

DE= Sechskantschrauben	EN= Hexagon head bolts	PT= Cabeça parafusos sextavados	VN= Hình lục giác đầu bu lông
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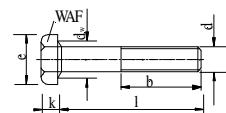
de= Sechskantschraube mit Schaft und Feingewinde
en= Hexagon head bolt with shank and fine threads
pt= Hexágono parafuso de cabeça com haste e linhas finas
vn= Hexagon bulông đầu với chân và chủ đề phạt

cf. DIN EN ISO 8765 (2001-03)

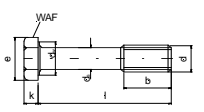
Hexagon bulông đầu với chân giảm
Hexagon head bolt with reduced shank
Hexágono parafuso de cabeça com haste reduzida
Hexagon bulông đầu với chân giảm

cf. DIN EN ISO 8676 (2001-03)

de= gültige Standard en= Valid standard pt= Padrão válido vn= Hợp lệ tiêu chuẩn	Ersatz Replace Substituir Thay thế	DIN EN ISO 8765	DIN EN 28765	DIN 960	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	13,0	16	18	24	30	36	46	55	65	75	85
					k	5,3	6,4	7,5	10	12,5	15	18,7	22,5	26	30	35
					d...	11,6	14,6	16,6	22,5	28,2	33,6	42,8	51,1	60	70	78,7
					e	14,4	17,8	20	26,2	33	39,6	50,9	60,8	71	83	93,6
					h ¹⁾	22	26	30	38	46	54	66	-	-	-	-
					h ²⁾	-	-	-	44	52	60	72	84	96	108	-
					h ³⁾	-	-	-	-	73	85	97	109	121	137	-
					l from to	40 to 80	45 to 100	50 to 120	65 to 160	80 to 200	100 to 240	120 to 300	140 to 360	160 to 440	200 to 480	220 to 500
					Nominal lengths l	40,45, 50, 55,60, 65,70, 80, 90-140, 150, 160, 180, 200, 220-460, 480, 500 mm										
					Property classes	d= M24x2, 5.6, 8.8, 10.9, A2-70, A4-770 D= M30x2 - M36x2: 5.6, 8.8, 10.9, A2-50, A4-50										
					Explanations	1) for l < 125 mm 2) for l = 125-200 mm 3) for l > 200 mm										
					Stufe Grade Grau LỚp	all A ≤ 150 A > 150 B all B										
					Product grades (Seite 211) Product grades (page 211) Classes de produtos (página 211) Cấp sản phẩm (trang 211)	Hexagon head bolt ISO 8765 - M20 x 1,5 x 120 - 5,6: d=M20 x 1,5, l = 120 mm, property class 5.6										



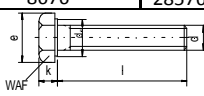
	d	M3 M12	M4 M16	M5 M20	M6 M24	M8 M30	M10 M36	M12 M42	M16 M48	M20 M56
	WAF	5,5	7	8	10	13	16	18	24	30
	k	2	2,8	3,5	4	5,3	6,4	7,5	10	13
	d...	4,4	5,7	6,7	8,7	11	14,4	16	22	28
	e	2,6	3,5	4,4	5,3	7,1	8,9	11	15	18
	h ¹⁾	12	14	16	18	22	26	30	38	46
	h ²⁾	-	-	-	-	28	32	36	44	52
	l from to	20 to 30	20 to 40	25 to 50	25 to 60	30 to 80	40 to 100	45 to 120	55 to 150	65 to 150
	Nominal lengths l	20,25 30-65, 70, 75, 80, 90, 100-130, 140, 150 mm								
	Property classes	5.8, 6.8, 8.8, A2-70								
	Explanations	1) for l ≤ 120 mm 2) for l > 125 mm								
	Stufe Grade Grau LỚp	all B								
	Product grades (Seite 211) Product grades (page 211) Classes de produtos (página 211) Cấp sản phẩm (trang 211)	Hexagon head bolt ISO 4015 - M8 x 45 - 8,8: d=M8, l = 45 mm, property class 8.8								



cf. DIN EN 24015 (1991-12)

de= Sechskantschraube mit Feingewinde, voll
en= Hexagon head bolt with fine threads, fully threaded
pt= Hexágono parafuso de cabeça com linhas finas, totalmente enfiada
vn= Hexagon bulông đầu với chủ đề tốt, đầy đủ ren

de= gültige Standard en= Valid standard pt= Padrão válido vn= Hợp lệ tiêu chuẩn	Ersatz Replace Substituir Thay thế	DIN EN ISO 8676	DIN EN 28576	DIN 961	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	13,0	16	18	24	30	36	46	55	65	75	85
					k	5,3	6,4	7,5	10	12,5	15	18,7	22,5	26	30	35
					d...	11,6	14,6	16,6	22,5	28,2	33,6	42,8	51,1	60	70	78,7
					e	14,4	17,8	20	26,2	33	39,6	50,9	60,8	71	83	93,6
					l from to	16 to 80	20 to 100	25 to 120	35 to 160	40 to 200	40 to 200	40 to 200	40 to 200	90 to 420	100 to 480	120 to 500
					Nominal lengths l	16,20,25, 30, 35-60, 65, 70, 80, 90-140, 150, 160, 180,200 220-460, 480, 500 mm										
					Property classes	d= M24x2, 5.6, 8.8, 10.9, A2-70, A4-770 D= M30x2 - M36x2: 5.6, 8.8, 10.9, A2-50, A4-50										
					Explanations	d > M42x3: as per agreement										
					Product grades according to DIN EN ISO 8765 Classes de produtos de acordo com a DIN EN ISO 8765 Cấp sản phẩm theo DIN EN ISO 8765	Hexagon head bolt ISO 8765 - M8 x 1,5 x 55 - 8,8: d=M8 x 1,5, l = 550 mm, property class 8.8										



gez/erfasst:	hpw	Datum: 2009	duction project	Sechskantschrauben02	translate/en_iwhp/p_cu/vn_ha	origin: Machine elements S 213
Aenderung:	an	Datum: 19.06.2015	WIAP KFKOK	Hexagon head bolts02	r2	Datei wi 8 f 19 i18 r2 213 bolt screw
Aenderung:	control 2	Data:	Safenwil Schweiz	spear 2	www.wiap.ch	idee of / from HPW