

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 2473 (1975): Dimensions for centre holes [PGD 20: Engineering Standards]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

DIMENSIONS FOR CENTRE HOLES

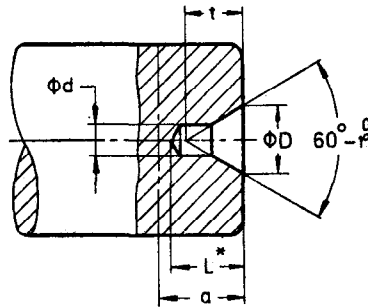
(First Revision)

1. Scope — Prescribes dimensions for the following three types of centre holes:

Type A — Centre holes without protecting chamfers

Type B — Centre holes with protecting chamfers

Type R — Centre holes with radius form

2. Dimensions**2.1 Centre Holes Without Protecting Chamfers, Type A**

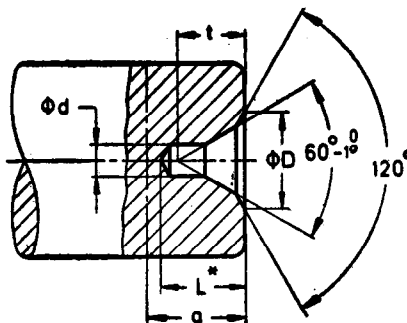
All dimensions in millimetres.

d Nominal	D Nominal	t Reference	a †
(0.5)	1.06	1.0	2
(0.63)	1.32	1.2	2
(0.8)	1.70	1.5	2.5
1.0	2.12	1.9	3
(1.25)	2.65	2.3	4
1.6	3.35	2.9	5
2.0	4.25	3.7	6
2.5	5.30	4.6	7
3.15	6.70	5.9	9
4.0	8.50	7.4	11
(5.0)	10.60	9.2	14
6.3	13.20	11.5	18
(8.0)	17.00	14.8	22
10.0	21.20	18.4	28

Note — Sizes given within brackets are non-preferred and shall be avoided whenever possible.*Dimension L depends upon length l of the centre drill according to IS : 6708-1972 'Specification for centre drills, Type A'. It shall not, even in the case of drilling with re-sharpened centre drills, be less than the reference value t given in the table to ensure that the point of the centre does not touch the bottom of the centre hole.

†Parting off dimension, if the centre hole is to be removed from the finished workpiece.

2.2 Centre Holes With Protecting Chamfers, Type B



All dimensions in millimetres.

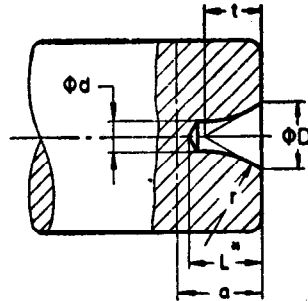
<i>d</i> Nominal	<i>D</i> Nominal	<i>t</i> Reference	<i>a</i> †
1.0	3.15	2.2	3.5
(1.25)	4	2.7	4.5
1.6	5	3.4	5.6
2.0	6.3	4.3	6.6
2.5	8	5.4	8.3
3.15	10	6.8	10.0
4.0	12.5	8.6	12.7
(5.0)	16	10.8	15.6
6.3	18	12.9	20.0
(8.0)	22.4	16.4	25.0
10.0	28	20.4	31.0

Note — Sizes given within brackets are non-preferred and shall be avoided whenever possible.

*Dimension *L* depends upon length *l* of the centre drill according to IS : 6709-1972 'Specification for centre drills, Type B'. It shall not, even in the case of drilling with re-sharpened centre drills, be less than the reference value *t* given in the table to ensure that the point of the centre does not touch the bottom of the centre hole.

†Parting off dimension, if the centre hole is to be removed from the finished workpiece.

2.3 Centre Holes With Radius Form, Type R



All dimensions in millimetres.

d Nominal	D Nominal	t Reference	r		a†
			Max	Min	
1.0	2.12	1.9	3.15	2.5	3
(1.25)	2.65	2.3	4.0	3.15	4
1.6	3.35	2.9	5.0	4.0	5
2.0	4.25	3.7	6.3	5.0	6
2.5	5.3	4.6	8.0	6.3	7
3.15	6.7	5.8	10.0	8.0	9
4.0	8.5	7.4	12.5	10.0	11
(5.0)	10.6	9.2	16.0	12.5	14
6.3	13.2	11.4	20.0	16.0	18
(8.0)	17.0	14.7	25.0	20.0	22
10.0	21.2	18.3	31.5	25.0	28

Note — Sizes given within brackets are non-preferred and shall be avoided whenever possible.

*Dimension L depends upon length l of the centre drill according to IS : 6710-1972 'Specification for centre drills, Type D'. It shall not, even in the case of drilling with re-sharpened centre drills, be less than the reference value t given in the table to ensure that the point of the centre does not touch the bottom of the centre hole.

†Parting off dimension, if the centre hole is to be removed from the finished workpiece.

2.4 Dimensional deviations for untoleranced dimensions; Medium class according to IS : 2102-1969 'Allowable deviations for dimensions without specified tolerances (first revision)'.
 2.5 For inspection purposes, a centre drill which has not been reground shall be used.

2.6 For values of suitable limits of workpiece diameters for different sizes of centre holes, see Appendix A.

3. Designation — A centre hole of Type A and diameter d = 1.6 mm shall be designated as:

Centre Hole A × 1.6 IS : 2473

APPENDIX A

(Clause 2.6)

LIMITS OF WORKPIECE DIAMETERS FOR DIFFERENT SIZES OF CENTRE HOLES

All dimensions in millimetres.

<i>d</i> Nominal	Diameter of Workpiece		Weight of Manufactured Workpiece, kg, <i>Max</i>
	Over	Up to	
0.5	—	4	—
0.8	4	6	—
1.0	6	10	—
1.6	10	16	—
2.5	16	40	—
4.0	40	80	—
6.3	—	—	1 600
10.0	—	—	4 000

Note — These values are for all types of centre holes (Types A, B and R) and are for information only.

EXPLANATORY NOTE

This standard was originally issued in the year 1963. The present revision has become necessary as the standard on centre drills IS : 664-1963 has since been revised and published splitting the original standard into the following three standards:

IS : 6708-1972 Specification for centre drills, Type A

IS : 6709-1972 Specification for centre drills, Type B

IS : 6710-1972 Specification for centre drills, Type D

This revision of IS : 2473 has also brought the standard in line with the ISO standard. In addition, suitable limits of workpiece diameters for different sizes of centre holes have been included in an appendix for information.

**AMENDMENT NO. 2 JANUARY 2008
TO
IS 2473 : 1975 DIMENSIONS FOR CENTRE HOLES**

(First Revision)

(Page 4, Explanatory Note) — Substitute the following for the existing:

‘This standard was originally issued in the year 1963. The present revision has become necessary as the standard on centre drills IS 664 : 1963 has since been revised and published splitting the original standard into the following three standards:

IS 6708 : 1977	Specification for centre drills, Type A
IS 6709 : 1977	Specification for centre drills, Type B
IS 6710 : 1977	Specification for centre drills, Type R

This revision of IS 2473 has also brought the standard in line with ISO 866 : 1975, ISO 2540 : 1973, and ISO 2541 : 1972 for Type A, Type B and Type R centre holes respectively. In addition, suitable limits of workpiece diameters for different sizes of centre holes have been included in an appendix for information.’