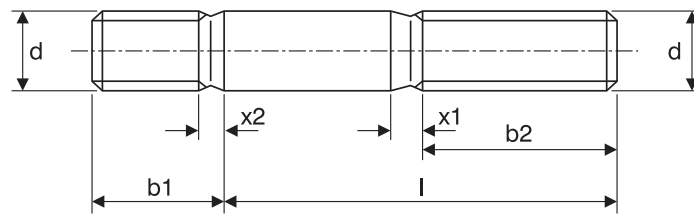


# Studs Metal End = 1.25xd

## DIN 939 Metric



DIN 939 Dimensions of Studs Metal End = 1.25xd

Diameter d	M8	M10	M12	(M14)	M16	(M18)	M20	(M22)	M24	
	M8 x 1.0	M10 x 1.25	M12 x 1.5	M14 x 1.5	M16 x 1.5	M18 x 1.5	M20 x 1.5	M22 x 1.5	M24 x 2.0	
b1	10	12	15	18	20	22	25	28	30	
b2	≤125	22	26	30	34	38	42	46	50	54
	125-200	28	32	36	40	44	48	52	56	60
	≥200	-	45	49	53	57	61	65	69	73
x1	3.2	3.8	4.3	5.0	5.0	6.3	6.3	6.3	7.5	
x2	1.6	1.9	2.2	2.5	2.5	3.2	3.2	3.2	3.8	
Length (l) js15	Approximate mass (7.85kg/dm <sup>3</sup> ) per 1000 units in kilograms									
30	13.1									
35	15.1	24.2								
40	17.0	27.2	41.0							
45	19.0	30.3	45.4	64.0						
50	21.0	33.3	49.9	70.0	94.9					
55	22.9	36.4	54.3	76.1	103	130				
60	24.9	39.5	58.8	82.1	111	140	180			
65	26.9	42.6	63.2	88.2	119	150	192	242		
70	28.9	45.7	67.6	94.2	126	160	205	257	305	
75	30.8	48.8	72.1	100	134	170	217	272	323	
80	32.8	51.8	76.5	106	142	180	229	287	341	
90		58.0	85.4	118	158	199	254	317	376	
100		64.2	94.3	130	174	220	279	346	412	
110			103	143	190	240	303	376	447	
120			112	155	205	260	328	406	483	
130				167	221	280	353	436	518	
140				179	237	300	377	456	554	
150					253	320	402	496	589	
160					269	340	427	525	625	
170						360	451	555	660	
180						380	476	585	696	
190							501	615	731	
200							525	645	767	

# Studs Metal End = 1.25xd

## DIN 939 Metric

### DIN 939 Dimensions of Studs Metal End = 1.25xd (concluded)

Diameter d	(M27)	M30	(M33)	M36	(M39)	M42	(M45)	M48	(M52)	
	M27 x 2.0	M30 x 2.0	M33 x 2.0	M36 x 3.0	M39 x 3.0	M42 x 3.0	M45 x 3.0	M48 x 3.0	M52 x 3.0	
b1	35	38	42	45	50	52	58	60	65	
b2	≤125	60	66	72	78	84	90	98	102	110
	125-200	66	72	78	84	90	96	102	108	116
	≥200	79	85	91	97	103	109	115	121	129
x1	7.5	9.0	9.0	10.0	10.0	11.0	11.0	12.5	12.5	
x2	3.8	4.5	4.5	5.0	5.0	5.5	5.5	6.3	6.3	
Length (l) js15	Approximate mass (7.85kg/dm <sup>3</sup> ) per 1000 units in kilograms									
75	430									
80	452									
90	497	619	776							
100	542	674	843	1011						
110	587	730	910	1091	1326					
120	632	785	977	1171	1420	1647	1963			
130	677	841	1045	1251	1514	1756	2088	2364		
140	722	896	1112	1331	1607	1865	2213	2506	3027	
150	767	952	1179	1411	1701	1973	2338	2648	3194	
160	812	1007	1246	1490	1795	2082	2462	2790	3360	
170	857	1062	1313	1570	1889	2191	2587	1932	3527	
180	902	1118	1380	1650	1982	2300	2712	3074	3694	
190	947	1173	1447	1730	2076	2408	2837	3216	3861	
200	992	1229	1515	1810	2170	2517	2962	3358	4027	
220	1082	1340	1649	1970	2358	2735	3211	3642	4361	
240	1172	1450	1784	2130	2545	2952	3461	3927	4694	
260	1262	1562	1918	2289	2733	3170	3711	4211	5028	
280	1352	1672	2052	2449	2920	3387	3961	4495	5361	
300		1784	2186	2509	3108	3605	4210	4779	5694	
320			2321	2769	3295	3822	4460	5063	6028	
340			2455	3929	3483	4040	4710	5347	6361	
360				3088	3670	4257	4959	5631	6695	
380					3858	4475	5209	5915	7028	
400					4045	4692	5459	6199	7362	

Bracketed sizes are non-preferred diameters.

NOTE: when ordering studs according to DIN the diameter d x the effective length l has to be stated e.g. stud M10 x 65 - DIN 939 where l = 65mm is the working length and b1 = 12mm the metal end. The total length is 65 + 12 = 77mm. The thread length on the outside b2 = 26mm. The screw-in threaded end has been made with tolerance Sk6, acc. to DIN 13-51, meaning "heavy fit", and prevents loosening of studs during disassembly. Studs acc. to DIN 939 with a metal end ≈ 1,25D have many applications, among others is cast-iron.

# Studs Metal End = 1.25xd

## DIN 939 Metric

### Technical delivery conditions

Characteristic		Material	
Material		Steel	
General Requirements		As specified in ISO 8992	
Thread	Tolerance	Stud end: Sk5	Nut end: 6g
	Standard	DIN 13-51	DIN 13-12 and DIN 13-15
Mechanical Properties	Property Class (material) <sup>a</sup>	5.6, 8.8 or 10.9	
	Standard	DIN EN 20898-1	
Limit deviations and geometrical tolerances	Product grade	A	
	Standard	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 26157-3 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.	
Acceptability		As specified in ISO 3269	
a Use of other property classes or materials shall be subject to agreement.			