1. Scope

This document specifies studs with a screw thread length side of about 2d in product grade A with metric thread M4 to M24 metric fine thread M8x1 to M24x2 of proof.
Studs according to this standard are primarily used to screw in aluminum alloys.

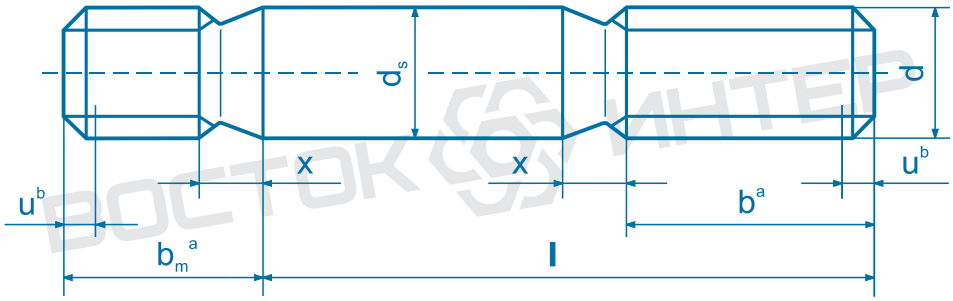
2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references the latest edition of the referenced document (including any amendments).
DIN 13-51
DIN 267-2
DIN 962
DIN EN 26157-3
DIN EN ISO 225
DIN EN ISO 898-1
DIN EN ISO 3269
DIN EN ISO 4042
DIN EN ISO 4753
DIN EN ISO 4759-1
DIN ISO 261
DIN ISO 965-1
DIN ISO 8992

3. Dimensions

See Figure 1 and Table 1

Dimensional letters and their description are defined in DIN EN ISO 225.



[a] For performance and labeling of the threaded ends, see explanation in Table 1
[b] $u \leq 1{,}5\ P$

Figure 1 - Stud - Example with threaded end FL to DIN EN ISO 4753

Table 1 - Dimensions

Dimensions in mm

Thread size (d)		M4	M5	M6	(M7)	M8	M10	M12	(M14)	M16	(M18)	M20	(M22)	M24
		-	-	-	-	M8 x 1	M10 x 1,25	M12 x 1,25	(M14 x 1,5)	M16 x 1,5	(M18 x 1,5)	M20 x 1,5	(M22 x 1,5)	M24 x 2
		-	-	-	-	-	-	M12 x 1,5	-	-	-	-	-	-
b_m		8	10	12	14	16	20	24	28	32	36	40	44	48
b	a	14	16	18	20	22	26	30	34	38	42	46	50	54
	b	20	22	24	26	28	32	36	40	44	48	52	56	60
	c	-	-	-	-	-	45	49	53	57	61	65	69	73
d_s	max	4	5	6	7	8	10	12	14	16	18	20	22	24
	min	3,82	4,82	5,82	6,78	7,78	9,78	11,73	13,73	15,73	17,73	19,67	21,67	23,67
x		1,75	2,0	2,5	2,5	3,2	3,8	4,3	5,0	5,0	6,3	6,3	6,3	7,5
l		Mass (7.85kg/dm3), in kg per 1000 units												
js 15														
12														
(14)														
16														
(18)														
20		2,26												
(22)		2,46	4,08											
25		2,75	4,54	6,74										
(28)		3,05	5,00	7,41	10,7									
30		3,25	5,30	7,85	11,3	15,0								
35		3,74	6,07	8,96	12,8	17,0	28,2							
40		4,23	6,84	10,1	14,3	18,9	31,3	47,5						
45			7,61	11,2	15,8	20,9	34,4	51,9	73,9					
50			8,38	12,3	17,3	22,9	37,4	56,4	79,9	111				
55				13,4	18,8	24,9	40,5	60,8	86,0	119	152			
60				14,5	20,4	26,8	43,6	65,3	92,0	127	162	211		
65					21,9	28,8	46,7	69,7	98,1	135	172	223	283	
70					23,4	30,8	49,8	74,1	104	143	182	236	298	358
75						32,8	52,9	78,6	110	150	192	248	313	376
80						34,7	55,9	83,0	116	158	202	260	328	394
(85)							59,0	87,5	122	166	212	273	343	411
90							62,1	91,9	128	174	222	285	358	429
(95)							65,2	96,3	134	182	232	297	373	447
100							68,3	101	140	190	242	310	387	465
110								110	152	206	262	334	417	500
120								118	165	221	282	359	447	535
130									177	237	302	384	477	571
140									189	253	322	408	507	607
150										269	342	433	537	642
160										285	362	458	566	678
170											382	482	596	713
180											402	507	626	749
190												532	656	784
200												556	686	820

Table 1 (concluded)

[a] $l \leq 125$ mm.
[b] 125 mm < $l \leq 200$ mm.
[c] $l > 200$ mm.

Lengths over 200 mm of 20 mm to 20 mm in steps.
Bracketed sizes as well as intermediate lengths shall be minimized.
The standard lengths of studs with coarse thread between the solid step lines.
Stud bolts with lengths above the upper solid line stages can not be produced with the given thread lengths b. For these studs is the thread length $b \approx l - (x + 3)$.
For studs with lengths above the dashed step line is $b + x < 1{,}2\ b_m$. Therefore, nut-end up with a rounded end according to DIN EN ISO 4753 must be running for these studs to distinguish the two threaded ends, if not the hallmark of strength class is attached to the end face of the nut end.

4. Technical delivery conditions

Table 2: Technical delivery conditions

Material		Steel	
General requirements		As specified in ISO 8992	
Thread	Tolerance class	Screw-sided thread [a] Sk 6, Sn 4	Nut-sided: 6g
	Standard	DIN 13-51	DIN ISO 261 and DIN ISO 965-1
Mechanical properties	Property class (material) [b]	5.6, 8.8, 10.9	
	Standard	DIN EN ISO 898-1	
Limit deviations and geometrical tolerances	Product grade	A	
	Standard	DIN EN ISO 4759-1	
Surface		Strength class 5.6: prepared as. Strength class 8.8, 10.9: blackened (thermal or chemical). For the surface roughness DIN 267-2. DIN EN 26157-3 applies to the limiting values of surface defects. For galvanized surface protection to DIN EN ISO 4042 applies. The set for the thread thread limit dimensions apply after applying a coating.	
Acceptance inspection		As specified in DIN EN ISO 3269	

[a] For the screw thread side applies to DIN 267-2, the tolerance class Sk 6, if not in the description (see Section 5) Fo (= without interference thread) or Sn 4 is specified.
[b] Other strength classes or materials on request.

5. Designation

Designation of a stud with hard seat and screw thread M12 sided thread tolerance class Sk 6, nominal length /= 80 mm and property class 8.8:

Stud DIN 835 - M12 x 80 – 8.8

Designation of a stud with interference thread M12 x 1.25 and Screw-sided thread tolerance class Sn 4, nominal length /= 80 mm and property class 8.8:

Stud DIN 940 - M835 x 1.25 Sn 4 x 80 – 8.8

Designation of a stud bolt with thread M12 without interference thread (Fo), nominal length /= 80 mm and property class 8.8:

Stud DIN 835 - M12 Fo x 80 – 8.8

If the studs are screwing each other and nut side supplied with different thread pitches, so this must be indicated in the name, in the order the Screw-page thread has to be mentioned first, for example:

Stud DIN 835 - M12 - M12 x 1,25 x 80 – 8.8

DIN is valid for the description of shapes and designs with additional ordering information 962.

note: настоящий файл предназначен только для ознакомления. используйте в работе только официальные издания. данный файл принадлежит компании Восток-Интер www.vostok-inter.ua при размещении этого файла на других ресурсах прямая ссылка на сайт компании Восток-Интер обязательна. Если вы нашли ошибку или неточность в тексте, пожалуйста, сообщите нам любым удобным способом.