

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 867

SPINDLE NOSES AND FACE PLATES

BAYONET TYPE

SIZES FOR INTERCHANGEABILITY

METRIC SERIES

1st EDITION

November 1968

COPYRIGHT RESERVED

The copyright of ISO Recommendations and ISO Standards belongs to ISO Member Bodies. Reproduction of these documents, in any country, may be authorized therefore only by the national standards organization of that country, being a member of ISO.

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 867, *Spindle noses and face plates – Bayonet type – Sizes for interchangeability – Metric series*, was drawn up by Technical Committee ISO/TC 39, *Machine tools*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1951 and led, in 1965, to the adoption of a Draft ISO Recommendation.

In July 1967, this Draft ISO Recommendation (No. 1327) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	India	South Africa, Rep. of
Belgium	Iran	Spain
Chile	Israel	Sweden
Czechoslovakia	Italy	Switzerland
Finland	Japan	Thailand
France	Korea, Rep. of	Turkey
Germany	Netherlands	U.A.R.
Greece	Poland	United Kingdom
Hungary	Romania	Yugoslavia

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in November 1968, to accept it as an ISO RECOMMENDATION.

CONTENTS

	Page
1. Scope	3
2. Spindle noses – Bayonet type	4
3. Bayonet disc	6
4. Face plates – Bayonet type	8
5. Studs and nuts with collars	10

SPINDLE NOSES AND FACE PLATES
BAYONET TYPE
SIZES FOR INTERCHANGEABILITY
METRIC SERIES

1. SCOPE

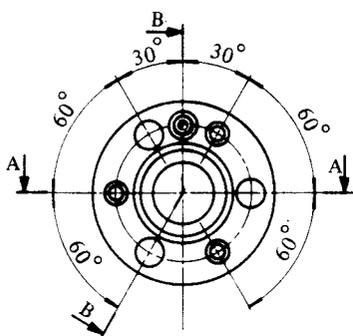
This ISO Recommendation is the second of a series of ISO Recommendations specifying the sizes for interchangeability for lathe spindle noses and face plates and covering the three types selected for international standardization, i.e. A and Camlock types and bayonet type.

The first two types, which are presently in use in most countries, are the subject of ISO Recommendation R 702, *Spindle noses and face plates – Types A and Camlock – Sizes for interchangeability*; the third type is the subject of this ISO Recommendation.

STANDARDSISO.COM : Click to view the full PDF of ISO/R 867:1968

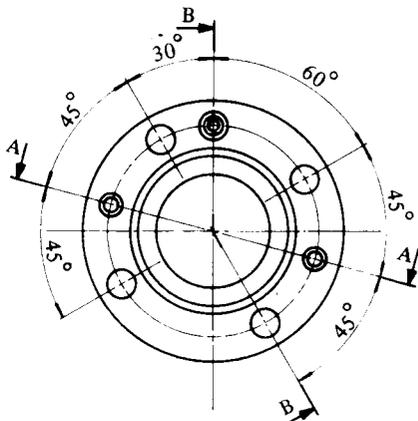
2. SPINDLE NOSES - BAYONET TYPE

Nos. 3 and 4

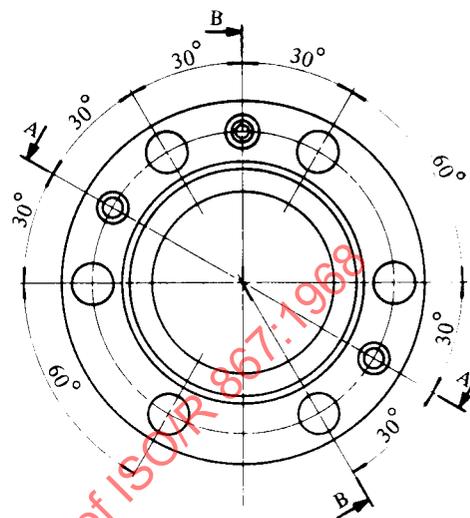


No. 3 without button

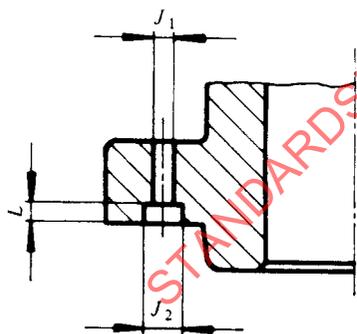
Nos. 5 to 8



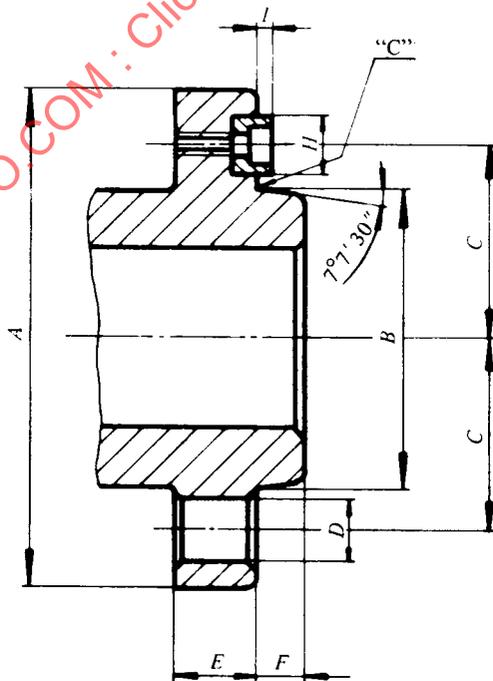
Nos. 11 to 20



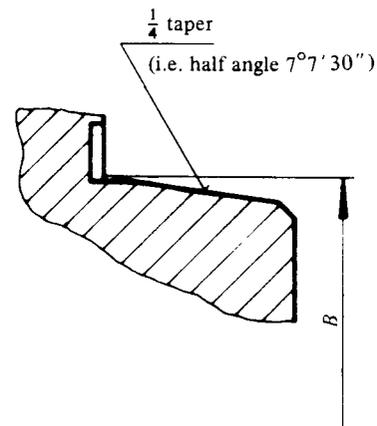
$\frac{1}{2}$ section A-A



Section B-B



Detail "C"



Dimension *B* is taken at the theoretical point of intersection between the generating line of the cone and the face of the flange.

Dimensions in millimetres

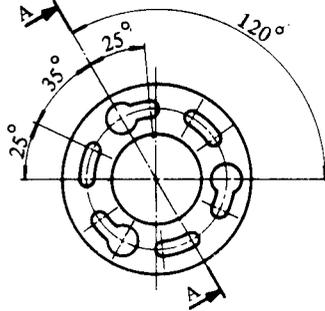
Dimension \ No.	3	4	5	6	8	11	15	20	Tolerances
<i>A</i>	102	112	135	170	220	290	400	540	
<i>B</i>	53.975	63.513	82.563	106.375	139.719	196.869	285.775	412.775	+ IT 4 0
<i>C</i>	37.5	42.5	52.4	66.7	85.7	117.5	165.1	231.8	(1)
<i>D</i>	21	21	21	23	29	36	43	43	
<i>E</i>	16	20	22	25	28	35	42	48	
<i>F</i>	11	11	13	14	16	18	19	21	
<i>H</i>		14.25	15.9	19.05	23.8	28.6	34.9	41.3	H8 / h8
<i>I</i>		5	5	5	6	8	8	8	
<i>J₁</i>	6.4	6.4	6.4	8.4	10.5	10.5	13	13	
<i>J₂</i>	10.4	10.4	10.4	13.5	16.5	16.5	19	19	
<i>L</i>	10	10	10	11	12	13	15	15	

- (1) 0.1 mm for Nos. 3 to 11
0.15 mm for Nos. 15 and 20
- } Tolerance of position (radial deviation with respect to the theoretical position)

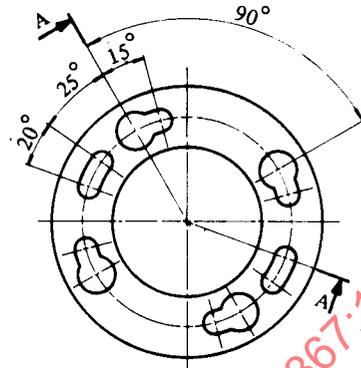
NOTE. - General tolerance for untoleranced dimensions : ± 0.4 mm.

3. BAYONET DISC

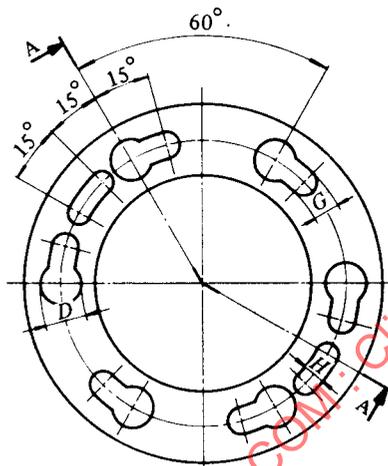
Nos. 3 and 4



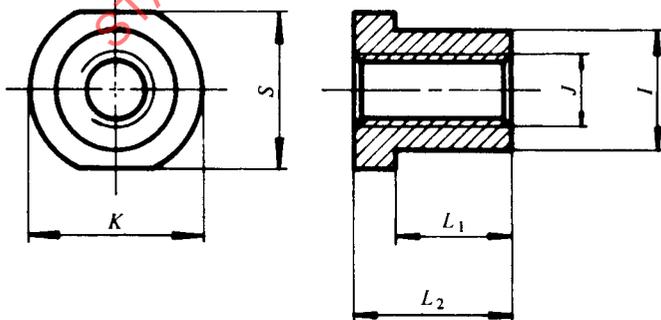
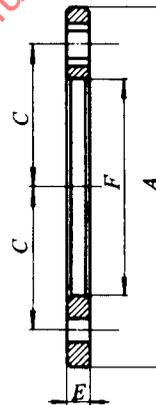
Nos. 5 to 8



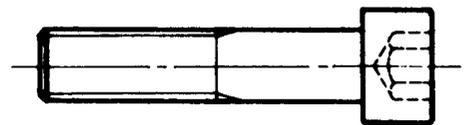
Nos. 11 to 20



Section A-A



Thrust socket



Hexagon socket head screw

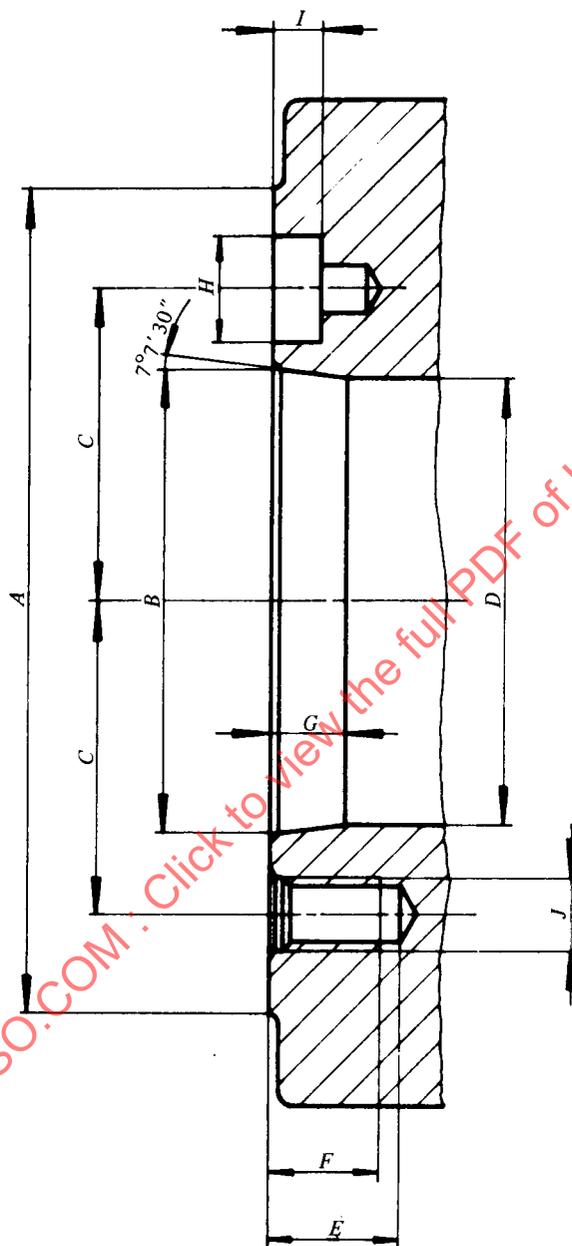
Dimensions in millimetres

Dimension \ No.	3	4	5	6	8	11	15	20	Tolerances
A	110	120	145	180	230	300	410	550	
C	37.5	42.5	52.4	66.7	85.7	117.5	165.1	231.8	(1)
D	21	21	21	23	29	36	43	43	
E	5	6	8	10	12	16	18	22	-0.1
F	50	60	80	100	130	185	270	400	H8 ⁽²⁾
G	11.5	11.5	11.5	14	18	23	27	27	
H	11.5	11.5	11.5	14	18	18	23	23	
I	11	11	11	13	17	17	22	22	
J	M 6	M 6	M 6	M 8	M 10	M 10	M 12	M 12	
K	16	16	16	19	25	25	32	32	
L ₁	5.2	6.2	8.2	10.2	12.2	16.2	18.3	22.3	+ 0.2
L ₂	8	9	12	15	18	22	26	30	
S	14	14	14	17	22	22	27	27	
Hexagon socket head screw	M 6 × 15	M 6 × 20	M 6 × 25	M 8 × 30	M 10 × 35	M 10 × 45	M 12 × 55	M 12 × 65	

(1) 0.1 mm for Nos. 3 to 11
0.15 mm for Nos. 15 and 20 } Tolerance of position (radial deviation with respect to the theoretical position)

(2) The given boring diameters are maximum values.
The tolerance of the spindle diameter of the same dimension is f7.

4. FACE PLATES – BAYONET TYPE



Dimension *B* is taken at the theoretical point of intersection between the generating line of the cone and the face of the flange.

Dimensions in millimetres

Dimension \ No.	3	4	5	6	8	11	15	20	Tolerances
A	102	112	135	170	220	290	400	540	
B	53.975	63.513	82.563	106.375	139.719	196.869	285.775	412.775	+ (IT 4 - IT 3) - IT 3
C	37.5	42.5	52.4	66.7	85.7	117.5	165.1	231.8	(1)
D	51.5	61	79.6	103.2	136.2	192.9	281.5	408	max.
E	18	18	18	22	28	34	40	40	
F	15	15	15	18	24	30	36	36	
G	10	10	12	13	14	16	17	19	
H		14.7	16.3	19.45	24.25	29.4	35.7	42.1	+ 0.1
I		6.5	6.5	6.5	8	10	10	10	
J	M 10	M 10	M 10	M 12	M 16	M 20	M 24	M 24	
Stud	M 10 × 34	M 10 × 39	M 10 × 43	M 12 × 50	M 16 × 60	M 20 × 75	M 24 × 90	M 24 × 100	

- (1) 0.1 mm for Nos. 3 to 11
0.15 mm for Nos. 15 and 20 } Tolerance of position (radial deviation
with respect to the theoretical position)

NOTE. - General tolerance for untoleranced dimensions : ± 0.4 mm.