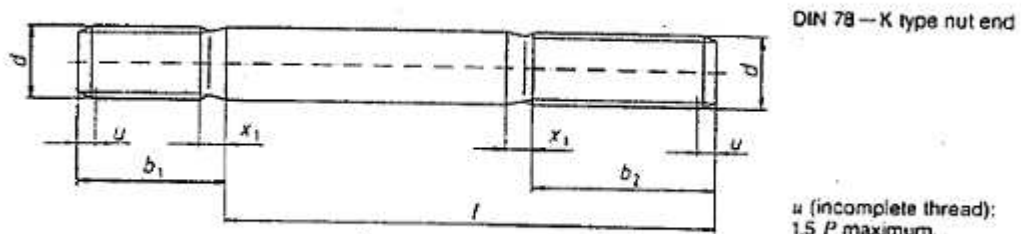


DIN835

Studs

with a length of engagement equal to about $2 d$

2 Dimensions



b_1 = stud end
 b_2 = nut end

Table 1: Dimensions

<i>d</i>	M4	M5	M6	(M7)	M8 M8×1	M10 M10×1,25	M12 M12×1,25 M12×1,5	(M14) (M14×1,5)	M16 M16×1,5	(M18) (M18×1,5)	M20 M20×1,5	(M22) (M22×1,5)	M24 M24×2
<i>b</i> ₁	8	10	12	14	16	20	24	28	32	36	40	44	48
¹⁾ <i>b</i> ₂	14	16	18	20	22	26	30	34	38	42	46	50	54
²⁾	20	22	24	26	28	32	36	40	44	48	52	56	60
³⁾	—	—	—	—	—	45	49	53	57	61	65	69	73
<i>x</i> ₁	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
<i>l</i> js15	Approximate mass (7,85 kg/dm ³) per 1000 units, in kg												
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	
75					32,8	52,9	78,6	110	150	192	248	313	358
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						66,3	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											507	626	749
190											532	656	784
200											556	686	820

¹⁾ For lengths, *l*, of 125 mm or less.
²⁾ For lengths, *l*, above 125 mm up to 200 mm.
³⁾ For lengths, *l*, exceeding 200 mm.
 Lengths above 200 mm shall be graded in 20 mm steps.
 Bracketed sizes and intermediate lengths should be avoided if possible.
 The zone between the continuous thick lines indicates the range of commercial sizes of studs with coarse pitch thread.
 Studs of sizes above this range cannot be manufactured with a full end thread length, *b*₂, as specified in the table. In such cases, *b*₂ will be approximately equal to $l \cdot (1,1 + 3)$. For sizes above the dashed line, *b*₂ + *x*₁ will be less than 1,2 *b*₁. The nut end of these studs shall be rounded (i.e. given a DIN 78—L type end), unless the end is already marked with the proper class.

Table 2: Technical delivery conditions

Material		Steel	
General requirements		As specified in ISO 8992	
Thread	Tolerance	Stud end: 5k6	Nut end: 6g
	As specified in	DIN 13-51	DIN 13-12 and DIN 13-15
Mechanical properties	Property class ¹⁾ (material)	5.6, 8.8 or 10.9	
	As specified in	DIN EN 20 898-1	
Limit deviations, geometrical tolerances	Product grade	A	
	As specified in	ISO 4759-1	
Surface finish	Property class 5.6, as processed. Property classes 8.8 and 10.9: (thermally or chemically) blackened. DIN 267-2 shall apply with regard to surface roughness. DIN EN 26 157-3 shall apply with regard to limits for surface discontinuities. ISO 4042 shall apply with regard to electroplating. The limits of thread size shall also apply after coating.		
Acceptance inspection	As specified in ISO 3269		
¹⁾ Use of other property classes or materials shall be subject to agreement.			