

Mechanical Properties of Screws

TS 3576 (DIN ISO 898)

Material Properties		3.6	4.6	4.8	5.6	5.8	6.8	8.8	9.8	10.9	12.9
Tensile Strength	Rm N/mm <sup>2</sup>	300	400		500		600	800	900	1000	1200
Yield Strength	R <sub>eL</sub> N/mm <sup>2</sup>	180	240	320	300	400	480	-	-	-	-
0.2% Yield Strength	R <sub>p</sub> 0.2 N/mm <sup>2</sup>	-	-	-	-	-	-	640	720	900	1000
Elongation %	A	25	22	14	20	10	8	12	10	9	8

Countersunk Head Screws / Hex-Socket

DIN 74

Type - A		Screw Dimension		M2	M3	M4	M5	M6	M8	M10	M12	M16	M20
<p>Medium Quality (o)      Fine Quality (i)</p> <p>for TS 1023 / 1,3,4,7      for TS 432 / 10,11,12,14,15,16</p>	Quality o	d1	H13	2.4	3.4	4.5	5.5	6.6	9	11	14	18	22
		d2	H13	4.6	6.5	8.6	10.4	12.4	16.4	20.4	24.4	32.4	40.4
		t1		1.1	1.6	2.1	2.5	2.9	3.7	4.7	5.2	7.2	9.2
Quality i	d1		2.2	3.2	4.3	5.3	6.4	8.4	10.5	13	17	21	
	r3		4.3	6	8	10	11.5	15	19	23	30	37	
	t1		1.2	1.7	2.2	2.6	3	4	5	5.7	7.7	9.7	
Type - B	Quality o	d1	H13	-	3.4	4.5	5.5	6.6	9	14	18	18	22
		d2		-	6.6	9	11	13	17.2	21.5	26	32	38
		t1	H12	-	1.6	2.3	2.8	3.2	4.1	5.3	6	7	8
	Quality i	d1	H12	-	3.2	4.3	5.3	6.4	8.4	10.5	13	17	21
		r3		-	6.3	8.3	10.4	12.4	16.5	20.5	25	31	37
		t1		-	1.7	2.4	2.9	3.3	4.4	5.5	6.5	7.5	8.5
t2		-	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5		

Hex-Socket Head Cap Screws

DIN 974-1 / DIN 74

Screw Dimension		M5	M6	M8	M10	M12	M14	M16	M20	M24	M30
d1	o - H13	5.5	6.6	9	11	14	16	18	22	26	33
	i - H12	5.3	6.4	8.4	10.5	13	15	17	21	25	-
d2	H13	10	11	15	18	20	24	26	33	40	48
d3		only burr				16	18	20	24	28	36
t	Type - H	4	4.7	6	7	8	9	10.5	12.5	14.5	-
	Type - J	4.2	4.8	6	7.5	8.5	9.5	11.5	13.5	15.5	19.5
	Type - K	5.7	6.8	9	11	13	15	17.5	21.5	25.5	32

Countersunk Head Screws and Fillister Head Screw

DIN 974-2 / DIN 74

Screw Dimension		M5	M6	M8	M10	M12	M14	M16	M20	M24	M30
d1	o - H13	5.5	6.6	9	11	14	16	18	22	28	33
	i - H12	5.3	6.4	8.4	10.5	13	15	17	21	25	-
d2	SA.TA	15	18	24	28	33	36	40	46	57	71
H15	SB.TB	18	20	26	33	36	43	46	53	71	82
d3		only burr							16	20	24
t	SA.SB	4.2	4.8	6.5	8	9	10	11.5	14.5	16.5	21
	TA.TB	4.7	5.8	7.5	9	11	12	14.5	17.5	20.5	26