

DE=	EN=	PT=	VN=
Cap screws			

Hexagon socket head cap screws with fine threads

cf. DIN EN ISO 21269 (2004-06)

Hexagon socket head countersunk screws

cf. DIN EN ISO 10642 (2004-06),
replaces DIN 7991

	d	M8 x1	M10 x1	M12 x1,5	M16 x1,5	M20 x1,5	M24 x2	M30 x2	M36 x3	M42 x3	M48 x3	M56 x4
	WAF	6,0	8	10	14	17	19	22	27	32	36	41
	dk	8,0	10	12	16	20	24	30	36	42	48	56
	k	13,0	16,0	18,0	24,0	30,0	36,0	45,0	54,0	63	72	84
	b	28,0	32	36	44	52	60	72	84	96	108	124
	for l	≥40	≥45	≥55	≥65	≥80	≥90	≥110	≥120	≥140	≥160	≥180
	l1	3	3	4,5	4,5	4,5	6	6	9	9	9	9
	for l	≤35	≤40	≤50	≤60	≤70	≤70	≤100	≤110	≤130	≤150	≤160
	l from to	12 to 80	20 to 100	25 to 120	30 to 160	35 to 200	40 to 200	45 to 200	55 to 200	60 to 300	70 to 300	80 to 300
	Nominal lengths l	12, 16, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 240, 260, 280, 300 mm										
Property classes	8.8, 10.9, 12.9										as per agreement	
	A2 70, A4 70							1)				
Explanations	1) Property Classes A2 50, A4-50 (stainless steel)											
Product grade A (page 211)	Hexagon head bolt ISO 21269 - M20 x 1,5 x 120 - 10,9: d=M20 x 1,5, l = 120 mm, property class 10.9											

	d	M3	M4	M5	M6	M8	M10	M12	M16	M20
	WAF	2	2,5	3	4	5	6	8	10	12
	dk	5,5	7,5	9,4	11,3	15,2	19,2	23,1	29	36
	k	1,9	2,5	3,1	3,7	5	6,2	7,4	8,8	10,2
	b	18	20	22	24	28	32	36	44	52
	for l	≥30	≥35	≥35	≥40	≥50	≥55	≥65	≥80	≥100
	l1	1,5	2,1	2,4	3	3,8	4,5	5,3	6	7,5
	for l	≤25	≤25	≤30	≤35	≤45	≤50	≤60	≤70	≤90
	l from to	8 to 30	8 to 40	8 to 50	8 to 60	10 to 80	12 to 100	20 to 100	30 to 100	35 to 100
	Nominal lengths l	20,25 30-65, 70, 75, 80, 90, 100-130, 140, 150 mm								
Property classes	8.8, 10.9, 12.9									
Nominal lengths l	8, 10, 12, 16, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 80, 90, 100 mm									
Product grade A (page 211)	Countersunk head screw ISO 10642 - M5 x 30 - 8.8: d=M5, l= 30 mm, property class 8.8									

Slotted cheese head screws

	d	M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10	
	dk	3,0	3,8	4,5	5,5	7	8,5	10	13	16	
	k	1,1	1,4	1,8	2	2,6	3,3	3,9	5	6	
	n	0,4	0,5	0,6	0,8	1,2	1,2	1,6	2,0	2,5	
	t	0,5	0,6	0,7	0,9	1,1	1,3	1,6	2	2,4	
	l from to	2 to 16	3 to 20	3 to 25	4 to 30	5 to 40	6 to 50	8 to 60	10 to 80	12 to 80	
	b	for l < 45 mm- threads near to head, for l ≥ 45mm - b = 38 mm									
	Nominal lengths l	2,3,4,5,6,8, 10, 12, 16, 20, 25-45, 50, 60, 70, 80 mm									
	Property classes	4.8, 5.8, A2-50, A4-50									
	Product grade A (page 211)	Cheese head screw ISO 1207 - M6 x 25 - 5.8: d=M6, l= 25 mm, property class 5.8									

gez/erfasst:	hpw	Datum: 2009	education project	Kopfschrauben	translate/en_iwhp/p_cu/vn_ha	orign:Machine elements S 216
Aenderung:	an	Datum: 19.06.2015	WIAP KFKOK	Cap screws	r2	Wi_8_f_19_i21_r2_216_bolt_screw_counters.
Aenderung:	control 2	Data:	Safenwil Schweiz	spear 2	www.wiap.ch	idee of / from HPW