INTERNATIONAL STANDARD

ISO 7083

Second edition
2021-05

Technical product documentation — Symbols used in technical product documentation — Proportions and dimensions

Documentation technique de produits — Symboles utilisés dans la documentation technique de produits — Proportions et dimensions

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 1, *Basic conventions*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS F01, *Technical drawings,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 7083:1983), which has been technically revised.

The main changes to the previous edition are as follows:

— added symbols for standards under ISO/TC 10 and ISO/TC 213.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a collection of all the current symbols used in technical product documentation, predominantly created in ISO/TC 10 and ISO/TC 213. The symbols are indexed to the individual standards in which they were created and implemented. The ISO/TC 10/SC 1 validation process ensures the harmonization of symbols.

When developing new symbols for use in technical drawings, new symbols are submitted to ISO/TC 10 for review. ISO/TC 10 will confirm that a duplicate symbol with a different meaning does not exist and will add the new symbol to this document once the originating standard has been approved and published.

The following is a description of the process used for incorporating a new symbol:

a) The originator fills in the new symbol application form.

b) The originator attaches the symbol graphics file per the accepted graphics formats in the form.

c) The originator sends the application and graphics file to ISO/TC 10/SC 1.

d) ISO/TC 10/SC 1 forwards the documents to the validation team (appointed group of experts).

e) The validation team reviews the application and symbol according to the following areas:

   — justification for new symbol;

   — design;

   — conformity with ISO 81714-1;

   — duplication and similarity to existing and registered symbols.

f) The validation team prepares their report and sends the application documents back to ISO/TC 10/SC 1. Rejected proposals are sent back to the originator with an attached cause of rejection.

g) If the new symbol request is approved, the originator is notified and the symbol is appointed a registry number and submitted to ISO Central Secretariat for registration and publication on the ISO Online browsing platform: https://www.iso.org/obp.

h) The approved new symbol is added to the list of symbols to be added to the next revision of this document.

Technical product documentation — Symbols used in technical product documentation — Proportions and dimensions

1 Scope

This document specifies the recommended proportions for the symbols used in technical product documentation. It gives recommended dimensions based on the grid related to the line width to be used.

This document does not apply to symbols used in process plant documentation, which are covered in ISO 81714-1.

The proportions of the symbols are based on the standard heights of lettering given in ISO 3098-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3098-1, *Technical product documentation — Lettering — Part 1: General requirements*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 General conditions

The lettering used with the symbols shall be in accordance with the specifications of ISO 3098-1.

On any one drawing the height, line width and type of lettering of the symbols should be equal to those applied for the dimensioning and other indications on that drawing.

The symbols and their lettering are produced by digital means or may be hand-written (using a rule for drawing the frames) or executed by other appropriate methods (e.g. stencils, transfers, mechanical drawing).

5 Dimensions

Recommended dimensions of the symbols with lettering type A are specified in Table 1; dimensions for those with lettering type B are specified in Table 2.

Table 1 — Lettering type A

Dimensions in millimetres

Characteristic	Recommended dimensions					
Height of frame (H)	7	10	14	20	28	40
Height of characters (h)	3,5	5	7	10	14	20
Datum target indicator diameter (D)[a]	14	20	28	40	58	80
Line width (d)	0,25	0,35	0,5	0,7	1	1,4
[a] See Table 10.						

Table 2 — Lettering type B

Dimensions in millimetres

Characteristic	Recommended dimensions						
Height of frame (H)	5	7	10	14	20	28	40
Height of characters (h)	2,5	3,5	5	7	10	14	20
Datum target indicator diameter (D)[a]	10	14	20	28	40	56	80
Line width (d)	0,25	0,35	0,5	0,7	1	1,4	2
[a] See Table 10.							

The recommended widths of tolerance indicators frame are:

— first compartment, equal to height of frame (H);

— second compartment, to suit the length of the inscription;

— third and subsequent compartments, if required, to suit the width of the reference letter (or letters).

The distances between the vertical strokes of the compartments and the inscriptions shall be at least twice the line width, with a minimum of 0,7 mm.

6 Proportions

Examples for the proportions of the symbols for use with lettering type B, vertical or inclined, are shown in Table 3 to Table 50. The values are not part of the symbols.

The configurations are depicted on a grid with a spacing equal to the line width. The design of the inscribed characters is mostly not shown but shall be the same as in ISO 3098-1 for lettering type B, vertical or inclined.

For the alternative lettering type A, vertical or inclined, appropriate grids should be used.

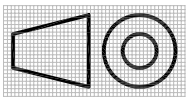
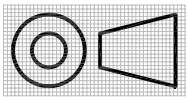
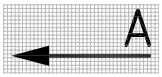
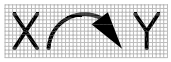
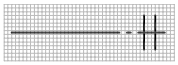
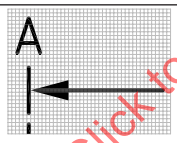
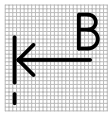
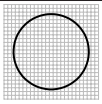
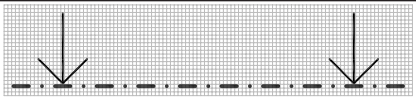
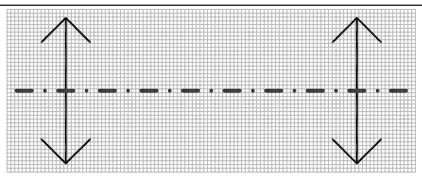
The symbols in ISO 128-2:2020 are shown in Table 3.

Table 3 — ISO 128-2:2020 symbols

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
1			**Dot** ISO 128-2

The symbols in ISO 128-3:2020 are shown in Table 4.

Table 4 — ISO 128-3:2020 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
2			**First angle projection** ISO 128-3 ISO 5456-2
3			**Third angle projection** ISO 128-3 ISO 5456-2
4			**Reference arrow** ISO 128-3 Letter A shown as an example.
5			**Arc arrow** ISO 128-3 Letter X and Y shown as examples.
6			**Symmetry** ISO 128-3 ISO 129-1 The symbol is the two vertical lines (shown applied to a centreline).
7			**30° cuts and section arrows** ISO 128-3 Letter A shown as an example.
8			**90° cuts and section arrows** ISO 128-3 Letter A shown as an example.
9			**Direction of view** ISO 128-3
10			**Cutting plane** ISO 128-3 Letter B shown as an example.
11			**Location of detail** ISO 128-3
12			**Direct orthographic projection** ISO 128-3
13			**Mirrored orthographic projection** ISO 128-3

The symbols in ISO 128-15:2013 are shown in Table 5.

Table 5 — ISO 128-15:2013 symbols

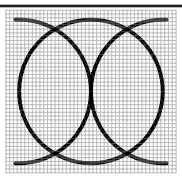
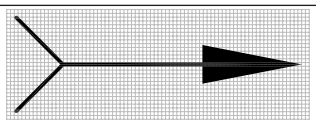
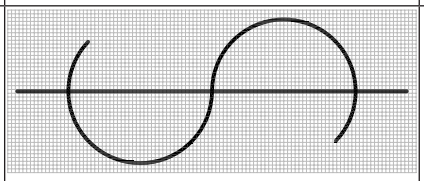
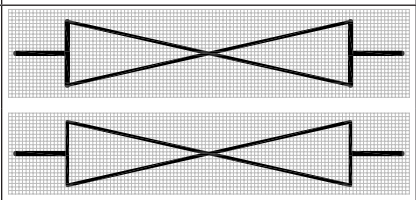
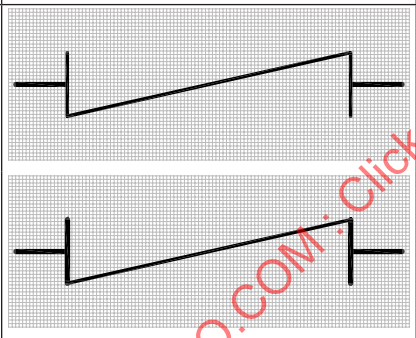
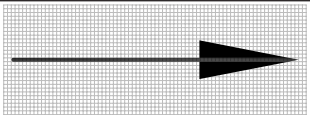
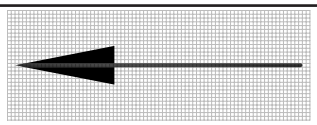
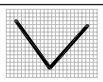
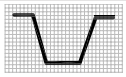
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
14			**Amidship** ISO 128-15
15			**Generic seam** ISO 128-15
16			**Segmentation seam** ISO 128-15
17			**Small opening section** ISO 128-15
18			**Small opening section** ISO 128-15
19		CL (see ISO 3098-1)	**Centre line** ISO 128-15
20		RL (see ISO 3098-1)	**Rounded line** ISO 128-15
21		FR (see ISO 3098-1)	**Frame number** ISO 128-15
22		BL (see ISO 3098-1)	**Moulded base line** ISO 128-15
23		WL (see ISO 3098-1)	**Waterline** ISO 128-15
24			**Projection direction (bow direction)** ISO 128-15

Table 5 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
25			**Projection direction (stern direction)** ISO 128-15
26			**Swage and groove; front side** ISO 128-15
27			**Swage and groove; back side** ISO 128-15
28			**Swage and groove; front side** ISO 128-15
29			**Swage and groove; back side** ISO 128-15
30			**Swage and groove; front side** ISO 128-15
31			**Swage and groove; back side** ISO 128-15

The symbols in ISO 129-1:2018 are shown in Table 6.

Table 6 — ISO 129-1:2018 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
32			**Diameter** ISO 129-1 ISO 5261
33		 (see ISO 3098-1)	**Radius** ISO 129-1
34		 (see ISO 3098-1)	**Spherical radius** ISO 129-1
35			**Square** ISO 129-1 ISO 5261
36			**Spherical diameter** ISO 129-1
37			**Repeated spacing** ISO 129-1 ISO 6433
38			**Indication of a point** ISO 129-1

Table 6 *(continued)*

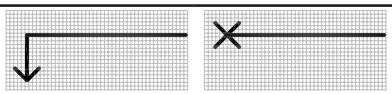
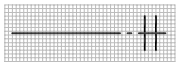
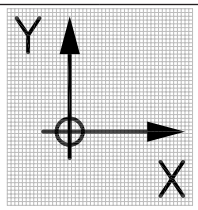
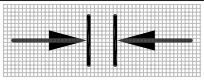
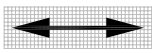
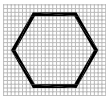
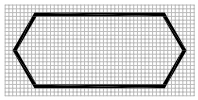
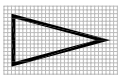
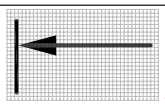
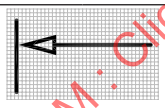
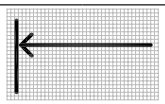
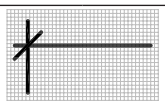
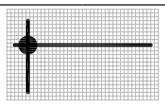
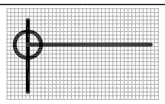
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
39			**Indication of level** ISO 129-1
40		 (see ISO 3098-1)	**Out-of-scale** ISO 129-1 The number 50 is shown as an example of application.
41		 (see ISO 3098-1)	**Auxiliary dimension** ISO 129-1 The number 50 is shown as an example of application.
42			**Symmetry** ISO 129-1 ISO 128-3 The symbol is the two vertical lines (shown applied to a centreline).
43			**Origin of a cartesian coordinate system** ISO 129-1
44			**Separation symbol (point)** ISO 129-1
45			**Plus or minus** ISO 129-1 ISO 13715
46			**Arc length** ISO 129-1 ISO 129-5
47			**Thickness of thin objects** ISO 129-1
48			**Depth** ISO 129-1
49			**Cylindrical counterbore** ISO 129-1
50			**Countersink** ISO 129-1
51			**Developed length** ISO 129-1
52			**Surface indicator** ISO 129-1
53			**Between** ISO 129-1

Table 6 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
54			**Flagnote** ISO 129-1 ISO/TS 17863 The flagnote symbol is used with a number placed inside of it.
55			**Flagnote** ISO 129-1 ISO 14405-1 The flagnote symbol is used with a number placed inside of it.
56			**Flagnote** ISO 129-1 The flagnote symbol is used with a number placed inside of it.
57			**Flagnote** ISO 129-1 The flagnote symbol is used with a number placed inside of it.
58			**Arrowhead, closed and filled** ISO 129-1
59			**Arrowhead, closed** ISO 129-1
60			**Arrowhead, open** ISO 129-1
61			**Arrowhead, open, included angle 90** ISO 129-1
62			**Oblique stroke** ISO 129-1
63			**Point** ISO 129-1
64			**Origin circle** ISO 129-1

The symbols in ISO 129-4:2013 are shown in Table 7.

Table 7 — ISO 129-4:2013 symbols

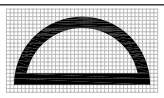
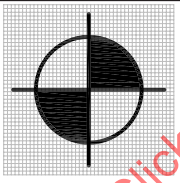
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
65			**Flanged plate** ISO 129-4
66			**Flat bar** ISO 129-4
67			**Round steel bar** ISO 129-4
68			**Steel pipe** ISO 129-4
69			**Square steel bar** ISO 129-4
70			**Square hollow section** ISO 129-4
71			**Half round steel** ISO 129-4
72		 or 	**Bulb flat** ISO 129-4
73			**Equal L-section** ISO 129-4 ISO 129-5 ISO 5261
74			**Unequal L-section** ISO 129-4
75			**T-steel** ISO 129-4
76			**Steel channel** ISO 129-4 ISO 129-5 ISO 5261
77			**I profile** ISO 129-4 ISO 129-5 ISO 5261
78			**Combined flat ball steel** ISO 129-4

Table 7 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
79		B. (see ISO 3098-1)	**Bracket** ISO 129-4
80		B.W. (see ISO 3098-1)	**Bracket web** ISO 129-4
81		W. (see ISO 3098-1)	**Web** ISO 129-4
82		F PL. (see ISO 3098-1)	**Face plate** ISO 129-4
83		FL. (see ISO 3098-1)	**Flange** ISO 129-4
84		T.B. (see ISO 3098-1)	**Tripping bracket** ISO 129-4
85			**Shaft system section** ISO 129-4
86		"h" (see ISO 3098-1)	**Coaming height** ISO 129-4
87		"MH" (see ISO 3098-1)	**Manhole** ISO 129-4

The symbols in ISO 129-5:2018 are shown in Table 8

Table 8 — ISO 129-5:2018 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
88			**Arc length** ISO 129-1 ISO 129-5
89			**Equal or unequal leg angle iron** ISO 129-5 ISO 5261
90			**I-beam section** ISO 129-5 ISO 5261

Table 8 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
91			**Channel section** ISO 129-5 ISO 5261
92			**H-beam section** ISO 129-5 ISO 5261
93			**T section** ISO 129-5
94			**Flat bar/plate** ISO 129-5
95			**Single round-headed flats** ISO 129-5
96			**Double round-headed flats** ISO 129-5
97			**Unequal round-headed flats** ISO 129-5
98			**Chamfered flats** ISO 129-5
99			**Diamond section** ISO 129-5
100			**Trapezoidal section** ISO 129-5
101			**Angle–square section** ISO 129-5
102			**Oval tube** ISO 129-5
103			**Slot with round end tube** ISO 129-5
104			**Right-angled trapezoid tube** ISO 129-5
105			**Thin-walled equal leg angle with inner edge** ISO 129-5
106			**Scalene channel section** ISO 129-5
107			**Channel section with inner edge** ISO 129-5
108			**Hat section** ISO 129-5

Table 8 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
109			**Z-section** ISO 129-5 ISO 5261
110			**Thin-walled lip Z section** ISO 129-5
111			**Thin-walled oblique lip Z section** ISO 129-5
112			**Rectangular hollow section/rectangle tube** ISO 129-5
113			**P section tube** ISO 129-5

The symbols in ISO 286-1:2010 are shown in Table 9.

Table 9 — ISO 286-1:2010 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
114			**Standard tolerance grade value** ISO 286-1

The symbols in ISO 1101:2017 are shown in Table 10.

Table 10 — ISO 1101:2017 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
115			**Straightness** ISO 1101
116			**Flatness** ISO 1101
117			**Roundness** ISO 1101
118			**Cylindricity** ISO 1101
119			**Line profile** ISO 1101
120			**Surface profile** ISO 1101
121			**Parallelism** ISO 1101

Table 10 *(continued)*

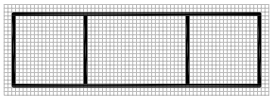
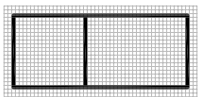
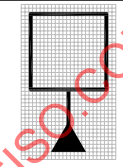
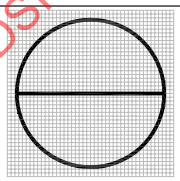
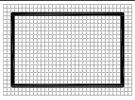
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
122			**Perpendicularity** ISO 1101
123			**Angularity** ISO 1101
124			**Position** ISO 1101
125			**Coaxiality (for median line), concentricity (for centre points)** ISO 1101
126			**Symmetry** ISO 1101
127			**Circular run-out** ISO 1101
128			**Total run-out** ISO 1101
129			**Geometrical specification indication with datums section** ISO 1101 ISO 5459
130			**Geometrical specification indication without datum section** ISO 1101
131			**Datum feature indicator** ISO 1101 ISO 5459
132			**Datum target indicator** ISO 1101 ISO 5459
133			**Theoretically exact dimension (TED)** ISO 1101
134			**Minimax (chebyshev) feature** ISO 1101
135			**Least squares (Gaussian) feature** ISO 1101
136			**Minimum circumscribed feature** ISO 1101

Table 10 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
137			**Tangent feature** ISO 1101
138			**Maximum inscribed feature** ISO 1101
139			**Derived feature** ISO 1101
140			**Projected tolerance zone** ISO 1101
141			**Maximum material requirement** ISO 1101 ISO 2692
142			**Least material requirement** ISO 1101 ISO 2692
143			**Reciprocity requirement** ISO 1101 ISO 2692
144			**Free state condition (non-rigid parts)** ISO 1101 ISO 10579 ISO 14405-1
145			**Envelope requirement** ISO 1101 ISO 14405-1
146			**All around (profile)** ISO 1101 ISO 10135
147			**All over (profile)** ISO 1101 ISO 10135
148			**Orientation constraint only** ISO 1101 ISO 5459
149		 (see ISO 3098-1)	**Minimax (chebyshev) feature without constraint** ISO 1101
150		 (see ISO 3098-1)	**Minimax (chebyshev) feature with external material constraint** ISO 1101

Table 10 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
151		 (see ISO 3098-1)	**Minimax (chebyshev) feature with internal material constraint** ISO 1101
152		 (see ISO 3098-1)	**Constrained external to the material** ISO 1101
153		 (see ISO 3098-1)	**Least squares (Gaussian) feature without constraint** ISO 1101
154		 (see ISO 3098-1)	**Least squares (Gaussian) feature with external material constraint** ISO 1101
155		 (see ISO 3098-1)	**Least squares (Gaussian) feature with internal material constraint** ISO 1101
156		 (see ISO 3098-1)	**Constrained internal to the material** ISO 1101
157		 (see ISO 3098-1)	**Minimum circumscribed feature** ISO 1101
158		 (see ISO 3098-1)	**Maximum inscribed feature** ISO 1101
159		 (see ISO 3098-1)	**Total range of deviations** ISO 1101
160		 (see ISO 3098-1)	**Peak height** ISO 1101
161		 (see ISO 3098-1)	**Valley depth** ISO 1101
162		 (see ISO 3098-1)	**Standard deviation** ISO 1101
163		 (see ISO 3098-1)	**Contacting feature** ISO 1101 ISO 5459
164		 (see ISO 3098-1)	**Combination specification elements – combined zone** ISO 1101
165		 (see ISO 3098-1)	**Combination specification elements – separate zones** ISO 1101

Table 10 *(continued)*

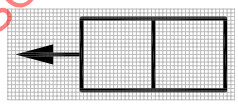
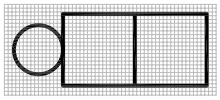
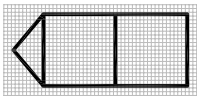
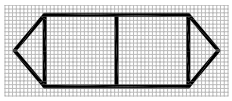
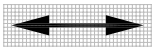
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
166		UZ (see ISO 3098-1)	**Unequal zone specification elements – specified tolerance zone offset** ISO 1101
167		OZ (see ISO 3098-1)	**Unspecified linear tolerance zone offset (offset zone)** ISO 1101
168		VA (see ISO 3098-1)	**Unspecified angular tolerance zone offset (variable angle)** ISO 1101 ISO 5459
169		LD (see ISO 3098-1)	**Minor diameter** ISO 1101
170		UF (see ISO 3098-1)	**United feature** ISO 1101
171		MD (see ISO 3098-1)	**Major diameter** ISO 1101
172		PD (see ISO 3098-1)	**Pitch diameter** ISO 1101
173		ACS (see ISO 3098-1)	**Any cross-section** ISO 1101 ISO 5459
174			**Direction feature indicator** ISO 1101 ISO 14405-1 The indicator frame is not part of this symbol and is only shown to assist with the understanding of the symbol.
175			**Collection plane indicator** ISO 1101 The indicator frame is not part of this symbol and is only shown to assist with the understanding of the symbol.
176			**Intersection plane indicator** ISO 1101 ISO 14405-1 The indicator frame is not part of this symbol and is only shown to assist with the understanding of the symbol.

Table 10 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
177			**Orientation plane indicator** ISO 1101 The indicator frame is not part of this symbol and is only shown to assist with the understanding of the symbol.
178			**Between** ISO 1101 ISO 14405-1

The symbols in ISO 1302:2002 are shown in Table 11.

Table 11 — ISO 1302:2002 symbols

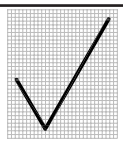
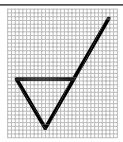
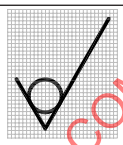
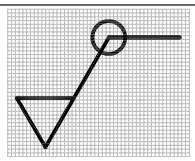
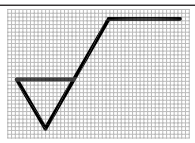
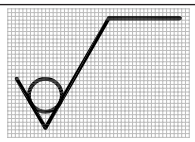
No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
179			**Surface texture, basic** ISO 1302
180			**Surface texture, material removal required** ISO 1302
181			**Surface texture, material removal not permitted** ISO 1302
182			**Surface texture, basic, complete** ISO 1302
183			**Surface texture, all surfaces around a workpiece outline (circle), example shown on leader line** ISO 1302
184			**Surface texture, material removal required, complete** ISO 1302
185			**Surface texture, material removal not permitted, complete** ISO 1302
186			**Lay orientation, parallel** ISO 1302 ISO 25178-1

Table 11 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
187			**Lay orientation, perpendicular** ISO 1302 ISO 25178-1
188			**Lay orientation, crossed in oblique directions** ISO 1302 ISO 25178-1
189			**Lay orientation, multi-directional** ISO 1302 ISO 25178-1
190			**Lay orientation, circular** ISO 1302 ISO 25178-1
191			**Lay orientation, radial** ISO 1302 ISO 25178-1
192			**Lay orientation, particulate** ISO 1302 ISO 25178-1

The symbols in ISO 2162-1:1993 are shown in Table 12.

Table 12 — ISO 2162-1:1993 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
193		 (see ISO 3098-1)	**Right hand** ISO 2162-1
194		 (see ISO 3098-1)	**Left hand** ISO 2162-1

The symbols in ISO 2203:1973 are shown in Table 13.

Table 13 — ISO 2203:1973 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
195			**Helical to the right** ISO 2203
196			**Helical to the left** ISO 2203

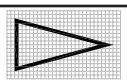
The symbols in ISO 2692:2014 are shown in Table 14.

Table 14 — ISO 2692:2014 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
197			**Reciprocity requirement** ISO 2692 ISO 1101
198			**Maximum material requirement** ISO 2692 ISO 1101
199			**Least material requirement** ISO 2692 ISO 1101

The symbols in ISO 3040:2016 are shown in Table 15.

Table 15 — ISO 3040:2016 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
200			**Cone** ISO 3040

The symbols in ISO 3766:2003 are shown in Table 16.

Table 16 — ISO 3766:2003 symbols

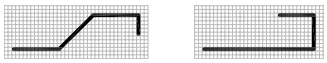
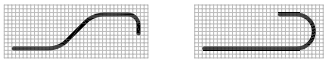
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
201			**Reinforcement without prestressing: views: general representation of bar** ISO 3766
202			**Reinforcement without prestressing: views: bent reinforcing bar, representation as a polygonal continuous line** ISO 3766
203			**Reinforcement without prestressing: views: bent reinforcing bar, representation as a continuous line made up of straight lines and arcs** ISO 3766
204			**Reinforcement without prestressing: views: bundle of bars** ISO 3766
205			**Reinforcement without prestressing: section of bar: section of single reinforcement bar** ISO 3766

Table 16 *(continued)*

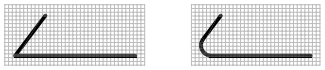
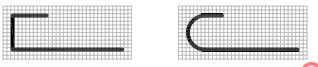
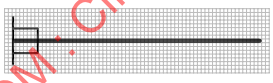
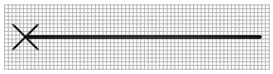
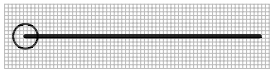
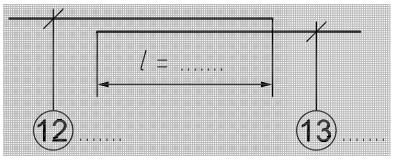
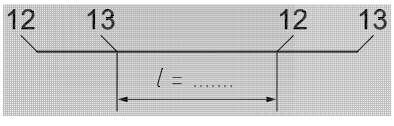
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
206			**Reinforcement without prestressing: section of bar: bundle of two reinforcing bars** ISO 3766
207			**Reinforcement without prestressing: section of bar: bundle of three reinforcing bars** ISO 3766
208			**Reinforcement without prestressing: bar with hook anchoring: elevation of bar terminating in a 90° bend** ISO 3766
209			**Reinforcement without prestressing: bar with hook anchoring: elevation of bar terminating in a bend between 90° and 180°** ISO 3766
210			**Reinforcement without prestressing: bar with hook anchoring: elevation of bar terminating in a 180° bend** ISO 3766
211			**Reinforcement without prestressing: straight bars lying in a row or a plane to indicate the ends of the bars** ISO 3766
212			**Reinforcement without prestressing: end anchorage with plates: elevation or plan view** ISO 3766
213			**Reinforcement without prestressing: end anchorage with plates: section or end view** ISO 3766
214			**Reinforcement without prestressing: bar bent at right angle way from viewer** ISO 3766
215			**Reinforcement without prestressing: bar bent at right angle way towards viewer** ISO 3766
216			**Reinforcement without prestressing: overlapping stack of reinforcement bars: without marking bar ends by a slash or bar marks** ISO 3766
217			**Reinforcement without prestressing: overlapping stack of reinforcement bars: with marking bar ends by a slash or bar marks** ISO 3766

Table 16 *(continued)*

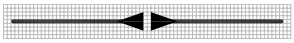
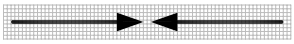
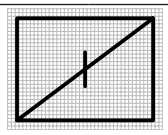
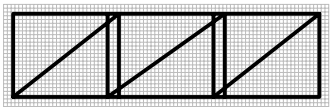
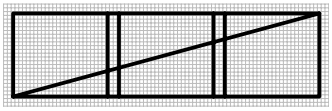
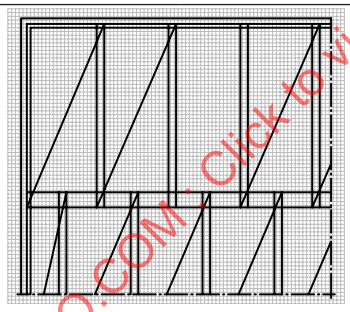
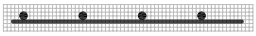
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
218			**Reinforcement without prestressing: bars joined by mechanical couplers — general representation: tension coupler** ISO 3766
219			**Reinforcement without prestressing: bars joined by mechanical couplers — general representation: compression coupler** ISO 3766
220			**Reinforcement without prestressing: welded fabric, top view** ISO 3766
221			**Reinforcement without prestressing: welded fabric, identical sheets in a row: with representation of single sheets** ISO 3766
222			**Reinforcement without prestressing: welded fabric, identical sheets in a row: condensed representation** ISO 3766
223			**Reinforcement without prestressing: top view of layer containing identical sheets: with representation of single sheets** ISO 3766
224			**Reinforcement without prestressing: top view of layer containing identical sheets: condensed representation with indication of overlapping** ISO 3766
225			**Reinforcement without prestressing: welded fabric, section: simplified representation** ISO 3766
226			**Reinforcement without prestressing: welded fabric, section: conventional representation** ISO 3766

Table 16 *(continued)*

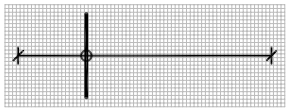
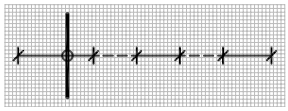
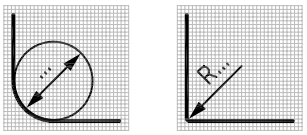
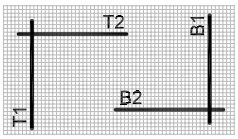
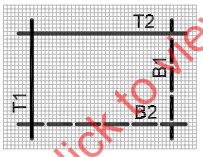
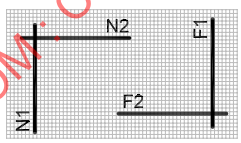
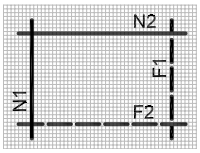
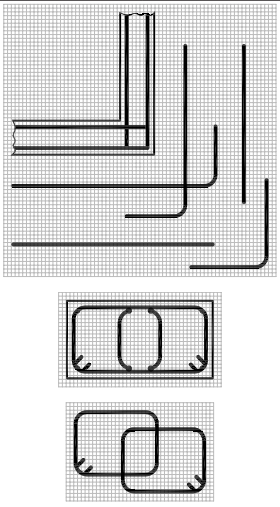
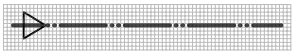
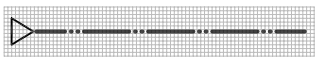
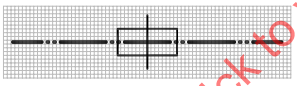
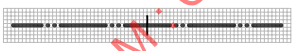
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
227			**Reinforcement without prestressing: set of identical bars: each set of identical bars indicated by one scaled-drawn reinforcement bar and a line terminated by oblique lines to mark extreme bars** ISO 3766
228			**Reinforcement without prestressing: set of identical bars: identical bars placed in groups.** ISO 3766
229			**Reinforcement without prestressing: bars with a specification of the diameter or radius of mandrel, if differing from the minimum diameter or radius of the mandrel** ISO 3766
230			**Reinforcement without prestressing: location of layers of reinforcement on plan drawings: bottom and top layers shown on separate plans** ISO 3766
231			**Reinforcement without prestressing: location of layers of reinforcement on elevation drawings: bottom and top layers shown on the same plane** ISO 3766
232			**Reinforcement without prestressing: location of layers of reinforcement on elevation drawings: near-face and far-face reinforcement shown on separate elevations** ISO 3766
233			**Reinforcement without prestressing: location of layers of reinforcement on elevation drawings: near-face and far-face reinforcement shown on the same elevation** ISO 3766
234			**Reinforcement without prestressing: if the arrangement of the reinforcement is not represented unambiguously by the section, an additional detailed representation of the reinforcement may be given outside of the section** ISO 3766

Table 16 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
235			**Prestressed reinforcement: Prestressing bar or cable** ISO 3766
236			**Prestressed reinforcementsection of post-tensioned reinforcement in pipes or conduits** ISO 3766
237			**Prestressed reinforcement: section of pre-stressed reinforcement with immediate bond** ISO 3766
238			**Prestressed reinforcement: anchorage: anchorage at tensioning end** ISO 3766
239			**Prestressed reinforcement: anchorage: fixed anchorage** ISO 3766
240			**Prestressed reinforcement: anchorage: end view of anchorage** ISO 3766
241			**Prestressed reinforcement: coupling: movable splice** ISO 3766
242			**Prestressed reinforcement: coupling: fixed splice** ISO 3766
243			**Alphanumerical bar mark** ISO 3766
244		 (see ISO 3098-1)	**Position in the component or construction part** ISO 3766

The symbols in ISO 3952-1:1981 are shown in Table 17.

Table 17 — ISO 3952-1:1981 and ISO 3952-1:1981/Amd 1:2002 symbols

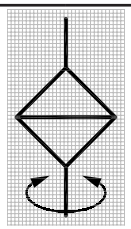
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
245			**Pairs with one degree of freedom, revolute pair: turning pair liaison pivot, for planar mechanism** ISO 3952-1:1981/Amd 1:2002

Table 17 *(continued)*

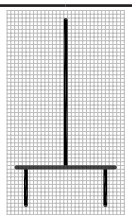
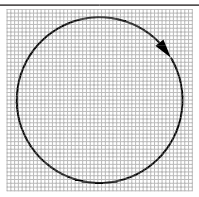
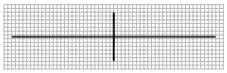
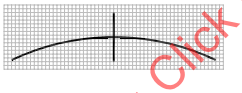
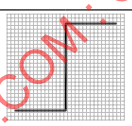
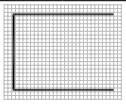
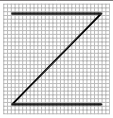
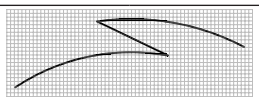
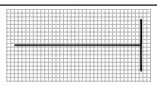
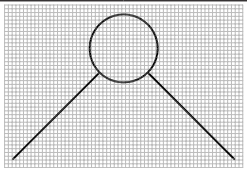
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
246			**End effector; terminal** ISO 3952-1:1981/Amd 1:2002
247			**Trace of motion – straight line motion** ISO 3952-1:1981/Amd 1:2002
248			**Trace of motion – rotational motion** ISO 3952-1:1981/Amd 1:2002
249			**Trace of motion –permissible symbol** ISO 3952-1
250			**Direction of motion** ISO 3952-1
251			**Instantaneous stop at intermediate position – straight line motion** ISO 3952-1
252			**Instantaneous stop at intermediate position – rotational motion** ISO 3952-1
253			**Dwell at intermediate position** ISO 3952-1
254			**Dwell at extreme position** ISO 3952-1
255			**Partial reverse motion – straight line motion** ISO 3952-1
256			**Partial reverse motion – rotational motion** ISO 3952-1
257			**Stop** ISO 3952-1
258			**Pairs with one degree of freedom, revolute pair: turning pair liaison pivot, for planar mechanism** ISO 3952-1

Table 17 *(continued)*

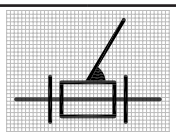
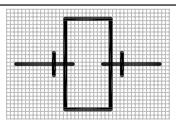
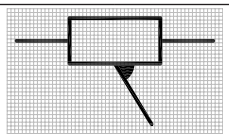
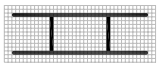
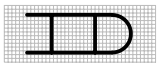
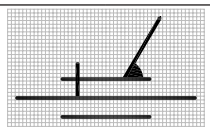
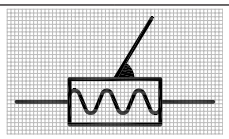
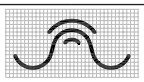
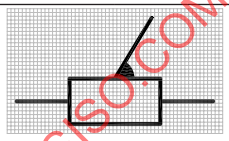
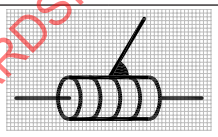
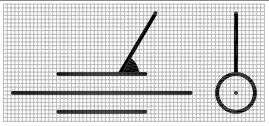
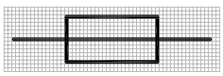
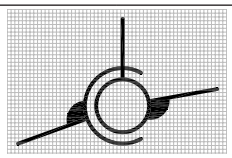
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
259			**Pairs with one degree of freedom, revolute pair: turning pair liaison pivot, for spatial mechanism** ISO 3952-1
260			**Pairs with one degree of freedom, revolute pair: turning pair liaison pivot, permissible symbol** ISO 3952-1
261			**Prismatic pair** ISO 3952-1
262			**Prismatic pair – permissible symbol** ISO 3952-1
263			**Prismatic pair – permissible symbol** ISO 3952-1
264			**Prismatic pair – permissible symbol** ISO 3952-1
265			**Screw pair; helical pair** ISO 3952-1
266			**Screw pair; helical pair – permissible symbol** ISO 3952-1
267			**Screw pair; helical pair** ISO 3952-1
268			**Screw pair; helical pair – permissible symbol** ISO 3952-1
269			**Pairs with two degrees of freedom; cylindrical pair** ISO 3952-1
270			**Pairs with two degrees of freedom; cylindrical pair – permissible symbol** ISO 3952-1
271			**Spherical pair with pin** ISO 3952-1

Table 17 *(continued)*

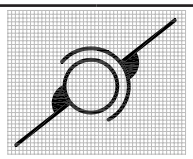
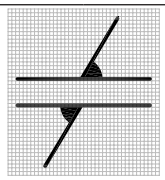
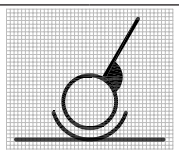
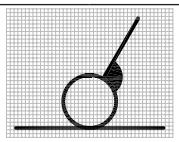
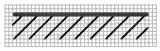
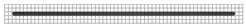
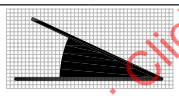
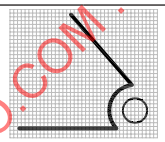
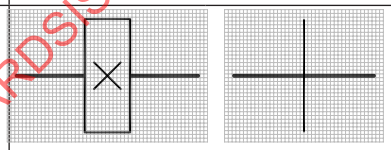
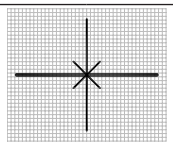
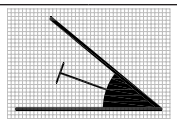
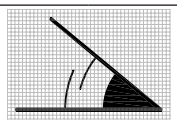
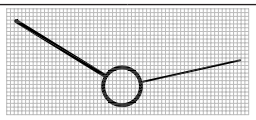
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
272			**Pairs with three degrees of freedom; spherical pair** ISO 3952-1
273			**Planar contact pair** ISO 3952-1
274			**Pairs with four degrees of freedom; ball-and-cylindrical pair** ISO 3952-1
275			**Pairs with five degrees of freedom; ball-and-plane pair** ISO 3952-1
276			**Frame** ISO 3952-1
277			**Shaft; bar; axle** ISO 3952-1
278			**Permanent connection of link components** ISO 3952-1
279			**Permanent connection of link components – permissible symbol** ISO 3952-1
280			**Fixed connection of component to shaft (bar, axle)** ISO 3952-1
281			**Fixed connection of component to shaft (bar, axle) – permissible symbol** ISO 3952-1
282			**Adjustable connection of link components – permissible symbol** ISO 3952-1
283			**Adjustable connection of link components – permissible symbol** ISO 3952-1
284			**Single-element link; the link is part of a revolute pair; for planar mechanisms** ISO 3952-1

Table 17 *(continued)*

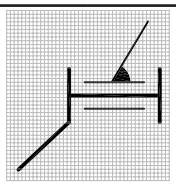
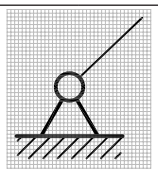
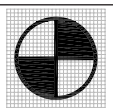
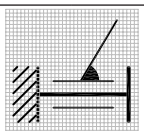
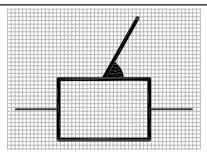
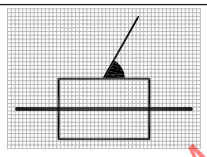
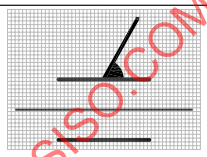
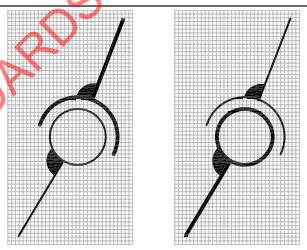
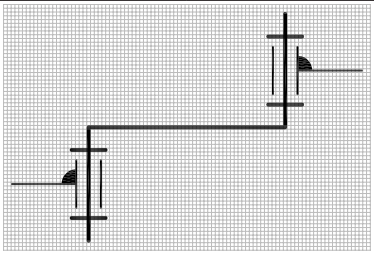
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
285			**Single-element link; the link is part of a revolute pair; for spatial mechanisms** ISO 3952-1
286			**Single-element link; the frame is part of a revolute pair; for planar mechanisms** ISO 3952-1
287			**Single-element link; the frame is part of a revolute pair; for planar mechanisms – permissible symbol** ISO 3952-1
288			**Single-element link; the frame is part of a revolute pair; for spatial mechanisms** ISO 3952-1
289			**Single-element link; the link is part of a prismatic pair** ISO 3952-1
290			**Single-element link; the link is part of a prismatic pair – permissible symbol** ISO 3952-1
291			**Single-element link; the link is part of a cylindrical pair** ISO 3952-1
292			**Single-element link; the link is part of a spherical pair** ISO 3952-1
293			**Double-element link (binary link); the link forms the connection between revolute pairs; coupler** ISO 3952-1

Table 17 *(continued)*

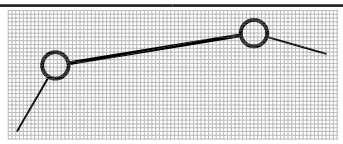
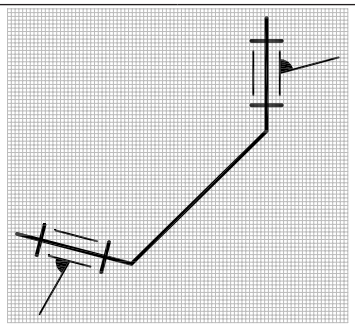
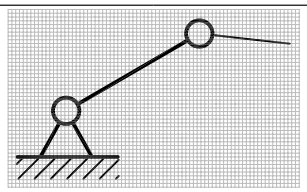
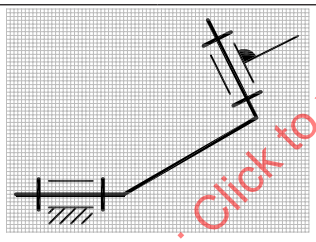
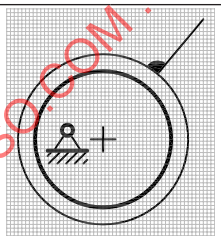
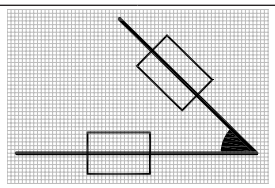
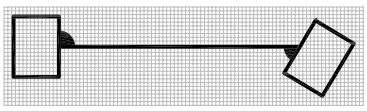
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
294			**Double-element link (binary link); the link forms the connection between revolute pairs; coupler; for planar mechanisms** ISO 3952-1
295			**Double-element link (binary link); the link forms the connection between revolute pairs; coupler; for spatial mechanisms** ISO 3952-1
296			**Double-element link (binary link); the link forms the connection between revolute pairs; crank (or rocker); for planar mechanisms** ISO 3952-1
297			**Double-element link (binary link); the link forms the connection between revolute pairs; crank (or rocker); for spatial mechanisms** ISO 3952-1
298			**Double-element link (binary link); the link forms the connection between revolute pairs; eccentric** ISO 3952-1
299			**Double-element link (binary link); the link forms the connection between two prismatic pairs** ISO 3952-1
300			**Double-element link (binary link); the link forms the connection between two prismatic pairs; common case** ISO 3952-1

Table 17 *(continued)*

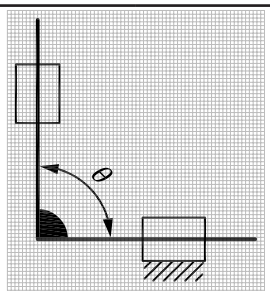
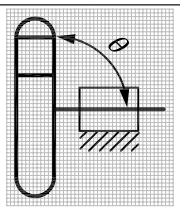
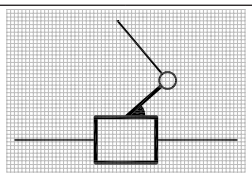
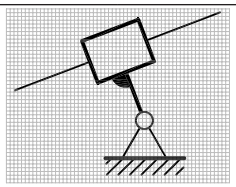
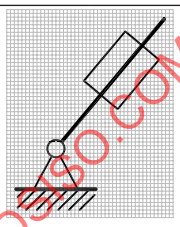
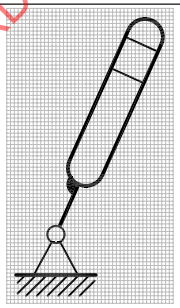
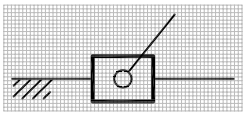
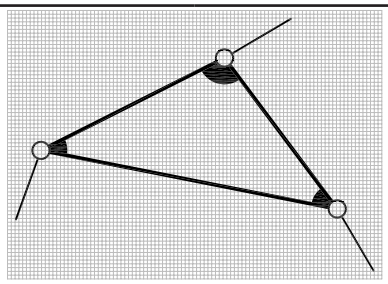
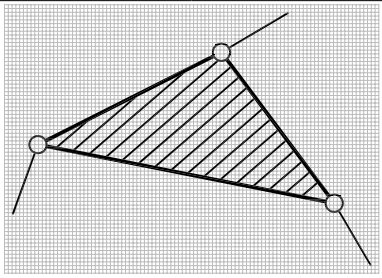
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
301			**Double-element link (binary link); the link forms the connection between two prismatic pairs; slider** ISO 3952-1
302			**Double-element link (binary link); the link forms the connection between two prismatic pairs; slider – permissible symbol** ISO 3952-1
303			**Double-element link (binary link); the link forms the connection between a revolute and a prismatic pair; common case** ISO 3952-1
304			**Double-element link (binary link); the link forms the connection between a revolute and a prismatic pair; slotted link (slotted lever)** ISO 3952-1
305			**Double-element link (binary link); the link forms the connection between a revolute and a prismatic pair; slotted link (slotted lever)** ISO 3952-1
306			**Double-element link (binary link); the link forms the connection between a revolute and a prismatic pair; slotted link (slotted lever) – permissible symbol** ISO 3952-1
307			**Double-element link (binary link); the link forms the connection between a revolute and a prismatic pair; slider** ISO 3952-1

Table 17 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
308			**Ternary link** ISO 3952-1
309			**Ternary link – permissible symbol** ISO 3952-1

The symbols in ISO 3952-2:1981 are shown in Table 18.

Table 18 — ISO 3952-2:1981 symbols

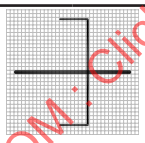
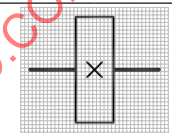
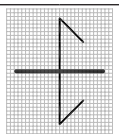
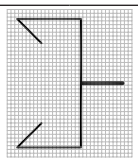
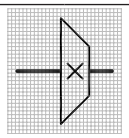
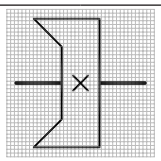
No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
310			**Friction mechanisms; friction wheels; cylindrical** ISO 3952-2
311			**Friction mechanisms; friction wheels; cylindrical – permissible symbol** ISO 3952-2
312			**Friction mechanisms; friction wheels; bevel** ISO 3952-2
313			**Friction mechanisms; friction wheels; bevel** ISO 3952-2
314			**Friction mechanisms; friction wheels; bevel – permissible symbol** ISO 3952-2
315			**Friction mechanisms; friction wheels; bevel – permissible symbol** ISO 3952-2

Table 18 *(continued)*

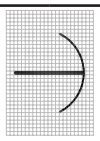
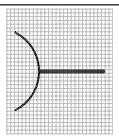
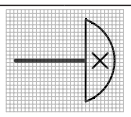
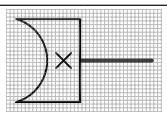
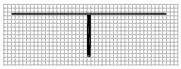
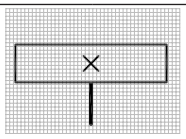
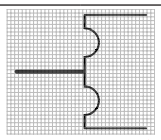
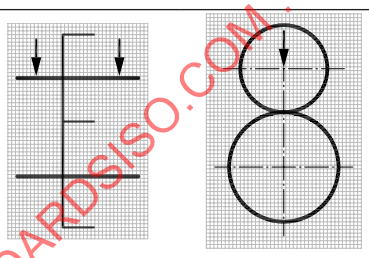
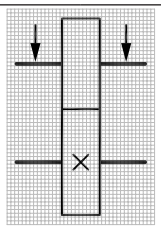
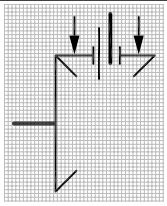
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
316			**Friction mechanisms; friction wheels; curvilinear** ISO 3952-2
317			**Friction mechanisms; friction wheels; curvilinear** ISO 3952-2
318			**Friction mechanisms; friction wheels; curvilinear – permissible symbol** ISO 3952-2
319			**Friction mechanisms; friction wheels; curvilinear – permissible symbol** ISO 3952-2
320			**Friction mechanisms; friction wheels; crown wheel (face wheel)** ISO 3952-2
321			**Friction mechanisms; friction wheels; crown wheel (face wheel) – permissible symbol** ISO 3952-2
322			**Friction mechanisms; friction wheels; flexible** ISO 3952-2
323			**Friction transmissions; with cylindrical wheels** ISO 3952-2
324			**Friction transmissions; with cylindrical wheels – permissible symbol** ISO 3952-2
325			**Friction transmissions; with bevel wheels** ISO 3952-2

Table 18 *(continued)*

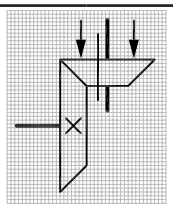
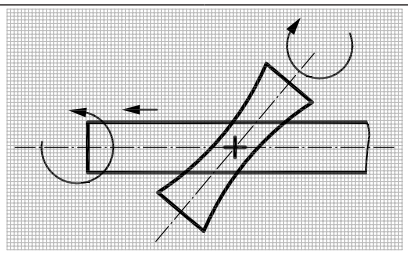
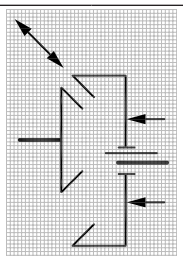
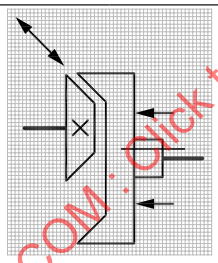
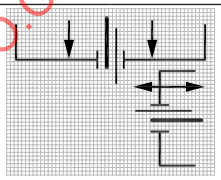
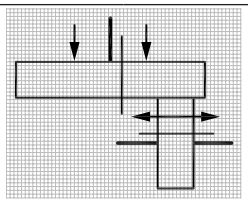
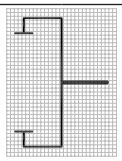
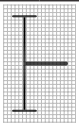
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
326			**Friction transmissions; with bevel wheels – permissible symbol** ISO 3952-2
327			**Friction transmissions; with hyperboloidal wheels – permissible symbol** ISO 3952-2
328			**Friction transmissions; with bevel wheels, adjustable** ISO 3952-2
329			**Friction transmissions; with bevel wheels, adjustable – permissible symbol** ISO 3952-2
330			**Friction transmissions; crown wheel (face wheel)** ISO 3952-2
331			**Friction transmissions; crown wheel (face wheel) – permissible symbol** ISO 3952-2
332			**Gear mechanisms; gear (without specification of tooth form); cylindrical** ISO 3952-2
333			**Gear mechanisms; gear (without specification of tooth form); cylindrical** ISO 3952-2

Table 18 *(continued)*

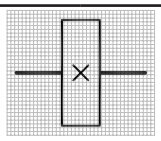
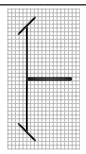
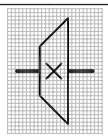
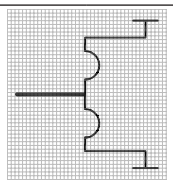
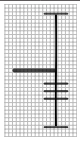
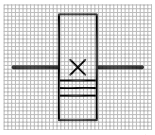
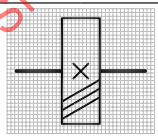
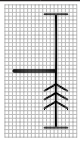
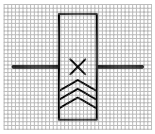
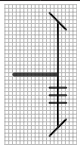
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
334			**Gear mechanisms; gear (without specification of tooth form); cylindrical – permissible** ISO 3952-2
335			**Gear mechanisms; gear (without specification of tooth form); bevel** ISO 3952-2
336			**Gear mechanisms; gear (without specification of tooth form); bevel – permissible symbol** ISO 3952-2
337			**Gear mechanisms; gear (without specification of tooth form); flexible** ISO 3952-2
338			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; straight spur** ISO 3952-2
339			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; straight spur – permissible symbol** ISO 3952-2
340			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; helical** ISO 3952-2
341			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; helical – permissible symbol** ISO 3952-2
342			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; double helical** ISO 3952-2
343			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; double helical – permissible symbol** ISO 3952-2
344			**Gear mechanisms; gear (designation of tooth type); bevel wheels; straight toothed** ISO 3952-2

Table 18 *(continued)*

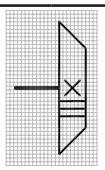
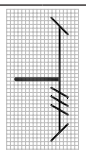
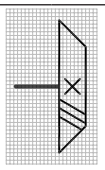
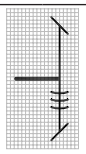
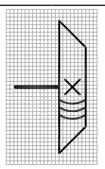
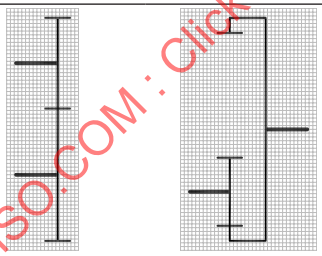
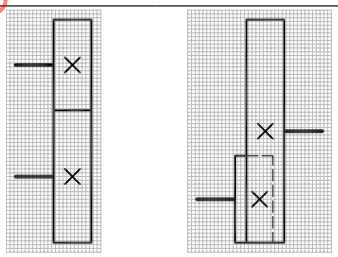
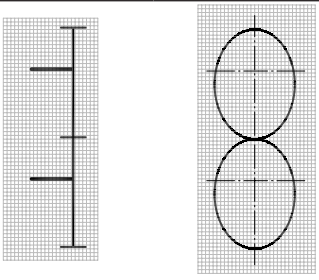
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
345			**Gear mechanisms; gear (designation of tooth type); bevel wheels; straight toothed – permissible symbol** ISO 3952-2
346			**Gear mechanisms; gear (designation of tooth type); bevel wheels; spiral** ISO 3952-2
347			**Gear mechanisms; gear (designation of tooth type); bevel wheels; spiral – permissible symbol** ISO 3952-2
348			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; circular (zerol)** ISO 3952-2
349			**Gear mechanisms; gear (designation of tooth type); cylindrical wheels; circular (zerol) – permissible symbol** ISO 3952-2
350			**Gear transmission (without specification of tooth form); cylindrical with circular gears** ISO 3952-2
351			**Gear transmission (without specification of tooth form); cylindrical with circular gears – permissible symbol** ISO 3952-2
352			**Gear transmission (without specification of tooth form); cylindrical with non-circular gears** ISO 3952-2

Table 18 *(continued)*

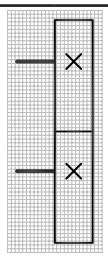
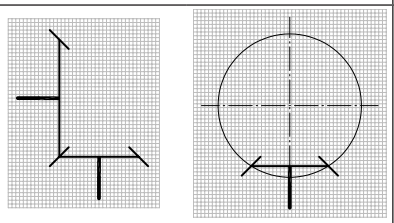
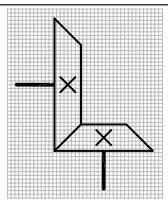
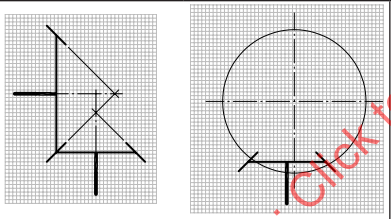
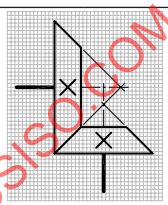
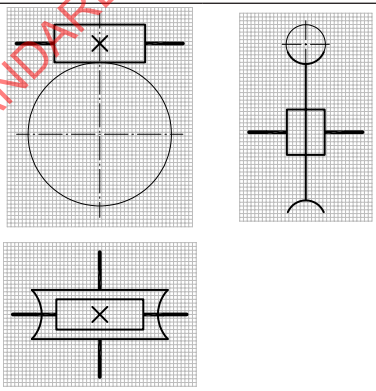
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
353			**Gear transmission (without specification of tooth form); cylindrical with non-circular gears – permissible symbol** ISO 3952-2
354			**Gear transmission (without specification of tooth form); bevel** ISO 3952-2
355			**Gear transmission (without specification of tooth form); bevel – permissible symbol** ISO 3952-2
356			**Gear transmission (without specification of tooth form); hypoid** ISO 3952-2
357			**Gear transmission (without specification of tooth form); hypoid – permissible symbol** ISO 3952-2
358			**Gear transmission (without specification of tooth form); worm-gear with cylindrical worm** ISO 3952-2

Table 18 *(continued)*

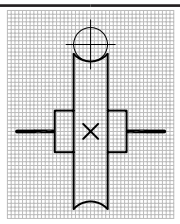
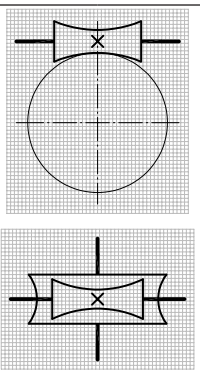
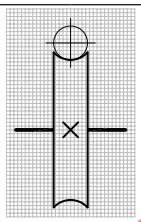
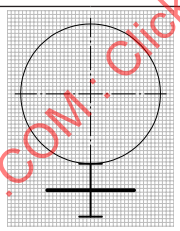
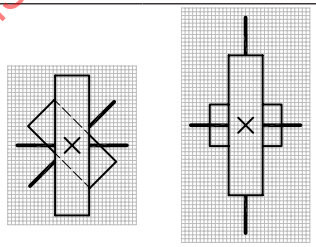
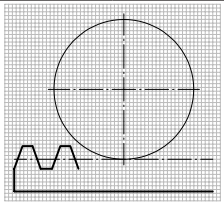
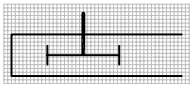
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
359			**Gear transmission (without specification of tooth form); worm-gear with cylindrical worm – permissible symbol** ISO 3952-2
360			**Gear transmission (without specification of tooth form); double enveloping worm-gear pair (globoidal)** ISO 3952-2
361			**Gear transmission (without specification of tooth form); double enveloping worm-gear pair (globoidal) – permissible symbol** ISO 3952-2
362			**Gear transmission (without specification of tooth form); crossed helical gears** ISO 3952-2
363			**Gear transmission (without specification of tooth form); crossed helical gears – permissible symbol** ISO 3952-2
364			**Rack-type transmission; general designation** ISO 3952-2
365			**Rack-type transmission; general designation – permissible symbol** ISO 3952-2

Table 18 *(continued)*

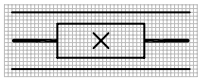
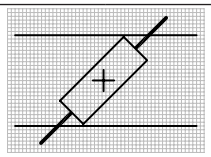
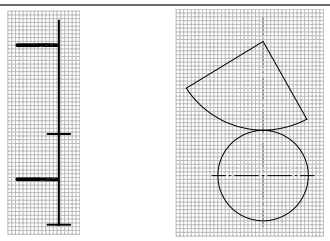
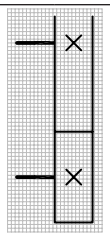
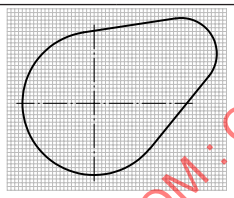
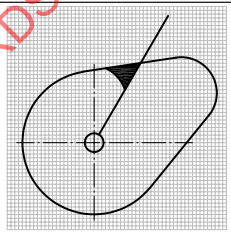
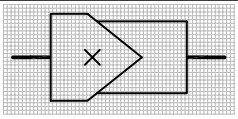
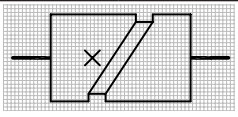
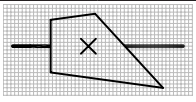
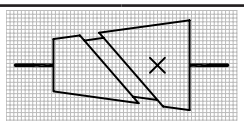
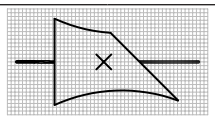
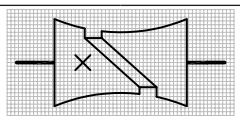
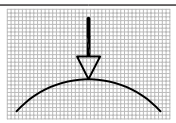
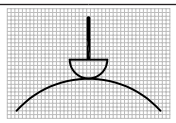
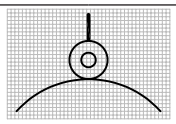
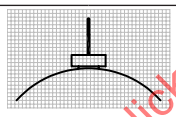
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
366			**Rack-type transmission; worm and worm – permissible** ISO 3952-2
367			**Rack-type transmission; toothed rack and worm – permissible** ISO 3952-2
368			**Transmission with sector gear** ISO 3952-2
369			**Transmission with sector gear – permissible symbol** ISO 3952-2
370			**Rotating cam plate** ISO 3952-2
371			**Rectilinearly moving cam plate** ISO 3952-2
372			**Fixed connection of cam with bar** ISO 3952-2
373			**Spatial rotating cam; cylindrical** ISO 3952-2
374			**Spatial rotating cam; cylindrical – permissible symbol** ISO 3952-2
375			**Spatial rotating cam; conical** ISO 3952-2

Table 18 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
376			**Spatial rotating cam; conical – permissible symbol** ISO 3952-2
377			**Spatial rotating cam; globoidal** ISO 3952-2
378			**Spatial rotating cam; globoidal – permissible symbol** ISO 3952-2
379			**Cam follower; knife-edge** ISO 3952-2
380			**Cam follower; arcuate** ISO 3952-2
381			**Cam follower; roller** ISO 3952-2
382			**Cam follower; flat-faces (or mushroom)** ISO 3952-2

The symbols in ISO 3952-3:1979 are shown in Table 19.

Table 19 — ISO 3952-3:1979 symbols

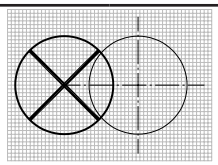
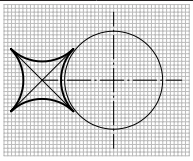
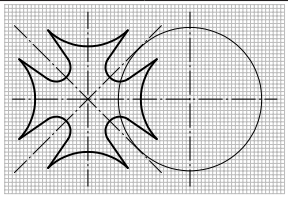
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
383			**Geneva mechanism – general symbol** ISO 3952-3
384			**Geneva mechanism; with external engagement** ISO 3952-3
385			**Geneva mechanism; with external engagement – Permissible** ISO 3952-3

Table 19 *(continued)*

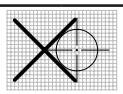
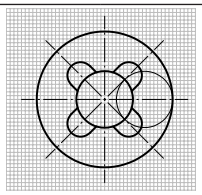
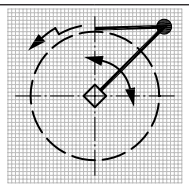
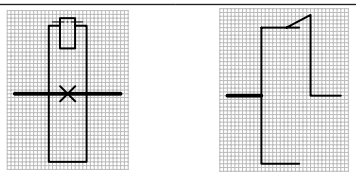
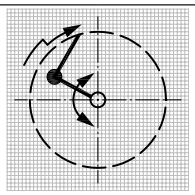
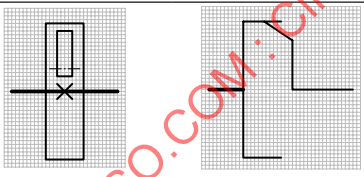
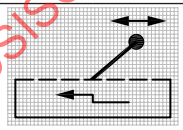
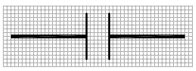
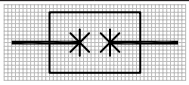
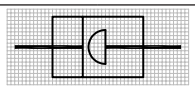
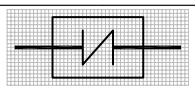
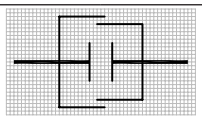
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
386			**Geneva mechanism; with internal engagement** ISO 3952-3
387			**Geneva mechanism; with internal engagement – permissible symbol** ISO 3952-3
388			**Ratchet mechanism with pawl; with external engagement** ISO 3952-3
389			**Ratchet mechanism with pawl; with external engagement – permissible symbol** ISO 3952-3
390			**Ratchet mechanism with pawl; With internal engagement** ISO 3952-3
391			**Ratchet mechanism with pawl; with internal engagement – permissible symbol** ISO 3952-3
392			**Ratchet mechanism with pawl; with rack engagement** ISO 3952-3
393			**Couplings – general symbol** ISO 3952-3
394			**Couplings; fixed couplings** ISO 3952-3
395			**Couplings; compensating couplings** ISO 3952-3
396			**Couplings; elastic couplings** ISO 3952-3
397			**Controllable clutches** ISO 3952-3

Table 19 *(continued)*

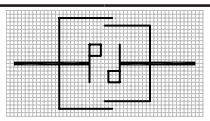
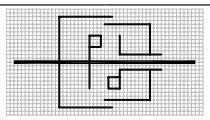
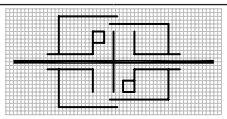
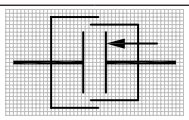
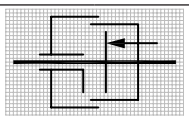
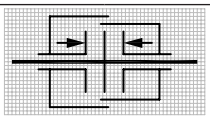
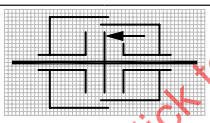
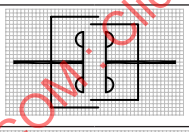
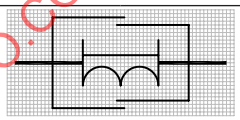
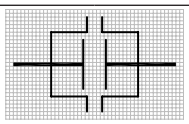
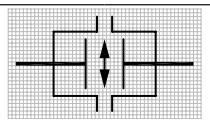
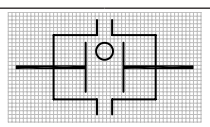
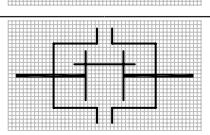
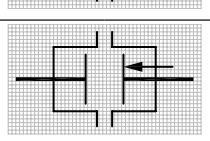
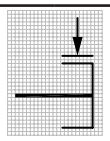
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
398			**Gear clutches; one-way** ISO 3952-3
399			**Gear clutches; one-way – permissible symbol** ISO 3952-3
400			**Gear clutches; two-way** ISO 3952-3
401			**Friction (asynchronous) clutch; one-way** ISO 3952-3
402			**Friction (asynchronous) clutch; one-way – permissible symbol** ISO 3952-3
403			**Friction (asynchronous) clutch; two-way** ISO 3952-3
404			**Friction (asynchronous) clutch; two-way – permissible symbol** ISO 3952-3
405			**Hydraulic clutches – general symbol** ISO 3952-3
406			**Electric clutches** ISO 3952-3
407			**Automatic (self-acting) clutches; general symbol** ISO 3952-3
408			**Automatic (self-acting) clutches; centrifugal friction clutch** ISO 3952-3
409			**Automatic (self-acting) clutches; overrunning clutch** ISO 3952-3
410			**Automatic (self-acting) clutches; slip clutch; with destructible element** ISO 3952-3
411			**Automatic (self-acting) clutches; slip clutch; with non-destructible element** ISO 3952-3

Table 19 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
412			**Brakes; general symbol** ISO 3952-3
413		M (see ISO 3098-1)	**Brakes; qualifying symbol added to general symbol if needed; mechanical** ISO 3952-3
414		H (see ISO 3098-1)	**Brakes; qualifying symbol added to general symbol if needed; hydraulic** ISO 3952-3
415		P (see ISO 3098-1)	**Brakes; qualifying symbol added to general symbol if needed; pneumatic** ISO 3952-3
416		E (see ISO 3098-1)	**Brakes; qualifying symbol added to general symbol if needed; electrical** ISO 3952-3

The symbols in ISO 3952-4:1984 are shown in Table 20.

Table 20 — ISO 3952-4:1984 symbols

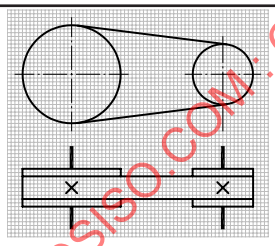
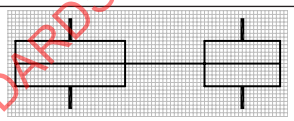
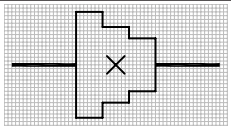
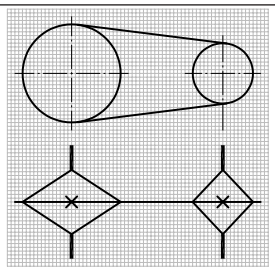
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
417			**Belt drive; general symbol without type specification** ISO 3952-4
418			**Belt drive; general symbol without type specification, alternate** ISO 3952-4
419			**Stepped pulley mounted on a shaft** ISO 3952-4
420			**Chain drive; general symbol without type specification** ISO 3952-4

Table 20 *(continued)*

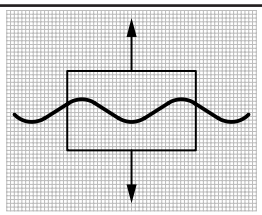
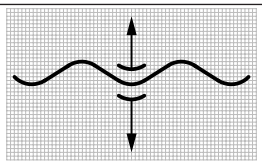
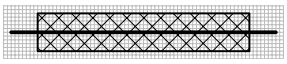
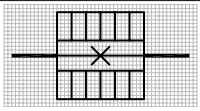
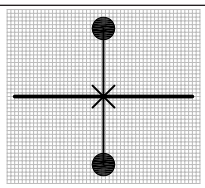
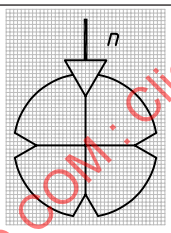
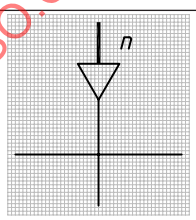
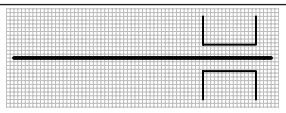
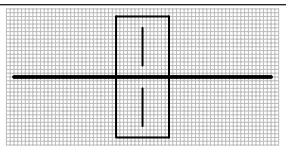
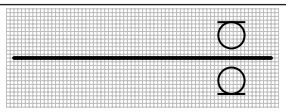
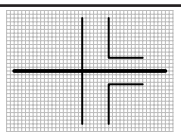
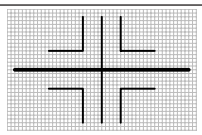
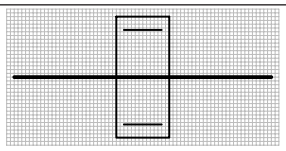
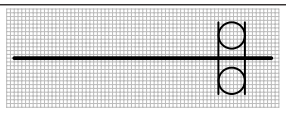
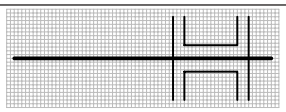
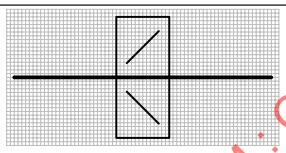
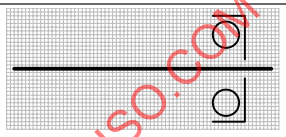
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
421			**Lead screw drive with a split nut** ISO 3952-4
422			**Lead screw drive with a split nut – permissible symbol** ISO 3952-4
423			**Flexible shaft for transmission of rotational moment** ISO 3952-4
424			**Flywheel on a shaft** ISO 3952-4
425			**Flywheel on a shaft – permissible symbol** ISO 3952-4
426			**Dividing head** ISO 3952-4
427			**Dividing head – permissible symbol** ISO 3952-4
428			**Radial bearing; plain** ISO 3952-4
429			**Radial bearing; rolling** ISO 3952-4
430			**Radial bearing; rolling – permissible symbol** ISO 3952-4

Table 20 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
431			**Thrust bearing; plain; single-sided** ISO 3952-4
432			**Thrust bearing; plain; double-sided** ISO 3952-4
433			**Thrust bearing; rolling** ISO 3952-4
434			**Thrust bearing; rolling – permissible symbol** ISO 3952-4
435			**Radial thrust bearing; plain; single-sided** ISO 3952-4
436			**Radial thrust bearing; plain; double-sided** ISO 3952-4
437			**Radial thrust bearing; rolling** ISO 3952-4
438			**Radial thrust bearing; rolling – permissible symbol** ISO 3952-4

The symbols in ISO 5261:1995 are shown in Table 21.

Table 21 — ISO 5261:1995 symbols

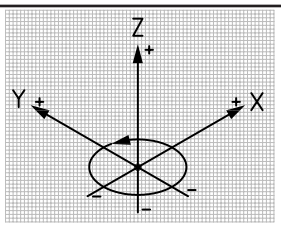
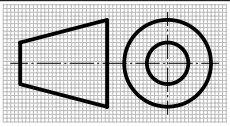
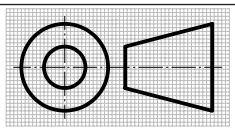
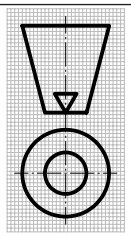
No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
439			**Cylindrical (diameter)** ISO 5261 ISO 129-1
440			**Square bar section** ISO 5261 ISO 129-1
441			**Rectangular bar section** ISO 5261

Table 21 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
442			**Hexagonal bar section** ISO 5261
443			**Triangular bar section** ISO 5261
444			**Semi-circular bar section** ISO 5261
445			**Angle profile section** ISO 5261 ISO 129-5
446			**T-section profile section** ISO 5261 ISO 129-5
447			**I-beam profile section** ISO 5261 ISO 129-5
448			**H-beam profile section** ISO 5261 ISO 129-5
449			**Channel profile section** ISO 5261 ISO 129-5
450			**Z profile section** ISO 5261 ISO 129-5
451			**Rail profile section** ISO 5261
452			**Bulb angle profile section** ISO 5261
453			**Bulb flat profile section** ISO 5261

The symbols in ISO 5456-1:1996 and ISO 5456-2:1996 are shown in Table 22.

Table 22 — ISO 5456-1:1996 and ISO 5456-2:1996 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
454			**Coordinate system** ISO 5456-1
455			**First angle projection** ISO 5456-2 ISO 128-3
456			**Third angle projection** ISO 5456-2 ISO 128-3
457			**Mirrored orthographic representation** ISO 5456-2

The symbols in ISO 5457:1999 are shown in Table 23.

Table 23 — ISO 5457:1999 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
458			**Trimming mark** ISO 5457

The symbols in ISO 5459:2011 are shown in Table 24.

Table 24 — ISO 5459:2011 symbols

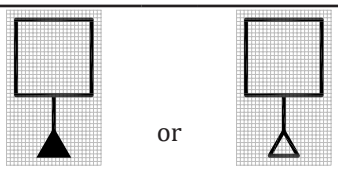
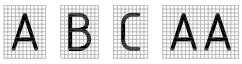
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
459			**Datum feature indicator** ISO 5459
460		Capital letters such as: 	**Datum feature identifier** ISO 5459

Table 24 *(continued)*

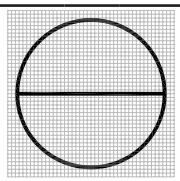
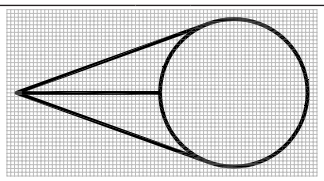
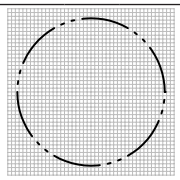
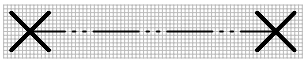
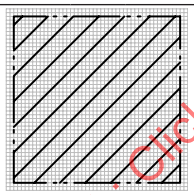
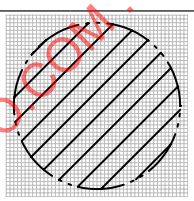
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
461			**Single datum target frame** ISO 5459
462			**Moveable datum target frame** ISO 5459
463			**Datum target point** ISO 5459
464			**Closed datum target line** ISO 5459
465			**Non-closed datum target line** ISO 5459
466			**Datum target area** ISO 5459
467			**Datum target area** ISO 5459
468		[PD] (see ISO 3098-1)	**Pitch diameter** ISO 5459
469		[MD] (see ISO 3098-1)	**Major diameter** ISO 5459
470		[LD] (see ISO 3098-1)	**Minor diameter** ISO 5459
471		[ACS] (see ISO 3098-1)	**Any cross-section** ISO 5459 ISO 1101
472		[ALS] (see ISO 3098-1)	**Any longitudinal section** ISO 5459

Table 24 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
473		[CF] (see ISO 3098-1)	**Contacting feature** ISO 5459
474		[DV] (see ISO 3098-1)	**Variable distance (for common datum)** ISO 5459
475		[PT] (see ISO 3098-1)	**Point situation feature** ISO 5459
476		[SL] (see ISO 3098-1)	**Straight line situation feature** ISO 5459
477		[PL] (see ISO 3098-1)	**Plane situation feature** ISO 5459
478		><	**Orientation constraint only** ISO 5459
479		Ⓟ	**Projected** ISO 5459 ISO 1101

The symbols in ISO 5845-1:1995 are shown in Table 25.

Table 25 — ISO 5845-1:1995 symbols

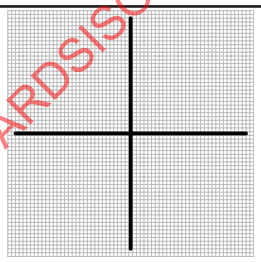
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
480			**Fastener position** ISO 5845-1
481			**Fastener position; with prominent dot** ISO 5845-1
482			**Hole, bolt or rivet; drilled and fitted into the workshop; without countersinking** ISO 5845-1
483			**Hole, bolt or rivet; drilled and fitted into the workshop; countersunk on near side** ISO 5845-1
484			**Hole, bolt or rivet; drilled and fitted into the workshop; countersunk on far side** ISO 5845-1

Table 25 *(continued)*

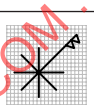
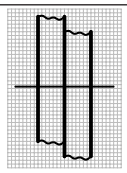
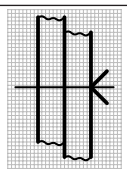
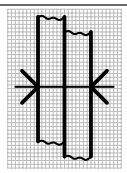
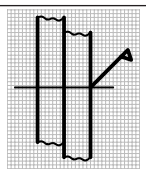
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
485			**Hole, bolt or rivet; drilled and fitted into the workshop; countersunk on both sides** ISO 5845-1
486			**Hole, bolt or rivet; drilled in the workshop and fitted on site; without countersinking** ISO 5845-1
487			**Hole, bolt or rivet; drilled in the workshop and fitted on site; countersunk on near side** ISO 5845-1
488			**Hole, bolt or rivet; drilled in the workshop and fitted on site; countersunk on far side** ISO 5845-1
489			**Hole, bolt or rivet; drilled in the workshop and fitted on site; countersunk on both sides** ISO 5845-1
490			**Hole, bolt or rivet; drilled and fitted on site; without countersinking** ISO 5845-1
491			**Hole, bolt or rivet; drilled and fitted on site; countersunk on near side** ISO 5845-1
492			**Hole, bolt or rivet; drilled and fitted on site; countersunk on far side** ISO 5845-1
493			**Hole, bolt or rivet; drilled and fitted on site; countersunk on both sides** ISO 5845-1
494			**Hole; drilled in the workshop; without countersinking** ISO 5845-1
495			**Hole; drilled in the workshop; countersunk on one side only** ISO 5845-1
496			**Hole; drilled in the workshop; countersunk on both sides** ISO 5845-1
497			**Hole; drilled on site; without countersinking** ISO 5845-1

Table 25 *(continued)*

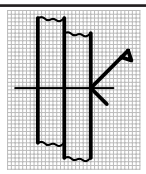
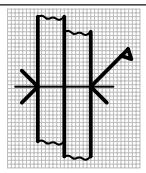
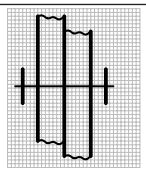
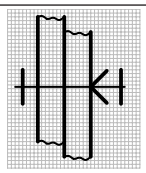
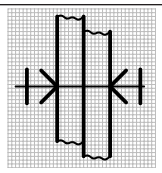
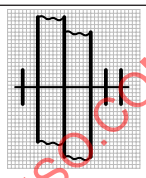
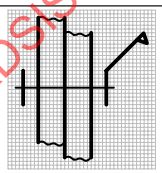
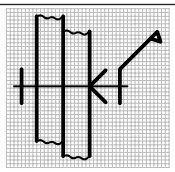
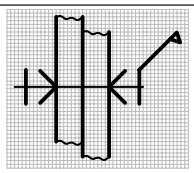
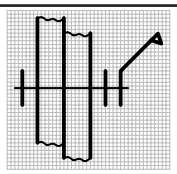
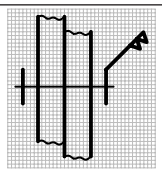
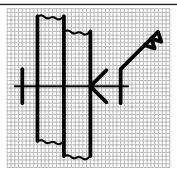
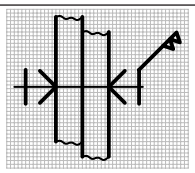
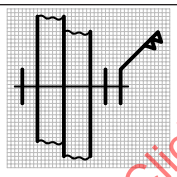
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
498			**Hole; drilled on site; countersunk on one side only** ISO 5845-1
499			**Hole; drilled on site; countersunk on both sides** ISO 5845-1
500			**Bolt or rivet; Fitted in the workshop; without countersinking** ISO 5845-1
501			**Bolt or rivet; fitted in the workshop; hole countersunk on one side only** ISO 5845-1
502			**Bolt or rivet; fitted in the workshop; countersunk on both sides** ISO 5845-1
503			**Bolt or rivet; fitted in the workshop; bolt with designated nut position** ISO 5845-1
504			**Bolt or rivet; fitted on site; without countersinking** ISO 5845-1
505			**Bolt or rivet; fitted on site; hole countersunk on one side only** ISO 5845-1
506			**Bolt or rivet; fitted on site; countersunk on both sides** ISO 5845-1

Table 25 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
507			**Bolt or rivet; fitted on site; bolt with designated nut position** ISO 5845-1
508			**Bolt or rivet; hole drilled on site and bolt or rivet fitted on site; without countersinking** ISO 5845-1
509			**Bolt or rivet; hole drilled on site and bolt or rivet fitted on site; hole countersunk on one side only** ISO 5845-1
510			**Bolt or rivet; hole drilled on site and bolt or rivet fitted on site; countersunk on both sides** ISO 5845-1
511			**Bolt or rivet; hole drilled on site and bolt or rivet fitted on site; bolt with designated nut position** ISO 5845-1

The symbols in ISO 5845-2:1995 are shown in Table 26.

Table 26 — ISO 5845-2:1995 symbols

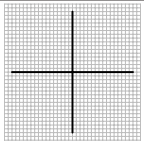
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
512		▽	**Countersink; near side** ISO 5845-2
513		△	**Countersink; far side** ISO 5845-2
514		∨	**Dimpling; near side** ISO 5845-2
515		∧	**Dimpling; far side** ISO 5845-2
516			**Set rivet, symbolic represenation** ISO 5845-2

Table 26 *(continued)*

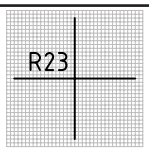
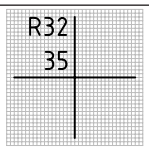
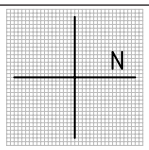
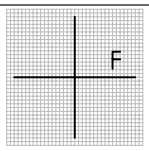
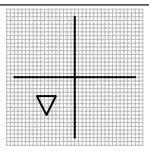
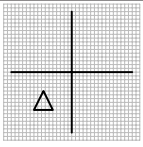
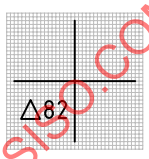
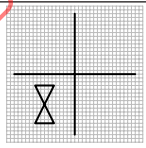
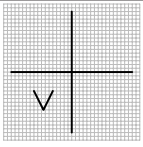
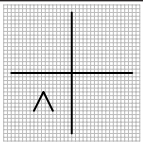
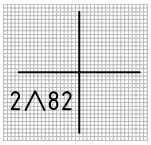
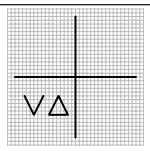
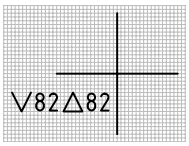
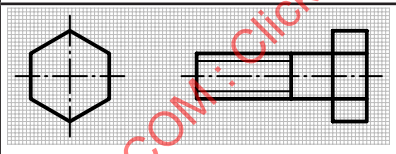
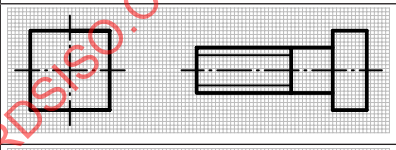
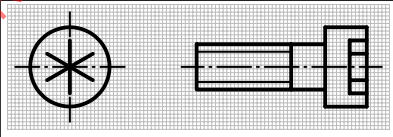
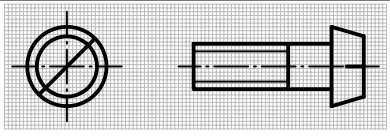
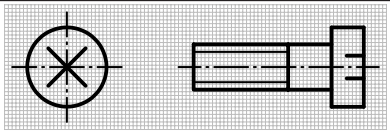
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
517			**Rivet; upper lefthand quadrant; item reference number; solid rivet** ISO 5845-2
518			**Rivet; upper lefthand quadrant; composite rivet with sleeve** ISO 5845-2
519			**Rivet; upper righthand quadrant; position of preformend head; ear side** ISO 5845-2
520			**Rivet; upper righthand quadrant; position of preformed head; far side** ISO 5845-2
521			**Countersink; lower lefthand quadrant; 100° near side** ISO 5845-2
522			**Countersink; lower lefthand quadrant; 100° far side** ISO 5845-2
523			**Countersink; lower lefthand quadrant; other than 100°** ISO 5845-2 A value other than 100° to be used in the symbol, 82° shown only as an example.
524			**Countersink; Lower lefthand quadrant; both sides** ISO 5845-2
525			**Dimpling; lower lefthand quadrant; near side; 100°** ISO 5845-2
526			**Dimpling; lower lefthand quadrant; far side; 100°** ISO 5845-2

Table 26 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
527			**Dimpling; lower lefthand quadrant; two sheets; far side; other than 100°** ISO 5845-2 The number of sheets in drawing and a value other than 100° to be used in the symbol, the number 2 and 82° shown only as an example.
528			**Combined countersink and dimpling; lower lefthand quadrant; near side; 100°** ISO 5845-2
529			**Combined countersink and dimpling; lower lefthand quadrant; first sheet, near side; other than 100°; second sheet; far side; other than 100°** ISO 5845-2 A value other than 100° to be used in the symbol, 82° shown only as an example.

The symbols in ISO 6410-3:1993[1)] are shown in Table 27.

Table 27 — ISO 6410-3:1993 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
530			**Hexagon head screw** ISO 6410-3
531			**Square head screw** ISO 6410-3
532			**Hexagonal socket screw** ISO 6410-3
533			**Cylinder screw (pan-head type), slot** ISO 6410-3
534			**Cylinder screw, cross slot** ISO 6410-3

1) Cancelled and replaced by ISO 6410-3:2021.

Table 27 *(continued)*

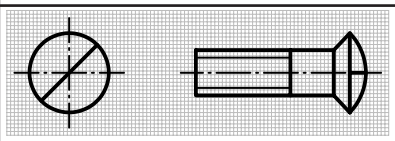
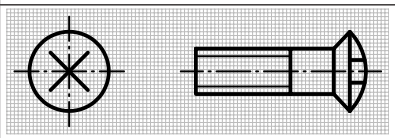
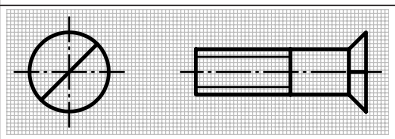
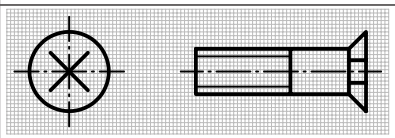
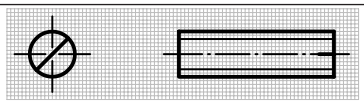
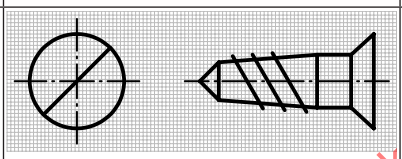
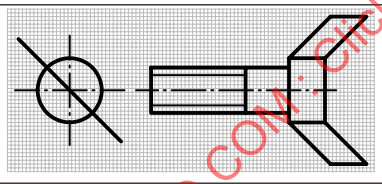
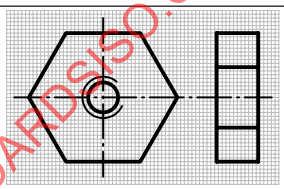
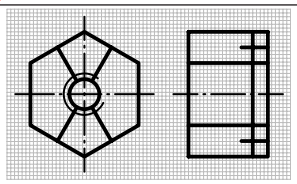
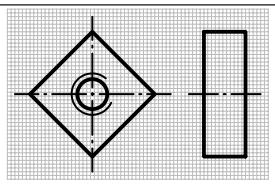
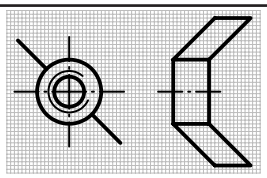
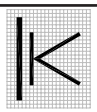
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
535			**Oval countersunk screw, slot** ISO 6410-3
536			**Oval countersunk screw, cross slot** ISO 6410-3
537			**Countersunk screw, slot** ISO 6410-3
538			**Countersunk screw, cross slot** ISO 6410-3
539			**Set screw, slot** ISO 6410-3
540			**Wood and self-tapping screw, slot** ISO 6410-3
541			**Wing screw** ISO 6410-3
542			**Hexagon nut** ISO 6410-3
543			**Crown nut** ISO 6410-3
544			**Square nut** ISO 6410-3

Table 27 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
545			**Wing nut** ISO 6410-3

The symbols in ISO 6411:1982 are shown in Table 28.

Table 28 — ISO 6411:1982 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
546			**Centre hole** ISO 6411
547			**Centre hole is required on the finished part** ISO 6411
548			**Centre hole shall not exist on the finished part** ISO 6411

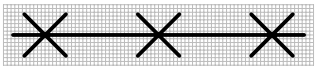
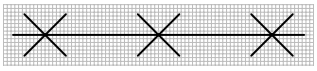
The symbols in ISO 6413:2018 are shown in Table 29.

Table 29 — ISO 6413:2018 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
549			**Straight-sided spline joint** ISO 6413
550			**Involute spline and serrations** ISO 6413

The symbols in ISO 7518:1983 are shown in Table 30.

Table 30 — ISO 7518:1983 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
551			**Indication of item to be removed (cross, line weight varies)** ISO 7518
552			**Part to be removed, existing drawing** ISO 7518
553			**Part to be removed, new drawing** ISO 7518

The symbols in ISO 7519:1991 are shown in Table 31.

Table 31 — ISO 7519:1991 symbols

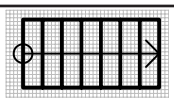
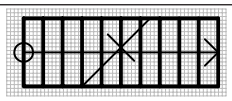
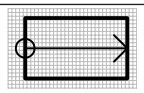
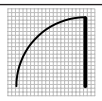
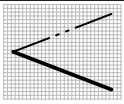
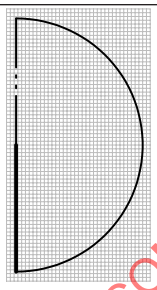
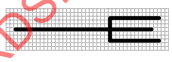
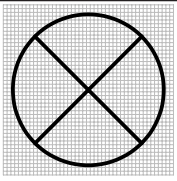
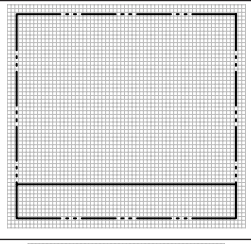
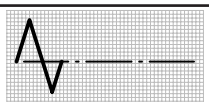
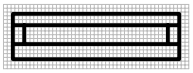
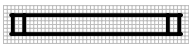
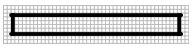
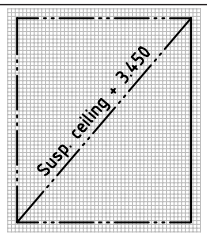
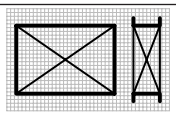
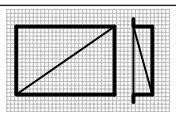
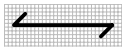
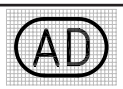
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
554			**Stair, without cutting** ISO 7519
555			**Stair, with cutting** ISO 7519
556			**Bottom of a riser or ramp** ISO 7519
557			**Ramp, riser** ISO 7519
558			**Door, side-hung, without arc** ISO 7519
559			**Door, side-hung, with arc** ISO 7519
560			**Door, swing, without arc** ISO 7519
561			**Door, swing, with arc** ISO 7519
562			**Door, sliding, on face** ISO 7519
563			**Door, sliding, with recess** ISO 7519
564			**Door, revolving** ISO 7519
565			**Door, overhead,** ISO 7519
566			**Door, sliding-folding** ISO 7519

Table 31 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
567			**Door, sliding-folding** ISO 7519
568			**Windows** ISO 7519
569			**Windows** ISO 7519
570			**Windows** ISO 7519
571			**Suspended ceiling** ISO 7519
572			**Openings and holes** ISO 7519
573			**Recesses** ISO 7519
574			**Direction** ISO 7519
575			**Indication of north** ISO 7519
576			**Entrance** ISO 7519
577			**Direction of veneer, span, pattern, etc.** ISO 7519

The symbols in ISO 8015:2011 are shown in Table 32.

Table 32 — ISO 8015:2011 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
578			**Altered default** ISO 8015

The symbols in ISO 8560:2019 are shown in Table 33.

Table 33 — ISO 8560:2019 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
579			**Identification of a multi-modular grid line** ISO 8560
580			**Reference for a modular line** ISO 8560

The symbols in ISO 8826-1:1989 and ISO 8826-2:1994 are shown in Table 34.

Table 34 — ISO 8826-1:1989 and ISO 8826-2:1994 symbols

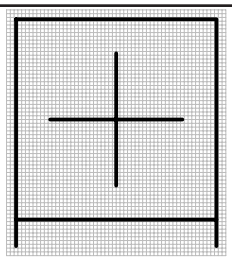
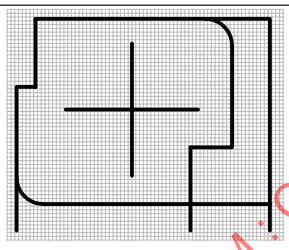
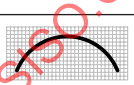
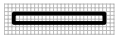
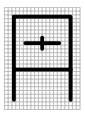
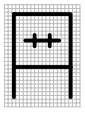
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
581			**General purposes, without specified load-bearing characteristics or bearing features** ISO 8826-1
582			**Showing exact contour with upright cross in the centre position** ISO 8826-1
583			**Axis** ISO 8826-2
584			**Axis of rolling element** ISO 8826-2
585			**Number of rows and positions of the rolling elements** ISO 8826-2
586			**Ball** ISO 8826-2
587			**Roller** ISO 8826-2
588			**Needle-roller pin** ISO 8826-2
589			**Deep groove ball bearing, single row** **Cylindrical roller bearing, single row** ISO 8826-2
590			**Deep groove ball bearing, double row** **Cylindrical roller bearing, double row** ISO 8826-2

Table 34 *(continued)*

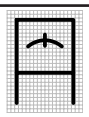
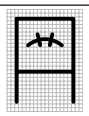
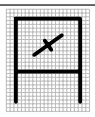
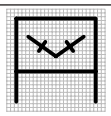
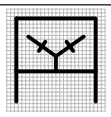
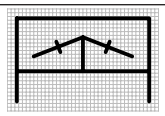
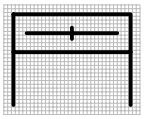
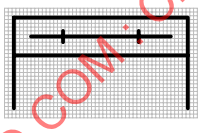
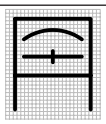
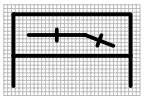
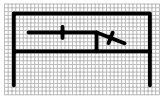
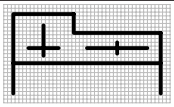
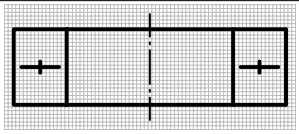
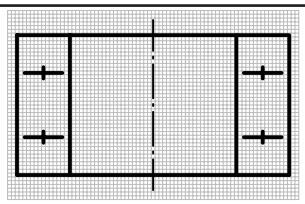
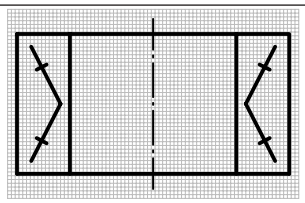
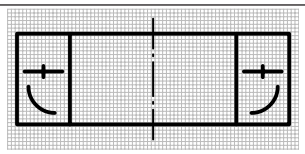
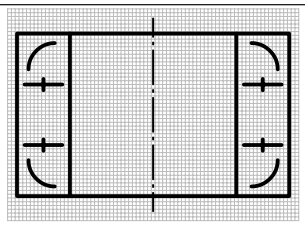
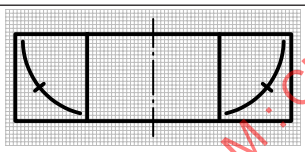
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
591			**Spherical roller bearing, single row** ISO 8826-2
592			**Ball bearing, self-aligning, double row** **Spherical roller bearing, double row** ISO 8826-2
593			**Separable ball bearing, angular contact, single row** **Tapered roller bearing, angular contact, single row** ISO 8826-2
594			**Non-separable ball bearing, angular contact, double row** ISO 8826-2
595			**Separable ball bearing, angular contact, double row, two-piece inner ring** ISO 8826-2
596			**Tapered roller bearing, angular contact, double row, two-piece inner ring** ISO 8826-2
597			**Needle roller bearings, single row** **Drawn cup needle roller bearing without inner ring** **Needle cage** ISO 8826-2
598			**Needle roller bearings, double row** **Drawn cup needle roller bearing without inner ring, double row** **Double row needle cage** ISO 8826-2
599			**Self-aligning needle roller bearings** ISO 8826-2
600			**Needle roller bearing and ball bearing, both radial contact** ISO 8826-2
601			**Needle roller bearing and ball bearing, both radial contact with two-piece inner ring contact** ISO 8826-2
602			**Needle roller bearing without inner ring with radial contact and ball bearing with axial contact** ISO 8826-2
603			**Single-direction thrust ball bearing** ISO 8826-2

Table 34 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
604			**Double-direction thrust ball bearing** ISO 8826-2
605			**Angular contact thrust ball bearing** ISO 8826-2
606			**Single-direction thrust ball bearing with one spherical ring** ISO 8826-2
607			**Double-direction thrust ball bearing with two spherical rings** ISO 8826-2
608			**Self-aligning thrust roller bearing** ISO 8826-2

The symbols in ISO 9222-1:1989 and ISO 9222-2:1989 are shown in Table 35.

Table 35 — ISO 9222-1:1989 and ISO 9222-2:1989 symbols

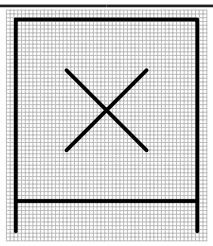
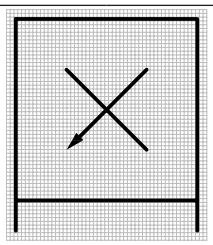
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
609			**General purposes, without specified lip configuration** ISO 9222-1
610			**Need to show sealing direction** ISO 9222-1

Table 35 *(continued)*

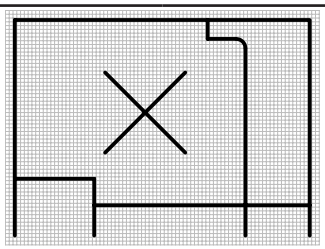
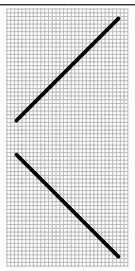
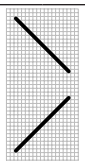
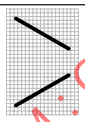
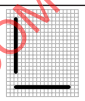
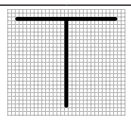
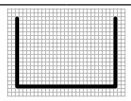
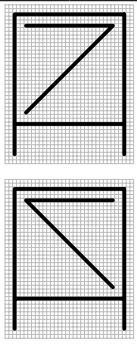
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
611			**Necessary to show exact contour** ISO 9222-1
612			**Static (pressed in, fixed) element (seal or part of the seal or function)** ISO 9222-2
613			**Dynamic sealing element (lip) or function (part of the seal)** ISO 9222-2
614			**Dust lips, wipers, etc.** ISO 9222-2
615			**Sealing lips of U-cups, V-rings, packing sets, etc.** ISO 9222-2
616			**U-cups, V-rings, packing sets, etc.** ISO 9222-2
617			**T (male) contactless seals** ISO 9222-2
618			**U (female) contactless seals** ISO 9222-2
619			**Rotary shaft lip type seals without dust lip Mechanical seals** ISO 9222-2

Table 35 *(continued)*

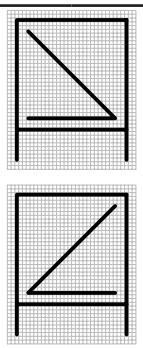
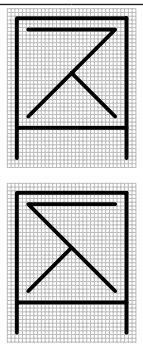
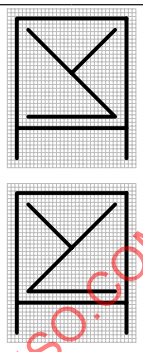
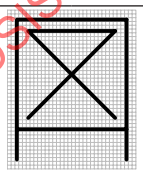
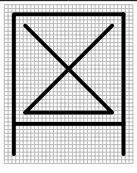
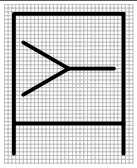
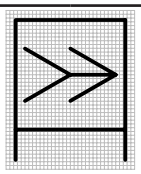
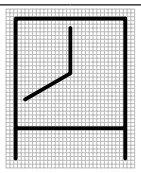
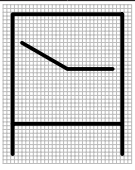
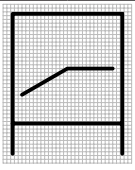
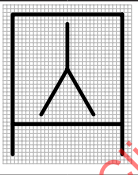
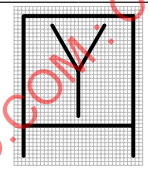
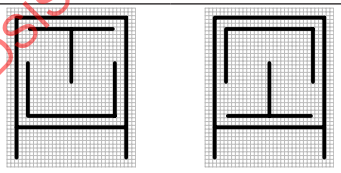
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
620			**Rotary shaft lip type seals without dust lip** **Mechanical seals** ISO 9222-2
621			**Rotary shaft lip type seals with dust lip** ISO 9222-2
622			**Rotary shaft lip type seals with dust lip** ISO 9222-2
623			**Rotary shaft lip type seals without dust lip, double acting** **Mechanical seals** ISO 9222-2
624			**Rotary shaft lip type seals without dust lip, double acting** **Mechanical seals** ISO 9222-2
625			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2

Table 35 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
626			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
627			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
628			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
629			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
630			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
631			**Detailed representation of U-cups, packing sets and V-rings** ISO 9222-2
632			**Detailed simplified representation of labyrinth seals (irrespective of the number of labyrinths)** ISO 9222-2

The symbols in ISO 10135:2007 are shown in Table 36.

Table 36 — ISO 10135:2007 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
633		 (see ISO 3098-1)	**Core** ISO 10135
634		 (see ISO 3098-1)	**Ejector** ISO 10135

Table 36 *(continued)*

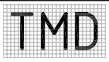
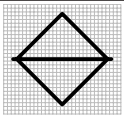
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
635		 (see ISO 3098-1)	**Flash** ISO 10135
636		 (see ISO 3098-1)	**Flash free** ISO 10135
637		 (see ISO 3098-1)	**Gate** ISO 10135
638		 (see ISO 3098-1)	**Heat dissipation (chill markings)** ISO 10135
639		 (see ISO 3098-1)	**Main** ISO 10135
640		 (see ISO 3098-1)	**Part removal direction** ISO 10135
641		 (see ISO 3098-1)	**Riser** ISO 10135
642		 (see ISO 3098-1)	**Slider (side core)**
643		 (see ISO 3098-1)	**Surface mismatch** ISO 10135
644		 (see ISO 3098-1)	**Taper (draft) to fit** ISO 10135
645		 (see ISO 3098-1)	**Taper –** ISO 10135
646		 (see ISO 3098-1)	**Tool motion direction** ISO 10135
647		 (see ISO 3098-1)	**Taper +** ISO 10135
648		 (see ISO 3098-1)	**Vent** ISO 10135
649			**Parting surface, fixed** ISO 10135

Table 36 *(continued)*

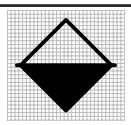
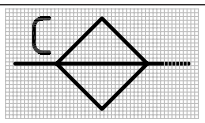
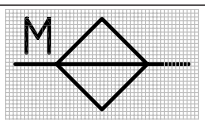
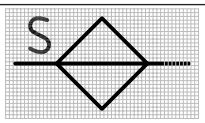
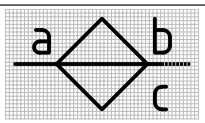
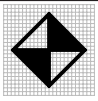
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
650			**Parting surface, movable** ISO 10135
651			**Parting surface letter, cores** ISO 10135
652			**Parting surface letter, main surface of moulds** ISO 10135
653			**Parting surface letter, sliders** ISO 10135
654			**Position of mismatch and flash indication in a parting symbol** ISO 10135
655			**Tool marking** ISO 10135
656		 (see ISO 3098-1)	**Tool marking letter, ejector** ISO 10135
657		 (see ISO 3098-1)	**Tool marking letter, gate** ISO 10135
658		 (see ISO 3098-1)	**Tool marking letter, heat dissipation (chill markings)** ISO 10135
659		 (see ISO 3098-1)	**Tool marking letter, riser** ISO 10135
660		 (see ISO 3098-1)	**Tool marking letter, vent** ISO 10135
661			**Tool marking elevated** ISO 10135
662			**Tool marking depressed** ISO 10135
663			**Ejector** ISO 10135
664			**Surface mismatch elevation** ISO 10135
665			**Surface mismatch depression** ISO 10135

Table 36 *(continued)*

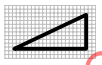
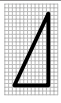
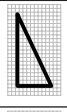
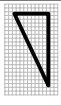
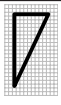
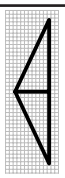
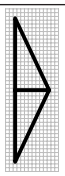
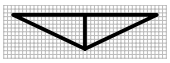
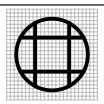
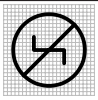
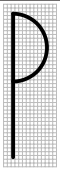
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
666			**Surface mismatch elevation and/or depression** ISO 10135
667			**Extended region; global; all around** ISO 10135
668			**Extended region; global; all over** ISO 10135
669			**Extended region; partial; all around** ISO 10135
670			**Extended region; partial; all over** ISO 10135
671			**Extended region; global; all about, horizontal axis indicator** ISO 10135
672			**Extended region; global; all about, vertical axis indicator** ISO 10135
673			**Extended region; partial; all about, horizontal axis indicator** ISO 10135
674			**Extended region; partial; all about, vertical axis indicator** ISO 10135
675			**Draft angle, single inclination symbol – left** ISO 10135
676			**Draft angle, single inclination symbol – left** ISO 10135
677			**Draft angle, single inclination symbol – right** ISO 10135
678			**Draft angle, Single inclination symbol – right** ISO 10135
679			**Draft angle, Single inclination symbol – up** ISO 10135
680			**Draft angle, Single inclination symbol – up** ISO 10135
681			**Draft angle, Single inclination symbol – down** ISO 10135
682			**Draft angle, Single inclination symbol – down** ISO 10135

Table 36 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
683			**Draft angle, combined inclination symbol – up/ down** ISO 10135
684			**Draft angle, combined inclination symbol – up/ down** ISO 10135
685			**Draft angle, combined inclination symbol – right/ left** ISO 10135
686			**Draft angle, combined inclination symbol – right/ left** ISO 10135
687			**Tool motion direction** ISO 10135
688		 (see ISO 3098-1)	**Movable tool letter, cores** ISO 10135
689		 (see ISO 3098-1)	**Movable tool letter, main part** ISO 10135
690		 (see ISO 3098-1)	**Movable tool letter, sliders** ISO 10135
691		 or 	**Part removal direction, left** **Part removal direction, right** ISO 10135
692			**Surface enlargement** ISO 10135
693			**Sinks** ISO 10135
694			**Undisturbed surface** ISO 10135
695			**Porosity** ISO 10135

The symbols in ISO 11091:1994 are shown in Table 37.

Table 37 — ISO 11091:1994 symbols

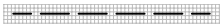
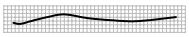
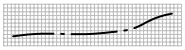
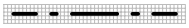
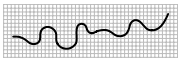
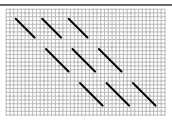
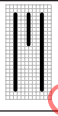
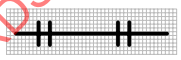
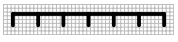
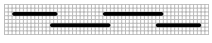
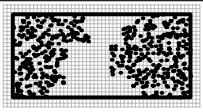
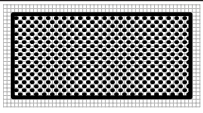
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
696			**Subdivision of plant bed/grasses** ISO 11091
697			**Tangent point or point of transition** ISO 11091
698			**Existing contour** ISO 11091
699			**Proposed contour** ISO 11091
700			**No-cut or no-fill line** ISO 11091
701			**Outline of areas to be protected** ISO 11091
702			**Outline of existing shrub and woodland areas** ISO 11091
703			**Outline of proposed shrub and woodland areas** ISO 11091
704			**General area to be removed** ISO 11091
705			**Embankment** ISO 11091
706			**Direction of flow** ISO 11091
707			**Fence** ISO 11091
708			**Stile** ISO 11091
709			**Retaining wall** ISO 11091
710			**Sheet pile** ISO 11091
711			**Grass** ISO 11091
712			**Plant bed** ISO 11091

Table 37 *(continued)*

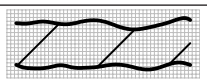
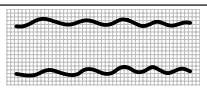
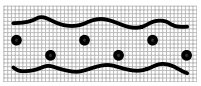
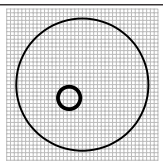
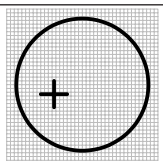
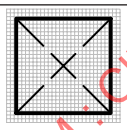
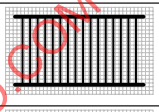
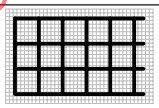
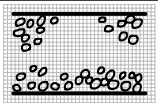
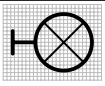
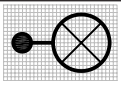
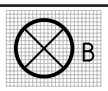
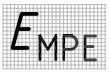
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
713			**Proposed shrub/plant** ISO 11091
714			**Climber** ISO 11091
715			**Existing hedge to be retained** ISO 11091
716			**Proposed hedge, conventional** ISO 11091
717			**Proposed hedge, alternative showing plant positions** ISO 11091
718			**Existing tree** ISO 11091
719			**Proposed tree** ISO 11091
720			**Tree pit** ISO 11091
721			**Small unit paving** ISO 11091
722			**Large unit paving** ISO 11091
723			**Cobbles** ISO 11091
724			**Hose point** ISO 11091
725			**Sign** ISO 11091
726			**Luminaire, any type** ISO 11091
727			**Luminaire + wall bracket** ISO 11091
728			**Pole + arm + luminaire** ISO 11091

Table 37 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
729			**Bollard + low-level luminaire** ISO 11091

The symbols in ISO 13385-1:2019 and ISO 13385-2:2020 are shown in Table 38.

Table 38 — ISO 13385-1:2019 and ISO 13385-2:2020 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
730		 (see ISO 3098-1)	**Maximum permissible error** ISO 13385-1 ISO 13385-2
731		 (see ISO 3098-1)	**Partial surface contact error, E** ISO 13385-1 ISO 13385-2
732		 (see ISO 3098-1)	**Shift error, *S*** ISO 13385-1 ISO 13385-2

The symbols in ISO 13715:2017 are shown in Table 39.

Table 39 — ISO 13715:2017 symbols

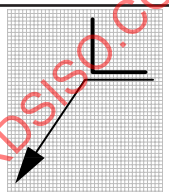
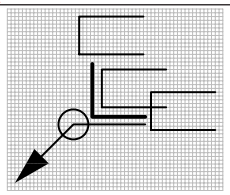
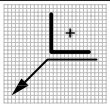
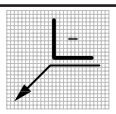
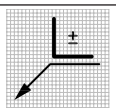
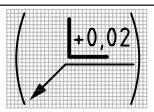
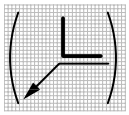
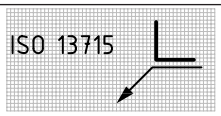
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
733			**Edges of undefined shape – basic indication** ISO 13715
734			**All around symbol, all edges around the profile of the part** ISO 13715 ISO 15785
735			**Plus, permitted excess material in relation to the ideal shape of the edge** ISO 13715
736			**External or internal edge; passing permitted; undercut not permitted** ISO 13715
737			**Minus, required material removal in relation to the ideal shape of the edge** ISO 13715

Table 39 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
738			**External edge or internal edge; passing not permitted; undercut required** ISO 13715
739			**Plus or minus** ISO 13715 ISO 129-1
740			**External edge or internal edge; passing permitted; undercut permitted** ISO 13715
741			**Reference indication of the state of an edge, parentheses around edge specification** ISO 13715
742			**Simplified representation of an additional state of edge in the context of a collective indication** More than one state of edge is present in the drawing (basic symbol in parentheses). ISO 13715
743			**Reference to standard** ISO 13715

The symbols in ISO 14253-1:2017 are shown in Table 40.

Table 40 — ISO 14253-1:2017 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
744		USL (see ISO 3098-1)	**Upper specification limit** ISO 14253-1
745		LSL (see ISO 3098-1)	**Lower specification limit** ISO 14253-1
746		Y (see ISO 3098-1)	**Value of characteristic** ISO 14253-1
747		K (see ISO 3098-1)	**Coverage factor** ISO 14253-1
748		PDF (see ISO 3098-1)	**Probability density function** ISO 14253-1
749		2A (see ISO 3098-1)	**Acceptance limits for verifying conformity** ISO 14253-1

Table 40 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
750		 (see ISO 3098-1)	**Acceptance limits for verifying nonconformity** ISO 14253-1

The symbols in ISO 14405-1:2016 are shown in Table 41.

Table 41 — ISO 14405-1:2016 and ISO 14405-3:2016 symbols

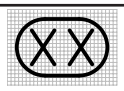
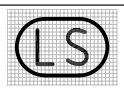
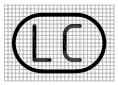
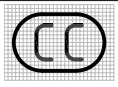
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
751			**Base symbol** **ISO 14405-1**
752			**Two-point size** ISO 14405-1
753			**Local size defined by a sphere** ISO 14405-1
754			**Two-line angular size with minimax association criterion** ISO 14405-3
755			**Two-line angular size with least squares association criterion** ISO 14405-3
756			**Global size with least-squares association criterion (linear or angular)** ISO 14405-1 ISO 14405-3
757			**Maximum inscribed association criterion** ISO 14405-1
758			**Minimum circumscribed association criterion** ISO 14405-1
759			**Global size with minimax (chebyshev) association criteria (linear or angular)** ISO 14405-1 ISO 14405-3
760			**Circumference diameter (calculated size)** ISO 14405-1
761			**Area diameter (calculated size)** ISO 14405-1
762			**Volume diameter (calculated size)** ISO 14405-1

Table 41 *(continued)*

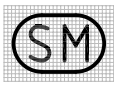
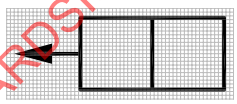
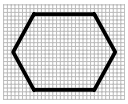
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
763			**Maximum size (linear or angular)** ISO 14405-1 ISO 14405-3
764			**Minimum size (linear or angular)** ISO 14405-1 ISO 14405-3
765			**Average size (linear or angular)** ISO 14405-1 ISO 14405-3
766			**Median size (linear or angular)** ISO 14405-1 ISO 14405-3
767			**Mid-range size (linear or angular)** ISO 14405-1 ISO 14405-3
768			**Range of sizes (linear or angular)** ISO 14405-1 ISO 14405-3
769			**Standard deviation of sizes (linear or angular)** ISO 14405-1 ISO 14405-3
770		 (see ISO 3098-1)	**United feature of size** ISO 14405-1
771			**Envelope requirement** ISO 14405-1 ISO 1101
772		 (see ISO 3098-1)	**Any restricted portion of a feature** ISO 14405-1 The word length is replaced with a value.
773		 (see ISO 3098-1)	**Any restricted portion of angular feature of size** ISO 14405-3 The word linear distatance is replaced with a value.
774		 (see ISO 3098-1)	**Any restricted portion of angular feature of size** ISO 14405-3 The word angular distance is replaced with a value in degrees.
775		 (see ISO 3098-1)	**Any cross-section** ISO 14405-1

Table 41 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
776		SCS (see ISO 3098-1)	**Specific fixed cross section** ISO 14405-1 ISO 14405-3
777		ALS (see ISO 3098-1)	**Any longitudinal section** ISO 14405-1
778		Number × (see ISO 3098-1)	**More than one feature** ISO 14405-1 ISO 14405-3 The word number is to be replaced with the actual value.
779		CT (see ISO 3098-1)	**Common toleranced feature of size (linear or angular)** ISO 14405-1 ISO 14405-3
780			**Free-state condition** ISO 14405-1 ISO 14405-3 ISO 1101
781			**Between** ISO 14405-1 ISO 14405-3 ISO 1101
782			**Intersection plane** ISO 14405-1 ISO 1101
783			**Direction feature** ISO 14405-1 ISO 1101
784			**Flagnote** ISO 14405-1 ISO 129-1

The symbols in ISO 15785:2002 are shown in Table 42.

Table 42 — ISO 15785:2002 symbols

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
785			**Surface joint** ISO 15785
786			**Inclined joint** ISO 15785

Table 42 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
787			**Fold joint** ISO 15785
788			**Pressed joint** ISO 15785
789			**Indication of joint around periphery** ISO 15785 ISO 13715 The leader line and reference line are shown with the symbol for an example of application.

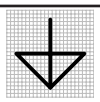
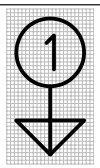
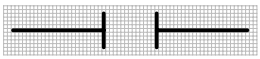
The symbols in ISO 15786:2008 are shown in Table 43.

Table 43 — ISO 15786:2008 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
790			**Diameter** ISO 15786 ISO 129-1
791			**Square** ISO 15786 ISO 129-1
792			**Sign between nominal size and depth or angle dimensions, number of features and of groups of features** Also applies to countersink and chamfer dimensions. ISO 15786
793			**Sign between depth dimensions oretween number of groups and number of features** ISO 15786
794		 (see ISO 3098-1)	**Cylindrical counterbore, flat hole bottom** ISO 15786
795		 (see ISO 3098-1)	**Material-dependent bit (point angle of hole bottom)** ISO 15786
796		 (see ISO 3098-1)	**Indexable insert bit (hole bottom)** ISO 15786

The symbols in ISO 15787:2016 are shown in Table 44.

Table 44 — ISO 15787:2016 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
797			**Test point** ISO 15787
798			**Measuring point with identification number** ISO 15787 The number 1 is shown as an example.
799			**Slip zone** ISO 15787
800		 (see ISO 3098-1)	**Case hardening depth** ISO 15787
801		 (see ISO 3098-1)	**Carburization depth** ISO 15787
802		 (see ISO 3098-1)	**Compound layer thickness** ISO 15787
803		 (see ISO 3098-1)	**Nitriding hardness depth** ISO 15787
804		 (see ISO 3098-1)	**Surface hardened depth** ISO 15787
805		 (see ISO 3098-1)	**Heat-treatment document** ISO 15787
806		 (see ISO 3098-1)	**Heat-treatment order** ISO 15787
807			**Oxide layer thickness** ISO 15787

The symbols in ISO 16016:2016 are shown in Table 45.

Table 45 — ISO 16016:2016 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
808			**Copyright** ISO 16016
809			**Patent** ISO 16016

Table 45 *(continued)*

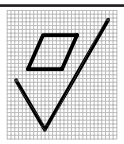
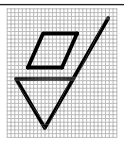
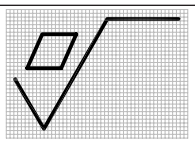
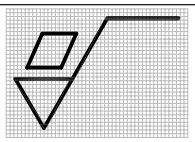
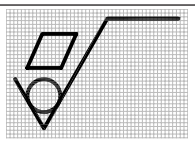
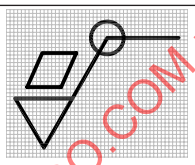
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
810		Ⓤ	**Utility** ISO 16016
811		Ⓓ	**Designs** ISO 16016
812		Ⓡ	**Registered trademark** ISO 16016
813		T, 'T', [T], T*, Ⓣ, 🅃	**Protection of topography of semiconductor product** ISO 16016

The symbols in ISO 25178-1:2016 are shown in Table 46.

Table 46 — ISO 25178-1:2016 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
814		=	**Parallel to plane of projection of view in which symbol is used** ISO 25178-1 ISO 1302
815		⊥	**Perpendicular to plane of projection of view in which symbol is used** ISO 25178-1 ISO 1302
816		X	**Crossed in two oblique directions relative to plane of projection of view in which symbol is used** ISO 25178-1 ISO 1302
817		M	**Multi-directional** ISO 25178-1 ISO 1302
818		C	**Approximately circular relative to centre of surface to which symbol applies** ISO 25178-1 ISO 1302
819		R	**Approximately radial relative to centre of surface to which symbol applies** ISO 25178-1 ISO 1302
820		P	**Lay is particulate, non-directional or protuberant** ISO 25178-1 ISO 1302

Table 46 *(continued)*

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
821			**Areal surface texture – basic graphical symbol for areal surface texture** ISO 25178-1
822			**Areal surface texture – expanded graphical symbol indicating removal of material required** ISO 25178-1
823			**Areal surface texture – expanded graphical symbol indicating removal of material not permitted** ISO 25178-1
824			**Areal surface texture – complete graphical symbol. any manufacturing process permitted** ISO 25178-1
825			**Areal surface texture – complete graphical symbol material shall be removed** ISO 25178-1
826			**Areal surface texture – complete graphical symbol. material shall not be removed** ISO 25178-1
827			**Areal surface texture – complete graphical symbol with "all around" modifier** ISO 25178-1

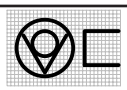
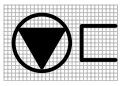
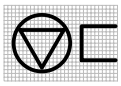
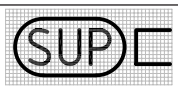
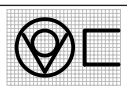
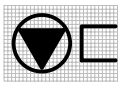
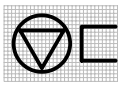
The symbols in IEC 81346-1:2009 are shown in Table 47.

Table 47 — IEC 81346-1:2009 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
828			**Aspect of an object type** IEC 81346-1
829			**Occurrence of an object with the same aspect** IEC 81346-1
830			**Occurrence of an aspect of an object that does not have any further constituents in the actual aspect** IEC 81346-1

The symbols in ISO/TS 8062-2:2013 are shown in Table 48.

Table 48 — ISO/TS 8062-2:2013 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
831			**Drawing identifier for final moulded part** ISO/TS 8062-2
832			**Drawing identifier for intermediate machined moulded part** ISO/TS 8062-2
833			**Drawing identifier for final machined moulded part** ISO/TS 8062-2
834			**Identifier for machining by the supplier** ISO/TS 8062-2
835			**Part condition identifier for final moulded part** ISO/TS 8062-2
836			**Part condition identifier for intermediate machined moulded part** ISO/TS 8062-2
837			**Part condition identifier for final machined moulded part** ISO/TS 8062-2

The symbols in ISO/TS 17863:2013 are shown in Table 49.

Table 49 — ISO/TS 17863:2013 symbols

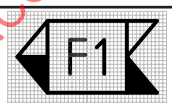
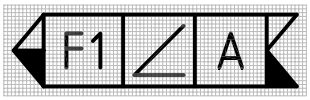
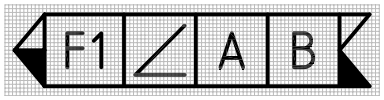
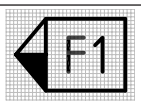
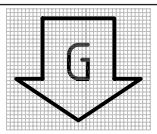
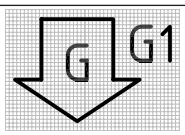
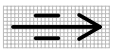
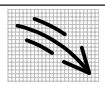
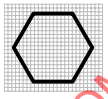
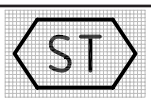
No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
838			**Force indicator** ISO/TS 17863
839			**Force indicator including basic indication of specific direction of the force relative to a single datum** ISO/TS 17863 The angularity symbol and reference to datum A are shown only as an example for how the symbol is used.
840			**Force indicator including basic indication of specific direction of the force relative to a datum system** ISO/TS 17863 The angularity symbol and reference to datums A and B are shown only as an example for how the symbol is used.

Table 49 *(continued)*

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
841			**Force indicator including basic indication of specific direction of the force relative to a datum system** ISO/TS 17863 The angularity symbol and reference to datum A, B an C are shown only as an example for how the symbol is used.
842			**Complementary force indicator** ISO/TS 17863
843			**Gravity** ISO/TS 17863
844			**Gravity with related direction** ISO/TS 17863
845			**Mobility – translational** ISO/TS 17863
846			**Mobility – rotational** ISO/TS 17863
847			**Flag** ISO/TS 17863 ISO 129-1 The flag symbol is used with a number placed inside of it.
848		 (see ISO 3098-1)	**Movable part** ISO/TS 17863
849		 (see ISO 3098-1)	**Fixed part** ISO/TS 17863
850		 (see ISO 3098-1)	**Translational mobility in positive direction** ISO/TS 17863
851		 (see ISO 3098-1)	**Transitional mobility in negative direction** ISO/TS 17863
852		 (see ISO 3098-1)	**Rotational mobility in positive direction** ISO/TS 17863
853		 (see ISO 3098-1)	**Rotational mobility in negative direction** ISO/TS 17863

The symbols in ISO 18391:2016 are shown in Table 50.

Table 50 — ISO 18391:2016 symbols

No.	ISO reg. no.	Symbol	**Symbol name or description** Standards symbol used in
854			**Population specification** ISO 18391

Bibliography

[1] ISO 128-2:2020, *Technical product documentation (TPD) — General principles of representation — Part 2: Basic conventions for lines*

[2] ISO 128-3:2020, *Technical product documentation (TPD) — General principles of representation — Part 3: Views, sections and cuts*

[3] ISO 128-15:2013, *Technical product documentation (TPD) — General principles of presentation — Part 15: Presentation of shipbuilding drawings*

[4] ISO 129-1:2018, *Technical product documentation (TPD) — Presentation of dimensions and tolerances — Part 1: General principles*

[5] ISO 129-4:2013, *Technical product documentation (TPD) — Indication of dimensions and tolerances — Part 4: Dimensioning of shipbuilding drawings*

[6] ISO 129-5:2018, *Technical product documentation — Indication of dimensions and tolerances — Part 5: Dimensioning of structural metal work*

[7] ISO 286-1:2010, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits*

[8] ISO 1101:2017, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

[9] ISO 1302:2002, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

[10] ISO 2162-1:1993, *Technical product documentation — Springs — Part 1: Simplified representation*

[11] ISO 2203:1973, *Technical drawings — Conventional representation of gears*

[12] ISO 2692:2014, *Geometrical product specifications (GPS) — Geometrical tolerancing — Maximum material requirement (MMR), least material requirement (LMR) and reciprocity requirement (RPR)*

[13] ISO 3040:2016, *Geometrical product specifications (GPS) — Dimensioning and tolerancing — Cones*

[14] ISO 3766:2003, *Construction drawings — Simplified representation of concrete reinforcement*

[15] ISO 3952-1:1981, *Kinematic diagrams — Graphical symbols*

[16] ISO 3952-1:1981/Amd.1:2002, *Kinematic diagrams — Graphical symbols/ — Amendment 1*

[17] ISO 3952-2:1981, *Kinematic diagrams — Graphical symbols*

[18] ISO 3952-3:1979, *Kinematic diagrams — Graphical symbols*

[19] ISO 3952-4:1984, *Kinematic diagrams — Graphical symbols*

[20] ISO 5261:1995, *Technical drawings — Simplified representation of bars and profile sections*

[21] ISO 5456-1:1996, *Technical drawings — Projection methods — Part 1: Synopsis*

[22] ISO 5456-2:1996, *Technical drawings — Projection methods — Part 2: Orthographic representations*

[23] ISO 5457:1999, *Technical product documentation — Sizes and layout of drawing sheets*

[24] ISO 5459:2011, *Geometrical product specifications (GPS) — Geometrical tolerancing — Datums and datum systems*