

Metric buttress threads

General plan

DIN

513

Part 2

Metrisches Sägewinde; Gewindereihen

Supersedes January 1975 edition.

Dimensions in mm

1 Introduction

This standard specifies metric buttress threads with profiles complying with DIN 513 Part 1.

It is left to the discretion of each branch of industry and each plant to select from this standard those buttress threads whose diameter/pitch combinations meet their particular requirements.

2 Selection of diameter and pitch (See table in clause 4.)

The diameters to be selected shall preferably be from series 1, and if necessary from series 2.

The diameters in series 3 shall be avoided for new designs.

The pitches associated with a specific diameter are given in the corresponding line. The pitches to be preferred are framed.

If buttress threads with diameters different from those given in the table are required, one of the pitches associated with the nearest nominal diameter in the table shall be selected.

3 Designation

Single-start metric buttress threads conforming to this standard shall be designated by the letter S followed by the values of the nominal thread diameter and the lead of the single-start thread (here, lead $P = \text{pitch } P$), in mm, separated by the sign \times 1).

Example of designation:

S 40 x 7

Multiple-start metric buttress threads conforming to this standard shall be designated by the letter S followed by the values of the nominal thread diameter and the lead P_h of the multiple-start thread, in mm, the letter P and the value of pitch, in mm.

Example of designation:

S 40 x 14 P7

Number of starts = $\frac{\text{lead } P_h}{\text{pitch } P} = \frac{14}{7}$ in the example. Thus, it is a double-start thread.

- 1) For buttress threads with no tolerance indication, the medium tolerance quality shall apply, i.e. tolerance zone 7 e for external threads and 7 H for internal threads. If a different tolerance zone is required, this shall be indicated; the designation for an external thread of tolerance zone 8 e shall then read: S 40 x 7 – 8 e.

Continued on pages 2 and 3

4 Thread diameters and pitches

Nominal diameter <i>d</i>			Pitches <i>P</i> of single-start buttress thread																				
Series 1	Series 2	Series 3	44	40	36	32	28	24	22	20	18	16	14	12	10	9	8	7	6	5	4	3	2
10																						3	2
12	14																					3	2
16																					4		2
20	18																				4		2
24																	8			5		3	
26	22																8			5		3	
28																	8			5		3	
30	34														10				6			3	
32	38														10				6			3	
36															10				6			3	
40	42														10				7			3	
44														12	10				7			3	
46	50													12			8					3	
48														12			8					3	
52	55												14	12			8					3	
60													14			9						3	
65	75											16			10						4		
70												16			10						4		
75	85											16			10						4		
80														12							4		
85	95													12							4		
90														12							4		
95	105													12							4		
100														12							4		
110	115													14							4		
120														14									
125														14									
130	135													14									
140														14									
150	145													14									
160														16									
165														16									
170	175													16									
180														18									
185	195													18									
190														18									
200	210													18									
220														20									
230	250													20									
240														22									
250														22									
260	270													24									
280														24									
290	320													24									
300														24									
340	360													12									
380														12									
400	440													12									
420														18									
440														18									
460	480													18									
500														18									
520	560													24									
540														24									
560														24									
580	600													24									
620														24									
640														24									

Standards referred to

DIN 513 Part 1 Metric buttress threads; thread profiles

Other relevant standards

DIN 513 Part 3 Metric buttress threads; deviations and tolerances

Previous editions

DIN 513: 10.25, 01.27x

DIN 514 Part 1: 10.25, 01.27xx

DIN 514 Part 2: 10.25, 01.27x

DIN 515: 10.25, 01.27xx

DIN 513 Part 2: 01.75

Amendments

The following amendments have been made in comparison to the January 1975 edition:

- a) The status of the standard is no longer that of a preliminary standard.
- b) The standard has been editorially revised.

Explanatory notes

(See also Explanatory notes to DIN 513 Part 1.)

The diameters of the buttress threads have been brought into line with those of the trapezoidal screw threads (see DIN 103 Part 2) so that both types of thread are interchangeable. Thus, some of the threads given in brackets, i.e. threads to be avoided if possible, in the previous standards on buttress threads have been placed in series 2 or 3. Whereas the standards on trapezoidal screw threads only cover diameters up to 300 mm, those on buttress threads cover diameters up to 640 mm as before.

The series of diameters and pitches of buttress threads correspond to those of the trapezoidal screw threads as specified in DIN 103 Part 2.

International Patent Classification

F 16 B 33/02