	143.792	143.710	143.923	1.4027
33	10.00	148.448	148.490	148.469	148.545	148.494	148.622	148.537	148.754	1.3973
34	10.00	153.636	153.680	153.653	153.732	153.684	153.812	153.728	153.940	1.3955
35	10.00	158.474	158.514	158.492	158.569	158.519	158.646	158.564	158.779	1.3909
36	10.00	163.649	163.691	163.668	163.743	163.696	163.823	163.743	163.955	1.3893
37	10.00	168.495	168.539	168.515	168.592	168.544	168.670	168.587	168.801	1.3853
38	10.00	173.664	173.704	173.684	173.759	173.709	173.839	173.754	173.970	1.3839
39	10.00	178.514	178.560	178.535	178.612	178.566	178.689	178.612	178.824	1.3803
40	10.00	183.674	183.716	183.695	183.769	183.722	183.849	183.769	183.982	1.3791
41	10.00	188.533	188.577	188.555	188.631	188.582	188.707	188.631	188.844	1.3759
42	10.00	193.687	193.726	193.703	193.782	193.737	193.860	193.782	193.995	1.3748
43	10.00	198.552	198.592	198.569	198.644	198.604	198.725	198.650	198.863	1.3719
44	10.00	203.692	203.733	203.715	203.792	203.745	203.869	203.792	204.005	1.3710
45	10.00	208.566	208.608	208.584	208.663	208.614	208.742	208.663	208.875	1.3685
46	10.00	213.702	213.745	213.726	213.801	213.757	213.882	213.801	214.012	1.3677
47	10.00	218.577	218.621	218.602	218.672	218.634	218.754	218.678	218.888	1.3653
48	10.00	223.713	223.752	223.733	223.804	223.765	223.889	223.811	224.026	1.3645
49	10.00	228.592	228.632	228.612	228.685	228.645	228.772	228.692	228.905	1.3624
50	10.00	233.716	233.756	233.743	233.811	233.770	233.893	233.818	234.029	1.3618
51	10.00	238.604	238.646	238.625	238.701	238.659	238.778	238.708	238.917	1.3598
52	10.00	243.726	243.762	243.748	243.819	243.776	243.904	243.826	244.040	1.3592
53	10.00	248.615	248.652	248.637	248.710	248.666	248.789	248.717	248.928	1.3574
54	10.00	253.729	253.773	253.751	253.825	253.788	253.907	253.833	254.048	1.3568
55	10.00	258.624	258.662	258.646	258.722	258.677	258.805	258.730	258.941	1.3552
56	10.00	263.735	263.773	263.758	263.835	263.789	263.912	263.843	264.051	1.3547
57	10.00	268.635	268.674	268.658	268.729	268.690	268.816	268.737	268.949	1.3531
58	10.00	273.743	273.783	273.767	273.839	273.799	273.919	273.847	274.063	1.3526
59	10.00	278.638	278.679	278.663	278.736	278.695	278.818	278.753	278.965	1.3512
60	10.60	282.120	282.161	282.145	282.219	282.178	282.301	282.227	282.440	1.3599
61	10.60	287.025	287.067	287.050	287.117	287.084	287.209	287.134	287.343	1.3584
62	10.60	292.123	292.166	292.149	292.225	292.183	292.310	292.234	292.447	1.3578
63	10.60	297.031	297.074	297.057	297.126	297.092	297.213	297.144	297.360	1.3564
64	10.60	302.134	302.169	302.152	302.231	302.187	302.310	302.240	302.460	1.3559
65	10.60	307.044	307.080	307.062	307.134	307.098	307.223	307.151	307.366	1.3546
66	10.60	312.134	312.180	312.161	312.234	312.198	312.316	312.252	312.462	1.3541
67	10.60	317.045	317.091	317.072	317.146	317.109	317.230	317.165	317.378	1.3529
68	10.60	322.139	322.177	322.167	322.242	322.205	322.327	322.252	322.468	1.3524
69	10.60	327.059	327.097	327.078	327.154	327.116	327.240	327.174	327.384	1.3513
70	10.60	332.148	332.187	332.167	332.245	332.206	332.332	332.264	332.478	1.3508
71	10.60	337.067	337.107	337.087	337.156	337.126	337.245	337.176	337.393	1.3498
72	10.60	342.150	342.190	342.180	342.250	342.210	342.335	342.270	342.480	1.3494
73	10.60	347.088	347.109	347.098	347.169	347.129	347.251	347.190	347.403	1.3483
74	10.60	352.134	352.196	352.185	352.257	352.216	352.340	352.273	352.484	1.3480
75	10.60	357.080	357.112	357.101	357.174	357.143	357.258	357.195	357.404	1.3470
76	10.60	362.160	362.202	362.181	362.255	362.223	362.340	362.276	362.488	1.3467
77	10.60	367.082	367.125	367.109	367.179	367.147	367.265	367.200	367.416	1.3458
78	10.60	372.165	372.198	372.187	372.263	372.230	372.350	372.285	372.492	1.3455
79	10.60	377.089	377.128	377.117	377.183	377.150	377.271	377.205	377.426	1.3446
80	10.60	382.169	382.203	382.192	382.265	382.237	382.349	382.293	382.506	1.3442
81	10.60	387.095	387.129	387.118	387.197	387.163	387.276	387.220	387.424	1.3435
82	10.60	392.172	392.207	392.195	392.264	392.235	392.356	392.293	392.506	1.3432
83	10.60	397.104	397.139	397.127	397.197	397.162	397.291	397.221	397.431	1.3424
84	10.60	402.173	402.208	402.196	402.267	402.243	402.361	402.302	402.515	1.3421
85	10.60	407.111	407.147	407.135	407.206	407.170	407.290	407.230	407.446	1.3414
86	10.60	412.182	412.218	412.206	412.279	412.242	412.363	412.303	412.515	1.3411
87	10.60	417.114	417.150	417.138	417.212	417.175	417.297	417.236	417.445	1.3404
88	10.60	422.181	422.218	422.212	422.274	422.249	422.373	422.311	422.522	1.3402
89	10.60	427.112	427.150	427.137	427.213	427.181	427.301	427.238	427.451	1.3395
90	10.60	432.188	432.226	432.214	432.277	432.252	432.372	432.315	432.519	1.3393
91	10.60	437.118	437.157	437.144	437.221	437.183	437.311	437.247	437.453	1.3387
92	10.60	442.184	442.223	442.210	442.288	442.249	442.379	442.314	442.522	1.3385
93	10.60	447.119	447.158	447.152	447.224	447.191	447.316	447.250	447.461	1.3378
94	10.60	452.186	452.226	452.213	452.293	452.253	452.379	452.319	452.532	1.3376
95	10.60	457.126	457.166	457.153	457.220	457.193	457.314	457.261	457.462	1.3371
96	10.60	462.196	462.223	462.223	462.291	462.264	462.386	462.318	462.536	1.3368
97	10.60	467.127	467.168	467.154	467.223	467.195	467.319	467.264	467.471	1.3363
98	10.60	472.198	472.226	472.226	472.296	472.268	472.379	472.323	472.532	1.3361
99	10.60	477.134	477.176	477.162	477.232	477.204	477.330	477.260	477.485	1.3355
100	10.60	482.193	482.236	482.221	482.292	482.264	482.392	482.335	482.548	1.3353

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Table 165 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 6.00

$E_{v\,min}$ = minimum effective circular space width = 9.425

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	10.60	18.720	18.835	18.753	18.937	18.801	19.082	18.872	19.306	2.6751
7	10.60	24.397	24.467	24.418	24.534	24.447	24.632	24.494	24.794	1.9485
8	10.60	31.533	31.596	31.552	31.656	31.579	31.747	31.623	31.897	1.7873
9	11.80	32.773	32.854	32.797	32.932	32.833	33.050	32.888	33.240	2.2318
10	11.80	39.832	39.901	39.854	39.970	39.884	40.071	39.934	40.240	1.9632
11	11.80	45.466	45.529	45.485	45.591	45.514	45.685	45.561	45.839	1.7946
12	11.80	52.208	52.266	52.228	52.327	52.256	52.420	52.299	52.567	1.7211
13	11.80	57.810	57.866	57.828	57.925	57.855	58.013	57.898	58.158	1.6460
14	11.80	64.409	64.464	64.428	64.522	64.456	64.607	64.497	64.750	1.6123
15	11.80	70.028	70.082	70.047	70.137	70.074	70.222	70.115	70.363	1.5685
16	11.80	76.537	76.590	76.555	76.647	76.582	76.729	76.624	76.868	1.5493
17	11.80	82.182	82.232	82.202	82.290	82.228	82.372	82.270	82.511	1.5202
18	11.80	88.627	88.678	88.646	88.733	88.673	88.815	88.714	88.953	1.5080
19	11.80	94.298	94.349	94.316	94.404	94.344	94.484	94.386	94.622	1.4871
20	11.80	100.693	100.742	100.712	100.798	100.740	100.881	100.781	101.016	1.4787
21	11.80	106.390	106.437	106.407	106.493	106.437	106.576	106.478	106.712	1.4628
22	11.80	112.744	112.795	112.763	112.848	112.791	112.930	112.832	113.066	1.4567
23	11.80	118.460	118.510	118.480	118.563	118.510	118.646	118.553	118.785	1.4443
24	11.80	124.786	124.835	124.807	124.887	124.835	124.971	124.877	125.109	1.4396
25	11.80	130.521	130.569	130.539	130.624	130.569	130.705	130.613	130.842	1.4297
26	11.80	136.818	136.864	136.841	136.922	136.868	137.003	136.910	137.143	1.4260
27	11.80	142.570	142.618	142.594	142.675	142.622	142.756	142.667	142.894	1.4178
28	11.80	148.845	148.895	148.866	148.950	148.895	149.031	148.942	149.171	1.4148
29	11.80	154.614	154.662	154.636	154.715	154.662	154.799	154.711	154.936	1.4080
30	11.80	160.870	160.916	160.893	160.971	160.921	161.054	160.967	161.193	1.4056
31	11.80	166.653	166.696	166.672	166.753	166.701	166.839	166.749	166.973	1.3997
32	11.80	172.893	172.938	172.913	172.992	172.943	173.077	172.987	173.216	1.3977
33	11.80	178.684	178.730	178.705	178.787	178.735	178.869	178.782	179.008	1.3927
34	11.80	184.907	184.954	184.928	185.013	184.960	185.093	185.008	185.237	1.3910
35	11.80	190.713	190.756	190.735	190.817	190.767	190.899	190.811	191.037	1.3866
36	11.80	196.924	196.969	196.946	197.026	196.980	197.111	197.026	197.253	1.3851
37	11.80	202.738	202.785	202.762	202.838	202.791	202.926	202.838	203.067	1.3812
38	11.80	208.940	208.982	208.964	209.043	208.994	209.127	209.043	209.267	1.3800
39	11.80	214.763	214.807	214.782	214.863	214.813	214.950	214.863	215.087	1.3766
40	12.50	219.026	219.070	219.051	219.132	219.082	219.214	219.132	219.358	1.3903
41	12.50	224.865	224.903	224.884	224.961	224.916	225.051	224.968	225.194	1.3867
42	12.50	231.044	231.090	231.064	231.143	231.097	231.230	231.150	231.376	1.3853
43	12.50	236.887	236.927	236.907	236.989	236.941	237.070	236.989	237.220	1.3821
44	12.50	243.059	243.101	243.080	243.156	243.115	243.247	243.163	243.395	1.3809
45	12.50	248.908	248.951	248.929	249.008	248.965	249.094	249.015	249.238	1.3780
46	12.50	255.070	255.114	255.092	255.171	255.129	255.261	255.180	255.409	1.3769
47	12.50	260.922	260.967	260.944	261.027	260.982	261.110	261.035	261.261	1.3743
48	12.50	267.080	267.126	267.103	267.180	267.142	267.273	267.196	267.420	1.3733
49	12.50	272.939	272.986	272.963	273.041	273.002	273.128	273.049	273.278	1.3709
50	12.50	279.091	279.131	279.115	279.196	279.148	279.285	279.204	279.430	1.3701
51	12.50	284.955	284.996	284.979	285.062	285.012	285.144	285.070	285.293	1.3679
52	12.50	291.099	291.141	291.125	291.200	291.158	291.293	291.217	291.437	1.3671
53	12.50	296.974	297.017	296.999	297.068	297.034	297.163	297.085	297.310	1.3651
54	12.50	303.109	303.153	303.136	303.215	303.171	303.303	303.223	303.452	1.3644
55	12.50	308.984	309.029	309.011	309.082	309.047	309.172	309.100	309.325	1.3625
56	12.50	315.118	315.164	315.145	315.218	315.182	315.310	315.237	315.457	1.3619
57	12.50	321.000	321.037	321.018	321.102	321.056	321.186	321.112	321.336	1.3602
58	12.50	327.132	327.170	327.151	327.227	327.189	327.322	327.246	327.465	1.3596
59	12.50	333.010	333.049	333.029	333.107	333.068	333.204	333.126	333.349	1.3580
60	12.50	339.138	339.178	339.158	339.237	339.198	339.326	339.257	339.475	1.3575
61	12.50	345.021	345.061	345.041	345.122	345.081	345.212	345.142	345.363	1.3560
62	12.50	351.146	351.187	351.166	351.248	351.207	351.330	351.258	351.484	1.3555
63	12.50	357.031	357.073	357.052	357.135	357.094	357.219	357.146	357.375	1.3541
64	12.50	363.151	363.193	363.172	363.246	363.215	363.342	363.268	363.490	1.3537
65	12.50	369.038	369.081	369.070	369.146	369.103	369.232	369.157	369.383	1.3524
66	12.50	375.152	375.196	375.185	375.251	375.218	375.350	375.273	375.503	1.3519
67	12.50	381.051	381.085	381.073	381.151	381.118	381.240	381.174	381.397	1.3507
68	12.50	387.159	387.204	387.182	387.261	387.227	387.352	387.284	387.510	1.3503
69	12.50	393.058	393.092	393.081	393.161	393.127	393.253	393.184	393.403	1.3492
70	12.50	399.170	399.205	399.194	399.264	399.229	399.357	399.287	399.509	1.3489
71	12.50	405.067	405.103	405.091	405.162	405.127	405.257	405.186	405.411	1.3478
72	12.50	411.173	411.209	411.197	411.269	411.233	411.365	411.293	411.522	1.3474
73	12.50	417.067	417.116	417.104	417.177	417.140	417.263	417.202	417.422	1.3465
74	12.50	423.176	423.213	423.201	423.275	423.238	423.375	423.300	423.524	1.3461
75	12.50	429.080	429.118	429.105	429.181	429.143	429.281	429.206	429.432	1.3452
76	12.50	435.181	435.219	435.206	435.283	435.244	435.372	435.308	435.538	1.3448
77	12.50	441.093	441.132	441.119	441.184	441.158	441.287	441.222	441.442	1.3440
78	12.50	447.184	447.224	447.210	447.289	447.250	447.381	447.315	447.539	1.3437
79	12.50	453.092	453.132	453.118	453.198	453.158	453.291	453.225	453.451	1.3428
80	12.50	459.186	459.227	459.213	459.294	459.254	459.388	459.321	459.537	1.3426
81	12.50	465.102	465.143	465.129	465.197	465.170	465.293	465.238	465.457	1.3418
82	12.50	471.186	471.227	471.213	471.296	471.262	471.393	471.324	471.546	1.3415
83	12.50	477.109	477.151	477.137	477.207	477.179	477.305	477.255	477.459	1.3408
84	12.50	483.196	483.238	483.224	483.295	483.267	483.394	483.323	483.551	1.3405
85	12.50	489.112	489.155	489.140	489.212	489.183	489.313	489.241	489.471	1.3398
86	12.50	495.201	495.245	495.230	495.303	495.274	495.405	495.332	495.566	1.3395
87	12.50	501.117	501.154	501.154	501.227	501.183	501.316	501.257	501.478	1.3389
88	12.50	507.202	507.247	507.232	507.306	507.277	507.403	507.336	507.560	1.3387
89	12.50	513.116	513.162	513.146	513.222	513.192	513.328	513.260	513.479	1.3380
90	12.50	519.212	519.242	519.242	519.303	519.273	519.410	519.349	519.563	1.3378
91	12.50	525.132	525.163	525.163	525.225	525.194	525.333	525.271	525.488	1.3372
92	12.50	531.215	531.246	531.246	531.309	531.278	531.418	531.356	531.575	1.3370
93	12.50	537.126	537.173	537.157	537.236	537.205	537.331	537.268	537.505	1.3364
94	12.50	543.211	543.251	543.243	543.323	543.291	543.419	543.355	543.579	1.3362
95	12.50	549.143	549.175	549.175	549.240	549.207	549.337	549.272	549.499	1.3357
96	12.50	555.214	555.247	555.247	555.320	555.296	555.427	555.361	555.590	1.3354
97	12.50	561.135	561.185	561.168	561.251	561.218	561.350	561.284	561.516	1.3349
98	12.50	567.225	567.258	567.242	567.325	567.292	567.426	567.359	567.593	1.3347
99	12.50	573.151	573.185	573.177	573.253	573.219	573.354	573.286	573.523	1.3342
100	12.50	579.227	579.261	579.252	579.329	579.295	579.432	579.363	579.586	1.3341

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Table 166 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 8.00

$E_{v\,min}$ = minimum effective circular space width = 12.566

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	14.00	25.610	25.715	25.642	25.812	25.689	25.955	25.759	26.180	2.4869
7	14.00	32.997	33.070	33.018	33.141	33.051	33.246	33.103	33.418	1.9005
8	14.00	42.478	42.545	42.508	42.610	42.530	42.709	42.577	42.871	1.7613
9	15.00	46.404	46.476	46.427	46.548	46.461	46.655	46.514	46.830	1.8825
10	15.00	55.608	55.673	55.630	55.741	55.662	55.842	55.711	56.008	1.7692
11	15.00	62.978	63.039	62.999	63.103	63.029	63.200	63.078	63.359	1.6657
12	15.00	71.907	71.967	71.927	72.029	71.957	72.123	72.006	72.280	1.6243
13	15.00	79.311	79.370	79.332	79.429	79.362	79.523	79.408	79.676	1.5703
14	15.00	88.081	88.138	88.102	88.200	88.131	88.291	88.178	88.442	1.5495
15	15.00	95.536	95.591	95.557	95.653	95.585	95.742	95.632	95.892	1.5156
16	15.00	104.196	104.253	104.219	104.314	104.247	104.403	104.296	104.553	1.5033
17	15.00	111.699	111.755	111.721	111.814	111.749	111.904	111.798	112.051	1.4799
18	16.00	117.380	117.433	117.402	117.496	117.433	117.591	117.484	117.743	1.5258
19	16.00	124.960	125.004	124.970	125.065	125.004	125.157	125.052	125.313	1.5029
20	16.00	133.478	133.532	133.500	133.594	133.532	133.689	133.583	133.839	1.4931
21	16.00	141.080	141.134	141.103	141.196	141.134	141.286	141.181	141.438	1.4760
22	16.00	149.557	149.611	149.578	149.669	149.611	149.760	149.661	149.913	1.4688
23	16.00	157.185	157.238	157.207	157.299	157.238	157.386	157.290	157.540	1.4555
24	16.00	165.618	165.669	165.641	165.729	165.674	165.821	165.724	165.974	1.4501
25	16.00	173.270	173.318	173.289	173.381	173.323	173.473	173.376	173.624	1.4394
26	16.00	181.666	181.716	181.691	181.778	181.722	181.870	181.773	182.023	1.4352
27	16.00	189.340	189.393	189.366	189.452	189.398	189.542	189.452	189.698	1.4264
28	16.00	197.711	197.756	197.733	197.823	197.767	197.912	197.817	198.069	1.4230
29	16.00	205.401	205.453	205.424	205.511	205.459	205.605	205.511	205.762	1.4156
30	16.00	213.746	213.795	213.771	213.856	213.801	213.947	213.856	214.099	1.4130
31	16.00	221.451	221.501	221.476	221.564	221.514	221.659	221.564	221.811	1.4067
32	16.00	229.772	229.824	229.798	229.883	229.830	229.975	229.883	230.132	1.4044
33	16.00	237.503	237.550	237.523	237.611	237.557	237.706	237.611	237.856	1.3991
34	16.00	245.803	245.852	245.824	245.909	245.859	246.007	245.918	246.162	1.3971
35	16.00	253.543	253.587	253.565	253.652	253.601	253.747	253.652	253.900	1.3925
36	16.00	261.824	261.869	261.846	261.936	261.884	262.027	261.936	262.185	1.3908
37	16.00	269.577	269.624	269.600	269.686	269.639	269.779	269.693	269.934	1.3867
38	16.00	277.847	277.895	277.871	277.951	277.903	278.047	277.959	278.207	1.3853
39	16.00	285.606	285.655	285.631	285.721	285.672	285.812	285.730	285.969	1.3817
40	16.00	293.861	293.912	293.887	293.971	293.921	294.065	293.980	294.226	1.3804
41	16.00	301.635	301.688	301.661	301.749	301.696	301.845	301.757	302.002	1.3772
42	16.00	309.881	309.925	309.908	309.988	309.943	310.087	309.997	310.240	1.3761
43	16.00	317.665	317.711	317.692	317.775	317.729	317.867	317.784	318.024	1.3732
44	16.00	325.897	325.935	325.916	326.001	325.954	326.096	326.020	326.257	1.3723
45	16.00	333.686	333.735	333.715	333.793	333.754	333.890	333.812	334.055	1.3696
46	16.00	341.903	341.952	341.933	342.022	341.972	342.111	342.032	342.270	1.3688
47	16.00	349.712	349.753	349.733	349.814	349.773	349.915	349.834	350.078	1.3664
48	16.00	357.920	357.962	357.941	358.024	357.982	358.128	358.045	358.285	1.3656
49	16.00	365.726	365.769	365.758	365.843	365.790	365.939	365.854	366.099	1.3634
50	16.00	373.934	373.978	373.956	374.043	373.999	374.141	374.054	374.305	1.3627
51	16.00	381.744	381.788	381.777	381.855	381.811	381.955	381.877	382.122	1.3607
52	16.00	389.940	389.985	389.974	390.053	390.008	390.144	390.076	390.315	1.3601
53	16.00	397.761	397.808	397.796	397.877	397.831	397.970	397.889	398.133	1.3584
54	16.00	405.954	405.990	405.978	406.061	406.025	406.156	406.085	406.322	1.3578
55	16.00	413.774	413.822	413.810	413.895	413.846	413.991	413.907	414.149	1.3561
56	16.00	421.963	422.000	421.988	422.074	422.025	422.173	422.087	422.334	1.3556
57	16.00	429.791	429.841	429.828	429.904	429.866	430.004	429.929	430.168	1.3540
58	16.00	437.963	438.014	438.001	438.078	438.040	438.181	438.104	438.347	1.3535
59	16.00	445.808	445.848	445.834	445.913	445.874	446.017	445.939	446.187	1.3521
60	16.00	453.975	454.014	454.001	454.081	454.041	454.184	454.107	454.347	1.3517
61	16.00	461.825	461.865	461.852	461.933	461.892	462.026	461.960	462.204	1.3503
62	16.00	469.984	470.025	470.011	470.094	470.053	470.191	470.122	470.356	1.3499
63	16.00	477.837	477.879	477.865	477.949	477.907	478.047	477.977	478.215	1.3487
64	16.00	485.988	486.031	486.016	486.102	486.059	486.202	486.130	486.373	1.3483
65	16.00	493.842	493.885	493.871	493.958	493.914	494.059	493.987	494.233	1.3471
66	16.00	501.998	502.043	502.028	502.102	502.072	502.205	502.131	502.382	1.3468
67	16.00	509.852	509.897	509.882	509.972	509.927	510.076	510.002	510.241	1.3457
68	16.00	517.999	518.045	518.029	518.121	518.075	518.212	518.151	518.395	1.3453
69	16.00	525.866	525.912	525.897	525.974	525.943	526.082	526.005	526.252	1.3443
70	16.00	534.002	534.050	534.034	534.128	534.081	534.222	534.159	534.395	1.3440
71	16.00	541.874	541.914	541.898	541.994	541.946	542.089	542.026	542.265	1.3431
72	16.00	550.007	550.056	550.040	550.121	550.088	550.234	550.153	550.412	1.3427
73	16.00	557.883	557.932	557.916	557.998	557.965	558.097	558.031	558.277	1.3419
74	16.00	566.012	566.062	566.046	566.129	566.096	566.237	566.162	566.412	1.3416
75	16.00	573.891	573.934	573.917	574.001	573.967	574.111	574.035	574.289	1.3407
76	16.00	582.016	582.068	582.050	582.136	582.102	582.239	582.170	582.428	1.3405
77	16.00	589.898	589.950	589.932	590.019	589.984	590.123	590.054	590.297	1.3397
78	16.00	598.035	598.070	598.061	598.140	598.105	598.246	598.176	598.422	1.3395
79	16.00	605.909	605.945	605.945	606.016	605.980	606.123	606.052	606.302	1.3387
80	16.00	614.032	614.068	614.068	614.141	614.114	614.249	614.186	614.430	1.3385
81	17.00	619.221	619.257	619.257	619.330	619.312	619.439	619.384	619.620	1.3443
82	17.00	627.344	627.380	627.380	627.454	627.436	627.564	627.500	627.748	1.3440
83	17.00	635.234	635.271	635.271	635.345	635.308	635.457	635.383	635.644	1.3432
84	17.00	643.342	643.399	643.380	643.474	643.436	643.568	643.512	643.757	1.3430
85	17.00	651.242	651.280	651.280	651.356	651.318	651.471	651.395	651.643	1.3422
86	17.00	659.354	659.393	659.393	659.470	659.432	659.586	659.509	659.761	1.3419
87	17.00	667.244	667.283	667.283	667.362	667.322	667.479	667.401	667.656	1.3412
88	17.00	675.361	675.400	675.400	675.479	675.440	675.588	675.519	675.777	1.3409
89	17.00	683.259	683.300	683.280	683.380	683.340	683.480	683.420	683.661	1.3403
90	17.00	691.360	691.400	691.400	691.481	691.451	691.603	691.522	691.786	1.3400
91	17.00	699.267	699.308	699.288	699.370	699.349	699.493	699.432	699.678	1.3394
92	17.00	707.371	707.412	707.412	707.495	707.454	707.599	707.537	707.787	1.3392
93	17.00	715.266	715.308	715.308	715.392	715.350	715.497	715.434	715.687	1.3386
94	17.00	723.373	723.415	723.415	723.500	723.458	723.607	723.543	723.798	1.3383
95	17.00	731.276	731.319	731.319	731.383	731.362	731.512	731.448	731.684	1.3378
96	17.00	739.386	739.430	739.408	739.495	739.473	739.604	739.538	739.799	1.3375
97	17.00	747.275	747.319	747.319	747.407	747.363	747.517	747.451	747.693	1.3370
98	17.00	755.388	755.433	755.411	755.499	755.477	755.611	755.544	755.811	1.3368
99	17.00	763.284	763.329	763.329	763.396	763.374	763.531	763.464	763.711	1.3362
100	17.00	771.378	771.424	771.424	771.514	771.469	771.628	771.560	771.810	1.3360

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Table 167 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
37.5 degree pressure angle — Fillet root — Module = 10.00

$E_{v\,min}$ = minimum effective circular space width − 15.708

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	17.00	34.063	34.147	34.090	34.229	34.128	34.353	34.191	34.552	2.0663
7	18.00	39.389	39.478	39.417	39.568	39.462	39.700	39.529	39.916	2.1785
8	18.00	51.406	51.480	51.432	51.558	51.468	51.673	51.526	51.862	1.8983
9	18.00	60.496	60.563	60.517	60.633	60.553	60.738	60.606	60.910	1.7217
10	18.00	71.902	71.968	71.927	72.036	71.960	72.138	72.011	72.306	1.6607
11	18.00	81.023	81.089	81.047	81.154	81.080	81.250	81.132	81.413	1.5865
12	19.00	89.102	89.170	89.129	89.239	89.161	89.340	89.216	89.515	1.6531
13	19.00	98.379	98.441	98.403	98.508	98.436	98.609	98.490	98.776	1.5934
14	19.00	109.350	109.411	109.373	109.478	109.408	109.578	109.461	109.742	1.5689
15	19.00	118.680	118.741	118.702	118.805	118.737	118.901	118.789	119.066	1.5321
16	19.00	129.512	129.568	129.533	129.636	129.568	129.735	129.621	129.898	1.5177
17	19.00	138.898	138.955	138.921	139.020	138.955	139.116	139.008	139.281	1.4926
18	19.00	149.627	149.681	149.648	149.747	149.685	149.847	149.739	150.010	1.4833
19	19.00	159.063	159.116	159.085	159.183	159.121	159.281	159.174	159.441	1.4650
20	19.00	169.713	169.770	169.737	169.832	169.770	169.932	169.827	170.095	1.4585
21	19.00	179.195	179.246	179.215	179.311	179.251	179.407	179.306	179.569	1.4445
22	19.00	189.779	189.833	189.806	189.897	189.838	189.994	189.897	190.161	1.4397
23	20.00	196.471	196.525	196.498	196.591	196.536	196.694	196.591	196.859	1.4566
24	20.00	207.017	207.069	207.040	207.132	207.075	207.236	207.132	207.398	1.4511
25	20.00	216.581	216.636	216.605	216.696	216.642	216.799	216.696	216.964	1.4403
26	20.00	227.076	227.133	227.101	227.197	227.139	227.299	227.197	227.465	1.4360
27	20.00	236.668	236.721	236.694	236.788	236.734	236.888	236.788	237.055	1.4272
28	20.00	247.125	247.181	247.153	247.250	247.195	247.348	247.250	247.516	1.4238
29	20.00	256.744	256.795	256.773	256.868	256.809	256.962	256.868	257.130	1.4164
30	20.00	267.175	267.228	267.198	267.289	267.236	267.395	267.297	267.563	1.4136
31	20.00	276.814	276.861	276.837	276.932	276.877	277.027	276.940	277.200	1.4074
32	20.00	287.206	287.264	287.239	287.329	287.280	287.427	287.337	287.600	1.4051
33	20.00	296.870	296.921	296.895	296.989	296.938	297.090	296.997	297.252	1.3997
34	20.00	307.245	307.298	307.271	307.359	307.307	307.465	307.368	307.632	1.3977
35	20.00	316.920	316.965	316.947	317.038	316.984	317.138	317.047	317.311	1.3930
36	20.00	327.270	327.317	327.298	327.392	327.336	327.496	327.402	327.665	1.3913
37	20.00	336.962	337.010	336.991	337.078	337.029	337.185	337.097	337.350	1.3873
38	20.00	347.299	347.349	347.329	347.419	347.369	347.519	347.429	347.689	1.3858
39	20.00	356.997	357.049	357.028	357.121	357.069	357.224	357.131	357.399	1.3821
40	20.00	367.316	367.369	367.348	367.443	367.390	367.538	367.454	367.708	1.3809
41	20.00	377.033	377.088	377.066	377.153	377.110	377.262	377.175	377.437	1.3776
42	20.00	387.340	387.384	387.373	387.463	387.407	387.564	387.474	387.732	1.3766
43	20.00	397.070	397.116	397.104	397.184	397.138	397.288	397.207	397.461	1.3737
44	20.00	407.360	407.407	407.383	407.478	407.431	407.584	407.501	407.750	1.3727
45	20.00	417.096	417.144	417.132	417.217	417.168	417.326	417.241	417.495	1.3701
46	20.00	427.379	427.428	427.403	427.490	427.453	427.602	427.515	427.776	1.3692
47	20.00	437.128	437.178	437.153	437.242	437.204	437.356	437.267	437.522	1.3668
48	20.00	447.387	447.439	447.426	447.504	447.465	447.608	447.530	447.791	1.3660
49	20.00	457.158	457.198	457.185	457.264	457.224	457.371	457.291	457.557	1.3638
50	20.00	467.404	467.445	467.431	467.527	467.486	467.622	467.554	467.799	1.3632
51	20.00	477.180	477.222	477.208	477.291	477.249	477.402	477.319	477.583	1.3611
52	20.00	487.410	487.467	487.453	487.538	487.495	487.638	487.566	487.823	1.3605
53	20.00	497.202	497.245	497.231	497.318	497.274	497.419	497.347	497.608	1.3587
54	20.00	507.428	507.473	507.458	507.547	507.502	507.650	507.576	507.843	1.3581
55	20.00	517.217	517.263	517.248	517.338	517.293	517.444	517.368	517.625	1.3564
56	20.00	527.439	527.485	527.470	527.562	527.516	527.670	527.593	527.855	1.3559
57	20.00	537.238	537.285	537.270	537.348	537.317	537.458	537.380	537.647	1.3543
58	20.00	547.453	547.501	547.485	547.565	547.533	547.678	547.598	547.870	1.3538
59	20.00	557.244	557.293	557.277	557.375	557.326	557.489	557.407	557.668	1.3524
60	20.00	567.460	567.502	567.502	567.585	567.535	567.684	567.618	567.875	1.3519
61	20.00	577.264	577.315	577.298	577.382	577.348	577.501	577.416	577.687	1.3506
62	20.00	587.463	587.514	587.497	587.583	587.549	587.704	587.618	587.893	1.3502
63	20.00	597.278	597.331	597.313	597.401	597.366	597.515	597.436	597.699	1.3489
64	20.00	607.485	607.521	607.512	607.592	607.556	607.716	607.627	607.895	1.3486
65	20.00	617.302	617.338	617.338	617.411	617.375	617.538	617.447	617.719	1.3474
66	20.00	627.480	627.535	627.517	627.609	627.572	627.719	627.645	627.903	1.3471
67	20.00	637.315	637.352	637.352	637.427	637.390	637.539	637.464	637.727	1.3460
68	20.00	647.499	647.537	647.537	647.613	647.575	647.727	647.651	647.917	1.3456
69	20.00	657.313	657.371	657.352	657.448	657.409	657.564	657.487	657.757	1.3445
70	20.00	667.503	667.542	667.542	667.621	667.582	667.738	667.660	667.935	1.3442
71	20.00	677.333	677.373	677.373	677.452	677.412	677.572	677.492	677.771	1.3433
72	20.00	687.509	687.550	687.550	687.630	687.590	687.752	687.671	687.934	1.3430
73	20.00	697.344	697.395	697.375	697.477	697.436	697.580	697.518	697.785	1.3421
74	20.00	707.516	707.557	707.557	707.640	707.599	707.755	707.682	707.953	1.3418
75	20.00	717.354	717.396	717.396	717.480	717.438	717.597	717.523	717.797	1.3409
76	20.00	727.520	727.563	727.563	727.649	727.606	727.756	727.691	727.949	1.3407
77	20.00	737.372	737.415	737.394	737.480	737.459	737.611	737.535	737.806	1.3399
78	20.00	747.521	747.565	747.565	747.654	747.610	747.764	747.698	747.962	1.3397
79	20.00	757.375	757.431	757.408	757.498	757.475	757.609	757.542	757.810	1.3389
80	20.00	767.540	767.585	767.563	767.653	767.631	767.766	767.695	767.970	1.3387
81	20.00	777.383	777.441	777.418	777.509	777.475	777.624	777.555	777.830	1.3379
82	20.00	787.530	787.577	787.577	787.669	787.623	787.785	787.716	787.983	1.3377
83	20.00	797.396	797.443	797.420	797.514	797.490	797.631	797.561	797.843	1.3370
84	20.00	807.535	807.583	807.583	807.678	807.630	807.797	807.726	807.988	1.3368
85	20.00	817.400	817.448	817.436	817.533	817.485	817.653	817.581	817.847	1.3362
86	20.00	827.555	827.604	827.580	827.677	827.641	827.799	827.726	827.995	1.3360
87	20.00	837.419	837.456	837.444	837.542	837.493	837.666	837.592	837.864	1.3353
88	20.00	847.541	847.591	847.591	847.691	847.641	847.803	847.741	848.016	1.3351
89	20.00	857.414	857.465	857.465	857.541	857.515	857.667	857.591	857.870	1.3346
90	20.00	867.565	867.603	867.590	867.693	867.641	867.821	867.744	868.026	1.3344
91	20.00	877.422	877.474	877.474	877.552	877.526	877.681	877.603	877.889	1.3338
92	21.20	884.341	884.393	884.367	884.471	884.445	884.601	884.523	884.809	1.3391
93	21.20	894.211	894.264	894.237	894.343	894.316	894.474	894.395	894.685	1.3385
94	21.20	904.346	904.399	904.372	904.479	904.452	904.612	904.532	904.798	1.3383
95	21.20	914.225	914.252	914.252	914.360	914.306	914.467	914.413	914.683	1.3377
96	21.20	924.337	924.391	924.391	924.473	924.446	924.609	924.527	924.827	1.3375
97	21.20	934.226	934.281	934.253	934.363	934.336	934.473	934.418	934.693	1.3369
98	21.20	944.341	944.397	944.397	944.480	944.452	944.619	944.535	944.814	1.3368
99	21.20	954.239	954.267	954.267	954.365	954.323	954.492	954.422	954.717	1.3362
100	21.20	964.358	964.415	964.386	964.500	964.457	964.613	964.557	964.841	1.3360

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Table 168 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 0.25

$E_{v\,min}$ = minimum effective circular space width = 0.393

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	0.53	*******	*******	*******	*******	*******	0.573	*******	0.629	1.7519
7	0.53	0.758	0.775	0.767	0.795	0.779	0.821	0.798	0.862	1.3820
8	0.56	0.964	0.981	0.972	1.001	0.985	1.028	1.003	1.070	1.1417
9	0.56	1.209	1.223	1.216	1.240	1.226	1.264	1.242	1.302	0.9997
10	0.60	1.376	1.391	1.383	1.408	1.393	1.434	1.410	1.474	1.3523
11	0.60	1.617	1.631	1.624	1.647	1.633	1.670	1.649	1.708	1.2679
12	0.60	1.900	1.913	1.906	1.928	1.915	1.951	1.930	1.988	1.2342
13	0.60	2.137	2.149	2.143	2.164	2.152	2.186	2.166	2.222	1.1924
14	0.60	2.412	2.424	2.418	2.439	2.427	2.461	2.441	2.497	1.1763
15	0.60	2.649	2.661	2.655	2.675	2.663	2.697	2.677	2.732	1.1506
16	0.60	2.920	2.932	2.926	2.946	2.934	2.968	2.948	3.003	1.1415
17	0.63	3.077	3.089	3.083	3.103	3.091	3.125	3.105	3.161	1.1469
18	0.63	3.346	3.358	3.352	3.372	3.360	3.394	3.374	3.430	1.1387
19	0.63	3.584	3.596	3.590	3.610	3.598	3.632	3.612	3.667	1.1237
20	0.63	3.851	3.863	3.857	3.877	3.865	3.899	3.879	3.934	1.1182
21	0.63	4.090	4.102	4.096	4.116	4.104	4.137	4.117	4.172	1.1069
22	0.63	4.355	4.367	4.361	4.381	4.369	4.402	4.382	4.438	1.1029
23	0.63	4.594	4.606	4.600	4.620	4.608	4.641	4.622	4.677	1.0942
24	0.63	4.858	4.870	4.864	4.884	4.872	4.905	4.885	4.940	1.0912
25	0.63	5.098	5.110	5.104	5.124	5.112	5.145	5.125	5.180	1.0841
26	0.63	5.361	5.372	5.366	5.386	5.374	5.408	5.388	5.443	1.0818
27	0.67	5.499	5.510	5.504	5.525	5.513	5.546	5.526	5.582	1.0903
28	0.67	5.760	5.772	5.766	5.787	5.775	5.808	5.788	5.844	1.0877
29	0.67	6.002	6.013	6.008	6.028	6.016	6.049	6.030	6.085	1.0821
30	0.67	6.263	6.274	6.269	6.289	6.277	6.310	6.290	6.346	1.0799
31	0.67	6.504	6.516	6.510	6.531	6.519	6.552	6.532	6.588	1.0752
32	0.67	6.765	6.776	6.771	6.791	6.779	6.813	6.793	6.848	1.0735
33	0.67	7.007	7.018	7.013	7.033	7.021	7.055	7.035	7.091	1.0694
34	0.67	7.266	7.278	7.272	7.293	7.281	7.314	7.294	7.350	1.0679
35	0.67	7.509	7.520	7.515	7.535	7.523	7.557	7.537	7.593	1.0644
36	0.67	7.768	7.779	7.774	7.794	7.782	7.816	7.796	7.852	1.0632
37	0.67	8.011	8.022	8.017	8.037	8.025	8.059	8.039	8.095	1.0601
38	0.67	8.269	8.281	8.275	8.295	8.284	8.317	8.297	8.354	1.0590
39	0.67	8.512	8.524	8.518	8.539	8.527	8.561	8.540	8.597	1.0563
40	0.67	8.770	8.782	8.776	8.797	8.785	8.819	8.798	8.855	1.0554
41	0.67	9.014	9.025	9.020	9.040	9.028	9.062	9.042	9.099	1.0530
42	0.67	9.271	9.283	9.277	9.298	9.286	9.320	9.300	9.356	1.0522
43	0.67	9.515	9.527	9.521	9.542	9.530	9.563	9.544	9.600	1.0500
44	0.67	9.772	9.784	9.778	9.799	9.787	9.821	9.801	9.858	1.0493
45	0.67	10.016	10.028	10.022	10.043	10.031	10.065	10.045	10.102	1.0473
46	0.67	10.273	10.285	10.279	10.300	10.288	10.322	10.302	10.359	1.0467
47	0.67	10.517	10.529	10.524	10.544	10.532	10.566	10.546	10.603	1.0449
48	0.67	10.774	10.786	10.780	10.801	10.789	10.823	10.803	10.860	1.0444
49	0.67	11.018	11.030	11.025	11.045	11.033	11.067	11.047	11.104	1.0428
50	0.67	11.275	11.286	11.281	11.301	11.290	11.324	11.304	11.361	1.0423
51	0.67	11.519	11.531	11.526	11.546	11.534	11.568	11.548	11.606	1.0408
52	0.67	11.775	11.787	11.782	11.802	11.790	11.825	11.804	11.862	1.0404
53	0.67	12.020	12.032	12.026	12.047	12.035	12.069	12.049	12.107	1.0390
54	0.67	12.276	12.288	12.282	12.303	12.291	12.325	12.305	12.363	1.0386
55	0.67	12.521	12.533	12.527	12.548	12.536	12.570	12.550	12.608	1.0374
56	0.67	12.777	12.788	12.783	12.803	12.792	12.826	12.806	12.864	1.0370
57	0.67	13.022	13.033	13.028	13.048	13.037	13.071	13.051	13.109	1.0358
58	0.67	13.277	13.289	13.284	13.304	13.292	13.327	13.307	13.365	1.0355
59	0.67	13.522	13.534	13.529	13.549	13.538	13.572	13.552	13.610	1.0344
60	0.71	13.679	13.691	13.685	13.706	13.694	13.729	13.708	13.767	1.0390
61	0.71	13.924	13.936	13.930	13.951	13.939	13.974	13.954	14.012	1.0379
62	0.71	14.179	14.191	14.186	14.206	14.195	14.229	14.209	14.268	1.0375
63	0.71	14.425	14.437	14.431	14.452	14.440	14.475	14.455	14.513	1.0365
64	0.71	14.680	14.692	14.686	14.707	14.695	14.730	14.710	14.769	1.0361
65	0.71	14.926	14.937	14.932	14.953	14.941	14.976	14.956	15.014	1.0352
66	0.71	15.180	15.192	15.187	15.208	15.196	15.231	15.210	15.269	1.0348
67	0.71	15.426	15.438	15.433	15.453	15.442	15.477	15.456	15.515	1.0340
68	0.71	15.681	15.693	15.687	15.708	15.696	15.731	15.711	15.770	1.0337
69	0.71	15.927	15.939	15.933	15.954	15.943	15.977	15.957	16.016	1.0328
70	0.71	16.181	16.193	16.188	16.209	16.197	16.232	16.212	16.271	1.0326
71	0.71	16.427	16.439	16.434	16.454	16.443	16.478	16.458	16.517	1.0318
72	0.71	16.682	16.694	16.688	16.709	16.698	16.733	16.712	16.771	1.0315
73	0.71	16.928	16.939	16.934	16.955	16.944	16.979	16.959	17.018	1.0308
74	0.71	17.182	17.194	17.189	17.210	17.198	17.233	17.213	17.272	1.0306
75	0.71	17.429	17.440	17.435	17.456	17.444	17.479	17.459	17.519	1.0299
76	0.71	17.682	17.694	17.689	17.710	17.699	17.734	17.713	17.773	1.0296
77	0.71	17.929	17.940	17.936	17.956	17.945	17.980	17.960	18.019	1.0290
78	0.71	18.183	18.195	18.190	18.210	18.199	18.234	18.214	18.274	1.0288
79	0.71	18.429	18.441	18.436	18.457	18.445	18.481	18.460	18.520	1.0282
80	0.71	18.683	18.695	18.690	18.711	18.699	18.735	18.714	18.774	1.0280
81	0.71	18.930	18.941	18.937	18.957	18.946	18.981	18.961	19.021	1.0274
82	0.71	19.184	19.195	19.191	19.211	19.200	19.235	19.215	19.275	1.0272
83	0.71	19.430	19.442	19.437	19.458	19.446	19.482	19.462	19.521	1.0266
84	0.71	19.684	19.696	19.691	19.712	19.700	19.735	19.715	19.776	1.0264
85	0.71	19.931	19.942	19.938	19.958	19.947	19.982	19.962	20.022	1.0259
86	0.71	20.184	20.196	20.191	20.212	20.201	20.236	20.216	20.276	1.0258
87	0.71	20.431	20.443	20.438	20.459	20.447	20.483	20.463	20.523	1.0253
88	0.71	20.684	20.696	20.692	20.713	20.701	20.736	20.716	20.777	1.0251
89	0.71	20.931	20.943	20.938	20.959	20.948	20.983	20.963	21.023	1.0246
90	0.71	21.185	21.197	21.192	21.213	21.201	21.237	21.217	21.277	1.0245
91	0.71	21.432	21.443	21.439	21.460	21.448	21.484	21.464	21.524	1.0240
92	0.71	21.685	21.697	21.692	21.713	21.702	21.737	21.717	21.778	1.0239
93	0.71	21.932	21.944	21.939	21.960	21.949	21.984	21.964	22.025	1.0234
94	0.71	22.185	22.197	22.192	22.213	22.202	22.238	22.218	22.278	1.0233
95	0.71	22.433	22.444	22.440	22.460	22.449	22.485	22.465	22.525	1.0229
96	0.71	22.686	22.697	22.693	22.714	22.703	22.738	22.718	22.779	1.0228
97	0.71	22.933	22.945	22.940	22.961	22.949	22.985	22.965	23.026	1.0224
98	0.71	23.186	23.198	23.193	23.214	23.203	23.238	23.218	23.279	1.0223
99	0.71	23.433	23.445	23.440	23.461	23.450	23.486	23.466	23.526	1.0219
100	0.71	23.686	23.698	23.693	23.714	23.703	23.739	23.719	23.780	1.0217

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Table 169 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 0.50

$E_{v\,min}$ = minimum effective circular space width = 0.785

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.00	1.213	1.244	1.225	1.272	1.241	1.311	1.266	1.369	1.5873
7	1.06	1.498	1.525	1.509	1.551	1.523	1.588	1.545	1.644	1.5269
8	1.06	2.118	2.138	2.125	2.160	2.136	2.191	2.154	2.241	1.3717
9	1.06	2.587	2.605	2.594	2.625	2.604	2.653	2.620	2.699	1.2606
10	1.12	2.986	3.004	2.993	3.024	3.003	3.054	3.020	3.102	1.2938
11	1.12	3.455	3.473	3.462	3.492	3.472	3.520	3.488	3.566	1.2275
12	1.12	4.015	4.032	4.021	4.051	4.031	4.078	4.046	4.123	1.2034
13	1.12	4.483	4.499	4.489	4.518	4.498	4.544	4.513	4.589	1.1680
14	1.12	5.031	5.048	5.038	5.066	5.047	5.092	5.062	5.137	1.1560
15	1.12	5.501	5.517	5.507	5.535	5.516	5.561	5.531	5.605	1.1336
16	1.18	5.883	5.899	5.889	5.918	5.899	5.945	5.914	5.989	1.1510
17	1.18	6.356	6.372	6.363	6.390	6.372	6.417	6.387	6.461	1.1324
18	1.18	6.893	6.909	6.900	6.927	6.909	6.954	6.923	6.998	1.1259
19	1.18	7.368	7.384	7.374	7.402	7.383	7.428	7.398	7.472	1.1124
20	1.18	7.901	7.917	7.907	7.934	7.916	7.961	7.931	8.005	1.1079
21	1.18	8.377	8.393	8.383	8.410	8.392	8.437	8.407	8.481	1.0977
22	1.18	8.906	8.922	8.913	8.940	8.922	8.966	8.937	9.010	1.0945
23	1.18	9.384	9.400	9.391	9.418	9.400	9.444	9.414	9.488	1.0864
24	1.18	9.911	9.927	9.917	9.945	9.927	9.971	9.941	10.015	1.0840
25	1.18	10.390	10.406	10.397	10.423	10.406	10.450	10.420	10.494	1.0774
26	1.25	10.736	10.752	10.743	10.770	10.752	10.797	10.767	10.842	1.0884
27	1.25	11.217	11.233	11.224	11.251	11.233	11.278	11.248	11.323	1.0822
28	1.25	11.741	11.756	11.747	11.774	11.757	11.801	11.771	11.846	1.0801
29	1.25	12.223	12.238	12.229	12.256	12.238	12.283	12.254	12.328	1.0749
30	1.25	12.744	12.760	12.751	12.778	12.760	12.805	12.775	12.850	1.0732
31	1.25	13.227	13.242	13.234	13.261	13.243	13.288	13.258	13.333	1.0688
32	1.25	13.747	13.763	13.754	13.781	13.763	13.808	13.778	13.853	1.0674
33	1.25	14.231	14.246	14.237	14.264	14.247	14.292	14.262	14.337	1.0636
34	1.25	14.750	14.765	14.756	14.783	14.766	14.810	14.781	14.856	1.0625
35	1.25	15.234	15.250	15.241	15.268	15.250	15.295	15.266	15.340	1.0592
36	1.25	15.752	15.767	15.759	15.786	15.768	15.813	15.784	15.859	1.0582
37	1.25	16.237	16.252	16.244	16.271	16.254	16.298	16.269	16.344	1.0553
38	1.25	16.754	16.769	16.760	16.788	16.770	16.815	16.786	16.861	1.0545
39	1.25	17.240	17.255	17.247	17.274	17.256	17.301	17.272	17.347	1.0519
40	1.25	17.756	17.771	17.763	17.790	17.772	17.817	17.788	17.863	1.0512
41	1.25	18.242	18.257	18.249	18.276	18.259	18.304	18.274	18.350	1.0489
42	1.25	18.757	18.773	18.764	18.791	18.774	18.819	18.790	18.865	1.0482
43	1.25	19.244	19.260	19.251	19.278	19.261	19.306	19.277	19.352	1.0462
44	1.25	19.759	19.774	19.766	19.793	19.776	19.821	19.791	19.867	1.0456
45	1.25	20.246	20.262	20.253	20.280	20.263	20.308	20.279	20.355	1.0438
46	1.25	20.760	20.776	20.767	20.794	20.777	20.822	20.793	20.869	1.0433
47	1.25	21.248	21.264	21.255	21.282	21.265	21.310	21.281	21.357	1.0416
48	1.25	21.761	21.777	21.769	21.795	21.778	21.824	21.795	21.870	1.0412
49	1.25	22.250	22.265	22.257	22.284	22.267	22.312	22.283	22.359	1.0397
50	1.25	22.763	22.778	22.770	22.797	22.780	22.825	22.796	22.872	1.0393
51	1.25	23.251	23.267	23.258	23.285	23.269	23.314	23.285	23.361	1.0379
52	1.25	23.763	23.779	23.770	23.798	23.781	23.826	23.797	23.873	1.0375
53	1.25	24.253	24.268	24.260	24.287	24.270	24.315	24.286	24.362	1.0363
54	1.25	24.764	24.780	24.772	24.799	24.782	24.827	24.798	24.874	1.0359
55	1.25	25.254	25.269	25.261	25.288	25.272	25.317	25.288	25.364	1.0348
56	1.25	25.765	25.781	25.773	25.799	25.783	25.828	25.799	25.876	1.0345
57	1.25	26.256	26.271	26.263	26.290	26.273	26.318	26.290	26.366	1.0334
58	1.25	26.766	26.781	26.774	26.801	26.784	26.829	26.801	26.877	1.0331
59	1.25	27.257	27.272	27.264	27.291	27.274	27.320	27.291	27.367	1.0321
60	1.25	27.767	27.782	27.774	27.801	27.785	27.830	27.801	27.878	1.0318
61	1.25	28.257	28.273	28.265	28.292	28.276	28.321	28.293	28.369	1.0309
62	1.25	28.768	28.783	28.775	28.802	28.786	28.831	28.803	28.879	1.0307
63	1.25	29.258	29.274	29.266	29.293	29.277	29.322	29.294	29.370	1.0298
64	1.25	29.769	29.784	29.776	29.803	29.787	29.832	29.803	29.880	1.0296
65	1.32	30.087	30.102	30.095	30.122	30.105	30.151	30.122	30.200	1.0325
66	1.32	30.597	30.612	30.604	30.631	30.615	30.660	30.632	30.709	1.0323
67	1.32	31.008	31.103	31.096	31.123	31.106	31.152	31.124	31.201	1.0314
68	1.32	31.598	31.613	31.605	31.633	31.616	31.662	31.633	31.711	1.0312
69	1.32	32.089	32.104	32.097	32.124	32.108	32.153	32.125	32.203	1.0304
70	1.32	32.598	32.614	32.606	32.633	32.617	32.663	32.634	32.712	1.0302
71	1.32	33.090	33.105	33.098	33.125	33.109	33.154	33.126	33.203	1.0295
72	1.32	33.599	33.614	33.607	33.634	33.618	33.663	33.635	33.712	1.0292
73	1.32	34.091	34.106	34.099	34.126	34.110	34.155	34.127	34.205	1.0285
74	1.32	34.599	34.615	34.607	34.634	34.619	34.664	34.636	34.714	1.0283
75	1.32	35.092	35.107	35.100	35.127	35.111	35.157	35.128	35.206	1.0277
76	1.32	35.600	35.615	35.608	35.635	35.619	35.665	35.637	35.715	1.0275
77	1.32	36.093	36.108	36.101	36.128	36.112	36.158	36.129	36.207	1.0269
78	1.32	36.601	36.616	36.609	36.636	36.620	36.665	36.637	36.715	1.0267
79	1.32	37.094	37.109	37.102	37.129	37.113	37.158	37.131	37.208	1.0261
80	1.32	37.601	37.616	37.609	37.637	37.621	37.666	37.638	37.716	1.0260
81	1.32	38.094	38.109	38.102	38.129	38.113	38.159	38.131	38.209	1.0254
82	1.32	38.602	38.617	38.610	38.637	38.621	38.667	38.639	38.717	1.0253
83	1.32	39.095	39.110	39.103	39.130	39.114	39.160	39.132	39.210	1.0247
84	1.32	39.603	39.618	39.610	39.637	39.622	39.668	39.640	39.718	1.0246
85	1.32	40.096	40.110	40.103	40.131	40.115	40.161	40.133	40.211	1.0241
86	1.32	40.603	40.618	40.611	40.638	40.623	40.669	40.641	40.719	1.0240
87	1.32	41.096	41.111	41.104	41.131	41.116	41.162	41.134	41.213	1.0235
88	1.32	41.603	41.618	41.612	41.639	41.623	41.669	41.641	41.720	1.0234
89	1.32	42.097	42.112	42.105	42.132	42.117	42.162	42.134	42.213	1.0229
90	1.32	42.604	42.618	42.612	42.639	42.623	42.669	42.642	42.720	1.0228
91	1.32	43.098	43.112	43.106	43.133	43.117	43.163	43.136	43.215	1.0223
92	1.32	43.604	43.619	43.612	43.640	43.624	43.670	43.643	43.722	1.0222
93	1.32	44.098	44.113	44.106	44.133	44.118	44.164	44.137	44.215	1.0218
94	1.32	44.605	44.619	44.613	44.640	44.624	44.671	44.643	44.722	1.0217
95	1.32	45.098	45.114	45.107	45.134	45.119	45.165	45.137	45.216	1.0213
96	1.32	45.605	45.620	45.613	45.640	45.625	45.671	45.644	45.723	1.0212
97	1.32	46.099	46.114	46.107	46.135	46.120	46.166	46.138	46.217	1.0208
98	1.32	46.605	46.621	46.614	46.641	46.626	46.672	46.645	46.723	1.0207
99	1.32	47.100	47.114	47.108	47.135	47.120	47.166	47.139	47.218	1.0204
100	1.32	47.606	47.621	47.614	47.641	47.626	47.672	47.645	47.724	1.0203

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Table 170 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 0.75

$E_{v\,min}$ = minimum effective circular space width = 1.178

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.50	1.809	1.847	1.822	1.882	1.840	1.929	1.868	2.000	1.6968
7	1.50	2.552	2.576	2.560	2.600	2.572	2.635	2.590	2.691	1.3668
8	1.60	3.137	3.162	3.146	3.188	3.158	3.225	3.178	3.284	1.4272
9	1.60	3.845	3.867	3.853	3.890	3.863	3.923	3.881	3.977	1.2038
10	1.60	4.705	4.726	4.712	4.748	4.722	4.780	4.739	4.833	1.2494
11	1.60	5.401	5.421	5.408	5.442	5.418	5.473	5.434	5.523	1.1952
12	1.60	6.236	6.256	6.243	6.276	6.253	6.307	6.269	6.358	1.1778
13	1.70	6.664	6.684	6.671	6.705	6.681	6.736	6.697	6.788	1.1868
14	1.70	7.488	7.507	7.494	7.528	7.504	7.559	7.520	7.610	1.1720
15	1.70	8.193	8.212	8.199	8.232	8.209	8.263	8.225	8.313	1.1472
16	1.70	9.005	9.024	9.012	9.045	9.021	9.075	9.037	9.126	1.1387
17	1.70	9.713	9.732	9.720	9.752	9.729	9.782	9.745	9.832	1.1217
18	1.70	10.517	10.536	10.524	10.556	10.534	10.587	10.550	10.637	1.1163
19	1.70	11.228	11.246	11.235	11.267	11.244	11.297	11.260	11.347	1.1038
20	1.70	12.026	12.045	12.033	12.065	12.043	12.095	12.059	12.145	1.1001
21	1.70	12.740	12.758	12.746	12.778	12.756	12.808	12.772	12.858	1.0906
22	1.70	13.533	13.552	13.540	13.572	13.550	13.602	13.566	13.653	1.0879
23	1.80	13.994	14.013	14.001	14.033	14.011	14.064	14.027	14.114	1.0947
24	1.80	14.784	14.803	14.792	14.823	14.801	14.854	14.818	14.905	1.0918
25	1.80	15.503	15.522	15.511	15.542	15.521	15.573	15.537	15.624	1.0847
26	1.80	16.291	16.309	16.298	16.330	16.308	16.360	16.324	16.411	1.0825
27	1.80	17.011	17.030	17.019	17.050	17.029	17.081	17.045	17.132	1.0767
28	1.80	17.796	17.814	17.803	17.835	17.813	17.865	17.830	17.916	1.0749
29	1.80	18.518	18.537	18.526	18.557	18.535	18.588	18.552	18.639	1.0700
30	1.80	19.300	19.318	19.307	19.339	19.317	19.370	19.334	19.421	1.0685
31	1.80	20.024	20.042	20.031	20.063	20.041	20.094	20.058	20.145	1.0644
32	1.80	20.804	20.822	20.811	20.843	20.822	20.874	20.838	20.925	1.0632
33	1.80	21.529	21.547	21.536	21.568	21.547	21.599	21.564	21.650	1.0596
34	1.80	22.307	22.325	22.314	22.346	22.325	22.377	22.342	22.429	1.0586
35	1.80	23.034	23.051	23.041	23.072	23.051	23.104	23.068	23.155	1.0555
36	1.80	23.810	23.828	23.818	23.849	23.828	23.880	23.845	23.932	1.0547
37	1.80	24.537	24.556	24.545	24.576	24.556	24.608	24.572	24.660	1.0519
38	1.80	25.312	25.331	25.320	25.352	25.331	25.383	25.348	25.435	1.0512
39	1.80	26.041	26.059	26.048	26.080	26.059	26.112	26.076	26.164	1.0488
40	1.80	26.815	26.833	26.823	26.853	26.833	26.885	26.850	26.938	1.0482
41	1.80	27.544	27.562	27.552	27.583	27.563	27.615	27.580	27.667	1.0460
42	1.80	28.317	28.335	28.325	28.356	28.335	28.388	28.353	28.440	1.0455
43	1.80	29.047	29.065	29.055	29.086	29.066	29.118	29.083	29.170	1.0435
44	1.80	29.819	29.836	29.827	29.858	29.837	29.890	29.855	29.943	1.0430
45	1.80	30.550	30.568	30.558	30.589	30.569	30.621	30.586	30.674	1.0413
46	1.80	31.321	31.338	31.328	31.359	31.340	31.392	31.357	31.445	1.0408
47	1.80	32.052	32.070	32.060	32.092	32.072	32.124	32.089	32.177	1.0392
48	1.80	32.822	32.840	32.830	32.861	32.841	32.893	32.859	32.947	1.0389
49	1.80	33.555	33.572	33.562	33.594	33.574	33.626	33.592	33.680	1.0374
50	1.80	34.323	34.341	34.331	34.363	34.343	34.395	34.361	34.449	1.0371
51	1.80	35.056	35.074	35.064	35.096	35.076	35.128	35.094	35.182	1.0358
52	1.80	35.825	35.843	35.833	35.864	35.845	35.897	35.862	35.950	1.0355
53	1.80	36.559	36.576	36.567	36.598	36.578	36.631	36.596	36.685	1.0342
54	1.90	37.079	37.096	37.087	37.119	37.099	37.151	37.117	37.205	1.0384
55	1.90	37.814	37.831	37.822	37.853	37.833	37.886	37.852	37.941	1.0372
56	1.90	38.580	38.598	38.589	38.620	38.601	38.653	38.618	38.707	1.0368
57	1.90	39.316	39.333	39.324	39.355	39.335	39.388	39.354	39.442	1.0357
58	1.90	40.081	40.099	40.090	40.121	40.102	40.154	40.120	40.209	1.0354
59	1.90	40.817	40.835	40.826	40.857	40.837	40.889	40.856	40.945	1.0343
60	1.90	41.583	41.601	41.591	41.622	41.603	41.656	41.621	41.711	1.0340
61	1.90	42.318	42.336	42.327	42.359	42.339	42.392	42.358	42.447	1.0330
62	1.90	43.084	43.102	43.093	43.124	43.104	43.157	43.123	43.212	1.0328
63	1.90	43.820	43.838	43.829	43.860	43.841	43.894	43.860	43.949	1.0319
64	1.90	44.585	44.603	44.594	44.625	44.606	44.658	44.625	44.714	1.0316
65	1.90	45.321	45.340	45.330	45.361	45.342	45.395	45.361	45.451	1.0308
66	1.90	46.086	46.103	46.094	46.126	46.107	46.160	46.126	46.215	1.0305
67	1.90	46.823	46.840	46.831	46.863	46.844	46.897	46.864	46.953	1.0297
68	1.90	47.587	47.604	47.596	47.627	47.608	47.661	47.627	47.716	1.0295
69	1.90	48.325	48.342	48.333	48.364	48.346	48.398	48.364	48.454	1.0288
70	1.90	49.088	49.105	49.097	49.128	49.109	49.162	49.129	49.218	1.0286
71	1.90	49.826	49.843	49.835	49.866	49.847	49.899	49.866	49.956	1.0279
72	1.90	50.589	50.606	50.597	50.629	50.610	50.662	50.629	50.720	1.0277
73	1.90	51.327	51.345	51.336	51.367	51.348	51.401	51.368	51.458	1.0270
74	1.90	52.089	52.107	52.098	52.130	52.111	52.164	52.130	52.220	1.0269
75	1.90	52.828	52.845	52.837	52.869	52.849	52.902	52.870	52.959	1.0262
76	1.90	53.591	53.608	53.600	53.631	53.612	53.665	53.632	53.721	1.0261
77	1.90	54.329	54.346	54.338	54.369	54.351	54.404	54.370	54.460	1.0255
78	1.90	55.091	55.109	55.100	55.131	55.113	55.166	55.133	55.223	1.0253
79	1.90	55.830	55.848	55.839	55.870	55.852	55.904	55.872	55.962	1.0248
80	1.90	56.592	56.610	56.601	56.632	56.614	56.666	56.634	56.724	1.0246
81	1.90	57.331	57.349	57.340	57.372	57.353	57.406	57.373	57.463	1.0241
82	1.90	58.092	58.110	58.102	58.133	58.115	58.167	58.135	58.225	1.0240
83	1.90	58.832	58.849	58.841	58.873	58.855	58.907	58.874	58.965	1.0235
84	1.90	59.593	59.610	59.602	59.633	59.616	59.669	59.636	59.726	1.0233
85	1.90	60.333	60.351	60.343	60.374	60.355	60.407	60.376	60.466	1.0229
86	1.90	61.094	61.111	61.103	61.135	61.116	61.169	61.137	61.227	1.0227
87	1.90	61.834	61.851	61.843	61.874	61.856	61.910	61.876	61.967	1.0223
88	1.90	62.595	62.612	62.604	62.634	62.618	62.671	62.638	62.729	1.0222
89	1.90	63.334	63.351	63.344	63.375	63.358	63.410	63.378	63.469	1.0217
90	1.90	64.095	64.112	64.105	64.136	64.118	64.170	64.138	64.230	1.0216
91	1.90	64.836	64.852	64.844	64.876	64.858	64.911	64.879	64.969	1.0212
92	1.90	65.595	65.613	65.606	65.636	65.618	65.671	65.640	65.729	1.0211
93	1.90	66.336	66.354	66.346	66.377	66.359	66.413	66.381	66.470	1.0207
94	1.90	67.096	67.113	67.105	67.136	67.120	67.172	67.140	67.231	1.0206
95	1.90	67.836	67.855	67.847	67.878	67.860	67.913	67.881	67.972	1.0202
96	1.90	68.597	68.614	68.606	68.638	68.620	68.673	68.641	68.732	1.0201
97	1.90	69.338	69.354	69.348	69.378	69.361	69.414	69.382	69.473	1.0198
98	1.90	70.097	70.114	70.108	70.137	70.121	70.174	70.141	70.232	1.0197
99	1.90	70.839	70.855	70.848	70.880	70.862	70.915	70.882	70.974	1.0194
100	1.90	71.598	71.614	71.608	71.638	71.621	71.674	71.642	71.733	1.0193

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Table 171 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 1.00

$E_{v\,min}$ = minimum effective circular space width = 1.571

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	1.90	2.786	2.815	2.795	2.843	2.808	2.884	2.829	2.950	1.4595
7	2.00	3.398	3.425	3.407	3.452	3.419	3.491	3.439	3.554	1.3924
8	2.00	4.589	4.614	4.597	4.639	4.608	4.675	4.627	4.734	1.3032
9	2.12	5.162	5.186	5.170	5.211	5.181	5.248	5.199	5.308	1.2976
10	2.12	6.307	6.331	6.315	6.354	6.326	6.390	6.343	6.448	1.2522
11	2.12	7.234	7.256	7.241	7.279	7.252	7.313	7.268	7.369	1.1973
12	2.12	8.347	8.369	8.354	8.392	8.365	8.426	8.382	8.481	1.1795
13	2.12	9.276	9.298	9.283	9.320	9.294	9.353	9.310	9.408	1.1487
14	2.24	10.051	10.073	10.059	10.096	10.069	10.130	10.086	10.186	1.1699
15	2.24	10.990	11.012	10.998	11.034	11.008	11.068	11.025	11.123	1.1455
16	2.24	12.073	12.094	12.080	12.117	12.091	12.150	12.108	12.206	1.1372
17	2.24	13.016	13.037	13.023	13.059	13.034	13.093	13.051	13.148	1.1204
18	2.24	14.089	14.109	14.096	14.132	14.106	14.165	14.123	14.220	1.1151
19	2.24	15.035	15.056	15.043	15.078	15.053	15.111	15.070	15.167	1.1028
20	2.24	16.100	16.121	16.107	16.143	16.118	16.176	16.135	16.231	1.0992
21	2.24	17.051	17.071	17.058	17.093	17.068	17.127	17.086	17.182	1.0897
22	2.24	18.109	18.129	18.117	18.152	18.127	18.185	18.144	18.240	1.0872
23	2.24	19.063	19.083	19.071	19.106	19.081	19.139	19.098	19.194	1.0796
24	2.36	19.811	19.832	19.819	19.854	19.829	19.888	19.847	19.944	1.0697
25	2.36	20.769	20.790	20.777	20.812	20.788	20.846	20.805	20.902	1.0828
26	2.36	21.819	21.839	21.826	21.862	21.837	21.895	21.855	21.951	1.0807
27	2.36	22.779	22.800	22.787	22.822	22.798	22.856	22.815	22.912	1.0750
28	2.36	23.825	23.845	23.833	23.868	23.844	23.902	23.861	23.958	1.0733
29	2.36	24.788	24.808	24.796	24.831	24.807	24.865	24.825	24.921	1.0685
30	2.36	25.830	25.851	25.838	25.873	25.850	25.907	25.867	25.964	1.0671
31	2.36	26.795	26.816	26.803	26.838	26.814	26.872	26.832	26.929	1.0631
32	2.36	27.835	27.855	27.843	27.878	27.854	27.912	27.872	27.969	1.0619
33	2.36	28.801	28.822	28.810	28.845	28.821	28.878	28.839	28.936	1.0584
34	2.36	29.839	29.859	29.847	29.882	29.858	29.916	29.877	29.973	1.0575
35	2.36	30.807	30.827	30.815	30.850	30.827	30.885	30.845	30.942	1.0544
36	2.36	31.843	31.863	31.851	31.885	31.862	31.920	31.880	31.977	1.0536
37	2.36	32.812	32.832	32.820	32.855	32.832	32.890	32.850	32.947	1.0509
38	2.36	33.846	33.866	33.854	33.889	33.866	33.923	33.884	33.981	1.0502
39	2.36	34.817	34.837	34.825	34.860	34.837	34.894	34.855	34.952	1.0479
40	2.36	35.849	35.868	35.857	35.891	35.868	35.926	35.887	35.984	1.0473
41	2.36	36.821	36.841	36.829	36.864	36.841	36.899	36.860	36.957	1.0451
42	2.36	37.851	37.871	37.859	37.894	37.871	37.929	37.890	37.988	1.0446
43	2.36	38.825	38.844	38.833	38.867	38.845	38.903	38.864	38.961	1.0427
44	2.36	39.854	39.873	39.862	39.897	39.874	39.932	39.893	39.990	1.0423
45	2.36	40.828	40.848	40.837	40.871	40.849	40.906	40.868	40.965	1.0405
46	2.36	41.856	41.875	41.864	41.899	41.876	41.934	41.895	41.993	1.0401
47	2.36	42.831	42.851	42.840	42.875	42.852	42.910	42.871	42.968	1.0386
48	2.36	43.858	43.877	43.866	43.900	43.879	43.937	43.898	43.995	1.0382
49	2.36	44.834	44.854	44.843	44.878	44.855	44.913	44.875	44.972	1.0368
50	2.36	45.859	45.879	45.868	45.902	45.880	45.938	45.900	45.997	1.0365
51	2.36	46.837	46.857	46.846	46.880	46.858	46.916	46.877	46.975	1.0351
52	2.36	47.861	47.880	47.870	47.904	47.882	47.940	47.902	47.999	1.0348
53	2.36	48.839	48.858	48.848	48.883	48.861	48.918	48.881	48.978	1.0336
54	2.36	49.862	49.882	49.871	49.906	49.884	49.942	49.904	50.001	1.0334
55	2.50	50.496	50.516	50.505	50.540	50.518	50.576	50.538	50.636	1.0368
56	2.50	51.518	51.538	51.527	51.562	51.540	51.599	51.561	51.659	1.0365
57	2.50	52.498	52.518	52.508	52.542	52.520	52.578	52.540	52.638	1.0354
58	2.50	53.520	53.539	53.529	53.564	53.542	53.600	53.563	53.661	1.0350
59	2.50	54.501	54.520	54.510	54.544	54.523	54.581	54.543	54.641	1.0340
60	2.50	55.522	55.541	55.531	55.566	55.544	55.602	55.565	55.662	1.0337
61	2.50	56.503	56.522	56.513	56.546	56.526	56.583	56.546	56.645	1.0327
62	2.50	57.523	57.543	57.533	57.567	57.546	57.603	57.566	57.665	1.0325
63	2.50	58.505	58.525	58.515	58.549	58.527	58.585	58.548	58.647	1.0316
64	2.50	59.524	59.544	59.534	59.568	59.547	59.605	59.568	59.666	1.0313
65	2.50	60.507	60.525	60.516	60.551	60.530	60.588	60.551	60.648	1.0305
66	2.50	61.525	61.544	61.535	61.570	61.549	61.607	61.570	61.668	1.0303
67	2.50	62.509	62.528	62.518	62.552	62.531	62.590	62.553	62.651	1.0295
68	2.50	63.526	63.546	63.536	63.571	63.551	63.608	63.571	63.670	1.0293
69	2.50	64.509	64.529	64.519	64.554	64.534	64.591	64.554	64.653	1.0285
70	2.50	65.528	65.547	65.538	65.572	65.551	65.610	65.572	65.672	1.0283
71	2.50	66.511	66.531	66.521	66.556	66.535	66.593	66.557	66.655	1.0276
72	2.50	67.529	67.548	67.539	67.573	67.553	67.610	67.574	67.673	1.0275
73	2.50	68.514	68.532	68.523	68.557	68.537	68.595	68.558	68.657	1.0268
74	2.50	69.530	69.550	69.540	69.575	69.554	69.612	69.575	69.674	1.0267
75	2.50	70.514	70.533	70.525	70.559	70.538	70.597	70.560	70.659	1.0260
76	2.50	71.531	71.550	71.541	71.575	71.555	71.614	71.576	71.675	1.0259
77	2.50	72.516	72.536	72.526	72.561	72.540	72.598	72.562	72.661	1.0253
78	2.50	73.531	73.551	73.541	73.577	73.555	73.615	73.578	73.677	1.0251
79	2.50	74.517	74.537	74.527	74.561	74.541	74.600	74.564	74.663	1.0246
80	2.50	75.533	75.552	75.543	75.578	75.558	75.616	75.579	75.678	1.0244
81	2.50	76.519	76.538	76.529	76.563	76.544	76.601	76.566	76.664	1.0239
82	2.50	77.534	77.552	77.545	77.578	77.558	77.616	77.581	77.679	1.0238
83	2.50	78.520	78.538	78.531	78.564	78.544	78.603	78.567	78.667	1.0233
84	2.50	79.535	79.554	79.544	79.580	79.560	79.618	79.581	79.681	1.0232
85	2.50	80.521	80.539	80.532	80.566	80.546	80.604	80.567	80.668	1.0227
86	2.50	81.535	81.554	81.546	81.579	81.560	81.619	81.582	81.683	1.0226
87	2.50	82.522	82.542	82.532	82.567	82.546	82.605	82.570	82.669	1.0221
88	2.50	83.536	83.556	83.546	83.581	83.562	83.620	83.584	83.684	1.0220
89	2.50	84.523	84.543	84.533	84.567	84.549	84.606	84.570	84.670	1.0216
90	2.50	85.538	85.556	85.547	85.582	85.562	85.620	85.585	85.684	1.0215
91	2.50	86.524	86.542	86.534	86.569	86.549	86.607	86.572	86.673	1.0211
92	2.50	87.538	87.556	87.548	87.581	87.563	87.622	87.587	87.686	1.0210
93	2.50	88.526	88.544	88.536	88.570	88.551	88.609	88.573	88.674	1.0206
94	2.50	89.538	89.557	89.548	89.583	89.564	89.623	89.586	89.686	1.0205
95	2.50	90.525	90.545	90.538	90.571	90.551	90.609	90.574	90.674	1.0201
96	2.50	91.539	91.558	91.549	91.584	91.565	91.623	91.588	91.689	1.0200
97	2.50	92.527	92.545	92.538	92.572	92.554	92.611	92.575	92.675	1.0197
98	2.50	93.539	93.559	93.550	93.584	93.566	93.624	93.589	93.689	1.0196
99	2.50	94.529	94.547	94.540	94.572	94.554	94.612	94.578	94.678	1.0192
100	2.50	95.539	95.558	95.550	95.585	95.567	95.624	95.589	95.691	1.0191

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Table 172 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 1.25

$E_{v\ min}$ = minimum effective circular space width = 1.963

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.36	3.529	3.560	3.538	3.590	3.551	3.634	3.573	3.704	1.4582
7	2.50	4.244	4.274	4.253	4.303	4.266	4.345	4.287	4.414	1.4106
8	2.50	5.734	5.761	5.742	5.787	5.754	5.827	5.773	5.891	1.3334
9	2.50	6.878	6.903	6.885	6.928	6.897	6.965	6.914	7.025	1.2742
10	2.65	7.881	7.906	7.889	7.932	7.900	7.971	7.919	8.033	1.2589
11	2.65	9.039	9.064	9.047	9.088	9.058	9.125	9.076	9.186	1.2023
12	2.65	10.431	10.455	10.438	10.479	10.449	10.516	10.467	10.576	1.1836
13	2.65	11.593	11.616	11.600	11.640	11.611	11.676	11.629	11.735	1.1521
14	2.65	12.961	12.984	12.968	13.008	12.979	13.043	12.996	13.103	1.1427
15	2.80	13.735	13.758	13.742	13.783	13.754	13.819	13.771	13.879	1.1484
16	2.80	15.088	15.111	15.096	15.136	15.107	15.172	15.125	15.232	1.1398
17	2.80	16.267	16.290	16.275	16.314	16.286	16.350	16.304	16.409	1.1227
18	2.80	17.608	17.631	17.615	17.655	17.627	17.690	17.644	17.750	1.1172
19	2.80	18.791	18.814	18.799	18.838	18.810	18.874	18.828	18.933	1.1046
20	2.80	20.122	20.145	20.130	20.168	20.141	20.204	20.159	20.264	1.1009
21	2.80	21.310	21.333	21.318	21.357	21.330	21.393	21.347	21.452	1.0913
22	2.80	22.633	22.656	22.641	22.680	22.653	22.715	22.671	22.775	1.0886
23	2.80	23.826	23.848	23.834	23.872	23.845	23.908	23.863	23.967	1.0810
24	2.80	25.142	25.165	25.151	25.188	25.162	25.225	25.180	25.284	1.0790
25	2.80	26.339	26.361	26.347	26.385	26.358	26.421	26.377	26.480	1.0728
26	2.80	27.650	27.672	27.658	27.696	27.670	27.732	27.688	27.792	1.0713
27	3.00	28.344	28.366	28.353	28.391	28.364	28.427	28.383	28.488	1.0796
28	3.00	29.651	29.673	29.660	29.698	29.672	29.735	29.691	29.796	1.0777
29	3.00	30.855	30.878	30.864	30.902	30.876	30.939	30.895	30.999	1.0727
30	3.00	32.159	32.181	32.167	32.205	32.179	32.242	32.198	32.303	1.0711
31	3.00	33.365	33.387	33.374	33.412	33.386	33.448	33.405	33.510	1.0668
32	3.00	34.665	34.686	34.673	34.711	34.686	34.748	34.705	34.810	1.0655
33	3.00	35.874	35.895	35.882	35.920	35.894	35.957	35.914	36.019	1.0619
34	3.00	37.171	37.192	37.179	37.217	37.191	37.254	37.211	37.315	1.0608
35	3.00	38.381	38.402	38.389	38.428	38.402	38.465	38.421	38.526	1.0576
36	3.00	39.675	39.697	39.684	39.721	39.697	39.759	39.716	39.821	1.0567
37	3.00	40.888	40.909	40.897	40.934	40.909	40.971	40.928	41.033	1.0539
38	3.00	42.179	42.201	42.188	42.226	42.201	42.263	42.221	42.325	1.0531
39	3.00	43.394	43.415	43.403	43.440	43.415	43.477	43.435	43.540	1.0506
40	3.00	44.683	44.704	44.692	44.730	44.705	44.767	44.725	44.830	1.0499
41	3.00	45.899	45.920	45.908	45.945	45.921	45.983	45.941	46.045	1.0477
42	3.00	47.186	47.208	47.195	47.233	47.209	47.270	47.228	47.333	1.0471
43	3.00	48.404	48.425	48.413	48.450	48.426	48.488	48.446	48.551	1.0451
44	3.00	49.690	49.710	49.698	49.736	49.711	49.774	49.732	49.837	1.0446
45	3.00	50.908	50.929	50.917	50.955	50.930	50.992	50.951	51.055	1.0428
46	3.00	52.192	52.214	52.202	52.239	52.215	52.277	52.236	52.340	1.0423
47	3.00	53.412	53.433	53.421	53.459	53.434	53.496	53.456	53.561	1.0407
48	3.00	54.695	54.716	54.704	54.741	54.717	54.780	54.738	54.843	1.0403
49	3.00	55.916	55.937	55.925	55.963	55.938	56.001	55.959	56.065	1.0388
50	3.00	57.197	57.219	57.207	57.244	57.220	57.282	57.240	57.346	1.0384
51	3.00	58.419	58.441	58.428	58.466	58.443	58.504	58.463	58.569	1.0371
52	3.00	59.699	59.720	59.709	59.745	59.723	59.784	59.743	59.849	1.0367
53	3.00	60.922	60.943	60.932	60.969	60.945	61.008	60.967	61.072	1.0355
54	3.00	62.201	62.223	62.211	62.248	62.225	62.287	62.246	62.351	1.0352
55	3.00	63.425	63.446	63.435	63.472	63.448	63.511	63.470	63.576	1.0340
56	3.00	64.702	64.725	64.714	64.749	64.727	64.789	64.748	64.854	1.0338
57	3.00	65.928	65.948	65.938	65.975	65.952	66.014	65.973	66.079	1.0327
58	3.00	67.205	67.225	67.215	67.251	67.229	67.291	67.251	67.357	1.0324
59	3.00	68.431	68.451	68.440	68.478	68.454	68.517	68.476	68.581	1.0315
60	3.00	69.707	69.727	69.716	69.754	69.731	69.794	69.752	69.858	1.0312
61	3.00	70.933	70.954	70.943	70.980	70.958	71.019	70.980	71.084	1.0303
62	3.00	72.208	72.228	72.219	72.255	72.233	72.295	72.255	72.360	1.0301
63	3.00	73.435	73.456	73.446	73.483	73.460	73.522	73.481	73.587	1.0293
64	3.00	74.709	74.729	74.719	74.757	74.734	74.797	74.757	74.863	1.0290
65	3.00	75.937	75.957	75.947	75.985	75.962	76.024	75.985	76.090	1.0283
66	3.00	77.212	77.232	77.220	77.259	77.235	77.297	77.259	77.364	1.0281
67	3.00	78.439	78.460	78.450	78.486	78.465	78.526	78.487	78.593	1.0273
68	3.00	79.712	79.732	79.723	79.760	79.737	79.800	79.760	79.866	1.0272
69	3.00	80.941	80.961	80.952	80.988	80.966	81.028	80.989	81.095	1.0264
70	3.00	82.213	82.233	82.224	82.260	82.240	82.301	82.262	82.368	1.0263
71	3.00	83.443	83.463	83.454	83.491	83.468	83.531	83.491	83.598	1.0256
72	3.00	84.714	84.735	84.725	84.763	84.740	84.802	84.763	84.870	1.0255
73	3.00	85.945	85.964	85.955	85.992	85.971	86.032	85.994	86.100	1.0249
74	3.00	87.216	87.236	87.226	87.263	87.241	87.305	87.264	87.372	1.0247
75	3.00	88.447	88.467	88.457	88.493	88.473	88.534	88.495	88.602	1.0241
76	3.00	89.718	89.737	89.728	89.764	89.744	89.806	89.766	89.873	1.0240
77	3.00	90.948	90.969	90.958	90.995	90.974	91.037	90.997	91.104	1.0235
78	3.00	92.218	92.239	92.228	92.266	92.244	92.306	92.267	92.374	1.0233
79	3.00	93.450	93.470	93.461	93.497	93.475	93.538	93.498	93.607	1.0228
80	3.00	94.719	94.739	94.730	94.767	94.745	94.807	94.768	94.876	1.0227
81	3.00	95.950	95.970	95.961	95.998	95.977	96.038	96.001	96.107	1.0222
82	3.00	97.220	97.239	97.231	97.267	97.246	97.308	97.271	97.378	1.0221
83	3.00	98.453	98.472	98.464	98.500	98.479	98.542	98.504	98.610	1.0216
84	3.00	99.720	99.741	99.732	99.768	99.747	99.810	99.772	99.878	1.0215
85	3.00	100.954	100.974	100.964	101.001	100.980	101.042	101.005	101.112	1.0211
86	3.00	102.221	102.243	102.233	102.270	102.248	102.311	102.272	102.381	1.0210
87	3.00	103.455	103.475	103.465	103.503	103.481	103.545	103.507	103.613	1.0205
88	3.00	104.722	104.742	104.734	104.771	104.750	104.811	104.775	104.882	1.0204
89	3.00	105.956	105.976	105.966	106.003	105.982	106.046	106.007	106.115	1.0200
90	3.00	107.224	107.243	107.234	107.272	107.251	107.313	107.276	107.381	1.0200
91	3.00	108.457	108.476	108.468	108.505	108.484	108.547	108.510	108.616	1.0196
92	3.00	109.724	109.743	109.735	109.771	109.752	109.813	109.777	109.883	1.0195
93	3.00	110.959	110.978	110.970	111.006	110.987	111.049	111.010	111.117	1.0191
94	3.00	112.224	112.244	112.235	112.272	112.253	112.315	112.279	112.385	1.0190
95	3.00	113.458	113.478	113.472	113.507	113.487	113.548	113.513	113.618	1.0187
96	3.00	114.725	114.745	114.738	114.773	114.753	114.815	114.778	114.886	1.0186
97	3.00	115.960	115.980	115.971	116.009	115.989	116.049	116.014	116.121	1.0183
98	3.00	117.227	117.245	117.238	117.274	117.254	117.315	117.279	117.388	1.0182
99	3.00	118.461	118.482	118.473	118.509	118.489	118.551	118.514	118.622	1.0179
100	3.00	119.727	119.748	119.738	119.775	119.754	119.817	119.780	119.889	1.0178

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Table 173 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 1.50

$E_{v\,min}$ = minimum effective circular space width = 2.356

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	2.80	4.336	4.368	4.345	4.399	4.359	4.444	4.380	4.517	1.4327
7	3.00	5.090	5.122	5.099	5.153	5.113	5.198	5.135	5.272	1.4242
8	3.00	6.878	6.907	6.886	6.935	6.899	6.977	6.919	7.046	1.3209
9	3.00	8.251	8.278	8.259	8.304	8.271	8.343	8.289	8.408	1.2292
10	3.15	9.539	9.567	9.548	9.594	9.559	9.634	9.579	9.701	1.2525
11	3.15	10.927	10.953	10.935	10.979	10.946	11.018	10.965	11.082	1.1976
12	3.15	12.596	12.621	12.604	12.647	12.615	12.686	12.633	12.750	1.1798
13	3.15	13.988	14.014	13.996	14.039	14.008	14.077	14.026	14.140	1.1490
14	3.35	15.098	15.123	15.106	15.150	15.118	15.188	15.136	15.253	1.1738
15	3.35	16.506	16.531	16.514	16.557	16.526	16.595	16.544	16.659	1.1489
16	3.35	18.130	18.155	18.138	18.180	18.150	18.219	18.169	18.283	1.1402
17	3.35	19.544	19.569	19.552	19.594	19.564	19.632	19.582	19.696	1.1231
18	3.35	21.153	21.177	21.161	21.202	21.173	21.241	21.192	21.304	1.1176
19	3.35	22.573	22.597	22.581	22.622	22.593	22.660	22.612	22.724	1.1050
20	3.35	24.170	24.194	24.178	24.219	24.190	24.258	24.208	24.321	1.1013
21	3.35	25.596	25.619	25.604	25.645	25.616	25.683	25.635	25.746	1.0916
22	3.35	27.183	27.207	27.192	27.233	27.203	27.271	27.222	27.334	1.0889
23	3.35	28.614	28.638	28.622	28.663	28.635	28.701	28.653	28.765	1.0813
24	3.35	30.194	30.217	30.202	30.243	30.215	30.281	30.234	30.345	1.0793
25	3.35	31.629	31.652	31.638	31.679	31.650	31.717	31.669	31.780	1.0731
26	3.35	33.203	33.226	33.211	33.252	33.224	33.290	33.243	33.354	1.0715
27	3.35	34.642	34.665	34.651	34.691	34.663	34.730	34.683	34.793	1.0664
28	3.35	36.210	36.233	36.219	36.259	36.232	36.297	36.251	36.362	1.0651
29	3.55	37.151	37.174	37.159	37.199	37.171	37.239	37.192	37.304	1.0708
30	3.55	38.714	38.737	38.723	38.763	38.735	38.802	38.756	38.868	1.0693
31	3.55	40.161	40.185	40.170	40.210	40.183	40.249	40.203	40.315	1.0652
32	3.55	41.720	41.744	41.730	41.770	41.743	41.810	41.763	41.875	1.0639
33	3.55	43.171	43.194	43.181	43.220	43.194	43.259	43.213	43.325	1.0603
34	3.55	44.727	44.750	44.737	44.776	44.749	44.816	44.770	44.881	1.0593
35	3.55	46.180	46.202	46.189	46.229	46.202	46.268	46.223	46.334	1.0562
36	3.55	47.733	47.755	47.742	47.781	47.755	47.821	47.776	47.887	1.0553
37	3.55	49.187	49.210	49.197	49.236	49.210	49.276	49.231	49.342	1.0526
38	3.55	50.737	50.760	50.746	50.787	50.760	50.826	50.781	50.893	1.0518
39	3.55	52.194	52.217	52.204	52.243	52.217	52.283	52.237	52.349	1.0494
40	3.55	53.741	53.764	53.751	53.791	53.764	53.830	53.785	53.898	1.0488
41	3.55	55.201	55.223	55.210	55.249	55.224	55.290	55.245	55.356	1.0466
42	3.55	56.745	56.768	56.755	56.795	56.768	56.835	56.790	56.902	1.0460
43	3.55	58.206	58.228	58.216	58.256	58.229	58.295	58.251	58.365	1.0441
44	3.55	59.749	59.771	59.758	59.799	59.773	59.838	59.794	59.906	1.0436
45	3.55	61.211	61.234	61.221	61.261	61.235	61.300	61.256	61.368	1.0418
46	3.55	62.752	62.775	62.761	62.801	62.776	62.841	62.797	62.910	1.0414
47	3.55	64.215	64.238	64.226	64.265	64.240	64.306	64.262	64.373	1.0398
48	3.55	65.754	65.777	65.764	65.804	65.779	65.844	65.801	65.912	1.0394
49	3.55	67.219	67.242	67.229	67.269	67.244	67.310	67.267	67.378	1.0379
50	3.55	68.757	68.779	68.767	68.807	68.782	68.847	68.804	68.916	1.0376
51	3.55	70.224	70.246	70.233	70.274	70.248	70.314	70.271	70.382	1.0363
52	3.55	71.760	71.782	71.771	71.809	71.784	71.850	71.808	71.919	1.0360
53	3.55	73.227	73.250	73.237	73.276	73.252	73.318	73.275	73.387	1.0347
54	3.55	74.761	74.784	74.773	74.811	74.787	74.853	74.810	74.922	1.0344
55	3.55	76.230	76.253	76.242	76.280	76.256	76.322	76.278	76.391	1.0333
56	3.55	77.764	77.786	77.775	77.815	77.789	77.855	77.812	77.925	1.0330
57	3.55	79.233	79.256	79.244	79.283	79.259	79.326	79.282	79.394	1.0320
58	3.55	80.767	80.788	80.776	80.816	80.792	80.858	80.815	80.928	1.0318
59	3.55	82.237	82.259	82.247	82.286	82.262	82.329	82.286	82.398	1.0308
60	3.55	83.769	83.790	83.778	83.818	83.794	83.860	83.817	83.929	1.0306
61	3.55	85.239	85.261	85.250	85.289	85.265	85.332	85.289	85.400	1.0297
62	3.55	86.771	86.792	86.780	86.820	86.795	86.862	86.820	86.932	1.0295
63	3.55	88.243	88.263	88.253	88.292	88.268	88.334	88.292	88.404	1.0286
64	3.55	89.772	89.794	89.782	89.822	89.797	89.863	89.822	89.934	1.0284
65	3.55	91.244	91.267	91.256	91.295	91.270	91.337	91.295	91.407	1.0277
66	3.55	92.773	92.795	92.784	92.823	92.800	92.866	92.823	92.935	1.0275
67	3.55	94.247	94.269	94.258	94.298	94.273	94.340	94.298	94.410	1.0267
68	3.55	95.775	95.797	95.786	95.824	95.800	95.867	95.826	95.938	1.0266
69	3.55	97.248	97.271	97.259	97.299	97.276	97.342	97.301	97.413	1.0259
70	3.55	98.775	98.798	98.787	98.827	98.802	98.868	98.827	98.941	1.0257
71	3.55	100.250	100.273	100.262	100.300	100.277	100.345	100.302	100.416	1.0251
72	3.55	101.777	101.799	101.789	101.828	101.804	101.871	101.830	101.942	1.0250
73	3.55	103.253	103.275	103.265	103.302	103.281	103.346	103.304	103.418	1.0244
74	3.55	104.779	104.799	104.789	104.828	104.805	104.872	104.832	104.945	1.0242
75	3.55	106.256	106.276	106.266	106.305	106.282	106.348	106.307	106.419	1.0237
76	3.55	107.779	107.800	107.792	107.829	107.806	107.873	107.833	107.946	1.0235
77	3.55	109.257	109.278	109.269	109.307	109.284	109.351	109.309	109.423	1.0230
78	3.55	110.782	110.803	110.792	110.831	110.809	110.875	110.835	110.946	1.0229
79	3.55	112.259	112.281	112.270	112.309	112.287	112.352	112.313	112.426	1.0223
80	3.55	113.781	113.803	113.794	113.833	113.809	113.875	113.836	113.948	1.0222
81	3.55	115.261	115.281	115.272	115.309	115.287	115.354	115.314	115.427	1.0217
82	3.55	116.784	116.804	116.795	116.833	116.811	116.876	116.838	116.950	1.0216
83	3.55	118.261	118.282	118.273	118.311	118.291	118.355	118.316	118.430	1.0212
84	3.55	119.783	119.804	119.795	119.834	119.813	119.878	119.839	119.952	1.0211
85	3.55	121.263	121.284	121.275	121.314	121.293	121.359	121.319	121.431	1.0206
86	3.55	122.784	122.807	122.798	122.836	122.814	122.881	122.840	122.954	1.0205
87	3.55	124.265	124.284	124.277	124.315	124.294	124.359	124.320	124.433	1.0201
88	3.55	125.784	125.806	125.799	125.835	125.816	125.882	125.843	125.954	1.0200
89	3.55	127.266	127.288	127.278	127.317	127.295	127.361	127.322	127.435	1.0196
90	3.55	128.786	128.808	128.798	128.838	128.816	128.883	128.843	128.955	1.0196
91	3.55	130.266	130.289	130.279	130.319	130.297	130.362	130.324	130.438	1.0192
92	3.55	131.788	131.808	131.800	131.838	131.818	131.882	131.844	131.958	1.0191
93	3.55	133.267	133.288	133.280	133.319	133.298	133.365	133.324	133.437	1.0187
94	3.55	134.789	134.810	134.800	134.839	134.818	134.883	134.844	134.959	1.0187
95	3.55	136.268	136.289	136.281	136.321	136.300	136.366	136.326	136.439	1.0183
96	3.55	137.789	137.810	137.802	137.839	137.821	137.884	137.847	137.959	1.0182
97	3.55	139.272	139.291	139.282	139.323	139.301	139.366	139.328	139.441	1.0179
98	3.55	140.790	140.812	140.804	140.842	140.820	140.885	140.847	140.962	1.0178
99	3.55	142.272	142.294	142.286	142.322	142.302	142.368	142.330	142.443	1.0175
100	3.55	143.791	143.811	143.802	143.841	143.822	143.886	143.850	143.964	1.0174

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Table 174 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 1.75

$E_{v\,min}$ = minimum effective circular space width = 2.749

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.35	4.779	4.817	4.790	4.853	4.805	4.905	4.830	4.989	1.5535
7	3.35	6.395	6.425	6.403	6.455	6.416	6.498	6.436	6.570	1.3141
8	3.55	7.873	7.904	7.882	7.935	7.895	7.980	7.916	8.055	1.3551
9	3.55	9.484	9.513	9.492	9.541	9.505	9.583	9.524	9.652	1.2510
10	3.55	11.476	11.504	11.484	11.532	11.496	11.573	11.516	11.641	1.2190
11	3.75	12.540	12.568	12.548	12.596	12.561	12.637	12.580	12.707	1.2189
12	3.75	14.489	14.517	14.498	14.545	14.510	14.586	14.530	14.654	1.1969
13	3.75	16.118	16.145	16.127	16.172	16.139	16.213	16.158	16.280	1.1629
14	3.75	18.034	18.060	18.043	18.088	18.054	18.128	18.074	18.195	1.1520
15	3.75	19.671	19.697	19.680	19.724	19.692	19.764	19.711	19.830	1.1302
16	3.75	21.564	21.590	21.572	21.617	21.584	21.656	21.604	21.723	1.1239
17	3.75	23.210	23.236	23.218	23.262	23.230	23.302	23.250	23.368	1.1086
18	3.75	25.085	25.111	25.094	25.137	25.106	25.177	25.125	25.243	1.1046
19	4.00	26.096	26.122	26.105	26.149	26.117	26.189	26.137	26.256	1.1136
20	4.00	27.960	27.985	27.969	28.013	27.981	28.053	28.001	28.120	1.1093
21	4.00	29.624	29.650	29.634	29.677	29.646	29.717	29.666	29.784	1.0990
22	4.00	31.477	31.503	31.487	31.530	31.499	31.570	31.519	31.637	1.0957
23	4.00	33.148	33.173	33.157	33.200	33.170	33.240	33.190	33.307	1.0876
24	4.00	34.992	35.016	35.000	35.044	35.013	35.084	35.033	35.151	1.0852
25	4.00	36.667	36.691	36.676	36.719	36.689	36.759	36.708	36.827	1.0786
26	4.00	38.503	38.528	38.512	38.554	38.525	38.595	38.545	38.663	1.0767
27	4.00	40.183	40.207	40.192	40.235	40.205	40.275	40.226	40.343	1.0713
28	4.00	42.013	42.036	42.021	42.064	42.035	42.105	42.055	42.172	1.0698
29	4.00	43.696	43.721	43.706	43.748	43.719	43.789	43.740	43.857	1.0652
30	4.00	45.521	45.544	45.530	45.572	45.544	45.613	45.564	45.681	1.0640
31	4.00	47.208	47.232	47.218	47.260	47.231	47.301	47.252	47.369	1.0601
32	4.00	49.027	49.052	49.037	49.079	49.050	49.121	49.072	49.189	1.0591
33	4.00	50.719	50.743	50.728	50.770	50.742	50.812	50.763	50.880	1.0557
34	4.00	52.534	52.557	52.544	52.585	52.557	52.627	52.578	52.695	1.0549
35	4.00	54.228	54.251	54.238	54.279	54.251	54.320	54.273	54.390	1.0519
36	4.00	56.038	56.063	56.049	56.090	56.063	56.132	56.084	56.201	1.0513
37	4.00	57.736	57.760	57.745	57.787	57.760	57.829	57.781	57.898	1.0487
38	4.00	59.543	59.567	59.554	59.595	59.567	59.637	59.590	59.707	1.0481
39	4.00	61.243	61.267	61.253	61.295	61.267	61.336	61.289	61.406	1.0458
40	4.00	63.048	63.071	63.058	63.099	63.072	63.142	63.094	63.212	1.0452
41	4.00	64.749	64.773	64.759	64.801	64.774	64.843	64.796	64.914	1.0432
42	4.00	66.552	66.575	66.563	66.603	66.576	66.646	66.599	66.716	1.0427
43	4.00	68.255	68.279	68.266	68.307	68.280	68.349	68.303	68.420	1.0409
44	4.00	70.056	70.080	70.066	70.108	70.080	70.149	70.104	70.220	1.0405
45	4.00	71.761	71.784	71.772	71.813	71.785	71.855	71.809	71.925	1.0388
46	4.00	73.559	73.581	73.569	73.611	73.584	73.653	73.607	73.725	1.0385
47	4.00	75.267	75.290	75.277	75.318	75.291	75.360	75.314	75.431	1.0370
48	4.00	77.061	77.085	77.072	77.113	77.086	77.156	77.110	77.228	1.0366
49	4.25	78.152	78.176	78.164	78.205	78.179	78.247	78.202	78.320	1.0406
50	4.25	79.947	79.969	79.957	79.998	79.972	80.042	79.997	80.114	1.0402
51	4.25	81.658	81.681	81.669	81.709	81.683	81.753	81.708	81.826	1.0387
52	4.25	83.451	83.473	83.460	83.501	83.476	83.546	83.500	83.618	1.0384
53	4.25	85.163	85.185	85.172	85.214	85.189	85.258	85.213	85.330	1.0371
54	4.25	86.952	86.976	86.964	87.005	86.979	87.049	87.004	87.122	1.0368
55	4.25	88.666	88.690	88.678	88.718	88.693	88.762	88.717	88.835	1.0356
56	4.25	90.456	90.478	90.466	90.508	90.482	90.551	90.506	90.625	1.0353
57	4.25	92.170	92.193	92.181	92.223	92.196	92.267	92.221	92.339	1.0342
58	4.25	93.958	93.981	93.969	94.010	93.985	94.055	94.010	94.127	1.0339
59	4.25	95.674	95.696	95.685	95.725	95.702	95.769	95.725	95.844	1.0329
60	4.25	97.460	97.484	97.471	97.512	97.487	97.556	97.512	97.631	1.0326
61	4.25	99.177	99.200	99.189	99.230	99.204	99.274	99.230	99.348	1.0317
62	4.25	100.962	100.985	100.973	101.016	100.990	101.060	101.016	101.134	1.0314
63	4.25	102.680	102.704	102.692	102.733	102.708	102.776	102.733	102.851	1.0306
64	4.25	104.465	104.487	104.475	104.517	104.493	104.561	104.517	104.635	1.0303
65	4.25	106.182	106.207	106.194	106.235	106.211	106.280	106.237	106.355	1.0295
66	4.25	107.966	107.988	107.978	108.019	107.995	108.063	108.019	108.137	1.0293
67	4.25	109.687	109.708	109.697	109.739	109.714	109.784	109.739	109.859	1.0285
68	4.25	111.468	111.492	111.479	111.522	111.496	111.567	111.522	111.642	1.0283
69	4.25	113.189	113.211	113.200	113.242	113.218	113.287	113.244	113.361	1.0276
70	4.25	114.971	114.993	114.982	115.024	114.999	115.068	115.024	115.143	1.0275
71	4.25	116.691	116.714	116.702	116.743	116.720	116.790	116.747	116.864	1.0268
72	4.25	118.472	118.495	118.484	118.525	118.500	118.570	118.527	118.645	1.0266
73	4.25	120.194	120.217	120.206	120.247	120.222	120.291	120.249	120.367	1.0260
74	4.25	121.972	121.996	121.984	122.026	122.003	122.071	122.029	122.148	1.0258
75	4.25	123.695	123.719	123.709	123.750	123.726	123.795	123.752	123.871	1.0252
76	4.25	125.475	125.497	125.487	125.528	125.504	125.574	125.531	125.649	1.0251
77	4.25	127.199	127.221	127.211	127.250	127.228	127.296	127.255	127.372	1.0245
78	4.25	128.976	128.998	128.988	129.030	129.005	129.075	129.033	129.152	1.0244
79	4.25	130.700	130.722	130.712	130.752	130.730	130.800	130.757	130.876	1.0238
80	4.25	132.478	132.498	132.491	132.531	132.509	132.577	132.534	132.654	1.0237
81	4.25	134.202	134.223	134.215	134.254	134.233	134.300	134.259	134.378	1.0232
82	4.25	135.980	136.001	135.990	136.032	136.009	136.079	136.037	136.155	1.0231
83	4.25	137.704	137.725	137.717	137.757	137.733	137.802	137.762	137.882	1.0226
84	4.25	139.480	139.502	139.494	139.534	139.510	139.580	139.539	139.658	1.0225
85	4.25	141.205	141.226	141.218	141.259	141.237	141.305	141.264	141.384	1.0220
86	4.25	142.982	143.004	142.993	143.034	143.012	143.081	143.040	143.158	1.0219
87	4.25	144.706	144.728	144.720	144.762	144.739	144.806	144.767	144.884	1.0215
88	4.25	146.482	146.505	146.496	146.536	146.513	146.584	146.541	146.660	1.0214
89	4.25	148.208	148.231	148.223	148.263	148.240	148.308	148.268	148.388	1.0209
90	4.25	149.983	150.006	149.997	150.038	150.015	150.084	150.044	150.162	1.0208
91	4.25	151.711	151.732	151.723	151.764	151.743	151.811	151.770	151.890	1.0204
92	4.25	153.484	153.505	153.496	153.537	153.517	153.585	153.546	153.665	1.0203
93	4.25	155.212	155.233	155.227	155.266	155.245	155.313	155.272	155.391	1.0200
94	4.25	156.986	157.007	156.998	157.040	157.019	157.085	157.046	157.164	1.0199
95	4.25	158.712	158.737	158.727	158.767	158.746	158.816	158.773	158.893	1.0195
96	4.25	160.487	160.509	160.500	160.540	160.518	160.586	160.549	160.667	1.0194
97	4.25	162.216	162.238	162.228	162.269	162.247	162.316	162.275	162.394	1.0191
98	4.25	163.989	164.008	164.001	164.039	164.020	164.090	164.049	164.169	1.0190
99	4.25	165.716	165.738	165.729	165.770	165.748	165.818	165.780	165.898	1.0187
100	4.25	167.487	167.509	167.503	167.542	167.522	167.590	167.551	167.671	1.0186

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Table 175 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 2.00

$E_{v\,min}$ = minimum effective circular space width = 3.142

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	3.75	5.722	5.759	5.733	5.794	5.747	5.845	5.771	5.927	1.4707
7	4.00	6.781	6.818	6.792	6.852	6.806	6.902	6.830	6.984	1.4437
8	4.00	9.166	9.198	9.175	9.229	9.188	9.276	9.210	9.352	1.3315
9	4.00	10.997	11.027	11.006	11.056	11.018	11.099	11.039	11.171	1.2361
10	4.00	13.270	13.300	13.279	13.329	13.292	13.371	13.312	13.442	1.2081
11	4.25	14.428	14.457	14.437	14.486	14.449	14.529	14.469	14.601	1.2132
12	4.25	16.655	16.684	16.663	16.712	16.676	16.755	16.696	16.827	1.1924
13	4.25	18.514	18.542	18.523	18.570	18.536	18.613	18.556	18.682	1.1593
14	4.25	20.703	20.731	20.712	20.759	20.725	20.801	20.744	20.871	1.1489
15	4.25	22.573	22.600	22.582	22.628	22.594	22.670	22.614	22.738	1.1276
16	4.25	24.736	24.762	24.744	24.791	24.757	24.832	24.777	24.901	1.1215
17	4.25	26.616	26.643	26.625	26.670	26.637	26.712	26.657	26.780	1.1066
18	4.50	28.113	28.140	28.121	28.168	28.135	28.210	28.155	28.281	1.1223
19	4.50	30.007	30.033	30.016	30.062	30.029	30.104	30.050	30.174	1.1093
20	4.50	32.136	32.163	32.145	32.191	32.159	32.233	32.179	32.303	1.1052
21	4.50	34.038	34.064	34.047	34.092	34.060	34.135	34.081	34.204	1.0952
22	4.50	36.155	36.181	36.164	36.209	36.177	36.251	36.198	36.321	1.0923
23	4.50	38.063	38.089	38.072	38.117	38.086	38.160	38.107	38.229	1.0844
24	4.50	40.170	40.196	40.179	40.224	40.193	40.266	40.214	40.336	1.0822
25	4.50	42.083	42.110	42.093	42.138	42.107	42.180	42.127	42.251	1.0758
26	4.50	44.182	44.207	44.191	44.236	44.205	44.278	44.226	44.349	1.0741
27	4.50	46.101	46.127	46.111	46.155	46.125	46.197	46.146	46.268	1.0688
28	4.50	48.192	48.217	48.201	48.246	48.216	48.288	48.237	48.359	1.0674
29	4.50	50.116	50.141	50.125	50.171	50.139	50.212	50.161	50.284	1.0630
30	4.50	52.201	52.226	52.210	52.255	52.224	52.297	52.247	52.368	1.0619
31	4.50	54.129	54.155	54.138	54.183	54.153	54.226	54.175	54.297	1.0581
32	4.50	56.208	56.233	56.218	56.262	56.233	56.305	56.254	56.377	1.0572
33	4.50	58.141	58.165	58.151	58.195	58.165	58.238	58.187	58.308	1.0539
34	4.50	60.214	60.239	60.225	60.269	60.239	60.311	60.261	60.384	1.0531
35	4.50	62.150	62.175	62.161	62.205	62.175	62.248	62.197	62.319	1.0503
36	4.50	64.220	64.245	64.231	64.274	64.245	64.317	64.268	64.391	1.0496
37	4.50	66.159	66.184	66.170	66.213	66.184	66.257	66.208	66.329	1.0471
38	4.50	68.226	68.250	68.236	68.279	68.250	68.323	68.274	68.396	1.0465
39	4.75	69.547	69.570	69.557	69.600	69.571	69.644	69.594	69.718	1.0505
40	4.75	71.609	71.634	71.620	71.663	71.635	71.708	71.658	71.782	1.0498
41	4.75	73.554	73.579	73.565	73.608	73.580	73.653	73.604	73.727	1.0476
42	4.75	75.614	75.638	75.625	75.668	75.640	75.713	75.664	75.786	1.0471
43	4.75	77.562	77.587	77.572	77.616	77.587	77.660	77.612	77.734	1.0451
44	4.75	79.618	79.644	79.630	79.673	79.645	79.718	79.670	79.792	1.0445
45	4.75	81.568	81.593	81.579	81.622	81.594	81.667	81.619	81.742	1.0428
46	4.75	83.622	83.648	83.633	83.678	83.649	83.723	83.673	83.796	1.0423
47	4.75	85.574	85.599	85.586	85.628	85.602	85.674	85.625	85.749	1.0407
48	4.75	87.626	87.651	87.637	87.681	87.654	87.726	87.679	87.801	1.0403
49	4.75	89.580	89.604	89.592	89.635	89.607	89.679	89.631	89.754	1.0388
50	4.75	91.631	91.654	91.642	91.685	91.657	91.729	91.682	91.806	1.0384
51	4.75	93.585	93.610	93.598	93.640	93.612	93.685	93.637	93.760	1.0371
52	4.75	95.634	95.657	95.645	95.688	95.661	95.734	95.687	95.809	1.0367
53	4.75	97.590	97.614	97.601	97.644	97.618	97.690	97.644	97.767	1.0355
54	4.75	99.637	99.660	99.648	99.690	99.665	99.736	99.690	99.812	1.0352
55	4.75	101.594	101.619	101.606	101.649	101.623	101.695	101.649	101.771	1.0340
56	4.75	103.639	103.663	103.651	103.695	103.669	103.740	103.693	103.816	1.0338
57	4.75	105.599	105.624	105.611	105.654	105.628	105.700	105.654	105.777	1.0327
58	4.75	107.642	107.666	107.654	107.697	107.670	107.742	107.697	107.819	1.0325
59	4.75	109.604	109.627	109.614	109.658	109.631	109.704	109.658	109.780	1.0315
60	4.75	111.645	111.669	111.656	111.698	111.673	111.745	111.698	111.823	1.0312
61	4.75	113.606	113.630	113.617	113.661	113.635	113.709	113.661	113.785	1.0303
62	4.75	115.646	115.671	115.660	115.702	115.675	115.748	115.702	115.826	1.0301
63	4.75	117.609	117.633	117.622	117.665	117.640	117.712	117.665	117.789	1.0293
64	4.75	119.649	119.672	119.661	119.704	119.679	119.750	119.704	119.828	1.0291
65	4.75	121.612	121.637	121.626	121.668	121.642	121.714	121.670	121.794	1.0283
66	4.75	123.650	123.674	123.664	123.707	123.681	123.752	123.707	123.831	1.0281
67	4.75	125.617	125.639	125.630	125.670	125.646	125.719	125.673	125.796	1.0273
68	4.75	127.655	127.675	127.666	127.707	127.683	127.756	127.710	127.835	1.0272
69	4.75	129.620	129.643	129.630	129.675	129.650	129.720	129.678	129.800	1.0265
70	4.75	131.654	131.679	131.669	131.709	131.684	131.757	131.712	131.836	1.0263
71	4.75	133.622	133.645	133.635	133.676	133.653	133.725	133.681	133.805	1.0256
72	4.75	135.657	135.681	135.670	135.712	135.686	135.759	135.715	135.837	1.0255
73	4.75	137.625	137.649	137.638	137.680	137.656	137.728	137.683	137.807	1.0249
74	4.75	139.657	139.681	139.670	139.713	139.689	139.761	139.716	139.839	1.0248
75	4.75	141.628	141.650	141.639	141.682	141.658	141.729	141.685	141.810	1.0242
76	4.75	143.659	143.684	143.673	143.714	143.692	143.764	143.720	143.841	1.0240
77	4.75	145.631	145.653	145.642	145.684	145.662	145.732	145.690	145.813	1.0235
78	4.75	147.661	147.684	147.675	147.718	147.692	147.763	147.720	147.846	1.0234
79	4.75	149.630	149.653	149.645	149.688	149.662	149.734	149.691	149.815	1.0228
80	4.75	151.662	151.685	151.677	151.717	151.694	151.767	151.723	151.846	1.0227
81	4.75	153.635	153.655	153.646	153.688	153.664	153.738	153.694	153.818	1.0222
82	4.75	155.665	155.686	155.677	155.719	155.695	155.767	155.725	155.848	1.0221
83	4.75	157.635	157.659	157.650	157.692	157.668	157.741	157.698	157.820	1.0216
84	4.75	159.667	159.688	159.679	159.722	159.697	159.768	159.728	159.851	1.0215
85	4.75	161.639	161.661	161.652	161.692	161.670	161.742	161.698	161.823	1.0211
86	4.75	163.666	163.688	163.679	163.723	163.701	163.770	163.729	163.853	1.0210
87	4.75	165.638	165.664	165.654	165.696	165.673	165.744	165.702	165.827	1.0206
88	4.75	167.667	167.690	167.683	167.722	167.702	167.774	167.732	167.855	1.0205
89	4.75	169.641	169.664	169.655	169.697	169.674	169.746	169.704	169.828	1.0201
90	4.75	171.668	171.691	171.681	171.724	171.701	171.774	171.731	171.857	1.0200
91	4.75	173.642	173.665	173.655	173.699	173.675	173.749	173.705	173.830	1.0196
92	4.75	175.670	175.693	175.683	175.724	175.704	175.775	175.734	175.860	1.0195
93	4.75	177.646	177.666	177.660	177.701	177.680	177.749	177.707	177.831	1.0192
94	4.75	179.671	179.692	179.685	179.727	179.706	179.775	179.734	179.859	1.0191
95	4.75	181.646	181.667	181.660	181.702	181.681	181.752	181.709	181.836	1.0187
96	4.75	183.673	183.694	183.687	183.726	183.705	183.776	183.737	183.861	1.0186
97	4.75	185.647	185.672	185.661	185.704	185.683	185.754	185.711	185.837	1.0183
98	4.75	187.675	187.696	187.689	187.729	187.707	187.780	187.740	187.863	1.0182
99	4.75	189.650	189.672	189.665	189.705	189.683	189.756	189.716	189.837	1.0179
100	4.75	191.676	191.698	191.690	191.731	191.709	191.779	191.738	191.864	1.0178

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Table 176 — Inspection dimensions M_{Ri}

Side fit internal splines — Fundamental deviation H
45 degree pressure angle — Fillet root — Module = 2.50

$E_{v\,min}$ = minimum effective circular space width = 3.927

Z Number of teeth	D_{Ri} Pin diameter	Measurement between two pins, M_{Ri} (checking of dimensions E_{min} and E_{max}) for tolerance grades 4 H min. (aux)	4 H max.	5 H min. (aux)	5 H max.	6 H min. (aux)	6 H max.	7 H min. (aux)	7 H max.	K_i Approximation factor
6	4.75	6.942	6.984	6.953	7.023	6.970	7.081	6.997	7.175	1.5471
7	4.75	9.234	9.269	9.244	9.302	9.258	9.350	9.280	9.430	1.3117
8	5.00	11.454	11.489	11.464	11.522	11.478	11.573	11.501	11.656	1.3306
9	5.00	13.743	13.775	13.752	13.807	13.766	13.854	13.787	13.941	1.2407
10	5.00	16.585	16.618	16.595	16.647	16.608	16.694	16.629	16.770	1.2115
11	5.30	18.066	18.097	18.075	18.128	18.089	18.175	18.111	18.253	1.2144
12	5.30	20.848	20.879	20.858	20.911	20.872	20.957	20.894	21.034	1.1933
13	5.30	23.173	23.203	23.182	23.233	23.195	23.279	23.217	23.354	1.1601
14	5.30	25.909	25.938	25.918	25.969	25.931	26.014	25.953	26.090	1.1495
15	5.30	28.246	28.275	28.255	28.305	28.269	28.350	28.289	28.424	1.1282
16	5.30	30.948	30.978	30.959	31.008	30.972	31.053	30.993	31.127	1.1221
17	5.30	33.299	33.327	33.308	33.358	33.322	33.402	33.343	33.476	1.1071
18	5.30	35.978	36.006	35.987	36.036	36.001	36.081	36.022	36.155	1.1032
19	5.60	37.570	37.598	37.580	37.629	37.594	37.674	37.616	37.749	1.1090
20	5.60	40.232	40.260	40.241	40.291	40.255	40.336	40.277	40.411	1.1049
21	5.60	42.608	42.637	42.618	42.667	42.632	42.712	42.654	42.788	1.0950
22	5.60	45.254	45.282	45.264	45.312	45.278	45.358	45.300	45.433	1.0921
23	5.60	47.639	47.667	47.649	47.698	47.663	47.742	47.685	47.816	1.0842
24	5.60	50.272	50.300	50.282	50.330	50.296	50.376	50.319	50.452	1.0820
25	5.60	52.665	52.692	52.674	52.723	52.689	52.768	52.712	52.844	1.0756
26	5.60	55.287	55.315	55.297	55.345	55.312	55.391	55.335	55.466	1.0740
27	5.60	57.686	57.713	57.697	57.745	57.711	57.790	57.734	57.866	1.0687
28	5.60	60.299	60.326	60.310	60.358	60.324	60.403	60.348	60.480	1.0673
29	5.60	62.704	62.731	62.715	62.762	62.730	62.808	62.754	62.885	1.0629
30	5.60	65.310	65.337	65.321	65.368	65.336	65.414	65.359	65.492	1.0618
31	5.60	67.721	67.747	67.731	67.779	67.747	67.825	67.770	67.902	1.0580
32	5.60	70.318	70.346	70.329	70.377	70.345	70.424	70.369	70.501	1.0571
33	5.60	72.734	72.761	72.745	72.792	72.761	72.839	72.785	72.918	1.0538
34	5.60	75.327	75.354	75.338	75.384	75.353	75.431	75.378	75.510	1.0530
35	5.60	77.747	77.773	77.757	77.804	77.773	77.852	77.797	77.929	1.0502
36	5.60	80.333	80.360	80.345	80.391	80.360	80.438	80.385	80.516	1.0496
37	5.60	82.756	82.785	82.769	82.816	82.785	82.862	82.810	82.941	1.0470
38	5.60	85.340	85.367	85.351	85.398	85.367	85.445	85.393	85.523	1.0465
39	5.60	87.767	87.794	87.779	87.825	87.795	87.872	87.820	87.951	1.0443
40	5.60	90.345	90.373	90.357	90.403	90.374	90.452	90.398	90.531	1.0438
41	5.60	92.775	92.802	92.788	92.834	92.804	92.882	92.830	92.961	1.0418
42	6.00	94.358	94.385	94.369	94.417	94.387	94.466	94.412	94.544	1.0486
43	6.00	96.793	96.818	96.804	96.851	96.822	96.899	96.848	96.980	1.0466
44	6.00	99.364	99.390	99.377	99.422	99.392	99.472	99.419	99.551	1.0460
45	6.00	101.801	101.828	101.814	101.861	101.830	101.907	101.857	101.989	1.0442
46	6.00	104.370	104.396	104.382	104.428	104.400	104.477	104.426	104.557	1.0437
47	6.00	106.810	106.834	106.822	106.867	106.838	106.915	106.865	106.997	1.0420
48	6.00	109.374	109.401	109.386	109.432	109.403	109.482	109.432	109.563	1.0416
49	6.00	111.817	111.842	111.830	111.874	111.847	111.923	111.874	112.006	1.0401
50	6.00	114.379	114.405	114.392	114.439	114.409	114.487	114.437	114.568	1.0397
51	6.00	116.823	116.850	116.837	116.881	116.854	116.930	116.881	117.013	1.0383
52	6.00	119.384	119.409	119.395	119.441	119.414	119.491	119.441	119.573	1.0379
53	6.00	121.830	121.855	121.841	121.888	121.860	121.936	121.888	122.020	1.0366
54	6.00	124.389	124.412	124.400	124.446	124.417	124.495	124.446	124.579	1.0363
55	6.00	126.836	126.860	126.848	126.894	126.865	126.942	126.894	127.025	1.0352
56	6.00	129.390	129.417	129.405	129.449	129.422	129.499	129.449	129.583	1.0348
57	6.00	131.841	131.866	131.854	131.899	131.871	131.949	131.899	132.033	1.0338
58	6.00	134.394	134.420	134.407	134.454	134.425	134.502	134.454	134.587	1.0335
59	6.00	136.845	136.872	136.858	136.906	136.877	136.953	136.906	137.037	1.0325
60	6.00	139.398	139.422	139.411	139.456	139.430	139.507	139.459	139.590	1.0322
61	6.00	141.851	141.875	141.864	141.910	141.883	141.959	141.910	142.043	1.0313
62	6.00	144.401	144.426	144.413	144.460	144.432	144.509	144.462	144.595	1.0311
63	6.00	146.853	146.881	146.867	146.915	146.886	146.965	146.915	147.047	1.0302
64	6.00	149.404	149.427	149.416	149.462	149.436	149.513	149.464	149.596	1.0300
65	6.00	151.859	151.882	151.871	151.917	151.891	151.970	151.920	152.051	1.0292
66	6.00	154.405	154.432	154.420	154.465	154.438	154.515	154.468	154.601	1.0290
67	6.00	156.863	156.887	156.875	156.920	156.896	156.971	156.923	157.056	1.0282
68	6.00	159.410	159.434	159.422	159.468	159.443	159.520	159.471	159.602	1.0280
69	6.00	161.867	161.892	161.879	161.926	161.901	161.975	161.929	162.062	1.0273
70	6.00	164.410	164.435	164.426	164.470	164.445	164.520	164.473	164.606	1.0272
71	6.00	166.869	166.895	166.885	166.930	166.904	166.981	166.933	167.065	1.0265
72	6.00	169.412	169.438	169.428	169.474	169.448	169.522	169.477	169.610	1.0263
73	6.00	171.873	171.896	171.886	171.932	171.906	171.982	171.935	172.071	1.0257
74	6.00	174.415	174.441	174.428	174.475	174.448	174.525	174.478	174.612	1.0255
75	6.00	176.877	176.901	176.891	176.935	176.911	176.986	176.942	177.074	1.0249
76	6.00	179.418	179.442	179.432	179.477	179.453	179.528	179.484	179.615	1.0248
77	6.00	181.878	181.902	181.892	181.937	181.913	181.990	181.944	182.077	1.0242
78	6.00	184.418	184.443	184.432	184.478	184.453	184.531	184.485	184.616	1.0241
79	6.00	186.882	186.907	186.896	186.939	186.918	186.993	186.947	187.080	1.0236
80	6.00	189.420	189.446	189.435	189.479	189.457	189.533	189.486	189.621	1.0234
81	6.00	191.885	191.907	191.900	191.944	191.918	191.996	191.951	192.084	1.0229
82	6.00	194.422	194.448	194.437	194.481	194.459	194.534	194.489	194.624	1.0228
83	6.00	196.886	196.913	196.901	196.947	196.924	197.000	196.954	197.087	1.0223
84	6.00	199.425	199.448	199.440	199.482	199.459	199.536	199.490	199.625	1.0222
85	6.00	201.889	201.913	201.905	201.948	201.924	202.002	201.955	202.092	1.0218
86	6.00	204.426	204.450	204.442	204.485	204.461	204.540	204.493	204.627	1.0217
87	6.00	206.890	206.914	206.906	206.950	206.930	207.005	206.962	207.093	1.0212
88	6.00	209.428	209.453	209.444	209.485	209.465	209.541	209.497	209.630	1.0211
89	6.00	211.895	211.916	211.908	211.953	211.932	212.006	211.965	212.096	1.0207
90	6.00	214.428	214.452	214.444	214.490	214.465	214.543	214.498	214.630	1.0206
91	6.00	216.898	216.919	216.910	216.956	216.931	217.011	216.965	217.099	1.0202
92	6.00	219.432	219.453	219.444	219.491	219.465	219.542	219.499	219.635	1.0201
93	6.00	221.896	221.922	221.914	221.956	221.935	222.012	221.969	222.102	1.0198
94	6.00	224.432	224.453	224.445	224.492	224.471	224.544	224.501	224.635	1.0197
95	6.00	226.899	226.926	226.917	226.961	226.939	227.013	226.969	227.105	1.0193
96	6.00	229.432	229.458	229.449	229.494	229.471	229.547	229.502	229.635	1.0192
97	6.00	231.902	231.924	231.920	231.960	231.938	232.018	231.974	232.108	1.0189
98	6.00	234.436	234.458	234.449	234.495	234.472	234.549	234.504	234.639	1.0188
99	6.00	236.904	236.927	236.918	236.964	236.941	237.019	236.977	237.110	1.0185
100	6.00	239.435	239.458	239.449	239.495	239.472	239.550	239.509	239.638	1.0184

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Table 177 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 0.50

$S_{v\,max}$ = maximum effective circular thickness = 0.785

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	1.60	5.911	5.925	5.896	5.920	5.873	5.912	5.835	5.899	0.9673
7	1.50	6.091	6.106	6.076	6.100	6.052	6.092	6.013	6.079	0.9682
8	1.40	6.496	6.512	6.479	6.506	6.454	6.497	6.411	6.483	0.9768
9	1.32	6.737	6.753	6.719	6.747	6.693	6.738	6.648	6.723	0.9647
10	1.25	7.161	7.178	7.142	7.172	7.114	7.162	7.067	7.147	0.9815
11	1.25	7.605	7.622	7.586	7.616	7.558	7.606	7.510	7.591	0.9709
12	1.25	8.179	8.197	8.159	8.190	8.130	8.180	8.080	8.164	0.9804
13	1.18	8.455	8.473	8.435	8.466	8.404	8.456	8.353	8.439	0.9747
14	1.18	9.014	9.033	8.993	9.026	8.962	9.015	8.909	8.998	0.9814
15	1.18	9.473	9.493	9.452	9.485	9.421	9.474	9.367	9.457	0.9756
16	1.18	10.024	10.043	10.002	10.036	9.970	10.025	9.915	10.007	0.9806
17	1.18	10.488	10.508	10.466	10.500	10.433	10.489	10.378	10.471	0.9761
18	1.18	11.032	11.052	11.010	11.044	10.976	11.033	10.920	11.014	0.9800
19	1.18	11.500	11.520	11.478	11.512	11.444	11.501	11.387	11.482	0.9764
20	1.12	11.878	11.899	11.855	11.891	11.820	11.879	11.762	11.860	0.9805
21	1.12	12.350	12.370	12.326	12.362	12.291	12.350	12.232	12.330	0.9775
22	1.12	12.883	12.904	12.860	12.896	12.824	12.883	12.763	12.864	0.9800
23	1.12	13.357	13.378	13.333	13.369	13.297	13.357	13.236	13.337	0.9775
24	1.12	13.887	13.909	13.863	13.900	13.826	13.887	13.765	13.867	0.9796
25	1.12	14.363	14.384	14.338	14.375	14.302	14.363	14.240	14.342	0.9775
26	1.12	14.891	14.912	14.866	14.904	14.829	14.891	14.766	14.870	0.9793
27	1.12	15.368	15.390	15.343	15.381	15.306	15.368	15.243	15.347	0.9775
28	1.12	15.894	15.916	15.869	15.906	15.831	15.894	15.767	15.872	0.9790
29	1.12	16.373	16.395	16.348	16.386	16.309	16.372	16.245	16.351	0.9774
30	1.12	16.897	16.918	16.871	16.909	16.832	16.896	16.768	16.875	0.9787
31	1.12	17.377	17.399	17.351	17.389	17.312	17.376	17.247	17.355	0.9773
32	1.12	17.899	17.921	17.873	17.912	17.834	17.898	17.768	17.876	0.9785
33	1.12	18.381	18.403	18.354	18.393	18.315	18.380	18.249	18.358	0.9773
34	1.12	18.901	18.923	18.875	18.914	18.835	18.900	18.768	18.878	0.9783
35	1.12	19.384	19.406	19.357	19.396	19.317	19.383	19.250	19.360	0.9772
36	1.12	19.903	19.925	19.876	19.915	19.836	19.902	19.769	19.879	0.9781
37	1.12	20.387	20.409	20.360	20.399	20.319	20.385	20.252	20.363	0.9772
38	1.12	20.905	20.927	20.878	20.918	20.837	20.903	20.769	20.880	0.9780
39	1.12	21.389	21.412	21.362	21.401	21.321	21.387	21.252	21.365	0.9771
40	1.12	21.906	21.929	21.879	21.919	21.837	21.904	21.769	21.881	0.9778
41	1.12	22.391	22.414	22.364	22.404	22.322	22.390	22.253	22.366	0.9770
42	1.12	22.907	22.931	22.880	22.920	22.838	22.906	22.768	22.882	0.9777
43	1.12	23.394	23.417	23.366	23.406	23.324	23.391	23.254	23.368	0.9770
44	1.12	23.909	23.932	23.881	23.921	23.839	23.907	23.769	23.883	0.9776
45	1.12	24.395	24.418	24.367	24.408	24.325	24.393	24.254	24.369	0.9769
46	1.12	24.910	24.933	24.882	24.923	24.839	24.907	24.768	24.884	0.9775
47	1.12	25.397	25.420	25.369	25.410	25.326	25.395	25.255	25.370	0.9769
48	1.12	25.911	25.935	25.882	25.924	25.840	25.909	25.768	25.884	0.9774
49	1.12	26.399	26.422	26.370	26.411	26.327	26.396	26.255	26.371	0.9768
50	1.12	26.912	26.936	26.884	26.925	26.840	26.909	26.767	26.884	0.9773
51	1.12	27.400	27.424	27.371	27.412	27.328	27.397	27.255	27.372	0.9768
52	1.12	27.913	27.936	27.883	27.926	27.840	27.909	27.767	27.885	0.9772
53	1.12	28.402	28.425	28.372	28.414	28.329	28.398	28.255	28.373	0.9768
54	1.12	28.914	28.938	28.885	28.926	28.840	28.910	28.767	28.885	0.9771
55	1.12	29.403	29.426	29.373	29.415	29.329	29.399	29.255	29.374	0.9767
56	1.12	29.914	29.938	29.885	29.927	29.841	29.911	29.766	29.886	0.9771
57	1.12	30.404	30.428	30.374	30.416	30.329	30.400	30.255	30.374	0.9767
58	1.12	30.915	30.939	30.886	30.927	30.841	30.912	30.766	30.886	0.9770
59	1.12	31.405	31.429	31.375	31.417	31.330	31.401	31.255	31.375	0.9766
60	1.12	31.916	31.940	31.886	31.928	31.841	31.912	31.765	31.886	0.9769
61	1.12	32.405	32.430	32.376	32.418	32.331	32.402	32.255	32.375	0.9766
62	1.12	32.916	32.940	32.886	32.929	32.841	32.912	32.765	32.886	0.9769
63	1.12	33.407	33.430	33.377	33.419	33.331	33.402	33.254	33.376	0.9766
64	1.12	33.918	33.941	33.887	33.929	33.841	33.913	33.764	33.886	0.9768
65	1.12	34.407	34.432	34.378	34.420	34.331	34.403	34.254	34.376	0.9765
66	1.12	34.917	34.942	34.888	34.929	34.841	34.912	34.764	34.886	0.9768
67	1.12	35.408	35.432	35.378	35.420	35.332	35.403	35.254	35.376	0.9765
68	1.12	35.918	35.942	35.887	35.930	35.841	35.912	35.763	35.886	0.9767
69	1.12	36.409	36.433	36.379	36.421	36.332	36.404	36.254	36.377	0.9765
70	1.12	36.918	36.943	36.888	36.931	36.841	36.913	36.763	36.886	0.9767
71	1.12	37.410	37.434	37.379	37.422	37.332	37.405	37.253	37.377	0.9764
72	1.12	37.919	37.943	37.888	37.930	37.840	37.913	37.762	37.886	0.9767
73	1.12	38.411	38.435	38.379	38.422	38.333	38.404	38.254	38.377	0.9764
74	1.12	38.919	38.943	38.888	38.930	38.840	38.914	38.762	38.886	0.9766
75	1.12	39.411	39.435	39.380	39.423	39.332	39.405	39.253	39.377	0.9764
76	1.12	39.920	39.944	39.888	39.931	39.841	39.913	39.761	39.886	0.9766
77	1.12	40.412	40.436	40.380	40.423	40.333	40.405	40.253	40.378	0.9764
78	1.12	40.920	40.944	40.889	40.931	40.841	40.914	40.760	40.885	0.9765
79	1.12	41.412	41.436	41.381	41.424	41.332	41.405	41.253	41.377	0.9763
80	1.12	41.920	41.944	41.889	41.931	41.840	41.914	41.760	41.885	0.9765
81	1.12	42.413	42.437	42.381	42.424	42.333	42.406	42.252	42.378	0.9763
82	1.12	42.920	42.945	42.889	42.932	42.840	42.914	42.759	42.886	0.9765
83	1.12	43.413	43.437	43.381	43.424	43.332	43.406	43.252	43.377	0.9763
84	1.12	43.921	43.945	43.889	43.931	43.840	43.914	43.759	43.885	0.9764
85	1.12	44.414	44.438	44.381	44.425	44.333	44.406	44.251	44.377	0.9763
86	1.12	44.921	44.945	44.889	44.932	44.840	44.914	44.758	44.885	0.9764
87	1.12	45.415	45.438	45.381	45.425	45.332	45.406	45.251	45.378	0.9762
88	1.12	45.921	45.946	45.889	45.932	45.840	45.914	45.758	45.884	0.9764
89	1.12	46.414	46.439	46.382	46.425	46.333	46.407	46.251	46.377	0.9762
90	1.12	46.922	46.946	46.889	46.933	46.839	46.914	46.757	46.884	0.9764
91	1.12	47.415	47.438	47.382	47.426	47.333	47.407	47.250	47.378	0.9762
92	1.12	47.921	47.946	47.889	47.933	47.840	47.914	47.757	47.884	0.9763
93	1.12	48.415	48.439	48.383	48.426	48.333	48.406	48.249	48.377	0.9762
94	1.12	48.922	48.947	48.889	48.933	48.839	48.914	48.756	48.884	0.9763
95	1.12	49.415	49.440	49.382	49.426	49.332	49.407	49.248	49.377	0.9762
96	1.12	49.922	49.946	49.889	49.933	49.839	49.913	49.755	49.884	0.9763
97	1.12	50.416	50.441	50.383	50.427	50.332	50.408	50.248	50.377	0.9761
98	1.12	50.922	50.946	50.889	50.933	50.839	50.914	50.755	50.884	0.9763
99	1.12	51.417	51.441	51.383	51.427	51.333	51.407	51.248	51.377	0.9761
100	1.12	51.923	51.946	51.889	51.934	51.839	51.914	51.755	51.883	0.9762

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Table 178 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 0.75

$S_{v\,max}$ = maximum effective circular thickness = 1.178

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	2.24	8.513	8.530	8.495	8.524	8.469	8.516	8.424	8.503	0.9359
7	2.12	8.849	8.867	8.831	8.861	8.804	8.852	8.758	8.838	0.9344
8	2.00	9.517	9.536	9.497	9.529	9.467	9.520	9.418	9.505	0.9394
9	1.90	9.923	9.943	9.903	9.936	9.872	9.926	9.821	9.911	0.9362
10	1.90	10.814	10.834	10.793	10.827	10.761	10.817	10.707	10.801	0.9402
11	1.80	11.232	11.253	11.210	11.246	11.177	11.236	11.122	11.219	0.9314
12	1.80	12.091	12.112	12.068	12.105	12.034	12.094	11.977	12.077	0.9407
13	1.80	12.771	12.792	12.747	12.785	12.713	12.774	12.655	12.756	0.9336
14	1.70	13.352	13.375	13.328	13.367	13.292	13.355	13.231	13.337	0.9410
15	1.70	14.041	14.064	14.017	14.056	13.980	14.044	13.918	14.025	0.9357
16	1.70	14.865	14.889	14.840	14.880	14.802	14.868	14.739	14.849	0.9406
17	1.70	15.561	15.585	15.536	15.576	15.498	15.564	15.434	15.544	0.9364
18	1.70	16.376	16.400	16.350	16.391	16.311	16.379	16.246	16.359	0.9403
19	1.70	17.078	17.102	17.052	17.093	17.013	17.080	16.947	17.060	0.9369
20	1.70	17.885	17.909	17.858	17.900	17.819	17.888	17.752	17.867	0.9400
21	1.70	18.592	18.616	18.565	18.607	18.525	18.594	18.457	18.573	0.9373
22	1.70	19.393	19.417	19.366	19.408	19.325	19.395	19.257	19.374	0.9398
23	1.70	20.103	20.128	20.076	20.118	20.035	20.105	19.966	20.083	0.9375
24	1.70	20.899	20.924	20.872	20.915	20.830	20.901	20.760	20.880	0.9396
25	1.70	21.613	21.638	21.585	21.629	21.543	21.615	21.473	21.593	0.9377
26	1.60	22.131	22.157	22.102	22.147	22.059	22.132	21.986	22.110	0.9399
27	1.60	22.847	22.873	22.818	22.863	22.775	22.848	22.701	22.825	0.9382
28	1.60	23.635	23.661	23.605	23.651	23.562	23.636	23.488	23.613	0.9397
29	1.60	24.353	24.379	24.323	24.369	24.280	24.354	24.206	24.331	0.9383
30	1.60	25.138	25.164	25.109	25.154	25.064	25.139	24.989	25.115	0.9396
31	1.60	25.858	25.885	25.828	25.874	25.784	25.859	25.708	25.836	0.9383
32	1.60	26.641	26.667	26.611	26.657	26.566	26.642	26.490	26.617	0.9395
33	1.60	27.363	27.389	27.333	27.379	27.287	27.364	27.211	27.340	0.9384
34	1.60	28.143	28.170	28.113	28.159	28.067	28.144	27.990	28.119	0.9394
35	1.60	28.867	28.894	28.837	28.883	28.791	28.867	28.713	28.843	0.9384
36	1.60	29.646	29.673	29.615	29.662	29.569	29.646	29.491	29.621	0.9393
37	1.60	30.371	30.398	30.340	30.387	30.293	30.371	30.215	30.344	0.9384
38	1.60	31.148	31.175	31.117	31.163	31.070	31.148	30.990	31.122	0.9392
39	1.60	31.875	31.901	31.843	31.890	31.796	31.874	31.717	31.848	0.9384
40	1.60	32.650	32.677	32.618	32.666	32.571	32.649	32.491	32.624	0.9391
41	1.60	33.378	33.404	33.346	33.393	33.298	33.377	33.217	33.351	0.9384
42	1.60	34.152	34.179	34.120	34.167	34.072	34.151	33.991	34.124	0.9391
43	1.60	34.881	34.907	34.848	34.896	34.800	34.879	34.719	34.852	0.9384
44	1.60	35.653	35.680	35.621	35.669	35.573	35.652	35.491	35.625	0.9390
45	1.60	36.383	36.410	36.350	36.398	36.301	36.382	36.220	36.354	0.9384
46	1.60	37.155	37.182	37.122	37.170	37.073	37.153	36.991	37.126	0.9389
47	1.60	37.885	37.913	37.853	37.900	37.804	37.883	37.721	37.856	0.9384
48	1.60	38.656	38.684	38.623	38.671	38.573	38.654	38.490	38.627	0.9389
49	1.60	39.387	39.415	39.354	39.403	39.305	39.386	39.221	39.357	0.9384
50	1.60	40.157	40.184	40.124	40.173	40.074	40.155	39.990	40.127	0.9388
51	1.60	40.889	40.917	40.856	40.904	40.806	40.886	40.721	40.859	0.9384
52	1.60	41.658	41.685	41.625	41.673	41.574	41.655	41.489	41.628	0.9388
53	1.60	42.392	42.418	42.357	42.406	42.307	42.388	42.222	42.360	0.9384
54	1.60	43.159	43.187	43.126	43.174	43.075	43.157	42.989	43.128	0.9388
55	1.60	43.892	43.920	43.859	43.907	43.808	43.889	43.722	43.861	0.9383
56	1.60	44.661	44.687	44.627	44.675	44.575	44.656	44.489	44.628	0.9387
57	1.60	45.395	45.422	45.360	45.409	45.308	45.390	45.223	45.362	0.9383
58	1.60	46.161	46.189	46.127	46.175	46.075	46.158	45.989	46.128	0.9387
59	1.60	46.895	46.923	46.861	46.910	46.810	46.892	46.722	46.863	0.9383
60	1.60	47.662	47.690	47.627	47.676	47.576	47.658	47.488	47.629	0.9386
61	1.60	48.396	48.424	48.362	48.411	48.309	48.393	48.223	48.363	0.9383
62	1.60	49.163	49.191	49.128	49.177	49.076	49.158	48.988	49.129	0.9386
63	1.60	49.898	49.926	49.863	49.913	49.811	49.894	49.722	49.864	0.9383
64	1.60	50.663	50.691	50.629	50.678	50.575	50.659	50.487	50.629	0.9386
65	1.60	51.400	51.428	51.364	51.413	51.311	51.394	51.222	51.364	0.9383
66	1.60	52.164	52.192	52.129	52.178	52.076	52.160	51.987	52.129	0.9386
67	1.60	52.900	52.928	52.865	52.914	52.812	52.895	52.723	52.864	0.9383
68	1.60	53.665	53.692	53.629	53.679	53.575	53.659	53.486	53.628	0.9385
69	1.60	54.401	54.429	54.366	54.416	54.312	54.395	54.222	54.364	0.9383
70	1.60	55.165	55.192	55.130	55.179	55.075	55.160	54.985	55.129	0.9385
71	1.60	55.902	55.930	55.865	55.916	55.813	55.896	55.722	55.865	0.9383
72	1.60	56.666	56.694	56.630	56.679	56.575	56.659	56.494	56.629	0.9385
73	1.60	57.403	57.430	57.368	57.416	57.313	57.397	57.231	57.365	0.9383
74	1.60	58.167	58.194	58.130	58.180	58.075	58.160	57.994	58.128	0.9385
75	1.60	58.905	58.932	58.867	58.917	58.813	58.896	58.721	58.866	0.9382
76	1.60	59.667	59.694	59.631	59.680	59.575	59.659	59.483	59.628	0.9384
77	1.60	60.405	60.432	60.368	60.418	60.313	60.398	60.221	60.365	0.9382
78	1.60	61.167	61.195	61.131	61.181	61.075	61.159	60.984	61.128	0.9384
79	1.60	61.905	61.933	61.869	61.918	61.814	61.898	61.720	61.866	0.9382
80	1.60	62.667	62.695	62.631	62.681	62.575	62.660	62.483	62.628	0.9384
81	1.60	63.406	63.434	63.369	63.419	63.314	63.398	63.221	63.366	0.9382
82	1.60	64.167	64.196	64.131	64.181	64.074	64.159	63.981	64.128	0.9384
83	1.60	64.907	64.934	64.870	64.919	64.814	64.899	64.720	64.867	0.9382
84	1.60	65.668	65.696	65.631	65.681	65.575	65.659	65.482	65.627	0.9384
85	1.60	66.408	66.436	66.370	66.420	66.314	66.398	66.219	66.366	0.9382
86	1.60	67.169	67.197	67.131	67.181	67.074	67.159	66.981	67.128	0.9384
87	1.60	67.907	67.936	67.869	67.920	67.814	67.900	67.719	67.866	0.9382
88	1.60	68.668	68.697	68.631	68.681	68.575	68.660	68.479	68.626	0.9383
89	1.60	69.408	69.436	69.371	69.421	69.314	69.400	69.219	69.366	0.9382
90	1.60	70.169	70.197	70.131	70.182	70.074	70.159	69.980	70.126	0.9383
91	1.60	70.909	70.937	70.871	70.921	70.815	70.901	70.719	70.866	0.9382
92	1.60	71.669	71.696	71.631	71.683	71.574	71.659	71.479	71.626	0.9383
93	1.60	72.409	72.438	72.370	72.421	72.313	72.400	72.219	72.367	0.9382
94	1.60	73.169	73.198	73.131	73.182	73.073	73.160	72.978	73.126	0.9383
95	1.60	73.910	73.937	73.872	73.922	73.813	73.899	73.717	73.865	0.9382
96	1.60	74.670	74.698	74.632	74.681	74.573	74.660	74.476	74.625	0.9383
97	1.60	75.411	75.438	75.373	75.422	75.313	75.401	75.217	75.365	0.9382
98	1.60	76.169	76.198	76.132	76.182	76.074	76.161	75.977	76.125	0.9383
99	1.60	76.910	76.937	76.873	76.923	76.814	76.901	76.716	76.865	0.9381
100	1.60	77.670	77.697	77.632	77.682	77.574	77.660	77.477	77.624	0.9383

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Table 179 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h

30 degree pressure angle — Flat root or fillet root — Module = 1.00

$S_{v\,max}$ = maximum effective circular thickness = 1.571

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	3.00	11.387	11.407	11.368	11.401	11.339	11.392	11.290	11.378	0.9162
7	2.80	11.745	11.765	11.725	11.758	11.694	11.749	11.644	11.735	0.8946
8	2.65	12.657	12.678	12.635	12.672	12.603	12.662	12.548	12.646	0.9185
9	2.50	13.158	13.180	13.135	13.173	13.102	13.163	13.045	13.146	0.9052
10	2.50	14.345	14.368	14.321	14.360	14.286	14.350	14.226	14.332	0.9190
11	2.36	14.885	14.909	14.861	14.901	14.824	14.890	14.763	14.872	0.9101
12	2.36	16.028	16.053	16.003	16.045	15.965	16.033	15.902	16.015	0.9193
13	2.36	16.935	16.959	16.909	16.951	16.871	16.939	16.806	16.920	0.9125
14	2.24	17.743	17.769	17.716	17.760	17.676	17.747	17.608	17.727	0.9195
15	2.24	18.661	18.687	18.634	18.678	18.593	18.666	18.525	18.645	0.9143
16	2.24	19.760	19.786	19.732	19.777	19.690	19.764	19.621	19.743	0.9192
17	2.24	20.688	20.714	20.660	20.705	20.618	20.692	20.548	20.671	0.9152
18	2.24	21.773	21.801	21.745	21.791	21.702	21.777	21.631	21.756	0.9190
19	2.24	22.709	22.736	22.681	22.727	22.638	22.714	22.565	22.691	0.9158
20	2.24	23.785	23.813	23.756	23.803	23.712	23.789	23.638	23.767	0.9189
21	2.24	24.727	24.755	24.698	24.745	24.654	24.731	24.579	24.709	0.9162
22	2.12	25.470	25.498	25.439	25.487	25.393	25.473	25.317	25.450	0.9190
23	2.12	26.417	26.445	26.386	26.434	26.340	26.419	26.262	26.396	0.9168
24	2.12	27.477	27.505	27.446	27.495	27.399	27.479	27.320	27.458	0.9189
25	2.12	28.427	28.456	28.396	28.445	28.349	28.430	28.270	28.408	0.9170
26	2.12	29.483	29.511	29.451	29.500	29.403	29.485	29.323	29.460	0.9188
27	2.12	30.437	30.465	30.405	30.455	30.357	30.439	30.277	30.415	0.9172
28	2.12	31.487	31.516	31.455	31.505	31.407	31.489	31.325	31.464	0.9187
29	2.12	32.445	32.474	32.412	32.463	32.364	32.447	32.282	32.422	0.9173
30	2.12	33.492	33.521	33.459	33.510	33.410	33.494	33.327	33.468	0.9186
31	2.12	34.452	34.482	34.420	34.470	34.370	34.454	34.287	34.428	0.9174
32	2.12	35.496	35.525	35.462	35.513	35.413	35.497	35.329	35.471	0.9185
33	2.12	36.458	36.488	36.425	36.478	36.375	36.460	36.291	36.433	0.9174
34	2.12	37.499	37.529	37.465	37.517	37.415	37.500	37.331	37.473	0.9185
35	2.12	38.464	38.494	38.431	38.481	38.380	38.464	38.295	38.438	0.9175
36	2.12	39.503	39.532	39.468	39.520	39.417	39.503	39.331	39.476	0.9184
37	2.12	40.470	40.499	40.435	40.487	40.383	40.470	40.297	40.442	0.9176
38	2.12	41.505	41.535	41.471	41.523	41.419	41.505	41.332	41.478	0.9184
39	2.12	42.474	42.504	42.439	42.491	42.387	42.474	42.300	42.446	0.9176
40	2.12	43.508	43.538	43.472	43.525	43.420	43.507	43.332	43.480	0.9183
41	2.12	44.478	44.508	44.443	44.496	44.390	44.477	44.302	44.449	0.9176
42	2.12	45.510	45.540	45.475	45.527	45.421	45.509	45.333	45.481	0.9183
43	2.12	46.482	46.511	46.446	46.499	46.393	46.481	46.304	46.452	0.9176
44	2.12	47.513	47.543	47.476	47.529	47.423	47.511	47.333	47.482	0.9182
45	2.12	48.485	48.515	48.449	48.502	48.395	48.484	48.305	48.454	0.9177
46	2.12	49.514	49.544	49.478	49.531	49.424	49.513	49.333	49.483	0.9182
47	2.12	50.488	50.519	50.452	50.505	50.398	50.486	50.306	50.457	0.9177
48	2.12	51.516	51.546	51.479	51.533	51.425	51.514	51.333	51.484	0.9182
49	2.12	52.491	52.521	52.454	52.508	52.400	52.488	52.306	52.459	0.9177
50	2.12	53.518	53.548	53.481	53.535	53.426	53.515	53.333	53.485	0.9181
51	2.12	54.494	54.524	54.457	54.511	54.401	54.491	54.308	54.461	0.9177
52	2.12	55.519	55.550	55.482	55.535	55.427	55.517	55.333	55.486	0.9181
53	2.12	56.497	56.526	56.459	56.513	56.404	56.493	56.310	56.463	0.9177
54	2.12	57.521	57.551	57.484	57.537	57.428	57.518	57.333	57.486	0.9181
55	2.12	58.499	58.529	58.461	58.515	58.404	58.494	58.310	58.464	0.9177
56	2.12	59.521	59.553	59.485	59.539	59.428	59.519	59.333	59.487	0.9181
57	2.12	60.501	60.530	60.462	60.516	60.406	60.495	60.311	60.465	0.9177
58	2.12	61.523	61.554	61.485	61.539	61.428	61.519	61.333	61.487	0.9181
59	2.12	62.502	62.533	62.465	62.518	62.407	62.498	62.312	62.466	0.9177
60	2.12	63.525	63.555	63.485	63.540	63.428	63.520	63.333	63.488	0.9180
61	2.12	64.504	64.535	64.466	64.520	64.408	64.500	64.311	64.468	0.9177
62	2.12	65.525	65.556	65.487	65.540	65.429	65.520	65.332	65.487	0.9180
63	2.12	66.505	66.537	66.467	66.521	66.409	66.500	66.311	66.467	0.9177
64	2.12	67.527	67.557	67.487	67.541	67.429	67.520	67.331	67.488	0.9180
65	2.12	68.508	68.537	68.469	68.523	68.409	68.502	68.311	68.469	0.9177
66	2.12	69.526	69.557	69.488	69.543	69.429	69.521	69.332	69.488	0.9180
67	2.12	70.509	70.539	70.469	70.524	70.410	70.502	70.313	70.469	0.9177
68	2.12	71.528	71.559	71.488	71.543	71.430	71.521	71.330	71.488	0.9180
69	2.12	72.510	72.541	72.471	72.525	72.411	72.503	72.312	72.469	0.9177
70	2.12	73.528	73.559	73.490	73.543	73.429	73.523	73.331	73.488	0.9180
71	2.12	74.511	74.541	74.472	74.527	74.411	74.506	74.313	74.470	0.9177
72	2.12	75.529	75.561	75.490	75.545	75.429	75.522	75.330	75.488	0.9179
73	2.12	76.513	76.542	76.473	76.527	76.412	76.506	76.312	76.470	0.9177
74	2.12	77.531	77.561	77.491	77.546	77.429	77.522	77.330	77.488	0.9179
75	2.12	78.513	78.545	78.474	78.528	78.412	78.506	78.313	78.471	0.9177
76	2.12	79.532	79.562	79.491	79.545	79.429	79.523	79.329	79.487	0.9179
77	2.12	80.515	80.546	80.474	80.529	80.413	80.508	80.312	80.472	0.9177
78	2.12	81.531	81.561	81.491	81.546	81.429	81.523	81.329	81.489	0.9179
79	2.12	82.515	82.546	82.475	82.529	82.413	82.508	82.313	82.471	0.9177
80	2.12	83.532	83.563	83.492	83.547	83.430	83.524	83.329	83.488	0.9179
81	2.12	84.518	84.548	84.476	84.530	84.415	84.508	84.313	84.472	0.9177
82	2.12	85.533	85.563	85.491	85.547	85.431	85.523	85.327	85.487	0.9179
83	2.12	86.516	86.549	86.476	86.533	86.415	86.508	86.311	86.472	0.9177
84	2.12	87.532	87.563	87.491	87.547	87.430	87.524	87.326	87.487	0.9179
85	2.12	88.518	88.549	88.476	88.532	88.414	88.509	88.311	88.472	0.9177
86	2.12	89.532	89.564	89.492	89.547	89.430	89.524	89.326	89.486	0.9179
87	2.12	90.519	90.549	90.477	90.532	90.416	90.509	90.311	90.473	0.9177
88	2.12	91.535	91.565	91.492	91.548	91.428	91.522	91.326	91.488	0.9179
89	2.12	92.520	92.550	92.479	92.533	92.416	92.509	92.311	92.472	0.9177
90	2.12	93.534	93.565	93.493	93.547	93.430	93.523	93.323	93.486	0.9179
91	2.12	94.521	94.552	94.479	94.534	94.415	94.510	94.310	94.472	0.9177
92	2.12	95.534	95.564	95.492	95.548	95.430	95.523	95.323	95.488	0.9178
93	2.12	96.521	96.552	96.480	96.534	96.417	96.512	96.310	96.473	0.9177
94	2.12	97.536	97.565	97.492	97.549	97.429	97.524	97.322	97.485	0.9178
95	2.12	98.521	98.551	98.480	98.535	98.416	98.510	98.308	98.473	0.9177
96	2.12	99.535	99.566	99.491	99.547	99.429	99.524	99.323	99.487	0.9178
97	2.12	100.521	100.554	100.479	100.535	100.416	100.511	100.311	100.474	0.9177
98	2.12	101.534	101.567	101.492	101.548	101.430	101.525	101.325	101.487	0.9178
99	2.12	102.522	102.553	102.481	102.536	102.417	102.512	102.312	102.474	0.9177
100	2.12	103.536	103.565	103.493	103.548	103.428	103.524	103.323	103.486	0.9178

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Table 180 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.25

$S_{v\,max}$ = maximum effective circular thickness = 1.963

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	3.75	14.240	14.261	14.219	14.255	14.188	14.246	14.135	14.231	0.9042
7	3.35	14.340	14.363	14.318	14.356	14.285	14.346	14.230	14.331	0.8629
8	3.15	15.438	15.462	15.414	15.454	15.378	15.444	15.318	15.427	0.9062
9	3.15	16.514	16.538	16.490	16.531	16.454	16.520	16.393	16.509	0.8933
10	3.00	17.628	17.653	17.602	17.646	17.564	17.634	17.499	17.616	0.9063
11	3.00	18.738	18.764	18.712	18.756	18.673	18.744	18.607	18.725	0.8970
12	3.00	20.169	20.196	20.142	20.187	20.102	20.175	20.034	20.156	0.9061
13	2.80	20.792	20.819	20.763	20.810	20.721	20.797	20.651	20.777	0.8998
14	2.80	22.186	22.214	22.157	22.205	22.114	22.192	22.042	22.171	0.9063
15	2.80	23.334	23.362	23.305	23.353	23.261	23.340	23.188	23.318	0.9013
16	2.80	24.707	24.736	24.678	24.726	24.633	24.713	24.558	24.691	0.9062
17	2.80	25.868	25.897	25.838	25.887	25.792	25.873	25.717	25.852	0.9022
18	2.80	27.225	27.254	27.194	27.244	27.148	27.233	27.075	27.207	0.9060
19	2.65	27.993	28.023	27.962	28.013	27.915	27.998	27.835	27.975	0.9031
20	2.65	29.335	29.366	29.304	29.355	29.256	29.341	29.174	29.317	0.9061
21	2.65	30.513	30.543	30.481	30.533	30.432	30.517	30.350	30.493	0.9035
22	2.65	31.845	31.876	31.813	31.866	31.763	31.850	31.681	31.825	0.9060
23	2.65	33.029	33.060	32.996	33.048	32.946	33.033	32.863	33.008	0.9039
24	2.65	34.354	34.385	34.321	34.373	34.271	34.358	34.186	34.333	0.9059
25	2.65	35.543	35.574	35.509	35.563	35.459	35.547	35.373	35.521	0.9041
26	2.65	36.861	36.893	36.827	36.881	36.776	36.865	36.691	36.839	0.9059
27	2.65	38.058	38.087	38.021	38.074	37.969	38.058	37.882	38.031	0.9043
28	2.65	39.369	39.399	39.333	39.387	39.282	39.371	39.194	39.344	0.9058
29	2.65	40.566	40.597	40.530	40.585	40.478	40.568	40.390	40.541	0.9045
30	2.65	41.874	41.906	41.838	41.893	41.786	41.877	41.697	41.849	0.9058
31	2.65	43.074	43.106	43.039	43.094	42.985	43.077	42.896	43.049	0.9046
32	2.65	44.379	44.411	44.343	44.398	44.289	44.380	44.199	44.353	0.9057
33	2.65	45.583	45.614	45.547	45.602	45.492	45.584	45.402	45.556	0.9047
34	2.65	46.883	46.916	46.848	46.903	46.793	46.884	46.702	46.857	0.9057
35	2.65	48.090	48.122	48.053	48.109	47.998	48.091	47.906	48.062	0.9048
36	2.65	49.388	49.420	49.351	49.406	49.295	49.388	49.204	49.359	0.9057
37	2.65	50.596	50.628	50.559	50.616	50.504	50.597	50.411	50.568	0.9048
38	2.65	51.892	51.924	51.854	51.910	51.799	51.892	51.705	51.862	0.9056
39	2.65	53.103	53.134	53.065	53.121	53.009	53.103	52.914	53.072	0.9049
40	2.65	54.395	54.428	54.358	54.413	54.301	54.395	54.206	54.364	0.9056
41	2.65	55.607	55.640	55.570	55.626	55.513	55.607	55.417	55.576	0.9049
42	2.65	56.897	56.931	56.860	56.917	56.803	56.897	56.706	56.867	0.9056
43	2.65	58.113	58.145	58.073	58.131	58.017	58.111	57.920	58.080	0.9050
44	2.65	59.400	59.433	59.363	59.419	59.304	59.400	59.208	59.368	0.9055
45	2.65	60.616	60.649	60.578	60.635	60.520	60.615	60.422	60.584	0.9050
46	2.65	61.903	61.936	61.864	61.921	61.807	61.902	61.708	61.869	0.9055
47	2.65	63.121	63.153	63.082	63.138	63.023	63.118	62.925	63.086	0.9050
48	2.65	64.406	64.437	64.366	64.423	64.308	64.403	64.208	64.371	0.9055
49	2.65	65.624	65.657	65.585	65.642	65.525	65.621	65.425	65.590	0.9050
50	2.65	66.907	66.941	66.867	66.925	66.808	66.906	66.708	66.872	0.9055
51	2.65	68.127	68.160	68.088	68.145	68.028	68.124	67.929	68.091	0.9051
52	2.65	69.409	69.442	69.369	69.427	69.310	69.406	69.209	69.373	0.9056
53	2.65	70.631	70.663	70.590	70.648	70.530	70.628	70.429	70.594	0.9051
54	2.65	71.911	71.944	71.870	71.929	71.810	71.908	71.710	71.874	0.9055
55	2.65	73.134	73.165	73.094	73.151	73.033	73.130	72.931	73.095	0.9051
56	2.65	74.412	74.446	74.373	74.430	74.312	74.409	74.210	74.375	0.9054
57	2.65	75.637	75.670	75.598	75.654	75.533	75.632	75.431	75.598	0.9051
58	2.65	76.915	76.948	76.873	76.931	76.813	76.909	76.709	76.876	0.9054
59	2.65	78.139	78.170	78.098	78.154	78.037	78.133	77.934	78.100	0.9051
60	2.65	79.417	79.449	79.376	79.432	79.312	79.411	79.209	79.378	0.9054
61	2.65	80.640	80.674	80.600	80.657	80.537	80.636	80.434	80.602	0.9051
62	2.65	81.917	81.951	81.875	81.933	81.813	81.912	81.709	81.877	0.9054
63	2.65	83.143	83.175	83.102	83.159	83.039	83.137	82.933	83.102	0.9051
64	2.65	84.418	84.450	84.376	84.434	84.315	84.412	84.209	84.378	0.9054
65	2.65	85.645	85.678	85.603	85.662	85.540	85.639	85.433	85.603	0.9051
66	2.65	86.920	86.953	86.879	86.936	86.813	86.914	86.707	86.877	0.9054
67	2.65	88.148	88.180	88.104	88.163	88.040	88.140	87.935	88.104	0.9051
68	2.65	89.421	89.452	89.378	89.438	89.315	89.414	89.208	89.376	0.9054
69	2.65	90.648	90.680	90.607	90.665	90.543	90.642	90.435	90.605	0.9051
70	2.65	91.923	91.955	91.879	91.938	91.814	91.914	91.707	91.877	0.9054
71	2.65	93.149	93.183	93.108	93.167	93.044	93.143	92.935	93.106	0.9051
72	2.65	94.424	94.456	94.380	94.438	94.315	94.415	94.207	94.378	0.9054
73	2.65	95.653	95.684	95.610	95.668	95.545	95.644	95.435	95.605	0.9052
74	2.65	96.923	96.955	96.880	96.939	96.816	96.914	96.707	96.878	0.9054
75	2.65	98.153	98.186	98.112	98.169	98.045	98.144	97.937	98.107	0.9052
76	2.65	99.424	99.457	99.382	99.441	99.317	99.415	99.205	99.378	0.9054
77	2.65	100.654	100.687	100.611	100.670	100.545	100.644	100.437	100.606	0.9052
78	2.65	101.925	101.957	101.882	101.942	101.815	101.916	101.706	101.877	0.9053
79	2.65	103.156	103.188	103.113	103.171	103.045	103.147	102.934	103.108	0.9052
80	2.65	104.427	104.459	1041383	104.441	104.317	104.417	104.204	104.378	0.9053
81	2.65	105.657	105.689	105.613	105.672	105.546	105.647	105.435	105.608	0.9052
82	2.65	106.928	106.959	106.883	106.941	106.816	106.916	106.704	106.878	0.9053
83	2.65	108.158	108.191	108.115	108.174	108.047	108.148	107.936	108.110	0.9052
84	2.65	109.428	109.461	109.384	109.441	109.318	109.415	109.206	109.379	0.9053
85	2.65	110.660	110.691	1101616	110.673	110.549	110.647	110.435	110.611	0.9052
86	2.65	111.928	111.963	111.884	111.941	111.816	111.915	111.704	111.879	0.9053
87	2.65	113.160	113.194	113.115	113.173	113.049	113.149	112.935	113.109	0.9052
88	2.65	114.429	114.462	114.384	114.443	114.317	114.419	114.203	114.376	0.9053
89	2.65	115.660	115.693	115.617	115.677	115.547	115.650	115.434	115.609	0.9052
90	2.65	116.929	116.962	116.882	116.943	116.817	116.918	116.703	116.877	0.9053
91	2.65	118.162	118.195	118.118	118.176	118.049	118.151	117.936	118.110	0.9052
92	2.65	119.429	119.463	119.385	119.443	119.315	119.418	119.204	119.376	0.9053
93	2.65	120.662	120.696	120.617	120.676	120.549	120.651	120.435	120.611	0.9052
94	2.65	121.931	121.962	121.885	121.942	121.817	121.917	121.701	121.877	0.9053
95	2.65	123.166	123.195	123.120	123.178	123.051	123.152	122.934	123.109	0.9052
96	2.65	124.431	124.463	124.384	124.445	124.318	124.416	124.202	124.376	0.9053
97	2.65	125.666	125.698	125.619	125.677	125.552	125.651	125.435	125.610	0.9052
98	2.65	126.930	126.965	126.885	126.944	126.817	126.918	126.699	126.876	0.9053
99	2.65	128.164	128.200	128.119	128.179	128.047	128.152	127.935	128.110	0.9052
100	2.65	129.433	129.466	129.387	129.445	129.315	129.417	129.201	129.375	0.9053

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Table 181 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.50

$S_{v\,max}$ = maximum effective circular thickness = 2.356

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	4.50	17.093	17.116	17.071	17.109	17.037	17.100	16.982	17.084	0.8961
7	4.00	17.167	17.191	17.144	17.184	17.109	17.174	17.050	17.158	0.8747
8	3.75	18.458	18.484	18.433	18.476	18.395	18.466	18.331	18.448	0.8976
9	3.75	19.750	19.776	19.724	19.768	19.686	19.757	19.624	19.739	0.8839
10	3.55	21.035	21.062	21.007	21.054	20.966	21.042	20.897	21.022	0.8977
11	3.55	22.367	22.394	22.339	22.386	22.297	22.374	22.227	22.354	0.8885
12	3.35	23.572	23.601	23.543	23.592	23.499	23.579	23.455	23.558	0.8978
13	3.35	24.930	24.960	24.900	24.950	24.856	24.937	24.780	24.916	0.8912
14	3.35	26.604	26.633	26.573	26.624	26.527	26.610	26.450	26.588	0.8976
15	3.35	27.982	28.011	27.951	28.002	27.903	27.988	27.826	27.965	0.8927
16	3.35	29.629	29.660	29.598	29.650	29.550	29.635	29.470	29.612	0.8975
17	3.35	31.021	31.052	30.990	31.042	30.942	31.028	30.861	31.004	0.8937
18	3.35	32.550	32.581	32.518	32.571	32.568	32.656	32.487	32.632	0.8975
19	3.35	34.055	34.085	34.022	34.075	33.972	34.060	33.889	34.036	0.8944
20	3.15	35.128	35.161	35.094	35.150	35.043	35.134	34.957	35.109	0.8975
21	3.15	36.541	36.574	36.507	36.562	36.455	36.546	36.368	36.521	0.8950
22	3.15	38.140	38.173	38.105	38.161	38.053	38.145	37.966	38.119	0.8975
23	3.15	39.561	39.593	39.525	39.582	39.473	39.565	39.383	39.539	0.8953
24	3.15	41.151	41.183	41.115	41.171	41.061	41.155	40.971	41.128	0.8974
25	3.15	42.577	42.610	42.540	42.598	42.486	42.581	42.396	42.553	0.8956
26	3.15	44.160	44.192	44.123	44.179	44.068	44.163	43.976	44.135	0.8974
27	3.15	45.591	45.625	45.554	45.612	45.499	45.594	45.407	45.567	0.8958
28	3.15	47.167	47.199	47.129	47.188	47.073	47.169	46.981	47.141	0.8973
29	3.15	48.603	48.637	48.566	48.623	48.511	48.607	48.417	48.578	0.8960
30	3.15	50.173	50.207	50.136	50.193	50.080	50.176	49.984	50.146	0.8973
31	3.15	51.615	51.648	51.577	51.635	51.520	51.616	51.424	51.587	0.8961
32	3.15	53.179	53.213	53.141	53.200	53.083	53.181	52.987	53.152	0.8973
33	3.15	54.624	54.657	54.585	54.644	54.528	54.625	54.431	54.596	0.8962
34	3.15	56.184	56.219	56.146	56.205	56.088	56.186	55.990	56.155	0.8972
35	3.15	57.633	57.667	57.593	57.652	57.534	57.633	57.437	57.602	0.8963
36	3.15	59.189	59.223	59.150	59.210	59.091	59.189	58.993	59.159	0.8972
37	3.15	60.639	60.673	60.601	60.660	60.541	60.639	60.441	60.610	0.8964
38	3.15	62.193	62.228	62.154	62.213	62.094	62.193	61.993	62.162	0.8972
39	3.15	63.647	63.681	63.607	63.667	63.547	63.647	63.446	63.614	0.8964
40	3.15	65.198	65.232	65.157	65.217	65.097	65.198	64.997	65.164	0.8972
41	3.15	66.654	66.686	66.612	66.673	66.551	66.652	66.450	66.620	0.8965
42	3.15	68.201	68.235	68.161	68.220	68.099	68.201	67.997	68.168	0.8972
43	3.15	69.658	69.692	69.618	69.678	69.556	69.658	69.454	69.624	0.8965
44	3.15	71.205	71.238	71.164	71.224	71.101	71.202	70.999	71.169	0.8971
45	3.15	72.664	72.697	72.622	72.683	72.559	72.660	72.457	72.629	0.8966
46	3.15	74.207	74.241	74.166	74.227	74.102	74.206	74.000	74.172	0.8971
47	3.15	75.668	75.702	75.626	75.688	75.564	75.666	75.460	75.631	0.8966
48	3.15	77.209	77.245	77.169	77.228	77.106	77.208	76.999	77.172	0.8971
49	3.15	78.672	78.706	78.630	78.691	78.567	78.668	78.462	78.634	0.8966
50	3.15	80.212	80.247	80.170	80.232	80.107	80.209	80.000	80.174	0.8971
51	3.15	81.675	81.710	81.634	81.695	81.570	81.671	81.463	81.638	0.8967
52	3.15	83.215	83.249	83.171	83.233	83.108	83.211	83.001	83.175	0.8971
53	3.15	84.681	84.715	84.636	84.699	84.572	84.676	84.465	84.640	0.8967
54	3.15	86.216	86.251	86.173	86.235	86.109	86.212	86.001	86.177	0.8971
55	3.15	87.684	87.718	87.640	87.701	87.576	87.678	87.468	87.643	0.8967
56	3.15	89.218	89.252	89.176	89.237	89.110	89.214	89.003	89.178	0.8971
57	3.15	90.687	90.722	90.644	90.705	90.577	90.681	90.468	90.644	0.8967
58	3.15	92.222	92.255	92.178	92.239	92.112	92.215	92.001	92.178	0.8971
59	3.00	93.257	93.292	93.213	93.274	93.147	93.252	93.034	93.213	0.8968
60	3.00	94.790	94.823	94.745	94.808	94.679	94.783	94.566	94.745	0.8971
61	3.00	96.259	96.293	96.214	96.277	96.146	96.253	96.034	96.214	0.8968
62	3.00	97.792	97.826	97.746	97.808	97.677	97.783	97.566	97.746	0.8971
63	3.00	99.261	99.296	99.216	99.277	99.149	99.254	99.036	99.216	0.8968
64	3.00	100.793	100.826	100.746	100.810	100.680	100.784	100.567	100.746	0.8971
65	3.00	102.263	102.297	102.218	102.280	102.151	102.256	102.036	102.218	0.8968
66	3.00	103.793	103.827	103.747	103.810	103.679	103.786	103.565	103.747	0.8971
67	3.00	105.265	105.299	105.220	105.282	105.152	105.257	105.037	105.218	0.8968
68	3.00	106.795	106.830	106.747	106.810	106.680	106.785	106.566	106.745	0.8970
69	3.00	108.266	108.301	108.220	108.284	108.152	108.258	108.036	108.218	0.8968
70	3.00	109.795	109.829	109.750	109.811	109.678	109.786	109.563	109.745	0.8970
71	3.00	111.269	111.303	111.222	111.285	111.152	111.259	111.036	111.220	0.8968
72	3.00	112.795	112.829	112.747	112.810	112.679	112.784	112.564	112.747	0.8970
73	3.00	114.270	114.304	114.224	114.286	114.155	114.262	114.038	114.219	0.8968
74	3.00	115.796	115.831	115.750	115.812	115.680	115.785	115.564	115.747	0.8970
75	3.00	117.270	117.306	117.224	117.287	117.153	117.262	117.039	117.221	0.8968
76	3.00	118.797	118.830	118.750	118.811	118.678	118.786	118.562	118.744	0.8970
77	3.00	120.271	120.307	120.226	120.288	120.153	120.260	120.036	120.221	0.8968
78	3.00	121.796	121.830	121.751	121.813	121.680	121.785	121.561	121.745	0.8970
79	3.00	123.272	123.307	123.226	123.289	123.155	123.261	123.038	123.221	0.8968
80	3.00	124.798	124.830	124.749	124.813	124.679	124.787	124.561	124.743	0.8970
81	3.00	126.274	126.309	126.227	126.289	126.157	126.262	126.037	126.221	0.8968
82	3.00	127.799	127.834	127.751	127.814	127.680	127.787	127.562	127.745	0.8970
83	3.00	129.274	129.310	129.229	129.292	129.157	129.262	129.037	129.220	0.8968
84	3.00	130.800	130.833	130.751	130.812	130.678	130.788	130.557	130.745	0.8970
85	3.00	132.278	132.312	132.229	132.293	132.158	132.262	132.036	132.222	0.8968
86	3.00	133.799	133.833	133.749	133.812	133.678	133.787	133.558	133.743	0.8970
87	3.00	135.280	135.311	135.229	135.292	135.157	135.264	135.035	135.223	0.8969
88	3.00	136.800	136.835	136.752	136.816	136.679	136.787	136.556	136.742	0.8970
89	3.00	138.277	138.315	138.232	138.293	138.158	138.264	138.037	138.222	0.8969
90	3.00	139.798	139.834	139.753	139.815	139.678	139.785	139.556	139.743	0.8970
91	3.00	141.278	141.314	141.232	141.294	141.157	141.265	141.036	141.222	0.8969
92	3.00	142.798	142.835	142.752	142.815	142.679	142.785	142.554	142.745	0.8970
93	3.00	144.281	144.315	144.231	144.295	144.158	144.264	144.038	144.221	0.8969
94	3.00	145.800	145.834	145.750	145.814	145.679	145.783	145.554	145.743	0.8970
95	3.00	147.283	147.317	147.231	147.296	147.160	147.266	147.034	147.221	0.8969
96	3.00	148.801	148.835	148.752	148.814	148.677	148.787	148.553	148.742	0.8970
97	3.00	150.283	150.314	150.230	150.293	150.158	150.265	150.036	150.224	0.8969
98	3.00	151.803	151.835	151.754	151.814	151.677	151.785	151.554	151.740	0.8970
99	3.00	153.281	153.317	153.231	153.295	153.161	153.267	153.034	153.221	0.8969
100	3.00	154.804	154.836	154.754	154.815	154.679	154.786	154.554	154.739	0.8970

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Table 182 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.75

$S_{v\,max}$ = maximum effective circular thickness = 2.749

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	5.00	19.375	19.400	19.351	19.393	19.316	19.383	19.256	19.367	0.8908
7	4.75	20.226	20.251	20.201	20.244	20.164	20.233	20.103	20.216	0.8888
8	4.50	21.840	21.867	21.814	21.859	21.774	21.848	21.708	21.830	0.8914
9	4.25	22.743	22.771	22.716	22.763	22.675	22.751	22.606	22.732	0.8900
10	4.25	24.815	24.844	24.787	24.835	24.744	24.823	24.671	24.803	0.8915
11	4.00	25.744	25.774	25.714	25.765	25.670	25.752	25.595	25.731	0.8826
12	4.00	27.141	27.172	27.110	27.163	27.064	27.149	27.008	27.127	0.8916
13	4.00	29.326	29.357	29.295	29.348	29.248	29.334	29.170	29.311	0.8891
14	4.00	31.281	31.313	31.249	31.303	31.201	31.289	31.121	31.265	0.8915
15	3.75	32.235	32.268	32.202	32.258	32.152	32.242	32.069	32.218	0.8867
16	3.75	34.154	34.187	34.121	34.177	34.070	34.161	33.984	34.139	0.8916
17	3.75	35.778	35.811	35.744	35.800	35.692	35.785	35.607	35.760	0.8877
18	3.75	37.675	37.708	37.641	37.698	37.588	37.682	37.500	37.656	0.8915
19	3.75	39.313	39.346	39.278	39.335	39.225	39.319	39.136	39.293	0.8884
20	3.75	41.193	41.227	41.157	41.215	41.103	41.198	41.013	41.173	0.8915
21	3.75	42.841	42.876	42.805	42.863	42.751	42.847	42.660	42.820	0.8889
22	3.75	44.709	44.742	44.671	44.730	44.617	44.713	44.524	44.686	0.8914
23	3.75	46.365	46.400	46.329	46.388	46.273	46.370	46.181	46.343	0.8893
24	3.75	48.221	48.256	48.184	48.243	48.128	48.225	48.034	48.198	0.8914
25	3.75	49.886	49.921	49.848	49.908	49.791	49.889	49.699	49.862	0.8896
26	3.75	51.733	51.767	51.694	51.754	51.637	51.736	51.542	51.707	0.8913
27	3.75	53.404	53.438	53.365	53.425	53.307	53.407	53.211	53.377	0.8898
28	3.75	55.243	55.278	55.204	55.264	55.145	55.246	55.048	55.215	0.8913
29	3.75	56.362	56.398	56.322	56.385	56.263	56.365	56.164	56.335	0.8901
30	3.55	58.192	58.230	58.153	58.215	58.093	58.195	57.992	58.165	0.8914
31	3.55	59.874	59.909	59.833	59.896	59.772	59.876	59.671	59.845	0.8902
32	3.55	61.699	61.736	61.659	61.720	61.598	61.701	61.495	61.669	0.8913
33	3.55	63.384	63.419	63.344	63.405	63.281	63.384	63.179	63.353	0.8903
34	3.55	65.203	65.240	65.162	65.226	65.101	65.205	64.998	65.173	0.8913
35	3.55	66.893	66.928	66.851	66.914	66.789	66.893	66.685	66.862	0.8904
36	3.55	68.708	68.745	68.667	68.730	68.604	68.710	68.499	68.677	0.8913
37	3.55	70.400	70.436	70.359	70.422	70.297	70.402	70.191	70.368	0.8905
38	3.55	72.213	72.249	72.171	72.234	72.107	72.213	72.000	72.180	0.8913
39	3.55	73.907	73.943	73.865	73.929	73.801	73.907	73.695	73.874	0.8905
40	3.55	75.717	75.754	75.673	75.737	75.610	75.715	75.502	75.683	0.8913
41	3.55	77.415	77.450	77.372	77.435	77.307	77.413	77.199	77.380	0.8906
42	3.55	79.221	79.257	79.177	79.240	79.113	79.219	79.003	79.185	0.8912
43	3.55	80.920	80.955	80.878	80.940	80.812	80.918	80.702	80.883	0.8906
44	3.55	82.723	82.760	82.679	82.745	82.614	82.721	82.504	82.685	0.8912
45	3.55	84.426	84.463	84.382	84.447	84.316	84.422	84.206	84.388	0.8907
46	3.55	86.227	86.262	86.181	86.245	86.116	86.224	86.006	86.187	0.8912
47	3.55	87.930	87.966	87.886	87.949	87.820	87.928	87.707	87.891	0.8907
48	3.55	89.729	89.765	89.684	89.748	89.618	89.725	89.506	89.688	0.8912
49	3.55	91.436	91.470	91.390	91.453	91.323	91.431	91.211	91.394	0.8908
50	3.55	93.231	93.266	93.187	93.251	93.118	93.226	93.006	93.191	0.8912
51	3.55	94.938	94.974	94.893	94.959	94.826	94.934	94.712	94.898	0.8908
52	3.55	96.733	96.770	96.689	96.754	96.621	96.728	96.507	96.692	0.8912
53	3.55	98.444	98.479	98.397	98.462	98.329	98.439	98.216	98.402	0.8908
54	3.55	100.236	100.272	100.191	100.255	100.120	100.229	100.007	100.191	0.8912
55	3.55	101.945	101.984	101.899	101.965	101.832	101.940	101.717	101.902	0.8908
56	3.55	103.736	103.773	103.692	103.755	103.623	103.731	103.506	103.692	0.8912
57	3.55	105.449	105.486	105.404	105.469	105.334	105.444	105.218	105.404	0.8908
58	3.55	107.238	107.276	107.192	107.258	107.121	107.233	107.006	107.192	0.8912
59	3.55	108.952	108.988	108.906	108.970	108.837	108.947	108.719	108.906	0.8909
60	3.55	110.740	110.777	110.693	110.758	110.625	110.735	110.506	110.693	0.8912
61	3.55	112.456	112.490	112.408	112.474	112.337	112.448	112.221	112.408	0.8909
62	3.55	114.243	114.278	114.194	114.259	114.125	114.235	114.007	114.194	0.8912
63	3.55	115.958	115.993	115.911	115.977	115.841	115.949	115.721	115.911	0.8909
64	3.55	117.744	117.780	117.697	117.761	117.625	117.736	117.504	117.694	0.8912
65	3.55	119.461	119.497	119.413	119.478	119.340	119.452	119.223	119.410	0.8909
66	3.55	121.244	121.281	121.196	121.261	121.125	121.236	121.006	121.196	0.8912
67	3.55	122.963	122.998	122.914	122.980	122.842	122.954	122.721	122.911	0.8909
68	3.55	124.746	124.781	124.696	124.764	124.626	124.737	124.504	124.696	0.8911
69	3.55	126.464	126.500	126.416	126.482	126.345	126.455	126.222	126.413	0.8909
70	3.55	128.247	128.284	128.199	128.266	128.127	128.235	128.005	128.193	0.8911
71	3.55	129.967	130.004	129.919	129.983	129.846	129.955	129.725	129.913	0.8909
72	3.55	131.749	131.786	131.699	131.764	131.625	131.736	131.502	131.696	0.8911
73	3.55	133.468	133.505	133.416	133.486	133.346	133.458	133.225	133.414	0.8909
74	3.55	135.249	135.284	135.202	135.265	135.126	135.240	135.003	135.195	0.8911
75	3.55	136.971	137.006	136.920	136.987	136.849	136.958	136.725	136.916	0.8909
76	3.55	138.750	138.786	138.702	138.766	138.627	138.737	138.501	138.695	0.8911
77	3.55	140.471	140.507	140.422	140.488	140.347	140.458	140.222	140.419	0.8909
78	3.55	142.252	142.285	142.202	142.265	142.125	142.238	142.003	142.195	0.8911
79	3.55	143.975	144.009	143.925	143.989	143.847	143.962	143.724	143.918	0.8909
80	3.55	145.753	145.788	145.702	145.767	145.628	145.740	145.503	145.696	0.8911
81	3.55	147.476	147.511	147.425	147.490	147.349	147.463	147.223	147.418	0.8910
82	3.55	149.253	149.288	149.204	149.267	149.128	149.239	149.003	149.194	0.8911
83	3.55	150.975	151.010	150.926	150.993	150.848	150.961	150.722	150.919	0.8910
84	3.55	152.753	152.789	152.703	152.767	152.629	152.739	152.501	152.693	0.8911
85	3.55	154.478	154.514	154.428	154.493	154.352	154.464	154.227	154.421	0.8910
86	3.55	156.254	156.287	156.204	156.269	156.127	156.240	156.001	156.193	0.8911
87	3.55	157.979	158.016	157.928	157.994	157.854	157.964	157.723	157.920	0.8910
88	3.55	159.754	159.791	159.705	159.768	159.627	159.739	159.498	159.694	0.8911
89	3.55	161.478	161.515	161.426	161.493	161.350	161.463	161.223	161.418	0.8910
90	3.55	163.254	163.292	163.205	163.269	163.125	163.239	162.997	163.194	0.8911
91	3.55	164.982	165.016	164.928	164.997	164.851	164.966	164.725	164.920	0.8910
92	3.55	166.757	166.792	166.702	166.772	166.625	166.741	166.498	166.695	0.8911
93	3.55	168.484	168.519	168.429	168.495	168.355	168.468	168.226	168.421	0.8910
94	3.55	170.257	170.293	170.202	170.269	170.127	170.241	169.997	170.194	0.8911
95	3.55	171.984	172.020	171.932	172.000	171.856	171.968	171.725	171.920	0.8910
96	3.55	173.756	173.792	173.707	173.772	173.627	173.739	173.498	173.691	0.8911
97	3.55	175.482	175.522	175.433	175.498	175.351	175.465	175.222	175.420	0.8910
98	3.55	177.256	177.293	177.203	177.269	177.129	177.240	176.998	177.195	0.8911
99	3.55	178.986	179.019	178.932	178.998	178.853	178.969	178.721	178.919	0.8910
100	3.55	180.758	180.793	180.705	180.772	180.625	180.738	180.496	180.692	0.8911

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Table 183 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 2.00

$S_{v\,max}$ = maximum effective circular thickness = 3.142

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	6.00	22.799	22.825	22.774	22.817	22.738	22.807	22.677	22.791	0.8863
7	5.30	22.821	22.848	22.795	22.840	22.756	22.829	22.692	22.812	0.8647
8	5.00	24.621	24.650	24.593	24.641	24.551	24.630	24.481	24.610	0.8871
9	4.75	25.736	25.765	25.707	25.756	25.663	25.744	25.591	25.724	0.8737
10	4.75	28.098	28.129	28.068	28.120	28.023	28.107	27.947	28.086	0.8872
11	4.50	29.246	29.278	29.215	29.268	29.168	29.255	29.089	29.233	0.8782
12	4.50	31.526	31.559	31.494	31.549	31.446	31.535	31.365	31.512	0.8872
13	4.50	33.338	33.370	33.305	33.360	33.256	33.345	33.173	33.322	0.8807
14	4.50	35.570	35.603	35.537	35.593	35.485	35.577	35.401	35.554	0.8871
15	4.50	37.408	37.440	37.373	37.430	37.322	37.415	37.237	37.391	0.8822
16	4.25	38.944	38.979	38.909	38.967	38.855	38.951	38.766	38.926	0.8872
17	4.25	40.800	40.834	40.764	40.822	40.710	40.807	40.619	40.781	0.8833
18	4.25	42.968	43.002	42.931	42.991	42.876	42.974	42.784	42.948	0.8871
19	4.25	44.838	44.873	44.801	44.862	44.746	44.844	44.653	44.818	0.8841
20	4.25	46.988	47.023	46.949	47.011	46.893	46.992	46.799	46.966	0.8871
21	4.25	48.871	48.906	48.832	48.893	48.776	48.876	48.680	48.848	0.8846
22	4.25	51.004	51.039	50.965	51.027	50.907	51.009	50.811	50.981	0.8870
23	4.25	52.898	52.933	52.859	52.921	52.801	52.902	52.702	52.874	0.8849
24	4.25	55.019	55.053	54.978	55.041	54.920	55.023	54.821	54.994	0.8870
25	4.25	56.920	56.956	56.880	56.943	56.822	56.925	56.723	56.894	0.8852
26	4.25	59.031	59.067	58.991	59.053	58.931	59.034	58.830	59.005	0.8870
27	4.25	60.941	60.976	60.900	60.962	60.839	60.944	60.738	60.913	0.8855
28	4.25	63.042	63.079	63.001	63.064	62.940	63.044	62.838	63.014	0.8870
29	4.25	64.957	64.994	64.917	64.980	64.855	64.961	64.751	64.930	0.8857
30	4.25	67.051	67.087	67.011	67.074	66.948	67.054	66.844	67.022	0.8869
31	4.25	68.972	69.009	68.931	68.996	68.868	68.975	68.763	68.943	0.8858
32	4.25	71.061	71.096	71.019	71.082	70.954	71.061	70.850	71.029	0.8869
33	4.25	72.986	73.024	72.944	73.007	72.880	72.988	72.773	72.955	0.8859
34	4.25	75.067	75.104	75.025	75.090	74.961	75.069	74.855	75.036	0.8869
35	4.25	76.997	77.035	76.956	77.020	76.890	76.999	76.783	76.965	0.8860
36	4.00	78.370	78.408	78.325	78.391	78.259	78.370	78.149	78.336	0.8869
37	4.00	80.303	80.340	80.259	80.324	80.193	80.303	80.082	80.268	0.8861
38	4.00	82.376	82.410	82.329	82.394	82.262	82.373	82.150	82.339	0.8869
39	4.00	84.311	84.348	84.267	84.331	84.198	84.309	84.086	84.275	0.8862
40	4.00	86.377	86.416	86.334	86.400	86.266	86.377	86.153	86.342	0.8869
41	4.00	88.317	88.355	88.273	88.339	88.204	88.315	88.090	88.279	0.8863
42	4.00	90.381	90.420	90.336	90.403	90.269	90.379	90.153	90.342	0.8869
43	4.00	92.324	92.361	92.277	92.346	92.209	92.321	92.096	92.286	0.8863
44	4.00	94.384	94.422	94.339	94.406	94.269	94.382	94.156	94.346	0.8869
45	4.00	96.329	96.368	96.283	96.352	96.214	96.327	96.098	96.290	0.8864
46	4.00	98.387	98.424	98.340	98.408	98.272	98.384	98.156	98.347	0.8869
47	4.00	100.334	100.373	100.289	100.356	100.218	100.332	100.102	100.294	0.8864
48	4.00	102.390	102.427	102.344	102.412	102.274	102.385	102.156	102.349	0.8869
49	4.00	104.341	104.379	104.292	104.361	104.223	104.336	104.105	104.297	0.8864
50	4.00	106.391	106.432	106.346	106.412	106.270	106.389	106.155	106.348	0.8869
51	4.00	108.343	108.382	108.297	108.364	108.226	108.338	108.108	108.300	0.8864
52	4.00	110.395	110.435	110.348	110.414	110.275	110.390	110.156	110.351	0.8869
53	4.00	112.349	112.386	112.301	112.370	112.229	112.343	112.111	112.303	0.8865
54	4.00	114.398	114.436	114.349	114.417	114.277	114.393	114.156	114.352	0.8869
55	4.00	116.353	116.391	116.303	116.372	116.232	116.347	116.112	116.306	0.8865
56	4.00	118.400	118.436	118.353	118.420	118.277	118.392	118.158	118.353	0.8869
57	4.00	120.356	120.393	120.308	120.376	120.234	120.350	120.113	120.308	0.8865
58	4.00	122.402	122.440	122.353	122.419	122.278	122.393	122.155	122.353	0.8868
59	4.00	124.360	124.398	124.310	124.377	124.237	124.351	124.115	124.310	0.8865
60	4.00	126.401	126.440	126.354	126.422	126.280	126.395	126.159	126.354	0.8868
61	4.00	128.364	128.400	128.313	128.382	128.237	128.355	128.117	128.313	0.8865
62	4.00	130.405	130.442	130.356	130.423	130.279	130.395	130.157	130.353	0.8868
63	4.00	132.366	132.404	132.316	132.382	132.242	132.357	132.115	132.313	0.8866
64	4.00	134.406	134.444	134.356	134.422	134.280	134.397	134.158	134.353	0.8868
65	4.00	136.367	136.405	136.319	136.386	136.242	136.357	136.118	136.316	0.8866
66	4.00	138.407	138.446	138.355	138.426	138.284	138.397	138.155	138.355	0.8868
67	4.00	140.370	140.406	140.320	140.386	140.245	140.360	140.117	140.317	0.8866
68	4.00	142.410	142.446	142.360	142.426	142.283	142.400	142.154	142.353	0.8868
69	4.00	144.371	144.412	144.324	144.392	144.247	144.361	144.119	144.317	0.8866
70	4.00	146.408	146.446	146.360	146.429	146.282	146.398	146.156	146.354	0.8868
71	4.00	148.373	148.414	148.324	148.394	148.248	148.362	148.120	148.317	0.8866
72	4.00	150.410	150.449	150.358	150.428	150.284	150.400	150.155	150.354	0.8868
73	4.00	152.377	152.413	152.328	152.392	152.249	152.363	152.122	152.320	0.8866
74	4.00	154.412	154.448	154.358	154.430	154.283	154.401	154.154	154.355	0.8868
75	4.00	156.375	156.415	156.327	156.393	156.251	156.364	156.120	156.320	0.8866
76	4.00	158.415	158.452	158.363	158.429	158.282	158.400	158.153	158.355	0.8868
77	4.00	160.380	160.417	160.328	160.399	160.249	160.369	160.123	160.324	0.8866
78	4.00	162.414	162.451	162.361	162.429	162.281	162.402	162.153	162.353	0.8868
79	4.00	164.382	164.420	164.332	164.397	164.252	164.371	164.119	164.325	0.8866
80	4.00	166.413	166.452	166.363	166.433	166.286	166.402	166.154	166.355	0.8868
81	4.00	168.385	168.420	168.330	168.401	168.252	168.369	168.119	168.322	0.8866
82	4.00	170.414	170.454	170.363	170.430	170.283	170.398	170.153	170.355	0.8868
83	4.00	172.385	172.421	172.333	172.401	172.253	172.369	172.121	172.325	0.8866
84	4.00	174.416	174.453	174.363	174.432	174.286	174.400	174.149	174.351	0.8868
85	4.00	176.387	176.424	176.333	176.403	176.256	176.370	176.121	176.325	0.8866
86	4.00	178.415	178.453	178.366	178.432	178.283	178.399	178.151	178.353	0.8868
87	4.00	180.390	180.423	180.335	180.402	180.256	180.373	180.122	180.323	0.8867
88	4.00	182.416	182.455	182.361	182.433	182.285	182.400	182.150	182.353	0.8868
89	4.00	184.390	184.429	184.334	184.403	184.258	184.373	184.121	184.326	0.8867
90	4.00	186.419	186.454	186.363	186.432	186.285	186.402	186.147	186.354	0.8868
91	4.00	188.388	188.428	188.336	188.406	188.257	188.371	188.122	188.327	0.8867
92	4.00	190.420	190.455	190.363	190.433	190.283	190.398	190.151	190.354	0.8868
93	4.00	192.393	192.428	192.339	192.406	192.254	192.375	192.121	192.326	0.8867
94	4.00	194.419	194.459	194.364	194.432	194.283	194.400	194.149	194.351	0.8868
95	4.00	196.395	196.432	196.341	196.404	196.259	196.377	196.123	196.322	0.8867
96	4.00	198.419	198.456	198.364	198.433	198.281	198.401	198.144	198.350	0.8868
97	4.00	200.396	200.428	200.340	200.409	200.256	200.372	200.122	200.326	0.8867
98	4.00	202.423	202.460	202.366	202.432	202.282	202.399	202.147	202.348	0.8868
99	4.00	204.394	204.432	204.342	204.408	204.257	204.375	204.120	204.328	0.8867
100	4.00	206.420	206.458	206.367	206.434	206.281	206.400	206.148	206.348	0.8868

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Table 184 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 2.50

$S_{V\,max}$ = maximum effective circular thickness = 3.927

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	7.10	27.593	27.621	27.566	27.613	27.525	27.602	27.458	27.584	0.8809
7	6.70	28.708	28.736	28.680	28.728	28.638	28.717	28.569	28.698	0.8589
8	6.30	30.905	30.936	30.875	30.927	30.829	30.914	30.754	30.894	0.8811
9	6.00	32.330	32.362	32.299	32.351	32.253	32.340	32.175	32.318	0.8678
10	6.00	35.287	35.320	35.255	35.310	35.206	35.296	35.125	35.274	0.8812
11	5.60	36.504	36.537	36.470	36.527	36.419	36.513	36.334	36.489	0.8723
12	5.60	39.353	39.388	39.318	39.377	39.266	39.362	39.178	39.336	0.8812
13	5.60	41.617	41.652	41.582	41.642	41.529	41.625	41.439	41.601	0.8748
14	5.60	44.407	44.443	44.370	44.432	44.316	44.415	44.225	44.390	0.8812
15	5.30	45.917	45.953	45.879	45.941	45.823	45.924	45.729	45.898	0.8764
16	5.30	48.657	48.694	48.618	48.682	48.561	48.665	48.464	48.637	0.8812
17	5.30	50.977	51.014	50.937	51.001	50.879	50.984	50.782	50.956	0.8774
18	5.30	53.686	53.724	53.647	53.711	53.588	53.693	53.487	53.664	0.8812
19	5.30	56.025	56.063	55.985	56.050	55.925	56.031	55.825	56.002	0.8782
20	5.30	58.710	58.749	58.671	58.736	58.609	58.716	58.508	58.687	0.8811
21	5.30	61.065	61.103	61.025	61.090	60.963	61.071	60.859	61.040	0.8787
22	5.30	63.731	63.770	63.691	63.756	63.628	63.736	63.524	63.707	0.8811
23	5.30	66.098	66.137	66.056	66.123	65.995	66.103	65.889	66.073	0.8791
24	5.30	68.749	68.789	68.707	68.775	68.643	68.754	68.536	68.723	0.8811
25	5.30	71.127	71.167	71.084	71.152	71.020	71.131	70.914	71.098	0.8794
26	5.30	73.765	73.804	73.721	73.790	73.657	73.769	73.538	73.736	0.8811
27	5.30	76.152	76.190	76.108	76.177	76.044	76.156	75.934	76.122	0.8796
28	5.30	78.779	78.818	78.735	78.802	78.669	78.782	78.558	78.747	0.8811
29	5.30	81.174	81.212	81.129	81.198	81.063	81.176	80.953	81.141	0.8798
30	5.00	82.953	82.992	82.907	82.978	82.838	82.955	82.724	82.919	0.8811
31	5.00	85.353	85.394	85.307	85.378	85.239	85.355	85.124	85.319	0.8800
32	5.00	87.961	88.000	87.915	87.985	87.844	87.960	87.730	87.925	0.8811
33	5.00	90.367	90.407	90.321	90.391	90.251	90.367	90.134	90.332	0.8801
34	5.00	92.968	93.009	92.921	92.991	92.852	92.968	92.733	92.932	0.8811
35	5.00	95.379	95.420	95.333	95.404	95.262	95.379	95.143	95.342	0.8802
36	5.00	97.974	98.015	97.927	97.998	97.854	97.972	97.737	97.937	0.8811
37	5.00	100.391	100.430	100.343	100.415	100.271	100.391	100.153	100.352	0.8803
38	5.00	102.978	103.020	102.931	103.003	102.860	102.978	102.739	102.939	0.8811
39	5.00	105.401	105.439	105.353	105.424	105.280	105.399	105.160	105.361	0.8803
40	5.00	107.984	108.026	107.938	108.008	107.863	107.982	107.742	107.943	0.8811
41	5.00	110.410	110.450	110.360	110.434	110.289	110.407	110.165	110.368	0.8804
42	5.00	112.990	113.030	112.941	113.011	112.866	112.987	112.745	112.947	0.8811
43	5.00	115.418	115.457	115.369	115.440	115.294	115.413	115.171	115.374	0.8805
44	5.00	117.994	118.033	117.943	118.016	117.870	117.988	117.745	117.949	0.8810
45	5.00	120.425	120.466	120.377	120.445	120.302	120.423	120.177	120.380	0.8805
46	5.00	122.998	123.039	122.948	123.018	122.872	122.992	122.747	122.951	0.8810
47	5.00	125.433	125.472	125.382	125.454	125.308	125.427	125.180	125.385	0.8805
48	5.00	128.000	128.040	127.951	128.021	127.876	127.997	127.749	127.955	0.8810
49	5.00	130.439	130.479	130.387	130.458	130.309	130.433	130.183	130.390	0.8806
50	5.00	133.005	133.046	132.951	133.027	132.876	132.999	132.751	132.958	0.8810
51	5.00	135.442	135.484	135.391	135.465	135.314	135.436	135.186	135.394	0.8806
52	5.00	138.007	138.046	137.955	138.027	137.880	138.001	137.750	137.958	0.8810
53	5.00	140.449	140.489	140.396	140.469	140.320	140.442	140.191	140.399	0.8806
54	5.00	143.011	143.052	142.957	143.031	142.880	143.001	142.748	142.957	0.8810
55	5.00	145.455	145.496	145.403	145.475	145.324	145.448	145.194	145.403	0.8807
56	5.00	148.011	148.053	147.962	148.032	147.882	148.004	147.753	147.962	0.8810
57	5.00	150.459	150.498	150.406	150.481	150.328	150.449	150.198	150.406	0.8807
58	5.00	153.017	153.053	152.963	153.035	152.884	153.006	152.751	152.959	0.8810
59	5.00	155.464	155.501	155.409	155.483	155.333	155.453	155.198	155.406	0.8807
60	5.00	158.017	158.058	157.965	158.039	157.883	158.009	157.750	157.961	0.8810
61	5.00	160.466	160.508	160.413	160.485	160.334	160.455	160.199	160.410	0.8807
62	5.00	163.017	163.060	162.964	163.040	162.887	163.010	162.750	162.964	0.8810
63	5.00	165.469	165.508	165.415	165.489	165.337	165.458	165.202	165.415	0.8807
64	5.00	168.020	168.059	167.969	168.040	167.886	168.012	167.752	167.965	0.8810
65	5.00	170.475	170.515	170.419	170.495	170.339	170.463	170.204	170.415	0.8808
66	5.00	173.025	173.065	172.968	173.041	172.887	173.009	172.750	172.964	0.8810
67	5.00	175.474	175.516	175.425	175.495	175.343	175.466	175.204	175.417	0.8808
68	5.00	178.025	178.066	177.970	178.041	177.887	178.012	177.750	177.966	0.8810
69	5.00	180.481	180.519	180.426	180.498	180.342	180.464	180.203	180.418	0.8808
70	5.00	183.028	183.066	182.972	183.045	182.891	183.011	182.750	182.963	0.8810
71	5.00	185.483	185.522	185.427	185.501	185.345	185.466	185.206	185.423	0.8808
72	5.00	188.029	188.070	187.973	188.044	187.890	188.013	187.750	187.965	0.8810
73	5.00	190.488	190.525	190.427	190.503	190.347	190.472	190.205	190.423	0.8808
74	5.00	193.029	193.069	192.975	193.047	192.889	193.011	192.750	192.966	0.8810
75	5.00	195.487	195.528	195.432	195.505	195.346	195.473	195.209	195.423	0.8808
76	5.00	198.027	198.069	197.972	198.046	197.889	198.014	197.751	197.963	0.8810
77	5.00	200.489	200.531	200.433	200.508	200.349	200.475	200.209	200.424	0.8808
78	5.00	203.031	203.069	202.974	203.050	202.889	203.012	202.748	202.966	0.8810
79	5.00	205.492	205.530	205.435	205.511	205.348	205.473	205.210	205.425	0.8808
80	5.00	208.031	208.070	207.973	208.051	207.891	208.017	207.751	207.963	0.8810
81	5.00	210.496	210.535	210.437	210.511	210.354	210.476	210.208	210.423	0.8808
82	5.00	213.033	213.072	212.978	213.047	212.889	213.018	212.750	212.963	0.8810
83	5.00	215.497	215.537	215.436	215.512	215.356	215.477	215.211	215.426	0.8808
84	5.00	218.035	218.071	217.980	218.051	217.888	218.015	217.747	217.964	0.8810
85	5.00	220.499	220.540	220.442	220.514	220.355	220.478	220.212	220.427	0.8808
86	5.00	223.035	223.076	222.978	223.050	222.895	223.019	222.750	222.962	0.8810
87	5.00	225.498	225.539	225.445	225.519	225.356	225.482	225.210	225.429	0.8808
88	5.00	228.037	228.079	227.978	228.052	227.888	228.015	227.746	227.962	0.8810
89	5.00	230.504	230.541	230.445	230.514	230.354	230.482	230.210	230.429	0.8809
90	5.00	233.040	233.078	232.981	233.051	232.889	233.019	232.749	232.965	0.8810
91	5.00	235.507	235.540	235.447	235.518	235.354	235.485	235.213	235.431	0.8809
92	5.00	238.042	238.075	237.981	238.053	237.893	238.020	237.744	237.964	0.8810
93	5.00	240.508	240.541	240.446	240.519	240.357	240.485	240.213	240.429	0.8809
94	5.00	243.040	243.080	242.984	243.051	242.894	243.017	242.748	242.961	0.8810
95	5.00	245.505	245.545	245.448	245.517	245.357	245.483	245.210	245.426	0.8809
96	5.00	248.041	248.082	247.978	248.053	247.892	248.018	247.743	247.961	0.8810
97	5.00	250.512	250.547	250.448	250.523	250.361	250.489	250.211	250.431	0.8809
98	5.00	253.040	253.075	252.982	253.052	252.894	253.017	252.742	252.958	0.8810
99	5.00	255.510	255.552	255.451	255.522	255.362	255.486	255.209	255.433	0.8809
100	5.00	258.042	258.078	257.983	258.054	257.893	258.018	257.744	257.959	0.8810

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Table 185 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 3.00

$S_{v\,max}$ = maximum effective circular thickness = 4.712

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	8.50	33.071	33.101	33.042	33.093	33.000	33.081	32.928	33.062	0.8773
7	8.00	34.363	34.393	34.333	34.385	34.289	34.372	34.215	34.353	0.8554
8	7.50	36.948	36.981	36.915	36.971	36.867	36.958	36.787	36.936	0.8774
9	7.10	38.559	38.593	38.526	38.584	38.476	38.569	38.393	38.546	0.8642
10	7.10	42.103	42.139	42.068	42.128	42.017	42.113	41.929	42.089	0.8775
11	6.70	43.761	43.798	43.726	43.787	43.671	43.771	43.581	43.746	0.8686
12	6.70	47.180	47.218	47.144	47.206	47.088	47.189	46.994	47.164	0.8775
13	6.70	49.897	49.935	49.859	49.922	49.803	49.906	49.709	49.880	0.8711
14	6.70	53.245	53.283	53.206	53.271	53.148	53.254	53.050	53.226	0.8775
15	6.70	56.001	56.039	55.962	56.027	55.903	56.008	55.804	55.981	0.8727
16	6.30	58.238	58.277	58.197	58.264	58.135	58.245	58.032	58.216	0.8775
17	6.30	61.020	61.060	60.979	61.047	60.916	61.028	60.813	60.998	0.8737
18	6.30	64.270	64.311	64.229	64.297	64.166	64.279	64.059	64.247	0.8775
19	6.30	67.077	67.117	67.034	67.103	66.971	67.084	66.893	67.053	0.8745
20	6.30	70.300	70.340	70.256	70.325	70.191	70.305	70.082	70.273	0.8774
21	6.30	73.125	73.164	73.080	73.151	73.015	73.130	72.905	73.097	0.8750
22	6.30	76.324	76.365	76.280	76.349	76.212	76.328	76.101	76.295	0.8774
23	6.30	79.164	79.206	79.120	79.190	79.052	79.168	78.939	79.136	0.8754
24	6.30	82.345	82.386	82.299	82.370	82.231	82.349	82.118	82.314	0.8774
25	6.30	85.198	85.239	85.151	85.224	85.083	85.200	84.969	85.166	0.8757
26	6.30	88.363	88.403	88.317	88.388	88.246	88.365	88.132	88.330	0.8774
27	6.00	90.394	90.437	90.346	90.419	90.275	90.397	90.159	90.361	0.8759
28	6.00	93.542	93.583	93.494	93.567	93.423	93.544	93.303	93.508	0.8774
29	6.00	96.415	96.458	96.368	96.441	96.296	96.418	96.174	96.380	0.8761
30	6.00	99.554	99.595	99.505	99.578	99.433	99.556	99.310	99.517	0.8774
31	6.00	102.436	102.476	102.386	102.461	102.311	102.436	102.190	102.398	0.8763
32	6.00	105.564	105.605	105.515	105.587	105.439	105.564	105.317	105.526	0.8774
33	6.00	108.451	108.493	108.401	108.477	108.328	108.451	108.205	108.412	0.8764
34	6.00	111.573	111.613	111.521	111.597	111.444	111.570	111.323	111.532	0.8774
35	6.00	114.466	114.507	114.416	114.491	114.342	114.466	114.215	114.424	0.8765
36	6.00	117.578	117.623	117.530	117.603	117.453	117.578	117.327	117.538	0.8774
37	6.00	120.481	120.521	120.429	120.504	120.353	120.478	120.227	120.437	0.8766
38	6.00	123.586	123.627	123.535	123.609	123.458	123.583	123.331	123.544	0.8774
39	6.00	126.491	126.533	126.439	126.515	126.364	126.488	126.234	126.448	0.8767
40	6.00	129.594	129.634	129.541	129.615	129.463	129.587	129.334	129.547	0.8774
41	6.00	132.501	132.546	132.451	132.527	132.372	132.498	132.242	132.457	0.8767
42	6.00	135.598	135.640	135.546	135.620	135.468	135.594	135.336	135.552	0.8774
43	6.00	138.512	138.555	138.459	138.535	138.383	138.508	138.251	138.465	0.8768
44	6.00	141.603	141.647	141.552	141.626	141.471	141.599	141.337	141.555	0.8774
45	6.00	144.521	144.562	144.469	144.545	144.390	144.514	144.257	144.473	0.8768
46	6.00	147.608	147.650	147.555	147.629	147.475	147.601	147.342	147.559	0.8774
47	6.00	150.530	150.573	150.477	150.552	150.394	150.523	150.263	150.477	0.8769
48	6.00	153.611	153.655	153.560	153.633	153.480	153.604	153.342	153.560	0.8774
49	6.00	156.530	156.579	156.482	156.557	156.401	156.531	156.268	156.482	0.8769
50	6.00	159.617	159.659	159.564	159.640	159.481	159.610	159.346	159.564	0.8774
51	6.00	162.546	162.584	162.492	162.565	162.407	162.534	162.270	162.492	0.8770
52	6.00	165.620	165.664	165.566	165.640	165.483	165.613	165.347	165.566	0.8774
53	6.00	168.551	168.595	168.495	168.571	168.411	168.539	168.277	168.495	0.8770
54	6.00	171.621	171.666	171.569	171.646	171.484	171.613	171.346	171.565	0.8774
55	6.00	174.558	174.599	174.500	174.578	174.418	174.545	174.278	174.500	0.8770
56	6.00	177.625	177.671	177.571	177.646	177.487	177.617	177.345	177.571	0.8774
57	6.00	180.560	180.602	180.509	180.581	180.424	180.551	180.280	180.504	0.8770
58	6.00	183.629	183.672	183.573	183.651	183.491	183.620	183.349	183.568	0.8774
59	6.00	186.566	186.610	186.513	186.588	186.429	186.557	186.286	186.504	0.8770
60	6.00	189.633	189.674	189.575	189.651	189.491	189.620	189.349	189.571	0.8774
61	6.00	192.573	192.614	192.514	192.591	192.428	192.559	192.288	192.510	0.8771
62	6.00	195.635	195.676	195.579	195.653	195.492	195.621	195.350	195.575	0.8774
63	6.00	198.577	198.619	198.517	198.596	198.433	198.563	198.289	198.512	0.8771
64	6.00	201.638	201.681	201.581	201.657	201.497	201.624	201.350	201.575	0.8774
65	6.00	204.579	204.622	204.522	204.598	204.439	204.565	204.292	204.517	0.8771
66	6.00	207.639	207.678	207.581	207.659	207.494	207.625	207.348	207.571	0.8774
67	6.00	210.584	210.628	210.525	210.604	210.441	210.569	210.294	210.520	0.8771
68	6.00	213.639	213.685	213.584	213.659	213.494	213.624	213.350	213.574	0.8774
69	6.00	216.580	216.628	216.527	216.608	216.441	216.572	216.294	216.522	0.8771
70	6.00	219.643	219.685	219.582	219.664	219.500	219.628	219.351	219.577	0.8774
71	6.00	222.590	222.632	222.533	222.611	222.445	222.575	222.299	222.523	0.8771
72	6.00	225.647	225.684	225.589	225.663	225.494	225.631	225.347	225.579	0.8774
73	6.00	228.598	228.636	228.534	228.609	228.449	228.577	228.300	228.523	0.8771
74	6.00	231.645	231.689	231.591	231.667	231.499	231.629	231.349	231.575	0.8773
75	6.00	234.601	234.639	234.535	234.612	234.447	234.579	234.300	234.524	0.8772
76	6.00	237.650	237.688	237.589	237.666	237.500	237.633	237.351	237.577	0.8773
77	6.00	240.598	240.643	240.542	240.621	240.452	240.581	240.301	240.531	0.8772
78	6.00	243.649	243.694	243.592	243.666	243.501	243.632	243.348	243.578	0.8773
79	6.00	246.602	246.648	246.544	246.619	246.453	246.585	246.304	246.527	0.8772
80	6.00	249.649	249.696	249.591	249.667	249.498	249.632	249.347	249.579	0.8773
81	6.00	252.607	252.648	252.542	252.625	252.454	252.584	252.302	252.531	0.8772
82	6.00	255.657	255.693	255.591	255.669	255.502	255.633	255.348	255.574	0.8773
83	6.00	258.608	258.650	258.548	258.620	258.458	258.584	258.302	258.530	0.8772
84	6.00	261.655	261.697	261.594	261.673	261.502	261.636	261.345	261.575	0.8773
85	6.00	264.611	264.654	264.549	264.623	264.457	264.586	264.304	264.531	0.8772
86	6.00	267.654	267.698	267.598	267.673	267.499	267.636	267.350	267.573	0.8773
87	6.00	270.610	270.654	270.553	270.628	270.459	270.591	270.308	270.534	0.8772
88	6.00	273.657	273.695	273.593	273.669	273.504	273.631	273.346	273.580	0.8773
89	6.00	276.617	276.656	276.553	276.630	276.463	276.592	276.303	276.534	0.8772
90	6.00	279.662	279.701	279.597	279.675	279.506	279.636	279.350	279.577	0.8773
91	6.00	282.622	282.661	282.556	282.635	282.464	282.595	282.307	282.536	0.8772
92	6.00	285.663	285.703	285.597	285.677	285.504	285.637	285.346	285.577	0.8773
93	6.00	288.623	288.663	288.556	288.636	288.462	288.596	288.302	288.535	0.8772
94	6.00	291.662	291.702	291.594	291.675	291.499	291.635	291.344	291.574	0.8773
95	6.00	294.620	294.661	294.559	294.634	294.463	294.593	294.306	294.538	0.8772
96	6.00	297.657	297.698	297.601	297.670	297.505	297.636	297.347	297.574	0.8773
97	6.00	300.621	300.663	300.558	300.635	300.461	300.600	300.308	300.538	0.8772
98	6.00	303.662	303.705	303.599	303.676	303.508	303.634	303.339	303.578	0.8773
99	6.00	306.626	306.662	306.562	306.633	306.463	306.598	306.307	306.534	0.8772
100	6.00	309.665	309.701	309.601	309.680	309.508	309.637	309.343	309.572	0.8773

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Table 186 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 4.00

$S_{v\,max}$ = maximum effective circular thickness = 6.283

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	11.80	45.172	45.206	45.142	45.196	45.095	45.183	45.017	45.162	0.8731
7	10.60	45.673	45.707	45.641	45.698	45.592	45.685	45.511	45.662	0.8513
8	10.00	49.276	49.312	49.241	49.301	49.188	49.287	49.099	49.263	0.8732
9	9.50	51.507	51.543	51.470	51.533	51.415	51.517	51.323	51.492	0.8600
10	9.50	56.234	56.273	56.196	56.261	56.138	56.245	56.042	56.218	0.8732
11	9.00	58.531	58.571	58.492	58.558	58.432	58.541	58.333	58.513	0.8644
12	9.00	63.093	63.133	63.052	63.121	62.990	63.102	62.887	63.074	0.8732
13	9.00	66.715	66.757	66.674	66.744	66.611	66.724	66.508	66.695	0.8669
14	8.50	69.874	69.916	69.830	69.903	69.766	69.882	69.656	69.852	0.8732
15	8.50	73.545	73.588	73.502	73.575	73.435	73.554	73.325	73.522	0.8685
16	8.50	77.932	77.975	77.887	77.960	77.819	77.940	77.706	77.907	0.8732
17	8.50	81.643	81.685	81.598	81.672	81.530	81.651	81.416	81.617	0.8695
18	8.50	85.980	86.023	85.933	86.007	85.865	85.987	85.747	85.953	0.8732
19	8.50	89.723	89.765	89.675	89.751	89.605	89.728	89.488	89.693	0.8705
20	8.50	94.019	94.065	93.973	94.048	93.901	94.026	93.781	93.990	0.8732
21	8.50	97.787	97.832	97.739	97.814	97.667	97.792	97.548	97.757	0.8708
22	8.50	102.055	102.099	102.006	102.081	101.933	102.058	101.809	102.021	0.8732
23	8.50	105.842	105.887	105.793	105.869	105.718	105.847	105.596	105.810	0.8715
24	8.00	108.706	108.752	108.655	108.733	108.580	108.709	108.452	108.671	0.8732
25	8.00	112.508	112.556	112.459	112.536	112.381	112.511	112.252	112.472	0.8715
26	8.00	116.725	116.771	116.673	116.754	116.596	116.728	116.465	116.688	0.8732
27	8.00	120.544	120.588	120.490	120.570	120.414	120.544	120.282	120.505	0.8717
28	8.00	124.741	124.787	124.689	124.769	124.610	124.741	124.480	124.702	0.8732
29	8.00	128.573	128.617	128.519	128.601	128.438	128.573	128.307	128.532	0.8719
30	8.00	132.754	132.803	132.703	132.784	132.622	132.754	132.490	132.716	0.8732
31	8.00	136.597	136.644	136.544	136.624	136.462	136.597	136.329	136.554	0.8721
32	8.00	140.769	140.817	140.714	140.796	140.633	140.769	140.497	140.725	0.8732
33	8.00	144.619	144.665	144.566	144.647	144.482	144.619	144.347	144.573	0.8722
34	8.00	148.781	148.828	148.727	148.807	148.641	148.778	148.505	148.735	0.8732
35	8.00	152.639	152.687	152.584	152.665	152.503	152.639	152.364	152.591	0.8723
36	8.00	156.793	156.838	156.736	156.816	156.653	156.785	156.514	156.744	0.8732
37	8.00	160.657	160.703	160.602	160.684	160.517	160.653	160.379	160.610	0.8724
38	8.00	164.801	164.848	164.745	164.824	164.658	164.797	164.520	164.749	0.8732
39	8.00	168.675	168.719	168.618	168.699	168.532	168.671	168.388	168.622	0.8725
40	8.00	172.808	172.858	172.750	172.833	172.667	172.804	172.523	172.758	0.8732
41	8.00	176.690	176.736	176.630	176.715	176.546	176.685	176.403	176.635	0.8725
42	8.00	180.818	180.862	180.758	180.840	180.671	180.810	180.529	180.762	0.8732
43	8.00	184.704	184.749	184.643	184.727	184.559	184.696	184.414	184.647	0.8726
44	8.00	188.826	188.871	188.763	188.849	188.678	188.817	188.530	188.768	0.8732
45	8.00	192.713	192.759	192.658	192.740	192.566	192.704	192.420	192.658	0.8727
46	8.00	196.829	196.876	196.773	196.853	196.684	196.820	196.535	196.773	0.8732
47	8.00	200.726	200.769	200.664	200.750	200.578	200.717	200.431	200.664	0.8727
48	8.00	204.834	204.883	204.776	204.859	204.688	204.824	204.538	204.776	0.8732
49	8.00	208.737	208.782	208.676	208.759	208.584	208.723	208.436	208.673	0.8727
50	8.00	212.843	212.889	212.783	212.869	212.692	212.833	212.541	212.778	0.8732
51	8.00	216.748	216.790	216.687	216.769	216.594	216.733	216.441	216.682	0.8728
52	8.00	220.848	220.890	220.785	220.869	220.697	220.838	220.548	220.785	0.8732
53	8.00	224.756	224.804	224.697	224.777	224.602	224.740	224.448	224.686	0.8728
54	8.00	228.850	228.899	228.791	228.872	228.699	228.839	228.548	228.785	0.8732
55	8.00	232.760	232.810	232.700	232.782	232.606	232.749	232.453	232.694	0.8728
56	8.00	236.856	236.901	236.795	236.879	236.705	236.839	236.549	236.789	0.8732
57	8.00	240.769	240.815	240.708	240.792	240.616	240.758	240.463	240.701	0.8728
58	8.00	244.862	244.908	244.798	244.879	244.706	244.844	244.551	244.792	0.8732
59	8.00	248.778	248.825	248.714	248.796	248.620	248.760	248.462	248.708	0.8729
60	8.00	252.862	252.910	252.803	252.886	252.708	252.850	252.555	252.791	0.8732
61	8.00	256.782	256.831	256.722	256.800	256.625	256.764	256.469	256.710	0.8729
62	8.00	260.865	260.914	260.803	260.889	260.711	260.852	260.552	260.791	0.8732
63	8.00	264.788	264.838	264.726	264.807	264.633	264.770	264.472	264.714	0.8729
64	8.00	268.870	268.920	268.807	268.889	268.712	268.851	268.555	268.794	0.8732
65	8.00	272.791	272.843	272.727	272.817	272.638	272.779	272.472	272.715	0.8729
66	8.00	276.879	276.918	276.814	276.892	276.710	276.853	276.555	276.801	0.8732
67	8.00	280.798	280.845	280.733	280.816	280.641	280.779	280.476	280.719	0.8729
68	8.00	284.879	284.919	284.813	284.893	284.719	284.853	284.553	284.799	0.8732
69	8.00	288.804	288.851	288.743	288.824	288.648	288.783	288.480	288.729	0.8729
70	8.00	292.879	292.927	292.817	292.899	292.721	292.858	292.557	292.803	0.8732
71	8.00	296.845	296.857	296.745	296.829	296.648	296.787	296.482	296.732	0.8730
72	8.00	300.884	300.926	300.814	300.898	300.715	300.856	300.554	300.800	0.8732
73	8.00	304.812	304.862	304.748	304.833	304.655	304.790	304.485	304.733	0.8730
74	8.00	308.890	308.933	308.817	308.904	308.716	308.861	308.556	308.803	0.8732
75	8.00	312.816	312.859	312.757	312.837	312.655	312.794	312.487	312.735	0.8730
76	8.00	316.888	316.933	316.822	316.903	316.726	316.859	316.556	316.799	0.8732
77	8.00	320.827	320.872	320.753	320.842	320.655	320.798	320.491	320.738	0.8730
78	8.00	324.888	324.933	324.820	324.903	324.721	324.865	324.555	324.804	0.8732
79	8.00	328.826	328.872	328.757	328.841	328.665	328.803	328.496	328.741	0.8730
80	8.00	332.897	332.935	332.827	332.904	332.726	332.866	332.556	332.803	0.8732
81	8.00	336.833	336.880	336.762	336.849	336.660	336.802	336.488	336.739	0.8730
82	8.00	340.892	340.939	340.828	340.908	340.725	340.868	340.559	340.804	0.8732
83	8.00	344.835	344.875	344.762	344.851	344.666	344.811	344.490	344.746	0.8730
84	8.00	348.897	348.938	348.832	348.913	348.727	348.865	348.557	348.800	0.8732
85	8.00	352.839	352.880	352.765	352.847	352.667	352.806	352.495	352.749	0.8730
86	8.00	356.897	356.939	356.831	356.914	356.731	356.864	356.549	356.798	0.8732
87	8.00	360.838	360.880	360.771	360.855	360.670	360.813	360.495	360.746	0.8730
88	8.00	364.901	364.943	364.824	364.909	364.723	364.867	364.554	364.808	0.8732
89	8.00	368.840	368.882	368.772	368.857	368.669	368.815	368.498	368.746	0.8730
90	8.00	372.899	372.943	372.830	372.917	372.726	372.865	372.553	372.804	0.8732
91	8.00	376.846	376.890	376.776	376.864	376.671	376.811	376.497	376.750	0.8730
92	8.00	380.902	380.946	380.831	380.920	380.725	380.867	380.549	380.805	0.8732
93	8.00	384.848	384.893	384.778	384.866	384.669	384.812	384.500	384.750	0.8730
94	8.00	388.900	388.945	388.828	388.918	388.729	388.873	388.558	388.801	0.8732
95	8.00	392.845	392.900	392.781	392.863	392.681	392.818	392.499	392.754	0.8730
96	8.00	396.903	396.949	396.839	396.912	396.728	396.875	396.554	396.802	0.8732
97	8.00	400.856	400.893	400.782	400.865	400.680	400.819	400.503	400.754	0.8731
98	8.00	404.902	404.949	404.836	404.921	404.733	404.874	404.555	404.808	0.8732
99	8.00	408.854	408.901	408.788	408.863	408.674	408.826	408.504	408.750	0.8731
100	8.00	412.906	412.944	412.830	412.916	412.734	412.868	412.553	412.801	0.8732

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Table 187 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 5.00

$S_{v\,max}$ = maximum effective circular thickness = 7.854

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	14.00	54.759	54.794	54.725	54.785	54.674	54.770	54.588	54.747	0.8709
7	13.20	56.985	57.022	56.950	57.012	56.897	56.996	56.809	56.972	0.8491
8	12.50	61.605	61.644	61.566	61.633	61.510	61.616	61.414	61.589	0.8710
9	11.80	64.210	64.250	64.171	64.238	64.111	64.220	64.013	64.194	0.8578
10	11.80	70.116	70.157	70.075	70.145	70.013	70.127	69.909	70.098	0.8710
11	11.80	74.557	74.598	74.515	74.585	74.452	74.567	74.346	74.537	0.8621
12	11.80	80.279	80.322	80.235	80.308	80.170	80.288	80.062	80.257	0.8710
13	11.80	84.812	84.854	84.768	84.841	84.702	84.820	84.595	84.788	0.8646
14	10.60	87.288	87.335	87.242	87.319	87.170	87.298	87.053	87.263	0.8710
15	10.60	91.879	91.924	91.832	91.909	91.759	91.887	91.641	91.851	0.8662
16	10.60	97.361	97.407	97.313	97.391	97.239	97.369	97.117	97.333	0.8710
17	10.60	101.999	102.047	101.951	102.031	101.877	102.007	101.753	101.970	0.8673
18	10.60	107.420	107.467	107.370	107.450	107.295	107.425	107.170	107.389	0.8710
19	10.60	112.099	112.146	112.048	112.129	111.973	112.103	111.844	112.065	0.8690
20	10.60	117.471	117.516	117.420	117.501	117.342	117.474	117.213	117.435	0.8710
21	10.60	122.180	122.227	122.127	122.208	122.049	122.183	121.919	122.143	0.8685
22	10.60	127.514	127.560	127.459	127.544	127.381	127.518	127.249	127.475	0.8710
23	10.00	130.601	130.650	130.546	130.631	130.466	130.605	130.330	130.563	0.8690
24	10.00	135.898	135.946	135.842	135.926	135.758	135.899	135.621	135.856	0.8710
25	10.00	140.649	140.698	140.594	140.681	140.514	140.653	140.373	140.608	0.8693
26	10.00	145.921	145.967	145.863	145.949	145.781	145.921	145.642	145.878	0.8710
27	10.00	150.694	150.742	150.639	150.720	150.550	150.694	150.411	150.650	0.8695
28	10.00	155.942	155.991	155.885	155.968	155.801	155.948	155.656	155.896	0.8710
29	10.00	160.737	160.789	160.673	160.759	160.586	160.727	160.442	160.680	0.8697
30	10.00	165.959	166.008	165.903	165.988	165.814	165.959	165.669	165.911	0.8710
31	10.00	170.763	170.809	170.705	170.788	170.618	170.759	170.470	170.714	0.8699
32	10.00	175.978	176.025	175.919	176.004	175.829	175.974	175.685	175.927	0.8710
33	10.00	180.791	180.839	180.734	180.817	180.642	180.787	180.494	180.739	0.8700
34	10.00	185.990	186.040	185.932	186.017	185.842	185.986	185.694	185.936	0.8710
35	10.00	190.818	190.864	190.758	190.841	190.666	190.808	190.514	190.762	0.8701
36	10.00	196.005	196.053	195.944	196.029	195.854	196.001	195.704	195.949	0.8710
37	10.00	200.840	200.888	200.777	200.864	200.685	200.830	200.536	200.782	0.8702
38	10.00	206.016	206.065	205.956	206.041	205.862	206.011	205.709	205.956	0.8710
39	10.00	210.859	210.909	210.798	210.884	210.707	210.848	210.551	210.798	0.8703
40	10.00	216.031	216.077	215.968	216.051	215.875	216.020	215.721	215.968	0.8710
41	10.00	220.878	220.926	220.815	220.904	220.719	220.867	220.567	220.815	0.8703
42	10.00	226.039	226.088	225.974	226.061	225.882	226.028	225.726	225.974	0.8710
43	10.00	230.892	230.941	230.831	230.919	230.737	230.881	230.583	230.831	0.8704
44	10.00	236.044	236.095	235.982	236.072	235.886	236.033	235.729	235.982	0.8710
45	10.00	240.908	240.960	240.845	240.937	240.753	240.897	240.593	240.845	0.8704
46	10.00	246.054	246.107	245.990	246.078	245.896	246.043	245.733	245.990	0.8710
47	10.00	250.926	250.973	250.860	250.949	250.764	250.914	250.604	250.854	0.8705
48	10.00	256.061	256.110	256.000	256.085	255.903	256.049	255.739	255.994	0.8710
49	10.00	260.940	260.984	260.872	260.959	260.773	260.922	260.613	260.866	0.8705
50	10.00	266.067	266.117	266.004	266.092	265.903	266.054	265.745	265.997	0.8710
51	10.00	270.948	271.000	270.884	270.974	270.781	270.936	270.621	270.878	0.8705
52	10.00	276.073	276.126	276.008	276.100	275.910	276.060	275.747	276.001	0.8710
53	10.00	280.958	281.004	280.890	280.978	280.792	280.945	280.633	280.885	0.8706
54	10.00	286.083	286.131	286.015	286.103	285.914	286.063	285.752	286.009	0.8710
55	10.00	290.971	291.019	290.902	290.992	290.806	290.950	290.635	290.895	0.8706
56	10.00	296.091	296.133	296.021	296.105	295.923	296.070	295.756	296.007	0.8710
57	10.00	300.976	301.032	300.912	301.004	300.812	300.961	300.642	300.905	0.8706
58	10.00	306.092	306.142	306.027	306.113	305.926	306.077	305.753	306.012	0.8710
59	10.00	310.987	311.039	310.921	311.009	310.819	310.973	310.651	310.907	0.8706
60	10.00	316.100	316.145	316.033	316.115	315.929	316.078	315.758	316.018	0.8710
61	10.00	321.000	321.046	320.925	321.016	320.827	320.978	320.654	320.910	0.8707
62	10.00	326.104	326.158	326.035	326.119	325.927	326.081	325.759	326.019	0.8710
63	10.00	331.001	331.048	330.939	331.024	330.830	330.986	330.659	330.923	0.8707
64	10.00	336.103	336.150	336.040	336.127	335.929	336.087	335.756	336.024	0.8710
65	10.00	341.013	341.061	340.941	341.029	340.837	340.989	340.670	340.925	0.8707
66	10.00	346.115	346.163	346.041	346.131	345.936	346.082	345.758	346.017	0.8710
67	10.00	351.015	351.064	350.949	351.031	350.842	350.998	350.669	350.932	0.8707
68	10.00	356.116	356.166	356.049	356.133	355.941	356.091	355.766	356.024	0.8710
69	10.00	361.030	361.072	360.954	361.047	360.844	360.996	360.675	360.929	0.8707
70	10.00	366.115	366.167	366.047	366.133	365.944	366.090	365.764	366.021	0.8710
71	10.00	371.036	371.080	370.958	371.053	370.854	371.001	370.672	370.932	0.8707
72	10.00	376.133	376.167	376.052	376.140	375.947	376.098	375.771	376.026	0.8710
73	10.00	381.033	381.086	380.961	381.050	380.854	381.006	380.674	380.943	0.8708
74	10.00	386.130	386.166	386.050	386.139	385.950	386.094	385.769	386.031	0.8710
75	10.00	391.038	391.093	390.965	391.056	390.864	391.010	390.682	390.946	0.8708
76	10.00	396.129	396.175	396.055	396.147	395.944	396.092	395.769	396.027	0.8710
77	10.00	401.053	401.091	400.978	401.062	400.866	401.016	400.688	400.950	0.8708
78	10.00	406.129	406.176	406.062	406.148	405.949	406.100	405.769	406.025	0.8710
79	10.00	411.051	411.099	410.984	411.071	410.869	411.022	410.687	410.946	0.8708
80	10.00	416.130	416.179	416.062	416.150	415.946	416.101	415.772	416.033	0.8710
81	10.00	421.061	421.100	420.982	421.071	420.875	421.022	420.689	420.953	0.8708
82	10.00	426.139	426.184	426.055	426.154	425.956	426.105	425.766	426.025	0.8710
83	10.00	431.064	431.114	430.993	431.074	430.873	431.033	430.693	430.953	0.8708
84	10.00	436.142	436.182	436.061	436.152	435.959	436.101	435.767	436.030	0.8710
85	10.00	441.039	441.110	440.997	441.080	440.874	441.028	440.690	440.956	0.8708
86	10.00	446.142	446.184	446.059	446.153	445.956	446.101	445.769	446.039	0.8710
87	10.00	451.068	451.121	450.995	451.079	450.880	451.037	450.702	450.964	0.8708
88	10.00	456.137	456.190	456.073	456.158	455.956	456.105	455.766	456.031	0.8710
89	10.00	461.072	461.115	460.997	461.082	460.879	461.029	460.697	460.966	0.8708
90	10.00	466.146	466.189	466.070	466.157	465.951	466.103	465.767	466.038	0.8710
91	10.00	471.080	471.124	471.003	471.091	470.883	471.036	470.697	470.970	0.8708
92	10.00	476.150	476.194	476.072	476.150	475.951	476.105	475.774	476.039	0.8710
93	10.00	481.082	481.127	481.004	481.093	480.892	481.038	480.703	480.971	0.8708
94	10.00	486.148	486.193	486.069	486.159	485.956	486.103	485.765	486.035	0.8710
95	10.00	491.079	491.125	491.011	491.090	490.897	491.045	490.703	490.965	0.8708
96	10.00	496.152	496.198	496.071	496.163	495.956	496.106	495.773	496.025	0.8710
97	10.00	501.093	501.128	501.012	501.093	500.896	501.047	500.699	500.966	0.8708
98	10.00	506.151	506.198	506.080	506.163	505.963	506.104	505.764	506.033	0.8710
99	10.00	511.091	511.127	511.008	511.093	510.890	511.044	510.701	510.973	0.8708
100	10.00	516.157	516.204	516.073	516.157	515.965	516.109	515.774	516.037	0.8710

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Table 188 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 6.00

$S_{v\,max}$ = maximum effective circular thickness = 9.425

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	17.00	66.177	66.215	66.141	66.204	66.087	66.188	65.997	66.163	0.8696
7	16.00	68.761	68.799	68.724	68.789	68.667	68.772	68.574	68.746	0.8478
8	15.00	73.934	73.975	73.893	73.964	73.833	73.945	73.731	73.916	0.8696
9	14.00	76.669	76.712	76.627	76.699	76.563	76.679	76.458	76.650	0.8564
10	14.00	83.750	83.794	83.705	83.779	83.639	83.760	83.528	83.728	0.8697
11	13.20	87.059	87.105	87.013	87.091	86.946	87.069	86.830	87.036	0.8608
12	13.20	93.892	93.939	93.844	93.923	93.774	93.901	93.655	93.866	0.8697
13	13.20	99.325	99.371	99.277	99.355	99.204	99.333	99.084	99.298	0.8633
14	13.20	106.015	106.061	105.966	106.047	105.892	106.024	105.798	105.987	0.8697
15	12.50	109.684	109.732	109.632	109.715	109.556	109.691	109.429	109.652	0.8649
16	12.50	116.257	116.306	116.206	116.288	116.127	116.263	115.995	116.224	0.8697
17	12.50	121.824	121.871	121.770	121.855	121.692	121.830	121.560	121.769	0.8659
18	12.50	128.325	128.374	128.269	128.354	128.189	128.328	128.055	128.268	0.8697
19	12.50	133.938	133.986	133.883	133.968	133.801	133.941	133.664	133.900	0.8667
20	12.50	140.378	140.428	140.324	140.410	140.242	140.382	140.103	140.342	0.8696
21	12.50	146.031	146.079	145.975	146.061	145.890	146.031	145.750	145.990	0.8672
22	12.50	152.629	152.679	152.571	152.656	152.486	152.629	152.344	152.586	0.8696
23	12.50	158.108	158.160	158.052	158.140	157.964	158.106	157.822	158.064	0.8676
24	12.50	164.470	164.519	164.416	164.499	164.325	164.470	164.181	164.424	0.8696
25	12.50	170.177	170.224	170.117	170.202	170.028	170.177	169.884	170.130	0.8679
26	12.50	176.503	176.556	176.445	176.534	176.358	176.503	176.209	176.454	0.8696
27	12.50	182.231	182.281	182.172	182.263	182.086	182.231	181.937	182.181	0.8682
28	11.80	186.583	186.633	186.520	186.610	186.429	186.579	186.275	186.529	0.8696
29	11.80	192.326	192.382	192.268	192.358	192.176	192.326	192.023	192.274	0.8684
30	11.80	198.603	198.656	198.540	198.632	198.449	198.598	198.295	198.550	0.8696
31	11.80	204.363	204.418	204.304	204.393	204.210	204.358	204.053	204.309	0.8685
32	11.80	210.621	210.672	210.555	210.647	210.464	210.613	210.307	210.565	0.8696
33	11.80	216.398	216.450	216.332	216.424	216.242	216.388	216.081	216.338	0.8687
34	11.80	222.638	222.687	222.574	222.665	222.478	222.633	222.318	222.579	0.8696
35	11.80	228.428	228.478	228.362	228.450	228.264	228.417	228.105	228.362	0.8688
36	11.80	234.650	234.707	234.588	234.678	234.493	234.645	234.330	234.588	0.8696
37	11.80	240.449	240.507	240.386	240.478	240.288	240.443	240.127	240.386	0.8689
38	11.80	246.663	246.716	246.598	246.693	246.498	246.651	246.339	246.598	0.8696
39	11.80	252.479	252.527	252.406	252.503	252.310	252.467	252.148	252.406	0.8689
40	11.80	258.677	258.727	258.609	258.702	258.510	258.665	258.344	258.609	0.8696
41	11.80	264.499	264.550	264.430	264.524	264.329	264.486	264.165	264.423	0.8690
42	11.80	270.684	270.736	270.620	270.710	270.517	270.672	270.350	270.620	0.8696
43	11.80	276.513	276.566	276.447	276.540	276.349	276.500	276.178	276.441	0.8691
44	11.80	282.695	282.749	282.628	282.722	282.527	282.682	282.360	282.621	0.8696
45	11.80	288.532	288.580	288.464	288.553	288.361	288.519	288.190	288.457	0.8691
46	11.80	294.707	294.756	294.637	294.728	294.540	294.693	294.365	294.630	0.8696
47	11.80	300.553	300.596	300.482	300.575	300.375	300.532	300.205	300.468	0.8692
48	11.80	306.716	306.767	306.643	306.738	306.542	306.702	306.368	306.636	0.8696
49	11.80	312.565	312.617	312.496	312.589	312.395	312.543	312.218	312.483	0.8692
50	11.80	318.725	318.778	318.657	318.743	318.551	318.702	318.371	318.642	0.8696
51	11.80	324.576	324.630	324.507	324.599	324.400	324.553	324.224	324.492	0.8692
52	11.80	330.728	330.782	330.657	330.751	330.556	330.712	330.377	330.650	0.8696
53	11.80	336.591	336.639	336.520	336.607	336.416	336.567	336.234	336.504	0.8693
54	11.80	342.735	342.784	342.670	342.759	342.567	342.719	342.380	342.654	0.8696
55	11.80	348.603	348.652	348.529	348.627	348.422	348.578	348.242	348.512	0.8693
56	11.80	354.741	354.791	354.671	354.758	354.566	354.724	354.382	354.657	0.8696
57	11.80	360.613	360.664	360.543	360.630	360.435	360.588	360.258	360.528	0.8693
58	11.80	366.747	366.799	366.678	366.764	366.566	366.730	366.385	366.661	0.8696
59	11.80	372.625	372.678	372.556	372.642	372.441	372.598	372.258	372.528	0.8693
60	11.80	378.755	378.808	378.684	378.772	378.577	378.728	378.391	378.666	0.8696
61	11.80	384.629	384.684	384.557	384.657	384.449	384.602	384.260	384.539	0.8693
62	11.80	390.757	390.803	390.684	390.775	390.574	390.729	390.391	390.665	0.8696
63	11.80	396.647	396.694	396.573	396.656	396.461	396.610	396.278	396.545	0.8694
64	11.80	402.764	402.812	402.688	402.783	402.575	402.736	402.387	402.670	0.8696
65	11.80	408.651	408.699	408.575	408.661	408.470	408.623	408.279	408.546	0.8694
66	11.80	414.768	414.816	414.690	414.787	414.583	414.739	414.399	414.671	0.8696
67	11.80	420.662	420.702	420.584	420.672	420.466	420.623	420.289	420.554	0.8694
68	11.80	426.769	426.819	426.699	426.789	426.579	426.739	426.400	426.669	0.8696
69	11.80	432.671	432.712	432.590	432.681	432.469	432.631	432.288	432.560	0.8694
70	11.80	438.779	438.820	438.697	438.789	438.584	438.738	438.390	438.676	0.8696
71	11.80	444.669	444.721	444.596	444.689	444.482	444.637	444.295	444.565	0.8694
72	11.80	450.778	450.831	450.704	450.789	450.589	450.746	450.400	450.673	0.8696
73	11.80	456.672	456.729	456.601	456.697	456.484	456.644	456.293	456.569	0.8694
74	11.80	462.788	462.831	462.702	462.799	462.594	462.745	462.400	462.680	0.8696
75	11.80	468.684	468.739	468.607	468.695	468.498	468.651	468.302	468.575	0.8694
76	11.80	474.789	474.833	474.711	474.800	474.590	474.755	474.402	474.678	0.8696
77	11.80	480.682	480.738	480.615	480.705	480.503	480.660	480.302	480.570	0.8695
78	11.80	486.791	486.836	486.712	486.802	486.598	486.757	486.395	486.678	0.8696
79	11.80	492.691	492.751	492.613	492.705	492.499	492.659	492.304	492.579	0.8695
80	11.80	498.796	498.842	498.715	498.808	498.599	498.750	498.402	498.680	0.8696
81	11.80	504.697	504.744	504.626	504.720	504.509	504.661	504.310	504.579	0.8695
82	11.80	510.793	510.840	510.709	510.804	510.591	510.757	510.401	510.674	0.8696
83	11.80	516.703	516.751	516.631	516.715	516.511	516.667	516.307	516.583	0.8695
84	11.80	522.793	522.841	5224720	522.805	522.599	522.756	522.393	522.683	0.8696
85	11.80	528.702	528.751	528.628	528.726	528.505	528.677	528.309	528.591	0.8695
86	11.80	534.798	534.847	534.723	534.810	534.599	534.760	534.401	534.674	0.8696
87	11.80	540.717	540.768	540.630	540.717	540.517	540.667	540.316	540.592	0.8695
88	11.80	546.808	546.846	546.719	546.808	546.605	546.757	546.402	546.681	0.8696
89	11.80	552.714	552.765	552.637	552.726	552.521	552.675	552.317	552.598	0.8695
90	11.80	558.812	558.850	558.721	558.812	558.604	558.760	558.397	558.682	0.8696
91	11.80	564.728	564.768	564.637	564.728	564.519	564.676	564.310	564.598	0.8695
92	11.80	570.808	570.861	570.729	570.808	570.597	570.756	570.399	570.676	0.8696
93	11.80	576.724	576.777	576.644	576.737	576.523	576.684	576.323	576.590	0.8695
94	11.80	582.799	582.853	582.718	582.826	582.610	582.758	582.394	582.677	0.8696
95	11.80	588.726	588.781	588.644	588.740	588.522	588.685	588.317	588.603	0.8695
96	11.80	594.810	594.865	594.727	594.810	594.603	594.755	594.397	594.672	0.8696
97	11.80	600.722	600.778	600.652	600.750	600.527	600.694	600.319	600.611	0.8695
98	11.80	606.815	606.857	606.731	606.815	606.605	606.759	606.394	606.674	0.8696
99	11.80	612.726	612.783	612.655	612.740	612.528	612.698	612.315	612.613	0.8695
100	11.80	618.815	618.858	618.729	618.815	618.600	618.758	618.386	618.672	0.8696

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Table 189 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 8.00

$S_{v\,max}$ = maximum effective circular thickness = 12.566

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	22.40	87.638	87.679	87.598	87.667	87.538	87.648	87.438	87.620	0.8682
7	21.20	91.387	91.428	91.345	91.416	91.283	91.396	91.180	91.368	0.8464
8	20.00	98.594	98.638	98.549	98.625	98.483	98.604	98.371	98.572	0.8682
9	19.00	103.058	103.104	103.012	103.088	102.941	103.067	102.825	103.033	0.8550
10	18.00	110.009	110.058	109.961	110.042	109.887	110.019	109.762	109.983	0.8682
11	18.00	117.110	117.158	117.059	117.142	116.983	117.118	116.859	117.081	0.8594
12	18.00	126.235	126.284	126.182	126.267	126.105	126.242	125.975	126.208	0.8682
13	17.00	130.897	130.946	130.841	130.928	130.760	130.902	130.628	130.862	0.8619
14	17.00	139.802	139.852	139.746	139.834	139.662	139.806	139.524	139.765	0.8682
15	17.00	147.145	147.196	147.089	147.176	147.006	147.149	146.866	147.106	0.8635
16	17.00	155.916	155.970	155.859	155.949	155.773	155.920	155.631	155.875	0.8682
17	17.00	163.341	163.392	163.286	163.375	163.196	163.345	163.052	163.298	0.8645
18	17.00	172.014	172.068	171.956	172.045	171.867	172.019	171.720	171.969	0.8682
19	17.00	179.502	179.553	179.442	179.534	179.354	179.502	179.201	179.456	0.8652
20	17.00	188.095	188.149	188.037	188.129	187.946	188.095	187.791	188.047	0.8682
21	16.00	192.908	192.961	192.845	192.937	192.749	192.908	192.596	192.855	0.8658
22	16.00	201.428	201.484	201.363	201.459	201.268	201.423	201.113	201.373	0.8682
23	16.00	208.999	209.056	208.936	209.030	208.838	208.999	208.683	208.947	0.8662
24	16.00	217.471	217.530	217.407	217.503	217.310	217.471	217.149	217.417	0.8682
25	16.00	225.078	225.134	225.017	225.111	224.917	225.078	224.751	225.022	0.8665
26	16.00	233.513	233.565	233.444	233.542	233.347	233.508	233.181	233.450	0.8682
27	16.00	241.146	241.200	241.081	241.176	240.981	241.140	240.816	241.087	0.8667
28	16.00	249.543	249.599	249.481	249.574	249.379	249.537	249.208	249.482	0.8682
29	16.00	257.208	257.265	257.139	257.239	257.038	257.202	256.869	257.139	0.8669
30	16.00	265.574	265.632	265.509	265.606	265.405	265.567	265.238	265.509	0.8682
31	16.00	273.261	273.315	273.188	273.288	273.089	273.248	272.916	273.188	0.8671
32	16.00	281.606	281.661	281.528	281.634	281.429	281.593	281.258	281.531	0.8682
33	16.00	289.308	289.363	289.238	289.336	289.133	289.294	288.958	289.231	0.8672
34	16.00	297.628	297.685	297.556	297.656	297.455	297.613	297.275	297.556	0.8682
35	16.00	305.345	305.404	305.279	305.375	305.168	305.338	304.992	305.271	0.8673
36	16.00	313.647	313.707	313.578	313.677	313.473	313.631	313.292	313.571	0.8682
37	16.00	321.383	321.437	321.313	321.406	321.205	321.367	321.027	321.305	0.8674
38	16.00	329.673	329.720	329.593	329.697	329.499	329.657	329.309	329.585	0.8682
39	16.00	337.414	337.471	337.341	337.439	337.236	337.398	337.050	337.333	0.8675
40	16.00	345.682	345.740	345.616	345.715	345.500	345.666	345.318	345.599	0.8682
41	16.00	353.447	353.507	353.371	353.473	353.261	353.430	353.084	353.362	0.8676
42	16.00	361.706	361.758	361.628	361.732	361.516	361.680	361.334	361.619	0.8682
43	16.00	369.480	369.533	369.400	369.497	369.285	369.453	369.100	369.391	0.8676
44	16.00	377.716	377.770	377.643	377.743	377.526	377.698	377.346	377.625	0.8682
45	16.00	385.499	385.554	385.426	385.518	385.315	385.481	385.123	385.407	0.8677
46	16.00	393.734	393.790	393.659	393.752	393.546	393.706	393.350	393.640	0.8682
47	16.00	401.519	401.577	401.443	401.548	401.328	401.500	401.137	401.424	0.8677
48	16.00	409.746	409.795	409.668	409.766	409.552	409.717	409.357	409.649	0.8682
49	16.00	417.544	417.604	417.465	417.564	417.346	417.524	417.158	417.445	0.8678
50	16.00	425.757	425.808	425.676	425.778	425.565	425.727	425.364	425.656	0.8682
51	16.00	433.559	433.620	433.487	433.579	433.374	433.538	433.168	433.466	0.8678
52	16.00	441.770	441.822	441.686	441.791	441.571	441.738	441.372	441.665	0.8682
53	16.00	449.586	449.628	449.501	449.607	449.384	449.554	449.192	449.479	0.8678
54	16.00	457.776	457.831	457.700	457.798	457.581	457.744	457.376	457.679	0.8682
55	16.00	465.597	465.653	465.520	465.620	465.399	465.564	465.202	465.498	0.8678
56	16.00	473.791	473.835	473.701	473.802	473.589	473.757	473.388	473.679	0.8682
57	16.00	481.606	481.663	481.538	481.629	481.413	481.584	481.220	481.504	0.8679
58	16.00	489.793	489.851	489.712	489.816	489.597	489.758	489.401	489.689	0.8682
59	16.00	497.626	497.685	497.544	497.650	497.427	497.591	497.228	497.521	0.8679
60	16.00	505.796	505.856	505.725	505.820	505.606	505.772	505.392	505.689	0.8682
61	16.00	513.649	513.697	513.564	513.661	513.431	513.601	513.238	513.526	0.8679
62	16.00	521.803	521.864	521.729	521.827	521.607	521.778	521.398	521.692	0.8682
63	16.00	529.652	529.701	529.577	529.677	529.452	529.614	529.241	529.540	0.8679
64	16.00	537.815	537.866	537.739	537.840	537.613	537.777	537.411	537.701	0.8682
65	16.00	545.660	545.711	545.583	545.685	545.455	545.634	545.250	545.544	0.8679
66	16.00	553.822	553.874	553.744	553.835	553.614	553.783	553.407	553.705	0.8682
67	16.00	561.676	561.729	561.597	561.689	561.465	561.636	561.255	561.557	0.8680
68	16.00	569.825	569.879	569.745	569.839	569.625	569.785	569.412	569.705	0.8682
69	16.00	577.689	577.743	577.594	577.702	577.472	577.648	577.270	577.567	0.8680
70	16.00	585.840	585.881	585.743	585.853	585.620	585.798	585.415	585.716	0.8682
71	16.00	593.699	593.741	593.616	593.713	593.491	593.658	593.269	593.574	0.8680
72	16.00	601.838	601.895	601.754	601.853	601.627	601.796	601.416	601.712	0.8682
73	16.00	609.709	609.766	609.623	609.723	609.495	609.666	609.282	609.581	0.8680
74	16.00	617.837	617.895	617.750	617.866	617.635	617.808	617.416	617.721	0.8682
75	16.00	625.719	625.777	625.631	625.719	625.500	625.675	625.281	625.587	0.8680
76	16.00	633.851	633.895	633.762	633.865	633.628	633.806	633.422	633.717	0.8682
77	16.00	641.715	641.775	641.640	641.745	641.505	641.685	641.281	641.595	0.8680
78	16.00	649.852	649.913	649.760	649.867	649.639	649.806	649.412	649.730	0.8682
79	16.00	657.728	657.789	657.636	657.743	657.513	657.682	657.299	657.605	0.8680
80	16.00	665.855	665.917	665.762	665.871	665.638	665.809	665.421	665.731	0.8682
81	16.00	673.729	673.792	673.650	673.760	673.509	673.698	673.290	673.603	0.8680
82	16.00	681.863	681.911	681.783	681.879	681.641	681.815	681.418	681.720	0.8682
83	16.00	689.730	689.798	689.653	689.750	689.525	689.686	689.300	689.605	0.8680
84	16.00	697.859	697.924	697.778	697.876	697.632	697.827	697.421	697.729	0.8682
85	16.00	705.760	705.810	705.662	705.760	705.530	705.695	705.301	705.612	0.8680
86	16.00	713.861	713.928	713.778	713.878	713.645	713.828	713.413	713.728	0.8682
87	16.00	721.760	721.810	721.659	721.760	721.525	721.710	721.290	721.609	0.8681
88	16.00	729.870	729.921	729.785	729.887	729.649	729.819	729.412	729.734	0.8682
89	16.00	737.766	737.818	737.680	737.783	737.543	737.715	737.304	737.612	0.8681
90	16.00	745.868	745.938	745.782	745.882	745.643	745.834	745.418	745.730	0.8682
91	16.00	753.763	753.833	753.675	753.780	753.535	753.728	753.308	753.623	0.8681
92	16.00	761.875	761.946	761.786	761.893	761.645	761.822	761.415	761.733	0.8682
93	16.00	769.767	769.839	769.678	769.785	769.553	769.732	769.303	769.624	0.8681
94	16.00	777.873	777.945	777.800	777.891	777.656	777.837	777.404	777.728	0.8682
95	16.00	785.781	785.836	785.690	785.799	785.544	785.726	785.307	785.617	0.8681
96	16.00	793.880	793.935	793.788	793.898	793.640	793.825	793.420	793.732	0.8682
97	16.00	801.787	801.842	801.694	801.787	801.545	801.731	801.304	801.638	0.8681
98	16.00	809.879	809.954	809.804	809.898	809.654	809.841	809.410	809.729	0.8682
99	16.00	817.784	817.841	817.689	817.803	817.537	817.727	817.310	817.632	0.8681
100	16.00	825.889	825.946	825.793	825.889	825.659	825.831	825.411	825.736	0.8682

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Table 190 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 10.00

$S_{v\,max}$ = maximum effective circular thickness = 15.708

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	28.00	109.559	109.602	109.515	109.589	109.451	109.568	109.343	109.536	0.8675
7	26.50	114.245	114.288	114.200	114.275	114.133	114.254	114.022	114.221	0.8657
8	25.00	123.256	123.304	123.207	123.286	123.134	123.263	123.013	123.227	0.8675
9	23.60	128.467	128.518	128.418	128.500	128.342	128.475	128.217	128.437	0.8675
10	22.40	137.274	137.325	137.220	137.308	137.142	137.282	137.006	137.239	0.8675
11	22.40	146.150	146.199	146.094	146.183	146.012	146.154	145.876	146.113	0.8587
12	22.40	157.553	157.604	157.496	157.584	157.411	157.557	157.269	157.514	0.8675
13	21.20	163.505	163.558	163.446	163.538	163.359	163.510	163.213	163.461	0.8612
14	21.20	174.633	174.688	174.574	174.670	174.484	174.637	174.336	174.591	0.8675
15	21.20	183.814	183.869	183.755	183.848	183.663	183.818	183.514	183.770	0.8627
16	21.20	194.779	194.835	194.718	194.815	194.626	194.779	194.470	194.733	0.8675
17	21.20	204.060	204.116	203.998	204.094	203.903	204.060	203.746	204.009	0.8638
18	21.20	214.901	214.957	214.839	214.934	214.739	214.901	214.584	214.845	0.8675
19	21.20	224.258	224.316	224.194	224.293	224.096	224.258	223.934	224.200	0.8645
20	20.00	231.739	231.792	231.670	231.768	231.571	231.733	231.403	231.675	0.8675
21	20.00	241.153	241.207	241.081	241.183	240.985	241.147	240.811	241.087	0.8651
22	20.00	251.804	251.861	251.735	251.836	251.629	251.798	251.460	251.742	0.8675
23	20.00	261.268	261.326	261.196	261.300	261.093	261.261	260.925	261.203	0.8655
24	20.00	271.859	271.913	271.792	271.893	271.684	271.852	271.510	271.792	0.8675
25	20.00	281.368	281.424	281.299	281.396	281.195	281.361	281.015	281.299	0.8658
26	20.00	291.906	291.964	291.834	291.935	291.734	291.899	291.547	291.834	0.8675
27	20.00	301.455	301.514	301.381	301.485	301.278	301.440	301.093	301.381	0.8660
28	20.00	311.952	312.006	311.876	311.983	311.769	311.937	311.586	311.876	0.8675
29	20.00	321.526	321.589	321.455	321.557	321.345	321.518	321.157	321.455	0.8662
30	20.00	331.991	332.048	331.918	332.016	331.805	331.975	331.619	331.910	0.8675
31	20.00	341.593	341.652	341.519	341.618	341.411	341.577	341.220	341.510	0.8664
32	20.00	352.025	352.077	351.948	352.051	351.837	352.008	351.650	351.940	0.8675
33	20.00	361.653	361.714	361.574	361.679	361.460	361.635	361.276	361.565	0.8665
34	20.00	372.053	372.107	371.980	372.080	371.863	372.031	371.675	371.962	0.8675
35	20.00	381.700	381.764	381.626	381.728	381.506	381.681	381.322	381.617	0.8666
36	20.00	392.077	392.134	392.001	392.106	391.888	392.058	391.699	391.992	0.8675
37	20.00	401.748	401.806	401.670	401.777	401.554	401.728	401.361	401.661	0.8667
38	20.00	412.111	412.160	412.031	412.131	411.913	412.081	411.715	412.015	0.8675
39	20.00	421.788	421.849	421.717	421.819	421.596	421.768	421.394	421.692	0.8668
40	20.00	432.124	432.186	432.051	432.155	431.926	432.103	431.730	432.030	0.8675
41	20.00	441.830	441.883	441.756	441.851	441.629	441.798	441.428	441.735	0.8668
42	20.00	452.143	452.208	452.067	452.176	451.948	452.122	451.743	452.046	0.8675
43	20.00	461.861	461.916	461.783	461.883	461.662	461.838	461.453	461.761	0.8669
44	20.00	472.167	472.223	472.088	472.190	471.964	472.133	471.762	472.066	0.8675
45	20.00	481.897	481.954	481.816	481.920	481.690	481.862	481.484	481.782	0.8670
46	20.00	492.191	492.238	492.097	492.202	491.980	492.155	491.769	492.073	0.8675
47	20.00	501.923	501.983	501.839	501.947	501.720	501.899	501.517	501.815	0.8670
48	20.00	512.207	512.256	512.122	512.220	511.988	512.171	511.782	512.086	0.8675
49	20.00	521.955	522.005	521.868	521.968	521.744	521.918	521.534	521.831	0.8670
50	20.00	532.209	532.272	532.133	532.235	532.007	532.184	531.793	532.104	0.8675
51	20.00	541.974	542.025	541.897	542.000	541.768	541.948	541.550	541.858	0.8671
52	20.00	552.225	552.278	552.147	552.251	552.016	552.199	551.807	552.107	0.8675
53	20.00	561.996	562.052	561.916	562.009	561.783	561.956	561.570	561.876	0.8671
54	20.00	572.234	572.302	572.153	572.261	572.017	572.207	571.801	572.126	0.8675
55	20.00	582.011	582.079	581.928	582.038	581.804	581.983	581.585	581.901	0.8671
56	20.00	592.252	592.308	592.168	592.266	592.042	592.210	591.819	592.126	0.8675
57	20.00	602.036	602.093	601.953	602.051	601.809	601.994	601.596	601.908	0.8671
58	20.00	612.270	612.328	612.183	612.284	612.039	612.227	611.823	612.140	0.8675
59	19.00	619.168	619.226	619.081	619.168	618.937	619.110	618.706	619.024	0.8672
60	19.00	629.381	629.439	629.292	629.395	629.146	629.337	628.926	629.248	0.8675
61	19.00	639.169	639.228	639.079	639.199	638.945	639.139	638.722	639.049	0.8672
62	19.00	649.378	649.438	649.287	649.393	649.151	649.332	648.964	649.242	0.8675
63	19.00	659.177	659.238	659.085	659.208	658.962	659.146	658.732	659.054	0.8672
64	19.00	669.385	669.447	669.291	669.400	669.166	669.353	668.933	669.260	0.8675
65	19.00	679.196	679.259	679.101	679.212	678.974	679.148	678.738	679.069	0.8672
66	19.00	689.388	689.452	689.292	689.420	689.163	689.356	688.939	689.259	0.8675
67	19.00	699.212	699.260	699.114	699.228	698.968	699.163	698.740	699.065	0.8672
68	19.00	709.405	709.455	709.306	709.405	709.174	709.356	708.927	709.257	0.8675
69	19.00	719.209	719.276	719.126	719.243	718.975	719.176	718.742	719.076	0.8673
70	19.00	729.406	729.457	729.304	729.423	729.169	729.355	728.932	729.270	0.8675
71	19.00	739.241	739.292	739.138	739.241	739.000	739.172	738.760	739.086	0.8673
72	19.00	749.407	749.459	749.320	749.424	749.181	749.355	748.938	749.250	0.8675
73	19.00	759.239	759.292	759.151	759.257	759.010	759.186	758.764	759.080	0.8673
74	19.00	769.410	769.464	769.321	769.428	769.178	769.356	768.929	769.267	0.8675
75	19.00	779.257	779.312	779.149	779.257	779.004	779.185	778.752	779.095	0.8673
76	19.00	789.416	789.471	789.307	789.435	789.179	789.362	788.941	789.270	0.8675
77	19.00	799.261	799.317	799.169	799.280	799.021	799.206	798.762	799.095	0.8673
78	19.00	809.428	809.484	809.315	809.428	809.168	809.371	808.941	809.278	0.8675
79	19.00	819.251	819.327	819.175	819.289	819.024	819.213	818.756	819.099	0.8673
80	19.00	829.426	829.484	829.330	829.426	829.176	829.368	828.927	829.272	0.8675
81	19.00	839.266	839.324	839.169	839.285	839.013	839.208	838.781	839.110	0.8673
82	19.00	849.431	849.490	849.332	849.450	849.175	849.372	848.940	849.274	0.8675
83	19.00	859.268	859.348	859.185	859.288	859.030	859.228	858.772	859.109	0.8673
84	19.00	869.423	869.484	869.343	869.444	869.182	869.383	868.921	869.263	0.8675
85	19.00	879.279	879.340	879.197	879.299	879.035	879.238	878.791	879.116	0.8673
86	19.00	889.425	889.486	889.342	889.445	889.178	889.384	888.932	889.260	0.8675
87	19.00	899.278	899.361	899.195	899.298	899.028	899.236	898.779	899.132	0.8673
88	19.00	909.436	909.499	909.331	909.457	909.184	909.373	908.911	909.266	0.8675
89	19.00	919.308	919.350	919.180	919.300	919.053	919.223	918.778	919.138	0.8673
90	19.00	929.437	929.501	929.329	929.437	929.179	929.372	928.922	929.265	0.8675
91	19.00	939.307	939.372	939.199	939.307	939.047	939.242	938.787	939.134	0.8673
92	19.00	949.449	949.493	949.340	949.449	949.186	949.384	948.924	949.274	0.8675
93	19.00	959.296	959.362	959.207	959.318	959.030	959.252	958.787	959.141	0.8674
94	19.00	969.453	969.497	969.341	969.453	969.184	969.385	968.916	969.274	0.8675
95	19.00	979.297	979.387	979.206	979.319	979.048	979.252	978.778	979.139	0.8674
96	19.00	989.447	989.492	989.333	989.447	989.173	989.378	988.900	989.264	0.8675
97	19.00	999.312	999.381	999.196	999.335	999.058	999.242	998.782	999.150	0.8674
98	19.00	*******	*******	*******	*******	*******	*******	*******	*******	0.8675
99	19.00	*******	*******	*******	*******	*******	*******	*******	*******	0.8674
100	19.00	*******	*******	*******	*******	*******	*******	*******	*******	0.8675

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Table 191 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 0.50

$S_{v\,max}$ = maximum effective circular thickness = 0.785

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	1.70	6.106	6.118	6.092	6.113	6.073	6.107	6.040	6.096	0.8713
7	1.60	6.286	6.298	6.272	6.294	6.252	6.287	6.219	6.276	0.8544
8	1.50	6.698	6.711	6.684	6.706	6.662	6.699	6.626	6.687	0.8806
9	1.40	6.897	6.911	6.882	6.906	6.860	6.898	6.823	6.886	0.8706
10	1.40	7.492	7.506	7.476	7.500	7.453	7.493	7.415	7.480	0.8843
11	1.40	7.933	7.947	7.918	7.942	7.894	7.934	7.855	7.921	0.8755
12	1.32	8.319	8.334	8.303	8.329	8.279	8.320	8.238	8.307	0.8865
13	1.32	8.770	8.785	8.754	8.779	8.729	8.771	8.688	8.758	0.8801
14	1.32	9.330	9.345	9.313	9.340	9.288	9.331	9.246	9.317	0.8865
15	1.32	9.788	9.803	9.771	9.797	9.746	9.789	9.703	9.775	0.8817
16	1.32	10.339	10.354	10.322	10.348	10.296	10.340	10.252	10.325	0.8865
17	1.25	10.633	10.649	10.615	10.642	10.589	10.633	10.544	10.619	0.8839
18	1.25	11.176	11.192	11.158	11.186	11.131	11.176	11.086	11.162	0.8876
19	1.25	11.643	11.659	11.625	11.653	11.598	11.643	11.555	11.629	0.8845
20	1.25	12.181	12.197	12.163	12.191	12.135	12.181	12.089	12.166	0.8875
21	1.25	12.651	12.668	12.633	12.661	12.605	12.652	12.559	12.636	0.8850
22	1.25	13.185	13.202	13.166	13.195	13.138	13.186	13.091	13.170	0.8874
23	1.25	13.658	13.675	13.639	13.668	13.611	13.658	13.564	13.643	0.8853
24	1.25	14.189	14.206	14.170	14.199	14.141	14.189	14.093	14.173	0.8874
25	1.25	14.664	14.681	14.645	14.674	14.616	14.664	14.568	14.648	0.8856
26	1.25	15.192	15.209	15.173	15.202	15.144	15.192	15.095	15.176	0.8873
27	1.25	15.669	15.686	15.649	15.679	15.620	15.669	15.571	15.653	0.8858
28	1.25	16.195	16.212	16.175	16.205	16.146	16.194	16.096	16.178	0.8872
29	1.25	16.673	16.691	16.654	16.683	16.624	16.673	16.574	16.657	0.8859
30	1.25	17.197	17.214	17.177	17.207	17.147	17.197	17.097	17.180	0.8872
31	1.25	17.677	17.694	17.657	17.687	17.627	17.677	17.577	17.660	0.8860
32	1.25	18.199	18.217	18.179	18.209	18.149	18.199	18.098	18.182	0.8871
33	1.25	18.680	18.698	18.660	18.690	18.630	18.680	18.578	18.663	0.8861
34	1.25	19.201	19.218	19.181	19.211	19.150	19.201	19.099	19.185	0.8871
35	1.25	19.683	19.701	19.663	19.693	19.632	19.683	19.580	19.665	0.8862
36	1.25	20.203	20.220	20.182	20.213	20.151	20.202	20.099	20.185	0.8871
37	1.25	20.686	20.704	20.665	20.696	20.634	20.685	20.582	20.668	0.8863
38	1.25	21.205	21.222	21.184	21.214	21.152	21.203	21.099	21.186	0.8870
39	1.25	21.689	21.706	21.668	21.699	21.636	21.687	21.583	21.670	0.8863
40	1.25	22.206	22.224	22.185	22.216	22.153	22.205	22.098	22.187	0.8870
41	1.25	22.691	22.708	22.669	22.700	22.637	22.689	22.584	22.671	0.8864
42	1.25	23.207	23.225	23.186	23.217	23.154	23.206	23.100	23.187	0.8870
43	1.25	23.692	23.710	23.671	23.702	23.639	23.691	23.585	23.673	0.8864
44	1.25	24.208	24.226	24.187	24.218	24.154	24.207	24.100	24.188	0.8870
45	1.25	24.695	24.712	24.673	24.704	24.640	24.693	24.586	24.674	0.8864
46	1.25	25.209	25.227	25.188	25.219	25.155	25.207	25.100	25.189	0.8869
47	1.25	25.696	25.714	25.674	25.706	25.641	25.694	25.586	25.675	0.8864
48	1.25	26.210	26.228	26.188	26.220	26.155	26.208	26.100	26.189	0.8869
49	1.25	26.698	26.716	26.675	26.707	26.642	26.695	26.587	26.676	0.8865
50	1.25	27.211	27.229	27.189	27.220	27.156	27.208	27.100	27.190	0.8869
51	1.25	27.699	27.717	27.677	27.708	27.643	27.697	27.587	27.678	0.8865
52	1.18	28.033	28.051	28.010	28.043	27.976	28.030	27.920	28.011	0.8873
53	1.18	28.521	28.539	28.498	28.531	28.465	28.519	28.408	28.499	0.8869
54	1.18	29.033	29.052	29.011	29.043	28.976	29.030	28.920	29.011	0.8872
55	1.18	29.522	29.540	29.499	29.532	29.465	29.519	29.408	29.500	0.8869
56	1.18	30.034	30.052	30.011	30.043	29.977	30.031	29.920	30.011	0.8872
57	1.18	30.523	30.541	30.500	30.532	30.466	30.520	30.408	30.500	0.8869
58	1.18	31.034	31.053	31.011	31.044	30.977	31.031	30.919	31.011	0.8872
59	1.18	31.524	31.542	31.501	31.533	31.466	31.521	31.408	31.501	0.8869
60	1.18	32.035	32.053	32.012	32.044	31.978	32.031	31.918	32.011	0.8872
61	1.18	32.525	32.543	32.501	32.534	32.466	32.521	32.408	32.501	0.8869
62	1.18	33.035	33.053	33.012	33.044	32.977	33.032	32.919	33.011	0.8871
63	1.18	33.525	33.544	33.502	33.534	33.467	33.522	33.408	33.501	0.8869
64	1.18	34.035	34.054	34.012	34.044	33.977	34.032	33.918	34.012	0.8871
65	1.18	34.526	34.544	34.502	34.535	34.467	34.522	34.408	34.502	0.8869
66	1.18	35.036	35.054	35.012	35.045	34.977	35.032	34.918	35.012	0.8871
67	1.18	35.526	35.545	35.503	35.536	35.467	35.523	35.408	35.502	0.8868
68	1.18	36.036	36.055	36.012	36.045	35.977	36.032	35.917	36.011	0.8871
69	1.18	36.527	36.545	36.503	36.536	36.467	36.523	36.408	36.502	0.8868
70	1.18	37.036	37.055	37.013	37.045	36.976	37.032	36.917	37.011	0.8871
71	1.18	37.527	37.546	37.504	37.537	37.467	37.523	37.408	37.502	0.8868
72	1.18	38.037	38.055	38.013	38.045	37.977	38.032	37.916	38.011	0.8871
73	1.18	38.528	38.546	38.504	38.537	38.468	38.523	38.407	38.502	0.8868
74	1.18	39.037	39.056	39.012	39.046	38.976	39.032	38.916	39.011	0.8870
75	1.18	39.529	39.547	39.504	39.537	39.468	39.524	39.407	39.503	0.8868
76	1.18	40.037	40.056	40.013	40.046	39.976	40.032	39.916	40.011	0.8870
77	1.18	40.529	40.548	40.505	40.538	40.468	40.524	40.407	40.503	0.8868
78	1.18	41.037	41.056	41.013	41.046	40.977	41.032	40.915	41.011	0.8870
79	1.18	41.530	41.548	41.505	41.538	41.469	41.525	41.406	41.503	0.8868
80	1.18	42.037	42.056	42.012	42.046	41.976	42.032	41.915	42.010	0.8870
81	1.18	42.529	42.548	42.505	42.539	42.468	42.524	42.407	42.503	0.8868
82	1.18	43.037	43.056	43.013	43.046	42.976	43.032	42.915	43.011	0.8870
83	1.18	43.530	43.548	43.505	43.539	43.468	43.525	43.407	43.503	0.8868
84	1.18	44.038	44.057	44.013	44.046	43.976	44.032	43.914	44.011	0.8870
85	1.18	44.530	44.549	44.506	44.539	44.468	44.525	44.406	44.502	0.8868
86	1.18	45.037	45.057	45.013	45.046	44.975	45.032	44.913	45.010	0.8870
87	1.18	45.530	45.549	45.506	45.539	45.468	45.525	45.406	45.502	0.8868
88	1.18	46.038	46.057	46.014	46.046	45.975	46.032	45.912	46.010	0.8869
89	1.18	46.531	46.550	46.506	46.540	46.469	46.525	46.405	46.503	0.8868
90	1.18	47.038	47.057	47.013	47.047	46.975	47.032	46.913	47.008	0.8869
91	1.18	47.531	47.550	47.506	47.539	47.468	47.525	47.406	47.503	0.8868
92	1.18	48.038	48.057	48.013	48.047	47.975	48.032	47.912	48.009	0.8869
93	1.18	48.532	48.550	48.507	48.539	48.468	48.526	48.405	48.502	0.8868
94	1.18	49.039	49.057	49.013	49.046	48.975	49.032	48.912	49.009	0.8869
95	1.18	49.532	49.550	49.506	49.540	49.469	49.525	49.405	49.503	0.8868
96	1.18	50.039	50.057	50.013	50.046	49.974	50.032	49.911	50.009	0.8869
97	1.18	50.532	50.550	50.507	50.540	50.468	50.526	50.404	50.502	0.8868
98	1.18	51.038	51.057	51.013	51.047	50.975	51.031	50.910	51.009	0.8869
99	1.18	51.532	51.551	51.507	51.540	51.468	51.526	51.404	51.502	0.8868
100	1.18	52.039	52.057	52.013	52.047	51.974	52.031	51.911	52.009	0.8869

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Table 192 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 0.75

$S_{v\,max}$ = maximum effective circular thickness = 1.178

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	2.50	9.057	9.071	9.041	9.067	9.019	9.059	8.981	9.048	0.8478
7	2.24	9.084	9.096	9.068	9.094	9.045	9.087	9.006	9.075	0.8305
8	2.12	9.760	9.777	9.744	9.771	9.719	9.763	9.677	9.750	0.8536
9	2.12	10.400	10.416	10.383	10.411	10.358	10.403	10.316	10.390	0.8409
10	2.00	11.014	11.031	10.996	11.025	10.970	11.017	10.925	11.003	0.8551
11	2.00	11.676	11.693	11.658	11.687	11.631	11.679	11.586	11.665	0.8465
12	2.00	12.536	12.553	12.517	12.547	12.490	12.538	12.443	12.524	0.8552
13	1.90	12.975	12.993	12.957	12.987	12.928	12.978	12.881	12.963	0.8497
14	1.90	13.814	13.832	13.794	13.825	13.765	13.816	13.717	13.801	0.8559
15	1.90	14.501	14.519	14.481	14.512	14.452	14.503	14.402	14.488	0.8512
16	1.90	15.326	15.344	15.306	15.338	15.276	15.328	15.226	15.312	0.8559
17	1.90	16.020	16.039	16.000	16.032	15.970	16.022	15.919	16.007	0.8522
18	1.90	16.835	16.854	16.815	16.847	16.784	16.837	16.733	16.822	0.8558
19	1.80	17.292	17.311	17.271	17.304	17.239	17.294	17.187	17.277	0.8534
20	1.80	18.098	18.117	18.077	18.110	18.045	18.100	17.992	18.083	0.8563
21	1.80	18.803	18.822	18.782	18.815	18.750	18.805	18.696	18.788	0.8539
22	1.80	19.603	19.623	19.582	19.616	19.549	19.605	19.495	19.588	0.8562
23	1.80	20.313	20.333	20.291	20.325	20.259	20.314	20.204	20.297	0.8542
24	1.80	21.108	21.128	21.086	21.121	21.054	21.110	20.998	21.092	0.8562
25	1.80	21.821	21.841	21.799	21.833	21.766	21.822	21.710	21.805	0.8545
26	1.80	22.613	22.633	22.590	22.625	22.557	22.614	22.501	22.596	0.8561
27	1.80	23.328	23.348	23.305	23.340	23.272	23.329	23.215	23.312	0.8547
28	1.80	24.116	24.137	24.094	24.128	24.060	24.117	24.002	24.099	0.8561
29	1.80	24.834	24.854	24.811	24.846	24.777	24.835	24.720	24.817	0.8548
30	1.80	25.619	25.640	25.597	25.632	25.562	25.620	25.504	25.602	0.8561
31	1.80	26.340	26.360	26.316	26.351	26.282	26.340	26.223	26.321	0.8549
32	1.80	27.122	27.143	27.099	27.135	27.064	27.123	27.005	27.104	0.8560
33	1.80	27.844	27.865	27.821	27.856	27.786	27.845	27.727	27.826	0.8550
34	1.80	28.625	28.645	28.601	28.637	28.566	28.625	28.507	28.606	0.8560
35	1.80	29.349	29.369	29.324	29.360	29.289	29.349	29.229	29.329	0.8551
36	1.80	30.127	30.148	30.103	30.139	30.068	30.127	30.007	30.108	0.8560
37	1.80	30.852	30.873	30.828	30.864	30.792	30.852	30.732	30.833	0.8552
38	1.80	31.629	31.650	31.605	31.641	31.569	31.629	31.508	31.609	0.8559
39	1.80	32.355	32.376	32.331	32.368	32.295	32.355	32.234	32.335	0.8552
40	1.80	33.131	33.152	33.107	33.143	33.070	33.131	33.009	33.111	0.8559
41	1.80	33.858	33.879	33.834	33.870	33.797	33.858	33.735	33.838	0.8553
42	1.80	34.632	34.653	34.608	34.645	34.571	34.632	34.509	34.612	0.8559
43	1.80	35.361	35.382	35.336	35.373	35.299	35.360	35.237	35.340	0.8553
44	1.80	36.134	36.155	36.109	36.146	36.072	36.133	36.010	36.113	0.8559
45	1.80	36.864	36.885	36.839	36.875	36.801	36.862	36.739	36.842	0.8554
46	1.80	37.636	37.657	37.611	37.647	37.573	37.634	37.510	37.613	0.8559
47	1.80	38.366	38.387	38.341	38.377	38.303	38.364	38.240	38.344	0.8554
48	1.80	39.137	39.158	39.111	39.148	39.073	39.135	39.010	39.114	0.8559
49	1.80	39.868	39.889	39.843	39.879	39.804	39.867	39.740	39.845	0.8554
50	1.80	40.638	40.660	40.612	40.649	40.574	40.636	40.510	40.615	0.8558
51	1.80	41.370	41.391	41.344	41.382	41.305	41.367	41.241	41.347	0.8554
52	1.80	42.139	42.160	42.114	42.150	42.075	42.137	42.010	42.116	0.8558
53	1.80	42.872	42.892	42.845	42.883	42.807	42.869	42.742	42.848	0.8555
54	1.80	43.640	43.661	43.614	43.652	43.576	43.638	43.510	43.616	0.8558
55	1.80	44.373	44.394	44.347	44.384	44.308	44.371	44.242	44.348	0.8555
56	1.80	45.141	45.162	45.114	45.152	45.075	45.138	45.010	45.117	0.8558
57	1.80	45.875	45.895	45.848	45.885	45.809	45.872	45.743	45.850	0.8555
58	1.80	46.642	46.663	46.616	46.653	46.576	46.639	46.509	46.616	0.8558
59	1.80	47.376	47.397	47.349	47.388	47.310	47.373	47.244	47.351	0.8555
60	1.80	48.142	48.164	48.116	48.154	48.076	48.139	48.010	48.117	0.8558
61	1.80	48.878	48.899	48.850	48.888	48.811	48.874	48.745	48.852	0.8555
62	1.80	49.644	49.665	49.617	49.655	49.577	49.640	49.510	49.617	0.8558
63	1.80	50.378	50.400	50.352	50.389	50.311	50.375	50.244	50.352	0.8555
64	1.80	51.144	51.165	51.117	51.155	51.077	51.141	51.010	51.117	0.8558
65	1.80	51.880	51.900	51.853	51.891	51.812	51.876	51.745	51.853	0.8555
66	1.80	52.645	52.666	52.617	52.655	52.577	52.640	52.509	52.617	0.8558
67	1.80	53.381	53.401	53.353	53.391	53.313	53.377	53.245	53.353	0.8555
68	1.80	54.146	54.167	54.118	54.156	54.077	54.141	54.009	54.118	0.8558
69	1.80	54.881	54.903	54.854	54.892	54.813	54.878	54.746	54.854	0.8555
70	1.80	55.646	55.667	55.618	55.656	55.577	55.641	55.508	55.618	0.8558
71	1.80	56.382	56.404	56.355	56.393	56.314	56.379	56.245	56.354	0.8555
72	1.80	57.101	57.168	57.119	57.157	57.078	57.141	57.009	57.119	0.8558
73	1.80	57.884	57.904	57.856	57.894	57.815	57.879	57.746	57.855	0.8556
74	1.80	58.647	58.668	58.619	58.657	58.577	58.642	58.509	58.618	0.8557
75	1.80	59.385	59.405	59.357	59.394	59.315	59.380	59.245	59.356	0.8556
76	1.80	60.147	60.168	60.119	60.157	60.078	60.142	60.008	60.117	0.8557
77	1.80	60.886	60.906	60.857	60.895	60.815	60.880	60.745	60.856	0.8556
78	1.80	61.648	61.669	61.620	61.658	61.578	61.643	61.508	61.618	0.8557
79	1.80	62.386	62.407	62.357	62.396	62.315	62.380	62.245	62.355	0.8556
80	1.80	63.148	63.169	63.120	63.157	63.078	63.142	63.007	63.119	0.8557
81	1.80	63.887	63.908	63.859	63.897	63.816	63.881	63.746	63.856	0.8556
82	1.80	64.649	64.669	64.620	64.658	64.578	64.643	64.507	64.618	0.8557
83	1.80	65.387	65.409	65.358	65.396	65.316	65.380	65.246	65.356	0.8556
84	1.80	66.149	66.170	66.120	66.158	66.078	66.143	66.007	66.117	0.8557
85	1.80	66.888	66.909	66.859	66.898	66.816	66.882	66.745	66.856	0.8556
86	1.80	67.649	67.670	67.620	67.659	67.578	67.642	67.505	67.617	0.8557
87	1.80	68.389	68.410	68.359	68.398	68.317	68.382	68.245	68.357	0.8556
88	1.80	69.150	69.171	69.120	69.159	69.078	69.143	69.006	69.118	0.8557
89	1.80	69.890	69.910	69.860	69.898	69.817	69.882	69.745	69.856	0.8556
90	1.80	70.650	70.671	70.621	70.659	70.578	70.643	70.505	70.618	0.8557
91	1.80	71.390	71.410	71.361	71.398	71.317	71.383	71.245	71.357	0.8556
92	1.80	72.149	72.171	72.120	72.159	72.077	72.143	72.006	72.117	0.8557
93	1.80	72.890	72.911	72.861	72.899	72.817	72.882	72.745	72.857	0.8556
94	1.80	73.650	73.672	73.621	73.659	73.577	73.642	73.505	73.617	0.8557
95	1.80	74.390	74.412	74.361	74.399	74.317	74.383	74.244	74.357	0.8556
96	1.80	75.150	75.171	75.121	75.159	75.078	75.143	75.004	75.117	0.8557
97	1.80	75.890	75.911	75.861	75.900	75.818	75.884	75.744	75.858	0.8556
98	1.80	76.650	76.671	76.622	76.659	76.577	76.643	76.505	76.617	0.8557
99	1.80	77.391	77.413	77.362	77.400	77.318	77.383	77.243	77.357	0.8556
100	1.80	78.151	78.173	78.121	78.161	78.077	78.143	78.003	78.116	0.8557

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Table 193 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 1.00

$S_{v\,max}$ = maximum effective circular thickness = 1.571

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	3.15	11.678	11.695	11.661	11.690	11.636	11.682	11.634	11.670	0.8347
7	3.00	12.147	12.165	12.130	12.159	12.105	12.152	12.062	12.139	0.8151
8	2.80	12.959	12.978	12.941	12.972	12.914	12.964	12.867	12.950	0.8373
9	2.80	13.812	13.831	13.794	13.825	13.766	13.817	13.719	13.803	0.8247
10	2.65	14.653	14.673	14.634	14.667	14.605	14.658	14.556	14.643	0.8382
11	2.65	15.536	15.556	15.516	15.549	15.487	15.540	15.437	15.526	0.8297
12	2.50	16.327	16.347	16.306	16.340	16.275	16.331	16.223	16.315	0.8388
13	2.50	17.229	17.249	17.208	17.242	17.176	17.232	17.124	17.217	0.8326
14	2.50	18.346	18.366	18.324	18.359	18.292	18.350	18.239	18.334	0.8387
15	2.50	19.261	19.282	19.240	19.275	19.208	19.265	19.153	19.249	0.8341
16	2.50	20.361	20.382	20.339	20.375	20.306	20.364	20.251	20.348	0.8387
17	2.50	21.287	21.308	21.265	21.301	21.232	21.291	21.176	21.274	0.8351
18	2.50	22.373	22.395	22.351	22.387	22.317	22.377	22.261	22.360	0.8387
19	2.36	22.965	22.987	22.942	22.979	22.907	22.968	22.850	22.951	0.8361
20	2.36	24.040	24.062	24.016	24.054	23.982	24.043	23.923	24.025	0.8389
21	2.36	24.980	25.002	24.957	24.994	24.921	24.983	24.863	24.965	0.8366
22	2.36	26.047	26.069	26.023	26.061	25.988	26.050	25.928	26.031	0.8389
23	2.36	26.993	27.015	26.969	27.007	26.933	26.995	26.872	26.977	0.8369
24	2.36	28.053	28.076	28.029	28.067	27.993	28.056	27.932	28.037	0.8389
25	2.36	29.004	29.026	28.979	29.017	28.942	29.006	28.881	28.987	0.8372
26	2.36	30.059	30.081	30.034	30.073	29.997	30.061	29.935	30.042	0.8388
27	2.36	31.013	31.035	30.988	31.026	30.950	31.015	30.888	30.995	0.8374
28	2.36	32.064	32.086	32.038	32.078	32.001	32.065	31.938	32.046	0.8388
29	2.36	33.021	33.043	32.996	33.035	32.958	33.022	32.894	33.002	0.8376
30	2.36	34.068	34.090	34.042	34.082	34.004	34.069	33.940	34.049	0.8388
31	2.36	35.028	35.050	35.002	35.041	34.964	35.029	34.899	35.009	0.8377
32	2.36	36.071	36.094	36.045	36.085	36.007	36.072	35.943	36.052	0.8388
33	2.36	37.034	37.056	37.008	37.048	36.969	37.035	36.904	37.014	0.8378
34	2.36	38.075	38.097	38.049	38.088	38.009	38.075	37.944	38.055	0.8387
35	2.36	39.039	39.062	39.013	39.053	38.974	39.040	38.908	39.019	0.8379
36	2.36	40.077	40.100	40.051	40.091	40.012	40.078	39.945	40.057	0.8387
37	2.36	41.044	41.067	41.017	41.058	40.978	41.044	40.911	41.023	0.8380
38	2.36	42.080	42.103	42.053	42.093	42.014	42.080	41.946	42.059	0.8387
39	2.36	43.049	43.072	43.021	43.062	42.982	43.049	42.914	43.027	0.8380
40	2.36	44.083	44.106	44.056	44.096	44.015	44.083	43.947	44.060	0.8387
41	2.36	45.052	45.076	45.025	45.066	44.985	45.052	44.917	45.030	0.8381
42	2.36	46.084	46.108	46.057	46.098	46.016	46.084	45.949	46.063	0.8387
43	2.36	47.055	47.079	47.029	47.069	46.988	47.055	46.919	47.033	0.8381
44	2.36	48.087	48.110	48.059	48.100	48.018	48.086	47.949	48.063	0.8387
45	2.36	49.059	49.082	49.032	49.072	48.991	49.058	48.921	49.035	0.8382
46	2.36	50.089	50.112	50.061	50.101	50.019	50.087	49.950	50.065	0.8387
47	2.36	51.062	51.085	51.034	51.075	50.992	51.061	50.922	51.038	0.8382
48	2.36	52.090	52.113	52.063	52.104	52.020	52.089	51.950	52.066	0.8387
49	2.36	53.065	53.088	53.037	53.077	52.994	53.063	52.924	53.041	0.8382
50	2.36	54.091	54.115	54.063	54.105	54.020	54.090	53.950	54.066	0.8387
51	2.36	55.067	55.091	55.039	55.080	54.996	55.065	54.926	55.042	0.8382
52	2.36	56.093	56.117	56.064	56.106	56.022	56.090	55.951	56.068	0.8386
53	2.36	57.069	57.092	57.041	57.082	56.998	57.068	56.927	57.044	0.8383
54	2.36	58.094	58.117	58.066	58.107	58.023	58.092	57.951	58.068	0.8386
55	2.24	58.764	58.787	58.735	58.776	58.692	58.761	58.619	58.737	0.8384
56	2.24	59.788	59.810	59.758	59.800	59.714	59.784	59.642	59.760	0.8387
57	2.24	60.765	60.789	60.737	60.778	60.693	60.762	60.619	60.739	0.8384
58	2.24	61.788	61.811	61.759	61.801	61.715	61.785	61.641	61.761	0.8387
59	2.24	62.767	62.791	62.737	62.779	62.694	62.764	62.621	62.738	0.8384
60	2.24	63.789	63.812	63.760	63.801	63.715	63.786	63.641	63.760	0.8387
61	2.24	64.769	64.792	64.739	64.781	64.695	64.765	64.621	64.740	0.8384
62	2.24	65.789	65.813	65.760	65.802	65.715	65.786	65.641	65.760	0.8387
63	2.24	66.770	66.793	66.740	66.782	66.696	66.766	66.621	66.741	0.8384
64	2.24	67.790	67.813	67.761	67.803	67.715	67.786	67.640	67.761	0.8387
65	2.24	68.772	68.795	68.741	68.782	68.695	68.767	68.622	68.742	0.8384
66	2.24	69.791	69.815	69.761	69.802	69.716	69.787	69.641	69.761	0.8387
67	2.24	70.772	70.796	70.741	70.784	70.697	70.768	70.622	70.741	0.8384
68	2.24	71.792	71.814	71.761	71.803	71.716	71.786	71.640	71.761	0.8387
69	2.24	72.774	72.796	72.743	72.785	72.698	72.768	72.622	72.743	0.8385
70	2.24	73.792	73.815	73.761	73.803	73.716	73.787	73.640	73.760	0.8387
71	2.24	74.774	74.797	74.743	74.786	74.698	74.769	74.622	74.743	0.8385
72	2.24	75.792	75.815	75.762	75.804	75.715	75.787	75.639	75.760	0.8387
73	2.24	76.775	76.799	76.744	76.787	76.700	76.770	76.622	76.744	0.8385
74	2.24	77.792	77.816	77.762	77.804	77.716	77.787	77.639	77.761	0.8387
75	2.24	78.777	78.800	78.745	78.786	78.699	78.770	78.622	78.743	0.8385
76	2.24	79.793	79.817	79.763	79.804	79.716	79.787	79.638	79.760	0.8387
77	2.24	80.776	80.801	80.747	80.789	80.700	80.771	80.622	80.744	0.8385
78	2.24	81.793	81.817	81.763	81.805	81.715	81.788	81.638	81.760	0.8386
79	2.24	82.778	82.802	82.746	82.789	82.700	82.771	82.622	82.743	0.8385
80	2.24	83.794	83.817	83.763	83.804	83.716	83.786	83.638	83.761	0.8386
81	2.24	84.778	84.802	84.747	84.790	84.701	84.772	84.622	84.745	0.8385
82	2.24	85.793	85.817	85.763	85.805	85.715	85.788	85.637	85.759	0.8386
83	2.24	86.779	86.803	86.748	86.789	86.702	86.773	86.622	86.744	0.8385
84	2.24	87.794	87.818	87.764	87.804	87.716	87.788	87.637	87.760	0.8386
85	2.24	88.781	88.803	88.748	88.791	88.701	88.773	88.621	88.746	0.8385
86	2.24	89.795	89.818	89.763	89.806	89.715	89.787	89.636	89.759	0.8386
87	2.24	90.780	90.804	90.748	90.790	90.701	90.773	90.621	90.746	0.8385
88	2.24	91.794	91.818	91.764	91.806	91.715	91.787	91.636	91.759	0.8386
89	2.24	92.781	92.804	92.750	92.792	92.702	92.772	92.622	92.744	0.8385
90	2.24	93.795	93.818	93.764	93.807	93.715	93.787	93.635	93.758	0.8386
91	2.24	94.781	94.805	94.749	94.793	94.702	94.773	94.622	94.745	0.8385
92	2.24	95.795	95.818	95.762	95.808	95.716	95.787	95.634	95.760	0.8386
93	2.24	96.783	96.805	96.751	96.792	96.702	96.774	96.621	96.745	0.8385
94	2.24	97.796	97.819	97.763	97.806	97.715	97.787	97.635	97.760	0.8386
95	2.24	98.784	98.805	98.751	98.793	98.702	98.775	98.621	98.745	0.8385
96	2.24	99.795	99.819	99.765	99.806	99.716	99.787	99.634	99.758	0.8386
97	2.24	100.783	100.808	100.751	100.792	100.703	100.774	100.620	100.746	0.8385
98	2.24	101.796	101.820	101.764	101.806	101.716	101.787	101.634	101.759	0.8386
99	2.24	102.784	102.806	102.751	102.793	102.702	102.774	102.621	102.746	0.8385
100	2.24	103.796	103.819	103.765	103.806	103.714	103.787	103.632	103.758	0.8386

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Table 194 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 1.25

$S_{v\,max}$ = maximum effective circular thickness = 1.963

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	4.00	14.740	14.759	14.722	14.753	14.695	14.745	14.650	14.733	0.8251
7	3.75	15.189	15.208	15.171	15.202	15.143	15.194	15.097	15.181	0.8255
8	3.55	16.318	16.338	16.299	16.332	16.269	16.324	16.220	16.310	0.8269
9	3.35	16.928	16.948	16.908	16.942	16.877	16.933	16.827	16.919	0.8149
10	3.35	18.410	18.431	18.389	18.424	18.357	18.415	18.305	18.400	0.8275
11	3.15	19.045	19.067	19.024	19.060	18.992	19.050	18.937	19.035	0.8195
12	3.15	20.473	20.495	20.451	20.488	20.418	20.478	20.362	20.462	0.8279
13	3.15	21.601	21.623	21.579	21.616	21.545	21.606	21.486	21.586	0.8219
14	3.15	22.998	23.021	22.975	23.013	22.941	23.003	22.883	22.986	0.8279
15	3.00	23.782	23.804	23.758	23.797	23.723	23.786	23.664	23.769	0.8236
16	3.00	25.154	25.177	25.130	25.169	25.094	25.158	25.034	25.141	0.8281
17	3.00	26.312	26.335	26.287	26.327	26.251	26.316	26.191	26.298	0.8246
18	3.00	27.669	27.692	27.643	27.683	27.607	27.672	27.545	27.654	0.8281
19	3.00	28.834	28.856	28.811	28.851	28.774	28.839	28.712	28.821	0.8252
20	3.00	30.180	30.203	30.154	30.195	30.117	30.183	30.054	30.165	0.8280
21	3.00	31.355	31.379	31.330	31.371	31.292	31.359	31.229	31.340	0.8257
22	3.00	32.689	32.713	32.664	32.705	32.625	32.693	32.561	32.673	0.8280
23	3.00	33.872	33.896	33.846	33.887	33.807	33.875	33.742	33.856	0.8261
24	3.00	35.198	35.222	35.172	35.214	35.133	35.201	35.067	35.182	0.8280
25	3.00	36.386	36.410	36.360	36.401	36.320	36.389	36.254	36.369	0.8264
26	3.00	37.706	37.730	37.679	37.720	37.639	37.708	37.572	37.688	0.8280
27	3.00	38.898	38.922	38.871	38.913	38.831	38.900	38.764	38.880	0.8266
28	3.00	40.212	40.236	40.185	40.227	40.144	40.214	40.077	40.193	0.8280
29	3.00	41.409	41.433	41.381	41.423	41.341	41.410	41.273	41.389	0.8268
30	3.00	42.718	42.742	42.690	42.732	42.649	42.719	42.581	42.698	0.8280
31	3.00	43.918	43.942	43.890	43.932	43.849	43.919	43.780	43.898	0.8269
32	3.00	45.222	45.247	45.195	45.237	45.153	45.224	45.084	45.202	0.8280
33	3.00	46.425	46.451	46.398	46.440	46.356	46.427	46.286	46.405	0.8270
34	3.00	47.727	47.751	47.699	47.742	47.656	47.728	47.586	47.706	0.8279
35	2.80	48.426	48.451	48.398	48.441	48.356	48.428	48.284	48.405	0.8272
36	2.80	49.724	49.749	49.696	49.739	49.652	49.725	49.581	49.702	0.8281
37	2.80	50.933	50.957	50.904	50.947	50.860	50.933	50.788	50.910	0.8273
38	2.80	52.227	52.252	52.198	52.242	52.154	52.227	52.082	52.204	0.8280
39	2.80	53.436	53.462	53.408	53.451	53.365	53.436	53.291	53.414	0.8274
40	2.80	54.729	54.755	54.700	54.744	54.656	54.729	54.582	54.706	0.8280
41	2.80	55.942	55.966	55.912	55.956	55.867	55.941	55.794	55.918	0.8274
42	2.80	57.232	57.257	57.202	57.246	57.157	57.230	57.083	57.207	0.8280
43	2.80	58.445	58.471	58.416	58.460	58.370	58.444	58.296	58.420	0.8275
44	2.80	59.733	59.759	59.704	59.747	59.658	59.732	59.584	59.708	0.8280
45	2.80	60.949	60.974	60.919	60.962	60.874	60.947	60.799	60.923	0.8275
46	2.80	62.235	62.260	62.206	62.249	62.159	62.234	62.084	62.210	0.8280
47	2.80	63.452	63.477	63.422	63.466	63.376	63.450	63.301	63.426	0.8275
48	2.80	64.737	64.762	64.706	64.750	64.661	64.735	64.585	64.710	0.8280
49	2.80	65.955	65.980	65.924	65.969	65.879	65.953	65.802	65.928	0.8276
50	2.80	67.238	67.263	67.208	67.252	67.162	67.236	67.085	67.211	0.8280
51	2.80	68.459	68.483	68.427	68.471	68.381	68.455	68.304	68.431	0.8276
52	2.80	69.740	69.765	69.709	69.754	69.663	69.737	69.586	69.712	0.8280
53	2.80	70.961	70.985	70.930	70.974	70.883	70.958	70.805	70.932	0.8276
54	2.80	72.242	72.266	72.210	72.255	72.163	72.238	72.085	72.212	0.8280
55	2.80	73.462	73.487	73.432	73.476	73.385	73.460	73.306	73.434	0.8276
56	2.80	74.742	74.767	74.712	74.755	74.663	74.739	74.585	74.713	0.8280
57	2.80	75.966	75.990	75.933	75.977	75.886	75.961	75.807	75.935	0.8277
58	2.80	77.244	77.268	77.212	77.256	77.164	77.239	77.084	77.213	0.8280
59	2.80	78.467	78.492	78.435	78.480	78.388	78.463	78.308	78.436	0.8277
60	2.80	79.744	79.769	79.712	79.757	79.666	79.739	79.585	79.714	0.8280
61	2.80	80.968	80.993	80.937	80.981	80.888	80.965	80.809	80.938	0.8277
62	2.80	82.246	82.271	82.213	82.258	82.164	82.241	82.085	82.214	0.8280
63	2.80	83.471	83.495	83.439	83.484	83.391	83.466	83.309	83.439	0.8277
64	2.80	84.746	84.772	84.714	84.759	84.665	84.740	84.584	84.714	0.8279
65	2.80	85.972	85.996	85.941	85.986	85.890	85.967	85.811	85.941	0.8277
66	2.80	87.247	87.271	87.215	87.259	87.167	87.242	87.084	87.215	0.8279
67	2.80	88.473	88.499	88.440	88.487	88.391	88.468	88.310	88.440	0.8277
68	2.80	89.748	89.773	89.715	89.759	89.665	89.742	89.585	89.715	0.8279
69	2.80	90.976	91.001	90.942	90.987	90.893	90.970	90.811	90.942	0.8277
70	2.80	92.248	92.274	92.216	92.260	92.166	92.243	92.084	92.214	0.8279
71	2.80	93.477	93.501	93.444	93.490	93.395	93.470	93.312	93.442	0.8277
72	2.80	94.749	94.775	94.717	94.760	94.667	94.743	94.585	94.714	0.8279
73	2.80	95.978	96.003	95.945	95.989	95.895	95.972	95.813	95.942	0.8277
74	2.80	97.249	97.274	97.216	97.261	97.167	97.243	97.084	97.215	0.8279
75	2.80	98.480	98.504	98.447	98.491	98.395	98.471	98.313	98.444	0.8277
76	2.80	99.749	99.775	99.716	99.762	99.667	99.743	99.583	99.714	0.8279
77	2.80	100.980	101.005	100.946	100.992	100.896	100.974	100.813	100.944	0.8277
78	2.80	102.250	102.276	102.216	102.263	102.166	102.244	102.083	102.214	0.8279
79	2.80	103.480	103.506	103.448	103.493	103.398	103.474	103.312	103.445	0.8278
80	2.80	104.752	104.776	104.717	104.762	104.667	104.743	104.582	104.714	0.8279
81	2.80	105.981	106.007	105.949	105.994	105.897	105.975	105.813	105.945	0.8278
82	2.80	107.252	107.276	107.219	107.263	107.166	107.243	107.081	107.214	0.8279
83	2.80	108.483	108.508	108.450	108.493	108.397	108.475	108.314	108.445	0.8278
84	2.80	109.752	109.777	109.718	109.762	109.668	109.744	109.581	109.715	0.8279
85	2.80	110.983	111.009	110.949	110.995	110.898	110.976	110.813	110.946	0.8278
86	2.80	112.254	112.278	112.219	112.264	112.168	112.244	112.082	112.213	0.8279
87	2.80	113.484	113.509	113.449	113.495	113.399	113.477	113.313	113.446	0.8278
88	2.80	114.754	114.778	114.718	114.764	114.666	114.743	114.582	114.715	0.8279
89	2.80	115.987	116.012	115.951	115.997	115.898	115.976	115.813	115.946	0.8278
90	2.80	117.253	117.278	117.219	117.264	117.167	117.244	117.079	117.214	0.8279
91	2.80	118.488	118.511	118.451	118.497	118.401	118.477	118.314	118.446	0.8278
92	2.80	119.754	119.778	119.718	119.765	119.666	119.743	119.579	119.714	0.8279
93	2.80	120.986	121.012	120.953	120.998	120.900	120.977	120.813	120.946	0.8278
94	2.80	122.254	122.278	122.218	122.263	122.166	122.244	122.080	122.213	0.8279
95	2.80	123.487	123.514	123.453	123.499	123.401	123.478	123.314	123.446	0.8278
96	2.80	124.755	124.778	124.719	124.763	124.668	124.744	124.580	124.713	0.8279
97	2.80	125.988	126.013	125.952	125.998	125.902	125.979	125.814	125.946	0.8278
98	2.80	127.253	127.280	127.218	127.265	127.168	127.245	127.079	127.212	0.8279
99	2.80	128.488	128.513	128.452	128.499	128.401	128.478	128.311	128.446	0.8278
100	2.80	129.753	129.779	129.720	129.765	129.668	129.745	129.579	129.712	0.8279

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Table 195 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 1.50

$S_{v\,max}$ = maximum effective circular thickness = 2.356

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	4.75	17.582	17.602	17.563	17.597	17.534	17.588	17.486	17.575	0.8188
7	4.50	18.231	18.252	18.212	18.246	18.182	18.237	18.133	18.223	0.7989
8	4.25	19.564	19.585	19.543	19.579	19.511	19.570	19.459	19.555	0.8200
9	4.00	20.272	20.294	20.251	20.288	20.219	20.278	20.165	20.263	0.8080
10	4.00	22.050	22.073	22.028	22.066	21.994	22.056	21.938	22.040	0.8204
11	3.75	22.789	22.812	22.766	22.805	22.731	22.795	22.674	22.778	0.8124
12	3.75	24.502	24.526	24.478	24.518	24.443	24.508	24.383	24.491	0.8207
13	3.75	25.855	25.879	25.831	25.871	25.795	25.860	25.735	25.843	0.8147
14	3.75	27.531	27.555	27.506	27.547	27.470	27.536	27.408	27.519	0.8207
15	3.75	28.906	28.929	28.880	28.921	28.843	28.910	28.781	28.892	0.8162
16	3.55	30.069	30.093	30.043	30.085	30.005	30.074	29.941	30.055	0.8209
17	3.55	31.458	31.482	31.432	31.474	31.393	31.462	31.329	31.444	0.8174
18	3.55	33.085	33.110	33.058	33.101	33.019	33.089	32.954	33.070	0.8208
19	3.55	34.486	34.511	34.460	34.502	34.419	34.490	34.354	34.470	0.8180
20	3.55	36.098	36.123	36.071	36.114	36.031	36.102	35.964	36.082	0.8208
21	3.55	37.509	37.534	37.482	37.525	37.441	37.513	37.374	37.493	0.8185
22	3.55	39.109	39.135	39.083	39.126	39.041	39.113	38.973	39.093	0.8208
23	3.55	40.528	40.553	40.501	40.545	40.459	40.532	40.390	40.511	0.8189
24	3.55	42.119	42.145	42.091	42.136	42.050	42.123	41.980	42.101	0.8208
25	3.55	43.544	43.570	43.517	43.561	43.475	43.547	43.404	43.527	0.8192
26	3.55	45.128	45.153	45.099	45.144	45.057	45.130	44.986	45.109	0.8208
27	3.55	46.559	46.584	46.530	46.575	46.488	46.561	46.416	46.540	0.8194
28	3.55	48.135	48.161	48.106	48.151	48.063	48.137	47.992	48.115	0.8208
29	3.55	49.571	49.597	49.542	49.587	49.499	49.573	49.426	49.551	0.8196
30	3.55	51.141	51.168	51.113	51.158	51.069	51.143	50.995	51.121	0.8208
31	3.35	52.077	52.104	52.048	52.094	52.003	52.079	51.930	52.056	0.8198
32	3.35	53.643	53.669	53.613	53.659	53.568	53.644	53.493	53.621	0.8208
33	3.35	55.086	55.112	55.056	55.101	55.011	55.087	54.935	55.064	0.8199
34	3.35	56.646	56.673	56.617	56.662	56.571	56.648	56.495	56.624	0.8208
35	3.35	58.093	58.120	58.063	58.109	58.018	58.094	57.941	58.070	0.8200
36	3.35	59.650	59.676	59.619	59.666	59.573	59.651	59.497	59.627	0.8208
37	3.35	61.099	61.126	61.069	61.115	61.023	61.099	60.947	61.076	0.8201
38	3.35	62.553	62.580	62.522	62.568	62.476	62.553	62.398	62.529	0.8208
39	3.35	64.106	64.132	64.075	64.121	64.027	64.106	63.950	64.081	0.8201
40	3.35	65.556	65.583	65.526	65.572	65.478	65.556	65.500	65.632	0.8208
41	3.35	67.110	67.138	67.079	67.126	67.033	67.110	66.954	67.085	0.8202
42	3.35	68.559	68.586	68.528	68.574	68.581	68.658	68.502	68.633	0.8208
43	3.35	70.115	70.142	70.084	70.131	70.037	70.114	69.957	70.089	0.8202
44	3.35	71.661	71.688	71.629	71.677	71.582	71.660	71.502	71.634	0.8208
45	3.35	73.120	73.147	73.088	73.134	73.040	73.117	72.961	73.092	0.8203
46	3.35	74.664	74.690	74.632	74.679	74.583	74.662	74.502	74.636	0.8208
47	3.35	76.124	76.151	76.091	76.139	76.044	76.122	75.963	76.096	0.8203
48	3.35	77.666	77.693	77.632	77.681	77.584	77.664	77.504	77.637	0.8208
49	3.35	79.127	79.153	79.094	79.142	79.046	79.125	78.964	79.099	0.8203
50	3.35	80.667	80.695	80.635	80.682	80.586	80.665	80.504	80.637	0.8208
51	3.35	82.130	82.158	82.098	82.145	82.049	82.128	81.968	82.101	0.8204
52	3.35	83.669	83.695	83.636	83.683	83.586	83.666	83.504	83.639	0.8208
53	3.35	85.134	85.160	85.101	85.148	85.051	85.130	84.969	85.103	0.8204
54	3.35	86.670	86.697	86.637	86.685	86.587	86.666	86.505	86.640	0.8208
55	3.35	88.136	88.164	88.104	88.150	88.053	88.134	87.971	88.105	0.8204
56	3.35	89.672	89.699	89.638	89.685	89.588	89.669	89.506	89.641	0.8207
57	3.35	91.140	91.166	91.106	91.153	91.056	91.135	90.972	91.106	0.8204
58	3.35	92.674	92.700	92.640	92.687	92.588	92.668	92.506	92.641	0.8207
59	3.35	94.141	94.167	94.108	94.156	94.057	94.137	93.973	94.109	0.8205
60	3.35	95.674	95.701	95.640	95.689	95.589	95.670	95.505	95.642	0.8207
61	3.35	97.143	97.170	97.110	97.158	97.059	97.140	96.974	97.110	0.8205
62	3.35	98.676	98.703	98.642	98.689	98.590	98.669	98.505	98.642	0.8207
63	3.35	100.146	100.174	100.112	100.158	100.059	100.140	99.975	100.112	0.8205
64	3.35	101.677	101.703	101.642	101.691	101.591	101.672	101.505	101.642	0.8207
65	3.35	103.147	103.174	103.114	103.160	103.062	103.143	102.976	103.112	0.8205
66	3.35	104.677	104.704	104.643	104.690	104.591	104.672	104.505	104.641	0.8207
67	3.35	106.151	106.177	106.115	106.163	106.063	106.145	105.977	106.115	0.8205
68	3.35	107.678	107.704	107.644	107.691	107.592	107.673	107.506	107.643	0.8207
69	3.35	109.151	109.178	109.117	109.164	109.064	109.144	108.977	109.116	0.8205
70	3.35	110.680	110.705	110.644	110.691	110.593	110.673	110.505	110.644	0.8207
71	3.35	112.153	112.181	112.119	112.165	112.066	112.147	111.978	112.115	0.8205
72	3.35	113.681	113.706	113.646	113.692	113.592	113.674	113.504	113.643	0.8207
73	3.35	115.156	115.181	115.121	115.167	115.068	115.149	114.979	115.117	0.8205
74	3.35	116.682	116.707	116.646	116.692	116.592	116.674	116.503	116.642	0.8207
75	3.35	118.155	118.182	118.121	118.170	118.068	118.148	117.978	118.119	0.8205
76	3.35	119.682	119.708	119.645	119.693	119.594	119.675	119.502	119.642	0.8207
77	3.35	121.158	121.184	121.121	121.170	121.069	121.151	120.980	121.117	0.8205
78	3.35	122.683	122.709	122.645	122.694	122.593	122.675	122.503	122.642	0.8207
79	3.35	124.159	124.185	124.124	124.170	124.069	124.151	123.980	124.120	0.8206
80	3.35	125.683	125.708	125.646	125.695	125.593	125.673	125.504	125.643	0.8207
81	3.35	127.160	127.187	127.125	127.171	127.070	127.152	126.981	127.121	0.8206
82	3.35	128.684	128.710	128.649	128.696	128.593	128.674	128.503	128.643	0.8207
83	3.35	130.162	130.188	130.126	130.174	130.070	130.152	129.979	130.120	0.8206
84	3.35	131.684	131.711	131.648	131.697	131.594	131.674	131.503	131.644	0.8207
85	3.35	133.162	133.190	133.125	133.174	133.072	133.153	132.980	133.121	0.8206
86	3.35	134.686	134.711	134.649	134.695	134.594	134.674	134.501	134.641	0.8207
87	3.35	136.163	136.190	136.125	136.175	136.071	136.154	135.980	136.121	0.8206
88	3.35	137.686	137.711	137.648	137.696	137.593	137.675	137.501	137.644	0.8207
89	3.35	139.166	139.191	139.127	139.174	139.072	139.153	138.979	139.121	0.8206
90	3.35	140.687	140.713	140.648	140.696	140.593	140.674	140.503	140.642	0.8207
91	3.35	142.166	142.193	142.127	142.175	142.073	142.153	141.980	142.123	0.8206
92	3.35	143.686	143.713	143.649	143.695	143.594	143.675	143.502	143.642	0.8207
93	3.35	145.165	145.192	145.129	145.178	145.072	145.156	144.979	145.121	0.8206
94	3.35	146.688	146.715	146.650	146.697	146.594	146.674	146.500	146.643	0.8207
95	3.35	148.166	148.193	148.129	148.177	148.075	148.157	147.980	148.120	0.8206
96	3.35	149.687	149.715	149.651	149.696	149.593	149.673	149.500	149.641	0.8207
97	3.35	151.169	151.192	151.132	151.178	151.074	151.155	150.980	151.123	0.8206
98	3.35	152.689	152.713	152.650	152.699	152.594	152.675	152.498	152.643	0.8207
99	3.35	154.168	154.194	154.130	154.180	154.074	154.156	153.980	154.123	0.8206
100	3.35	155.689	155.713	155.651	155.699	155.594	155.675	155.500	155.642	0.8207

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Table 196 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 1.75

$S_{v\,max}$ = maximum effective circular thickness = 2.749

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	5.60	20.645	20.666	20.625	20.660	20.594	20.651	20.544	20.638	0.8141
7	5.00	20.720	20.741	20.699	20.735	20.668	20.726	20.615	20.712	0.7945
8	4.75	22.353	22.376	22.330	22.369	22.297	22.360	22.241	22.344	0.8153
9	4.75	23.846	23.869	23.823	23.862	23.790	23.852	23.733	23.837	0.8029
10	4.50	25.340	25.364	25.316	25.357	25.281	25.347	25.221	25.330	0.8155
11	4.50	26.885	26.909	26.861	26.901	26.825	26.891	26.764	26.874	0.8072
12	4.50	28.887	28.912	28.862	28.904	28.825	28.893	28.763	28.875	0.8155
13	4.25	29.871	29.896	29.846	29.888	29.807	29.876	29.744	29.859	0.8057
14	4.25	31.823	31.849	31.797	31.841	31.759	31.829	31.694	31.811	0.8157
15	4.25	33.426	33.451	33.400	33.443	33.361	33.432	33.294	33.413	0.8112
16	4.25	35.348	35.375	35.322	35.366	35.282	35.354	35.215	35.335	0.8157
17	4.25	36.969	36.995	36.942	36.987	36.901	36.974	36.834	36.955	0.8122
18	4.25	38.869	38.895	38.841	38.886	38.801	38.874	38.731	38.854	0.8156
19	4.25	40.504	40.530	40.476	40.521	40.435	40.509	40.366	40.488	0.8129
20	4.00	41.769	41.796	41.742	41.787	41.698	41.774	41.627	41.753	0.8157
21	4.00	43.415	43.442	43.386	43.433	43.344	43.419	43.272	43.398	0.8134
22	4.00	45.281	45.308	45.253	45.299	45.209	45.285	45.136	45.264	0.8157
23	4.00	46.936	46.963	46.907	46.953	46.864	46.940	46.790	46.918	0.8138
24	4.00	48.792	48.818	48.762	48.809	48.718	48.795	48.644	48.773	0.8157
25	4.00	50.454	50.481	50.424	50.471	50.380	50.458	50.306	50.435	0.8141
26	4.00	52.300	52.327	52.270	52.317	52.225	52.303	52.150	52.280	0.8157
27	4.00	53.969	53.997	53.939	53.986	53.893	53.972	53.818	53.949	0.8143
28	4.00	55.807	55.835	55.777	55.824	55.731	55.810	55.655	55.787	0.8157
29	4.00	57.483	57.510	57.452	57.500	57.406	57.484	57.329	57.461	0.8145
30	4.00	59.314	59.342	59.283	59.331	59.237	59.316	59.160	59.293	0.8157
31	4.00	60.994	61.021	60.962	61.011	60.916	60.995	60.839	60.972	0.8146
32	4.00	62.820	62.847	62.789	62.837	62.742	62.822	62.663	62.798	0.8157
33	4.00	64.505	64.532	64.472	64.521	64.425	64.506	64.346	64.480	0.8147
34	4.00	66.325	66.353	66.294	66.342	66.246	66.326	66.166	66.302	0.8157
35	4.00	68.014	68.042	67.982	68.030	67.933	68.014	67.853	67.989	0.8148
36	4.00	69.830	69.858	69.799	69.847	69.750	69.831	69.669	69.805	0.8157
37	4.00	71.522	71.550	71.489	71.538	71.441	71.522	71.360	71.496	0.8149
38	4.00	73.334	73.362	73.301	73.350	73.253	73.334	73.172	73.308	0.8156
39	4.00	75.029	75.056	74.997	75.045	74.947	75.029	74.868	75.003	0.8150
40	4.00	76.838	76.867	76.806	76.854	76.756	76.838	76.674	76.811	0.8156
41	4.00	78.535	78.563	78.503	78.552	78.453	78.535	78.370	78.507	0.8150
42	4.00	80.342	80.369	80.308	80.358	80.259	80.340	80.176	80.314	0.8156
43	4.00	82.042	82.070	82.008	82.057	81.958	82.039	81.875	82.013	0.8151
44	4.00	83.844	83.873	83.811	83.860	83.762	83.844	83.677	83.817	0.8156
45	4.00	85.547	85.574	85.513	85.562	85.462	85.545	85.379	85.518	0.8151
46	4.00	87.347	87.375	87.315	87.364	87.263	87.345	87.179	87.317	0.8156
47	4.00	89.052	89.080	89.017	89.067	88.967	89.049	88.881	89.023	0.8152
48	4.00	90.850	90.877	90.816	90.866	90.766	90.848	90.680	90.821	0.8156
49	4.00	92.556	92.584	92.522	92.571	92.471	92.554	92.385	92.526	0.8152
50	4.00	94.353	94.381	94.318	94.368	94.268	94.350	94.180	94.322	0.8156
51	4.00	96.061	96.089	96.026	96.074	95.974	96.056	95.888	96.029	0.8152
52	4.00	97.856	97.883	97.821	97.869	97.769	97.851	97.681	97.824	0.8156
53	4.00	99.564	99.592	99.530	99.580	99.478	99.561	99.391	99.532	0.8153
54	4.00	101.356	101.385	101.322	101.372	101.270	101.353	101.184	101.325	0.8156
55	4.00	103.068	103.096	103.032	103.082	102.981	103.064	102.892	103.036	0.8153
56	4.00	104.860	104.887	104.824	104.874	104.770	104.855	104.683	104.825	0.8156
57	4.00	106.570	106.600	106.536	106.585	106.483	106.567	106.396	106.537	0.8153
58	4.00	108.361	108.389	108.325	108.376	108.272	108.356	108.185	108.325	0.8156
59	4.00	110.076	110.102	110.039	110.088	109.984	110.069	109.896	110.039	0.8153
60	4.00	111.864	111.892	111.826	111.878	111.774	111.857	111.684	111.827	0.8156
61	4.00	113.576	113.604	113.541	113.590	113.488	113.572	113.397	113.541	0.8153
62	4.00	115.365	115.391	115.327	115.377	115.274	115.359	115.185	115.327	0.8156
63	4.00	117.080	117.107	117.044	117.095	116.990	117.073	116.900	117.044	0.8154
64	4.00	118.867	118.893	118.830	118.878	118.775	118.859	118.683	118.828	0.8156
65	4.00	120.583	120.609	120.545	120.596	120.492	120.575	120.401	120.545	0.8154
66	4.00	122.367	122.396	122.331	122.381	122.275	122.360	122.185	122.330	0.8156
67	4.00	124.084	124.112	124.049	124.099	123.994	124.078	123.902	124.045	0.8154
68	4.00	125.869	125.896	125.832	125.882	125.777	125.861	125.683	125.830	0.8156
69	4.00	127.587	127.615	127.550	127.599	127.495	127.580	127.403	127.548	0.8154
70	4.00	129.369	129.397	129.331	129.383	129.277	129.363	129.184	129.331	0.8156
71	4.00	131.089	131.117	131.052	131.103	130.998	131.083	130.905	131.050	0.8154
72	4.00	132.871	132.898	132.834	132.883	132.777	132.863	132.685	132.830	0.8156
73	4.00	134.589	134.618	134.554	134.604	134.498	134.583	134.405	134.550	0.8154
74	4.00	136.371	136.400	136.333	136.384	136.279	136.363	136.187	136.331	0.8156
75	4.00	138.092	138.120	138.054	138.105	137.999	138.084	137.905	138.052	0.8154
76	4.00	139.871	139.901	139.837	139.884	139.779	139.862	139.686	139.832	0.8156
77	4.00	141.595	141.621	141.556	141.608	141.500	141.587	141.406	141.552	0.8154
78	4.00	143.374	143.402	143.336	143.385	143.279	143.363	143.185	143.332	0.8156
79	4.00	145.095	145.124	145.059	145.108	145.001	145.086	144.908	145.055	0.8154
80	4.00	146.873	146.902	146.837	146.886	146.778	146.864	146.684	146.832	0.8156
81	4.00	148.597	148.625	148.558	148.609	148.504	148.586	148.408	148.554	0.8154
82	4.00	150.375	150.403	150.338	150.387	150.278	150.366	150.186	150.331	0.8156
83	4.00	152.099	152.127	152.061	152.110	152.003	152.087	151.908	152.054	0.8154
84	4.00	153.874	153.903	153.837	153.889	153.780	153.865	153.686	153.832	0.8156
85	4.00	155.599	155.628	155.561	155.614	155.504	155.590	155.409	155.556	0.8155
86	4.00	157.375	157.404	157.337	157.390	157.279	157.366	157.182	157.332	0.8156
87	4.00	159.102	159.129	159.065	159.114	159.007	159.089	158.909	159.055	0.8155
88	4.00	160.878	160.905	160.838	160.888	160.779	160.866	160.683	160.831	0.8156
89	4.00	162.603	162.631	162.566	162.616	162.506	162.591	162.409	162.556	0.8155
90	4.00	164.378	164.405	164.337	164.388	164.282	164.368	164.182	164.332	0.8156
91	4.00	166.105	166.130	166.064	166.115	166.008	166.092	165.909	166.057	0.8155
92	4.00	167.880	167.906	167.839	167.890	167.782	167.864	167.685	167.831	0.8156
93	4.00	169.606	169.632	169.565	169.617	169.508	169.593	169.409	169.557	0.8155
94	4.00	171.379	171.406	171.340	171.390	171.280	171.366	171.183	171.332	0.8156
95	4.00	173.105	173.132	173.068	173.116	173.010	173.095	172.909	173.057	0.8155
96	4.00	174.882	174.909	174.839	174.890	174.780	174.866	174.684	174.831	0.8156
97	4.00	176.607	176.634	176.569	176.618	176.509	176.596	176.410	176.558	0.8155
98	4.00	178.382	178.409	178.341	178.393	178.284	178.365	178.180	178.333	0.8156
99	4.00	180.109	180.133	180.067	180.117	180.009	180.095	179.908	180.059	0.8155
100	4.00	181.879	181.907	181.840	181.890	181.782	181.868	181.682	181.829	0.8156

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Table 197 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 2.00

$S_{v\ max}$ = maximum effective circular thickness = 3.142

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	6.30	23.377	23.399	23.356	23.393	23.324	23.384	23.271	23.370	0.8108
7	6.00	24.316	24.338	24.294	24.332	24.262	24.323	24.208	24.308	0.7908
8	5.60	25.041	25.065	25.018	25.059	25.883	25.949	25.825	25.933	0.8115
9	5.30	26.962	26.986	26.938	26.979	26.902	26.968	26.843	26.952	0.7993
10	5.30	29.331	29.356	29.306	29.349	29.269	29.338	29.207	29.321	0.8117
11	5.00	30.394	30.420	30.369	30.412	30.331	30.401	30.267	30.383	0.8036
12	5.00	32.679	32.704	32.652	32.696	32.613	32.685	32.548	32.667	0.8118
13	5.00	34.482	34.509	34.456	34.500	34.417	34.489	34.351	34.470	0.8059
14	4.75	36.115	36.142	36.088	36.134	36.047	36.121	35.979	36.102	0.8119
15	4.75	37.946	37.974	37.919	37.965	37.878	37.953	37.809	37.933	0.8075
16	4.75	40.142	40.169	40.114	40.160	40.072	40.148	40.001	40.128	0.8119
17	4.75	41.994	42.021	41.966	42.012	41.923	41.999	41.852	41.979	0.8084
18	4.75	44.164	44.191	44.135	44.182	44.092	44.169	44.020	44.149	0.8119
19	4.75	46.032	46.060	46.003	46.050	45.959	46.037	45.887	46.016	0.8091
20	4.75	48.183	48.210	48.153	48.200	48.108	48.187	48.036	48.165	0.8119
21	4.75	50.063	50.091	50.034	50.082	49.989	50.068	49.915	50.045	0.8096
22	4.75	52.198	52.226	52.168	52.216	52.123	52.202	52.047	52.180	0.8119
23	4.50	53.468	53.496	53.438	53.487	53.392	53.472	53.315	53.449	0.8100
24	4.50	55.587	55.616	55.557	55.606	55.511	55.591	55.433	55.569	0.8119
25	4.50	57.488	57.517	57.457	57.506	57.410	57.491	57.331	57.468	0.8103
26	4.50	59.597	59.626	59.566	59.615	59.519	59.600	59.440	59.576	0.8119
27	4.50	61.505	61.534	61.474	61.523	61.426	61.507	61.347	61.484	0.8105
28	4.50	63.605	63.634	63.574	63.623	63.526	63.608	63.446	63.584	0.8119
29	4.50	65.519	65.549	65.487	65.537	65.439	65.522	65.358	65.497	0.8107
30	4.50	67.613	67.641	67.581	67.630	67.532	67.614	67.451	67.589	0.8119
31	4.50	69.533	69.561	69.500	69.549	69.450	69.534	69.369	69.509	0.8109
32	4.50	71.619	71.647	71.586	71.636	71.536	71.620	71.455	71.595	0.8119
33	4.50	73.544	73.573	73.511	73.561	73.461	73.545	73.378	73.518	0.8110
34	4.50	75.624	75.654	75.591	75.642	75.542	75.626	75.458	75.599	0.8119
35	4.50	77.553	77.583	77.520	77.570	77.470	77.553	77.386	77.529	0.8111
36	4.50	79.630	79.658	79.596	79.647	79.546	79.630	79.461	79.603	0.8119
37	4.50	81.563	81.592	81.529	81.579	81.479	81.562	81.393	81.535	0.8111
38	4.50	83.635	83.664	83.600	83.652	83.549	83.633	83.463	83.607	0.8119
39	4.50	85.571	85.599	85.537	85.588	85.485	85.569	85.399	85.542	0.8112
40	4.50	87.638	87.667	87.604	87.655	87.553	87.638	87.466	87.611	0.8119
41	4.50	89.578	89.606	89.543	89.595	89.492	89.577	89.405	89.549	0.8113
42	4.50	91.643	91.671	91.608	91.659	91.555	91.640	91.468	91.613	0.8119
43	4.50	93.585	93.614	93.550	93.601	93.497	93.582	93.410	93.556	0.8113
44	4.50	95.646	95.675	95.610	95.662	95.558	95.643	95.470	95.616	0.8119
45	4.50	97.590	97.619	97.555	97.606	97.502	97.587	97.414	97.560	0.8114
46	4.50	99.648	99.678	99.614	99.664	99.560	99.645	99.472	99.617	0.8119
47	4.50	101.596	101.624	101.561	101.612	101.507	101.593	101.419	101.564	0.8114
48	4.50	103.653	103.682	103.617	103.667	103.562	103.649	103.472	103.620	0.8119
49	4.50	105.600	105.630	105.564	105.617	105.512	105.597	105.422	105.568	0.8114
50	4.50	107.653	107.683	107.618	107.670	107.564	107.650	107.473	107.621	0.8119
51	4.50	109.605	109.635	109.569	109.622	109.516	109.601	109.425	109.571	0.8115
52	4.50	111.658	111.685	111.618	111.671	111.566	111.652	111.474	111.623	0.8119
53	4.50	113.610	113.638	113.572	113.624	113.519	113.607	113.427	113.575	0.8115
54	4.50	115.658	115.689	115.623	115.675	115.567	115.653	115.476	115.624	0.8119
55	4.50	117.614	117.643	117.578	117.629	117.523	117.609	117.429	117.578	0.8115
56	4.50	119.662	119.690	119.625	119.677	119.570	119.655	119.477	119.625	0.8119
57	4.50	121.618	121.648	121.580	121.633	121.525	121.612	121.433	121.580	0.8115
58	4.50	123.664	123.691	123.626	123.677	123.570	123.656	123.477	123.626	0.8118
59	4.50	125.621	125.650	125.584	125.637	125.528	125.615	125.435	125.582	0.8116
60	4.50	127.666	127.694	127.627	127.678	127.572	127.658	127.477	127.627	0.8118
61	4.50	129.625	129.653	129.585	129.637	129.529	129.617	129.437	129.585	0.8116
62	4.50	131.666	131.694	131.626	131.680	131.572	131.660	131.479	131.629	0.8118
63	4.50	133.627	133.656	133.590	133.640	133.532	133.619	133.438	133.588	0.8116
64	4.50	135.667	135.697	135.630	135.682	135.573	135.661	135.479	135.630	0.8118
65	4.50	137.631	137.659	137.593	137.644	137.533	137.623	137.440	137.589	0.8116
66	4.50	139.669	139.697	139.633	139.684	139.572	139.663	139.478	139.628	0.8118
67	4.50	141.634	141.660	141.594	141.647	141.536	141.625	141.442	141.590	0.8116
68	4.50	143.670	143.701	143.632	143.683	143.575	143.661	143.480	143.630	0.8118
69	4.50	145.635	145.662	145.597	145.648	145.539	145.626	145.442	145.595	0.8116
70	4.50	147.672	147.699	147.633	147.686	147.577	147.663	147.477	147.631	0.8118
71	4.50	149.636	149.666	149.599	149.649	149.539	149.629	149.443	149.594	0.8116
72	4.50	151.674	151.702	151.634	151.688	151.576	151.664	151.478	151.632	0.8118
73	4.50	153.641	153.669	153.601	153.653	153.542	153.631	153.443	153.596	0.8116
74	4.50	155.676	155.704	155.635	155.688	155.575	155.666	155.480	155.630	0.8118
75	4.50	157.641	157.670	157.603	157.653	157.544	157.632	157.445	157.598	0.8117
76	4.50	159.676	159.703	159.636	159.688	159.577	159.666	159.477	159.631	0.8118
77	4.50	161.642	161.672	161.603	161.657	161.543	161.632	161.444	161.598	0.8117
78	4.50	163.676	163.706	163.636	163.689	163.576	163.666	163.480	163.631	0.8118
79	4.50	165.644	165.675	165.603	165.657	165.546	165.634	165.446	165.598	0.8117
80	4.50	167.678	167.706	167.639	167.690	167.577	167.665	167.480	167.631	0.8118
81	4.50	169.647	169.673	169.606	169.658	169.548	169.637	169.447	169.600	0.8117
82	4.50	171.678	171.707	171.638	171.691	171.576	171.667	171.478	171.633	0.8118
83	4.50	173.646	173.678	173.609	173.660	173.548	173.636	173.450	173.601	0.8117
84	4.50	175.677	175.707	175.640	175.691	175.580	175.666	175.478	175.631	0.8118
85	4.50	177.650	177.680	177.609	177.661	177.549	177.636	177.446	177.604	0.8117
86	4.50	179.681	179.709	179.640	179.692	179.579	179.667	179.478	179.632	0.8118
87	4.50	181.650	181.678	181.611	181.661	181.550	181.639	181.450	181.600	0.8117
88	4.50	183.682	183.710	183.640	183.693	183.581	183.668	183.477	183.631	0.8118
89	4.50	185.653	185.681	185.610	185.664	185.551	185.639	185.449	185.605	0.8117
90	4.50	187.680	187.708	187.639	187.691	187.579	187.668	187.479	187.631	0.8118
91	4.50	189.652	189.681	189.612	189.664	189.554	189.641	189.450	189.603	0.8117
92	4.50	191.683	191.709	191.642	191.691	191.580	191.668	191.475	191.633	0.8118
93	4.50	193.658	193.681	193.616	193.667	193.551	193.640	193.451	193.603	0.8117
94	4.50	195.683	195.713	195.641	195.695	195.581	195.671	195.479	195.629	0.8118
95	4.50	197.657	197.684	197.615	197.666	197.551	197.642	197.449	197.606	0.8117
96	4.50	199.683	199.711	199.641	199.696	199.580	199.671	199.476	199.631	0.8118
97	4.50	201.660	201.685	201.617	201.666	201.555	201.641	201.451	201.604	0.8117
98	4.50	203.684	203.712	203.644	203.694	203.582	203.669	203.476	203.631	0.8118
99	4.50	205.657	205.686	205.619	205.669	205.556	205.644	205.450	205.607	0.8117
100	4.50	207.683	207.714	207.644	207.695	207.581	207.670	207.473	207.632	0.8118

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Table 198 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 2.50

$S_{v\,max}$ = maximum effective circular thickness = 3.927

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades								K_e Approximation factor
		4 h		5 h		6 h		7 h		
		min.	max. (aux)	min.	max. (aux)	min.	max. (aux)	min.	max. (aux)	
6	8.00	29.502	29.527	29.480	29.520	29.446	29.511	29.389	29.495	0.8060
7	7.10	29.515	29.539	29.491	29.533	29.456	29.523	29.397	29.507	0.7962
8	6.70	31.748	31.774	31.722	31.766	31.684	31.756	31.621	31.738	0.8066
9	6.70	33.881	33.907	33.855	33.899	33.817	33.888	33.753	33.871	0.7994
10	6.30	35.911	35.938	35.884	35.930	35.843	35.919	35.776	35.900	0.8067
11	6.30	38.117	38.145	38.090	38.137	38.049	38.124	37.981	38.106	0.7985
12	6.30	40.974	41.002	40.946	40.994	40.904	40.981	40.834	40.962	0.8067
13	6.00	42.514	42.543	42.486	42.534	42.443	42.521	42.371	42.501	0.8009
14	6.00	45.302	45.332	45.273	45.322	45.230	45.309	45.156	45.289	0.8068
15	6.00	47.592	47.621	47.562	47.611	47.516	47.598	47.444	47.578	0.8023
16	6.00	50.338	50.367	50.308	50.357	50.262	50.344	50.186	50.322	0.8068
17	6.00	52.653	52.682	52.622	52.672	52.577	52.658	52.500	52.636	0.8033
18	6.00	55.367	55.396	55.335	55.386	55.289	55.371	55.211	55.349	0.8068
19	6.00	57.701	57.731	57.671	57.721	57.623	57.707	57.545	57.684	0.8040
20	6.00	60.390	60.420	60.358	60.410	60.311	60.395	60.232	60.371	0.8068
21	6.00	62.742	62.772	62.710	62.761	62.661	62.746	62.581	62.722	0.8045
22	5.60	64.418	64.448	64.385	64.438	64.335	64.422	64.257	64.397	0.8068
23	5.60	66.782	66.812	66.749	66.801	66.698	66.785	66.618	66.761	0.8049
24	5.60	69.431	69.461	69.398	69.450	69.348	69.435	69.264	69.410	0.8068
25	5.60	71.806	71.836	71.772	71.826	71.721	71.810	71.638	71.785	0.8052
26	5.60	74.443	74.474	74.409	74.462	74.357	74.445	74.272	74.420	0.8068
27	5.60	76.827	76.858	76.793	76.847	76.741	76.830	76.656	76.804	0.8054
28	5.60	79.453	79.484	79.418	79.472	79.366	79.456	79.279	79.428	0.8068
29	5.60	81.842	81.877	81.811	81.864	81.759	81.847	81.672	81.821	0.8056
30	5.60	84.462	84.493	84.427	84.481	84.373	84.467	84.287	84.436	0.8068
31	5.60	86.862	86.892	86.826	86.881	86.774	86.862	86.685	86.836	0.8057
32	5.60	89.469	89.500	89.435	89.489	89.381	89.470	89.291	89.443	0.8068
33	5.60	91.876	91.907	91.841	91.893	91.786	91.876	91.698	91.848	0.8058
34	5.60	94.477	94.507	94.441	94.495	94.388	94.477	94.296	94.449	0.8068
35	5.60	96.889	96.920	96.852	96.906	96.798	96.887	96.706	96.860	0.8059
36	5.60	99.482	99.513	99.448	99.501	99.391	99.482	99.301	99.454	0.8068
37	5.60	101.900	101.929	101.862	101.916	101.808	101.899	101.715	101.870	0.8060
38	5.60	104.489	104.520	104.451	104.507	104.397	104.487	104.304	104.458	0.8068
39	5.60	106.910	106.940	106.873	106.926	106.816	106.908	106.724	106.879	0.8061
40	5.60	109.494	109.525	109.458	109.513	109.401	109.492	109.307	109.463	0.8068
41	5.60	111.918	111.950	111.881	111.936	111.825	111.916	111.731	111.887	0.8062
42	5.60	114.500	114.530	114.460	114.516	114.405	114.496	114.310	114.466	0.8068
43	5.60	116.927	116.958	116.888	116.943	116.832	116.923	116.737	116.894	0.8062
44	5.60	119.502	119.534	119.465	119.521	119.409	119.500	119.312	119.469	0.8067
45	5.60	121.934	121.965	121.896	121.951	121.839	121.930	121.743	121.900	0.8063
46	5.60	124.508	124.539	124.469	124.524	124.411	124.504	124.315	124.473	0.8067
47	5.60	126.942	126.972	126.903	126.958	126.843	126.938	126.749	126.907	0.8063
48	5.60	129.510	129.541	129.472	129.527	129.414	129.506	129.317	129.474	0.8067
49	5.60	131.947	131.980	131.910	131.965	131.850	131.943	131.754	131.910	0.8063
50	5.60	134.514	134.545	134.474	134.529	134.416	134.508	134.320	134.476	0.8067
51	5.60	136.953	136.985	136.913	136.968	136.856	136.947	136.756	136.915	0.8064
52	5.60	139.517	139.547	139.478	139.534	139.417	139.512	139.320	139.478	0.8067
53	5.60	141.957	141.988	141.920	141.975	141.860	141.953	141.761	141.920	0.8064
54	5.60	144.519	144.550	144.479	144.537	144.420	144.514	144.322	144.481	0.8067
55	5.60	146.963	146.993	146.921	146.979	146.865	146.956	146.765	146.924	0.8064
56	5.60	149.523	149.553	149.483	149.539	149.423	149.516	149.322	149.483	0.8067
57	5.60	151.969	151.997	151.926	151.983	151.868	151.959	151.767	151.926	0.8064
58	5.60	154.526	154.555	154.483	154.540	154.426	154.517	154.323	154.483	0.8067
59	5.60	156.972	157.001	156.933	156.987	156.870	156.965	156.769	156.931	0.8065
60	5.60	159.528	159.558	159.486	159.543	159.425	159.518	159.324	159.484	0.8067
61	5.60	161.977	162.007	161.937	161.992	161.874	161.967	161.772	161.932	0.8065
62	5.60	164.529	164.560	164.489	164.542	164.428	164.522	164.324	164.486	0.8067
63	5.60	166.981	167.009	166.939	166.993	166.878	166.973	166.775	166.937	0.8065
64	5.60	169.533	169.562	169.491	169.543	169.428	169.522	169.324	169.486	0.8067
65	5.60	171.982	172.014	171.942	171.998	171.881	171.974	171.775	171.940	0.8065
66	5.60	174.532	174.564	174.491	174.548	174.430	174.524	174.328	174.489	0.8067
67	5.60	176.987	177.017	176.946	177.001	176.883	176.979	176.777	176.941	0.8065
68	5.60	179.535	179.565	179.493	179.548	179.430	179.524	179.325	179.490	0.8067
69	5.60	181.991	182.019	181.949	182.002	181.884	181.979	181.781	181.943	0.8065
70	5.60	184.531	184.565	184.494	184.548	184.432	184.525	184.327	184.491	0.8067
71	5.60	186.991	187.022	186.951	187.008	186.887	186.982	186.784	186.945	0.8065
72	5.60	189.538	189.567	189.497	189.550	189.433	189.526	189.329	189.491	0.8067
73	5.60	191.996	192.026	191.955	192.008	191.890	191.985	191.784	191.946	0.8065
74	5.60	194.540	194.570	194.498	194.552	194.432	194.528	194.328	194.492	0.8067
75	5.60	196.996	197.027	196.954	197.008	196.894	196.984	196.785	196.948	0.8066
76	5.60	199.542	199.572	199.499	199.554	199.435	199.530	199.328	199.493	0.8067
77	5.60	202.000	202.031	201.960	202.012	201.891	201.988	201.786	201.950	0.8066
78	5.60	204.542	204.570	204.501	204.554	204.435	204.529	204.325	204.488	0.8067
79	5.60	207.005	207.033	206.960	207.014	206.897	206.992	206.789	206.951	0.8066
80	5.60	209.543	209.575	209.498	209.556	209.434	209.530	209.328	209.492	0.8067
81	5.60	212.005	212.034	211.962	212.014	211.897	211.992	211.787	211.953	0.8066
82	5.60	214.543	214.576	214.503	214.556	214.438	214.530	214.326	214.490	0.8067
83	5.60	217.006	217.036	216.963	217.020	216.900	216.993	216.787	216.953	0.8066
84	5.60	219.545	219.575	219.504	219.558	219.437	219.531	219.330	219.491	0.8067
85	5.60	222.007	222.041	221.966	222.021	221.898	221.993	221.790	221.953	0.8066
86	5.60	224.549	224.577	224.501	224.556	224.439	224.532	224.329	224.494	0.8067
87	5.60	227.010	227.038	226.968	227.024	226.899	226.996	226.791	226.954	0.8066
88	5.60	229.549	229.577	229.504	229.556	229.437	229.532	229.325	229.493	0.8067
89	5.60	232.013	232.045	231.967	232.023	231.903	231.995	231.789	231.956	0.8066
90	5.60	234.546	234.578	234.503	234.560	234.438	234.531	234.327	234.492	0.8067
91	5.60	237.011	237.044	236.968	237.026	236.903	236.997	236.794	236.957	0.8066
92	5.60	239.549	239.578	239.505	239.560	239.438	239.531	239.326	239.494	0.8067
93	5.60	242.017	242.047	241.973	242.025	241.906	241.999	241.796	241.958	0.8066
94	5.60	244.549	244.579	244.504	244.560	244.437	244.534	244.325	244.489	0.8067
95	5.60	247.020	247.046	246.975	247.027	246.907	246.997	246.794	246.959	0.8066
96	5.60	249.549	249.579	249.503	249.560	249.438	249.533	249.328	249.491	0.8067
97	5.60	252.019	252.050	251.973	252.027	251.903	252.004	251.796	251.957	0.8066
98	5.60	254.553	254.580	254.506	254.561	254.436	254.534	254.328	254.491	0.8067
99	5.60	257.022	257.050	256.975	257.030	256.905	256.999	256.795	256.960	0.8066
100	5.60	259.554	259.582	259.507	259.562	259.439	259.535	259.325	259.491	0.8067

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Table 199 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 3.00

$S_{v\,max}$ = maximum effective circular thickness = 4.712

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	9.00	34.083	34.109	34.059	34.102	34.022	34.092	33.960	34.076	0.8032
7	8.50	35.379	35.405	35.353	35.398	35.316	35.387	35.253	35.370	0.7832
8	8.00	38.011	38.039	37.984	38.031	37.944	38.019	37.877	38.002	0.8034
9	8.00	40.571	40.599	40.544	40.591	40.503	40.579	40.435	40.561	0.7912
10	7.50	42.958	42.987	42.929	42.979	42.886	42.966	42.814	42.946	0.8035
11	7.50	45.606	45.635	45.577	45.626	45.534	45.614	45.461	45.594	0.7953
12	7.50	49.033	49.063	49.003	49.054	48.958	49.040	48.883	49.020	0.8035
13	7.10	50.784	50.814	50.754	50.805	50.707	50.792	50.631	50.770	0.7977
14	7.10	54.129	54.159	54.097	54.150	54.050	54.135	53.971	54.113	0.8035
15	7.10	56.875	56.906	56.844	56.896	56.796	56.882	56.717	56.860	0.7991
16	7.10	60.168	60.199	60.136	60.189	60.088	60.174	60.007	60.152	0.8035
17	7.10	62.947	62.978	62.914	62.968	62.865	62.952	62.783	62.929	0.8001
18	7.10	66.201	66.233	66.168	66.222	66.119	66.207	66.036	66.183	0.8034
19	7.10	69.003	69.035	68.970	69.025	68.920	69.009	68.837	68.984	0.8008
20	7.10	72.229	72.261	72.195	72.249	72.145	72.234	72.060	72.209	0.8035
21	6.70	74.061	74.092	74.026	74.081	73.975	74.066	73.888	74.040	0.8013
22	6.70	77.250	77.291	77.224	77.279	77.172	77.263	77.083	77.237	0.8035
23	6.70	80.095	80.127	80.060	80.116	80.008	80.099	79.920	80.073	0.8017
24	6.70	83.275	83.307	83.239	83.295	83.186	83.278	83.097	83.251	0.8035
25	6.70	86.126	86.157	86.090	86.145	86.035	86.128	85.946	86.101	0.8020
26	6.70	89.288	89.321	89.253	89.308	89.197	89.291	89.107	89.264	0.8035
27	6.70	92.150	92.183	92.114	92.170	92.060	92.152	91.966	92.125	0.8022
28	6.70	95.301	95.333	95.263	95.321	95.209	95.303	95.117	95.275	0.8035
29	6.70	98.173	98.204	98.136	98.192	98.080	98.179	97.987	98.145	0.8024
30	6.70	101.312	101.344	101.275	101.331	101.219	101.312	101.126	101.284	0.8035
31	6.70	104.191	104.224	104.155	104.211	104.097	104.191	104.004	104.163	0.8025
32	6.70	107.321	107.353	107.283	107.340	107.227	107.322	107.133	107.292	0.8035
33	6.70	110.208	110.241	110.170	110.227	110.112	110.208	110.018	110.178	0.8026
34	6.70	113.329	113.363	113.292	113.349	113.235	113.329	113.139	113.299	0.8035
35	6.70	116.223	116.256	116.185	116.243	116.126	116.221	116.031	116.192	0.8027
36	6.70	119.336	119.370	119.298	119.355	119.240	119.336	119.143	119.306	0.8035
37	6.70	122.237	122.268	122.197	122.255	122.140	122.235	122.042	122.203	0.8028
38	6.70	125.345	125.376	125.305	125.362	125.247	125.341	125.148	125.309	0.8035
39	6.70	128.247	128.282	128.209	128.268	128.151	128.247	128.051	128.215	0.8029
40	6.70	131.350	131.383	131.311	131.368	131.251	131.348	131.153	131.317	0.8035
41	6.70	134.259	134.292	134.221	134.278	134.160	134.257	134.060	134.225	0.8029
42	6.70	137.356	137.388	137.315	137.373	137.255	137.354	137.157	137.320	0.8035
43	6.70	140.270	140.301	140.229	140.288	140.170	140.266	140.069	140.233	0.8030
44	6.70	143.360	143.394	143.320	143.378	143.260	143.356	143.159	143.324	0.8035
45	6.70	146.278	146.312	146.237	146.296	146.176	146.274	146.076	146.239	0.8030
46	6.70	149.367	149.399	149.325	149.383	149.264	149.362	149.162	149.327	0.8035
47	6.70	152.287	152.320	152.244	152.304	152.183	152.282	152.081	152.249	0.8031
48	6.70	155.371	155.402	155.327	155.385	155.267	155.366	155.163	155.330	0.8035
49	6.70	158.294	158.326	158.252	158.311	158.191	158.287	158.088	158.252	0.8031
50	6.70	161.374	161.407	161.334	161.389	161.269	161.369	161.164	161.334	0.8035
51	6.70	164.301	164.332	164.260	164.316	164.197	164.296	164.092	164.260	0.8031
52	6.70	167.379	167.410	167.337	167.395	167.273	167.371	167.166	167.335	0.8035
53	6.70	170.307	170.339	170.265	170.323	170.202	170.302	170.096	170.265	0.8032
54	6.70	173.381	173.414	173.338	173.397	173.274	173.373	173.169	173.338	0.8035
55	6.70	176.314	176.344	176.273	176.328	176.207	176.306	176.101	176.268	0.8032
56	6.70	179.385	179.415	179.343	179.399	179.277	179.377	179.171	179.338	0.8035
57	6.70	182.320	182.351	182.275	182.334	182.213	182.309	182.106	182.275	0.8032
58	6.70	185.388	185.420	185.343	185.403	185.280	185.377	185.171	185.343	0.8035
59	6.70	188.323	188.358	188.282	188.341	188.218	188.314	188.108	188.277	0.8032
60	6.70	191.390	191.423	191.349	191.405	191.284	191.378	191.172	191.343	0.8035
61	6.70	194.328	194.361	194.286	194.346	194.220	194.319	194.112	194.280	0.8032
62	6.70	197.394	197.424	197.351	197.406	197.284	197.382	197.175	197.345	0.8035
63	6.70	200.335	200.366	200.292	200.347	200.224	200.323	200.113	200.286	0.8033
64	6.70	203.394	203.426	203.350	203.407	203.285	203.382	203.175	203.344	0.8035
65	6.70	206.339	206.371	206.295	206.352	206.228	206.327	206.117	206.288	0.8033
66	6.70	209.399	209.431	209.354	209.412	209.289	209.386	209.176	209.347	0.8035
67	6.70	212.341	212.374	212.296	212.354	212.230	212.328	212.119	212.289	0.8033
68	6.70	215.402	215.432	215.355	215.415	215.289	215.388	215.178	215.349	0.8035
69	6.70	218.345	218.376	218.302	218.359	218.234	218.335	218.120	218.295	0.8033
70	6.70	221.403	221.431	221.356	221.417	221.288	221.390	221.179	221.349	0.8035
71	6.70	224.348	224.383	224.303	224.362	224.238	224.334	224.124	224.296	0.8033
72	6.70	227.405	227.433	227.356	227.416	227.293	227.391	227.178	227.349	0.8035
73	6.70	230.354	230.383	230.305	230.365	230.241	230.340	230.128	230.298	0.8033
74	6.70	233.406	233.435	233.359	233.417	233.291	233.392	233.177	233.349	0.8035
75	6.70	236.354	236.387	236.310	236.368	236.241	236.339	236.129	236.303	0.8033
76	6.70	239.408	239.438	239.360	239.419	239.290	239.393	239.180	239.349	0.8035
77	6.70	242.358	242.391	242.313	242.369	242.242	242.343	242.131	242.302	0.8033
78	6.70	245.407	245.441	245.362	245.419	245.291	245.392	245.178	245.351	0.8035
79	6.70	248.363	248.393	248.317	248.370	248.249	248.346	248.131	248.302	0.8033
80	6.70	251.408	251.439	251.362	251.424	251.293	251.393	251.177	251.354	0.8035
81	6.70	254.366	254.397	254.319	254.374	254.249	254.350	254.132	254.304	0.8034
82	6.70	257.408	257.439	257.364	257.423	257.297	257.392	257.179	257.352	0.8035
83	6.70	260.364	260.396	260.320	260.380	260.252	260.348	260.132	260.308	0.8034
84	6.70	263.409	263.442	263.365	263.425	263.296	263.393	263.179	263.353	0.8035
85	6.70	266.368	266.397	266.323	266.380	266.250	266.352	266.136	266.307	0.8034
86	6.70	269.414	269.447	269.364	269.422	269.299	269.398	269.179	269.352	0.8035
87	6.70	272.371	272.400	272.325	272.384	272.250	272.350	272.134	272.309	0.8034
88	6.70	275.414	275.448	275.367	275.422	275.296	275.397	275.178	275.355	0.8035
89	6.70	278.374	278.404	278.323	278.382	278.255	278.357	278.136	278.310	0.8034
90	6.70	281.418	281.443	281.368	281.426	281.297	281.400	281.177	281.353	0.8035
91	6.70	284.376	284.402	284.324	284.385	284.255	284.359	284.137	284.311	0.8034
92	6.70	287.417	287.448	287.368	287.426	287.298	287.399	287.180	287.355	0.8035
93	6.70	290.374	290.410	290.330	290.388	290.259	290.356	290.139	290.312	0.8034
94	6.70	293.420	293.447	293.367	293.429	293.295	293.398	293.178	293.353	0.8035
95	6.70	296.377	296.413	296.331	296.386	296.259	296.359	296.141	296.313	0.8034
96	6.70	299.420	299.448	299.370	299.429	299.301	299.402	299.178	299.356	0.8035
97	6.70	302.380	302.412	302.329	302.394	302.260	302.357	302.140	302.315	0.8034
98	6.70	305.420	305.453	305.369	305.430	305.299	305.397	305.178	305.350	0.8035
99	6.70	308.379	308.416	308.332	308.388	308.261	308.360	308.143	308.313	0.8034
100	6.70	311.417	311.455	311.369	311.426	311.303	311.398	311.179	311.350	0.8035

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Table 200 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 4.00

$S_{v\,max}$ = maximum effective circular thickness = 6.283

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	12.50	46.559	46.588	46.533	46.580	46.492	46.569	46.425	46.551	0.7996
7	11.80	48.216	48.245	48.189	48.237	48.148	48.225	48.079	48.207	0.7996
8	10.60	50.539	50.569	50.509	50.560	50.469	50.548	50.391	50.528	0.7997
9	10.60	53.952	53.983	53.922	53.974	53.877	53.961	53.802	53.940	0.7876
10	10.00	57.288	57.320	57.257	57.311	57.209	57.297	57.130	57.275	0.7998
11	10.00	60.819	60.851	60.787	60.842	60.739	60.827	60.659	60.805	0.7916
12	9.50	64.196	64.229	64.163	64.219	64.112	64.204	64.029	64.181	0.7998
13	9.50	67.804	67.837	67.771	67.826	67.720	67.811	67.635	67.788	0.7940
14	9.50	72.264	72.298	72.230	72.287	72.177	72.271	72.091	72.247	0.7998
15	9.50	75.927	75.960	75.891	75.949	75.839	75.933	75.751	75.908	0.7954
16	9.50	80.318	80.352	80.283	80.341	80.230	80.325	80.140	80.299	0.7998
17	9.50	84.023	84.056	83.986	84.045	83.933	84.028	83.843	84.002	0.7964
18	9.00	87.133	87.169	87.096	87.156	87.042	87.139	86.949	87.113	0.7998
19	9.00	90.869	90.905	90.832	90.892	90.776	90.874	90.684	90.847	0.7971
20	9.00	95.164	95.200	95.127	95.188	95.070	95.169	94.976	95.141	0.7998
21	9.00	98.927	98.962	98.888	98.949	98.831	98.930	98.735	98.901	0.7976
22	9.00	103.192	103.225	103.152	103.213	103.095	103.195	102.997	103.165	0.7998
23	9.00	106.974	107.008	106.936	106.996	106.877	106.977	106.780	106.946	0.7979
24	9.00	111.214	111.248	111.175	111.235	111.114	111.216	111.016	111.185	0.7998
25	9.00	115.015	115.048	114.974	115.035	114.915	115.015	114.816	114.985	0.7982
26	9.00	119.232	119.268	119.192	119.255	119.133	119.234	119.032	119.204	0.7998
27	9.00	123.048	123.083	123.008	123.069	122.948	123.050	122.846	123.018	0.7985
28	9.00	127.250	127.285	127.210	127.271	127.149	127.250	127.046	127.218	0.7998
29	9.00	131.079	131.114	131.037	131.099	130.976	131.079	130.873	131.047	0.7986
30	9.00	135.265	135.299	135.224	135.286	135.162	135.265	135.059	135.232	0.7998
31	9.00	139.105	139.140	139.063	139.125	139.001	139.103	138.896	139.072	0.7988
32	9.00	143.276	143.313	143.236	143.299	143.172	143.276	143.068	143.245	0.7998
33	9.00	147.127	147.162	147.085	147.149	147.022	147.124	146.918	147.092	0.7989
34	9.00	151.289	151.325	151.247	151.309	151.184	151.287	151.077	151.254	0.7998
35	9.00	155.148	155.185	155.106	155.168	155.043	155.146	154.936	155.111	0.7990
36	9.00	159.302	159.337	159.257	159.319	159.191	159.297	159.086	159.262	0.7998
37	9.00	163.168	163.201	163.122	163.186	163.060	163.163	162.950	163.127	0.7991
38	9.00	167.309	167.345	167.267	167.330	167.201	167.306	167.093	167.272	0.7998
39	9.00	171.181	171.219	171.138	171.203	171.074	171.179	170.964	171.144	0.7991
40	9.00	175.318	175.354	175.277	175.337	175.211	175.315	175.101	175.277	0.7998
41	9.00	179.196	179.233	179.154	179.216	179.089	179.193	178.977	179.157	0.7992
42	9.00	183.326	183.360	183.283	183.343	183.217	183.320	183.105	183.286	0.7998
43	9.00	187.211	187.246	187.167	187.228	187.099	187.205	186.988	187.170	0.7993
44	9.00	191.333	191.369	191.288	191.351	191.222	191.327	191.109	191.291	0.7998
45	9.00	195.223	195.260	195.180	195.241	195.113	195.217	194.998	195.180	0.7993
46	9.00	199.340	199.378	199.297	199.359	199.228	199.334	199.114	199.297	0.7998
47	9.00	203.236	203.268	203.189	203.252	203.122	203.227	203.008	203.189	0.7993
48	9.00	207.347	207.383	207.299	207.363	207.234	207.337	207.118	207.299	0.7998
49	8.50	209.963	209.995	209.917	209.979	209.846	209.953	209.729	209.914	0.7994
50	8.50	214.067	214.104	214.021	214.087	213.952	214.061	213.836	214.021	0.7998
51	8.50	217.971	218.005	217.924	217.985	217.854	217.961	217.736	217.921	0.7994
52	8.50	222.070	222.105	222.026	222.091	221.954	222.063	221.838	222.022	0.7998
53	8.50	225.977	226.012	225.932	225.995	225.859	225.970	225.744	225.928	0.7994
54	8.50	230.075	230.110	230.029	230.093	229.958	230.064	229.838	230.022	0.7998
55	8.50	233.985	234.017	233.938	234.003	233.866	233.974	233.751	233.931	0.7995
56	8.50	238.079	238.116	238.032	238.094	237.962	238.065	237.841	238.028	0.7998
57	8.50	241.993	242.027	241.941	242.008	241.874	241.978	241.755	241.937	0.7995
58	8.50	246.081	246.119	246.036	246.097	245.960	246.070	245.843	246.028	0.7998
59	8.50	250.000	250.039	249.950	250.015	249.877	249.984	249.758	249.946	0.7995
60	8.50	254.086	254.117	254.039	254.102	253.965	254.070	253.844	254.031	0.7998
61	8.50	258.001	258.041	257.954	258.017	257.882	257.993	257.764	257.946	0.7995
62	8.50	262.087	262.123	262.038	262.103	261.966	262.075	261.845	262.030	0.7998
63	8.50	266.007	266.044	265.958	266.023	265.884	265.995	265.766	265.950	0.7995
64	8.50	270.093	270.126	270.043	270.105	269.968	270.076	269.844	270.034	0.7998
65	8.50	274.014	274.048	273.968	274.027	273.892	274.001	273.766	273.955	0.7996
66	8.50	278.092	278.126	278.045	278.105	277.968	278.079	277.849	278.032	0.7998
67	8.50	282.019	282.054	281.968	282.032	281.898	282.002	281.769	281.959	0.7996
68	8.50	286.095	286.130	286.046	286.108	285.968	286.082	285.845	286.033	0.7998
69	8.50	290.019	290.055	289.975	290.037	289.900	290.006	289.775	289.962	0.7996
70	8.50	294.097	294.128	294.047	294.110	293.975	294.083	293.849	294.034	0.7998
71	8.50	298.028	298.060	297.973	298.037	297.900	298.010	297.777	297.964	0.7996
72	8.50	302.099	302.132	302.048	302.113	301.974	302.081	301.845	302.035	0.7998
73	8.50	306.028	306.066	305.982	306.042	305.907	306.010	305.776	305.968	0.7996
74	8.50	310.098	310.136	310.051	310.112	309.975	310.079	309.852	310.036	0.7998
75	8.50	314.034	314.068	313.982	314.049	313.905	314.015	313.780	313.972	0.7996
76	8.50	318.103	318.132	318.054	318.113	317.977	318.084	317.850	318.035	0.7998
77	8.50	322.038	322.072	321.984	322.052	321.910	322.018	321.787	321.974	0.7996
78	8.50	326.101	326.141	326.051	326.116	325.976	326.081	325.852	326.036	0.7998
79	8.50	330.038	330.079	329.988	330.054	329.912	330.018	329.786	329.973	0.7996
80	8.50	334.101	334.142	334.050	334.117	333.979	334.086	333.846	334.040	0.7998
81	8.50	338.047	338.078	337.996	338.058	337.913	338.027	337.789	337.975	0.7996
82	8.50	342.105	342.137	342.053	342.116	341.980	342.085	341.850	342.037	0.7998
83	8.50	346.050	346.082	345.997	346.060	345.918	346.029	345.786	345.976	0.7996
84	8.50	350.108	350.146	350.060	350.119	349.975	350.087	349.847	350.039	0.7998
85	8.50	354.046	354.084	353.997	354.057	353.916	354.024	353.787	353.981	0.7997
86	8.50	358.105	358.143	358.061	358.116	357.979	358.083	357.849	358.040	0.7998
87	8.50	362.052	362.085	362.002	362.063	361.928	362.030	361.792	361.980	0.7997
88	8.50	366.112	366.146	366.057	366.124	365.978	366.090	365.845	366.034	0.7998
89	8.50	370.052	370.086	370.001	370.063	369.928	370.037	369.793	369.984	0.7997
90	8.50	374.114	374.149	374.057	374.126	373.978	374.092	373.852	374.035	0.7998
91	8.50	378.058	378.087	378.006	378.064	377.926	378.029	377.793	377.983	0.7997
92	8.50	382.111	382.146	382.064	382.123	381.983	382.088	381.849	382.041	0.7998
93	8.50	386.059	386.094	386.006	386.071	385.930	386.036	385.795	385.989	0.7997
94	8.50	390.114	390.150	390.060	390.126	389.983	390.090	389.853	390.037	0.7998
95	8.50	394.061	394.097	394.013	394.073	393.929	394.037	393.797	393.989	0.7997
96	8.50	398.112	398.148	398.063	398.124	397.979	398.088	397.845	398.039	0.7998
97	8.50	402.064	402.094	402.008	402.070	401.929	402.039	401.801	401.984	0.7997
98	8.50	406.117	406.148	406.062	406.124	405.981	406.093	405.846	406.037	0.7998
99	8.50	410.062	410.099	410.012	410.074	409.931	410.037	409.800	409.987	0.7997
100	8.50	414.118	414.150	414.062	414.125	413.980	414.093	413.848	414.037	0.7998

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Table 201 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 5.00

$S_{v\,max}$ = maximum effective circular thickness = 7.854

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	15.00	56.825	56.855	56.796	56.847	56.752	56.835	56.679	56.815	0.7977
7	14.00	58.613	58.645	58.583	58.636	58.539	58.623	58.464	58.602	0.7778
8	13.20	63.067	63.099	63.038	63.090	62.987	63.076	62.907	63.055	0.7978
9	13.20	67.334	67.367	67.306	67.358	67.252	67.343	67.176	67.320	0.7857
10	12.50	71.619	71.654	71.585	71.644	71.534	71.628	71.449	71.604	0.7978
11	12.50	76.033	76.067	75.999	76.056	75.947	76.041	75.860	76.017	0.7897
12	12.50	81.745	81.781	81.709	81.769	81.657	81.753	81.567	81.728	0.7978
13	11.80	84.585	84.619	84.548	84.608	84.493	84.592	84.402	84.566	0.7920
14	11.80	90.159	90.195	90.120	90.183	90.066	90.165	89.972	90.139	0.7978
15	11.80	94.736	94.773	94.698	94.760	94.643	94.743	94.548	94.716	0.7934
16	11.80	100.225	100.262	100.187	100.249	100.128	100.230	100.033	100.204	0.7978
17	11.80	104.855	104.892	104.817	104.880	104.758	104.861	104.661	104.833	0.7944
18	11.80	110.280	110.317	110.242	110.304	110.182	110.286	110.082	110.256	0.7978
19	11.80	114.951	114.987	114.912	114.974	114.851	114.955	114.751	114.925	0.7951
20	11.80	120.326	120.364	120.287	120.350	120.226	120.330	120.123	120.299	0.7978
21	11.80	125.030	125.067	124.989	125.053	124.928	125.032	124.826	125.002	0.7956
22	11.80	130.365	130.404	130.325	130.389	130.263	130.367	130.158	130.335	0.7978
23	11.80	135.094	135.132	135.052	135.116	134.991	135.096	134.886	135.063	0.7959
24	11.80	140.398	140.437	140.357	140.421	140.293	140.400	140.189	140.368	0.7978
25	11.80	145.152	145.187	145.107	145.173	145.044	145.152	144.939	145.119	0.7962
26	11.80	150.428	150.467	150.384	150.450	150.321	150.428	150.215	150.394	0.7978
27	11.80	155.200	155.235	155.155	155.220	155.090	155.198	154.983	155.165	0.7965
28	11.80	160.455	160.491	160.411	160.475	160.344	160.452	160.236	160.419	0.7978
29	11.80	165.240	165.277	165.195	165.261	165.131	165.240	165.020	165.205	0.7966
30	11.80	170.476	170.514	170.432	170.498	170.367	170.476	170.255	170.438	0.7978
31	11.80	175.276	175.313	175.232	175.296	175.167	175.274	175.055	175.240	0.7968
32	11.80	180.498	180.532	180.452	180.518	180.383	180.492	180.273	180.457	0.7978
33	11.80	185.209	185.247	185.164	185.229	185.097	185.206	184.982	185.170	0.7969
34	11.80	190.514	190.553	190.468	190.535	190.402	190.511	190.287	190.474	0.7978
35	11.80	195.339	195.376	195.292	195.358	195.224	195.333	195.109	195.295	0.7970
36	11.80	200.531	200.569	200.486	200.550	200.416	200.524	200.302	200.486	0.7978
37	11.80	205.363	205.402	205.318	205.383	205.246	205.357	205.132	205.321	0.7971
38	11.80	210.547	210.583	210.500	210.567	210.427	210.540	210.314	210.502	0.7978
39	11.80	215.386	215.424	215.338	215.407	215.270	215.379	215.145	215.342	0.7972
40	11.80	220.559	220.594	220.510	220.580	220.441	220.552	220.323	220.510	0.7978
41	11.80	225.407	225.447	225.361	225.429	225.290	225.400	225.173	225.361	0.7972
42	11.80	230.570	230.610	230.523	230.589	230.450	230.563	230.334	230.523	0.7978
43	11.80	235.425	235.463	235.381	235.448	235.307	235.418	235.189	235.381	0.7973
44	11.80	240.582	240.619	240.536	240.601	240.461	240.574	240.340	240.532	0.7978
45	10.60	242.380	242.418	242.327	242.395	242.252	242.369	242.133	242.327	0.7973
46	10.60	247.522	247.560	247.472	247.541	247.399	247.514	247.277	247.468	0.7978
47	10.60	252.368	252.427	252.341	252.408	252.263	252.361	252.143	252.338	0.7974
48	10.60	257.527	257.567	257.479	257.543	257.404	257.519	257.281	257.472	0.7978
49	10.60	262.404	262.436	262.351	262.420	262.274	262.388	262.153	262.347	0.7974
50	10.60	267.534	267.567	267.485	267.551	267.410	267.522	267.283	267.476	0.7978
51	10.60	272.414	272.448	272.364	272.431	272.288	272.397	272.162	272.355	0.7974
52	10.60	277.527	277.576	277.486	277.554	277.409	277.529	277.285	277.481	0.7978
53	10.60	282.420	282.455	282.368	282.438	282.294	282.407	282.168	282.364	0.7975
54	10.60	287.542	287.582	287.493	287.560	287.414	287.529	287.290	287.484	0.7978
55	10.60	292.429	292.470	292.380	292.443	292.299	292.416	292.173	292.371	0.7975
56	10.60	297.547	297.583	297.496	297.565	297.418	297.533	297.290	297.487	0.7978
57	10.60	302.439	302.476	302.387	302.453	302.308	302.420	302.178	302.374	0.7975
58	10.60	307.548	307.586	307.501	307.567	307.421	307.539	307.293	307.492	0.7978
59	10.60	312.446	312.484	312.393	312.460	312.316	312.426	312.187	312.383	0.7975
60	10.60	317.553	317.592	317.504	317.573	317.426	317.539	317.290	317.495	0.7978
61	10.60	322.457	322.486	322.397	322.466	322.323	322.437	322.189	322.387	0.7975
62	10.60	327.558	327.593	327.503	327.573	327.427	327.543	327.292	327.493	0.7978
63	10.60	332.463	332.494	332.407	332.473	332.330	332.443	332.198	332.392	0.7976
64	10.60	337.560	337.601	337.508	337.575	337.425	337.544	337.296	337.497	0.7978
65	10.60	342.466	342.503	342.414	342.477	342.330	342.445	342.204	342.398	0.7976
66	10.60	347.564	347.601	347.510	347.574	347.430	347.542	347.297	347.500	0.7978
67	10.60	352.472	352.510	352.418	352.488	352.337	352.456	352.208	352.402	0.7976
68	10.60	357.566	357.604	357.511	357.577	357.434	357.544	357.298	357.500	0.7978
69	10.60	362.477	362.519	362.422	362.488	362.344	362.455	362.211	362.410	0.7976
70	10.60	367.568	367.602	367.512	367.579	367.433	367.545	367.298	367.500	0.7978
71	10.60	372.482	372.522	372.430	372.499	372.351	372.465	372.214	372.408	0.7976
72	10.60	377.570	377.605	377.518	377.582	377.437	377.547	377.305	377.501	0.7978
73	10.60	382.487	382.522	382.429	382.499	382.347	382.464	382.218	382.417	0.7976
74	10.60	387.574	387.609	387.520	387.586	387.437	387.550	387.301	387.503	0.7978
75	10.60	392.488	392.524	392.440	392.500	392.356	392.470	392.218	392.416	0.7976
76	10.60	397.580	397.616	397.519	397.592	397.440	397.555	397.300	397.501	0.7978
77	10.60	402.491	402.528	402.442	402.504	402.356	402.473	402.221	402.417	0.7976
78	10.60	407.576	407.614	407.526	407.589	407.439	407.551	407.302	407.501	0.7978
79	10.60	412.498	412.536	412.447	412.510	412.359	412.473	412.221	412.422	0.7976
80	10.60	417.576	417.614	417.525	417.589	417.442	417.557	417.302	417.500	0.7978
81	10.60	422.508	422.541	422.444	422.515	422.366	422.483	422.225	422.425	0.7977
82	10.60	427.591	427.620	427.528	427.594	427.444	427.555	427.307	427.502	0.7978
83	10.60	432.511	432.544	432.451	432.517	432.366	432.484	432.227	432.432	0.7977
84	10.60	437.584	437.617	437.524	437.590	437.443	437.557	437.303	437.504	0.7978
85	10.60	442.512	442.546	442.451	442.519	442.370	442.485	442.229	442.431	0.7977
86	10.60	447.586	447.620	447.524	447.593	447.443	447.559	447.306	447.504	0.7978
87	10.60	452.519	452.547	452.457	452.519	452.367	452.491	452.229	452.436	0.7977
88	10.60	457.588	457.623	457.532	457.602	457.448	457.560	457.302	457.504	0.7978
89	10.60	462.519	462.554	462.456	462.526	462.371	462.491	462.230	462.434	0.7977
90	10.60	467.589	467.625	467.532	467.597	467.447	467.561	467.305	467.504	0.7978
91	10.60	472.526	472.555	472.469	472.526	472.382	472.497	472.238	472.440	0.7977
92	10.60	477.592	477.628	477.534	477.599	477.446	477.563	477.308	477.504	0.7978
93	10.60	482.520	482.564	482.461	482.534	482.380	482.490	482.240	482.439	0.7977
94	10.60	487.588	487.632	487.528	487.602	487.446	487.558	487.306	487.506	0.7978
95	10.60	492.521	492.566	492.468	492.536	492.386	492.491	492.236	492.438	0.7977
96	10.60	497.592	497.630	497.539	497.600	497.448	497.562	497.297	497.509	0.7978
97	10.60	502.532	502.562	502.470	502.532	502.379	502.501	502.241	502.440	0.7977
98	10.60	507.591	507.630	507.537	507.606	507.452	507.560	507.297	507.506	0.7978
99	10.60	512.537	512.568	512.474	512.537	512.380	512.505	512.240	512.443	0.7977
100	10.60	517.592	517.631	517.536	517.607	517.450	517.560	517.308	517.505	0.7978

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Table 202 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 6.00

$S_{v\,max}$ = maximum effective circular thickness = 9.425

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	18.00	68.196	68.229	68.166	68.219	68.119	68.206	68.041	68.185	0.7966
7	17.00	70.788	70.821	70.756	70.811	70.708	70.797	70.629	70.775	0.7966
8	16.00	73.055	73.089	73.020	73.079	72.970	73.064	72.884	73.040	0.7966
9	16.00	81.175	81.210	81.140	81.200	81.089	81.183	81.002	81.159	0.7845
10	15.00	85.951	85.988	85.914	85.976	85.860	85.959	85.760	85.933	0.7966
11	15.00	91.247	91.284	91.211	91.272	91.155	91.255	91.064	91.229	0.7885
12	15.00	98.103	98.139	98.065	98.127	98.007	98.110	97.913	98.082	0.7966
13	14.00	101.126	101.163	101.088	101.151	101.028	101.132	100.931	101.105	0.7908
14	14.00	107.812	107.850	107.772	107.837	107.712	107.817	107.613	107.788	0.7966
15	14.00	113.305	113.343	113.265	113.330	113.205	113.311	113.105	113.280	0.7923
16	14.00	119.888	119.928	119.846	119.914	119.786	119.894	119.683	119.864	0.7966
17	14.00	125.445	125.483	125.404	125.470	125.341	125.449	125.238	125.418	0.7932
18	14.00	131.953	131.990	131.910	131.977	131.846	131.955	131.742	131.925	0.7966
19	14.00	137.557	137.595	137.514	137.582	137.451	137.559	137.345	137.528	0.7939
20	14.00	144.007	144.045	143.962	144.030	143.898	144.009	143.790	143.976	0.7966
21	13.20	147.667	147.707	147.622	147.691	147.555	147.669	147.446	147.634	0.7944
22	13.20	154.060	154.099	154.015	154.085	153.951	154.062	153.838	154.028	0.7966
23	13.20	159.734	159.775	159.690	159.759	159.621	159.736	159.509	159.700	0.7948
24	13.20	166.091	166.131	166.046	166.115	165.974	166.094	165.866	166.057	0.7966
25	13.20	171.793	171.831	171.746	171.815	171.678	171.793	171.563	171.754	0.7951
26	13.20	178.121	178.158	178.073	178.144	178.002	178.118	177.889	178.081	0.7966
27	13.20	183.840	183.881	183.796	183.864	183.726	183.840	183.610	183.802	0.7953
28	13.20	190.142	190.181	190.097	190.163	190.025	190.139	189.907	190.103	0.7966
29	13.20	195.885	195.925	195.838	195.906	195.767	195.882	195.649	195.844	0.7955
30	13.20	202.164	202.202	202.116	202.186	202.045	202.160	201.924	202.122	0.7966
31	13.20	207.922	207.961	207.873	207.945	207.801	207.919	207.683	207.879	0.7956
32	13.20	214.181	214.221	214.133	214.201	214.059	214.177	213.938	214.137	0.7966
33	13.20	219.967	219.007	219.978	219.978	219.834	219.949	219.713	219.911	0.7957
34	13.20	226.198	226.238	226.149	226.220	226.078	226.191	225.953	226.152	0.7966
35	13.20	231.987	232.023	231.936	232.005	231.863	231.979	231.739	231.936	0.7958
36	13.20	238.213	238.255	238.165	238.232	238.090	238.206	237.963	238.165	0.7966
37	13.20	244.014	244.052	243.960	244.029	243.884	244.006	243.762	243.960	0.7959
38	13.20	250.226	250.266	250.175	250.246	250.101	250.219	249.972	250.175	0.7966
39	13.20	256.038	256.074	255.982	256.054	255.910	256.026	255.782	255.982	0.7960
40	13.20	262.237	262.278	262.187	262.257	262.114	262.228	261.983	262.187	0.7966
41	13.20	268.057	268.095	268.007	268.074	267.932	268.049	267.802	268.003	0.7960
42	13.20	274.251	274.289	274.199	274.268	274.122	274.238	273.994	274.195	0.7966
43	13.20	280.078	280.113	280.025	280.095	279.947	280.065	279.816	280.021	0.7961
44	13.20	286.261	286.297	286.208	286.279	286.127	286.248	285.998	286.203	0.7966
45	13.20	292.097	292.133	292.042	292.115	291.960	292.083	291.833	292.033	0.7961
46	13.20	298.268	298.310	298.217	298.287	298.138	298.254	298.004	298.208	0.7966
47	13.20	304.109	304.146	304.057	304.128	303.976	304.099	303.844	304.052	0.7962
48	13.20	310.276	310.314	310.223	310.295	310.146	310.261	310.011	310.213	0.7966
49	13.20	316.127	316.167	316.068	316.142	315.990	316.106	315.853	316.064	0.7962
50	13.20	322.283	322.323	322.228	322.298	322.148	322.268	322.018	322.223	0.7966
51	13.20	328.137	328.178	328.086	328.157	328.005	328.127	327.873	328.076	0.7962
52	13.20	334.288	334.330	334.236	334.309	334.154	334.278	334.019	334.226	0.7966
53	13.20	340.151	340.193	340.098	340.166	340.014	340.135	339.882	340.087	0.7963
54	13.20	346.299	346.337	346.240	346.316	346.165	346.283	346.026	346.230	0.7966
55	13.20	352.160	352.204	352.108	352.182	352.030	352.150	351.888	352.095	0.7963
56	13.20	358.303	358.342	358.251	358.320	358.165	358.287	358.032	358.237	0.7966
57	13.20	364.175	364.214	364.118	364.192	364.034	364.158	363.899	364.102	0.7963
58	13.20	370.313	370.348	370.256	370.325	370.176	370.290	370.033	370.245	0.7966
59	13.20	376.185	376.225	376.132	376.202	376.045	376.167	375.906	376.115	0.7963
60	13.20	382.320	382.356	382.261	382.332	382.179	382.297	382.037	382.243	0.7966
61	13.20	388.192	388.228	388.138	388.204	388.054	388.174	387.917	388.120	0.7964
62	13.20	394.320	394.357	394.265	394.332	394.180	394.301	394.040	394.247	0.7966
63	13.20	400.198	400.241	400.149	400.217	400.062	400.186	399.921	400.130	0.7964
64	13.20	406.325	406.363	406.269	406.338	406.188	406.300	406.044	406.250	0.7966
65	13.20	412.212	412.250	412.154	412.224	412.072	412.186	411.932	412.135	0.7964
66	13.20	418.327	418.365	418.275	418.340	418.185	418.307	418.044	418.249	0.7966
67	13.20	424.221	424.260	424.163	424.234	424.078	424.195	423.934	424.143	0.7964
68	13.20	430.338	430.371	430.272	430.351	430.192	430.312	430.047	430.259	0.7966
69	13.20	436.228	436.269	436.166	436.242	436.081	436.202	435.940	436.148	0.7964
70	13.20	442.334	442.375	442.280	442.348	442.198	442.314	442.049	442.260	0.7966
71	13.20	448.234	448.276	448.179	448.248	448.090	448.207	447.945	448.152	0.7964
72	13.20	454.344	454.379	454.288	454.358	454.197	454.316	454.051	454.260	0.7966
73	13.20	460.240	460.282	460.183	460.254	460.099	460.212	459.950	460.155	0.7964
74	13.20	466.340	466.383	466.282	466.354	466.197	466.318	466.054	466.268	0.7966
75	13.20	472.246	472.283	472.188	472.261	472.101	472.217	471.957	472.159	0.7964
76	13.20	478.352	478.381	478.293	478.359	478.205	478.322	478.058	478.263	0.7966
77	13.20	484.255	484.285	484.196	484.262	484.106	484.225	483.958	484.166	0.7965
78	13.20	490.351	490.389	490.291	490.366	490.201	490.321	490.051	490.261	0.7966
79	13.20	496.259	496.297	496.198	496.267	496.115	496.229	495.963	496.175	0.7965
80	13.20	502.355	502.386	502.293	502.370	502.201	502.324	502.062	502.262	0.7966
81	13.20	508.267	508.298	508.205	508.267	508.111	508.236	507.964	508.174	0.7965
82	13.20	514.363	514.394	514.300	514.363	514.205	514.331	514.064	514.268	0.7966
83	13.20	520.272	520.304	520.208	520.272	520.113	520.240	519.970	520.176	0.7965
84	13.20	526.360	526.393	526.296	526.368	526.207	526.328	526.054	526.264	0.7966
85	13.20	532.267	532.316	532.218	532.283	532.120	532.242	531.973	532.185	0.7965
86	13.20	538.364	538.397	538.298	538.372	538.216	538.331	538.059	538.265	0.7966
87	13.20	544.276	544.317	544.217	544.284	544.117	544.251	543.968	544.184	0.7965
88	13.20	550.358	550.400	550.308	550.375	550.207	550.333	550.055	550.274	0.7966
89	12.50	554.456	554.498	554.405	554.473	554.304	554.432	554.152	554.372	0.7965
90	12.50	560.545	560.580	560.486	560.554	560.392	560.511	560.238	560.451	0.7966
91	12.50	566.466	566.500	566.397	566.466	566.311	566.431	566.156	566.362	0.7965
92	12.50	572.550	572.585	572.480	572.550	572.393	572.515	572.236	572.445	0.7966
93	12.50	578.468	578.504	578.398	578.468	578.310	578.433	578.152	578.371	0.7965
94	12.50	584.547	584.582	584.484	584.556	584.386	584.511	584.235	584.458	0.7966
95	12.50	590.463	590.508	590.409	590.481	590.320	590.436	590.158	590.373	0.7965
96	12.50	596.554	596.591	596.482	596.554	596.391	596.518	596.228	596.445	0.7966
97	12.50	602.469	602.506	602.414	602.487	602.322	602.432	602.158	602.377	0.7965
98	12.50	608.555	608.592	608.481	608.555	608.389	608.518	608.241	608.444	0.7966
99	12.50	614.478	614.506	614.415	614.487	614.319	614.440	614.151	614.375	0.7965
100	12.50	620.550	620.588	620.493	620.559	620.399	620.512	620.229	620.455	0.7966

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Table 203 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 8.00

$S_{v\,max}$ = maximum effective circular thickness = 12.566

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	23.60	90.053	90.089	90.019	90.078	89.967	90.063	89.881	90.038	0.7953
7	22.40	93.803	93.839	93.767	93.828	93.715	93.811	93.627	93.786	0.7954
8	21.20	101.113	101.151	101.075	101.140	101.019	101.122	100.926	101.094	0.7953
9	20.00	105.178	105.216	105.138	105.204	105.082	105.186	104.984	105.157	0.7832
10	20.00	114.616	114.654	114.575	114.642	114.515	114.622	114.414	114.593	0.7953
11	20.00	121.677	121.716	121.636	121.703	121.576	121.684	121.474	121.654	0.7872
12	19.00	128.434	128.473	128.390	128.460	128.328	128.438	128.220	128.407	0.7953
13	19.00	135.650	135.689	135.606	135.675	135.541	135.654	135.433	135.622	0.7895
14	19.00	144.569	144.611	144.525	144.596	144.459	144.574	144.349	144.540	0.7953
15	19.00	151.895	151.936	151.851	151.920	151.785	151.900	151.673	151.864	0.7910
16	18.00	158.238	158.279	158.193	158.264	158.123	158.240	158.009	158.206	0.7953
17	18.00	165.644	165.687	165.598	165.671	165.530	165.646	165.413	165.611	0.7919
18	18.00	174.312	174.355	174.267	174.338	174.196	174.315	174.078	174.278	0.7953
19	18.00	181.783	181.825	181.736	181.810	181.665	181.788	181.547	181.748	0.7926
20	18.00	190.373	190.418	190.329	190.400	190.255	190.375	190.134	190.338	0.7953
21	18.00	197.898	197.940	197.850	197.924	197.776	197.898	197.655	197.860	0.7931
22	18.00	206.430	206.470	206.380	206.454	206.304	206.427	206.184	206.387	0.7953
23	18.00	213.996	214.037	213.944	214.016	213.872	213.992	213.748	213.951	0.7935
24	18.00	222.474	222.517	222.424	222.499	222.349	222.471	222.225	222.428	0.7953
25	18.00	230.074	230.118	230.026	230.100	229.949	230.074	229.823	230.030	0.7938
26	18.00	238.514	238.556	238.464	238.537	238.388	238.510	238.259	238.464	0.7953
27	18.00	246.146	246.186	246.091	246.170	246.017	246.139	245.887	246.099	0.7940
28	18.00	254.549	254.590	254.497	254.570	254.420	254.541	254.290	254.501	0.7953
29	18.00	262.203	262.243	262.153	262.228	262.074	262.199	261.945	262.153	0.7942
30	18.00	270.581	270.624	270.525	270.598	270.448	270.572	270.315	270.529	0.7953
31	18.00	278.258	278.302	278.205	278.280	278.126	278.249	277.994	278.205	0.7943
32	18.00	286.607	286.648	286.553	286.625	286.471	286.598	286.335	286.553	0.7953
33	18.00	294.305	294.347	294.249	294.323	294.170	294.296	294.035	294.249	0.7944
34	17.00	300.092	300.134	300.035	300.110	299.951	300.082	299.820	300.035	0.7953
35	17.00	307.806	307.850	307.749	307.826	307.672	307.797	307.533	307.749	0.7945
36	17.00	316.110	316.150	316.051	316.130	315.972	316.095	315.834	316.051	0.7953
37	17.00	323.838	323.879	323.783	323.858	323.697	323.828	323.561	323.778	0.7946
38	17.00	332.126	332.166	332.068	332.146	331.980	332.109	331.846	332.063	0.7953
39	17.00	339.868	339.912	339.811	339.890	339.727	339.853	339.584	339.806	0.7947
40	17.00	348.135	348.178	348.081	348.156	347.994	348.124	347.853	348.070	0.7953
41	17.00	355.898	355.937	355.837	355.915	355.754	355.876	355.611	355.832	0.7947
42	17.00	364.147	364.192	364.090	364.170	364.006	364.136	363.865	364.079	0.7953
43	17.00	371.921	371.961	371.863	371.938	371.771	371.904	371.633	371.852	0.7948
44	17.00	380.158	380.205	380.105	380.181	380.016	380.146	379.875	380.093	0.7953
45	17.00	387.944	387.980	387.884	387.962	387.794	387.920	387.650	387.872	0.7948
46	17.00	396.173	396.210	396.111	396.185	396.026	396.154	395.879	396.099	0.7953
47	17.00	403.961	403.999	403.899	403.974	403.811	403.943	403.668	403.886	0.7949
48	17.00	412.186	412.224	412.122	412.198	412.033	412.160	411.886	412.109	0.7953
49	17.00	419.977	420.016	419.919	419.997	419.835	419.958	419.679	419.902	0.7949
50	17.00	428.188	428.227	428.135	428.207	428.042	428.174	427.897	428.115	0.7953
51	17.00	435.997	436.037	435.936	436.010	435.849	435.970	435.701	435.916	0.7949
52	17.00	444.195	444.237	444.136	444.209	444.045	444.182	443.894	444.120	0.7953
53	17.00	452.010	452.052	451.950	452.024	451.857	451.989	451.710	451.933	0.7950
54	17.00	460.207	460.249	460.143	460.221	460.058	460.185	459.902	460.128	0.7953
55	17.00	468.021	468.064	467.963	468.042	467.876	468.006	467.718	467.948	0.7950
56	17.00	476.217	476.254	476.151	476.232	476.056	476.188	475.910	476.129	0.7953
57	17.00	484.039	484.076	483.979	484.054	483.882	484.016	483.733	483.957	0.7950
58	17.00	492.223	492.261	492.163	492.238	492.064	492.193	491.913	492.132	0.7953
59	17.00	500.053	500.091	499.991	500.061	499.892	500.030	499.738	499.968	0.7950
60	17.00	508.227	508.266	508.164	508.235	508.070	508.203	507.914	508.141	0.7953
61	17.00	516.066	516.105	516.002	516.082	515.907	516.034	515.749	515.970	0.7951
62	17.00	524.238	524.276	524.173	524.246	524.077	524.206	523.916	524.141	0.7953
63	17.00	532.079	532.118	532.014	532.087	531.916	532.046	531.760	531.981	0.7951
64	17.00	540.235	540.276	540.168	540.251	540.077	540.210	539.920	540.152	0.7953
65	17.00	548.087	548.121	548.020	548.095	547.927	548.053	547.767	547.994	0.7951
66	17.00	556.244	556.278	556.176	556.253	556.082	556.210	555.920	556.150	0.7953
67	17.00	564.091	564.134	564.030	564.108	563.935	564.065	563.779	564.004	0.7951
68	17.00	572.251	572.286	572.181	572.260	572.084	572.216	571.918	572.154	0.7953
69	17.00	580.101	580.146	580.039	580.119	579.941	580.075	579.781	580.003	0.7951
70	17.00	588.257	588.293	588.185	588.257	588.095	588.221	587.932	588.149	0.7953
71	17.00	596.111	596.148	596.047	596.120	595.947	596.075	595.783	596.020	0.7951
72	17.00	604.254	604.300	604.189	604.263	604.097	604.226	603.930	604.152	0.7953
73	17.00	612.113	612.160	612.057	612.132	611.954	612.085	611.795	612.019	0.7951
74	17.00	620.253	620.300	620.196	620.272	620.101	620.224	619.930	620.158	0.7953
75	17.00	628.127	628.175	628.059	628.136	627.963	628.098	627.790	628.021	0.7952
76	17.00	636.265	636.304	636.197	636.274	636.090	636.226	635.934	636.167	0.7953
77	17.00	644.135	644.174	644.066	644.144	643.967	644.105	643.800	644.026	0.7952
78	17.00	652.265	652.302	652.202	652.282	652.102	652.232	651.923	652.162	0.7953
79	17.00	660.137	660.178	660.077	660.158	659.976	660.107	659.809	660.036	0.7952
80	17.00	668.264	668.305	668.203	668.284	668.101	668.233	667.937	668.162	0.7953
81	17.00	676.146	676.188	676.074	676.157	675.971	676.115	675.806	676.043	0.7952
82	17.00	684.274	684.315	684.211	684.274	684.106	684.232	683.939	684.169	0.7953
83	17.00	692.153	692.195	692.079	692.163	691.983	692.121	691.804	692.047	0.7952
84	17.00	700.270	700.313	700.206	700.292	700.099	700.238	699.928	700.163	0.7953
85	17.00	708.156	708.200	708.092	708.167	707.984	708.113	707.811	708.048	0.7952
86	17.00	716.276	716.320	716.210	716.287	716.101	716.232	715.926	716.167	0.7953
87	17.00	724.159	724.203	724.093	724.170	723.982	724.126	723.817	724.048	0.7952
88	17.00	732.281	732.314	732.203	732.292	732.113	732.247	731.935	732.169	0.7953
89	17.00	740.172	740.217	740.104	740.172	739.991	740.127	739.811	740.059	0.7953
90	17.00	748.274	748.320	748.206	748.297	748.115	748.252	747.932	748.172	0.7953
91	17.00	756.174	756.220	756.105	756.174	755.990	756.128	755.828	756.059	0.7952
92	17.00	764.292	764.327	764.222	764.292	764.105	764.245	763.931	764.175	0.7953
93	17.00	772.177	772.212	772.107	772.189	772.001	772.142	771.824	772.071	0.7952
94	17.00	780.287	780.323	780.216	780.299	780.109	780.252	779.931	780.180	0.7953
95	17.00	788.182	788.218	788.110	788.194	788.002	788.146	787.834	788.074	0.7952
96	17.00	796.297	796.321	796.224	796.297	796.103	796.248	795.933	796.175	0.7953
97	17.00	804.189	804.225	804.115	804.189	804.005	804.139	803.821	804.066	0.7952
98	17.00	812.284	812.334	812.210	812.297	812.111	812.247	811.938	812.173	0.7953
99	17.00	820.196	820.223	820.123	820.198	819.999	820.148	819.824	820.073	0.7952
100	17.00	828.287	828.338	828.212	828.300	828.111	828.250	827.934	828.172	0.7953

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Table 204 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
37.5 degree pressure angle — Fillet root — Module = 10.00

$S_{v\,max}$ = maximum effective circular thickness = 15.708

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	30.00	113.685	113.723	113.648	113.711	113.593	113.693	113.500	113.666	0.7947
7	20.00	117.263	117.306	117.225	117.288	117.168	117.271	117.074	117.242	0.7947
8	20.50	126.403	126.442	126.362	126.429	126.301	126.409	126.200	126.376	0.7947
9	28.00	131.482	131.524	131.442	131.511	131.378	131.489	131.275	131.457	0.7826
10	25.00	143.280	143.322	143.236	143.308	143.173	143.285	143.063	143.252	0.7947
11	25.00	152.107	152.150	152.064	152.134	151.997	152.112	151.888	152.078	0.7866
12	23.60	160.194	160.238	160.147	160.222	160.079	160.200	159.964	160.161	0.7947
13	23.60	169.213	169.256	169.167	169.239	169.098	169.216	168.981	169.179	0.7889
14	23.60	180.363	180.405	180.314	180.390	180.244	180.366	180.125	180.326	0.7947
15	23.60	189.521	189.562	189.470	189.546	189.400	189.521	189.279	189.482	0.7903
16	23.60	200.498	200.541	200.447	200.524	200.374	200.498	200.253	200.457	0.7947
17	22.40	206.822	206.866	206.775	206.849	206.697	206.822	206.572	206.783	0.7913
18	22.40	217.659	217.701	217.605	217.684	217.531	217.655	217.403	217.616	0.7947
19	22.40	226.996	227.040	226.944	227.022	226.870	226.996	226.741	226.951	0.7920
20	22.40	237.734	237.780	237.683	237.761	237.603	237.734	237.476	237.687	0.7947
21	22.40	247.137	247.185	247.089	247.165	247.009	247.137	246.877	247.093	0.7925
22	22.40	257.800	257.846	257.746	257.825	257.667	257.796	257.534	257.750	0.7947
23	22.40	267.257	267.300	267.205	267.283	267.124	267.253	266.991	267.205	0.7928
24	22.40	277.855	277.899	277.801	277.881	277.721	277.850	277.587	277.806	0.7947
25	22.40	287.359	287.400	287.303	287.382	287.221	287.350	287.083	287.303	0.7931
26	22.40	297.904	297.952	297.847	297.928	297.766	297.895	297.628	297.847	0.7947
27	22.40	307.445	307.490	307.387	307.465	307.308	307.436	307.166	307.387	0.7933
28	22.40	317.945	317.995	317.894	317.970	317.808	317.940	317.667	317.889	0.7947
29	22.40	327.518	327.565	327.466	327.539	327.378	327.508	327.237	327.456	0.7935
30	22.40	337.986	338.029	337.927	338.008	337.842	337.976	337.697	337.922	0.7947
31	22.40	347.585	347.629	347.524	347.607	347.442	347.574	347.299	347.524	0.7937
32	22.40	358.017	358.063	357.961	358.040	357.876	358.006	357.729	357.955	0.7947
33	21.20	364.598	364.644	364.541	364.621	364.450	364.587	364.308	364.538	0.7938
34	21.20	375.000	375.047	374.941	375.018	374.854	374.988	374.701	374.936	0.7947
35	21.20	384.648	384.690	384.588	384.666	384.498	384.630	384.348	384.576	0.7939
36	21.20	395.026	395.063	394.964	395.038	394.872	395.007	394.718	394.952	0.7947
37	21.20	404.685	404.735	404.622	404.710	404.533	404.672	404.382	404.615	0.7940
38	21.20	415.042	415.087	414.977	415.061	414.886	415.029	414.738	414.964	0.7947
39	21.20	424.720	424.767	424.661	424.740	424.569	424.707	424.417	424.648	0.7940
40	21.20	435.057	435.105	434.994	435.078	434.902	435.037	434.753	434.983	0.7947
41	21.20	444.753	444.795	444.698	444.774	444.602	444.740	444.450	444.677	0.7941
42	21.20	455.077	455.120	455.014	455.091	454.922	455.049	454.767	454.992	0.7947
43	21.20	464.786	464.830	464.721	464.808	464.635	464.765	464.476	464.707	0.7941
44	21.20	475.088	475.132	475.029	475.103	474.933	475.066	474.779	475.007	0.7947
45	21.20	484.813	484.858	484.745	484.835	484.655	484.790	484.497	484.730	0.7942
46	21.20	495.105	495.151	495.043	495.120	494.944	495.074	494.783	495.013	0.7947
47	21.20	504.839	504.886	504.777	504.855	504.683	504.816	504.519	504.753	0.7942
48	21.20	515.118	515.158	515.054	515.135	514.959	515.086	514.792	515.023	0.7947
49	21.20	524.857	524.905	524.792	524.873	524.695	524.840	524.541	524.776	0.7943
50	21.20	535.127	535.168	535.060	535.135	534.969	535.102	534.804	535.036	0.7947
51	21.20	544.818	544.929	544.811	544.695	544.719	544.862	544.559	544.794	0.7943
52	21.20	555.134	555.177	555.074	555.151	554.911	555.109	554.809	555.040	0.7947
53	21.20	564.902	564.945	564.841	564.910	564.736	564.875	564.571	564.806	0.7943
54	21.20	575.146	575.190	575.075	575.164	574.978	575.111	574.809	575.057	0.7947
55	21.20	584.922	584.958	584.849	584.940	584.759	584.886	584.579	584.831	0.7943
56	21.20	595.148	595.203	595.090	595.167	594.983	595.130	594.819	595.057	0.7947
57	21.20	604.933	604.980	604.868	604.952	604.766	604.905	604.598	604.840	0.7944
58	21.20	615.163	615.210	615.097	615.172	614.983	615.134	614.822	615.059	0.7947
59	21.20	624.942	624.997	624.882	624.968	624.776	624.920	624.613	624.853	0.7944
60	21.20	635.165	635.214	635.106	635.185	634.999	635.136	634.833	635.067	0.7947
61	21.20	644.973	645.012	644.893	644.973	644.794	644.933	644.616	644.864	0.7944
62	21.20	655.177	655.227	655.106	655.187	655.006	655.147	654.825	655.076	0.7947
63	21.20	664.977	665.028	664.906	664.987	664.804	664.947	664.630	664.875	0.7944
64	21.20	675.181	675.232	675.119	675.202	675.016	675.150	674.829	675.078	0.7947
65	21.20	684.995	685.038	684.922	685.006	684.817	684.953	684.638	684.890	0.7944
66	21.20	695.191	695.234	695.116	695.202	695.020	695.148	694.829	695.084	0.7947
67	21.20	704.999	705.042	704.934	705.020	704.826	704.966	704.653	704.890	0.7945
68	21.20	715.198	715.242	715.121	715.198	715.022	715.154	714.847	715.088	0.7947
69	21.20	725.021	725.065	724.943	725.021	724.843	724.976	724.666	724.910	0.7945
70	21.20	735.203	735.248	735.136	735.203	735.023	735.158	734.843	735.091	0.7947
71	21.20	745.021	745.066	744.952	745.043	744.838	744.986	744.667	744.906	0.7945
72	21.20	755.210	755.256	755.140	755.210	755.025	755.163	754.840	755.094	0.7947
73	21.20	765.039	765.080	764.962	765.044	764.857	764.998	764.670	764.927	0.7945
74	21.20	775.219	775.254	775.136	775.219	775.029	775.171	774.839	775.100	0.7947
75	21.20	785.048	785.096	784.976	785.048	784.856	785.000	784.676	784.928	0.7945
76	21.20	795.208	795.257	795.135	795.232	795.038	795.184	794.843	795.098	0.7947
77	21.20	805.057	805.106	804.983	805.057	804.860	805.007	804.687	804.933	0.7945
78	21.20	815.227	815.265	815.152	815.227	815.028	815.177	814.853	815.102	0.7947
79	21.20	825.059	825.097	824.996	825.071	824.870	825.021	824.693	824.945	0.7945
80	21.20	835.229	835.267	835.152	835.229	835.025	835.178	834.846	835.101	0.7947
81	21.20	845.068	845.120	844.991	845.068	844.888	845.017	844.674	844.939	0.7945
82	21.20	855.227	855.266	855.148	855.240	855.031	855.187	854.848	855.109	0.7947
83	21.20	865.075	865.127	864.995	865.088	864.890	865.035	864.705	864.956	0.7945
84	21.20	875.234	875.274	875.154	875.234	875.047	875.181	874.847	875.101	0.7947
85	21.20	885.092	885.119	885.010	885.092	884.889	885.037	884.700	884.956	0.7945
86	21.20	895.240	895.267	895.158	895.240	895.049	895.185	894.858	895.103	0.7947
87	21.20	905.093	905.135	905.014	905.093	904.900	905.038	904.707	904.955	0.7945
88	21.20	915.231	915.287	915.174	915.245	915.036	915.189	914.840	915.119	0.7947
89	21.20	925.094	925.137	925.014	925.109	924.911	925.052	924.714	924.967	0.7945
90	21.20	935.236	935.293	935.150	935.236	935.036	935.193	934.837	935.122	0.7947
91	21.20	945.110	945.139	945.024	945.110	944.908	945.052	944.707	944.966	0.7946
92	21.20	955.242	955.286	955.169	955.250	955.053	955.198	954.849	955.111	0.7947
93	21.20	965.098	965.157	965.039	965.127	964.921	965.068	964.716	964.980	0.7946
94	21.20	975.235	975.294	975.175	975.250	975.056	975.205	974.848	975.116	0.7947
95	21.20	985.102	985.162	985.042	985.132	984.922	985.072	984.712	984.982	0.7946
96	21.20	995.245	995.290	995.169	995.260	995.048	995.199	994.836	995.109	0.7947
97	21.20	*******	*******	*******	*******	*******	*******	*******	*******	0.7946
98	21.20	*******	*******	*******	*******	*******	*******	*******	*******	0.7947
99	21.20	*******	*******	*******	*******	*******	*******	*******	*******	0.7946
100	21.20	*******	*******	*******	*******	*******	*******	*******	*******	0.7947

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Table 205 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 0.25

$S_{v\,max}$ = maximum effective circular thickness = 0.393

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	1.12	3.614	3.621	3.605	3.618	3.592	3.612	3.571	3.604	0.7743
7	1.00	3.555	3.562	3.546	3.558	3.533	3.553	3.511	3.545	0.7678
8	0.95	3.771	3.779	3.762	3.775	3.748	3.770	3.725	3.761	0.7951
9	0.90	3.874	3.882	3.864	3.878	3.850	3.872	3.827	3.863	0.7897
10	0.90	4.179	4.183	4.165	4.179	4.151	4.173	4.126	4.164	0.8042
11	0.85	4.284	4.292	4.274	4.288	4.259	4.283	4.235	4.273	0.8015
12	0.85	4.573	4.582	4.563	4.578	4.548	4.572	4.522	4.562	0.8112
13	0.85	4.798	4.806	4.787	4.802	4.772	4.796	4.746	4.786	0.8066
14	0.80	4.968	4.976	4.957	4.972	4.941	4.966	4.915	4.956	0.8168
15	0.80	5.196	5.205	5.185	5.200	5.169	5.194	5.142	5.184	0.8131
16	0.80	5.472	5.481	5.461	5.477	5.445	5.470	5.418	5.460	0.8183
17	0.80	5.703	5.712	5.692	5.707	5.675	5.701	5.648	5.691	0.8155
18	0.80	5.976	5.985	5.965	5.980	5.948	5.974	5.920	5.963	0.8196
19	0.80	6.209	6.218	6.197	6.213	6.181	6.207	6.152	6.196	0.8173
20	0.80	6.479	6.488	6.467	6.483	6.450	6.477	6.422	6.466	0.8206
21	0.80	6.713	6.723	6.702	6.718	6.685	6.712	6.656	6.701	0.8187
22	0.75	6.967	6.976	6.955	6.971	6.937	6.965	6.908	6.954	0.8236
23	0.75	7.103	7.112	7.091	7.108	7.073	7.101	7.044	7.090	0.8220
24	0.75	7.369	7.378	7.357	7.373	7.339	7.366	7.309	7.355	0.8242
25	0.75	7.606	7.615	7.594	7.611	7.576	7.604	7.546	7.593	0.8228
26	0.75	7.870	7.880	7.858	7.875	7.840	7.868	7.810	7.857	0.8246
27	0.75	8.108	8.118	8.096	8.113	8.078	8.106	8.048	8.095	0.8234
28	0.75	8.371	8.381	8.359	8.376	8.341	8.369	8.310	8.358	0.8250
29	0.75	8.610	8.620	8.598	8.615	8.580	8.608	8.549	8.597	0.8240
30	0.75	8.873	8.883	8.860	8.878	8.842	8.870	8.811	8.859	0.8254
31	0.75	9.112	9.122	9.100	9.117	9.081	9.110	9.050	9.099	0.8244
32	0.75	9.374	9.384	9.361	9.379	9.342	9.371	9.311	9.360	0.8256
33	0.75	9.614	9.624	9.602	9.619	9.583	9.612	9.551	9.600	0.8248
34	0.75	9.875	9.885	9.862	9.880	9.843	9.872	9.811	9.860	0.8259
35	0.75	10.116	10.126	10.103	10.121	10.084	10.113	10.052	10.101	0.8252
36	0.75	10.375	10.386	10.363	10.380	10.343	10.373	10.311	10.361	0.8261
37	0.75	10.617	10.627	10.604	10.622	10.585	10.615	10.552	10.602	0.8255
38	0.75	10.876	10.886	10.863	10.881	10.844	10.874	10.811	10.862	0.8264
39	0.75	11.118	11.128	11.105	11.123	11.086	11.116	11.053	11.103	0.8258
40	0.75	11.377	11.387	11.364	11.382	11.344	11.374	11.311	11.362	0.8265
41	0.75	11.619	11.630	11.606	11.624	11.586	11.617	11.553	11.604	0.8260
42	0.75	11.878	11.888	11.864	11.882	11.844	11.875	11.811	11.863	0.8267
43	0.75	12.120	12.130	12.107	12.125	12.087	12.118	12.054	12.105	0.8262
44	0.75	12.378	12.388	12.365	12.383	12.345	12.375	12.311	12.363	0.8269
45	0.75	12.621	12.631	12.608	12.626	12.588	12.618	12.554	12.606	0.8264
46	0.75	12.878	12.889	12.865	12.883	12.845	12.876	12.811	12.863	0.8270
47	0.75	13.122	13.132	13.108	13.127	13.088	13.119	13.054	13.106	0.8266
48	0.75	13.379	13.389	13.365	13.384	13.345	13.376	13.311	13.363	0.8271
49	0.75	13.622	13.633	13.609	13.627	13.589	13.620	13.554	13.607	0.8268
50	0.75	13.879	13.890	13.866	13.884	13.845	13.876	13.811	13.864	0.8273
51	0.75	14.123	14.134	14.109	14.128	14.089	14.120	14.055	14.107	0.8269
52	0.75	14.380	14.390	14.366	14.385	14.345	14.377	14.311	14.364	0.8274
53	0.75	14.624	14.634	14.610	14.629	14.589	14.621	14.555	14.608	0.8271
54	0.75	14.880	14.891	14.866	14.885	14.845	14.877	14.811	14.864	0.8275
55	0.75	15.124	15.135	15.110	15.129	15.090	15.121	15.055	15.108	0.8272
56	0.75	15.380	15.391	15.367	15.385	15.346	15.377	15.311	15.364	0.8276
57	0.75	15.625	15.636	15.611	15.630	15.590	15.622	15.556	15.609	0.8273
58	0.75	15.881	15.891	15.867	15.886	15.846	15.877	15.810	15.864	0.8277
59	0.75	16.125	16.136	16.111	16.130	16.090	16.122	16.055	16.109	0.8274
60	0.75	16.381	16.392	16.367	16.386	16.346	16.377	16.310	16.364	0.8277
61	0.75	16.626	16.637	16.612	16.631	16.590	16.622	16.555	16.609	0.8275
62	0.75	16.881	16.892	16.867	16.886	16.846	16.878	16.810	16.864	0.8278
63	0.75	17.126	17.137	17.112	17.131	17.091	17.123	17.055	17.109	0.8276
64	0.75	17.381	17.392	17.367	17.386	17.346	17.378	17.310	17.365	0.8279
65	0.75	17.627	17.637	17.612	17.631	17.591	17.623	17.555	17.610	0.8277
66	0.75	17.882	17.892	17.867	17.886	17.846	17.878	17.810	17.864	0.8280
67	0.75	18.127	18.136	18.112	18.132	18.091	18.123	18.055	18.110	0.8278
68	0.75	18.382	18.393	18.367	18.387	18.346	18.378	18.309	18.365	0.8280
69	0.75	18.627	18.638	18.613	18.632	18.591	18.623	18.555	18.610	0.8278
70	0.75	18.882	18.893	18.868	18.887	18.846	18.878	18.809	18.864	0.8281
71	0.75	19.128	19.138	19.113	19.132	19.091	19.124	19.055	19.110	0.8279
72	0.75	19.382	19.393	19.368	19.387	19.346	19.379	19.309	19.365	0.8281
73	0.75	19.628	19.639	19.613	19.632	19.591	19.624	19.555	19.610	0.8280
74	0.75	19.882	19.893	19.868	19.887	19.845	19.878	19.809	19.864	0.8282
75	0.75	20.128	20.139	20.113	20.133	20.091	20.124	20.054	20.110	0.8280
76	0.75	20.382	20.393	20.368	20.387	20.346	20.379	20.308	20.365	0.8283
77	0.75	20.628	20.639	20.614	20.633	20.591	20.625	20.554	20.610	0.8281
78	0.75	20.883	20.894	20.868	20.887	20.846	20.878	20.808	20.865	0.8283
79	0.75	21.129	21.140	21.114	21.133	21.092	21.124	21.054	21.111	0.8282
80	0.75	21.383	21.394	21.368	21.387	21.345	21.379	21.308	21.365	0.8283
81	0.75	21.629	21.640	21.614	21.634	21.592	21.625	21.554	21.611	0.8282
82	0.75	21.883	21.894	21.868	21.887	21.845	21.879	21.808	21.864	0.8284
83	0.75	22.129	22.140	22.114	22.134	22.091	22.125	22.054	22.111	0.8283
84	0.75	22.383	22.394	22.368	22.388	22.345	22.379	22.308	22.364	0.8284
85	0.75	22.629	22.640	22.614	22.634	22.591	22.625	22.554	22.611	0.8283
86	0.75	22.883	22.894	22.868	22.888	22.845	22.879	22.807	22.864	0.8285
87	0.75	23.130	23.141	23.114	23.134	23.092	23.125	23.054	23.111	0.8284
88	0.75	23.383	23.394	23.368	23.388	23.345	23.379	23.307	23.364	0.8285
89	0.75	23.630	23.641	23.614	23.634	23.591	23.625	23.553	23.611	0.8284
90	0.75	23.883	23.894	23.868	23.888	23.845	23.879	23.807	23.864	0.8285
91	0.75	24.130	24.141	24.114	24.134	24.091	24.125	24.053	24.111	0.8284
92	0.75	24.383	24.394	24.368	24.388	24.345	24.379	24.306	24.364	0.8286
93	0.75	24.630	24.641	24.615	24.634	24.591	24.625	24.553	24.611	0.8285
94	0.75	24.883	24.894	24.868	24.888	24.845	24.879	24.806	24.864	0.8286
95	0.75	25.130	25.141	25.115	25.135	25.092	25.125	25.053	25.111	0.8285
96	0.75	25.384	25.395	25.368	25.388	25.345	25.379	25.306	25.364	0.8286
97	0.75	25.630	25.641	25.615	25.635	25.592	25.625	25.552	25.611	0.8286
98	0.75	25.883	25.895	25.868	25.888	25.845	25.879	25.806	25.864	0.8287
99	0.75	26.130	26.141	26.115	26.135	26.091	26.125	26.053	26.111	0.8286
100	0.75	26.384	26.395	26.368	26.388	26.344	26.378	26.306	26.364	0.8287

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Table 206 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 0.50

$S_{v\,max}$ = maximum effective circular thickness = 0.785

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	2.00	6.732	6.742	6.721	6.738	6.704	6.733	6.677	6.723	0.7580
7	1.80	6.698	6.708	6.687	6.704	6.670	6.699	6.642	6.689	0.7554
8	1.70	7.122	7.133	7.110	7.128	7.092	7.123	7.062	7.113	0.7683
9	1.70	7.543	7.554	7.531	7.550	7.513	7.544	7.483	7.534	0.7578
10	1.60	7.923	7.934	7.910	7.930	7.891	7.924	7.860	7.913	0.7724
11	1.60	8.361	8.372	8.348	8.368	8.329	8.362	8.298	8.351	0.7652
12	1.60	8.937	8.949	8.924	8.944	8.905	8.938	8.872	8.927	0.7737
13	1.50	9.163	9.175	9.149	9.170	9.130	9.163	9.097	9.152	0.7701
14	1.50	9.724	9.736	9.710	9.731	9.690	9.724	9.656	9.713	0.7761
15	1.50	10.180	10.192	10.166	10.187	10.146	10.180	10.112	10.169	0.7722
16	1.50	10.731	10.744	10.718	10.739	10.697	10.732	10.662	10.720	0.7767
17	1.50	11.193	11.206	11.179	11.201	11.158	11.194	11.123	11.182	0.7737
18	1.50	11.738	11.750	11.724	11.744	11.702	11.738	11.667	11.727	0.7772
19	1.50	12.204	12.217	12.190	12.212	12.168	12.204	12.133	12.192	0.7747
20	1.50	12.743	12.756	12.729	12.751	12.707	12.743	12.671	12.731	0.7776
21	1.40	12.983	12.996	12.969	12.991	12.947	12.984	12.910	12.972	0.7766
22	1.40	13.518	13.531	13.503	13.525	13.481	13.518	13.443	13.506	0.7788
23	1.40	13.990	14.003	13.975	13.998	13.953	13.990	13.915	13.978	0.7771
24	1.40	14.521	14.534	14.506	14.529	14.483	14.521	14.446	14.508	0.7790
25	1.40	14.995	15.009	14.980	15.003	14.957	14.995	14.919	14.983	0.7776
26	1.40	15.524	15.537	15.508	15.531	15.485	15.524	15.447	15.511	0.7792
27	1.40	16.000	16.013	15.985	16.008	15.962	16.000	15.923	15.987	0.7779
28	1.40	16.526	16.539	16.510	16.534	16.487	16.526	16.448	16.513	0.7793
29	1.40	17.004	17.018	16.989	17.012	16.965	17.004	16.926	16.991	0.7782
30	1.40	17.528	17.541	17.512	17.536	17.489	17.528	17.449	17.514	0.7794
31	1.40	18.008	18.021	17.992	18.015	17.968	18.007	17.929	17.994	0.7785
32	1.40	18.530	18.544	18.514	18.538	18.490	18.529	18.450	18.516	0.7795
33	1.40	19.011	19.024	18.995	19.019	18.971	19.010	18.931	18.997	0.7787
34	1.40	19.532	19.545	19.515	19.539	19.491	19.531	19.451	19.517	0.7796
35	1.40	20.013	20.027	19.997	20.021	19.973	20.013	19.932	19.999	0.7789
36	1.40	20.533	20.547	20.517	20.541	20.492	20.532	20.452	20.519	0.7797
37	1.40	21.016	21.030	21.000	21.024	20.975	21.015	20.934	21.001	0.7790
38	1.40	21.534	21.548	21.518	21.542	21.493	21.533	21.452	21.520	0.7798
39	1.40	22.018	22.032	22.002	22.026	21.977	22.017	21.936	22.003	0.7792
40	1.40	22.535	22.549	22.519	22.543	22.494	22.535	22.452	22.520	0.7798
41	1.40	23.020	23.034	23.003	23.028	22.978	23.019	22.937	23.005	0.7793
42	1.40	23.537	23.550	23.520	23.544	23.495	23.535	23.453	23.521	0.7799
43	1.40	24.022	24.036	24.005	24.029	23.980	24.021	23.938	24.007	0.7794
44	1.40	24.538	24.551	24.521	24.545	24.496	24.536	24.453	24.522	0.7800
45	1.40	25.024	25.038	25.007	25.031	24.981	25.022	24.939	25.008	0.7795
46	1.40	25.538	25.552	25.521	25.546	25.496	25.537	25.453	25.522	0.7800
47	1.40	26.025	26.039	26.008	26.033	25.982	26.023	25.939	26.009	0.7796
48	1.40	26.539	26.553	26.522	26.547	26.496	26.538	26.453	26.523	0.7800
49	1.40	27.026	27.040	27.009	27.034	26.983	27.025	26.940	27.010	0.7797
50	1.40	27.540	27.554	27.523	27.548	27.497	27.538	27.454	27.523	0.7801
51	1.40	28.028	28.042	28.010	28.035	27.984	28.026	27.941	28.011	0.7797
52	1.40	28.540	28.555	28.523	28.548	28.497	28.539	28.454	28.524	0.7801
53	1.40	29.029	29.043	29.011	29.036	28.985	29.027	28.941	29.012	0.7798
54	1.40	29.541	29.555	29.524	29.549	29.497	29.539	29.453	29.524	0.7802
55	1.40	30.030	30.044	30.012	30.037	29.986	30.028	29.942	30.013	0.7799
56	1.40	30.542	30.556	30.524	30.549	30.498	30.540	30.453	30.525	0.7802
57	1.40	31.031	31.045	31.013	31.038	30.987	31.028	30.942	31.013	0.7799
58	1.40	31.542	31.556	31.525	31.549	31.498	31.540	31.453	31.525	0.7802
59	1.40	32.032	32.046	32.014	32.039	31.987	32.029	31.942	32.014	0.7800
60	1.40	32.543	32.557	32.525	32.550	32.498	32.540	32.453	32.525	0.7802
61	1.40	33.033	33.047	33.015	33.040	32.988	33.030	32.943	33.015	0.7800
62	1.40	33.544	33.558	33.525	33.550	33.498	33.541	33.453	33.525	0.7803
63	1.40	34.033	34.048	34.015	34.040	33.988	34.031	33.943	34.015	0.7800
64	1.40	34.544	34.558	34.526	34.551	34.498	34.541	34.453	34.525	0.7803
65	1.40	35.034	35.048	35.016	35.041	34.989	35.031	34.943	35.015	0.7801
66	1.40	35.544	35.558	35.526	35.551	35.498	35.541	35.453	35.525	0.7803
67	1.40	36.035	36.049	36.016	36.042	35.989	36.032	35.943	36.015	0.7801
68	1.40	36.545	36.559	36.526	36.551	36.499	36.541	36.453	36.525	0.7803
69	1.40	37.035	37.050	37.017	37.043	36.989	37.032	36.944	37.016	0.7801
70	1.40	37.545	37.559	37.526	37.552	37.499	37.542	37.452	37.526	0.7804
71	1.40	38.036	38.050	38.018	38.043	37.990	38.033	37.943	38.016	0.7802
72	1.40	38.545	38.559	38.526	38.552	38.499	38.542	38.453	38.526	0.7804
73	1.40	39.036	39.051	39.018	39.043	38.990	39.033	38.944	39.017	0.7802
74	1.40	39.546	39.560	39.527	39.552	39.499	39.542	39.452	39.525	0.7804
75	1.40	40.037	40.051	40.018	40.044	39.990	40.034	39.943	40.017	0.7802
76	1.40	40.546	40.560	40.527	40.552	40.499	40.542	40.452	40.526	0.7804
77	1.40	41.038	41.052	41.019	41.045	40.990	41.034	40.943	41.017	0.7803
78	1.40	41.546	41.560	41.527	41.553	41.499	41.542	41.452	41.525	0.7804
79	1.40	42.038	42.052	42.019	42.045	41.991	42.034	41.943	42.018	0.7803
80	1.40	42.547	42.560	42.527	42.553	42.499	42.542	42.451	42.525	0.7804
81	1.40	43.039	43.053	43.020	43.045	42.991	43.034	42.944	43.018	0.7803
82	1.40	43.547	43.561	43.528	43.553	43.499	43.542	43.451	43.526	0.7805
83	1.40	44.039	44.053	44.020	44.046	43.992	44.034	43.943	44.018	0.7803
84	1.40	44.547	44.561	44.527	44.553	44.499	44.543	44.451	44.526	0.7805
85	1.40	45.040	45.054	45.020	45.046	44.991	45.035	44.943	45.018	0.7804
86	1.40	45.547	45.562	45.528	45.553	45.499	45.543	45.451	45.525	0.7805
87	1.40	46.039	46.054	46.020	46.046	45.992	46.036	45.943	46.018	0.7804
88	1.40	46.547	46.562	46.527	46.553	46.499	46.542	46.451	46.526	0.7805
89	1.40	47.040	47.055	47.021	47.046	46.992	47.036	46.943	47.018	0.7804
90	1.40	47.547	47.562	47.527	47.554	47.499	47.543	47.450	47.526	0.7805
91	1.40	48.041	48.055	48.021	48.046	47.992	48.036	47.943	48.019	0.7804
92	1.40	48.548	48.562	48.528	48.553	48.498	48.543	48.450	48.525	0.7805
93	1.40	49.041	49.055	49.021	49.047	48.992	49.036	48.943	49.018	0.7804
94	1.40	49.548	49.562	49.528	49.554	49.499	49.543	49.450	49.525	0.7805
95	1.40	50.041	50.056	50.022	50.048	49.992	50.036	49.943	50.019	0.7804
96	1.40	50.548	50.562	50.528	50.554	50.499	50.543	50.449	50.525	0.7805
97	1.40	51.041	51.056	51.021	51.048	50.992	51.036	50.943	51.018	0.7805
98	1.40	51.548	51.562	51.528	51.554	51.498	51.542	51.449	51.525	0.7806
99	1.40	52.041	52.056	52.022	52.048	51.992	52.036	51.942	52.019	0.7805
100	1.40	52.548	52.563	52.528	52.554	52.499	52.543	52.449	52.525	0.7806

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Table 207 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 0.75

$S_{v\,max}$ = maximum effective circular thickness = 1.178

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max (aux)	7 h min.	7 h max. (aux)	K_e Approxi-tion factor
6	3.00	10.104	10.116	10.091	10.112	10.072	10.106	10.041	10.097	0.7443
7	2.65	9.947	9.960	9.934	9.956	9.915	9.950	9.883	9.940	0.7299
8	2.50	10.581	10.594	10.567	10.590	10.547	10.583	10.513	10.573	0.7509
9	2.36	10.908	10.922	10.895	10.917	10.874	10.911	10.839	10.900	0.7417
10	2.36	11.803	11.817	11.789	11.812	11.767	11.805	11.731	11.794	0.7531
11	2.24	12.195	12.209	12.181	12.204	12.159	12.197	12.122	12.186	0.7466
12	2.24	13.056	13.070	13.041	13.065	13.019	13.058	12.981	13.047	0.7546
13	2.24	13.729	13.744	13.714	13.739	13.692	13.732	13.654	13.720	0.7493
14	2.24	14.571	14.585	14.555	14.580	14.532	14.573	14.493	14.561	0.7550
15	2.12	14.984	14.999	14.969	14.994	14.945	14.986	14.906	14.974	0.7517
16	2.12	15.810	15.825	15.794	15.820	15.770	15.812	15.730	15.800	0.7559
17	2.12	16.503	16.518	16.487	16.512	16.463	16.505	16.422	16.492	0.7528
18	2.12	17.318	17.334	17.302	17.328	17.278	17.320	17.237	17.307	0.7561
19	2.12	18.018	18.033	18.001	18.027	17.976	18.019	17.935	18.006	0.7536
20	2.12	18.825	18.841	18.809	18.835	18.784	18.827	18.745	18.814	0.7563
21	2.12	19.530	19.545	19.513	19.539	19.488	19.531	19.446	19.518	0.7543
22	2.12	20.331	20.347	20.314	20.341	20.289	20.333	20.246	20.319	0.7564
23	2.12	21.040	21.055	21.023	21.049	20.997	21.041	20.954	21.027	0.7547
24	2.12	21.836	21.852	21.819	21.846	21.793	21.838	21.750	21.824	0.7565
25	2.00	22.270	22.286	22.253	22.280	22.227	22.272	22.183	22.258	0.7555
26	2.00	23.062	23.078	23.045	23.072	23.018	23.063	22.974	23.049	0.7570
27	2.00	23.777	23.793	23.759	23.787	23.733	23.778	23.689	23.764	0.7558
28	2.00	24.565	24.581	24.548	24.575	24.521	24.569	24.476	24.552	0.7571
29	2.00	25.283	25.299	25.265	25.292	25.238	25.283	25.193	25.266	0.7560
30	2.00	26.068	26.084	26.050	26.078	26.023	26.069	25.978	26.054	0.7571
31	2.00	26.788	26.804	26.770	26.797	26.742	26.788	26.697	26.774	0.7562
32	2.00	27.571	27.587	27.552	27.580	27.525	27.571	27.479	27.557	0.7572
33	2.00	28.292	28.308	28.273	28.302	28.246	28.292	28.200	28.277	0.7563
34	2.00	29.073	29.089	29.054	29.083	29.026	29.073	28.980	29.058	0.7572
35	2.00	29.796	29.812	29.777	29.805	29.749	29.796	29.703	29.781	0.7564
36	2.00	30.575	30.591	30.556	30.584	30.528	30.575	30.481	30.560	0.7572
37	2.00	31.299	31.316	31.281	31.309	31.252	31.299	31.205	31.284	0.7566
38	2.00	32.077	32.093	32.057	32.086	32.030	32.076	31.982	32.061	0.7573
39	2.00	32.802	32.819	32.783	32.812	32.755	32.802	32.707	32.787	0.7567
40	2.00	33.578	33.594	33.559	33.588	33.531	33.578	33.483	33.562	0.7573
41	2.00	34.305	34.321	34.286	34.315	34.257	34.305	34.209	34.289	0.7567
42	2.00	35.079	35.096	35.060	35.089	35.031	35.079	34.983	35.063	0.7573
43	2.00	35.807	35.824	35.789	35.817	35.759	35.807	35.711	35.791	0.7568
44	2.00	36.581	36.597	36.561	36.590	36.533	36.580	36.483	36.564	0.7573
45	2.00	37.310	37.326	37.291	37.319	37.261	37.309	37.212	37.293	0.7569
46	2.00	38.082	38.098	38.062	38.091	38.033	38.081	37.984	38.065	0.7573
47	2.00	38.812	38.828	38.792	38.821	38.763	38.811	38.713	38.794	0.7569
48	2.00	39.583	39.600	39.563	39.592	39.534	39.582	39.484	39.566	0.7574
49	2.00	40.314	40.330	40.294	40.323	40.264	40.312	40.214	40.296	0.7570
50	2.00	41.084	41.101	41.065	41.093	41.034	41.083	40.985	41.066	0.7574
51	2.00	41.816	41.832	41.796	41.824	41.766	41.814	41.715	41.798	0.7570
52	2.00	42.585	42.601	42.566	42.594	42.535	42.583	42.485	42.566	0.7574
53	2.00	43.317	43.334	43.297	43.326	43.267	43.315	43.216	43.299	0.7571
54	2.00	44.086	44.103	44.065	44.095	44.035	44.084	43.984	44.067	0.7574
55	2.00	44.819	44.835	44.798	44.828	44.768	44.817	44.718	44.800	0.7571
56	2.00	45.587	45.603	45.567	45.595	45.536	45.585	45.485	45.568	0.7574
57	2.00	46.320	46.336	46.300	46.329	46.269	46.318	46.218	46.301	0.7571
58	2.00	47.088	47.104	47.067	47.096	47.036	47.085	46.985	47.068	0.7574
59	2.00	47.821	47.838	47.801	47.830	47.770	47.819	47.719	47.802	0.7572
60	2.00	48.588	48.604	48.567	48.597	48.536	48.586	48.485	48.568	0.7574
61	2.00	49.323	49.339	49.302	49.331	49.271	49.320	49.219	49.302	0.7572
62	2.00	50.089	50.105	50.068	50.097	50.037	50.086	49.985	50.069	0.7575
63	2.00	50.824	50.840	50.803	50.832	50.772	50.821	50.719	50.803	0.7572
64	2.00	51.589	51.606	51.569	51.597	51.537	51.586	51.484	51.569	0.7575
65	2.00	52.325	52.341	52.304	52.334	52.272	52.322	52.220	52.304	0.7573
66	2.00	53.090	53.106	53.069	53.098	53.037	53.087	52.984	53.069	0.7575
67	2.00	53.826	53.842	53.805	53.834	53.774	53.823	53.720	53.805	0.7573
68	2.00	54.590	54.607	54.569	54.599	54.538	54.587	54.485	54.569	0.7575
69	2.00	55.326	55.343	55.306	55.335	55.274	55.323	55.221	55.306	0.7573
70	2.00	56.091	56.107	56.070	56.099	56.037	56.088	55.984	56.069	0.7575
71	2.00	56.828	56.844	56.806	56.836	56.774	56.824	56.721	56.806	0.7573
72	2.00	57.592	57.608	57.570	57.600	57.538	57.587	57.484	57.569	0.7575
73	2.00	58.328	58.345	58.306	58.337	58.275	58.325	58.221	58.306	0.7573
74	2.00	59.092	59.108	59.070	59.099	59.038	59.087	58.984	59.069	0.7575
75	2.00	59.829	59.845	59.808	59.837	59.775	59.825	59.721	59.807	0.7573
76	2.00	60.592	60.609	60.570	60.600	60.537	60.588	60.484	60.569	0.7575
77	2.00	61.329	61.347	61.309	61.338	61.276	61.326	61.221	61.307	0.7574
78	2.00	62.093	62.109	62.070	62.100	62.038	62.088	61.984	62.069	0.7575
79	2.00	62.830	62.847	62.809	62.839	62.776	62.826	62.721	62.807	0.7574
80	2.00	63.593	63.609	63.571	63.601	63.539	63.588	63.483	63.569	0.7575
81	2.00	64.331	64.347	64.309	64.338	64.277	64.327	64.222	64.308	0.7574
82	2.00	65.093	65.109	65.071	65.100	65.038	65.089	64.983	65.069	0.7575
83	2.00	65.832	65.848	65.810	65.839	65.777	65.827	65.721	65.807	0.7574
84	2.00	66.593	66.610	66.572	66.601	66.539	66.589	66.483	66.569	0.7575
85	2.00	67.332	67.348	67.311	67.340	67.277	67.327	67.221	67.308	0.7574
86	2.00	68.093	68.110	68.071	68.101	68.038	68.089	67.982	68.069	0.7575
87	2.00	68.833	68.849	68.811	68.840	68.777	68.827	68.722	68.808	0.7574
88	2.00	69.594	69.611	69.572	69.601	69.539	69.588	69.482	69.569	0.7576
89	2.00	70.333	70.350	70.311	70.340	70.277	70.328	70.222	70.308	0.7574
90	2.00	71.094	71.110	71.072	71.102	71.038	71.089	70.982	71.070	0.7576
91	2.00	71.834	71.850	71.811	71.841	71.778	71.828	71.721	71.808	0.7574
92	2.00	72.594	72.610	72.571	72.601	72.538	72.589	72.482	72.568	0.7576
93	2.00	73.334	73.350	73.311	73.341	73.278	73.328	73.222	73.309	0.7575
94	2.00	74.095	74.111	74.072	74.101	74.038	74.089	73.982	74.069	0.7576
95	2.00	74.834	74.851	74.812	74.842	74.778	74.828	74.722	74.809	0.7575
96	2.00	75.594	75.611	75.572	75.602	75.538	75.588	75.481	75.569	0.7576
97	2.00	76.335	76.351	76.312	76.342	76.279	76.329	76.221	76.309	0.7575
98	2.00	77.096	77.111	77.073	77.102	77.038	77.089	76.981	77.068	0.7576
99	2.00	77.835	77.852	77.813	77.843	77.778	77.829	77.721	77.809	0.7575
100	2.00	78.595	78.611	78.572	78.602	78.538	78.589	78.480	78.569	0.7576

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Table 208 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 1.00

$S_{v\,max}$ = maximum effective circular thickness = 1.571

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	3.75	12.946	12.960	12.932	12.956	12.911	12.950	12.876	12.939	0.7369
7	3.55	13.303	13.317	13.289	13.313	13.268	13.307	13.233	13.296	0.7201
8	3.35	14.149	14.164	14.134	14.159	14.112	14.153	14.074	14.142	0.7400
9	3.15	14.557	14.572	14.542	14.568	14.519	14.561	14.481	14.549	0.7299
10	3.00	15.418	15.434	15.403	15.429	15.379	15.422	15.339	15.410	0.7420
11	3.00	16.295	16.311	16.279	16.306	16.255	16.298	16.215	16.287	0.7346
12	3.00	17.344	17.360	17.327	17.355	17.303	17.347	17.261	17.335	0.7424
13	3.00	18.341	18.358	18.325	18.352	18.300	18.345	18.258	18.332	0.7371
14	2.80	19.012	19.029	18.995	19.023	18.969	19.015	18.926	19.002	0.7432
15	2.80	19.925	19.941	19.908	19.936	19.882	19.928	19.839	19.915	0.7392
16	2.80	21.026	21.042	21.008	21.037	20.982	21.028	20.938	21.015	0.7433
17	2.80	21.949	21.966	21.932	21.960	21.905	21.952	21.861	21.939	0.7402
18	2.80	23.037	23.054	23.018	23.048	22.992	23.039	22.946	23.026	0.7434
19	2.80	23.969	23.986	23.951	23.980	23.924	23.971	23.878	23.957	0.7409
20	2.80	25.046	25.063	25.027	25.057	25.000	25.048	24.954	25.034	0.7435
21	2.80	25.985	26.002	25.966	25.996	25.938	25.987	25.892	25.973	0.7415
22	2.65	26.708	26.725	26.689	26.719	26.660	26.709	26.613	26.695	0.7439
23	2.65	27.652	27.669	27.633	27.663	27.605	27.654	27.557	27.640	0.7422
24	2.65	28.713	28.730	28.694	28.724	28.665	28.715	28.617	28.700	0.7439
25	2.65	29.662	29.680	29.643	29.673	29.614	29.664	29.566	29.649	0.7425
26	2.65	30.718	30.736	30.698	30.729	30.669	30.719	30.621	30.704	0.7440
27	2.65	31.671	31.689	31.651	31.682	31.622	31.672	31.573	31.657	0.7427
28	2.65	32.722	32.740	32.702	32.733	32.673	32.724	32.623	32.708	0.7440
29	2.65	33.679	33.696	33.659	33.689	33.629	33.680	33.580	33.664	0.7429
30	2.65	34.726	34.744	34.706	34.736	34.676	34.727	34.626	34.711	0.7440
31	2.65	35.685	35.703	35.665	35.696	35.635	35.686	35.585	35.670	0.7431
32	2.65	36.729	36.747	36.709	36.740	36.678	36.730	36.628	36.714	0.7440
33	2.65	37.691	37.709	37.671	37.701	37.640	37.693	37.589	37.676	0.7432
34	2.65	38.732	38.750	38.711	38.743	38.681	38.732	38.629	38.717	0.7441
35	2.65	39.696	39.714	39.675	39.707	39.645	39.696	39.593	39.680	0.7433
36	2.65	40.734	40.753	40.714	40.745	40.683	40.735	40.631	40.719	0.7441
37	2.65	41.701	41.719	41.680	41.711	41.649	41.701	41.597	41.684	0.7434
38	2.65	42.737	42.755	42.716	42.747	42.685	42.737	42.632	42.721	0.7441
39	2.65	43.704	43.723	43.684	43.715	43.652	43.704	43.600	43.688	0.7435
40	2.65	44.739	44.757	44.718	44.749	44.686	44.739	44.634	44.722	0.7441
41	2.65	45.708	45.727	45.687	45.718	45.656	45.708	45.602	45.691	0.7436
42	2.65	46.741	46.759	46.720	46.751	46.688	46.741	46.636	46.724	0.7441
43	2.65	47.712	47.729	47.690	47.722	47.658	47.711	47.605	47.694	0.7436
44	2.65	48.743	48.761	48.721	48.753	48.689	48.742	48.636	48.725	0.7441
45	2.65	49.715	49.733	49.693	49.725	49.661	49.714	49.607	49.696	0.7437
46	2.65	50.744	50.763	50.723	50.755	50.690	50.743	50.636	50.726	0.7442
47	2.65	51.717	51.736	51.696	51.728	51.663	51.716	51.609	51.699	0.7438
48	2.65	52.746	52.764	52.724	52.755	52.691	52.745	52.637	52.727	0.7442
49	2.65	53.720	53.738	53.698	53.730	53.665	53.719	53.611	53.701	0.7438
50	2.65	54.747	54.765	54.725	54.757	54.692	54.746	54.637	54.727	0.7442
51	2.65	55.722	55.740	55.701	55.732	55.668	55.721	55.612	55.703	0.7438
52	2.65	56.749	56.767	56.726	56.758	56.693	56.746	56.637	56.728	0.7442
53	2.65	57.725	57.743	57.702	57.735	57.669	57.723	57.613	57.705	0.7439
54	2.65	58.749	58.768	58.727	58.760	58.694	58.748	58.637	58.729	0.7442
55	2.65	59.726	59.745	59.705	59.736	59.671	59.725	59.615	59.706	0.7439
56	2.65	60.751	60.768	60.728	60.760	60.694	60.749	60.638	60.729	0.7442
57	2.65	61.729	61.746	61.706	61.738	61.672	61.727	61.615	61.707	0.7439
58	2.65	62.752	62.769	62.729	62.761	62.695	62.749	62.638	62.730	0.7442
59	2.65	63.731	63.749	63.708	63.740	63.673	63.728	63.617	63.709	0.7440
60	2.65	64.753	64.771	64.730	64.762	64.696	64.750	64.638	64.731	0.7442
61	2.65	65.731	65.750	65.709	65.741	65.675	65.729	65.617	65.710	0.7440
62	2.65	66.753	66.771	66.731	66.763	66.696	66.751	66.639	66.731	0.7442
63	2.65	67.733	67.752	67.710	67.743	67.676	67.731	67.618	67.712	0.7440
64	2.65	68.754	68.772	68.730	68.763	68.696	68.751	68.639	68.732	0.7442
65	2.65	69.735	69.753	69.711	69.744	69.677	69.732	69.620	69.711	0.7440
66	2.65	70.754	70.773	70.732	70.764	70.697	70.752	70.639	70.732	0.7442
67	2.65	71.736	71.754	71.713	71.746	71.679	71.733	71.620	71.713	0.7440
68	2.65	72.756	72.773	72.732	72.764	72.698	72.751	72.638	72.732	0.7443
69	2.65	73.737	73.755	73.714	73.746	73.679	73.734	73.620	73.714	0.7441
70	2.65	74.756	74.774	74.732	74.765	74.697	74.752	74.639	74.732	0.7443
71	2.65	75.738	75.756	75.716	75.747	75.679	75.735	75.621	75.714	0.7441
72	2.65	76.757	76.775	76.734	76.766	76.697	76.752	76.639	76.732	0.7443
73	2.65	77.739	77.758	77.716	77.748	77.680	77.735	77.622	77.714	0.7441
74	2.65	78.757	78.776	78.734	78.767	78.698	78.752	78.638	78.732	0.7443
75	2.65	79.740	79.759	79.716	79.750	79.681	79.736	79.621	79.716	0.7441
76	2.65	80.758	80.775	80.734	80.766	80.698	80.753	80.639	80.732	0.7443
77	2.65	81.741	81.759	81.718	81.750	81.682	81.736	81.623	81.717	0.7441
78	2.65	82.759	82.777	82.734	82.767	82.698	82.754	82.639	82.732	0.7443
79	2.65	83.743	83.761	83.718	83.751	83.683	83.738	83.622	83.716	0.7441
80	2.65	84.759	84.777	84.735	84.767	84.698	84.754	84.638	84.733	0.7443
81	2.65	85.744	85.761	85.720	85.752	85.683	85.739	85.623	85.717	0.7441
82	2.65	86.760	86.777	86.735	86.768	86.699	86.754	86.637	86.732	0.7443
83	2.65	87.744	87.762	87.720	87.753	87.683	87.739	87.622	87.718	0.7441
84	2.65	88.760	88.778	88.735	88.769	88.698	88.755	88.638	88.733	0.7443
85	2.65	89.745	89.763	89.720	89.753	89.684	89.740	89.622	89.718	0.7442
86	2.65	90.760	90.778	90.736	90.769	90.698	90.754	90.637	90.732	0.7443
87	2.65	91.746	91.764	91.721	91.753	91.684	91.740	91.624	91.718	0.7442
88	2.65	92.761	92.779	92.737	92.768	92.700	92.755	92.637	92.733	0.7443
89	2.65	93.745	93.765	93.722	93.754	93.685	93.741	93.623	93.718	0.7442
90	2.65	94.761	94.778	94.736	94.769	94.699	94.754	94.637	94.733	0.7443
91	2.65	95.746	95.765	95.722	95.755	95.686	95.741	95.623	95.720	0.7442
92	2.65	96.760	96.780	96.736	96.768	96.699	96.755	96.638	96.733	0.7443
93	2.65	97.748	97.766	97.723	97.756	97.686	97.741	97.623	97.719	0.7442
94	2.65	98.761	98.779	98.737	98.769	98.698	98.755	98.638	98.733	0.7443
95	2.65	99.748	99.766	99.723	99.756	99.685	99.742	99.624	99.719	0.7442
96	2.65	100.762	100.780	100.736	100.770	100.700	100.754	100.636	100.732	0.7443
97	2.65	101.749	101.767	101.725	101.757	101.686	101.743	101.624	101.720	0.7442
98	2.65	102.761	102.779	102.737	102.769	102.700	102.755	102.637	102.733	0.7443
99	2.65	103.749	103.768	103.725	103.758	103.686	103.743	103.624	103.721	0.7442
100	2.65	104.763	104.779	104.738	104.769	104.699	104.754	104.636	104.731	0.7443

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Table 209 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 1.25

$S_{v\,max}$ = maximum effective circular thickness = 1.963

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	4.75	16.320	16.335	16.305	16.331	16.282	16.324	16.244	16.313	0.7306
7	4.25	16.235	16.250	16.219	16.248	16.196	16.239	16.158	16.228	0.7140
8	4.00	17.282	17.299	17.266	17.294	17.242	17.287	17.201	17.275	0.7333
9	4.00	18.337	18.353	18.320	18.348	18.296	18.341	18.254	18.329	0.7224
10	3.75	19.278	19.295	19.260	19.289	19.235	19.282	19.192	19.269	0.7342
11	3.75	20.374	20.391	20.356	20.385	20.330	20.378	20.287	20.365	0.7269
12	3.55	21.361	21.379	21.343	21.374	21.317	21.365	21.272	21.352	0.7348
13	3.55	22.484	22.502	22.466	22.496	22.439	22.488	22.394	22.475	0.7295
14	3.55	23.883	23.901	23.865	23.895	23.837	23.887	23.791	23.873	0.7350
15	3.55	25.024	25.042	25.006	25.036	24.978	25.028	24.931	25.014	0.7310
16	3.55	26.401	26.419	26.382	26.413	26.353	26.404	26.306	26.390	0.7351
17	3.55	27.555	27.574	27.536	27.568	27.508	27.559	27.460	27.545	0.7320
18	3.35	28.457	28.476	28.438	28.470	28.409	28.461	28.360	28.446	0.7354
19	3.35	29.623	29.641	29.603	29.635	29.574	29.626	29.524	29.611	0.7329
20	3.35	30.968	30.986	30.948	30.980	30.918	30.970	30.868	30.956	0.7354
21	3.35	32.142	32.160	32.122	32.154	32.091	32.144	32.041	32.129	0.7334
22	3.35	33.476	33.495	33.456	33.488	33.425	33.479	33.375	33.464	0.7355
23	3.35	34.657	34.676	34.636	34.669	34.606	34.659	34.555	34.644	0.7338
24	3.35	35.984	36.003	35.963	35.996	35.932	35.986	35.880	35.970	0.7355
25	3.35	37.170	37.189	37.149	37.182	37.118	37.172	37.066	37.156	0.7341
26	3.35	38.490	38.509	38.469	38.502	38.437	38.492	38.385	38.476	0.7356
27	3.35	39.681	39.700	39.660	39.693	39.629	39.683	39.576	39.667	0.7343
28	3.35	40.996	41.015	40.974	41.008	40.943	40.997	40.889	40.981	0.7356
29	3.35	42.191	42.210	42.169	42.203	42.137	42.193	42.084	42.176	0.7345
30	3.35	43.500	43.520	43.479	43.512	43.446	43.502	43.393	43.485	0.7356
31	3.35	44.700	44.719	44.678	44.712	44.646	44.700	44.591	44.684	0.7347
32	3.35	46.004	46.024	45.983	46.017	45.950	46.005	45.896	45.988	0.7356
33	3.35	47.207	47.226	47.185	47.219	47.153	47.208	47.098	47.191	0.7348
34	3.35	48.508	48.528	48.487	48.520	48.453	48.509	48.398	48.492	0.7356
35	3.35	49.714	49.733	49.691	49.725	49.658	49.714	49.602	49.697	0.7349
36	3.35	51.012	51.031	50.990	51.024	50.956	51.012	50.901	50.995	0.7357
37	3.35	52.220	52.239	52.198	52.231	52.164	52.220	52.108	52.202	0.7350
38	3.35	53.515	53.535	53.492	53.527	53.459	53.515	53.402	53.498	0.7357
39	3.35	54.725	54.745	54.702	54.736	54.668	54.725	54.612	54.707	0.7351
40	3.15	55.548	55.567	55.525	55.559	55.490	55.547	55.433	55.529	0.7358
41	3.15	56.759	56.778	56.736	56.770	56.702	56.759	56.644	56.741	0.7352
42	3.15	58.050	58.069	58.026	58.061	57.992	58.049	57.934	58.031	0.7358
43	3.15	59.263	59.282	59.240	59.274	59.205	59.262	59.148	59.244	0.7353
44	3.15	60.552	60.571	60.528	60.562	60.493	60.550	60.435	60.532	0.7358
45	3.15	61.767	61.786	61.743	61.777	61.709	61.766	61.649	61.747	0.7354
46	3.15	63.053	63.073	63.030	63.064	62.995	63.052	62.935	63.033	0.7358
47	3.15	64.269	64.289	64.246	64.281	64.211	64.268	64.152	64.250	0.7354
48	3.15	65.554	65.574	65.531	65.565	65.495	65.553	65.436	65.533	0.7358
49	3.15	66.772	66.792	66.750	66.783	66.713	66.771	66.654	66.752	0.7354
50	3.15	68.056	68.075	68.032	68.067	67.996	68.055	67.937	68.034	0.7358
51	3.15	69.276	69.295	69.252	69.286	69.216	69.273	69.155	69.254	0.7355
52	3.15	70.558	70.577	70.534	70.568	70.497	70.555	70.438	70.535	0.7358
53	3.15	71.778	71.798	71.753	71.788	71.718	71.776	71.658	71.756	0.7355
54	3.15	73.058	73.079	73.035	73.069	72.998	73.057	72.937	73.036	0.7358
55	3.15	74.281	74.300	74.255	74.291	74.220	74.278	74.159	74.258	0.7355
56	3.15	75.560	75.579	75.535	75.570	75.499	75.557	75.438	75.537	0.7358
57	3.15	76.782	76.802	76.758	76.792	76.722	76.780	76.661	76.759	0.7355
58	3.15	78.061	78.080	78.036	78.071	77.999	78.058	77.938	78.038	0.7358
59	3.15	79.285	79.304	79.259	79.294	79.223	79.282	79.161	79.261	0.7356
60	3.15	80.562	80.582	80.537	80.572	80.500	80.559	80.439	80.538	0.7358
61	3.15	81.786	81.805	81.761	81.795	81.724	81.782	81.662	81.763	0.7356
62	3.15	83.063	83.082	83.038	83.073	83.000	83.060	82.939	83.038	0.7358
63	3.15	84.288	84.307	84.263	84.298	84.226	84.285	84.164	84.263	0.7356
64	3.15	85.564	85.583	85.539	85.573	85.501	85.559	85.438	85.539	0.7358
65	3.15	86.789	86.808	86.765	86.800	86.727	86.786	86.664	86.765	0.7356
66	3.15	88.064	88.083	88.039	88.075	88.001	88.060	87.938	88.039	0.7358
67	3.15	89.291	89.311	89.266	89.300	89.227	89.286	89.165	89.265	0.7356
68	3.15	90.566	90.585	90.540	90.574	90.502	90.561	90.439	90.540	0.7358
69	3.15	91.793	91.811	91.767	91.802	91.729	91.787	91.665	91.766	0.7357
70	3.15	93.066	93.085	93.040	93.075	93.003	93.062	92.938	93.040	0.7358
71	3.15	94.294	94.313	94.268	94.303	94.230	94.288	94.167	94.268	0.7357
72	3.15	95.566	95.585	95.541	95.576	95.501	95.562	95.439	95.539	0.7358
73	3.15	96.795	96.814	96.770	96.805	96.731	96.789	96.666	96.768	0.7357
74	3.15	98.067	98.086	98.041	98.077	98.003	98.061	97.938	98.040	0.7358
75	3.15	99.297	99.315	99.271	99.305	99.232	99.291	99.167	99.269	0.7357
76	3.15	100.568	100.586	100.542	100.576	100.502	100.562	100.438	100.540	0.7358
77	3.15	101.797	101.817	101.771	101.806	101.732	101.791	101.668	101.769	0.7357
78	3.15	103.068	103.087	103.042	103.076	103.003	103.062	102.937	103.040	0.7359
79	3.15	104.298	104.317	104.271	104.306	104.234	104.292	104.168	104.269	0.7357
80	3.15	105.569	105.588	105.542	105.578	105.502	105.563	105.438	105.540	0.7359
81	3.15	106.798	106.818	106.773	106.808	106.734	106.794	106.669	106.771	0.7357
82	3.15	108.070	108.089	108.042	108.078	108.003	108.063	107.937	108.040	0.7359
83	3.15	109.300	109.319	109.274	109.309	109.235	109.293	109.166	109.272	0.7357
84	3.15	110.570	110.589	110.543	110.578	110.504	110.563	110.438	110.539	0.7359
85	3.15	111.801	111.821	111.774	111.810	111.734	111.794	111.668	111.772	0.7357
86	3.15	113.069	113.089	113.044	113.078	113.004	113.062	112.937	113.040	0.7359
87	3.15	114.302	114.322	114.274	114.311	114.236	114.295	114.168	114.272	0.7357
88	3.15	115.570	115.588	115.542	115.579	115.504	115.563	115.437	115.540	0.7359
89	3.15	116.802	116.823	116.777	116.811	116.735	116.795	116.670	116.772	0.7357
90	3.15	118.071	118.090	118.043	118.078	118.003	118.064	117.937	118.040	0.7359
91	3.15	119.302	119.322	119.276	119.312	119.236	119.295	119.170	119.272	0.7358
92	3.15	120.573	120.589	120.544	120.580	120.503	120.563	120.436	120.539	0.7359
93	3.15	121.805	121.822	121.776	121.812	121.738	121.796	121.670	121.771	0.7358
94	3.15	123.071	123.091	123.045	123.079	123.003	123.064	122.936	123.040	0.7359
95	3.15	124.306	124.323	124.279	124.313	124.237	124.296	124.171	124.274	0.7358
96	3.15	125.571	125.590	125.543	125.579	125.504	125.563	125.437	125.538	0.7359
97	3.15	126.804	126.825	126.779	126.812	126.737	126.797	126.669	126.772	0.7358
98	3.15	128.073	128.091	128.045	128.080	128.004	128.063	127.935	128.040	0.7359
99	3.15	129.306	129.324	129.278	129.314	129.237	129.298	129.171	129.273	0.7358
100	3.15	130.573	130.591	130.545	130.580	130.503	130.563	130.436	130.540	0.7359

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Table 210 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 1.50

$S_{v\,max}$ = maximum effective circular thickness = 2.356

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	5.60	19.374	19.391	19.358	19.386	19.334	19.379	19.294	19.368	0.7264
7	5.00	19.272	19.289	19.256	19.284	19.231	19.277	19.190	19.266	0.7094
8	4.75	20.633	20.651	20.616	20.646	20.590	20.638	20.547	20.626	0.7283
9	4.75	21.899	21.917	21.882	21.911	21.856	21.904	21.812	21.892	0.7174
10	4.50	23.137	23.155	23.119	23.150	23.091	23.142	23.046	23.129	0.7289
11	4.50	24.452	24.471	24.434	24.465	24.406	24.457	24.360	24.444	0.7216
12	4.25	25.615	25.634	25.596	25.628	25.568	25.620	25.520	25.606	0.7293
13	4.25	26.962	26.981	26.943	26.975	26.914	26.967	26.866	26.953	0.7241
14	4.25	28.641	28.661	28.622	28.654	28.592	28.646	28.543	28.631	0.7294
15	4.25	30.011	30.030	29.991	30.023	29.961	30.014	29.912	30.000	0.7255
16	4.25	31.662	31.682	31.642	31.675	31.612	31.666	31.562	31.652	0.7295
17	4.00	32.479	32.498	32.458	32.492	32.428	32.482	32.376	32.467	0.7266
18	4.00	34.108	34.127	34.087	34.121	34.055	34.111	34.003	34.096	0.7297
19	4.00	35.506	35.526	35.485	35.519	35.454	35.509	35.401	35.494	0.7273
20	4.00	37.120	37.140	37.098	37.133	37.067	37.123	37.014	37.107	0.7298
21	4.00	38.528	38.548	38.507	38.541	38.475	38.531	38.422	38.515	0.7277
22	4.00	40.130	40.150	40.108	40.143	40.076	40.133	40.022	40.117	0.7298
23	4.00	41.547	41.567	41.525	41.560	41.492	41.550	41.438	41.533	0.7281
24	4.00	43.139	43.159	43.117	43.152	43.084	43.141	43.029	43.125	0.7298
25	4.00	44.562	44.582	44.540	44.575	44.507	44.565	44.452	44.548	0.7284
26	4.00	46.147	46.167	46.124	46.159	46.091	46.149	46.035	46.131	0.7298
27	4.00	47.576	47.596	47.553	47.588	47.520	47.578	47.463	47.561	0.7286
28	4.00	49.153	49.173	49.130	49.166	49.096	49.155	49.040	49.138	0.7299
29	4.00	50.587	50.608	50.565	50.600	50.530	50.589	50.474	50.572	0.7288
30	4.00	52.158	52.179	52.136	52.171	52.101	52.160	52.045	52.142	0.7299
31	4.00	53.598	53.618	53.575	53.610	53.540	53.599	53.483	53.581	0.7290
32	4.00	55.164	55.184	55.140	55.176	55.106	55.165	55.048	55.147	0.7299
33	4.00	56.607	56.627	56.583	56.619	56.548	56.608	56.490	56.590	0.7291
34	4.00	58.169	58.189	58.145	58.180	58.109	58.169	58.052	58.151	0.7299
35	4.00	59.614	59.635	59.591	59.627	59.556	59.615	59.497	59.597	0.7292
36	4.00	61.172	61.194	61.149	61.185	61.113	61.172	61.054	61.154	0.7299
37	4.00	62.622	62.643	62.598	62.634	62.562	62.622	62.503	62.603	0.7293
38	4.00	64.176	64.197	64.153	64.188	64.116	64.176	64.056	64.158	0.7299
39	4.00	65.628	65.648	65.604	65.640	65.568	65.628	65.507	65.609	0.7293
40	3.75	66.591	66.612	66.567	66.603	66.531	66.591	66.470	66.572	0.7300
41	3.75	68.045	68.066	68.021	68.058	67.985	68.045	67.924	68.026	0.7295
42	3.75	69.594	69.614	69.569	69.606	69.533	69.593	69.472	69.573	0.7300
43	3.75	71.050	71.071	71.026	71.061	70.988	71.049	70.927	71.030	0.7295
44	3.75	72.596	72.617	72.572	72.608	72.534	72.595	72.472	72.575	0.7300
45	3.75	74.055	74.075	74.029	74.066	73.992	74.053	73.930	74.033	0.7296
46	3.75	75.598	75.619	75.573	75.609	75.536	75.597	75.473	75.577	0.7300
47	3.75	77.057	77.079	77.033	77.070	76.996	77.056	76.933	77.036	0.7296
48	3.75	78.601	78.621	78.576	78.612	78.538	78.598	78.473	78.578	0.7300
49	3.75	80.061	80.082	80.036	80.073	79.999	80.060	79.935	80.039	0.7297
50	3.75	81.602	81.623	81.577	81.613	81.538	81.600	81.474	81.579	0.7300
51	3.75	83.064	83.086	83.039	83.076	83.001	83.063	82.937	83.041	0.7297
52	3.75	84.604	84.624	84.578	84.614	84.539	84.600	84.475	84.580	0.7300
53	3.75	86.067	86.088	86.041	86.079	86.004	86.066	85.940	86.045	0.7297
54	3.75	87.605	87.626	87.578	87.615	87.540	87.602	87.475	87.580	0.7300
55	3.75	89.071	89.091	89.044	89.082	89.005	89.067	88.941	89.046	0.7297
56	3.75	90.606	90.627	90.580	90.616	90.542	90.603	90.477	90.582	0.7300
57	3.75	92.073	92.093	92.047	92.084	92.009	92.069	91.943	92.049	0.7298
58	3.75	93.608	93.629	93.582	93.617	93.543	93.604	93.477	93.582	0.7300
59	3.75	95.076	95.096	95.049	95.087	95.009	95.072	94.945	95.051	0.7298
60	3.75	96.608	96.629	96.582	96.620	96.543	96.604	96.477	96.583	0.7300
61	3.75	98.077	98.099	98.052	98.087	98.011	98.074	97.946	98.052	0.7298
62	3.75	99.610	99.630	99.582	99.620	99.542	99.606	99.477	99.583	0.7300
63	3.75	101.079	101.100	101.053	101.090	101.013	101.075	100.947	101.053	0.7298
64	3.75	102.610	102.631	102.584	102.620	102.545	102.606	102.477	102.584	0.7300
65	3.75	104.082	104.103	104.055	104.092	104.016	104.078	103.947	104.055	0.7298
66	3.75	105.611	105.632	105.584	105.622	105.544	105.607	105.477	105.584	0.7300
67	3.75	107.083	107.105	107.057	107.094	107.017	107.079	106.949	107.056	0.7298
68	3.75	108.612	108.633	108.585	108.622	108.544	108.607	108.477	108.585	0.7300
69	3.75	110.085	110.106	110.058	110.095	110.018	110.080	109.951	110.058	0.7299
70	3.75	111.613	111.633	111.586	111.622	111.545	111.609	111.478	111.584	0.7300
71	3.75	113.087	113.107	113.060	113.096	113.019	113.082	112.951	113.057	0.7299
72	3.75	114.613	114.633	114.587	114.624	114.547	114.608	114.479	114.585	0.7301
73	3.75	116.087	116.108	116.062	116.099	116.020	116.083	115.951	116.060	0.7299
74	3.75	117.615	117.635	117.587	117.624	117.545	117.608	117.477	117.585	0.7301
75	3.75	119.091	119.110	119.062	119.100	119.021	119.084	118.951	119.060	0.7299
76	3.75	120.616	120.635	120.587	120.625	120.546	120.609	120.477	120.585	0.7301
77	3.75	122.090	122.112	122.063	122.100	122.022	122.085	121.952	122.061	0.7299
78	3.75	123.615	123.637	123.588	123.625	123.546	123.610	123.478	123.586	0.7301
79	3.75	125.093	125.113	125.064	125.100	125.024	125.086	124.954	125.061	0.7299
80	3.75	126.618	126.638	126.588	126.626	126.548	126.611	126.478	126.586	0.7301
81	3.75	128.092	128.113	128.064	128.103	128.024	128.087	127.953	128.062	0.7299
82	3.75	129.618	129.638	129.589	129.625	129.547	129.610	129.476	129.584	0.7301
83	3.75	131.093	131.114	131.067	131.104	131.023	131.088	130.953	131.062	0.7299
84	3.75	132.617	132.638	132.590	132.627	132.548	132.611	132.477	132.585	0.7301
85	3.75	134.097	134.115	134.067	134.104	134.025	134.089	133.956	134.062	0.7299
86	3.75	135.618	135.639	135.591	135.626	135.548	135.609	135.478	135.585	0.7301
87	3.75	137.097	137.116	137.069	137.105	137.026	137.088	136.955	137.064	0.7299
88	3.75	138.618	138.637	138.591	138.626	138.547	138.610	138.476	138.585	0.7301
89	3.75	140.096	140.118	140.069	140.106	140.027	140.091	139.955	140.063	0.7299
90	3.75	141.619	141.639	141.591	141.627	141.549	141.610	141.476	141.585	0.7301
91	3.75	143.099	143.119	143.070	143.107	143.028	143.090	142.954	143.065	0.7300
92	3.75	144.620	144.640	144.591	144.628	144.548	144.611	144.477	144.585	0.7301
93	3.75	146.099	146.119	146.070	146.107	146.026	146.090	145.957	146.064	0.7300
94	3.75	147.620	147.641	147.591	147.628	147.547	147.612	147.475	147.585	0.7301
95	3.75	149.100	149.119	149.072	149.108	149.028	149.090	148.957	149.066	0.7300
96	3.75	150.619	150.640	150.592	150.628	150.547	150.610	150.476	150.586	0.7301
97	3.75	152.102	152.120	152.072	152.108	152.029	152.092	151.955	152.066	0.7300
98	3.75	153.621	153.639	153.590	153.627	153.548	153.612	153.475	153.584	0.7301
99	3.75	155.100	155.122	155.073	155.110	155.030	155.091	154.956	155.067	0.7300
100	3.75	156.621	156.642	156.593	156.630	156.549	156.611	156.475	156.583	0.7301

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Table 211 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 1.75

$S_{v\,max}$ = maximum effective circular thickness = 2.749

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	6.30	22.109	22.127	22.092	22.122	22.067	22.115	22.025	22.103	0.7234
7	6.00	22.842	22.860	22.825	22.855	22.799	22.847	22.756	22.836	0.7058
8	5.60	24.203	24.222	24.185	24.216	24.157	24.208	24.115	24.196	0.7245
9	5.30	25.025	25.044	25.007	25.039	24.979	25.030	24.933	25.018	0.7139
10	5.30	27.107	27.127	27.088	27.121	27.060	27.113	27.011	27.099	0.7250
11	5.00	27.977	27.996	27.957	27.990	27.928	27.982	27.879	27.968	0.7179
12	5.00	29.082	30.001	29.961	29.995	29.932	29.987	29.881	29.972	0.7253
13	5.00	31.553	31.573	31.531	31.567	31.503	31.559	31.452	31.543	0.7201
14	5.00	33.513	33.533	33.492	33.527	33.461	33.517	33.410	33.503	0.7254
15	4.75	34.545	34.565	34.524	34.559	34.492	34.549	34.440	34.534	0.7216
16	4.75	36.469	36.490	36.448	36.483	36.416	36.473	36.362	36.458	0.7256
17	4.75	38.086	38.106	38.064	38.099	38.032	38.090	37.978	38.074	0.7225
18	4.75	39.987	40.008	39.965	40.001	39.933	39.991	39.876	39.975	0.7256
19	4.75	41.618	41.639	41.596	41.632	41.563	41.622	41.508	41.606	0.7232
20	4.75	43.502	43.523	43.479	43.516	43.446	43.505	43.390	43.489	0.7257
21	4.75	45.145	45.166	45.123	45.159	45.089	45.149	45.033	45.132	0.7236
22	4.75	47.015	47.036	46.992	47.028	46.958	47.017	46.901	47.001	0.7257
23	4.50	48.090	48.111	48.067	48.103	48.032	48.093	47.975	48.075	0.7241
24	4.50	49.946	49.968	49.923	49.959	49.888	49.949	49.830	49.932	0.7258
25	4.50	51.607	51.628	51.584	51.621	51.549	51.609	51.491	51.592	0.7243
26	4.50	53.454	53.476	53.431	53.468	53.395	53.456	53.336	53.438	0.7258
27	4.50	55.121	55.143	55.098	55.135	55.063	55.124	55.003	55.106	0.7246
28	4.50	56.961	56.982	56.937	56.974	56.901	56.963	56.842	56.945	0.7258
29	4.50	58.635	58.656	58.611	58.648	58.574	58.636	58.515	58.618	0.7247
30	4.50	60.467	60.489	60.443	60.480	60.406	60.469	60.346	60.450	0.7258
31	4.50	62.146	62.167	62.121	62.159	62.085	62.147	62.024	62.129	0.7249
32	4.50	63.973	63.994	63.948	63.986	63.912	63.974	63.849	63.954	0.7258
33	4.50	65.656	65.677	65.631	65.668	65.593	65.656	65.532	65.637	0.7250
34	4.50	67.478	67.498	67.452	67.490	67.415	67.478	67.353	67.459	0.7258
35	4.50	69.164	69.186	69.140	69.178	69.102	69.165	69.040	69.145	0.7251
36	4.50	70.982	71.003	70.956	70.994	70.918	70.982	70.856	70.962	0.7258
37	4.50	72.672	72.694	72.647	72.685	72.609	72.672	72.546	72.652	0.7252
38	4.50	74.486	74.507	74.460	74.498	74.423	74.485	74.358	74.465	0.7258
39	4.50	76.179	76.201	76.154	76.191	76.115	76.178	76.052	76.158	0.7252
40	4.50	77.989	78.011	77.964	78.002	77.925	77.988	77.860	77.969	0.7258
41	4.50	79.686	79.707	79.660	79.698	79.622	79.684	79.557	79.665	0.7253
42	4.50	81.492	81.514	81.466	81.504	81.428	81.491	81.363	81.471	0.7258
43	4.50	83.190	83.212	83.165	83.204	83.127	83.190	83.062	83.169	0.7254
44	4.50	84.995	85.017	84.969	85.007	84.931	84.994	84.865	84.973	0.7258
45	4.50	86.696	86.718	86.670	86.708	86.632	86.694	86.565	86.673	0.7254
46	4.50	88.497	88.519	88.471	88.510	88.431	88.495	88.366	88.474	0.7258
47	4.50	90.201	90.223	90.174	90.214	90.136	90.199	90.069	90.177	0.7254
48	4.50	92.000	92.021	91.973	92.012	91.934	91.997	91.868	91.977	0.7258
49	4.50	93.705	93.727	93.678	93.718	93.639	93.703	93.573	93.682	0.7255
50	4.50	95.503	95.524	95.476	95.514	95.436	95.500	95.369	95.478	0.7259
51	4.50	97.209	97.231	97.183	97.220	97.142	97.207	97.076	97.185	0.7255
52	4.50	99.004	99.025	98.978	99.015	98.937	99.002	98.869	98.980	0.7259
53	4.50	100.714	100.734	100.686	100.724	100.645	100.710	100.578	100.688	0.7255
54	4.50	102.507	102.527	102.480	102.517	102.439	102.503	102.371	102.480	0.7259
55	4.50	104.216	104.238	104.189	104.229	104.149	104.214	104.081	104.191	0.7256
56	4.50	106.009	106.030	105.981	106.020	105.939	106.005	105.871	105.981	0.7259
57	4.50	107.720	107.741	107.692	107.731	107.651	107.715	107.582	107.694	0.7256
58	4.50	109.509	109.531	109.483	109.520	109.441	109.506	109.371	109.483	0.7259
59	4.50	111.222	111.244	111.195	111.233	111.153	111.220	111.084	111.195	0.7256
60	4.50	113.010	113.033	112.983	113.022	112.943	113.008	112.873	112.983	0.7259
61	4.50	114.725	114.748	114.697	114.736	114.656	114.720	114.586	114.697	0.7256
62	4.50	116.513	116.534	116.485	116.522	116.443	116.508	116.374	116.485	0.7259
63	4.50	118.228	118.249	118.199	118.239	118.158	118.223	118.089	118.199	0.7256
64	4.50	120.014	120.035	119.985	120.024	119.944	120.009	119.874	119.985	0.7259
65	4.50	121.731	121.753	121.702	121.741	121.660	121.726	121.590	121.702	0.7257
66	4.50	123.515	123.537	123.488	123.525	123.445	123.510	123.375	123.485	0.7259
67	4.50	125.232	125.255	125.205	125.242	125.163	125.227	125.090	125.203	0.7257
68	4.50	127.017	127.038	126.987	127.028	126.945	127.010	126.873	126.987	0.7259
69	4.50	128.736	128.756	128.707	128.746	128.664	128.726	128.592	128.705	0.7257
70	4.50	130.517	130.539	130.488	130.527	130.447	130.512	130.374	130.487	0.7259
71	4.50	132.236	132.258	132.209	132.246	132.165	132.230	132.094	132.207	0.7257
72	4.50	134.018	134.040	133.989	134.029	133.946	134.013	133.874	133.986	0.7259
73	4.50	135.738	135.760	135.710	135.749	135.667	135.733	135.595	135.708	0.7257
74	4.50	137.520	137.541	137.490	137.528	137.446	137.512	137.375	137.487	0.7259
75	4.50	139.241	139.260	139.211	139.249	139.169	139.233	139.094	139.208	0.7257
76	4.50	141.020	141.042	140.992	141.031	140.947	141.014	140.874	140.989	0.7259
77	4.50	142.742	142.765	142.714	142.750	142.668	142.736	142.597	142.711	0.7257
78	4.50	144.520	144.543	144.492	144.532	144.449	144.515	144.374	144.489	0.7259
79	4.50	146.244	146.264	146.215	146.253	146.171	146.235	146.097	146.210	0.7257
80	4.50	148.022	148.043	147.993	148.031	147.949	148.013	147.875	147.990	0.7259
81	4.50	149.744	149.765	149.715	149.753	149.673	149.738	149.599	149.712	0.7257
82	4.50	151.523	151.544	151.493	151.532	151.448	151.514	151.376	151.490	0.7259
83	4.50	153.247	153.268	153.216	153.256	153.174	153.238	153.098	153.213	0.7258
84	4.50	155.023	155.044	154.995	155.032	154.949	155.016	154.875	154.989	0.7259
85	4.50	156.748	156.770	156.717	156.757	156.673	156.739	156.599	156.714	0.7258
86	4.50	158.525	158.547	158.493	158.534	158.449	158.515	158.375	158.490	0.7259
87	4.50	160.249	160.271	160.220	160.258	160.176	160.239	160.099	160.214	0.7258
88	4.50	162.026	162.045	161.994	162.033	161.949	162.016	161.875	161.991	0.7259
89	4.50	163.749	163.770	163.720	163.759	163.674	163.743	163.600	163.713	0.7258
90	4.50	165.524	165.547	165.495	165.534	165.452	165.517	165.376	165.488	0.7259
91	4.50	167.252	167.272	167.223	167.259	167.176	167.242	167.100	167.216	0.7258
92	4.50	169.025	169.047	168.995	169.035	168.952	169.015	168.875	168.988	0.7259
93	4.50	170.753	170.773	170.722	170.759	170.678	170.742	170.600	170.715	0.7258
94	4.50	172.527	172.547	172.496	172.533	172.451	172.516	172.376	172.489	0.7259
95	4.50	174.253	174.274	174.222	174.263	174.177	174.242	174.101	174.215	0.7258
96	4.50	176.028	176.049	175.997	176.035	175.952	176.018	175.875	175.990	0.7259
97	4.50	177.754	177.775	177.725	177.764	177.680	177.743	177.602	177.718	0.7258
98	4.50	179.527	179.548	179.499	179.534	179.452	179.516	179.374	179.488	0.7259
99	4.50	181.255	181.276	181.226	181.262	181.179	181.244	181.101	181.217	0.7258
100	4.50	183.028	183.048	182.997	183.037	182.950	183.019	182.874	182.990	0.7259

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Table 212 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 2.00

$S_{v\,max}$ = maximum effective circular thickness = 3.142

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	7.10	25.057	25.076	25.040	25.071	25.013	25.063	24.968	25.051	0.7209
7	6.70	25.773	25.792	25.755	25.787	25.728	25.779	25.683	25.767	0.7033
8	6.30	27.445	27.465	27.426	27.459	27.397	27.451	27.350	27.438	0.7218
9	6.00	28.478	28.498	28.459	28.492	28.430	28.484	28.381	28.471	0.7221
10	6.00	30.857	30.877	30.836	30.871	30.806	30.862	30.756	30.848	0.7221
11	6.00	32.610	32.630	32.590	32.624	32.559	32.615	32.509	32.601	0.7148
12	5.60	34.011	34.032	33.990	34.026	33.959	34.017	33.906	34.002	0.7224
13	5.60	35.807	35.828	35.786	35.822	35.754	35.813	35.701	35.798	0.7172
14	5.60	38.045	38.067	38.024	38.060	37.991	38.050	37.937	38.035	0.7225
15	5.60	39.871	39.892	39.849	39.886	39.816	39.876	39.762	39.860	0.7185
16	5.60	42.073	42.094	42.051	42.087	42.017	42.077	41.961	42.061	0.7225
17	5.30	43.236	43.258	43.214	43.251	43.180	43.241	43.124	43.224	0.7195
18	5.30	45.408	45.430	45.385	45.423	45.351	45.412	45.293	45.396	0.7226
19	5.30	47.273	47.294	47.250	47.287	47.215	47.277	47.157	47.260	0.7202
20	5.30	49.424	49.446	49.401	49.439	49.366	49.428	49.307	49.411	0.7226
21	5.30	51.302	51.324	51.279	51.317	51.244	51.306	51.184	51.288	0.7206
22	5.30	53.438	53.460	53.414	53.452	53.379	53.441	53.319	53.423	0.7227
23	5.30	55.327	55.349	55.303	55.341	55.267	55.330	55.207	55.312	0.7210
24	5.30	57.449	57.471	57.425	57.464	57.389	57.452	57.328	57.434	0.7227
25	5.30	59.348	59.370	59.323	59.362	59.287	59.350	59.226	59.332	0.7212
26	5.30	61.459	61.482	61.435	61.474	61.398	61.461	61.336	61.444	0.7227
27	5.30	63.366	63.388	63.341	63.380	63.304	63.368	63.242	63.349	0.7215
28	5.30	65.469	65.491	65.443	65.482	65.405	65.470	65.344	65.451	0.7227
29	5.30	67.381	67.403	67.356	67.394	67.318	67.383	67.255	67.364	0.7216
30	5.30	69.476	69.498	69.450	69.490	69.413	69.477	69.349	69.458	0.7227
31	5.00	70.694	70.716	70.668	70.707	70.630	70.695	70.565	70.675	0.7218
32	5.00	72.781	72.803	72.756	72.794	72.716	72.782	72.653	72.761	0.7227
33	5.00	74.704	74.727	74.679	74.718	74.639	74.705	74.574	74.688	0.7219
34	5.00	76.786	76.808	76.759	76.800	76.721	76.786	76.656	76.766	0.7228
35	5.00	78.714	78.737	78.687	78.727	78.648	78.714	78.583	78.694	0.7220
36	5.00	80.791	80.813	80.764	80.804	80.724	80.791	80.659	80.769	0.7228
37	5.00	82.722	82.745	82.695	82.735	82.657	82.722	82.590	82.702	0.7221
38	5.00	84.794	84.817	84.766	84.807	84.728	84.793	84.662	84.773	0.7228
39	5.00	86.730	86.752	86.703	86.743	86.662	86.729	86.596	86.708	0.7222
40	5.00	88.797	88.821	88.771	88.811	88.731	88.797	88.664	88.776	0.7228
41	5.00	90.736	90.760	90.710	90.749	90.669	90.736	90.601	90.714	0.7222
42	5.00	92.802	92.824	92.774	92.814	92.733	92.800	92.666	92.778	0.7228
43	5.00	94.743	94.766	94.716	94.756	94.674	94.741	94.607	94.720	0.7223
44	5.00	96.804	96.827	96.776	96.817	96.736	96.804	96.668	96.780	0.7228
45	5.00	98.749	98.771	98.722	98.761	98.680	98.747	98.611	98.725	0.7223
46	5.00	100.807	100.830	100.780	100.820	100.737	100.805	100.669	100.783	0.7228
47	5.00	102.754	102.776	102.727	102.766	102.684	102.752	102.616	102.729	0.7224
48	5.00	104.809	104.832	104.782	104.822	104.740	104.807	104.671	104.784	0.7228
49	5.00	106.759	106.781	106.731	106.770	106.689	106.755	106.618	106.734	0.7224
50	5.00	108.812	108.835	108.785	108.824	108.741	108.809	108.672	108.787	0.7228
51	5.00	110.764	110.786	110.735	110.775	110.693	110.759	110.622	110.737	0.7224
52	5.00	112.814	112.837	112.786	112.825	112.744	112.812	112.675	112.787	0.7228
53	5.00	114.768	114.788	114.738	114.779	114.697	114.763	114.626	114.740	0.7225
54	5.00	116.816	116.839	116.788	116.827	116.746	116.813	116.673	116.789	0.7228
55	5.00	118.771	118.792	118.742	118.783	118.700	118.766	118.629	118.742	0.7225
56	5.00	120.818	120.841	120.790	120.829	120.747	120.814	120.674	120.790	0.7228
57	5.00	122.774	122.796	122.744	122.786	122.703	122.769	122.629	122.747	0.7225
58	5.00	124.821	124.843	124.791	124.831	124.748	124.816	124.675	124.791	0.7228
59	5.00	126.777	126.800	126.748	126.788	126.704	126.772	126.634	126.747	0.7225
60	5.00	128.821	128.844	128.793	128.831	128.749	128.816	128.675	128.793	0.7228
61	5.00	130.780	130.803	130.752	130.791	130.707	130.775	130.635	130.750	0.7225
62	5.00	132.824	132.845	132.793	132.834	132.750	132.819	132.676	132.792	0.7228
63	5.00	134.783	134.805	134.754	134.794	134.711	134.778	134.636	134.754	0.7226
64	5.00	136.824	136.846	136.794	136.835	136.751	136.819	136.677	136.794	0.7228
65	5.00	138.787	138.809	138.757	138.795	138.712	138.779	138.638	138.754	0.7226
66	5.00	140.826	140.848	140.795	140.837	140.750	140.820	140.678	140.795	0.7228
67	5.00	142.789	142.810	142.758	142.798	142.714	142.782	142.639	142.756	0.7226
68	5.00	144.826	144.849	144.798	144.838	144.752	144.821	144.677	144.795	0.7228
69	5.00	146.790	146.814	146.761	146.801	146.715	146.785	146.642	146.758	0.7226
70	5.00	148.828	148.850	148.797	148.838	148.752	148.820	148.679	148.794	0.7228
71	5.00	150.791	150.815	150.761	150.803	150.716	150.785	150.642	150.758	0.7226
72	5.00	152.829	152.850	152.799	152.838	152.753	152.823	152.677	152.796	0.7228
73	5.00	154.795	154.817	154.765	154.805	154.718	154.786	154.645	154.761	0.7226
74	5.00	156.829	156.851	156.798	156.839	156.755	156.823	156.677	156.795	0.7228
75	5.00	158.797	158.819	158.765	158.806	158.721	158.787	158.646	158.762	0.7226
76	5.00	160.831	160.853	160.800	160.840	160.754	160.824	160.677	160.795	0.7228
77	5.00	162.800	162.819	162.767	162.809	162.722	162.790	162.645	162.764	0.7226
78	5.00	164.833	164.853	164.800	164.840	164.755	164.823	164.679	164.797	0.7228
79	5.00	166.801	166.822	166.771	166.811	166.724	166.791	166.645	166.764	0.7226
80	5.00	168.832	168.854	168.801	168.841	168.755	168.824	168.677	168.797	0.7228
81	5.00	170.802	170.824	170.770	170.810	170.725	170.793	170.648	170.766	0.7227
82	5.00	172.834	172.854	172.803	172.842	172.755	172.824	172.680	172.796	0.7228
83	5.00	174.802	174.826	174.772	174.812	174.725	174.795	174.649	174.767	0.7227
84	5.00	176.833	176.857	176.803	176.843	176.755	176.826	176.678	176.798	0.7228
85	5.00	178.802	178.827	178.774	178.813	178.728	178.795	178.650	178.767	0.7227
86	5.00	180.834	180.856	180.802	180.845	180.755	180.825	180.678	180.798	0.7228
87	5.00	182.806	182.828	182.774	182.813	182.727	182.795	182.651	182.768	0.7227
88	5.00	184.835	184.857	184.802	184.843	184.758	184.824	184.678	184.799	0.7228
89	5.00	186.806	186.828	186.777	186.817	186.728	186.799	186.651	186.769	0.7227
90	5.00	188.836	188.859	188.803	188.844	188.758	188.825	188.679	188.799	0.7228
91	5.00	190.810	190.830	190.776	190.817	190.730	190.798	190.651	190.768	0.7227
92	5.00	192.838	192.857	192.803	192.845	192.757	192.826	192.679	192.796	0.7228
93	5.00	194.810	194.833	194.779	194.817	194.729	194.798	194.652	194.771	0.7227
94	5.00	196.839	196.859	196.804	196.847	196.757	196.827	196.679	196.796	0.7228
95	5.00	198.810	198.834	198.779	198.818	198.731	198.798	198.653	198.771	0.7227
96	5.00	200.837	200.861	200.805	200.845	200.758	200.825	200.678	200.797	0.7228
97	5.00	202.811	202.835	202.779	202.819	202.731	202.799	202.651	202.771	0.7227
98	5.00	204.840	204.860	204.808	204.846	204.759	204.828	204.678	204.795	0.7228
99	5.00	206.813	206.833	206.780	206.821	206.731	206.801	206.653	206.772	0.7227
100	5.00	208.840	208.860	208.807	208.848	208.757	208.827	208.679	208.798	0.7228

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Table 213 — Inspection dimensions M_{Re}

Side fit external splines — Fundamental deviation h
45 degree pressure angle — Fillet root — Module = 2.50

$S_{v\,max}$ = maximum effective circular thickness = 3.927

Z Number of teeth	D_{Re} Pin diameter	Measurement over two pins, M_{Re} (checking of dimensions S_{min} and S_{max}) for tolerance grades 4 h min.	4 h max. (aux)	5 h min.	5 h max. (aux)	6 h min.	6 h max. (aux)	7 h min.	7 h max. (aux)	K_e Approximation factor
6	9.00	31.593	31.614	31.574	31.608	31.545	31.600	31.498	31.587	0.7173
7	8.50	32.488	32.508	32.469	32.503	32.440	32.494	32.391	32.482	0.6997
8	8.00	34.585	34.606	34.564	34.600	34.533	34.591	34.482	34.577	0.7179
9	7.50	35.604	35.625	35.583	35.619	35.551	35.610	35.499	35.595	0.7072
10	7.50	38.576	38.598	38.554	38.592	38.522	38.582	38.468	38.568	0.7181
11	7.10	39.801	39.903	39.859	39.897	39.826	39.887	39.771	39.872	0.7109
12	7.10	42.745	42.767	42.722	42.760	42.688	42.750	42.631	42.735	0.7183
13	7.10	44.990	45.012	44.967	45.005	44.933	44.995	44.875	44.979	0.7131
14	7.10	47.789	47.812	47.766	47.805	47.731	47.794	47.672	47.778	0.7183
15	6.70	49.165	49.188	49.142	49.181	49.106	49.170	49.047	49.153	0.7145
16	6.70	51.914	51.937	51.890	51.929	51.854	51.918	51.793	51.901	0.7184
17	6.70	54.223	54.247	54.199	54.239	54.162	54.228	54.102	54.210	0.7154
18	6.70	56.938	56.962	56.914	56.954	56.877	56.943	56.818	56.925	0.7184
19	6.70	59.269	59.293	59.244	59.285	59.207	59.274	59.145	59.255	0.7160
20	6.70	61.960	61.984	61.934	61.975	61.897	61.964	61.834	61.945	0.7184
21	6.70	64.307	64.331	64.282	64.323	64.244	64.311	64.180	64.293	0.7164
22	6.70	66.977	67.001	66.951	66.993	66.913	66.980	66.849	66.962	0.7185
23	6.70	69.339	69.363	69.313	69.354	69.274	69.342	69.210	69.323	0.7168
24	6.70	71.992	72.016	71.966	72.008	71.928	71.995	71.862	71.975	0.7185
25	6.30	73.437	73.461	73.411	73.452	73.371	73.440	73.305	73.420	0.7171
26	6.30	76.075	76.100	76.048	76.090	76.009	76.078	75.942	76.057	0.7185
27	6.30	78.458	78.482	78.432	78.473	78.391	78.460	78.324	78.440	0.7173
28	6.30	81.085	81.109	81.057	81.100	81.018	81.086	80.949	81.066	0.7185
29	6.30	83.476	83.499	83.448	83.491	83.408	83.477	83.340	83.457	0.7175
30	6.30	86.092	86.117	86.066	86.108	86.024	86.094	85.956	86.073	0.7185
31	6.30	88.491	88.515	88.463	88.506	88.422	88.492	88.353	88.472	0.7176
32	6.30	91.100	91.125	91.072	91.114	91.031	91.102	90.961	91.079	0.7185
33	6.30	93.504	93.529	93.478	93.519	93.435	93.505	93.369	93.483	0.7177
34	6.30	96.106	96.132	96.079	96.122	96.036	96.107	95.966	96.085	0.7185
35	6.30	98.517	98.541	98.489	98.531	98.447	98.517	98.375	98.495	0.7178
36	6.30	101.113	101.136	101.085	101.126	101.042	101.112	100.971	101.089	0.7185
37	6.30	103.528	103.553	103.499	103.542	103.457	103.528	103.386	103.505	0.7179
38	6.30	106.119	106.142	106.089	106.132	106.046	106.117	105.974	106.095	0.7185
39	6.30	108.537	108.562	108.509	108.551	108.465	108.536	108.393	108.513	0.7179
40	6.30	111.123	111.148	111.094	111.136	111.051	111.121	110.978	111.098	0.7185
41	6.30	113.545	113.571	113.518	113.559	113.473	113.545	113.402	113.520	0.7180
42	6.30	116.127	116.151	116.098	116.141	116.055	116.125	115.980	116.101	0.7185
43	6.30	118.555	118.579	118.525	118.567	118.481	118.552	118.407	118.529	0.7180
44	6.30	121.131	121.154	121.101	121.144	121.057	121.129	120.984	121.105	0.7185
45	6.30	123.561	123.586	123.531	123.574	123.487	123.559	123.412	123.534	0.7181
46	6.30	126.135	126.159	126.106	126.149	126.060	126.131	125.986	126.108	0.7185
47	6.30	128.568	128.593	128.538	128.581	128.493	128.564	128.417	128.541	0.7181
48	6.30	131.138	131.162	131.109	131.151	131.063	131.135	130.988	131.109	0.7185
49	6.30	133.574	133.598	133.545	133.587	133.499	133.571	133.424	133.545	0.7182
50	6.30	136.141	136.164	136.110	136.153	136.066	136.137	135.990	136.113	0.7185
51	6.30	138.579	138.604	138.549	138.593	138.504	138.577	138.427	138.552	0.7182
52	6.30	141.144	141.169	141.113	141.155	141.067	141.141	140.991	141.115	0.7185
53	6.30	143.584	143.609	143.553	143.596	143.508	143.582	143.432	143.556	0.7182
54	6.30	146.145	146.172	146.116	146.159	146.069	146.142	145.994	146.116	0.7185
55	6.30	148.591	148.615	148.558	148.603	148.514	148.585	148.437	148.558	0.7182
56	6.30	151.149	151.173	151.119	151.161	151.071	151.143	150.994	151.118	0.7185
57	6.30	153.594	153.618	153.563	153.606	153.517	153.588	153.438	153.563	0.7183
58	6.30	156.151	156.176	156.119	156.163	156.073	156.144	155.995	156.119	0.7185
59	6.30	158.598	158.623	158.566	158.610	158.519	158.591	158.443	158.566	0.7183
60	6.30	161.154	161.176	161.121	161.165	161.075	161.147	160.996	161.121	0.7185
61	6.30	163.602	163.627	163.571	163.614	163.522	163.597	163.444	163.568	0.7183
62	6.30	166.156	166.179	166.123	166.166	166.077	166.149	165.997	166.123	0.7185
63	6.30	168.606	168.630	168.573	168.617	168.526	168.600	168.447	168.573	0.7183
64	6.30	171.157	171.179	171.125	171.169	171.077	171.149	170.999	171.121	0.7185
65	6.30	173.610	173.634	173.579	173.620	173.530	173.603	173.451	173.575	0.7183
66	6.30	176.160	176.182	176.128	176.170	176.079	176.153	175.998	176.124	0.7185
67	6.30	178.611	178.636	178.579	178.622	178.533	178.604	178.451	178.575	0.7183
68	6.30	181.161	181.184	181.128	181.170	181.079	181.152	181.000	181.124	0.7185
69	6.30	183.615	183.640	183.582	183.626	183.534	183.607	183.454	183.578	0.7184
70	6.30	186.161	186.187	186.131	186.172	186.079	186.153	186.000	186.124	0.7185
71	6.30	188.618	188.640	188.584	188.629	188.535	188.610	188.457	188.580	0.7184
72	6.30	191.162	191.185	191.132	191.174	191.083	191.155	190.999	191.124	0.7185
73	6.30	193.621	193.644	193.586	193.631	193.540	193.613	193.456	193.583	0.7184
74	6.30	196.165	196.188	196.134	196.175	196.083	196.157	196.001	196.126	0.7185
75	6.30	198.623	198.645	198.590	198.633	198.542	198.613	198.459	198.586	0.7184
76	6.30	201.164	201.188	201.132	201.176	201.084	201.156	201.000	201.128	0.7185
77	6.30	203.626	203.651	203.594	203.634	203.541	203.614	203.461	203.586	0.7184
78	6.30	206.167	206.190	206.132	206.177	206.083	206.157	206.001	206.128	0.7185
79	6.30	208.629	208.650	208.595	208.638	208.545	208.617	208.460	208.588	0.7184
80	6.30	211.168	211.193	211.135	211.177	211.084	211.160	211.001	211.126	0.7185
81	6.30	213.631	213.652	213.597	213.639	213.546	213.618	213.461	213.588	0.7184
82	6.30	216.170	216.191	216.135	216.178	216.084	216.159	216.002	216.127	0.7185
83	6.30	218.630	218.650	218.600	218.641	218.548	218.621	218.465	218.591	0.7184
84	6.30	221.170	221.192	221.135	221.179	221.086	221.161	221.003	221.130	0.7185
85	6.30	223.633	223.655	223.602	223.642	223.549	223.624	223.464	223.593	0.7184
86	6.30	226.173	226.196	226.138	226.180	226.088	226.160	226.003	226.129	0.7185
87	6.30	228.635	228.658	228.603	228.644	228.549	228.626	228.467	228.594	0.7184
88	6.30	231.172	231.195	231.140	231.181	231.085	231.158	231.003	231.131	0.7185
89	6.30	233.636	233.660	233.604	233.646	233.553	233.627	233.465	233.595	0.7184
90	6.30	236.175	236.198	236.138	236.180	236.086	236.161	236.002	236.128	0.7185
91	6.30	238.638	238.661	238.605	238.647	238.553	238.628	238.468	238.595	0.7184
92	6.30	241.173	241.197	241.140	241.183	241.087	241.161	241.001	241.130	0.7185
93	6.30	243.639	243.663	243.606	243.649	243.552	243.630	243.468	243.596	0.7184
94	6.30	246.177	246.196	246.140	246.182	246.089	246.162	246.001	246.128	0.7185
95	6.30	248.641	248.666	248.607	248.651	248.558	248.627	248.469	248.597	0.7184
96	6.30	251.176	251.198	251.141	251.181	251.087	251.161	251.002	251.131	0.7185
97	6.30	253.644	253.664	253.609	253.649	253.559	253.629	253.468	253.599	0.7185
98	6.30	256.176	256.199	256.141	256.184	256.090	256.161	256.004	256.130	0.7185
99	6.00	257.929	257.949	257.893	257.934	257.842	257.914	257.751	257.883	0.7185
100	6.00	260.459	260.485	260.423	260.470	260.372	260.444	260.285	260.413	0.7186

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Table 214 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 0.50

$S_{v\,max}$ = maximum effective circular thickness = 0.785

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6	2.160	2.171	2.148	2.167	2.130	2.161	2.100	2.151	2
7	2.183	2.195	2.171	2.190	2.153	2.184	2.122	2.174	2
8	2.206	2.218	2.194	2.213	2.175	2.207	2.144	2.197	2
9	2.229	2.241	2.217	2.236	2.198	2.230	2.166	2.220	2
10	2.252	2.264	2.239	2.259	2.220	2.253	2.189	2.243	2
11	2.275	2.287	2.262	2.283	2.243	2.276	2.211	2.265	2
12	3.659	3.671	3.646	3.666	3.626	3.659	3.594	3.649	3
13	3.682	3.694	3.669	3.689	3.649	3.682	3.616	3.672	3
14	3.705	3.717	3.692	3.712	3.672	3.706	3.639	3.695	3
15	3.728	3.740	3.715	3.735	3.695	3.729	3.662	3.718	3
16	3.751	3.763	3.738	3.758	3.718	3.752	3.684	3.741	3
17	3.774	3.786	3.761	3.781	3.740	3.775	3.707	3.763	3
18	5.158	5.170	5.144	5.165	5.124	5.158	5.090	5.147	4
19	5.181	5.193	5.167	5.188	5.147	5.181	5.112	5.170	4
20	5.204	5.216	5.190	5.211	5.169	5.204	5.135	5.193	4
21	5.227	5.239	5.213	5.234	5.192	5.227	5.158	5.216	4
22	5.250	5.262	5.236	5.257	5.215	5.250	5.181	5.239	4
23	5.273	5.286	5.259	5.281	5.238	5.273	5.203	5.262	4
24	6.657	6.669	6.643	6.664	6.622	6.657	6.586	6.645	5
25	6.680	6.692	6.666	6.687	6.645	6.680	6.609	6.668	5
26	6.703	6.715	6.689	6.710	6.668	6.703	6.632	6.691	5
27	6.726	6.739	6.712	6.733	6.690	6.726	6.655	6.714	5
28	6.749	6.762	6.735	6.757	6.713	6.749	6.678	6.737	5
29	6.773	6.785	6.758	6.780	6.736	6.772	6.700	6.760	5
30	8.156	8.169	8.142	8.163	8.120	8.156	8.084	8.144	6
31	8.179	8.192	8.165	8.186	8.143	8.179	8.106	8.167	6
32	8.202	8.215	8.188	8.210	8.166	8.202	8.129	8.190	6
33	8.226	8.238	8.211	8.233	8.189	8.225	8.152	8.213	6
34	8.249	8.261	8.234	8.256	8.212	8.248	8.175	8.236	6
35	8.272	8.284	8.257	8.279	8.235	8.271	8.198	8.259	6
36	9.655	9.668	9.641	9.662	9.618	9.655	9.581	9.642	7
37	9.679	9.691	9.664	9.686	9.641	9.678	9.604	9.665	7
38	9.702	9.714	9.687	9.709	9.664	9.701	9.627	9.688	7
39	9.726	9.738	9.710	9.732	9.687	9.724	9.650	9.711	7
40	9.748	9.761	9.733	9.755	9.710	9.747	9.673	9.734	7
41	9.771	9.784	9.756	9.778	9.733	9.770	9.696	9.757	7
42	11.155	11.167	11.140	11.162	11.117	11.154	11.079	11.141	8
43	11.178	11.191	11.163	11.185	11.140	11.177	11.102	11.164	8
44	11.201	11.214	11.186	11.208	11.163	11.200	11.125	11.187	8
45	11.224	11.237	11.209	11.231	11.186	11.223	11.148	11.210	8
46	11.248	11.260	11.232	11.254	11.209	11.246	11.171	11.233	8
47	11.271	11.283	11.255	11.278	11.232	11.269	11.193	11.256	8
48	12.654	12.667	12.639	12.661	12.616	12.653	12.577	12.640	9
49	12.678	12.690	12.662	12.684	12.639	12.676	12.600	12.663	9
50	12.701	12.713	12.685	12.707	12.662	12.699	12.623	12.686	9
51	12.724	12.737	12.708	12.731	12.685	12.722	12.646	12.709	9
52	12.747	12.760	12.731	12.754	12.708	12.745	12.669	12.732	9
53	12.770	12.783	12.754	12.777	12.731	12.768	12.692	12.755	9
54	14.154	14.167	14.138	14.160	14.114	14.152	14.075	14.138	10
55	14.177	14.190	14.161	14.184	14.137	14.175	14.098	14.161	10
56	14.200	14.213	14.184	14.207	14.161	14.198	14.121	14.185	10
57	14.223	14.236	14.208	14.230	14.184	14.221	14.144	14.208	10
58	14.247	14.259	14.231	14.253	14.207	14.244	14.167	14.231	10
59	14.270	14.283	14.254	14.276	14.230	14.268	14.190	14.254	10
60	15.653	15.666	15.637	15.660	15.613	15.651	15.573	15.637	11
61	15.677	15.689	15.660	15.683	15.636	15.674	15.596	15.660	11
62	15.700	15.713	15.684	15.706	15.659	15.697	15.619	15.683	11
63	15.723	15.736	15.707	15.729	15.683	15.721	15.642	15.706	11
64	15.746	15.759	15.730	15.753	15.706	15.744	15.665	15.730	11
65	15.769	15.782	15.753	15.776	15.729	15.767	15.688	15.753	11
66	17.153	17.166	17.137	17.159	17.112	17.150	17.071	17.136	12
67	17.176	17.189	17.160	17.183	17.135	17.173	17.094	17.159	12
68	17.199	17.212	17.183	17.206	17.158	17.197	17.117	17.182	12
69	17.223	17.235	17.206	17.229	17.182	17.220	17.140	17.205	12
70	17.246	17.259	17.229	17.252	17.205	17.243	17.163	17.228	12
71	17.269	17.282	17.253	17.275	17.228	17.266	17.186	17.252	12
72	18.653	18.665	18.636	18.659	18.611	18.650	18.570	18.635	13
73	18.676	18.689	18.659	18.682	18.634	18.673	18.593	18.658	13
74	18.699	18.712	18.682	18.705	18.657	18.696	18.616	18.681	13
75	18.722	18.735	18.706	18.728	18.681	18.719	18.639	18.704	13
76	18.745	18.758	18.729	18.752	18.704	18.742	18.662	18.727	13
77	18.769	18.781	18.752	18.775	18.727	18.765	18.685	18.751	13
78	20.132	20.145	20.115	20.138	20.090	20.129	20.049	20.114	14
79	20.155	20.168	20.139	20.161	20.113	20.152	20.072	20.137	14
80	20.179	20.191	20.162	20.185	20.137	20.175	20.095	20.160	14
81	20.202	20.215	20.185	20.208	20.160	20.198	20.118	20.183	14
82	20.225	20.238	20.208	20.231	20.183	20.221	20.141	20.206	14
83	20.248	20.261	20.231	20.254	20.206	20.244	20.164	20.229	14
84	21.632	21.645	21.615	21.638	21.589	21.628	21.547	21.613	15
85	21.655	21.668	21.638	21.661	21.612	21.651	21.570	21.636	15
86	21.678	21.691	21.661	21.684	21.635	21.674	21.593	21.659	15
87	21.702	21.714	21.684	21.707	21.658	21.697	21.616	21.682	15
88	21.725	21.737	21.707	21.730	21.681	21.720	21.639	21.705	15
89	21.748	21.760	21.730	21.753	21.704	21.743	21.662	21.728	15
90	23.132	23.144	23.114	23.137	23.088	23.127	23.046	23.112	16
91	23.155	23.167	23.137	23.160	23.111	23.150	23.069	23.135	16
92	23.178	23.190	23.160	23.183	23.134	23.173	23.092	23.158	16
93	23.201	23.213	23.183	23.206	23.157	23.196	23.115	23.181	16
94	23.224	23.236	23.206	23.229	23.180	23.219	23.138	23.204	16
95	23.247	23.259	23.229	23.252	23.203	23.242	23.161	23.227	16
96	24.631	24.643	24.613	24.636	24.587	24.626	24.545	24.611	17
97	24.654	24.666	24.636	24.659	24.610	24.649	24.568	24.634	17
98	24.677	24.689	24.659	24.682	24.633	24.672	24.591	24.657	17
99	24.700	24.712	24.682	24.705	24.656	24.695	24.614	24.680	17
100	24.723	24.735	24.705	24.728	24.679	24.718	24.637	24.703	17

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Table 215 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 0.75

$S_{v\,max}$ = maximum effective circular thickness = 1.178

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6	-------	-------	-------	-------	-------	-------	-------	-------	--
7	3.282	3.296	3.268	3.291	3.247	3.284	3.212	3.274	2
8	3.316	3.330	3.302	3.326	3.281	3.319	3.246	3.308	2
9	3.351	3.365	3.337	3.360	3.315	3.354	3.279	3.342	2
10	3.386	3.400	3.371	3.395	3.349	3.388	3.313	3.377	2
11	3.420	3.434	3.406	3.430	3.384	3.423	3.347	3.411	2
12	5.496	5.510	5.481	5.505	5.459	5.498	5.422	5.486	3
13	5.530	5.545	5.515	5.540	5.493	5.532	5.456	5.521	3
14	5.565	5.579	5.550	5.574	5.527	5.567	5.490	5.555	3
15	5.600	5.614	5.584	5.609	5.562	5.602	5.524	5.590	3
16	5.634	5.649	5.619	5.644	5.596	5.636	5.558	5.624	3
17	5.669	5.684	5.654	5.678	5.631	5.671	5.592	5.659	3
18	7.744	7.759	7.729	7.754	7.706	7.746	7.667	7.734	4
19	7.779	7.794	7.763	7.788	7.740	7.781	7.701	7.768	4
20	7.814	7.828	7.798	7.823	7.774	7.815	7.735	7.803	4
21	7.849	7.863	7.833	7.858	7.809	7.850	7.769	7.838	4
22	7.883	7.898	7.867	7.892	7.843	7.885	7.804	7.872	4
23	7.918	7.933	7.902	7.927	7.878	7.919	7.838	7.907	4
24	9.993	10.008	9.977	10.002	9.953	9.994	9.913	9.982	5
25	10.028	10.043	10.012	10.037	9.988	10.029	9.947	10.016	5
26	10.063	10.078	10.047	10.072	10.022	10.064	9.981	10.051	5
27	10.098	10.112	10.081	10.107	10.057	10.098	10.016	10.085	5
28	10.132	10.147	10.116	10.141	10.091	10.133	10.050	10.120	5
29	10.167	10.182	10.151	10.176	10.126	10.168	10.085	10.155	5
30	12.243	12.257	12.226	12.251	12.201	12.243	12.159	12.230	6
31	12.277	12.292	12.261	12.286	12.236	12.278	12.194	12.264	6
32	12.312	12.327	12.295	12.321	12.270	12.312	12.228	12.299	6
33	12.347	12.362	12.330	12.356	12.305	12.347	12.263	12.334	6
34	12.382	12.396	12.365	12.390	12.339	12.382	12.297	12.368	6
35	12.417	12.431	12.400	12.425	12.374	12.417	12.332	12.403	6
36	14.492	14.507	14.475	14.500	14.449	14.492	14.407	14.478	7
37	14.527	14.541	14.510	14.535	14.484	14.526	14.441	14.513	7
38	14.561	14.576	14.544	14.570	14.518	14.561	14.475	14.547	7
39	14.596	14.611	14.579	14.605	14.553	14.596	14.510	14.582	7
40	14.631	14.646	14.614	14.639	14.588	14.631	14.544	14.616	7
41	14.666	14.681	14.648	14.674	14.622	14.665	14.579	14.651	7
42	16.741	16.756	16.724	16.750	16.698	16.741	16.654	16.726	8
43	16.776	16.791	16.758	16.784	16.732	16.775	16.688	16.761	8
44	16.811	16.826	16.793	16.819	16.767	16.810	16.723	16.796	8
45	16.846	16.860	16.828	16.854	16.802	16.845	16.757	16.830	8
46	16.880	16.895	16.863	16.888	16.836	16.879	16.792	16.865	8
47	16.915	16.930	16.897	16.923	16.871	16.914	16.826	16.899	8
48	18.991	19.005	18.973	18.999	18.946	18.989	18.902	18.975	9
49	19.025	19.040	19.008	19.033	18.981	19.024	18.936	19.009	9
50	19.060	19.075	19.042	19.068	19.015	19.059	18.971	19.044	9
51	19.095	19.110	19.077	19.103	19.050	19.094	19.005	19.079	9
52	19.130	19.145	19.112	19.138	19.085	19.128	19.040	19.113	9
53	19.165	19.179	19.147	19.173	19.119	19.163	19.074	19.148	9
54	21.240	21.255	21.222	21.248	21.195	21.238	21.149	21.223	10
55	21.275	21.290	21.257	21.283	21.229	21.273	21.184	21.258	10
56	21.310	21.324	21.291	21.317	21.264	21.308	21.218	21.292	10
57	21.344	21.359	21.326	21.352	21.299	21.342	21.253	21.327	10
58	21.379	21.394	21.361	21.387	21.333	21.377	21.288	21.362	10
59	21.414	21.429	21.396	21.422	21.368	21.412	21.322	21.396	10
60	23.490	23.504	23.471	23.497	23.443	23.487	23.397	23.472	11
61	23.524	23.539	23.506	23.532	23.478	23.522	23.432	23.506	11
62	23.559	23.574	23.541	23.567	23.513	23.557	23.466	23.541	11
63	23.594	23.609	23.575	23.602	23.547	23.591	23.501	23.576	11
64	23.629	23.644	23.610	23.636	23.582	23.626	23.536	23.610	11
65	23.664	23.678	23.645	23.671	23.617	23.661	23.570	23.645	11
66	25.739	25.754	25.720	25.746	25.692	25.736	25.645	25.720	12
67	25.774	25.789	25.755	25.781	25.727	25.771	25.680	25.755	12
68	25.809	25.823	25.790	25.816	25.762	25.806	25.714	25.790	12
69	25.844	25.858	25.825	25.851	25.796	25.840	25.749	25.824	12
70	25.878	25.893	25.859	25.886	25.831	25.875	25.784	25.859	12
71	25.913	25.928	25.894	25.920	25.866	25.910	25.818	25.894	12
72	27.989	28.003	27.970	27.996	27.941	27.985	27.893	27.969	13
73	28.023	28.038	28.004	28.031	27.976	28.020	27.928	28.004	13
74	28.058	28.073	28.039	28.065	28.010	28.055	27.963	28.038	13
75	28.093	28.108	28.074	28.100	28.045	28.090	27.997	28.073	13
76	28.128	28.143	28.109	28.135	28.080	28.124	28.032	28.108	13
77	28.163	28.177	28.144	28.170	28.115	28.159	28.067	28.142	13
78	30.238	30.253	30.219	30.245	30.190	30.234	30.142	30.218	14
79	30.273	30.288	30.254	30.280	30.225	30.269	30.176	30.252	14
80	30.308	30.322	30.288	30.315	30.259	30.304	30.211	30.287	14
81	30.343	30.357	30.323	30.349	30.294	30.339	30.246	30.322	14
82	30.377	30.392	30.358	30.384	30.329	30.373	30.280	30.356	14
83	30.412	30.427	30.393	30.419	30.364	30.408	30.315	30.391	14
84	32.488	32.502	32.468	32.494	32.439	32.483	32.390	32.466	15
85	32.523	32.537	32.503	32.529	32.474	32.518	32.425	32.501	15
86	32.557	32.572	32.538	32.564	32.508	32.553	32.459	32.536	15
87	32.592	32.607	32.573	32.599	32.543	32.588	32.494	32.570	15
88	32.627	32.642	32.607	32.634	32.578	32.623	32.529	32.605	15
89	32.662	32.676	32.642	32.668	32.613	32.657	32.563	32.640	15
90	34.737	34.752	34.718	34.744	34.688	34.733	34.638	34.715	16
91	34.772	34.787	34.752	34.779	34.723	34.767	34.673	34.750	16
92	34.807	34.822	34.787	34.813	34.757	34.802	34.708	34.785	16
93	34.842	34.856	34.822	34.848	34.792	34.837	34.742	34.819	16
94	34.877	34.891	34.857	34.883	34.827	34.872	34.777	34.854	16
95	34.912	34.926	34.892	34.918	34.862	34.906	34.812	34.889	16
96	36.987	37.001	36.967	36.993	36.937	36.982	36.887	36.964	17
97	37.022	37.036	37.002	37.028	36.972	37.016	36.922	36.999	17
98	37.057	37.071	37.037	37.063	37.006	37.051	36.956	37.033	17
99	37.091	37.106	37.071	37.098	37.041	37.086	36.991	37.068	17
100	37.126	37.141	37.106	37.132	37.076	37.121	37.026	37.103	17

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Table 216 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.00

$S_{v\,max}$ = maximum effective circular thickness = 1.571

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6									
7	4.381	4.397	4.366	4.392	4.343	4.385	4.304	4.374	2
8	4.427	4.443	4.412	4.438	4.388	4.431	4.349	4.420	2
9	4.474	4.489	4.458	4.484	4.434	4.477	4.395	4.465	2
10	4.520	4.536	4.504	4.531	4.480	4.523	4.440	4.511	2
11	4.566	4.582	4.550	4.577	4.526	4.569	4.485	4.557	2
12	7.333	7.349	7.317	7.344	7.292	7.336	7.252	7.324	3
13	7.379	7.395	7.363	7.390	7.338	7.383	7.297	7.370	3
14	7.426	7.442	7.409	7.436	7.384	7.429	7.343	7.416	3
15	7.472	7.488	7.455	7.483	7.430	7.475	7.388	7.462	3
16	7.518	7.535	7.502	7.529	7.476	7.521	7.434	7.508	3
17	7.565	7.581	7.548	7.575	7.522	7.567	7.480	7.555	3
18	10.332	10.348	10.315	10.342	10.289	10.334	10.246	10.321	4
19	10.378	10.394	10.361	10.389	10.335	10.380	10.292	10.367	4
20	10.425	10.441	10.407	10.435	10.381	10.427	10.338	10.414	4
21	10.471	10.487	10.453	10.481	10.427	10.473	10.384	10.460	4
22	10.517	10.534	10.500	10.528	10.473	10.519	10.429	10.506	4
23	10.564	10.580	10.546	10.574	10.519	10.565	10.475	10.552	4
24	13.331	13.347	13.313	13.341	13.286	13.332	13.242	13.319	5
25	13.377	13.393	13.359	13.387	13.332	13.379	13.288	13.365	5
26	13.424	13.440	13.406	13.434	13.379	13.425	13.334	13.411	5
27	13.470	13.486	13.452	13.480	13.425	13.471	13.380	13.457	5
28	13.516	13.533	13.498	13.526	13.471	13.517	13.426	13.503	5
29	13.563	13.579	13.544	13.573	13.517	13.564	13.472	13.550	5
30	16.330	16.346	16.311	16.340	16.284	16.331	16.238	16.316	6
31	16.376	16.393	16.358	16.386	16.330	16.377	16.284	16.363	6
32	16.423	16.439	16.404	16.432	16.376	16.423	16.330	16.409	6
33	16.469	16.485	16.450	16.479	16.423	16.470	16.376	16.455	6
34	16.515	16.532	16.497	16.525	16.469	16.516	16.422	16.501	6
35	16.562	16.578	16.543	16.572	16.515	16.562	16.468	16.547	6
36	19.329	19.345	19.310	19.339	19.282	19.329	19.235	19.314	7
37	19.375	19.392	19.357	19.385	19.328	19.376	19.281	19.361	7
38	19.422	19.438	19.403	19.431	19.374	19.422	19.327	19.407	7
39	19.468	19.485	19.449	19.478	19.421	19.468	19.373	19.453	7
40	19.515	19.531	19.496	19.524	19.467	19.514	19.419	19.499	7
41	19.561	19.577	19.542	19.571	19.513	19.561	19.465	19.545	7
42	22.328	22.345	22.309	22.338	22.280	22.328	22.232	22.312	8
43	22.375	22.391	22.355	22.384	22.326	22.374	22.278	22.359	8
44	22.421	22.437	22.402	22.430	22.373	22.420	22.324	22.405	8
45	22.468	22.484	22.448	22.477	22.419	22.467	22.370	22.451	8
46	22.514	22.530	22.494	22.523	22.465	22.513	22.416	22.497	8
47	22.560	22.577	22.541	22.570	22.511	22.559	22.463	22.543	8
48	25.328	25.344	25.308	25.337	25.278	25.326	25.229	25.310	9
49	25.374	25.390	25.354	25.383	25.325	25.373	25.275	25.357	9
50	25.420	25.437	25.401	25.429	25.371	25.419	25.322	25.403	9
51	25.467	25.483	25.447	25.476	25.417	25.465	25.368	25.449	9
52	25.513	25.530	25.493	25.522	25.464	25.512	25.414	25.495	9
53	25.560	25.576	25.540	25.569	25.510	25.558	25.460	25.542	9
54	28.327	28.343	28.307	28.336	28.277	28.325	28.227	28.309	10
55	28.373	28.390	28.353	28.382	28.323	28.371	28.273	28.355	10
56	28.420	28.436	28.400	28.429	28.370	28.418	28.319	28.401	10
57	28.466	28.483	28.446	28.475	28.416	28.464	28.365	28.447	10
58	28.513	28.529	28.493	28.521	28.462	28.510	28.411	28.494	10
59	28.559	28.575	28.539	28.568	28.508	28.557	28.458	28.540	10
60	31.326	31.343	31.306	31.335	31.275	31.324	31.225	31.307	11
61	31.373	31.389	31.352	31.381	31.322	31.370	31.271	31.353	11
62	31.419	31.435	31.399	31.428	31.368	31.417	31.317	31.399	11
63	31.466	31.482	31.445	31.474	31.414	31.463	31.363	31.446	11
64	31.512	31.528	31.492	31.520	31.461	31.509	31.409	31.492	11
65	31.559	31.575	31.538	31.567	31.507	31.556	31.455	31.538	11
66	34.326	34.342	34.305	34.334	34.274	34.323	34.222	34.305	12
67	34.372	34.388	34.352	34.380	34.320	34.369	34.269	34.351	12
68	34.419	34.435	34.398	34.427	34.367	34.415	34.315	34.398	12
69	34.465	34.481	34.444	34.473	34.413	34.462	34.361	34.444	12
70	34.512	34.528	34.491	34.520	34.459	34.508	34.407	34.490	12
71	34.558	34.574	34.537	34.566	34.506	34.555	34.453	34.537	12
72	37.325	37.341	37.304	37.333	37.273	37.322	37.220	37.304	13
73	37.372	37.388	37.351	37.380	37.319	37.368	37.267	37.350	13
74	37.418	37.434	37.397	37.426	37.366	37.414	37.313	37.396	13
75	37.465	37.481	37.444	37.472	37.412	37.461	37.359	37.442	13
76	37.511	37.527	37.490	37.519	37.458	37.507	37.405	37.489	13
77	37.558	37.574	37.536	37.565	37.505	37.553	37.451	37.535	13
78	40.325	40.341	40.304	40.332	40.272	40.320	40.218	40.302	14
79	40.371	40.387	40.350	40.379	40.318	40.367	40.265	40.348	14
80	40.418	40.434	40.396	40.425	40.364	40.413	40.311	40.395	14
81	40.464	40.480	40.443	40.472	40.411	40.460	40.357	40.441	14
82	40.511	40.527	40.489	40.518	40.457	40.506	40.403	40.487	14
83	40.557	40.573	40.536	40.564	40.503	40.552	40.450	40.534	14
84	43.324	43.340	43.303	43.332	43.270	43.319	43.216	43.301	15
85	43.371	43.387	43.349	43.378	43.317	43.366	43.263	43.347	15
86	43.417	43.433	43.396	43.424	43.363	43.412	43.309	43.393	15
87	43.464	43.480	43.442	43.471	43.410	43.459	43.355	43.439	15
88	43.510	43.526	43.489	43.517	43.456	43.505	43.401	43.486	15
89	43.557	43.573	43.535	43.564	43.502	43.551	43.448	43.532	15
90	46.324	46.340	46.302	46.331	46.269	46.318	46.215	46.299	16
91	46.370	46.386	46.349	46.377	46.316	46.365	46.261	46.345	16
92	46.417	46.433	46.395	46.424	46.362	46.411	46.307	46.392	16
93	46.463	46.479	46.441	46.470	46.408	46.458	46.353	46.438	16
94	46.510	46.526	46.488	46.517	46.455	46.504	46.400	46.484	16
95	46.556	46.572	46.534	46.563	46.501	46.550	46.446	46.531	16
96	49.323	49.339	49.301	49.330	49.268	49.317	49.213	49.298	17
97	49.370	49.386	49.348	49.377	49.315	49.364	49.259	49.344	17
98	49.416	49.432	49.394	49.423	49.361	49.410	49.305	49.390	17
99	49.463	49.479	49.441	49.469	49.407	49.457	49.352	49.437	17
100	49.509	49.525	49.487	49.516	49.454	49.503	49.398	49.483	17

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Table 217 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.25

$S_{v\,max}$ = maximum effective circular thickness = 1.963

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6	-------	-------	-------	-------	-------	-------	-------	-------	--
7	5.481	5.498	5.464	5.493	5.439	5.486	5.398	5.474	2
8	5.539	5.556	5.522	5.551	5.497	5.543	5.455	5.530	2
9	5.597	5.614	5.580	5.609	5.554	5.601	5.511	5.586	2
10	5.654	5.672	5.637	5.666	5.611	5.659	5.568	5.643	2
11	5.712	5.730	5.695	5.724	5.669	5.716	5.625	5.704	2
12	9.171	9.188	9.154	9.183	9.127	9.175	9.083	9.162	3
13	9.229	9.246	9.211	9.241	9.185	9.233	9.140	9.220	3
14	9.287	9.304	9.269	9.299	9.242	9.291	9.197	9.277	3
15	9.345	9.362	9.327	9.357	9.300	9.348	9.255	9.335	3
16	9.403	9.420	9.385	9.415	9.357	9.406	9.312	9.393	3
17	9.461	9.478	9.442	9.472	9.415	9.464	9.369	9.450	3
18	12.920	12.937	12.901	12.931	12.873	12.923	12.827	12.909	4
19	12.978	12.995	12.959	12.989	12.931	12.980	12.885	12.967	4
20	13.036	13.053	13.017	13.047	12.989	13.038	12.942	13.024	4
21	13.094	13.111	13.075	13.105	13.047	13.096	12.999	13.082	4
22	13.152	13.169	13.133	13.163	13.104	13.154	13.057	13.140	4
23	13.210	13.227	13.191	13.221	13.162	13.212	13.114	13.197	4
24	16.668	16.686	16.649	16.680	16.621	16.671	16.573	16.656	5
25	16.726	16.744	16.707	16.738	16.678	16.728	16.630	16.714	5
26	16.785	16.802	16.765	16.796	16.736	16.786	16.688	16.772	5
27	16.843	16.860	16.823	16.854	16.794	16.844	16.745	16.829	5
28	16.901	16.918	16.881	16.912	16.852	16.902	16.803	16.887	5
29	16.959	16.976	16.939	16.969	16.909	16.960	16.860	16.945	5
30	20.417	20.435	20.398	20.428	20.368	20.419	20.319	20.403	6
31	20.476	20.493	20.456	20.486	20.426	20.477	20.376	20.461	6
32	20.534	20.551	20.514	20.544	20.484	20.534	20.434	20.519	6
33	20.592	20.609	20.572	20.602	20.541	20.592	20.491	20.577	6
34	20.650	20.667	20.629	20.660	20.599	20.650	20.549	20.635	6
35	20.708	20.725	20.687	20.718	20.657	20.708	20.607	20.692	6
36	24.167	24.184	24.146	24.177	24.116	24.167	24.065	24.151	7
37	24.225	24.242	24.204	24.235	24.174	24.225	24.123	24.209	7
38	24.283	24.300	24.262	24.293	24.232	24.283	24.180	24.267	7
39	24.341	24.358	24.320	24.351	24.290	24.341	24.238	24.324	7
40	24.399	24.416	24.378	24.409	24.347	24.399	24.296	24.382	7
41	24.457	24.474	24.436	24.467	24.405	24.456	24.353	24.440	7
42	27.916	27.933	27.895	27.926	27.864	27.915	27.812	27.899	8
43	27.974	27.991	27.953	27.984	27.922	27.973	27.870	27.957	8
44	28.032	28.049	28.011	28.042	27.980	28.031	27.927	28.014	8
45	28.090	28.108	28.069	28.100	28.037	28.089	27.985	28.072	8
46	28.148	28.166	28.127	28.158	28.095	28.147	28.043	28.130	8
47	28.206	28.224	28.185	28.216	28.153	28.205	28.100	28.188	8
48	31.665	31.683	31.644	31.675	31.612	31.664	31.559	31.647	9
49	31.723	31.741	31.702	31.733	31.670	31.722	31.617	31.704	9
50	31.781	31.799	31.760	31.791	31.728	31.780	31.674	31.762	9
51	31.839	31.857	31.818	31.849	31.786	31.838	31.732	31.820	9
52	31.897	31.915	31.876	31.907	31.844	31.896	31.790	31.878	9
53	31.955	31.973	31.934	31.965	31.902	31.953	31.848	31.936	9
54	35.414	35.432	35.393	35.424	35.360	35.412	35.306	35.394	10
55	35.472	35.490	35.451	35.482	35.418	35.470	35.364	35.452	10
56	35.531	35.548	35.509	35.540	35.476	35.528	35.422	35.510	10
57	35.589	35.606	35.567	35.598	35.534	35.586	35.480	35.568	10
58	35.647	35.664	35.625	35.656	35.592	35.644	35.537	35.626	10
59	35.705	35.722	35.683	35.714	35.650	35.702	35.595	35.684	10
60	39.164	39.181	39.142	39.173	39.109	39.161	39.054	39.143	11
61	39.222	39.239	39.200	39.231	39.167	39.219	39.112	39.200	11
62	39.280	39.297	39.258	39.289	39.225	39.277	39.169	39.258	11
63	39.338	39.355	39.316	39.347	39.283	39.335	39.227	39.316	11
64	39.396	39.413	39.374	39.405	39.341	39.393	39.285	39.374	11
65	39.454	39.472	39.432	39.463	39.398	39.451	39.343	39.432	11
66	42.913	42.930	42.891	42.922	42.857	42.910	42.801	42.891	12
67	42.971	42.989	42.949	42.980	42.915	42.968	42.859	42.949	12
68	43.029	43.047	43.007	43.038	42.973	43.026	42.917	43.006	12
69	43.087	43.105	43.065	43.096	43.031	43.083	42.975	43.064	12
70	43.146	43.163	43.123	43.154	43.089	43.141	43.033	43.122	12
71	43.204	43.221	43.181	43.212	43.147	43.199	43.090	43.180	12
72	46.663	46.680	46.640	46.671	46.606	46.658	46.549	46.639	13
73	46.721	46.738	46.698	46.729	46.664	46.716	46.607	46.697	13
74	46.779	46.796	46.756	46.787	46.722	46.774	46.665	46.755	13
75	46.837	46.854	46.814	46.845	46.780	46.832	46.723	46.813	13
76	46.895	46.912	46.872	46.903	46.838	46.890	46.780	46.870	13
77	46.953	46.970	46.930	46.961	46.896	46.948	46.838	46.928	13
78	50.412	50.429	50.389	50.420	50.355	50.407	50.297	50.387	14
79	50.470	50.487	50.447	50.478	50.412	50.465	50.355	50.445	14
80	50.528	50.545	50.505	50.536	50.470	50.523	50.413	50.503	14
81	50.586	50.603	50.563	50.594	50.528	50.581	50.470	50.561	14
82	50.644	50.662	50.621	50.652	50.586	50.639	50.528	50.619	14
83	50.703	50.720	50.679	50.710	50.644	50.697	50.586	50.677	14
84	54.162	54.179	54.138	54.169	54.103	54.156	54.045	54.135	15
85	54.220	54.237	54.196	54.227	54.161	54.214	54.103	54.193	15
86	54.278	54.295	54.254	54.285	54.219	54.272	54.161	54.251	15
87	54.336	54.353	54.312	54.343	54.277	54.330	54.218	54.309	15
88	54.394	54.411	54.370	54.401	54.335	54.388	54.276	54.367	15
89	54.452	54.469	54.429	54.459	54.393	54.446	54.334	54.425	15
90	57.911	57.928	57.887	57.918	57.852	57.905	57.793	57.884	16
91	57.969	57.986	57.945	57.976	57.910	57.963	57.851	57.942	16
92	58.027	58.044	58.004	58.034	57.968	58.021	57.909	58.000	16
93	58.085	58.102	58.062	58.092	58.026	58.079	57.967	58.058	16
94	58.143	58.160	58.120	58.151	58.084	58.137	58.024	58.115	16
95	58.202	58.218	58.178	58.209	58.142	58.195	58.082	58.173	16
96	61.661	61.677	61.637	61.667	61.601	61.654	61.541	61.632	17
97	61.719	61.736	61.695	61.726	61.659	61.712	61.599	61.690	17
98	61.777	61.794	61.753	61.784	61.717	61.770	61.657	61.748	17
99	61.835	61.852	61.811	61.842	61.775	61.828	61.715	61.806	17
100	61.893	61.910	61.869	61.900	61.833	61.886	61.773	61.864	17

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Table 218 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.50

$S_{v\,max}$ = maximum effective circular thickness = 2.356

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6	-------	-------	-------	-------	-------	-------	-------	-------	--
7	6.581	6.599	6.563	6.594	6.537	6.586	6.493	6.574	2
8	6.650	6.669	6.632	6.663	6.606	6.655	6.561	6.643	2
9	6.720	6.738	6.702	6.733	6.674	6.725	6.629	6.712	2
10	6.789	6.808	6.771	6.802	6.743	6.794	6.698	6.781	2
11	6.859	6.877	6.840	6.872	6.812	6.863	6.766	6.850	2
12	11.009	11.028	10.991	11.022	10.963	11.014	10.916	11.000	3
13	11.079	11.098	11.060	11.092	11.032	11.083	10.984	11.070	3
14	11.148	11.167	11.129	11.161	11.101	11.153	11.053	11.139	3
15	11.218	11.237	11.199	11.231	11.170	11.222	11.122	11.208	3
16	11.288	11.306	11.268	11.300	11.239	11.291	11.191	11.277	3
17	11.357	11.376	11.338	11.370	11.308	11.361	11.260	11.346	3
18	15.508	15.527	15.488	15.520	15.459	15.511	15.410	15.497	4
19	15.577	15.596	15.558	15.590	15.528	15.581	15.478	15.566	4
20	15.647	15.666	15.627	15.659	15.597	15.650	15.547	15.635	4
21	15.717	15.735	15.697	15.729	15.666	15.719	15.616	15.705	4
22	15.786	15.805	15.766	15.798	15.736	15.789	15.685	15.774	4
23	15.856	15.875	15.836	15.868	15.805	15.858	15.754	15.843	4
24	20.007	20.025	19.986	20.019	19.956	20.009	19.905	19.994	5
25	20.076	20.095	20.056	20.088	20.025	20.078	19.974	20.063	5
26	20.146	20.165	20.125	20.158	20.094	20.148	20.043	20.132	5
27	20.215	20.234	20.195	20.227	20.164	20.217	20.112	20.202	5
28	20.285	20.304	20.264	20.297	20.233	20.287	20.181	20.271	5
29	20.355	20.374	20.334	20.366	20.302	20.356	20.250	20.340	5
30	24.505	24.524	24.484	24.517	24.453	24.507	24.400	24.491	6
31	24.575	24.594	24.554	24.587	24.522	24.576	24.469	24.560	6
32	24.645	24.664	24.624	24.656	24.592	24.646	24.539	24.629	6
33	24.714	24.733	24.693	24.726	24.661	24.715	24.608	24.699	6
34	24.784	24.803	24.763	24.795	24.731	24.785	24.677	24.768	6
35	24.854	24.873	24.832	24.865	24.800	24.854	24.746	24.837	6
36	29.005	29.023	28.983	29.016	28.950	29.005	28.896	28.988	7
37	29.074	29.093	29.052	29.085	29.020	29.074	28.966	29.057	7
38	29.144	29.163	29.122	29.155	29.089	29.144	29.035	29.127	7
39	29.214	29.232	29.192	29.224	29.159	29.213	29.104	29.196	7
40	29.283	29.302	29.261	29.294	29.228	29.283	29.173	29.266	7
41	29.353	29.372	29.331	29.364	29.298	29.352	29.243	29.335	7
42	33.504	33.522	33.482	33.514	33.448	33.503	33.393	33.485	8
43	33.573	33.592	33.551	33.584	33.518	33.573	33.462	33.555	8
44	33.643	33.662	33.621	33.654	33.587	33.642	33.532	33.624	8
45	33.713	33.731	33.690	33.723	33.657	33.712	33.601	33.694	8
46	33.782	33.801	33.760	33.793	33.726	33.781	33.670	33.763	8
47	33.852	33.871	33.830	33.862	33.796	33.851	33.740	33.832	8
48	38.003	38.021	37.980	38.013	37.946	38.001	37.890	37.989	9
49	38.073	38.091	38.050	38.083	38.016	38.071	37.959	38.052	9
50	38.142	38.161	38.120	38.152	38.085	38.140	38.029	38.122	9
51	38.212	38.230	38.189	38.222	38.155	38.210	38.098	38.191	9
52	38.282	38.300	38.259	38.292	38.224	38.280	38.167	38.261	9
53	38.351	38.370	38.328	38.361	38.294	38.349	38.237	38.330	9
54	42.502	42.521	42.479	42.512	42.445	42.500	42.387	42.481	10
55	42.572	42.590	42.549	42.582	42.514	42.569	42.456	42.550	10
56	42.642	42.660	42.618	42.651	42.584	42.639	42.526	42.620	10
57	42.711	42.730	42.688	42.721	42.653	42.708	42.595	42.689	10
58	42.781	42.799	42.758	42.790	42.723	42.778	42.664	42.759	10
59	42.851	42.869	42.827	42.860	42.792	42.848	42.734	42.828	10
60	47.001	47.020	46.978	47.011	46.943	46.998	46.884	46.979	11
61	47.071	47.090	47.048	47.080	47.012	47.068	46.954	47.048	11
62	47.141	47.159	47.117	47.150	47.082	47.137	47.023	47.117	11
63	47.211	47.229	47.187	47.220	47.152	47.207	47.092	47.187	11
64	47.280	47.299	47.257	47.289	47.221	47.276	47.162	47.256	11
65	47.350	47.368	47.326	47.359	47.291	47.346	47.231	47.326	11
66	51.501	51.519	51.477	51.510	51.441	51.497	51.382	51.476	12
67	51.571	51.589	51.547	51.579	51.511	51.566	51.451	51.546	12
68	51.640	51.658	51.616	51.649	51.580	51.636	51.521	51.615	12
69	51.710	51.728	51.686	51.719	51.650	51.705	51.590	51.685	12
70	51.780	51.798	51.756	51.788	51.720	51.775	51.659	51.754	12
71	51.849	51.868	51.825	51.858	51.789	51.845	51.729	51.824	12
72	56.000	56.018	55.976	56.009	55.940	55.995	55.879	55.974	13
73	56.070	56.088	56.046	56.078	56.009	56.065	55.949	56.044	13
74	56.140	56.158	56.115	56.148	56.079	56.134	56.018	56.113	13
75	56.209	56.227	56.185	56.218	56.148	56.204	56.088	56.183	13
76	56.279	56.297	56.255	56.287	56.218	56.274	56.157	56.252	13
77	56.349	56.367	56.324	56.357	56.288	56.343	56.226	56.322	13
78	60.500	60.518	60.475	60.508	60.438	60.494	60.377	60.473	14
79	60.569	60.587	60.545	60.577	60.508	60.563	60.446	60.542	14
80	60.639	60.657	60.614	60.647	60.577	60.633	60.516	60.612	14
81	60.709	60.727	60.684	60.717	60.647	60.703	60.585	60.681	14
82	60.779	60.797	60.754	60.786	60.717	60.772	60.655	60.751	14
83	60.848	60.866	60.823	60.856	60.786	60.842	60.724	60.820	14
84	64.999	65.017	64.974	65.007	64.937	64.993	64.875	64.971	15
85	65.069	65.087	65.044	65.077	65.006	65.062	64.944	65.040	15
86	65.139	65.156	65.114	65.146	65.076	65.132	65.014	65.110	15
87	65.208	65.226	65.183	65.216	65.146	65.201	65.083	65.179	15
88	65.278	65.296	65.253	65.286	65.215	65.271	65.153	65.249	15
89	65.348	65.366	65.323	65.355	65.285	65.341	65.222	65.318	15
90	69.499	69.516	69.473	69.506	69.436	69.491	69.373	69.469	16
91	69.568	69.586	69.543	69.576	69.505	69.561	69.442	69.538	16
92	69.638	69.656	69.613	69.645	69.575	69.631	69.512	69.608	16
93	69.708	69.726	69.682	69.715	69.644	69.700	69.581	69.677	16
94	69.777	69.795	69.752	69.785	69.714	69.770	69.651	69.747	16
95	69.847	69.865	69.822	69.854	69.784	69.839	69.720	69.816	16
96	73.998	74.016	73.973	74.005	73.934	73.990	73.871	73.967	17
97	74.068	74.085	74.042	74.075	74.004	74.060	73.940	74.037	17
98	74.138	74.155	74.112	74.144	74.074	74.129	74.010	74.106	17
99	74.207	74.225	74.182	74.214	74.143	74.199	74.079	74.176	17
100	74.277	74.295	74.251	74.284	74.213	74.269	74.149	74.245	17

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Table 219 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 1.75

$S_{v\,max}$ = maximum effective circular thickness − 2.749

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k teeth
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	
6									
7	7.681	7.700	7.662	7.695	7.635	7.687	7.588	7.674	2
8	7.762	7.782	7.743	7.776	7.715	7.768	7.668	7.755	2
9	7.843	7.863	7.824	7.857	7.795	7.849	7.748	7.835	2
10	7.924	7.944	7.905	7.938	7.876	7.930	7.828	7.916	2
11	8.005	8.025	7.986	8.019	7.957	8.010	7.908	7.997	2
12	12.848	12.867	12.828	12.861	12.798	12.853	12.749	12.839	3
13	12.929	12.949	12.909	12.942	12.879	12.934	12.829	12.919	3
14	13.010	13.030	12.990	13.024	12.960	13.015	12.910	13.000	3
15	13.091	13.111	13.071	13.105	13.041	13.096	12.990	13.081	3
16	13.172	13.192	13.152	13.186	13.121	13.177	13.070	13.162	3
17	13.254	13.273	13.233	13.267	13.202	13.258	13.151	13.243	3
18	18.096	18.116	18.075	18.109	18.044	18.100	17.993	18.085	4
19	18.177	18.197	18.156	18.190	18.125	18.181	18.073	18.166	4
20	18.259	18.278	18.238	18.272	18.206	18.262	18.154	18.246	4
21	18.340	18.360	18.319	18.353	18.287	18.343	18.234	18.327	4
22	18.421	18.441	18.400	18.434	18.368	18.424	18.315	18.408	4
23	18.502	18.522	18.481	18.515	18.449	18.505	18.395	18.489	4
24	23.345	23.365	23.323	23.357	23.291	23.347	23.237	23.331	5
25	23.426	23.446	23.404	23.439	23.372	23.428	23.318	23.412	5
26	23.507	23.527	23.486	23.520	23.453	23.509	23.399	23.493	5
27	23.589	23.608	23.567	23.601	23.534	23.590	23.479	23.574	5
28	23.670	23.690	23.648	23.682	23.615	23.672	23.560	23.655	5
29	23.751	23.771	23.729	23.763	23.696	23.753	23.641	23.736	5
30	28.594	28.613	28.571	28.606	28.538	28.595	28.483	28.578	6
31	28.675	28.695	28.653	28.687	28.619	28.676	28.563	28.659	6
32	28.756	28.776	28.734	28.768	28.700	28.757	28.644	28.740	6
33	28.838	28.857	28.815	28.849	28.781	28.838	28.725	28.821	6
34	28.919	28.939	28.896	28.931	28.862	28.919	28.806	28.902	6
35	29.000	29.020	28.977	29.012	28.943	29.000	28.887	28.983	6
36	33.843	33.862	33.820	33.854	33.786	33.843	33.729	33.825	7
37	33.924	33.944	33.901	33.935	33.867	33.924	33.810	33.906	7
38	34.005	34.025	33.982	34.017	33.948	34.005	33.890	33.987	7
39	34.087	34.106	34.063	34.098	34.029	34.086	33.971	34.068	7
40	34.168	34.187	34.145	34.179	34.110	34.167	34.052	34.149	7
41	34.249	34.269	34.226	34.260	34.191	34.248	34.133	34.230	7
42	39.092	39.111	39.068	39.103	39.033	39.091	38.975	39.072	8
43	39.173	39.193	39.150	39.184	39.114	39.172	39.056	39.153	8
44	39.254	39.274	39.231	39.265	39.196	39.253	39.137	39.234	8
45	39.336	39.355	39.312	39.347	39.277	39.334	39.218	39.315	8
46	39.417	39.437	39.393	39.428	39.358	39.415	39.299	39.396	8
47	39.498	39.518	39.475	39.509	39.439	39.497	39.380	39.477	8
48	44.341	44.360	44.317	44.352	44.281	44.339	44.222	44.320	9
49	44.422	44.442	44.398	44.433	44.362	44.420	44.303	44.401	9
50	44.504	44.523	44.480	44.514	44.444	44.501	44.384	44.482	9
51	44.585	44.604	44.561	44.595	44.525	44.583	44.465	44.563	9
52	44.666	44.686	44.642	44.677	44.606	44.664	44.545	44.644	9
53	44.748	44.767	44.723	44.758	44.687	44.745	44.626	44.725	9
54	49.590	49.609	49.566	49.600	49.529	49.587	49.469	49.567	10
55	49.671	49.691	49.647	49.682	49.611	49.668	49.550	49.648	10
56	49.753	49.772	49.728	49.763	49.692	49.750	49.631	49.729	10
57	49.834	49.853	49.810	49.844	49.773	49.831	49.712	49.810	10
58	49.915	49.935	49.891	49.925	49.854	49.912	49.793	49.891	10
59	49.997	50.016	49.972	50.007	49.935	49.993	49.873	49.973	10
60	54.839	54.859	54.815	54.849	54.778	54.836	54.716	54.815	11
61	54.921	54.940	54.896	54.930	54.859	54.917	54.797	54.896	11
62	55.002	55.021	54.977	55.012	54.940	54.998	54.878	54.977	11
63	55.083	55.103	55.058	55.093	55.021	55.079	54.959	55.058	11
64	55.165	55.184	55.140	55.174	55.102	55.160	55.040	55.139	11
65	55.246	55.265	55.221	55.255	55.183	55.242	55.121	55.220	11
66	60.089	60.108	60.064	60.098	60.026	60.084	59.963	60.063	12
67	60.170	60.189	60.145	60.179	60.107	60.165	60.044	60.144	12
68	60.251	60.270	60.226	60.260	60.188	60.246	60.125	60.225	12
69	60.333	60.352	60.307	60.342	60.269	60.328	60.206	60.306	12
70	60.414	60.433	60.389	60.423	60.351	60.409	60.287	60.387	12
71	60.495	60.514	60.470	60.504	60.432	60.490	60.368	60.468	12
72	65.338	65.357	65.313	65.347	65.274	65.332	65.210	65.310	13
73	65.419	65.438	65.394	65.428	65.355	65.414	65.291	65.391	13
74	65.501	65.520	65.475	65.509	65.437	65.495	65.372	65.473	13
75	65.582	65.601	65.556	65.591	65.518	65.576	65.454	65.554	13
76	65.663	65.682	65.638	65.672	65.599	65.657	65.535	65.635	13
77	65.745	65.764	65.719	65.753	65.680	65.739	65.616	65.716	13
78	70.587	70.606	70.562	70.596	70.523	70.581	70.458	70.558	14
79	70.669	70.688	70.643	70.677	70.604	70.662	70.539	70.639	14
80	70.750	70.769	70.724	70.758	70.685	70.743	70.620	70.720	14
81	70.832	70.850	70.805	70.840	70.766	70.825	70.701	70.802	14
82	70.913	70.932	70.887	70.921	70.848	70.906	70.782	70.883	14
83	70.994	71.013	70.968	71.002	70.929	70.987	70.863	70.964	14
84	75.837	75.856	75.811	75.845	75.771	75.830	75.706	75.806	15
85	75.918	75.937	75.892	75.926	75.852	75.911	75.787	75.887	15
86	76.000	76.018	75.973	76.007	75.934	75.992	75.868	75.968	15
87	76.081	76.100	76.055	76.089	76.015	76.073	75.949	76.050	15
88	76.162	76.181	76.136	76.170	76.096	76.154	76.030	76.131	15
89	76.244	76.262	76.217	76.251	76.177	76.236	76.111	76.212	15
90	81.086	81.105	81.060	81.094	81.020	81.078	A0.953	81.054	16
91	81.168	81.186	81.141	81.175	81.101	81.159	81.034	81.135	16
92	81.249	81.268	81.222	81.256	81.182	81.241	81.115	81.217	16
93	81.330	81.349	81.304	81.338	81.263	81.322	81.197	81.298	16
94	81.412	81.430	81.385	81.419	81.345	81.403	81.278	81.379	16
95	81.493	81.512	81.466	81.500	81.426	81.484	81.359	81.460	16
96	86.336	86.354	86.309	86.343	86.268	86.327	86.201	86.302	17
97	86.417	86.436	86.390	86.424	86.350	86.408	86.282	86.383	17
98	86.498	86.517	86.471	86.505	86.431	86.489	86.363	86.465	17
99	86.580	86.598	86.553	86.587	86.512	86.571	86.444	86.546	17
100	86.661	86.680	86.634	86.668	86.593	86.652	86.525	86.627	17

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Table 220 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 2.00

$S_{v\,max}$ = maximum effective circular thickness = 3.142

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k teeth
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	
6									2
7	8.781	8.802	8.762	8.796	8.733	8.788	8.684	8.774	2
8	8.874	8.894	8.854	8.889	8.825	8.880	8.775	8.867	2
9	8.967	8.987	8.947	8.981	8.917	8.973	8.867	8.959	2
10	9.059	9.080	9.039	9.074	9.009	9.065	8.958	9.051	2
11	9.152	9.173	9.132	9.167	9.101	9.158	9.050	9.143	2
12	14.686	14.707	14.666	14.701	14.635	14.692	14.583	14.677	3
13	14.779	14.800	14.758	14.793	14.727	14.784	14.675	14.769	3
14	14.872	14.893	14.851	14.886	14.819	14.877	14.767	14.862	3
15	14.965	14.985	14.944	14.979	14.912	14.969	14.859	14.954	3
16	15.058	15.078	15.036	15.071	15.004	15.062	14.951	15.047	3
17	15.150	15.171	15.129	15.164	15.097	15.154	15.043	15.139	3
18	20.685	20.705	20.663	20.698	20.630	20.688	20.576	20.673	4
19	20.777	20.798	20.756	20.791	20.723	20.781	20.668	20.765	4
20	20.870	20.891	20.848	20.884	20.815	20.874	20.760	20.858	4
21	20.963	20.984	20.941	20.977	20.908	20.966	20.853	20.950	4
22	21.056	21.077	21.034	21.069	21.000	21.059	20.945	21.043	4
23	21.149	21.170	21.127	21.162	21.093	21.152	21.037	21.135	4
24	26.683	26.704	26.661	26.696	26.627	26.686	26.571	26.669	5
25	26.776	26.797	26.753	26.789	26.719	26.778	26.663	26.761	5
26	26.869	26.890	26.846	26.882	26.812	26.871	26.755	26.854	5
27	26.962	26.983	26.939	26.975	26.905	26.964	26.847	26.946	5
28	27.055	27.075	27.032	27.068	26.997	27.056	26.940	27.039	5
29	27.148	27.168	27.125	27.160	27.090	27.149	27.032	27.132	5
30	32.682	32.703	32.659	32.695	32.624	32.683	32.566	32.666	6
31	32.775	32.796	32.752	32.787	32.717	32.776	32.658	32.758	6
32	32.868	32.888	32.844	32.880	32.809	32.869	32.751	32.851	6
33	32.961	32.981	32.937	32.973	32.902	32.961	32.843	32.943	6
34	33.054	33.074	33.030	33.066	32.995	33.054	32.935	33.036	6
35	33.147	33.167	33.123	33.159	33.087	33.147	33.028	33.128	6
36	38.681	38.701	38.657	38.693	38.621	38.681	38.562	38.662	7
37	38.774	38.794	38.750	38.786	38.714	38.774	38.654	38.755	7
38	38.867	38.887	38.843	38.879	38.807	38.866	38.746	38.848	7
39	38.960	38.980	38.936	38.972	38.899	38.959	38.839	38.940	7
40	39.053	39.073	39.028	39.064	38.992	39.052	38.931	39.033	7
41	39.146	39.166	39.121	39.157	39.085	39.145	39.024	39.125	7
42	44.680	44.700	44.656	44.691	44.619	44.679	44.558	44.659	8
43	44.773	44.793	44.748	44.784	44.712	44.772	44.650	44.752	8
44	44.866	44.886	44.841	44.877	44.804	44.864	44.743	44.845	8
45	44.959	44.979	44.934	44.970	44.897	44.957	44.835	44.937	8
46	45.052	45.072	45.027	45.063	44.990	45.050	44.928	45.030	8
47	45.145	45.165	45.120	45.156	45.083	45.143	45.020	45.122	8
48	50.679	50.699	50.654	50.690	50.617	50.677	50.554	50.657	9
49	50.772	50.792	50.747	50.783	50.709	50.770	50.647	50.749	9
50	50.865	50.885	50.840	50.876	50.802	50.862	50.739	50.842	9
51	50.958	50.978	50.933	50.969	50.895	50.955	50.832	50.934	9
52	51.051	51.071	51.026	51.062	50.988	51.048	50.924	51.027	9
53	51.144	51.164	51.119	51.154	51.080	51.141	51.017	51.120	9
54	56.678	56.698	56.653	56.689	56.615	56.675	56.551	56.654	10
55	56.771	56.791	56.746	56.782	56.707	56.768	56.644	56.747	10
56	56.864	56.884	56.839	56.874	56.800	56.861	56.736	56.839	10
57	56.957	56.977	56.931	56.967	56.893	56.953	56.829	56.932	10
58	57.050	57.070	57.024	57.060	56.986	57.046	56.921	57.025	10
59	57.143	57.163	57.117	57.153	57.079	57.139	57.014	57.117	10
60	62.677	62.697	62.652	62.687	62.613	62.673	62.548	62.651	11
61	62.770	62.790	62.744	62.780	62.705	62.766	62.641	62.744	11
62	62.863	62.883	62.837	62.873	62.798	62.859	62.733	62.837	11
63	62.956	62.976	62.930	62.966	62.891	62.952	62.826	62.929	11
64	63.049	63.069	63.023	63.059	62.984	63.044	62.918	63.022	11
65	63.142	63.162	63.116	63.152	63.077	63.137	63.011	63.115	11
66	68.677	68.697	68.650	68.686	68.611	68.671	68.545	68.649	12
67	68.770	68.790	68.743	68.779	68.704	68.764	68.638	68.742	12
68	68.863	68.883	68.836	68.872	68.797	68.857	68.730	68.834	12
69	68.956	68.976	68.929	68.965	68.889	68.950	68.823	68.927	12
70	69.049	69.068	69.022	69.058	68.982	69.043	68.916	69.020	12
71	69.142	69.161	69.115	69.151	69.075	69.136	69.008	69.112	12
72	74.676	74.696	74.649	74.684	74.609	74.670	74.542	74.647	13
73	74.769	74.789	74.742	74.778	74.702	74.763	74.635	74.739	13
74	74.862	74.882	74.835	74.871	74.795	74.855	74.728	74.832	13
75	74.955	74.975	74.928	74.964	74.888	74.948	74.820	74.925	13
76	75.048	75.068	75.021	75.057	74.980	75.041	74.913	75.017	13
77	75.141	75.161	75.114	75.150	75.073	75.134	75.006	75.110	13
78	80.675	80.695	80.648	80.684	80.608	80.666	80.540	80.644	14
79	80.768	80.788	80.741	80.777	80.700	80.761	80.632	80.737	14
80	80.861	80.881	80.834	80.870	80.793	80.854	80.725	80.830	14
81	80.954	80.974	80.927	80.963	80.886	80.947	80.818	80.922	14
82	81.047	81.067	81.020	81.056	80.979	81.040	80.910	81.015	14
83	81.140	81.160	81.113	81.148	81.072	81.132	81.003	81.108	14
84	86.675	86.694	86.647	86.683	86.606	86.667	86.537	86.642	15
85	86.768	86.787	86.740	86.776	86.699	86.760	86.630	86.735	15
86	86.861	86.880	86.833	86.869	86.792	86.852	86.722	86.828	15
87	86.954	86.973	86.926	86.962	86.884	86.945	86.815	86.920	15
88	87.047	87.066	87.019	87.054	86.977	87.038	86.908	87.013	15
89	87.140	87.159	87.112	87.147	87.070	87.131	87.001	87.106	15
90	92.674	92.693	92.646	92.682	92.604	92.665	92.535	92.640	16
91	92.767	92.786	92.739	92.775	92.697	92.758	92.627	92.733	16
92	92.860	92.879	92.832	92.868	92.790	92.851	92.720	92.825	16
93	92.953	92.972	92.925	92.960	92.883	92.944	92.813	92.918	16
94	93.046	93.065	93.018	93.053	92.976	93.037	92.906	93.011	16
95	93.139	93.158	93.111	93.146	93.069	93.129	92.998	93.104	16
96	98.674	98.693	98.645	98.681	98.603	98.664	98.532	98.638	17
97	98.767	98.786	98.738	98.774	98.696	98.757	98.625	98.731	17
98	98.860	98.879	98.831	98.867	98.789	98.849	98.718	98.823	17
99	98.953	98.972	98.924	98.959	98.882	98.942	98.811	98.916	17
100	99.046	99.065	99.017	99.052	98.974	99.035	98.903	99.009	17

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Table 221 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 2.50

$S_{v\,max}$ = maximum effective circular thickness = 3.927

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6									
7	10,982	11,004	10,961	10,998	10,930	10,989	10,877	10,975	2
8	11,098	11,120	11,077	11,114	11,045	11,105	10,992	11,090	2
9	11,214	11,236	11,193	11,230	11,160	11,221	11,106	11,206	2
10	11,330	11,352	11,308	11,346	11,276	11,336	11,221	11,321	2
11	11,446	11,468	11,424	11,462	11,391	11,452	11,336	11,437	2
12	11,562	11,584	11,540	11,578	11,506	11,568	11,451	11,552	2
13	18,480	18,502	18,457	18,495	18,424	18,485	18,367	18,469	3
14	18,596	18,618	18,573	18,611	18,539	18,601	18,483	18,585	3
15	18,712	18,734	18,689	18,727	18,655	18,717	18,598	18,701	3
16	18,828	18,850	18,805	18,843	18,770	18,833	18,713	18,816	3
17	18,944	18,966	18,921	18,959	18,886	18,948	18,828	18,932	3
18	25,862	25,884	25,839	25,877	25,803	25,866	25,745	25,849	4
19	25,978	26,000	25,954	25,993	25,919	25,982	25,860	25,965	4
20	26,094	26,116	26,070	26,109	26,035	26,098	25,976	26,080	4
21	26,210	26,233	26,186	26,225	26,151	26,214	26,091	26,196	4
22	26,326	26,349	26,302	26,341	26,266	26,329	26,206	26,312	4
23	26,442	26,465	26,418	26,457	26,382	26,445	26,322	26,427	4
24	33,360	33,383	33,336	33,374	33,298	33,363	33,239	33,345	5
25	33,477	33,499	33,452	33,491	33,415	33,479	33,354	33,460	5
26	33,593	33,615	33,568	33,607	33,531	33,595	33,470	33,576	5
27	33,709	33,731	33,684	33,723	33,647	33,711	33,585	33,692	5
28	33,825	33,847	33,800	33,839	33,763	33,827	33,701	33,808	5
29	33,941	33,963	33,916	33,955	33,879	33,942	33,816	33,923	5
30	40,859	40,881	40,834	40,872	40,796	40,860	40,734	40,841	6
31	40,975	40,997	40,950	40,989	40,912	40,976	40,849	40,957	6
32	41,091	41,113	41,066	41,105	41,028	41,092	40,965	41,072	6
33	41,208	41,230	41,182	41,221	41,144	41,208	41,080	41,188	6
34	41,324	41,346	41,298	41,337	41,260	41,324	41,196	41,304	6
35	41,440	41,462	41,414	41,453	41,376	41,440	41,312	41,420	6
36	48,358	48,380	48,332	48,371	48,293	48,358	48,229	48,337	7
37	48,474	48,496	48,448	48,487	48,409	48,474	48,345	48,453	7
38	48,590	48,612	48,564	48,603	48,525	48,589	48,460	48,569	7
39	48,706	48,728	48,680	48,719	48,641	48,705	48,576	48,685	7
40	48,823	48,845	48,796	48,835	48,757	48,821	48,692	48,800	7
41	48,939	48,961	48,913	48,951	48,873	48,937	48,807	48,916	7
42	55,857	55,879	55,830	55,869	55,791	55,855	55,725	55,834	8
43	55,973	55,995	55,947	55,985	55,907	55,971	55,840	55,950	8
44	56,089	56,111	56,063	56,101	56,023	56,087	55,956	56,066	8
45	56,205	56,227	56,179	56,217	56,139	56,203	56,072	56,181	8
46	56,322	56,343	56,295	56,333	56,255	56,319	56,188	56,297	8
47	56,438	56,460	56,411	56,449	56,371	56,435	56,303	56,413	8
48	63,356	63,378	63,329	63,367	63,288	63,353	63,221	63,331	9
49	63,472	63,494	63,445	63,483	63,404	63,469	63,337	63,447	9
50	63,588	63,610	63,561	63,600	63,520	63,585	63,452	63,562	9
51	63,705	63,726	63,677	63,716	63,636	63,701	63,568	63,678	9
52	63,821	63,842	63,793	63,832	63,752	63,817	63,684	63,794	9
53	63,937	63,958	63,910	63,948	63,868	63,933	63,800	63,910	9
54	70,855	70,876	70,827	70,866	70,786	70,851	70,717	70,828	10
55	70,971	70,993	70,943	70,982	70,902	70,967	70,833	70,944	10
56	71,087	71,109	71,060	71,098	71,018	71,083	70,949	71,059	10
57	71,204	71,225	71,176	71,214	71,134	71,199	71,065	71,175	10
58	71,320	71,341	71,292	71,330	71,250	71,315	71,181	71,291	10
59	71,436	71,457	71,408	71,446	71,366	71,431	71,296	71,407	10
60	78,354	78,375	78,326	78,364	78,284	78,349	78,214	78,325	11
61	78,470	78,492	78,442	78,480	78,400	78,465	78,330	78,441	11
62	78,587	78,608	78,558	78,597	78,516	78,581	78,446	78,557	11
63	78,703	78,724	78,675	78,713	78,632	78,697	78,561	78,673	11
64	78,819	78,840	78,791	78,829	78,748	78,813	78,677	78,788	11
65	78,935	78,956	78,907	78,945	78,864	78,929	78,793	78,904	11
66	85,853	85,874	85,825	85,863	85,782	85,847	85,711	85,822	12
67	85,970	85,991	85,941	85,979	85,898	85,963	85,827	85,938	12
68	86,086	86,107	86,057	86,095	86,014	86,079	85,942	86,054	12
69	86,202	86,223	86,173	86,211	86,130	86,195	86,058	86,170	12
70	86,318	86,339	86,290	86,328	86,246	86,311	86,174	86,286	12
71	86,435	86,456	86,406	86,444	86,362	86,427	86,290	86,402	12
72	93,353	93,373	93,324	93,362	93,280	93,345	93,208	93,319	13
73	93,469	93,490	93,440	93,478	93,396	93,461	93,324	93,435	13
74	93,585	93,606	93,556	93,594	93,512	93,577	93,439	93,551	13
75	93,701	93,722	93,672	93,710	93,628	93,693	93,555	93,667	13
76	93,818	93,838	93,788	93,826	93,744	93,809	93,671	93,783	13
77	93,934	93,955	93,905	93,942	93,861	93,925	93,787	93,899	13
78	100,852	100,873	100,822	100,860	100,778	100,843	100,705	100,817	14
79	100,968	100,989	100,939	100,977	100,894	100,959	100,821	100,933	14
80	101,084	101,105	101,055	101,093	101,010	101,075	100,937	101,049	14
81	101,201	101,221	101,171	101,209	101,127	101,191	101,053	101,165	14
82	101,317	101,337	101,287	101,325	101,243	101,307	101,168	101,281	14
83	101,433	101,454	101,403	101,441	101,359	101,424	101,284	101,397	14
84	108,351	108,372	108,321	108,359	108,277	108,341	108,202	108,314	15
85	108,467	108,488	108,438	108,475	108,393	108,457	108,318	108,430	15
86	108,584	108,604	108,554	108,591	108,509	108,574	108,434	108,546	15
87	108,700	108,720	108,670	108,708	108,625	108,690	108,550	108,662	15
88	108,816	108,837	108,786	108,824	108,741	108,806	108,666	108,778	15
89	108,932	108,953	108,902	108,940	108,857	108,922	108,782	108,894	15
90	115,850	115,871	115,820	115,858	115,775	115,840	115,699	115,812	16
91	115,967	115,987	115,936	115,974	115,891	115,956	115,815	115,928	16
92	116,083	116,103	116,053	116,090	116,007	116,072	115,931	116,044	16
93	116,199	116,220	116,169	116,206	116,123	116,188	116,047	116,160	16
94	116,316	116,336	116,285	116,323	116,239	116,304	116,163	116,276	16
95	116,432	116,452	116,401	116,439	116,355	116,420	116,279	116,392	16
96	123,350	123,370	123,319	123,357	123,273	123,338	123,197	123,310	17
97	123,466	123,486	123,435	123,473	123,389	123,454	123,313	123,426	17
98	123,582	123,603	123,552	123,589	123,506	123,570	123,429	123,542	17
99	123,699	123,719	123,668	123,705	123,622	123,686	123,545	123,658	17
100	123,815	123,835	123,784	123,821	123,738	123,802	123,661	123,774	17

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Table 222 — Inspection dimensions W

Side fit external splines — Fundamental deviation h
30 degree pressure angle — Flat root or fillet root — Module = 3.00

$S_{v\,max}$ = maximum effective circular thickness = 4.712

Z Number of teeth	Measurement of the dimension W on number of teeth k (checking of dimensions S_{min} and S_{max}) for tolerance grades								k
	4 h		5 h		6 h		7 h		
	min.	max.	min.	max.	min.	max.	min.	max.	teeth
6									2
7	13.183	13.207	13.161	13.200	13.128	13.191	13.072	13.176	2
8	13.323	13.346	13.300	13.340	13.266	13.330	13.209	13.315	2
9	13.462	13.485	13.439	13.479	13.404	13.469	13.347	13.453	2
10	13.601	13.625	13.578	13.618	13.543	13.608	13.485	13.592	2
11	13.740	13.764	13.717	13.757	13.682	13.747	13.623	13.730	2
12	13.879	13.903	13.856	13.896	13.820	13.885	13.761	13.869	2
13	22.181	22.205	22.157	22.197	22.121	22.187	22.061	22.170	3
14	22.320	22.344	22.296	22.336	22.260	22.326	22.200	22.309	3
15	22.459	22.483	22.435	22.475	22.399	22.465	22.338	22.447	3
16	22.599	22.622	22.574	22.615	22.537	22.604	22.476	22.586	3
17	22.738	22.762	22.713	22.754	22.676	22.743	22.615	22.725	3
18	31.040	31.063	31.015	31.055	30.977	31.044	30.915	31.026	4
19	31.179	31.203	31.154	31.194	31.116	31.183	31.054	31.164	4
20	31.318	31.342	31.293	31.334	31.255	31.322	31.192	31.303	4
21	31.458	31.481	31.432	31.473	31.394	31.461	31.331	31.442	4
22	31.597	31.621	31.572	31.612	31.533	31.600	31.469	31.581	4
23	31.736	31.760	31.711	31.751	31.672	31.739	31.608	31.720	4
24	40.038	40.061	40.012	40.053	39.973	40.040	39.909	40.021	5
25	40.177	40.201	40.151	40.192	40.112	40.179	40.047	40.160	5
26	40.317	40.340	40.291	40.331	40.251	40.319	40.186	40.299	5
27	40.456	40.480	40.430	40.471	40.390	40.458	40.325	40.438	5
28	40.596	40.619	40.569	40.610	40.529	40.597	40.463	40.577	5
29	40.735	40.758	40.708	40.749	40.669	40.736	40.602	40.716	5
30	49.037	49.060	49.010	49.051	48.970	49.037	48.903	49.017	6
31	49.176	49.199	49.149	49.190	49.109	49.176	49.042	49.156	6
32	49.315	49.339	49.288	49.329	49.248	49.316	49.180	49.295	6
33	49.455	49.478	49.428	49.468	49.387	49.455	49.319	49.434	6
34	49.594	49.617	49.567	49.608	49.526	49.594	49.458	49.572	6
35	49.734	49.757	49.706	49.747	49.665	49.733	49.597	49.711	6
36	58.035	58.058	58.008	58.048	57.967	58.034	57.898	58.013	7
37	58.175	58.198	58.147	58.188	58.106	58.174	58.037	58.152	7
38	58.314	58.337	58.286	58.327	58.245	58.313	58.176	58.291	7
39	58.454	58.477	58.426	58.466	58.384	58.452	58.315	58.430	7
40	58.593	58.616	58.565	58.606	58.523	58.591	58.453	58.569	7
41	58.733	58.756	58.705	58.745	58.662	58.730	58.592	58.708	7
42	67.034	67.057	67.006	67.047	66.964	67.032	66.893	67.009	8
43	67.174	67.197	67.145	67.186	67.103	67.171	67.032	67.148	8
44	67.313	67.336	67.285	67.325	67.242	67.310	67.171	67.287	8
45	67.453	67.475	67.424	67.465	67.381	67.449	67.310	67.426	8
46	67.592	67.615	67.563	67.604	67.521	67.589	67.449	67.565	8
47	67.731	67.754	67.703	67.743	67.660	67.728	67.588	67.704	8
48	76.033	76.056	76.004	76.045	75.961	76.029	75.889	76.005	9
49	76.173	76.196	76.144	76.184	76.100	76.169	76.028	76.144	9
50	76.312	76.335	76.283	76.324	76.240	76.308	76.167	76.284	9
51	76.452	76.474	76.422	76.463	76.379	76.447	76.306	76.423	9
52	76.591	76.614	76.562	76.602	76.518	76.586	76.445	76.562	9
53	76.731	76.753	76.701	76.742	76.657	76.726	76.584	76.701	9
54	85.032	85.055	85.003	85.043	84.959	85.027	84.885	85.002	10
55	85.172	85.194	85.142	85.183	85.098	85.166	85.024	85.141	10
56	85.311	85.334	85.282	85.322	85.237	85.305	85.163	85.280	10
57	85.451	85.473	85.421	85.461	85.376	85.445	85.302	85.419	10
58	85.590	85.612	85.560	85.601	85.516	85.584	85.441	85.558	10
59	85.730	85.752	85.700	85.740	85.655	85.723	85.580	85.698	10
60	94.031	94.054	94.001	94.042	93.956	94.025	93.882	93.999	11
61	94.171	94.193	94.141	94.181	94.096	94.164	94.021	94.138	11
62	94.310	94.332	94.280	94.320	94.235	94.303	94.160	94.277	11
63	94.450	94.472	94.420	94.460	94.374	94.443	94.299	94.416	11
64	94.589	94.611	94.559	94.599	94.514	94.582	94.438	94.555	11
65	94.729	94.751	94.698	94.739	94.653	94.721	94.577	94.694	11
66	103.030	103.052	103.000	103.040	102.954	103.023	102.878	102.996	12
67	103.170	103.192	103.139	103.179	103.094	103.162	103.017	103.135	12
68	103.309	103.331	103.279	103.319	103.233	103.301	103.156	103.274	12
69	103.449	103.471	103.418	103.458	103.372	103.440	103.295	103.413	12
70	103.588	103.610	103.558	103.598	103.511	103.580	103.435	103.552	12
71	103.728	103.750	103.697	103.737	103.651	103.719	103.574	103.692	12
72	112.029	112.051	111.999	112.039	111.952	112.020	111.875	111.993	13
73	112.169	112.191	112.138	112.178	112.091	112.160	112.014	112.132	13
74	112.309	112.330	112.277	112.317	112.231	112.299	112.153	112.271	13
75	112.448	112.470	112.417	112.457	112.370	112.438	112.292	112.410	13
76	112.588	112.609	112.556	112.596	112.509	112.578	112.431	112.549	13
77	112.727	112.749	112.696	112.736	112.649	112.717	112.570	112.689	13
78	121.029	121.050	120.997	121.037	120.950	121.018	120.872	120.990	14
79	121.168	121.190	121.137	121.177	121.090	121.158	121.011	121.129	14
80	121.308	121.329	121.276	121.316	121.229	121.297	121.150	121.268	14
81	121.447	121.469	121.416	121.455	121.368	121.436	121.289	121.408	14
82	121.587	121.608	121.555	121.595	121.508	121.576	121.428	121.547	14
83	121.726	121.748	121.695	121.734	121.647	121.715	121.567	121.686	14
84	130.028	130.049	129.996	130.036	129.948	130.017	129.869	129.987	15
85	130.167	130.189	130.136	130.175	130.088	130.156	130.008	130.126	15
86	130.307	130.328	130.275	130.315	130.227	130.295	130.147	130.266	15
87	130.447	130.468	130.414	130.454	130.366	130.435	130.286	130.405	15
88	130.586	130.607	130.554	130.594	130.506	130.574	130.425	130.544	15
89	130.726	130.747	130.693	130.733	130.645	130.713	130.564	130.683	15
90	139.027	139.048	138.995	139.034	138.946	139.015	138.866	138.985	16
91	139.167	139.188	139.134	139.174	139.086	139.154	139.005	139.124	16
92	139.306	139.327	139.274	139.313	139.225	139.293	139.144	139.263	16
93	139.446	139.467	139.413	139.453	139.365	139.433	139.283	139.402	16
94	139.585	139.606	139.553	139.592	139.504	139.572	139.422	139.541	16
95	139.725	139.746	139.692	139.732	139.643	139.711	139.562	139.681	16
96	148.027	148.048	147.994	148.033	147.945	148.013	147.863	147.982	17
97	148.166	148.187	148.133	148.173	148.084	148.152	148.002	148.121	17
98	148.306	148.327	148.273	148.312	148.223	148.292	148.141	148.260	17
99	148.445	148.466	148.412	148.452	148.363	148.431	148.281	148.400	17
100	148.585	148.606	148.552	148.591	148.502	148.570	148.420	148.539	17

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