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	ISO metric screw threads 1 mm to 300 mm diameter coarse and fine pitch threads Selected diameters and pitches	DIN 13 Part 12
Metrisches ISO-Gewinde; Regel- und Feingewinde von 1 bis 300 mm Durchmesser; Auswahl für Durchmesser und Steigungen		Supersedes November 1975 edition.
<p><i>In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.</i></p>		
<p>See Explanatory notes for connection with International Standard ISO 261 – 1973 published by the International Organization for Standardization (ISO) and currently under revision.</p>		
Dimensions in mm		
<p>1 Scope and field of application</p>		
<p>This standard specifies selected ISO metric screw threads having the basic profile as specified in DIN 13 Part 19.</p>		
<p>See DIN 13 Part 1 and Parts 3 to 11 for nominal sizes.</p>		
<p>This selection of diameters and pitches permits a more rational use of production and inspection equipment and may serve as a basis for screw selections in industrial applications or within a company.</p>		
<p>2 Series of preferred sizes</p>		
<p>The series of preferred sizes given in tables 1 and 2 cover</p>		
<p>a) all coarse pitch threads specified in DIN 13 Part 1 or ISO 261 (see Supplement to DIN 13 Part 12) except thread sizes M 1,1; M 4,5; M 7; M 9 and M 11;</p>		
<p>b) selected fine pitch threads from DIN 13 Parts 3 to 11 or ISO 261;</p>		
<p>c) all threads for bolts, screws and nuts specified in DIN 13 Part 13 or ISO 262 except thread sizes M 4,5 and M 7;</p>		
<p>d) threads for accessories for rolling bearings as specified in ISO 2982;</p>		
<p>e) threads for shaft ends up to and including 300 mm diameter as specified in ISO/R 775 – 1969.</p>		
<p>Choose series 1 diameters in preference to series 2 diameters and series 2 diameters in preference to series 3 diameters. See also Supplement to DIN 13 Part 12.</p>		
<p>The pitch shall be selected as a function of the application.</p>		
Continued on pages 2 to 5		

Table 1. Selected nominal thread diameters and pitches for 1 mm to 68 mm diameter coarse and fine pitch threads

Nominal thread diameter ($d = D$)			Pitches, P , for								
Series 1	Series 2	Series 3	coarse pitch thread	fine pitch thread							
				4	3	2	1,5	1,25	1	0,75	0,5
1 1,2	1,4		0,25 0,25 0,3								
1,6 2	1,8		0,35 0,35 0,4								
2,5 3	2,2		0,45 0,45 0,5								
4 5	3,5		0,6 0,7 0,8								0,5 0,5
6 8 10			1 1,25 1,5					1,25	1 1	0,75 0,75 0,75	0,5 ¹⁾ 0,5 ¹⁾
12	14	15	1,75 2				1,5 1,5 1,5	1,25 1,25	1 1 1		
16	18	17	2 2,5			2	1,5 1,5		1 1 1		
20 24	22		2,5 2,5 3			2 2 2	1,5 1,5 1,5		1 1 1		
	27	25 26	3			2	1,5 1,5 1,5				
30		28 32	3,5			2	1,5 1,5 1,5				
36	33	35	3,5 4		3	2	1,5 1,5 1,5				
	39	38 40	4		3	2	1,5 1,5				
42 48	45		4,5 4,5 5		3 3 3	2 2 2	1,5 1,5 1,5				
	52	50 55	5		3	2 2	1,5 1,5 1,5				
56	60	58	5,5 5,5	4 4	3 3	2 2	1,5 1,5 1,5				
64	68	65	6 6	4 4	3 3	2 2 2					

¹⁾ Not specified in ISO 261.

Table 2. Selected nominal thread diameters and pitches for 70 mm to 300 mm diameter fine pitch threads

Nominal thread diameter ($d = D$)			Pitches, P , for fine pitch thread				
Series 1	Series 2	Series 3	8	6	4	3	2
72		70			4	3	2
		75					2
80	76			6	4		2
	85		6	4		2	
90	95			6	4		2
				6	4		2
100				6	4		2
				6	4		2
110	105			6	4		2
	115		6	4		2	
125	120			6	4		2
	130		8 ¹⁾	6	4		2
140		135	8 ¹⁾	6	4		2
		145	6	4		2	

Nominal thread diameter ($d = D$)			Pitches, P , for fine pitch thread				
Series 1	Series 2	Series 3	8	6	4	3	2
160	150	155	8 ¹⁾	6	4		2
			8 ¹⁾	6		3	3
180	170	165	8 ¹⁾	6			3
			8 ¹⁾	6		3	3
200	190		8 ¹⁾	6			3
	210		8 ¹⁾	6		3	3
220		230	8 ¹⁾	6			3
			8 ¹⁾	6		3	3
250	260	270	8 ¹⁾	6	4		3
			8 ¹⁾	6	4		3
280		290	8 ¹⁾	6	4		
			8 ¹⁾	6	4		
	300		8 ¹⁾	6	4		

For ¹⁾, see table 1.

Appendix A

International Standardization

Table A.1. Supplementary thread sizes specified in the general plan given in the current edition of ISO 261 to be included in its future edition

Nominal thread diameter ($d = D$)			coarse pitch thread	Pitches, P , for fine pitch thread											
Series 1	Series 2	Series 3		8	6	4	3	2	1,5	1	0,75	0,5	0,35	0,25	0,2
1	1,1		0,25												0,2
1,2															
1,6	1,4														0,2
	1,8													0,2	
2	2,2													0,25	
2,5												0,35	0,25		
3	3,5		0,75											0,35	
	4,5										0,5	0,35			
	7	5,5	1								0,5				
		9	1,25							1	0,75				
		11	1,5							1	0,75				
		17						2	1,5	1					
		25								1					
30	27	28								2					
												1			

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Table A.1 (concluded).

Nominal thread diameter ($d = D$)			coarse pitch thread	Pitches, P , for fine pitch thread											
Series 1	Series 2	Series 3		8	6	4	3	2	1,5	1	0,75	0,5	0,35	0,25	0,2
	39	32 40					3	2	1,5						
42 48	45				4 4 4										
	52	55 58			4 4 4	3	2								
64		62 65			4 4	3 3	2	1,5 1,5 1,5							
72	68	70		6 6	4	3		1,5 1,5 1,5							
	76	75 78			4	3 3		1,5 1,5							
80		82				3	2	1,5							
	85					3									
90 100	95					3 3 3									
110	105	115				3 3 3									
125	120 130					3 3 3									
140		135 145			4 4	3 3 3									
160	150	155			4 4	3									
	170	165 175			4 4 4										
180		185		6	4 4 4	3									
	190			6	4 4 4										
200		195 205		6	4 4	3									
	210	215		6	4 4 4	3									
		225 230 235		6 6	4 4 4	3 3									
250	240	245		6	4 4 4	3									
		255 265 275		6 6 6	4 4 4										
		285 290 295	8	6 6	4 4										

Standards referred to

DIN 13 Part 1	ISO metric screw threads; 1 mm to 68 mm diameter coarse pitch threads; nominal sizes
DIN 13 Part 3	ISO metric screw threads; 0,5 mm fine pitch threads with diameters from 3,5 mm to 90 mm; nominal sizes
DIN 13 Part 4	ISO metric screw threads; 0,75 mm fine pitch threads with diameters from 5 mm to 110 mm; nominal sizes
DIN 13 Part 5	ISO metric screw threads; 1 mm and 1,25 mm fine pitch threads with diameters from 7,5 mm to 200 mm; nominal sizes
DIN 13 Part 6	ISO metric screw threads; 1,5 mm fine pitch threads with diameters from 12 mm to 300 mm; nominal sizes
DIN 13 Part 7	ISO metric screw threads; 2 mm fine pitch threads with diameters from 17 mm to 300 mm; nominal sizes
DIN 13 Part 8	ISO metric screw threads; 3 mm fine pitch threads with diameters from 28 mm to 300 mm; nominal sizes
DIN 13 Part 9	ISO metric screw threads; 4 mm fine pitch threads with diameters from 40 mm to 300 mm; nominal sizes
DIN 13 Part 10	ISO metric screw threads; 6 mm fine pitch threads with diameters from 70 mm to 500 mm; nominal sizes
DIN 13 Part 11	ISO metric screw threads; 8 mm fine pitch threads with diameters from 130 mm to 1000 mm; nominal sizes
Supplement to DIN 13 Part 12	ISO metric screw threads; 1 mm to 300 mm diameter coarse and fine pitch threads; general plan as specified in ISO 261 – 1973
DIN 13 Part 13	ISO metric screw threads; series of preferred sizes for screws, bolts and nuts from 1 mm to 52 mm diameter and limits of sizes
DIN 13 Part 19	ISO metric screw threads; basic profile and maximum and minimum material profiles
ISO 261 – 1973	ISO general purpose metric screw threads; general plan
ISO 262 – 1973	ISO general purpose metric screw threads; selected sizes for screws, bolts and nuts
ISO/R 775 – 1969	Cylindrical and 1/10 conical shaft ends
ISO 2982 – 1972	Rolling bearings; locknuts, narrow series, and lockwashers with straight inner tab

Previous editions

DIN 243 Parts 1 to 3: 02.23; DIN 243: 09.43; DIN 13 Part 12: 01.52, 09.69, 11.75.

Amendments

The following amendments have been made to the November 1975 edition.

- Examples of designation are no longer included as they are now given in DIN 13 Parts 1 to 11. See DIN 13 Part 14 for threads with tolerance indication.
- The content of the previous table 1 is now presented in two tables.
- Supplementary diameters and pitches for fine pitch threads used in Germany and previously contained in table 2 are now specified both in table 1 and table 2.
- The specifications covering thread profiles and dimensions are no longer included since these specifications are now given in DIN 13 Parts 1 to 11.
- Appendix A including table A.1 has been adopted for the first time.
- A number of pitches have been amended for external diameters from 56 mm upwards.
- The standard has been editorially revised and brought into line with existing standards.

Explanatory notes

This standard, together with its Supplement, has been reviewed in the course of revision of the DIN 13 series, table A.1 specifying all supplementary thread sizes that will be included in a future edition of International Standard ISO 261 – 1973.

The responsible committee, the *Normenausschuß Gewinde* (Screw Threads Standards Committee), has not yet decided whether to issue a revised edition of the Supplement to DIN 13 Part 12 after the revised edition of ISO 261 has been published, or whether the supplementary thread specifications given in table A.1 of this standard can be considered to meet the relevant requirements.

International Patent Classification

F 16 B 33/02