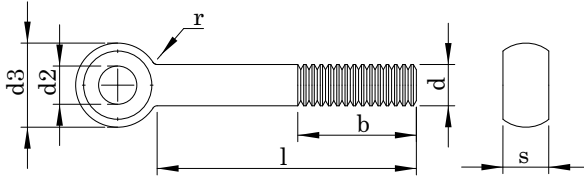


Teknik Bilgiler / Technical Informations

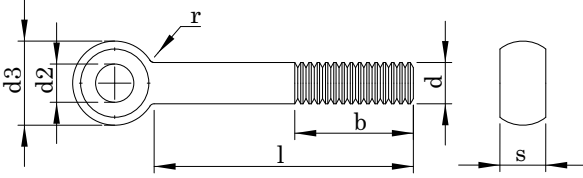
Screw Thread d1 P ¹⁾	M4	M5	M6	M8	M10	M12	M16	M20	M24
a	0,70	0,80	1,00	1,25	0,50	1,75	2,00	2,50	3,00
	max. 2,10	2,40	3,00	4,00	4,50	5,30	6,00	7,50	9,00
d2	max. 8,00	11,00	13,00	16,00	20,00	23,00	29,00	35,00	44,00
	min. 6,00	8,00	10,00	13,00	17,00	20,00	26,00	32,00	41,00
d3	max. 7,00	9,00	11,00	12,50	16,50	19,50	23,00	29,00	37,50
	min. 5,50	7,50	9,00	10,50	14,50	17,50	21,00	27,00	35,00
e	max. 20,00	26,00	33,00	39,00	51,00	65,00	73,00	90,00	110,00
	min. 18,00	24,00	30,00	36,00	48,00	62,00	70,00	86,00	106,00
g1	max. 1,90	2,30	2,30	2,80	4,40	4,90	6,40	6,90	9,40
	min. 1,10	1,50	1,50	2,00	3,60	4,10	5,60	6,10	8,60
g2	max. 2,30	2,80	3,30	4,40	5,40	6,40	7,50	8,00	10,50
	min. 1,70	2,30	2,70	3,60	4,60	5,60	6,50	7,00	9,50
h	max. 10,50	13,00	17,00	20,00	25,00	33,50	37,50	46,50	56,50
	min. 8,50	11,00	15,00	18,00	23,00	31,00	35,00	44,00	53,50
m	max. 4,60	6,50	8,00	10,00	12,00	14,00	17,00	21,00	25,00
	min. 3,20	4,00	5,00	6,50	8,00	10,00	13,00	16,00	20,00
r1 ~	3,00	4,00	5,00	6,00	8,00	10,00	11,00	14,00	18,00
r2 ~	radiused				1,00	1,00	1,20	1,60	2,50
r3 ~	0,50	1,00	1,00	1,00	1,20	1,20	1,60	2,00	2,50



Teknik Bilgiler / Technical Informations

Screw Thread d1		M5	M6	M8	M10	M12	
P	1	0,80	1,00	1,25	1,50	1,75	
	2	16,00	18,00	22,00	26,00	30,00	
b + ² P	2	-	-	28,00	32,00	36,00	
	3	-	-	-	-	49,00	
d2	max.	5,00	6,00	8,00	10,00	12,00	
		12,00	14,00	18,00	20,00	25,00	
d3	TypeA	10,90	12,90	16,90	18,70	23,70	
	TypeB and C	min.	11,57	13,57	17,57	19,48	24,48
r	~	max.	2,50	4,00	4,00	4,00	6,00
			8,00	9,00	11,00	14,00	17,00
s	TypeA	min.	7,52	8,52	10,30	13,30	16,30
		max.	6,00	7,00	9,00	12,00	14,00
	TypeB and C	min.	5,88	6,85	8,85	11,82	13,82
		max.					

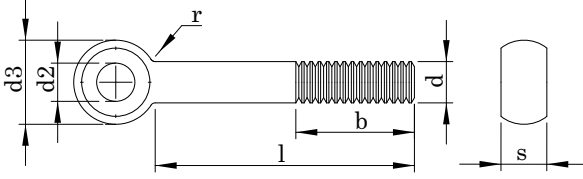
Nominal size	Type A		L Type B		Type C		M5	M6	M8	M10	M12
	min.	max.	min.	max.	min.	max.					
30	28,95	31,05	29,35	30,65	29,60	30,40	7,93				
35	33,75	36,25	34,20	35,80	34,50	35,50	8,70	12,60			
40	38,75	41,25	39,20	40,80	39,50	40,50	9,47	13,70	25,00		
45	43,75	46,25	44,20	45,80	44,50	45,50	10,30	14,80	26,90	36,00	
50	48,75	51,25	49,20	50,80	49,50	50,50	11,00	15,90	28,90	39,10	
55	53,50	56,50	54,05	55,95	54,40	55,60	11,80	17,00	30,90	42,20	67,00
60	58,50	61,50	59,05	60,95	59,40	60,60	12,60	18,10	32,80	45,30	71,40
65	63,50	66,50	64,05	65,95	64,40	65,60	13,30	19,20	34,80	48,40	75,80
70	68,50	71,50	69,05	70,95	69,40	70,60	14,10	20,30	36,80	51,50	80,30
75	73,50	76,50	74,05	75,95	74,40	75,60	14,90	21,50	38,80	54,60	84,80
80	78,50	81,50	79,05	80,95	79,40	80,60	15,70	22,60	40,70	57,60	89,20
90	88,25	91,75	88,90	91,10	89,30	90,70		23,70	44,70	63,80	98,10
100	98,25	101,75	98,90	101,10	99,30	100,70			48,60	70,00	106,00
110	108,25	111,75	108,90	111,10	109,30	110,70			52,60	76,10	115,00
120	118,25	121,75	118,90	121,10	119,30	120,70			56,50	82,30	124,00
130	128,00	132,00	128,75	131,25	129,20	130,80			60,50	88,40	133,00
140	138,00	142,00	138,75	141,25	139,20	140,80			64,40	94,50	142,00
150	148,00	152,00	148,75	151,25	149,20	150,80				101,00	151,00
160	156,00	164,00	158,75	161,25	159,20	160,80					160,00
180	176,00	184,00	178,75	181,25	179,20	180,80					178,00
200	195,40	204,60	198,55	241,45	199,10	200,90					195,00
220	215,40	224,60	218,55	221,45	219,10	220,90					211,00
240	235,40	244,60	238,55	241,45	239,10	240,90					229,00
260	254,80	265,20	258,40	261,60	258,90	261,00					
280	274,80	285,20	278,40	281,60	278,90	281,00					
300	294,80	305,20	298,40	301,60	298,90	301,00					



Teknik Bilgiler / Technical Informations

Screw Thread d1		M16	M20	M24	M27	
P		2,00	2,50	3,00	3,00	
b + ² P	1	38,00	46,00	54,00	60,00	
	2	44,00	52,00	60,00	66,00	
	3	57,00	65,00	73,00	79,00	
d2		16,00	18,00	22,00	24-25	
d3	TypeA TypeB and C	max.	32,00	40,00	45,00	50,00
		min.	30,40	38,40	43,40	48,40
r	~	6,00	6,00	10,00	10,00	
s	TypeA	max.	19,00	24,00	28,00	30,00
		min.	18,16	23,16	27,16	29,16
	TypeB and C	max.	17,00	22,00	25,00	27,00
		min.	16,82	21,79	24,79	26,79

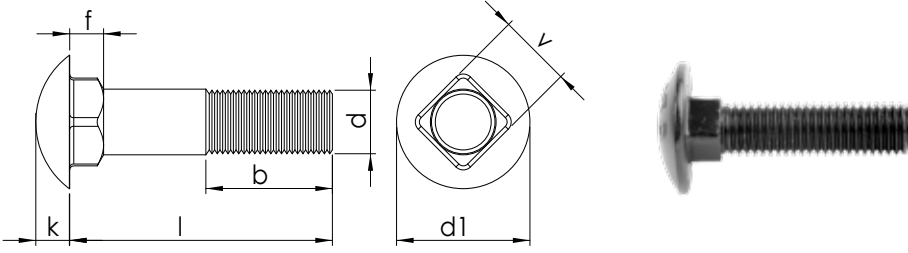
Nominal size	Type A		L Type B		Type C		M16	M20	M24	M27
	min.	max.	min.	max.	min.	max.				
30	28,95	31,05	29,35	30,65	29,60	30,40				
35	33,75	36,25	34,20	35,80	34,50	35,50				
40	38,75	41,25	39,20	40,80	39,50	40,50				
45	43,75	46,25	44,20	45,80	44,50	45,50				
50	48,75	51,25	49,20	50,80	49,50	50,50				
55	53,50	56,50	54,05	55,95	54,40	55,60				
60	58,50	61,50	59,05	60,95	59,40	60,60				
65	63,50	66,50	64,05	65,95	64,40	65,60				
70	68,50	71,50	69,05	70,95	69,40	70,60	149,00			
75	73,50	76,50	74,05	75,95	74,40	75,60	157,00			
80	78,50	81,50	79,05	80,95	79,40	80,60	164,00			
90	88,25	91,75	88,90	91,10	89,30	90,70	180,00			
100	98,25	101,75	98,90	101,10	99,30	100,70	196,00	334,00	454,00	
110	108,25	111,75	108,90	111,10	109,30	110,70	212,00	359,00	489,00	
120	118,25	121,75	118,90	121,10	119,30	120,70	228,00	383,00	524,00	618,00
130	128,00	132,00	128,75	131,25	129,20	130,80	244,00	408,00	560,00	663,00
140	138,00	142,00	138,75	141,25	139,20	140,80	259,00	433,00	596,00	708,00
150	148,00	152,00	148,75	151,25	149,20	150,80	275,00	457,00	631,00	753,00
160	156,00	164,00	158,75	161,25	159,20	160,80	291,00	482,00	667,00	798,00
180	176,00	184,00	178,75	181,25	179,20	180,80	322,00	531,00	738,00	888,00
200	195,40	204,60	198,55	201,45	199,10	200,90	354,00	581,00	809,00	978,00
220	215,40	224,60	218,55	221,45	219,10	220,90	383,00	624,00	868,00	1060,00
240	235,40	244,60	238,55	241,45	239,10	240,90	414,00	674,00	939,00	1140,00
260	254,80	265,20	258,40	261,60	258,90	261,00		723,00	1010,00	1230,00
280	274,80	285,20	278,40	281,60	278,90	281,00				1320,00
300	294,80	305,20	298,40	301,60	298,90	301,00				1400,00



Teknik Bilgiler / Technical Informations

Screw Thread d1		M30	M33	M36	M39
P	1	3,50	3,50	4,00	4,00
	2	66,00	-	-	-
	3	72,00	78,00	84,00	90,00
b+ ² P	1	85,00	91,00	97,00	103,00
	2	27-28	30,00	32-33	35-36
	3	55,00	60,00	65,00	70,00
d2	max.	53,10	58,10	63,10	68,10
	min.	54,26	59,26	64,26	69,26
d3	max.	10,00	16,00	16,00	16,00
	min.	34,00	38,00	41,00	46,00
r	max.	33,00	37,00	40,00	45,00
	min.	30,00	34,00	38,00	41,00
	max.	29,79	33,75	37,75	40,75
	min.				

Nominal size	Type A		Type B		Type C		M30	M33	M36	M39
	min.	max.	min.	max.	min.	max.				
30	28,95	31,05	29,35	30,65	29,60	30,40				
35	33,75	36,25	34,20	35,80	34,50	35,50				
40	38,75	41,25	39,20	40,80	39,50	40,50				
45	43,75	46,25	44,20	45,80	44,50	45,50				
50	48,75	51,25	49,20	50,80	49,50	50,50				
55	53,50	56,50	54,05	55,95	54,40	55,60				
60	58,50	61,50	59,05	60,95	59,40	60,60				
65	63,50	66,50	64,05	65,95	64,40	65,60				
70	68,50	71,50	69,05	70,95	69,40	70,60				
75	73,50	76,50	74,05	75,95	74,40	75,60				
80	78,50	81,50	79,05	80,95	79,40	80,60				
90	88,25	91,75	88,90	91,10	89,30	90,70				
100	98,25	101,75	98,90	101,10	99,30	100,70				
110	108,25	111,75	108,90	111,10	109,30	110,70				
120	118,25	121,75	118,90	121,10	119,30	120,70				
130	128,00	132,00	128,75	131,25	129,20	130,80				
140	138,00	142,00	138,75	141,25	139,20	140,80				
150	148,00	152,00	148,75	151,25	149,20	150,80	997,00	1240,00		
160	156,00	164,00	158,75	161,25	159,20	160,80	1050,00	1310,00	1570,00	1880,00
180	176,00	184,00	178,75	181,25	179,20	180,80	1160,00	1440,00	1730,00	2070,00
200	195,40	204,60	198,55	201,45	199,10	200,90	1270,00	1570,00	1890,00	2250,00
220	215,40	224,60	218,55	221,45	219,10	220,90	1370,00	1690,00	2050,00	2420,00
240	235,40	244,60	238,55	241,45	239,10	240,90	1480,00	1820,00	2200,00	2610,00
260	254,80	265,20	258,40	261,60	258,90	261,00	1590,00	1960,00	2350,00	2790,00
280	274,80	285,20	278,40	281,60	278,90	281,00	1700,00	2100,00	2500,00	2970,00
300	294,80	305,20	298,40	301,60	298,90	301,00	1810,00	2240,00	2650,00	3100,00



Teknik Bilgiler / Technical Informations

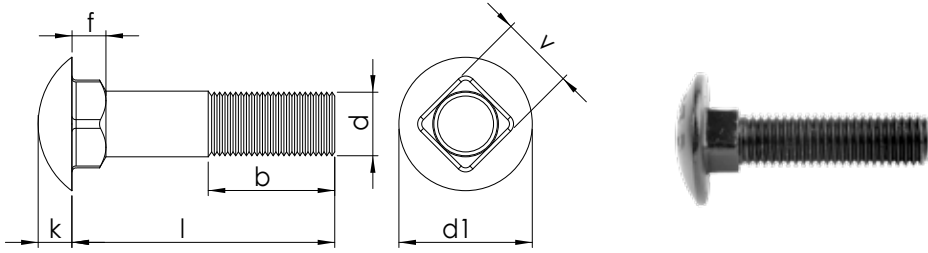
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20	
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,50	
Head height / Kafa yüksekliği	k	max.	3,30	3,88	4,88	5,38	6,95	8,95	11,05
		min.	2,70	3,12	4,12	4,62	6,05	8,05	9,95
Head Dia / Kafa çapı	dk	max.	13,55	16,55	20,65	24,65	30,65	38,80	46,80
		min.	12,45	15,45	19,35	23,35	29,35	37,20	45,20
Neck height / Boyun yüksekliği	f	max.	4,10	4,60	5,60	6,60	8,75	12,90	15,90
		min.	2,90	3,40	4,40	5,40	7,25	11,10	14,10
Neck width / Boyun genişliği	v	max.	5,48	6,48	8,58	10,58	12,70	16,70	20,84
		min.	4,52	5,52	7,42	9,42	11,30	15,30	19,16
Thread length / Diş uzunluğu	b ¹	16,00	18,00	22,00	26,00	30,00	38,00	46,00	
	b ²	22,00	24,00	28,00	32,00	36,00	44,00	52,00	

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Length / Boy	min.							
	max.							
		Weight /Ağırlık gr/p						
16	15,10	16,90	4,00	6,90				
20	18,95	21,05	4,50	7,60	13,80	22,70		
25	23,95	26,05	5,10	8,50	15,40	25,20		
30	28,95	31,05	5,90	9,60	17,00	27,70	45,70	
35	33,75	36,25	6,70	10,70	19,00	30,20	49,40	
40	38,75	41,25	7,50	11,80	21,00	32,70	53,10	
45	43,75	46,25	8,30	12,90	23,00	35,80	56,80	
50	48,75	51,25	9,10	14,00	25,00	38,90	61,20	119,00
55	53,50	56,50	9,90	15,10	26,90	42,00	65,60	126,00
60	58,50	61,50	10,70	16,20	28,90	45,10	70,00	133,00
65	63,50	66,50	11,50	17,30	30,90	48,20	74,40	141,00
70	68,50	71,50	12,30	18,40	32,90	51,30	78,80	149,00
								247,00



Teknik Bilgiler / Technical Informations

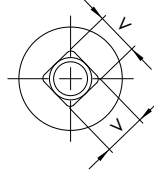
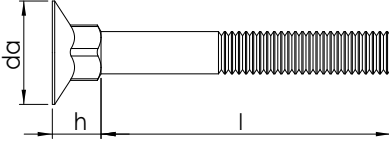
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,50
Head height / Kafa yüksekliği	k	max. 3,30	max. 3,88	max. 4,88	max. 5,38	max. 6,95	max. 8,95	max. 11,05
		min. 2,70	min. 3,12	min. 4,12	min. 4,62	min. 6,05	min. 8,05	min. 9,95
Head Dia / Kafa çapı	dk	max. 13,55	max. 16,55	max. 20,65	max. 24,65	max. 30,65	max. 38,80	max. 46,80
		min. 12,45	min. 15,45	min. 19,35	min. 23,35	min. 29,35	min. 37,20	min. 45,20
Neck height / Boyun yüksekliği	f	max. 4,10	max. 4,60	max. 5,60	max. 6,60	max. 8,75	max. 12,90	max. 15,90
		min. 2,90	min. 3,40	min. 4,40	min. 5,40	min. 7,25	min. 11,10	min. 14,10
Neck width / Boyun genişliği	v	max. 5,48	max. 6,48	max. 8,58	max. 10,58	max. 12,70	max. 16,70	max. 20,84
		min. 4,52	min. 5,52	min. 7,42	min. 9,42	min. 11,30	min. 15,30	min. 19,16
Thread length / Diş uzunluğu	b ¹	16,00	18,00	22,00	26,00	30,00	38,00	46,00
	b ²	22,00	24,00	28,00	32,00	36,00	44,00	52,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

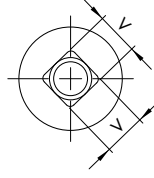
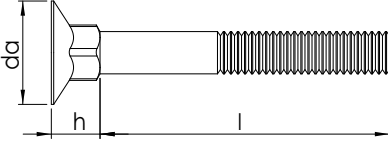
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Length / Boy	min. max.	Weight /Ağırlık gr/p						
80	78,50 81,50	13,90	20,60	36,80	57,50	87,00	165,00	272,00
90	88,25 91,75		22,80	40,80	63,70	96,00	181,00	297,00
100	98,25 101,75		25,00	44,80	69,90	105,00	197,00	322,00
110	108,25 111,75		27,20	48,80	76,10	114,00	213,00	347,00
120	118,25 121,75		29,40	52,80	82,30	123,00	229,00	372,00
130	128,00 132,00		31,60	56,80	88,50	132,00	245,00	397,00
140	138,00 142,00		32,80	60,80	95,00	141,00	261,00	422,00
150	148,00 152,00		35,00	64,80	101,00	150,00	277,00	447,00
160	156,00 164,00				107,00	159,00	293,00	497,00
180	176,00 184,00				119,00	177,00	325,00	547,00
200	195,40 204,60				131,00	195,00	357,00	597,00



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)		M5	M6	M8	M10	
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	
Head height / Kafa yüksekliği	h	min.	5,60	6,55	8,55	10,55
		max.	6,40	7,45	9,45	11,45
Head Dia / Kafa çapı	da	min.	12,55	15,55	19,45	23,45
		max.	13,45	16,45	20,55	24,55
Square width / Kafa genişliği	v	min.	4,52	5,52	7,42	9,42
		max.	5,48	6,48	8,58	10,58

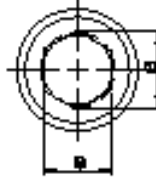
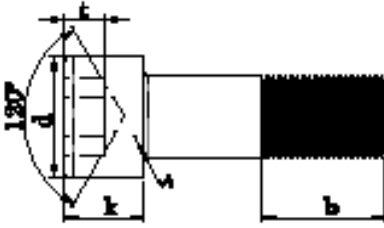
Thread size / Anma çapı (d)		M5	M6	M8	M10
Length / Boy (l)	min.				
	max.				
		Weight /Ağırlık gr/p			
30		5,40	8,80	15,40	
35		6,20	9,80	17,40	
40		6,90	10,80	19,30	30,60
45			11,90	21,30	33,60
50			12,90	23,20	36,50
55			13,90	25,20	38,40
60			14,90	27,10	42,40
65				29,10	45,30
70				31,00	48,20
80				34,90	54,10
90					59,90
100					65,70



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)		M12	M16	M20	
Pitch / Diş adımı	P	1,75	2,00	2,50	
Head height / Kafa yüksekliği	h	min.	13,45	16,45	21,35
		max.	14,55	17,55	22,65
Head Dia / Kafa çapı	da	min.	27,35	37,35	43,25
		max.	28,65	38,65	44,75
Square width / Kafa genişliği	v	min.	11,32	15,32	19,22
		max.	12,68	16,68	20,78

Thread size / Anma çapı (d)		M12	M16	M20	
Length / Boy (l)	min.				
	max.				
		Weight /Ağırlık gr/p			
30	28,95	31,05			
35	33,95	36,05			
40	38,95	41,05			
45	43,75	46,25			
50	48,75	51,25	72,80		
55	53,75	56,25	77,30		
60	58,75	61,25	81,30		
65	64,50	66,50	85,70	145,00	270,00
70	68,50	71,50	89,80	153,00	282,00
80	78,50	81,50	98,80	169,00	307,00
90	88,50	91,50	107,00	185,00	332,00
100	98,50	101,50	116,00	200,00	357,00



Teknik Bilgiler / Technical Informations

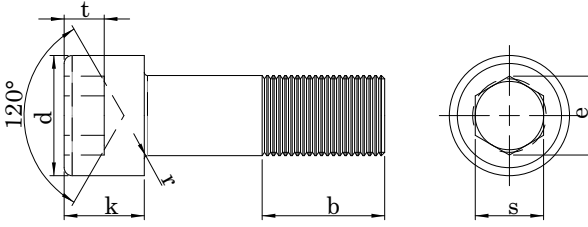
Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	M14	
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00	
Head height / Kafa yüksekliği	k	max.	3,00	4,00	5,00	6,00	8,00	10,00	12,00	14,00
		min.	2,86	3,82	4,82	5,70	7,64	9,64	11,57	13,57
Head Dia / Kafa çapı	d	max.	5,50	7,00	8,50	10,00	13,00	16,00	18,00	21,00
		min.	5,32	6,78	8,28	9,78	12,73	15,73	17,73	20,67
Socket width / Soket genişliği	s	min.	2,50	3,00	4,00	5,00	6,00	8,00	10,00	12,00
		max.	2,52	3,02	4,02	5,02	6,02	8,03	10,03	12,03
Socket dia / Soket çapı	e	2,87	3,44	4,58	5,72	6,86	9,15	11,43	13,72	
Socket depth / Soket derinliği	t	1,30	2,00	2,50	3,00	4,00	5,00	6,00	7,00	
Thread length / Diş uzunluğu	b ¹	18,00	20,00	22,00	24,00	28,00	32,00	36,00	40,00	
	b ²	Fully threaded. /Tam dişli.								

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)			M3	M4	M5	M6	M8	M10	M12	M14
Length Boy	min.	max.	Weight /Ağırlık gr/p							
	5	4,76	5,24	0,67						
6	5,76	6,24	0,71	1,50						
8	7,71	8,29	0,80	1,65	2,45					
10	9,71	10,29	0,88	1,80	2,70	4,70				
12	11,65	12,35	0,96	1,95	2,95	5,07	10,90			
16	15,65	16,35	1,16	2,25	3,45	5,75	12,10	20,90		
20	19,58	20,42	1,36	2,65	4,01	6,53	13,40	22,90	32,10	
25	24,58	25,42	1,61	3,15	4,78	7,59	15,00	25,40	35,70	48,00
30	29,58	30,42	1,86	3,65	5,55	8,30	16,90	27,90	39,30	53,00
35	34,50	35,50		4,15	6,32	9,91	18,90	30,40	42,90	58,00
40	39,50	40,50		4,65	7,09	11,00	20,90	32,90	46,50	63,00
45	44,50	45,50		5,15	7,86	12,10	22,90	36,10	50,10	68,00
50	49,50	50,50		5,65	8,63	13,20	24,90	39,30	54,50	73,00
55	54,40	55,60			9,40	14,30	26,90	42,50	58,90	78,00
60	69,40	60,60			10,20	15,40	28,90	45,70	63,40	84,00
65	64,40	65,60			11,00	16,40	31,00	48,90	67,80	90,00
70	69,40	70,60			11,80	17,30	33,00	52,10	71,30	96,00
80	79,40	80,60			13,25	19,30	37,00	58,50	80,20	108,00



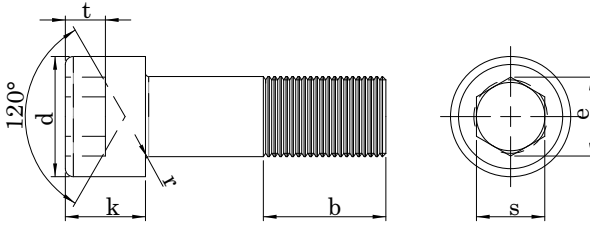
Teknik Bilgiler / Technical Informations		M3	M4	M5	M6	M8	M10	M12	M14
Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	M14
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00
Head height / Kafa yüksekliği	k	3,00	4,00	5,00	6,00	8,00	10,00	12,00	14,00
	max. min.	2,86	3,82	4,82	5,70	7,64	9,64	11,57	13,57
Head Dia / Kafa çapı	d	5,50	7,00	8,50	10,00	13,00	16,00	18,00	21,00
	max. min.	5,32	6,78	8,28	9,78	12,73	15,73	17,73	20,67
Socket width / Soket genişliği	s	2,50	3,00	4,00	5,00	6,00	8,00	10,00	12,00
	min. max.	2,52	3,02	4,02	5,02	6,02	8,03	10,03	12,03
Socket dia / Soket çapı	e	2,87	3,44	4,58	5,72	6,86	9,15	11,43	13,72
Socket depth / Soket derinliği	t	1,30	2,00	2,50	3,00	4,00	5,00	6,00	7,00
Thread length / Diş uzunluğu	b ¹	18,00	20,00						
	b ²				22,00	24,00	28,00	32,00	40,00
		Fully threaded. /Tam dişli.							

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)			M3	M4	M5	M6	M8	M10	M12	M14
Length Boy	min.	max.	Weight /Ağırlık gr/p							
	90	89,30	90,70			14,79	21,30	41,00	64,90	89,10
100	99,30	100,70			16,33	23,30	45,00	71,20	98,00	132,00
110	109,30	110,70			19,40	25,30	49,00	77,50	107,00	144,00
120	119,30	120,70				27,30	53,00	83,80	116,00	156,00
130	129,20	130,80				31,00	57,00	90,10	126,97	168,00
140	139,20	140,80				33,00	61,00	96,40	135,50	180,00
150	149,20	150,80					65,00	102,70	145,00	192,00
160	159,20	160,80					69,00	108,00	154,00	204,00
180	179,20	180,80								
200	199,10	200,90								
220	219,10	220,90								
240	239,10	240,90								
260	258,95	261,05								
280	278,95	281,05								
300	298,95	301,05								



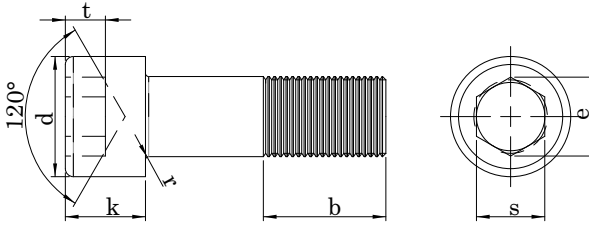
Teknik Bilgiler / Technical Informations		M16	M18	M20	M22	M24	M27	M30	M33
Thread size / Anma çapı (d)		2,00	2,50	2,50	2,50	3,00	3,00	3,50	3,50
Pitch / Diş adımı	P	16,00	18,00	20,00	22,00	24,00	27,00	30,00	33,00
Head height / Kafa yüksekliği	k	max.	15,57	17,57	19,48	21,48	23,48	26,48	29,48
		min.	24,00	27,00	30,00	33,00	36,00	40,00	45,00
Head Dia / Kafa çapı	d	max.	23,67	26,67	29,67	32,61	35,61	39,61	44,61
		min.	14,00	14,00	17,00	17,00	19,00	19,00	22,00
Socket width / Soket genişliği	s	min.	14,03	14,03	17,05	17,05	19,07	19,07	22,07
		max.	14,21	14,21	17,23	17,23	19,28	19,28	22,28
Socket dia / Soket çapı	e	16,00	16,00	19,44	19,44	21,73	21,73	25,15	27,43
Socket depth / Soket derinliği	t	8,00	9,00	10,00	11,00	12,00	13,50	15,50	18,00
Thread length / Diş uzunluğu	b ¹	44,00	48,00	52,00	56,00	60,00	66,00	72,00	78,00
	b ²	Fully threaded. /Tam dişli.							

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)			M16	M18	M20	M22	M24	M27	M30	M33
Length Boy	min.	max.	Weight /Ağırlık gr/p							
	5	4,76	5,24							
6	5,76	6,24								
8	7,71	8,29								
10	9,71	10,29								
12	11,65	12,35								
16	15,65	16,35								
20	19,58	20,42								
25	24,58	25,42	71,30							
30	29,58	30,42	77,80	111,00	128,00					
35	34,50	35,50	84,40	120,00	139,00	211,00				
40	39,50	40,50	91,00	129,00	150,00	224,00	270,00			
45	44,50	45,50	97,60	138,00	161,00	237,00	285,00	330,00	500,00	
50	49,50	50,50	106,00	147,00	172,00	250,00	300,00	352,00	527,00	630,00
55	54,40	55,60	114,00	156,00	183,00	263,00	316,00	374,00	554,00	665,00
60	69,40	60,60	122,00	165,00	194,00	276,00	330,00	396,00	581,00	700,00
65	64,40	65,60	130,00	174,00	205,00	291,00	345,00	418,00	608,00	735,00
70	69,40	70,60	130,00	183,00	216,00	306,00	363,00	440,00	635,00	770,00
80	79,40	80,60	154,00	203,00	241,00	336,00	399,00	484,00	690,00	830,00
90	89,30	90,70	170,00	223,00	266,00	366,00	435,00	529,00	745,00	900,00



Teknik Bilgiler / Technical Informations

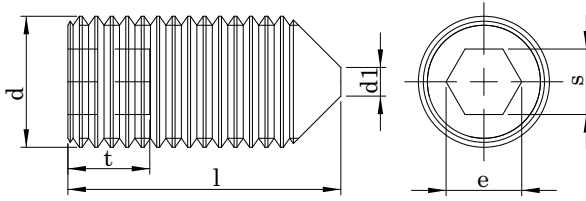
Thread size / Anma çapı (d)		M16	M18	M20	M22	M24	M27	M30	M33
Pitch / Diş adımı	P	2,00	2,50	2,50	2,50	3,00	3,00	3,50	3,50
Head height / Kafa yüksekliği	k								
	max.	16,00	18,00	20,00	22,00	24,00	27,00	30,00	33,00
Head Dia / Kafa çapı	d								
	max.	24,00	27,00	30,00	33,00	36,00	40,00	45,00	50,00
Socket width / Soket genişliği	s								
	min.	14,03	14,03	17,05	17,05	19,07	19,07	22,07	24,07
Socket dia / Soket çapı	e								
	min.	14,21	14,21	17,23	17,23	19,28	19,28	22,28	24,28
Socket depth / Soket derinliği	t	16,00	16,00	19,44	19,44	21,73	21,73	25,15	27,43
Thread length / Diş uzunluğu	b ¹	8,00	9,00	10,00	11,00	12,00	13,50	15,50	18,00
	b ²	44,00	48,00	52,00	56,00	60,00	66,00	72,00	78,00
Fully threaded. / Tam dişli.									

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

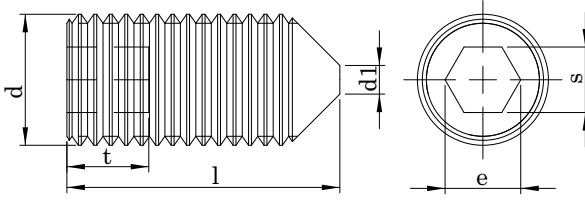
Thread size / Anma çapı (d)			M16	M18	M20	M22	M24	M27	M30	M33
Length Boy	Weight / Ağırlık gr/p									
	min.	max.								
100	99,30	100,70	186,00	243,00	291,00	396,00	471,00	574,00	800,00	970,00
110	109,30	110,70	202,00	263,00	316,00	426,00	507,00	619,00	855,00	1040,00
120	119,30	120,70	218,00	283,00	341,00	456,00	543,00	664,00	910,00	1110,00
130	129,20	130,80	234,00	303,00	366,00	486,00	579,00	709,00	965,00	1180,00
140	139,20	140,80	250,00	323,00	391,00	516,00	615,00	754,00	1020,00	1250,00
150	149,20	150,80	266,00	343,00	416,00	546,00	651,00	799,00	1080,00	1320,00
160	159,20	160,80	282,00	363,00	441,00	576,00	687,00	844,00	1130,00	1390,00
180	179,20	180,80		403,00	491,00	636,00	759,00	934,00	1240,00	1530,00
200	199,10	200,90		443,00	541,00	696,00	831,00	1020,00	1350,00	1670,00
220	219,10	220,90			691,00	756,00	903,00	1110,00	1460,00	1810,00
240	239,10	240,90			741,00		975,00	1230,00	1570,00	1950,00
260	258,95	261,05						1340,00	1680,00	2040,00
280	278,95	281,05							1790,00	2180,00
300	298,95	301,05							1900,00	2320,00



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)	M1,4	M1,6	M1,8	M2	M2,5	M3	M4	M5	M6	M8	
P ¹⁾	0,30	0,35	0,35	0,40	0,45	0,50	0,70	0,80	1,00	1,25	
df	~ Lower limit minor thread diameter										
d	max.	-	-	-	-	-	-	-	1,50	2,00	
	min.	-	-	-	-	-	-	-	0,90	1,40	
e	min ²⁾	0,80	0,80	0,80	1,00	1,43	1,73	2,30	2,87	3,44	4,58
	nominal size	0,70	0,70	0,70	0,90	1,30	1,50	2,00	2,50	3,00	4,00
s	min.	0,71	0,71	0,71	0,89	1,27	1,52	2,02	2,52	3,02	4,02
	max.	0,72	0,72	0,72	0,90	1,30	1,55	2,05	2,56	3,08	4,10
t	min.3)	0,60	0,70	0,80	0,80	1,20	1,20	1,50	2,00	2,00	3,00
	min.4)	1,40	1,50	1,60	1,70	2,00	2,00	2,50	3,00	3,50	5,00

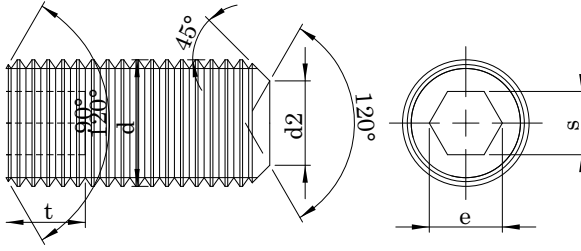
Nominal Size	min.	max.	L									
			M1,4	M1,6	M1,8	M2	M2,5	M3	M4	M5	M6	M8
			Weight / Ağırlık gr/p									
2	1,80	2,20										
2,5	2,30	2,70	0,02	0,02	0,03							
3	2,80	3,20	0,02	0,03	0,04	0,04						
3,5	3,26	3,74										
4	3,76	4,24	0,03	0,04	0,05	0,06	0,10	0,13				
5	4,76	5,24	0,04	0,05	0,06	0,07	0,13	0,17	0,26			
6	5,76	6,24	0,05	0,06	0,07	0,09	0,15	0,21	0,34	0,49		
8	7,00	8,29				0,12	0,12	0,30	0,49	0,73	1,04	
10	9,71	10,29				0,15	0,25	0,39	0,64	0,97	1,39	
12	11,65	12,35						0,48	0,79	1,21	1,74	
14	13,65	14,35										
16	15,65	16,35						0,66	1,09	1,69	2,44	
18	17,65	18,35										
20	19,58	20,42						0,84	1,39	2,17	3,14	
22	21,58	22,42										
25	24,58	25,42								2,77	4,02	
28	27,58	28,42										
30	29,58	30,42										
35	34,50	35,50									4,90	
40	39,50	40,50									5,78	11,90
45	44,50	45,50										
50	49,50	50,50										
55	54,40	55,60										
60	59,40	60,60										



Teknik Bilgiler / Technical Informations

Screw Thread d1		M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
P ¹⁾		1,50	1,75	2,00	2,00	2,50	2,50	2,50	3,00
df	~								
d	max.	2,50	3,00	4,00	4,00	5,00	5,00	6,00	6,00
	min.	1,90	2,40	3,25	3,25	4,25	4,25	5,25	5,25
e	min ²⁾	5,72	6,86	6,86	9,15	11,43	11,43	13,72	13,72
	nominal size	5,00	6,00	6,00	8,00	10,00	10,00	12,00	12,00
s	min.	5,02	6,02	6,02	8,03	10,03	10,03	12,03	12,03
	max.	5,10	6,10	6,10	8,12	10,12	10,12	12,14	12,14
t	min.3)	4,00	4,50	5,60	6,40	7,20	8,00	9,00	10,00
	min.4)	6,00	8,00	9,00	10,00	11,00	12,00	13,50	15,00

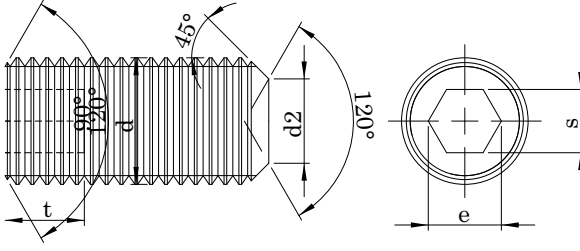
Nominal Size	L		M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
	min.	max.								
	Weight / Ağırlık gr/p									
2	1,80	2,20								
2,5	2,30	2,70								
3	2,80	3,20								
3,5	3,26	3,74								
4	3,76	4,24								
5	4,76	5,24								
6	5,76	6,24								
8	7,00	8,29								
10	7,10	10,29	3,94							
12	9,71	12,35	4,93	6,69						
14	11,65	14,35								
16	13,65	16,35	6,91	9,56						
18	15,65	18,35								
20	17,65	20,42	8,88	12,42						
22	19,58	22,42								
25	21,58	25,42	11,35	16,01						
28	24,58	28,42								
30	27,58	30,42	13,82	19,59						
35	29,58	35,50	16,29	23,18						
40	34,50	40,50	18,30	26,10		46,30				
45	44,50	45,50	21,23	30,34			71,60			98,20
50	49,50	50,50	23,70	33,93			81,90			113,00
55	54,40	55,60					92,20			128,00
60	59,40	60,60	28,64	41,10						143,00
										158,00



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)	M1.4	M1.6	M1.8	M2	M2.5	M3	M4	M5	
Pitch / Diş adımı	p	0,30	0,35	4,00	4,00	4,50	0,50	0,70	0,80
Cup point dia / Uç çapı	d2	0,70	0,80	0,90	1,00	1,20	1,40	2,00	2,50
	min.	0,45	0,55	0,65	0,75	0,95	1,15	1,75	2,25
Head width / Anahtar ağızı	s	0,70	0,70	0,70	0,90	1,30	1,50	2,00	2,50
	min.	0,71	0,71	0,71	0,89	1,27	1,52	2,02	2,52
Diagonal / Köşegen	max.	0,72	0,72	0,72	0,90	1,30	1,55	2,05	2,56
	e	0,60	0,70	0,80	0,80	0,90	1,20	1,50	2,00
Slot depth / Anahtar derinliği	t	1,40	1,50	1,60	1,70	2,00	2,00	2,50	3,00

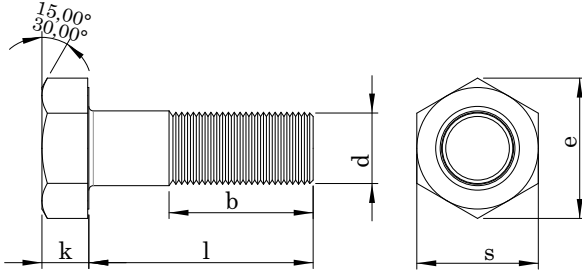
Thread size / Anma çapı (d)			M1.4	M1.6	M1.8	M2	M2.5	M3	M4	M5
Length Boy	min.	max.	Weight / Ağırlık gr/p							
	6	5,76	6,24	0,04	0,06	0,07	0,09	0,15	0,22	0,38
8	7,71	8,29				0,12	0,20	0,31	0,53	0,78
10	9,71	10,29				0,15	0,25	0,40	0,68	1,02
12	11,65	12,35						0,49	0,83	1,26
16	15,65	16,35						0,67	1,13	1,74
20	19,58	20,42						0,85	1,43	1,22
25	24,58	25,42								2,82
30	29,58	30,42								
35	34,50	35,50								
40	39,50	40,50								
45	44,50	45,50								
50	49,50	50,50								
60	59,40	60,60								



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)		M6	M8	M10	M12	M16	M18	M20	M24
Pitch / Diş adımı	p	1,00	1,25	1,50	1,75	2,00	2,50	2,50	3,00
Cup point dia / Uç çapı	d2	3,00	5,00	6,00	8,00	10,00	12,00	14,00	16,00
	min.	2,75	4,70	5,70	7,64	9,64	11,57	13,57	15,57
	s	3,00	4,00	5,00	6,00	8,00	10,00	10,00	12,00
Head width / Anahtar ağızı	min.	3,02	4,02	5,02	6,02	8,03	10,03	10,03	12,03
	max.	3,08	4,10	5,10	6,10	8,12	10,12	10,12	12,14
Diagonal / Köşegen	e	2,80	3,80	4,00	4,80	6,40	7,20	8,30	10,00
Slot depth / Anahtar derinliği	t	3,50	5,00	6,00	8,00	10,00	11,00	12,00	15,00

Thread size / Anma çapı (d)			M6	M8	M10	M12	M16	M18	M20	M24
Length Boy	min.	max.	Weight / Ağırlık gr/p							
	6	5,76	6,24	0,74						
8	7,71	8,29	1,09	1,88						
10	9,71	10,29	1,44	2,51						
12	11,65	12,35	1,79	3,14	4,73					
16	15,65	16,35	2,49	4,40	6,73	9,50				
20	19,58	20,42	3,19	5,66	8,71	12,30	20,90			
25	24,58	25,42	4,07	7,25	11,20	15,90	27,40	41,40		
30	29,58	30,42	4,95	8,84	13,70	19,50	34,00	51,70	70,30	
35	34,50	35,50	5,83	10,40	16,20	23,10	40,50	62,00	85,30	
40	39,50	40,50		12,00	18,70	26,70	47,10	72,30	100,00	
45	44,50	45,50						82,60	115,00	
50	49,50	50,50						92,90	130,00	
60	59,40	60,60								160,00



Teknik Bilgiler / Technical Informations

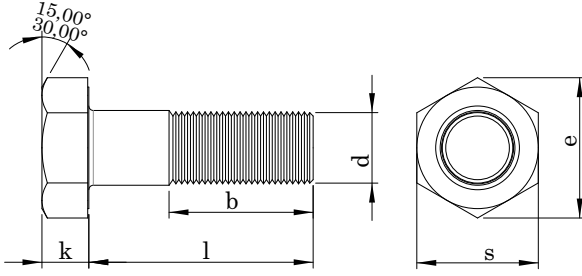
Thread size / Anma çapı (d)		M3	M4	M5	M6	M7	M8	M10	M12	
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,00	1,25	1,50	1,75	
	Nominal size	2,00	2,80	3,50	4,00	4,80	5,30	6,40	7,50	
Head height / Kafa yüksekliği	A	min.	1,88	2,68	3,35	3,85	4,65	5,15	6,22	7,32
		max.	2,12	2,92	3,65	4,15	4,95	5,45	6,58	7,68
	B	min.								
	max.									
	Nominal size	max.	5,50	7,00	8,00	10,00	11,00	13,00	17,00	19,00
Head width / Anahtar ağızı	Product Grade	ş A	5,32	6,78	7,78	9,78	10,73	12,73	16,73	18,67
		min.B								
Diagonal / Köşegen e	Product Grade	min. A	6,01	7,66	8,79	11,05	12,12	14,38	18,90	21,10
		min. B								
Thread length / Diş uzunluğu	b ¹	12,00	14,00	16,00	18,00	20,00	22,00	26,00	30,00	
	b ²			22,00	24,00	26,00	28,00	32,00	36,00	
	b ³							45,00	49,00	

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

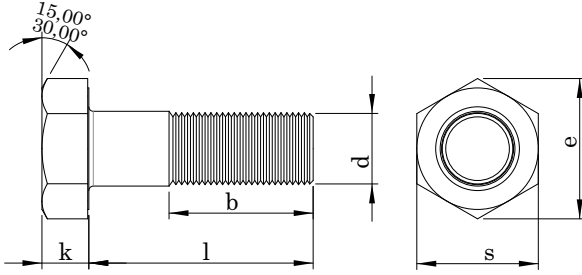
b³ for lengths > 200 mm.

Thread size Anma çapı	Product Grade				M3	M4	M5	M6	M7	M8	M10	M12
	A		B									
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p							
12	11,65	12,35	-	-								
14	13,65	14,35	-	-								
16	15,65	16,35	-	-								
18	17,65	18,35	-	-								
20	19,58	20,42	-	-	1,29							
22	21,58	22,42	-	-	1,43							
25	24,58	25,42	-	-	1,57	3,12	4,86					
28	27,58	28,42	-	-	1,74	3,41	5,25					
30	29,58	30,42	-	-	1,85	3,61	5,64	8,06	12,10			
35	34,50	35,50	-	-		4,04	6,42	9,13	13,60	18,20	44,60	42,13
40	39,50	40,50	-	-		4,53	7,20	10,20	15,10	20,30	35,00	49,10



Teknik Bilgiler / Technical Informations

Thread size Anma çapı	Product Grade				M3	M4	M5	M6	M7	M8	M10	M12
	A		B									
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p							
45	44,50	45,50	-	-		5,03	7,98	11,30	16,60	22,20	38,00	53,60
50	49,50	50,50	-	-		5,52	8,76	12,30	18,10	24,20	41,10	58,10
55	54,40	55,60	-	-		6,02	9,54	13,40	19,50	25,80	43,80	62,60
60	59,40	60,60	-	-		6,51	10,30	14,40	21,00	27,80	46,90	67,00
65	64,40	65,60	-	-		7,01	11,10	15,50	22,50	29,80	50,00	70,30
70	69,40	70,60	-	-		7,50	11,90	16,50	24,00	31,80	53,10	74,70
75	74,40	75,60	-	-			12,70	17,60	25,50	33,70	56,20	79,10
80	79,40	80,60	-	-			13,50	18,60	27,00	35,70	59,30	83,60
85	84,30	85,70	-	-				19,70	28,50	37,70	62,40	88,10
90	89,30	90,70	-	-				20,80	30,00	39,50	65,50	92,40
95	94,30	95,70	-	-				21,90	31,50	41,40	68,60	96,80
100	99,30	100,70	-	-				23,00	33,10	43,30	71,70	101,00
110	109,30	110,70	-	-				25,20		47,60	77,90	109,00
120	119,30	120,70	-	-				27,30		51,60	84,10	118,00
130	129,20	130,80	-	-				29,70		55,60	90,30	125,95
140	139,20	140,80	-	-				31,80		59,60	96,50	134,10
150	149,20	150,80	-	-				34,00		63,60	102,70	142,60
160	159,20	160,80	158,00	162,00								153,00
170	169,20	170,80	168,00	172,00								162,00
180	179,20	180,80	178,00	182,00								171,00
190	189,10	190,90	187,70	192,30								
200	199,10	200,90	197,70	202,30								182,00
220	-	-	217,70	222,30								207,00
240	-	-	237,70	242,30								
260	-	-	257,40	262,60								
280	-	-	277,40	282,60								
300	-	-	297,40	302,60								



Teknik Bilgiler / Technical Informations

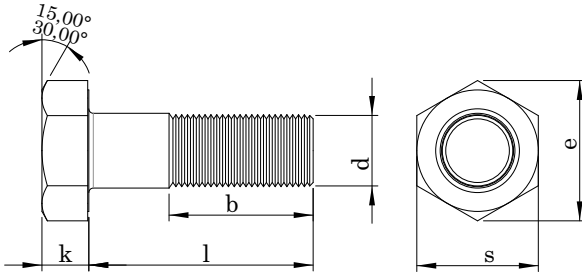
Thread size / Anma çapı (d)	M14	M16	M18	M20	M22			
Pitch / Diş adımı	P	2,00	2,00	2,50	2,50			
Head height / Kafa yüksekliği	Nominal size max.	8,80	10,00	11,50	12,50	14,00		
		A min.	8,62	9,82	11,28	12,28	13,78	
	A max.	8,98	10,18	11,72	12,72	14,22		
		B min.		9,71	11,15	12,15	13,65	
	B max.		10,29	11,85	12,85	14,35		
		Nominal size max.	22,00	24,00	27,00	30,00	32,00	
Head width / Anahtar ağızı	Product Grade	ş min.	A	21,67	23,67	26,67	29,67	31,61
			B		23,16	26,16	29,16	31,00
Diagonal / Köşegen e	Product Grade	min.	A	24,49	26,75	30,14	33,53	35,72
			B		26,17	29,56	32,95	35,03
Thread length / Diş uzunluğu		b ¹	34,00	38,00	42,00	46,00	50,00	
		b ²	40,00	44,00	48,00	52,00	56,00	
		b ³	53,00	57,00	63,00	65,00	69,00	

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

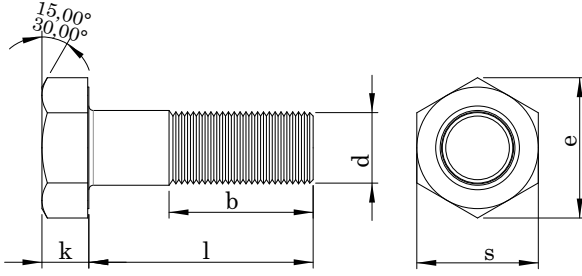
b³ for lengths > 200 mm.

Thread size Anma çapı	Product Grade				M14	M16	M18	M20	M22
	A		B						
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p				
12	11,65	12,35	-	-					
14	13,65	14,35	-	-					
16	15,65	16,35	-	-					
18	17,65	18,35	-	-					
20	19,58	20,42	-	-					
22	21,58	22,42	-	-					
25	24,58	25,42	-	-					
28	27,58	28,42	-	-					
30	29,58	30,42	-	-					
35	34,50	35,50	-	-					
40	39,50	40,50	-	-					
45	44,50	45,50	-	-		99,00			
50	49,50	50,50	-	-	82,00	107,00	141,00	185,00	



Teknik Bilgiler / Technical Informations

Thread size Anma çapı	Product Grade				M14	M16	M18	M20	M22
	A		B						
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p				
55	54,40	55,60			88,10	115,00	151,00	207,00	
60	59,40	60,60			94,10	123,00	161,00	219,00	
65	64,40	65,60			98,80	131,00	171,00	231,00	281,00
70	69,40	70,60			105,00	139,00	181,00	243,00	296,00
75	74,40	75,60			111,00	147,00	191,00	255,00	311,00
80	79,40	80,60			117,00	155,00	200,00	267,00	326,00
85	84,30	85,70			123,00	163,00	210,00	279,00	341,00
90	89,30	90,70			127,00	171,00	220,00	291,00	356,00
95	94,30	95,70			133,00	179,00	230,00	303,00	370,00
100	99,30	100,70			139,00	186,00	240,00	327,00	400,00
110	109,30	110,70			151,00	202,00	260,00	351,00	430,00
120	119,30	120,70			164,00	218,00	280,00	374,00	450,00
130	129,20	130,80			174,00	230,00	296,00	398,00	480,00
140	139,20	140,80			185,00	246,00	316,00	422,00	510,00
150	149,20	150,80			198,00	262,00	336,00	446,00	540,00
160	159,20	160,80	158,00	162,00	211,00	278,00	356,00	470,00	570,00
170	169,20	170,80	168,00	172,00	223,00	294,00	376,00	494,00	600,00
180	179,20	180,80	178,00	182,00	235,00	310,00	396,00	519,00	630,00
190	189,10	190,90	187,70	192,30	247,00	326,00	415,00	544,00	660,00
200	199,10	200,90	197,70	202,30	260,00	342,00	435,00	590,00	720,00
220			217,70	222,30		374,00		635,00	
240			237,70	242,30		406,00		680,00	
260			257,40	262,60					
280			277,40	282,60					
300			297,40	302,60					



Teknik Bilgiler / Technical Informations

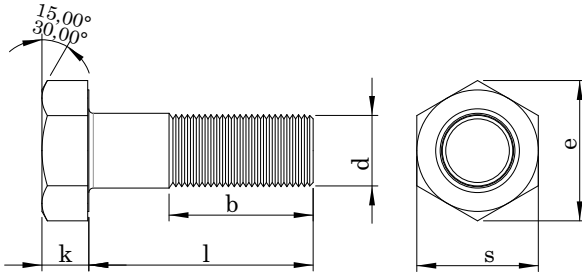
Thread size / Anma çapı (d)		M24	M27	M30	M33	M36	M39	
Pitch / Diş adımı	P	3,00	3,00	3,50	3,50	4,00	4,00	
	Nominal size max.	15,00	17,00	18,70	21,00	22,50	25,00	
Head height / Kafa yüksekliği	A	min.	14,78					
		max.	15,22					
	B	min.	14,65	16,65	18,28	20,58	22,08	24,58
		max.	15,35	17,35	19,12	21,42	22,92	25,42
	Nominal size max.	36,00	41,00	46,00	50,00	55,00	60,00	
Head width / Anahtar ağızı	Product Grade	s	A	35,38				
		min.	B	35,00	40,00	45,00	49,00	53,80
Diagonal / Köşegen e	Product Grade	min.	A	39,98				
		B	39,55	45,20	50,85	55,37	60,79	66,44
Thread length / Diş uzunluğu	b ¹	A	54,00	60,00	66,00	72,00	78,00	84,00
	b ²	B	60,00	66,00	72,00	78,00	84,00	90,00
	b ³		73,00	79,00	85,00	91,00	97,00	103,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

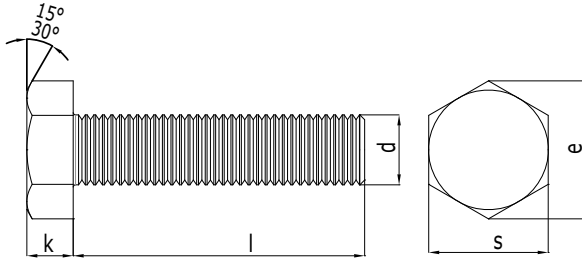
b³ for lengths > 200 mm.

Thread size Anma çapı	Product Grade				M24	M27	M30	M33	M36	M39
	A		B							
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p					
40	39,50	40,50	-	-						
45	44,50	45,50	-	-						
50	49,50	50,50	-	-						
55	54,40	55,60	-	-						
60	59,40	60,60	-	-						
65	64,40	65,60	-	-						
70	69,40	70,60	-	-						
75	74,40	75,60	-	-	364,00					
80	79,40	80,60	-	-	392,00	511,00				
85	84,30	85,70	-	-	410,00	534,00				
90	89,30	90,70	-	-	428,00	557,00	712,00			
95	94,30	95,70	-	-	446,00	580,00	739,00			



Teknik Bilgiler / Technical Informations

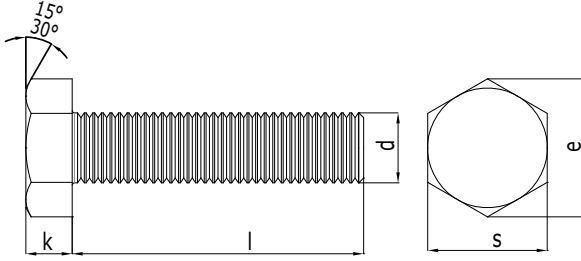
Thread size Anma çapı	Product Grade				M24	M27	M30	M33	M36	M39
	A		B							
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p					
100	99,30	100,70	-	-	464,00	603,00	767,00	951,00		
110	109,30	110,70	-	-	500,00	650,00	823,00	1020,00	1240,00	
120	119,30	120,70	-	-	535,00	695,00	880,00	1090,00	1320,00	1510,00
130	129,20	130,80	-	-	560,00	720,00	920,00	1150,00	1390,00	1580,00
140	139,20	140,80	-	-	595,00	765,00	975,00	1220,00	1470,00	1660,00
150	149,20	150,80	-	-	630,00	810,00	1030,00	1290,00	1550,00	1740,00
160	159,20	160,80	158,00	162,00	665,00	855,00	1085,00	1350,00	1630,00	1830,00
170	169,20	170,80	168,00	172,00	700,00	900,00	1140,00	1410,00	1710,00	1920,00
180	179,20	180,80	178,00	182,00	735,00	945,00	1200,00	1480,00	1790,00	2010,00
190	189,10	190,90	187,70	192,30	770,00	990,00	1250,00	1540,00	1870,00	2100,00
200	199,10	200,90	197,70	202,30	805,00	1030,00	1310,00	1610,00	1950,00	2200,00
220	-	-	217,70	222,30	870,00	1130,00	1420,00	1750,00	2110,00	2410,00
240	-	-	237,70	242,30	935,00	1220,00	1530,00	1880,00	2270,00	2600,00
260	-	-	257,40	262,60	1000,00	1310,00	1640,00	2020,00	2430,00	2800,00
280	-	-	277,40	282,60	1080,00		1750,00	2150,00	2590,00	3010,00
300	-	-	297,40	302,60	1150,00		1860,00	2290,00	2750,00	3210,00



Teknik Bilgiler / Technical Informations

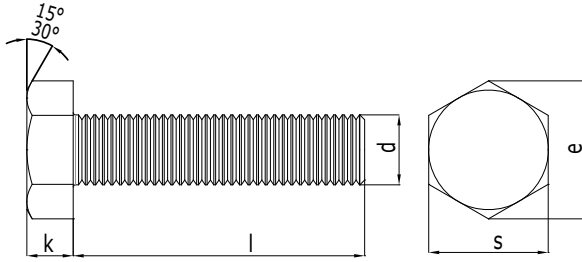
Thread size / Anma çapı (d)	M5	M6	M7	M8	M10			
Pitch / Diş adımı	P	0,80	1,00	1,00	1,25	1,50		
	Nominal	3,50	4,00	4,80	5,30	6,40		
Head height / Kafa yüksekliği	k	A	min.	3,35	3,85	4,65	5,15	6,22
			max.	3,65	4,15	4,95	5,45	6,56
		B	min.	3,26	3,76	4,56	4,06	6,11
			max.	3,74	4,24	5,04	5,54	6,69
Head width / Anahtar ağızı	s	A	max.	7,78	9,78	10,73	12,73	16,73
			min.	7,64	9,64	10,57	12,57	16,57
		Nominal		8,00	10,00	11,00	13,00	17,00
Diagonal / Köşegen	e	A	max.	8,79	11,05	12,12	14,38	18,90
			min.	8,63	10,89	11,94	14,20	18,72

Thread size Anma çapı	A		B		M5	M6	M7	M8	M10
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p				
10	9,71	10,29	-	-	2,63	4,08	6,35	9,10	16,20
12	11,65	12,35	-	-	2,87	4,42	6,85	9,80	17,20
14	13,65	14,35	-	-	3,12	4,76	7,35	10,50	18,20
16	15,65	16,35	-	-	3,37	5,11	7,85	11,10	19,20
18	17,65	18,35	-	-	3,62	5,45	8,35	11,70	20,20
20	19,58	20,42	-	-	3,87	5,80	8,85	12,30	21,20
22	21,58	22,42	-	-	4,12	6,15	9,35	12,90	22,20
25	24,58	25,42	-	-	4,49	6,65	10,00	13,90	23,70
28	27,58	28,42	-	-	4,86	7,15	10,70	14,90	25,20
30	29,58	30,42	-	-	5,11	7,51	11,30	15,50	26,20
35	34,50	35,50	-	-	5,73	8,37	12,50	17,10	28,70
40	39,50	40,50	-	-	6,35	9,23	13,80	18,70	31,20
45	44,50	45,50	43,75	46,25	6,99	10,10	15,00	20,30	33,70
50	49,50	50,50	48,75	51,25	7,59	11,00	16,30	21,80	36,20
55	54,40	55,60	53,50	56,50	8,21	11,90	17,50	23,40	38,70
60	59,40	60,60	58,50	61,50	8,83	12,70	18,70	25,00	41,30



Teknik Bilgiler / Technical Informations

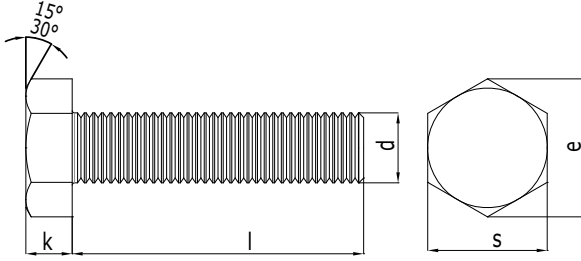
Thread size Anma çapı	A		B		M5	M6	M7	M8	M10
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p				
65	64,40	65,60	63,50	66,50	9,45	13,60	20,00	26,60	43,80
70	69,40	70,60	68,50	71,50	10,10	14,40	21,20	28,20	46,30
75	74,40	75,60	73,50	76,50	10,70	15,30	22,50	29,80	48,80
80	79,40	80,60	78,50	81,50	11,30	16,20	23,70	31,40	51,30
85	84,30	85,70	83,25	86,75			25,00	33,00	53,80
90	89,30	90,70	88,25	91,75			26,20	34,60	56,30
95	94,30	95,70	93,25	96,75			27,50	35,20	59,80
100	99,30	100,70	98,25	101,75			28,70	37,70	61,30
110	109,30	110,70	108,25	111,75				40,90	66,40
120	119,30	120,70	118,25	121,75					71,40
130	129,20	130,80	128,00	132,00					76,40
140	139,20	140,80	138,00	142,00					81,40
150	149,20	150,80	148,00	152,00					86,40
160	159,20	160,80	158,00	162,00					
170	169,20	170,80	168,00	172,00					
180	179,20	180,80	178,00	182,00					
190	189,08	190,92	187,70	192,30					
200	199,08	200,92	197,70	202,30					



Teknik Bilgiler / Technical Informations

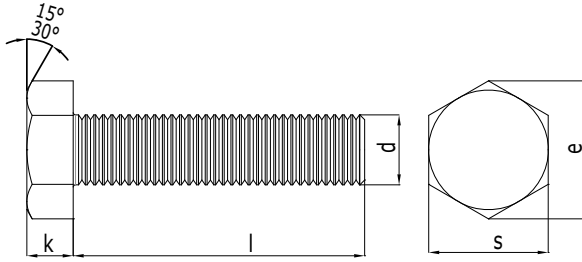
Thread size / Anma çapı (d)		M12	M14	M16	M18	M20		
Pitch / Diş adımı	P	1,75	2,00	2,00	2,50	2,50		
	Nominal	7,50	8,80	10,00	11,50	12,50		
Head height / Kafa yüksekliği	k	A	min.	7,32	8,62	9,82	11,28	12,28
			max.	7,68	8,98	10,18	11,72	12,72
	B	min.	7,21	8,51	9,71	11,15	12,15	
		max.	7,79	9,09	10,29	11,85	12,85	
Head width / Anahtar ağızı	s	A	max.	18,67	21,67	23,67	26,67	29,67
		B	min.	18,48	21,16	23,16	26,15	29,16
	Nominal	19,00	22,00	24,00	27,00	30,00		
Diagonal / Köşegen	e	A	max.	21,10	24,49	26,75	30,14	33,53
		B	min.	20,88	23,91	26,17	29,56	32,95

Thread size Anma çapı	A		B		M12	M14	M16	M18	M20
	min.	max.	min.	max.					
Length Boy					Weight /Ağırlık gr/p				
10	9,71	10,29	-	-	23,30	38,00			
12	11,65	12,35	-	-	25,00	40,00	52,90		
14	13,65	14,35	-	-	26,40	42,00	55,60		
16	15,65	16,35	-	-	27,70	44,00	58,30	82,00	105,00
18	17,65	18,35	-	-	29,10	46,00	60,90	84,90	110,00
20	19,58	20,42	-	-	31,00	48,00	63,50	87,20	114,00
22	21,58	22,42	-	-	33,00	50,00	66,20	92,20	119,00
25	24,58	25,42	-	-	34,10	53,00	70,20	95,80	124,00
28	27,58	28,42	-	-	36,20	55,90	74,20	100,00	129,00
30	29,58	30,42	-	-	37,70	57,90	76,90	104,00	134,00
35	34,50	35,50	-	-	41,30	62,90	83,50	112,00	145,00
40	39,50	40,50	-	-	44,90	67,90	90,20	120,00	155,00
45	44,50	45,50	43,75	46,25	48,50	72,90	97,10	128,00	165,00
50	49,50	50,50	48,75	51,25	52,00	77,90	103,00	136,00	176,00
55	54,40	55,60	53,50	56,50	55,60	82,80	110,00	145,00	186,00
60	59,40	60,60	58,50	61,50	58,20	87,80	117,00	153,00	196,00



Teknik Bilgiler / Technical Informations

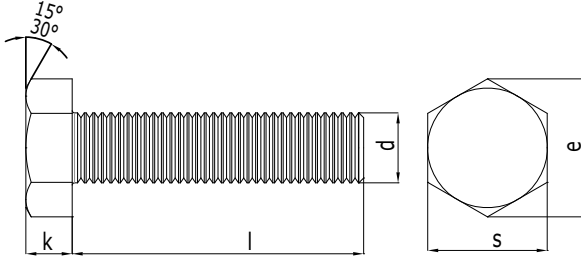
Thread size Anma çapı	A		B		M12	M14	M16	M18	M20
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p				
65	64,40	65,60	63,50	66,50	62,80	92,80	123,00	161,00	207,00
70	69,40	70,60	68,50	71,50	66,40	97,90	130,00	169,00	217,00
75	74,40	75,60	73,50	76,50	70,00	102,00	137,00	177,00	227,00
80	79,40	80,60	78,50	81,50	73,60	107,00	144,00	186,00	238,00
85	84,30	85,70	83,25	86,75	77,20	112,00	150,00	194,00	247,00
90	89,30	90,70	88,25	91,75	80,80	117,00	157,00	202,00	258,00
95	94,30	95,70	93,25	96,75	84,40	122,00	164,00	210,00	268,00
100	99,30	100,70	98,25	101,75	88,00	127,00	170,00	218,00	279,00
110	109,30	110,70	108,25	111,75	95,20	137,00	184,00	235,00	300,00
120	119,30	120,70	118,25	121,75	102,00	147,00	197,00	251,00	320,00
130	129,20	130,80	128,00	132,00	109,00	157,00	210,00	268,00	340,00
140	139,20	140,80	138,00	142,00	116,00	167,00	224,00	284,00	361,00
150	149,20	150,80	148,00	152,00	123,00	177,00	237,00	300,00	381,00
160	159,20	160,80	158,00	162,00				316,00	402,00
170	169,20	170,80	168,00	172,00				332,00	422,00
180	179,20	180,80	178,00	182,00				348,00	442,00
190	189,08	190,92	187,70	192,30				364,00	462,00
200	199,08	200,92	197,70	202,30				380,00	484,00



Teknik Bilgiler / Technical Informations

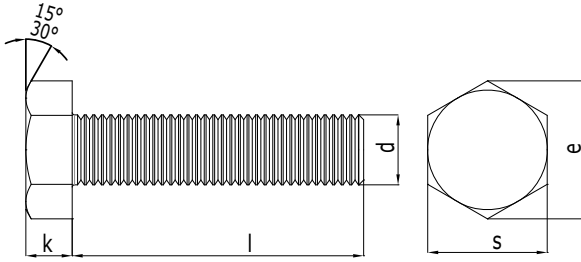
Thread size / Anma çapı (d)		M22	M24	M27	M30		
Pitch / Diş adımı	P	2,50	3,00	3,00	3,50		
	Nominal	14,00	15,00	17,00	18,70		
Head height / Kafa yüksekliği	k	A	min.	13,78	14,78	-	-
			max.	14,22	15,22	-	-
		B	min.	13,65	14,65	16,65	18,28
			max.	14,35	15,35	17,35	19,12
Head width / Anahtar ağızı	s	A	max.	31,61	35,38	-	-
			min.	31,00	35,00	40,00	45,00
		Nominal		32,00	36,00	41,00	46,00
Diagonal / Köşegen	e	A	max.	35,72	39,98	-	-
			min.	35,03	39,55	45,20	50,85

Thread size Anma çapı	A		B		M22	M24	M27	M30
	min.	max.	min.	max.				
Length Boy (l)	Weight /Ağırlık gr/p							
10	9,71	10,29	-	-				
12	11,65	12,35	-	-				
14	13,65	14,35	-	-				
16	15,65	16,35	-	-	133,00	173,00		
18	17,65	18,35	-	-	137,00	178,00		
20	19,58	20,42	-	-	143,00	184,00		
22	21,58	22,42	-	-	148,00	190,00	269,00	
25	24,58	25,42	-	-	155,00	199,00	280,00	
28	27,58	28,42	-	-	161,00	200,00	292,00	
30	29,58	30,42	-	-	168,00	214,00	310,00	
35	34,50	35,50	-	-	181,00	229,00	319,00	424,00
40	39,50	40,50	-	-	193,00	244,00	338,00	448,00
45	44,50	45,50	43,75	46,25	206,00	259,00	358,00	472,00
50	49,50	50,50	48,75	51,25	219,00	274,00	377,00	496,00
55	54,40	55,60	53,50	56,50	232,00	289,00	397,00	519,00
60	59,40	60,60	58,50	61,50	244,00	304,00	416,00	543,00



Teknik Bilgiler / Technical Informations

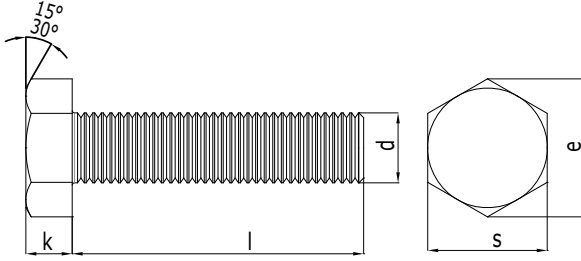
Thread size Anma çapı	A		B		M22	M24	M27	M30
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p			
65	64,40	65,60	63,50	66,50	257,00	319,00	435,00	566,00
70	69,40	70,60	68,50	71,50	269,00	334,00	454,00	590,00
75	74,40	75,60	73,50	76,50	282,00	348,00	473,00	614,00
80	79,40	80,60	78,50	81,50	295,00	363,00	492,00	637,00
85	84,30	85,70	83,25	86,75	308,00	378,00	512,00	661,00
90	89,30	90,70	88,25	91,75	321,00	393,00	531,00	685,00
95	94,30	95,70	93,25	96,75	333,00	408,00	550,00	708,00
100	99,30	100,70	98,25	101,75	346,00	423,00	569,00	732,00
110	109,30	110,70	108,25	111,75	371,00	453,00	608,00	779,00
120	119,30	120,70	118,25	121,75	397,00	483,00	647,00	827,00
130	129,20	130,80	128,00	132,00	421,00	513,00	685,00	874,00
140	139,20	140,80	138,00	142,00	448,00	543,00	724,00	921,00
150	149,20	150,80	148,00	152,00	473,00	572,00	762,00	969,00
160	159,20	160,80	158,00	162,00	498,00	602,00	801,00	1010,00
170	169,20	170,80	168,00	172,00	523,00	632,00	839,00	1060,00
180	179,20	180,80	178,00	182,00	548,00	662,00	875,00	1110,00
190	189,08	190,92	187,70	192,30	573,00	692,00	911,00	1160,00
200	199,08	200,92	197,70	202,30	598,00	722,00	947,00	1210,00



Teknik Bilgiler / Technical Informations

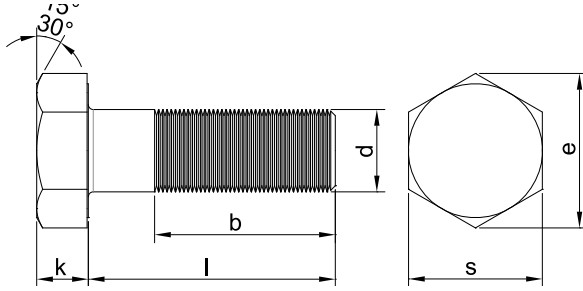
Thread size / Anma çapı (d)		M33	M36	M39
Pitch / Diş adımı	P	3,50	4,00	4,00
	Nominal	21,00	22,50	25,00
Head height / Kafa yüksekliği k	A min.			
	A max.			
	B min.	20,58	22,08	24,58
	B max.	21,42	22,92	25,42
Head width / Anahtar ağızı s	A min.			
	A min.	49,00	53,80	58,80
	B min.			
	Nominal max.	50,00	55,00	60,00
Diagonal / Köşegen e	A min.			
	B min.	55,37	60,79	66,44

Thread size Anma çapı	A		B		M33	M36	M39
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p		
10	9,71	10,29	-	-			
12	11,65	12,35	-	-			
14	13,65	14,35	-	-			
16	15,65	16,35	-	-			
18	17,65	18,35	-	-			
20	19,58	20,42	-	-			
22	21,58	22,42	-	-			
25	24,58	25,42	-	-			
28	27,58	28,42	-	-			
30	29,58	30,42	-	-			
35	34,50	35,50	-	-	543,00	670,00	869,00
40	39,50	40,50	-	-	572,00	714,00	910,00
45	44,50	45,50	43,75	46,25	601,00	748,00	951,00
50	49,50	50,50	48,75	51,25	630,00	783,00	992,00
55	54,40	55,60	53,50	56,50	659,00	817,00	1030,00
60	59,40	60,60	58,50	61,50	688,00	851,00	1070,00



Teknik Bilgiler / Technical Informations

Thread size Anma çapı	A		B		M33	M36	M39
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p		
65	64,40	65,60	63,50	66,50	717,00	886,00	1110,00
70	69,40	70,60	68,50	71,50	746,00	910,00	1160,00
75	74,40	75,60	73,50	76,50	775,00	950,00	1200,00
80	79,40	80,60	78,50	81,50	806,00	990,00	1240,00
85	84,30	85,70	83,25	86,75	837,00	1020,00	1280,00
90	89,30	90,70	88,25	91,75	866,00	1060,00	1320,00
95	94,30	95,70	93,25	96,75	891,00	1100,00	1360,00
100	99,30	100,70	98,25	101,75	920,00	1140,00	1400,00
110	109,30	110,70	108,25	111,75	978,00	1200,00	1480,00
120	119,30	120,70	118,25	121,75	1040,00	1260,00	1560,00
130	129,20	130,80	128,00	132,00	1090,00	1330,00	1650,00
140	139,20	140,80	138,00	142,00	1150,00	1400,00	1730,00
150	149,20	150,80	148,00	152,00	1210,00	1470,00	1810,00
160	159,20	160,80	158,00	162,00	1270,00	1540,00	1890,00
170	169,20	170,80	168,00	172,00	1330,00	1610,00	1970,00
180	179,20	180,80	178,00	182,00	1390,00	1680,00	2050,00
190	189,08	190,92	187,70	192,30	1440,00	1740,00	2140,00
200	199,08	200,92	197,70	202,30	1500,00	1810,00	2220,00



Teknik Bilgiler / Technical Informations

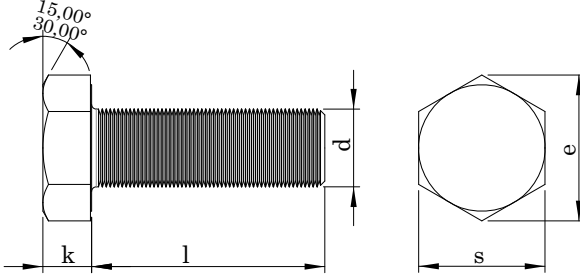
Thread size / Anma çapı (d)		M8	M10	M12	M14	M16	M18	M20
Pitch / Diş adımı	P	1,00	1,25	1,50	1,50	1,50	1,50	1,50
	Nominal	5,30	6,40	7,50	8,80	10,00	11,50	12,50
Head height / Kafa yüksekliği	k	min. 5,14	6,22	7,32	8,62	9,82	11,29	12,29
		max. 5,45	6,58	7,68	8,98	10,18	11,72	12,72
Head width / Anahtar ağızı	s	min. 12,73	16,73	18,73	21,67	23,67	26,67	29,67
		max. 13,00	17,00	19,00	22,00	24,00	27,00	30,00
Diagonal / Köşegen	e	min. 14,38	18,90	21,10	24,49	26,75	30,14	33,53
		max. 14,38	18,90	21,10	24,49	26,75	30,14	33,53
Thread length / Diş uzunluğu	b ¹	22,00	26,00	30,00	34,00	38,00	42,00	46,00
	b ²	28,00	32,00	36,00	40,00	44,00	48,00	52,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size Anma çapı	min.	max.	M8	M10	M12	M14	M16	M18	M20
			Weight / Ağırlık gr/p						
Length Boy (l)									
30	29,58	30,42	17,10						
35	34,50	35,50	19,10	33,20	46,40				
40	39,50	40,50	21,10	36,30	50,80				
45	44,50	45,50	23,00	39,40	55,20	78,90	103,00		
50	49,50	50,50	25,00	42,50	59,60	84,50	111,00		
55	54,40	55,60	27,00	45,50	64,00	90,10	119,00	159,00	
60	59,40	60,60	28,90	48,60	68,40	95,70	127,00	169,00	215,00
65	64,40	65,60	30,90	51,70	72,80	101,00	135,00	179,00	228,00
70	69,40	70,60	32,90	54,70	77,20	107,00	143,00	189,00	240,00
75	74,40	75,60	34,80	57,80	81,60	112,00	151,00	199,00	253,00
80	79,40	80,60	36,80	60,90	86,00	118,00	159,00	209,00	265,00
85	84,30	85,70	38,80	63,90	90,40	123,00	167,00	219,00	277,00
90	89,30	90,70	40,70	68,00	94,80	129,00	175,00	229,00	290,00
95	94,30	95,70	42,70	71,10	99,20	134,00	183,00	239,00	302,00
100	99,30	100,70	44,70	74,20	104,00	140,00	191,00	249,00	314,00
110	109,30	110,70	48,60	80,30	113,00	152,00	217,00	269,00	339,00
120	119,30	120,70	52,70	86,40	122,00	164,00	233,00	289,00	363,00
130	129,20	130,80	54,00	92,50	131,00	176,00	249,00	308,00	387,00
140	139,20	140,80	58,00	98,60	140,00	188,00	265,00	328,00	412,00
150	149,20	150,80	62,00	105,00	149,00	200,00	281,00	348,00	437,00
160	159,20	160,80		111,00	158,00	212,00	296,00	368,00	461,00
170	169,20	170,80			167,00	224,00	312,00	388,00	486,00
180	179,20	180,80			176,00	236,00	328,00	408,00	510,00
190	189,10	190,90				248,00	344,00	428,00	535,00
200	199,10	200,90				260,00	360,00	448,00	560,00



Teknik Bilgiler / Technical Informations

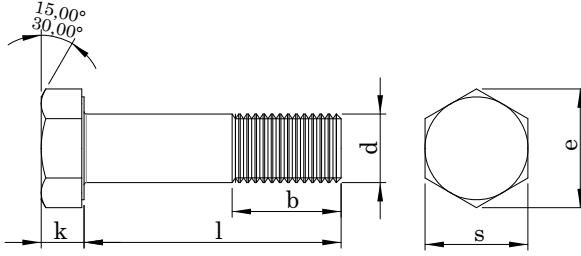
Thread size / Anma çapı (d)	M8	M10	M12	M14	M16	M18	M20
Pitch / Diş adımı P	1,00	1,00 1,25	1,50 1,25	1,50	1,50	1,50	1,50 2,00
Nominal	5,30	6,40	7,50	8,80	10,00	11,50	12,50
Head height / Kafa yüksekliği k	min. 5,15 max. 5,45	min. 6,22 max. 6,58	min. 7,32 max. 7,68	min. 8,62 max. 8,98	min. 9,82 max. 10,18	min. 11,29 max. 11,72	min. 12,29 max. 12,72
Head width / Anahtar ağız s	min. 12,73 max. 13,00	min. 15,73 max. 17,00	min. 17,73 max. 19,00	min. 20,67 max. 22,00	min. 23,67 max. 24,00	min. 26,67 max. 27,00	min. 29,67 max. 30,00
Diagonal / Köşegen e	min. 14,38	min. 18,90	min. 21,10	min. 24,49	min. 26,75	min. 30,14	min. 33,53

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size Anma çapı	min.	max.	M8	M10	M12	M14	M16	M18	M20
			Weight /Ağırlık gr/p						
Length Boy (l)									
20	19,58	20,42	12,40	23,50	32,90	48,70	64,50	90,00	118,00
25	24,58	25,42	14,10	26,20	36,60	54,00	71,50	98,50	128,00
30	29,58	30,42	15,70	28,90	40,30	59,10	78,50	107,00	139,00
35	34,50	35,50	17,40	31,60	44,00	64,40	85,30	116,00	151,00
40	39,50	40,50	19,10	34,30	47,70	69,60	92,30	124,00	162,00
45	44,50	45,50	20,70	36,90	51,40	74,90	99,00	133,00	172,00
50	49,50	50,50	22,30	39,60	55,00	80,20	106,00	142,00	184,00
55	54,40	55,60	24,00	42,30	58,70	85,40	113,00	151,00	195,00
60	59,40	60,60	25,70	45,10	62,40	90,60	120,00	160,00	207,00
70	69,40	70,60	29,00	50,50	70,00	101,00	134,00	177,00	228,00
80	79,40	80,60	32,30	55,80	77,40	111,00	148,00	195,00	251,00
90	89,30	90,70	35,70	61,20	84,80	122,00	162,00	212,00	272,00
100	99,30	100,70	38,90	66,70	92,20	133,00	176,00	229,00	295,00
110	109,30	110,70	42,40	72,20	99,20	144,00	190,00	247,00	317,00
120	119,30	120,70	45,90	77,50	107,00	154,00	204,00	265,00	339,00
130	129,20	130,80		79,90	114,00	165,00	218,00	283,00	361,00
140	139,20	140,80		88,30	121,00	175,00	232,00	300,00	383,00
150	149,20	150,80		93,60	128,00	186,00	245,00	318,00	405,00



Teknik Bilgiler / Technical Informations

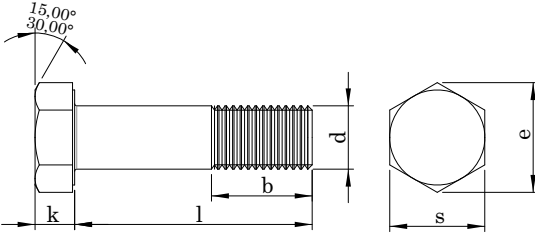
Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30	M36
Pitch / Diş adımı p	1,75	2,00	2,50	2,50	3,00	3,00	3,50	4,00
Head height / Kafa yüksekliği k	min.	7,55	9,25	12,10	13,10	14,10	16,10	17,95
	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05
Head width / Anahtar ağı s	min.	21,60	26,16	31,00	35,00	40,00	45,00	49,00
	max.	22,00	27,00	32,00	36,00	41,00	46,00	50,00
Diagonal / Köşegen e	min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37
	b ¹	21,00	26,00	31,00	32,00	34,00	37,00	40,00
Thread length / Diş uzunluğu b ²	23,00	28,00	33,00	34,00	37,00	39,00	42,00	50,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size Anma çapı	min.	max.	M12	M16	M20	M22	M24	M27	M30	M36
			Weight /Ağırlık gr/p							
Length Boy (l)										
30	28,95	31,05	49,10							
35	33,75	36,25	53,60							
40	38,75	41,25	58,00	105,00						
45	43,75	46,25	62,10	113,00	188,00					
50	48,75	51,25	66,60	121,00	200,00	257,00				
55	53,50	56,50	71,00	129,00	212,00	272,00				
60	58,50	61,50	75,40	137,00	225,00	286,00	362,00			
65	63,50	66,50	79,90	145,00	237,00	301,00	380,00			
70	68,50	71,50	84,30	153,00	249,00	316,00	398,00	532,00		
75	73,50	76,50	88,80	160,00	262,00	331,00	415,00	554,00	701,00	
80	78,50	81,50	93,20	168,00	274,00	346,00	433,00	576,00	728,00	
85	83,25	86,75	97,60	176,00	286,00	361,00	451,00	599,00	756,00	1184,00
90	88,25	91,75	102,00	184,00	298,00	375,00	467,00	621,00	784,00	1224,00
95	93,25	96,75	107,00	192,00	310,00	390,00	485,00	644,00	812,00	1264,00
100	98,25	101,75		199,00	322,00	405,00	503,00	665,00	838,00	1304,00
105	103,25	106,75		207,00	335,00	420,00	520,00	688,00	865,00	1336,00



Teknik Bilgiler / Technical Informations

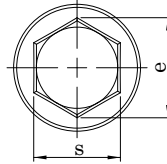
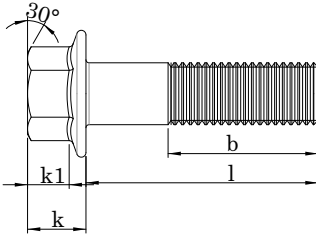
Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30	M36
Pitch / Diş adımı P	1,75	2,00	2,50	2,50	3,00	3,00	3,50	4,00
Head height / Kafa yüksekliği k	min.	7,55	9,25	12,10	13,10	14,10	16,10	17,95
	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05
Head width / Anahtar ağız s	max.	22,00	27,00	32,00	36,00	41,00	46,00	50,00
	min.	21,60	26,16	31,00	35,00	40,00	45,00	49,00
Diagonal / Köşegen e	min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37
Thread length / Diş uzunluğu	b ¹	21,00	26,00	31,00	32,00	34,00	37,00	40,00
	b ²	23,00	28,00	33,00	34,00	37,00	39,00	50,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)			M12	M16	M20	M22	M24	M27	M30	M36
Length / Boy	min.	max.	Weight / Ağırlık gr/p							
	110	108,25	111,75	215,00	347,00	435,00	538,00	710,00	893,00	1376,00
115	113,25	116,75	223,00	359,00	450,00	556,00	732,00	921,00	1415,00	
120	118,25	121,75	231,00	372,00	465,00	574,00	755,00	949,00	1455,00	
125	123,00	127,00	239,00	384,00	479,00	591,00	777,00	976,00	1495,00	
130	128,00	132,00	247,00	396,00	494,00	609,00	800,00	1004,00	1535,00	
135	133,00	137,00		409,00	509,00	627,00	822,00	1032,00	1575,00	
140	138,00	142,00		421,00	524,00	645,00	845,00	1059,00	1615,00	
145	143,00	147,00		433,00	539,00	662,00	867,00	1087,00	1655,00	
150	148,00	152,00		446,00	554,00	680,00	890,00	1115,00	1695,00	
155	151,00	159,00		458,00	569,00	698,00	912,00	1143,00	1735,00	
160	156,00	164,00			584,00	716,00	935,00	1170,00	1775,00	
165	161,00	169,00			599,00	733,00	957,00	1198,00	1815,00	
170	166,00	174,00				751,00	979,00	1226,00	1855,00	
175	171,00	179,00				769,00	1002,00	1254,00	1895,00	
180	176,00	184,00				787,00	1024,00	1281,00	1935,00	
185	180,40	189,60				804,00	1047,00	1309,00	1974,00	
190	185,40	194,60				822,00	1069,00	1337,00	2014,00	
195	190,40	199,60				840,00	1092,00	1365,00	2054,00	
200	195,40	204,60					1114,00	1392,00	2094,00	



Teknik Bilgiler / Technical Informations

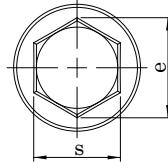
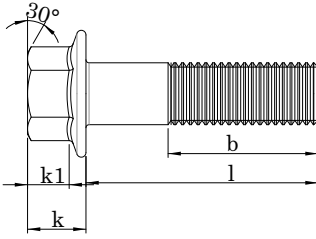
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,00
Flange dia / Flanş çapı	dc	11,80	14,20	18,00	22,30	26,60	30,50	35,00
Flange heigth / Flanş yüksekliği	c	1,00	1,10	1,20	1,50	1,80	2,10	2,40
Head height / Kafa yüksekliği	k	5,40	6,60	8,10	9,20	11,50	12,80	14,40
	k1	2,00	2,50	3,20	3,60	4,60	5,10	5,80
Head width / Anahtar ağızı	s ^{min.}	7,78	9,78	12,73	14,73	15,73	17,73	20,67
	s ^{max.}	8,00	10,00	13,00	15,00	16,00	18,00	21,00
Diagonal / Köşegen	e	8,71	10,95	14,26	16,50	17,62	19,86	23,15
Thread length / Diş uzunluğu	b ₁	16,00	18,00	22,00	36,00	30,00	34,00	38,00
	b ₂	-	-	28,00	32,00	36,00	40,00	44,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Length / Boy	min.							
	max.							
		Weight / Ağırlık gr/p						
10	9,71	10,29	3,22					
12	11,65	12,35	3,46	6,94	13,76	24,04		
16	15,65	16,35	3,94	7,62	15,01	26,01		
20	19,58	20,42	4,42	8,30	16,25	27,97	44,35	
25	24,58	25,42	5,25	9,16	17,80	30,42	47,90	66,13
30	29,58	30,42	6,00	10,50	19,36	32,88	51,46	71,01
35	34,50	35,50	6,74	11,58	21,77	35,33	55,02	75,89
40	39,50	40,50	7,48	12,65	23,68	39,18	58,57	80,76
45	44,50	45,50	8,23	13,73	25,60	42,20	64,20	85,64
50	49,50	50,50	8,97	14,80	27,52	45,21	68,54	93,45
55	54,40	55,60	9,71	15,88	29,44	48,23	72,87	99,37
60	59,40	60,60	10,46	16,96	31,36	51,24	77,21	105,30
65	64,40	65,60	11,20	18,03	33,27	54,25	81,55	111,20



Teknik Bilgiler / Technical Informations

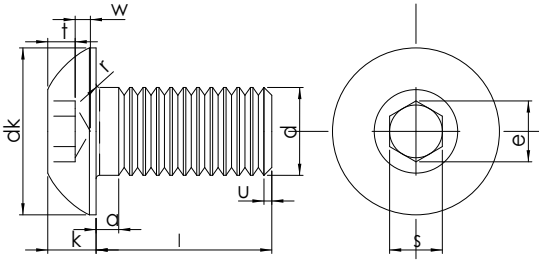
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,00
Flange dia / Flanş çapı	dc	11,80	14,20	18,00	22,30	26,60	30,50	35,00
Flange heigth / Flanş yüksekliği	c	1,00	1,10	1,20	1,50	1,80	2,10	2,40
Head height / Kafa yüksekliği	k	5,40	6,60	8,10	9,20	11,50	12,80	14,40
	k1	2,00	2,50	3,20	3,60	4,60	5,10	5,80
Head width / Anahtar ağızı	s ^{min.}	7,78	9,78	12,73	14,73	15,73	17,73	20,67
	s ^{max.}	8,00	10,00	13,00	15,00	16,00	18,00	21,00
Diagonal / Köşegen	e	8,71	10,95	14,26	16,50	17,62	19,86	23,15
Thread length / Diş uzunluğu	b ₁	16,00	18,00	22,00	36,00	30,00	34,00	38,00
	b ₂	-	-	28,00	32,00	36,00	40,00	44,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

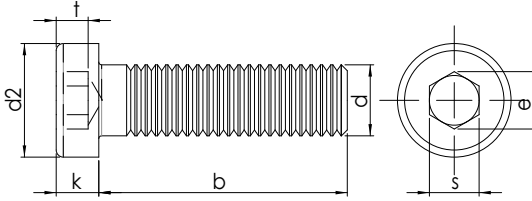
Thread size / Anma çapı (d)			M5	M6	M8	M10	M12	M14	M16
Length / Boy	min.	max.	Weight / Ağırlık gr/p						
	70	69,40	70,60	11,94	19,11	35,19	57,27	85,89	117,10
80	79,40	80,60	13,43	21,26	39,03	63,29	94,56	129,00	166,00
90	89,30	90,70		23,41	42,87	69,32	103,20	140,80	181,10
100	99,30	100,70		25,57	46,70	75,35	111,90	152,70	197,00
110	109,30	110,70				81,38	120,60	164,50	212,00
120	119,30	120,70				87,40	129,30	176,40	228,00
130	129,20	130,80				92,76	137,00	187,00	242,00
140	139,20	140,80					145,70	198,80	257,00
150	149,20	150,80						210,70	273,00
160	159,20	160,80							
180	179,20	180,80							
200	199,00	201,00							



Teknik Bilgiler / Technical Informations

Thread size (d)		M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
P1	max.	1,00	1,40	1,60	2,00	2,50	3,00	3,50	4,00
	min.	0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00
a	max.	5,70	7,60	9,50	10,50	14,00	17,50	21,00	28,00
	min.	5,40	7,24	9,14	10,07	13,57	17,07	20,48	27,48
dk	min.	5,40	7,24	9,14	10,07	13,57	17,07	20,48	27,48
e2	max.	2,30	2,87	3,44	4,58	5,72	6,86	9,15	11,43
	min.	1,65	2,20	2,75	3,30	4,40	5,50	6,60	8,80
k	max.	1,40	1,95	2,50	3,00	4,10	5,20	6,24	8,44
	min.	0,10	0,20	0,20	0,25	0,40	0,40	0,60	0,60
r	min.	2,00	2,50	3,00	4,00	5,00	6,00	8,00	10,00
	max.	2,05	2,56	3,07	4,08	5,08	6,10	8,12	10,12
s3	min.	2,02	2,52	3,02	4,02	5,02	6,02	8,03	10,03
	max.	1,04	1,30	1,56	2,08	2,60	3,12	4,16	5,20
W	min.	0,20	0,30	0,38	0,74	1,05	1,45	1,63	2,25

Nominal /Length	min.	max.	M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
			Weight / Ağırlık gr/p							
10	9,71	10,29	1,00	1,20	2,08					
12	11,65	12,35	1,10	1,40	2,32	3,52	7,10			
(14) ⁵⁾	13,65	14,35								
16	15,65	16,35	1,20	1,57	2,80	4,20	8,34	14,62		
(18)	17,65	18,35								
20	19,58	20,42	1,40	2,00	3,28	4,88	9,58	16,57	27,86	
(22)	21,58	22,42								
25	24,58	25,42	1,60	2,30	3,87	5,73	11,14	19,01	31,42	
30	29,58	30,42	1,80	2,60	4,47	6,58	12,69	21,45	34,98	
35	34,50	35,50		2,91	5,61	8,02	14,24	23,89	38,54	
40	39,50	40,50		3,23	6,38	9,09	15,80	26,33	42,11	
45	44,50	45,50			7,15	10,17	16,63	27,34	45,67	
50	49,50	50,50			7,92	11,25	18,55	30,35	49,23	
55	54,40	55,60					20,47	33,36	48,57	
60	59,40	60,60					22,38			
65	64,40	65,60					24,30	36,38	52,90	
70	69,40	70,60					26,22			
75	74,40	75,60					28,14	42,41	61,57	
80	79,40	80,60					30,06	48,43	70,24	
85	84,30	85,70						51,45	74,57	
90	89,30	90,70							78,91	
95	94,30	95,70								
100	99,30	100,70								

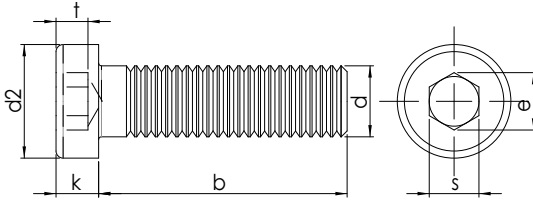


Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	M14
Pitch / Diş adımı	P	0.50	0.70	0.80	1.00	1.25	1.50	1.75	2.00
Head height / Kafa Yüksekliği	k	1,86	2,66	3,32	3,82	4,82	5,82	6,78	7,78
	min. max.	2,00	2,80	3,50	4,00	5,00	6,00	7,00	8,00
Head dia / Kafa çapı	d2	5,32	6,78	8,28	9,78	12,73	15,73	17,73	20,67
	min. max.	5,50	7,00	8,50	10,00	13,00	16,00	18,00	21,00
Socket width / Soket genişliği	s	2,00	2,50	3,00	4,00	5,00	7,00	8,00	10,00
	min. max.	2,02	2,52	3,02	4,02	5,02	7,03	8,03	10,03
Socket dia / Soket çapı	e	2,30	2,87	3,44	4,58	5,72	8,01	9,15	11,43
	min. max.	2,30	2,87	3,44	4,58	5,72	8,01	9,15	11,43
Socket depth / Soket derinliği	t	1,50	2,30	2,70	3,00	3,80	4,50	5,00	5,30
	min. max.	1,38	2,18	2,58	2,88	3,65	4,35	4,85	5,15
Thread length / Diş uzunluğu	b ₁	12,00	14,00	16,00	18,00	22,00	26,00	30,00	34,00
	b ₂ b ₃					28,00	32,00	36,00	40,00

b¹ for lengths l ≤ 125 mm.b² for lengths l 125 mm. ≤200 mm.b³ for lengths > 200 mm.

Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	M14
Length/ Boyçapı (d)	min.	Weight/Ağırlık gr/p							
	max.								
5	4,76	5,24	0,48						
6	5,76	6,24	0,52	0,96					
8	7,71	8,29	0,60	1,12	2,26				
10	9,71	10,29	0,69	1,28	2,50	3,59			
12	11,65	12,35	0,78	1,44	2,74	3,94	8,05		
14	13,65	14,35	0,86	1,60	2,98	4,29	8,65		
16	15,65	16,35	0,97	1,76	3,22	4,64	9,25	14,40	
18	17,65	18,35	1,10	1,95	3,46	4,99	9,85	15,40	
20	19,58	20,42	1,20	2,15	3,77	5,34	10,50	16,40	24,10
25	24,58	25,42		2,64	4,54	6,45	12,00	19,00	27,70
30	29,58	30,42			5,31	7,56	14,00	21,60	31,30
35	34,5	35,5				8,67	16,00	24,70	34,90
40	39,5	40,5				9,78	18,00	27,80	39,30
45	44,5	45,5					20,00	30,90	43,70
50	49,5	50,5					22,00	34,00	48,10
55	54,4	55,6					24,00	37,10	52,50
60	59,4	60,6					26,00	40,20	56,90
70	69,4	70,6						46,40	65,80
80	79,4	80,6							74,70
90	89,3	90,7							105,00
100	99,3	100,7							

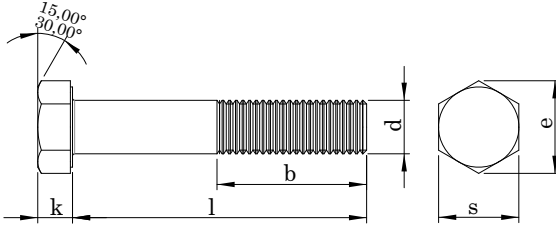


Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)			M16	M18	M20	M22	M24
Pitch / Diş adımı	P	P	2,00	2,50	2,50	2,50	3,00
Head height / Kafa Yüksekliği	k	min.	8,78	9,78	10,73	11,73	12,73
		max.	9,00	10,00	11,00	12,00	13,00
Head dia / Kafa çapı	d2	min.	23,67	26,67	29,67	32,61	35,61
		max.	24,00	27,00	30,00	33,00	36,00
Socket width / Soket genişliği	s	nominal	12,00	12,00	14,00	14,00	17,00
		min.	12,03	12,03	14,03	14,03	17,05
Socket dia / Soket çapı	e	min.	13,72	13,72	16,00	16,00	19,44
		nominal	5,50	6,50	7,50	8,00	8,00
Socket depth / Soket derinliği	t	min.	5,35	6,32	7,32	7,82	7,82
		max.	5,65	6,68	7,68	8,18	8,18
Thread length / Diş uzunluğu	b ₁ b ₂ b ₃		38,00	42,00	46,00	50,00	54,00
			44,00	48,00	52,00	56,00	60,00
			57,00	61,00	65,00	69,00	73,00

b¹ for lengths l ≤ 125 mm.b² for lengths l 125 mm. ≤ 200 mm.b³ for lengths > 200 mm.

Thread size / Anma çapı (d)			M16	M18	M20	M22	M24
Length/ Boyçapı (d)	min. max.		Weight/Ağırlık gr/p				
	5	4,76	5,24				
6	5,76	6,24					
8	7,71	8,29					
10	9,71	10,29					
12	11,65	12,35					
14	13,65	14,35					
16	15,65	16,35					
18	17,65	18,35					
20	19,58	20,42					
25	24,58	25,42					
30	29,58	30,42	62,10				
35	34,50	35,50	68,80				
40	39,50	40,50	75,50	99,00	130,00		
45	44,50	45,50	82,20	107,00	140,00		
50	49,50	50,50	89,60	115,00	150,00	188,00	223,00
55	54,40	55,60	97,00	125,00	160,00	201,00	238,00
60	59,40	60,60	104,00	135,00	172,00	214,00	253,00
70	69,40	70,60	119,00	155,00	197,00	244,00	288,00
80	79,40	80,60	134,00	175,00	222,00	274,00	324,00
90	89,30	90,70		195,00	247,00	304,00	359,00
100	99,30	100,70		215,00	272,00	334,00	395,00



Teknik Bilgiler / Technical Informations

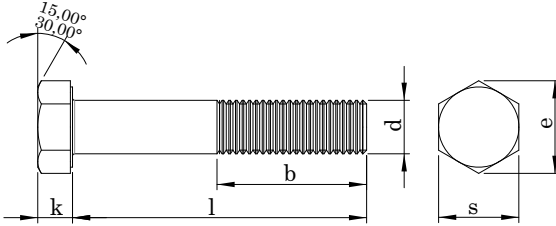
Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30	
Pitch / Diş adımı P	1,75	2,00	2,50	2,50	3,00	3,00	3,50	
Head height / Kafa Yüksekliği k	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05
	Nominal	8,00	10,00	13,00	14,00	15,00	17,00	19,00
Head with / Anahtar ağız s	max.	19,00	24,00	30,00	32,00	36,00	41,00	46,00
	min.	18,48	23,16	29,16	31,00	35,00	40,00	45,00
Diagonal / Köşegen e	min.	20,88	26,17	32,95	35,03	39,55	45,20	50,85
Thread length / Diş uzunluğu b		17,75	21,00	23,50	25,50	26,00	29,00	30,50

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30		
Length/ Boyçapı (d)	min.	max.	Weight/Ağırlık gr/p						
30	28,95	31,05	58,80						
35	33,75	36,25	63,20	119,00					
40	38,75	41,25	67,60	127,00	240,00	284,00			
45	43,75	46,25	72,00	135,00	252,00	299,00	377,00		
50	48,75	51,25	76,40	143,00	264,00	314,00	395,00		
55	53,50	56,50	80,80	151,00	276,00	329,00	413,00		
60	58,50	61,50	85,20	159,00	288,00	344,00	431,00	595,00	
65	63,50	66,50	89,60	167,00	300,00	359,00	449,00	617,00	
70	68,50	71,50	94,00	175,00	312,00	374,00	467,00	639,00	
75	73,50	76,50	98,40	183,00	324,00	389,00	485,00	661,00	
80	78,50	81,50	102,00	191,00	336,00	404,00	503,00	683,00	902,00
85	83,25	86,75	106,00	199,00	348,00	419,00	521,00	705,00	930,00
90	88,25	91,75	110,00	207,00	360,00	434,00	539,00	727,00	958,00
95	93,25	96,75	114,00	215,00	372,00	449,00	557,00	749,00	986,00
100	98,25	101,75	118,00	223,00	384,00	464,00	575,00	771,00	1014,00
105	103,25	106,75	122,00	231,00	396,00	479,00	593,00	793,00	1042,00
110	108,25	111,75	126,00	239,00	408,00	494,00	611,00	815,00	1070,00



Teknik Bilgiler / Technical Informations

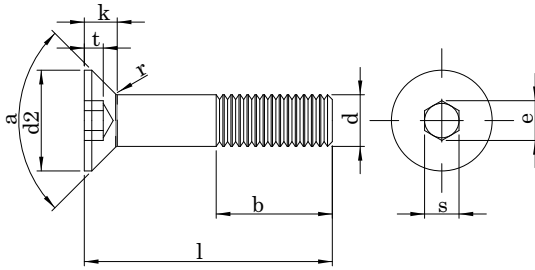
Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30
Pitch / Diş adımı P	1,75	2,00	2,50	2,50	3,00	3,00	3,50
Head height / Kafa Yüksekliği k	max.	8,45	10,75	13,90	14,90	15,90	20,05
	Nominal	8,00	10,00	13,00	14,00	15,00	19,00
Head with / Anahtar ağız s	max.	19,00	24,00	30,00	32,00	36,00	46,00
	min.	18,48	23,16	29,16	31,00	35,00	40,00
Diagonal / Köşegen e	min.	20,88	26,17	32,95	35,03	39,55	50,85
Thread length / Diş uzunluğu b	17,75	21,00	23,50	25,50	26,00	29,00	30,50

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30		
Length/ Boyçapı (d)	min.	max.	Weight/Ağırlık gr/p						
115	113,25	116,75	130,00	247,00	420,00	509,00	629,00	837,00	1098,00
120	118,25	121,75	134,00	255,00	432,00	524,00	647,00	859,00	1126,00
125	123,00	127,00		263,00	444,00	539,00	665,00	881,00	1154,00
130	128,00	132,00		271,00	456,00	554,00	683,00	903,00	1182,00
135	133,00	137,00		279,00	468,00	569,00	701,00	925,00	1210,00
140	138,00	142,00		287,00	480,00	584,00	719,00	947,00	1238,00
145	143,00	147,00		295,00	492,00	599,00	737,00	969,00	1266,00
150	148,00	152,00		303,00	504,00	614,00	755,00	991,00	1294,00
155	151,00	159,00			516,00	629,00	773,00	1013,00	1322,00
160	156,00	164,00			528,00	644,00	791,00	1035,00	1350,00
165	161,00	169,00			540,00	659,00	809,00	1057,00	1378,00
170	166,00	174,00			552,00	674,00	827,00	1079,00	1406,00
175	171,00	179,00			564,00	689,00	845,00	1101,00	1434,00
180	176,00	184,00				704,00	863,00	1123,00	1462,00
185	180,40	189,60				719,00	881,00	1145,00	1490,00
190	185,40	194,60				734,00	899,00	1167,00	1518,00
195	190,40	199,60				749,00	917,00	1189,00	1546,00
200	195,40	204,60				764,00	935,00	1211,00	1574,00



Teknik Bilgiler / Technical Informations

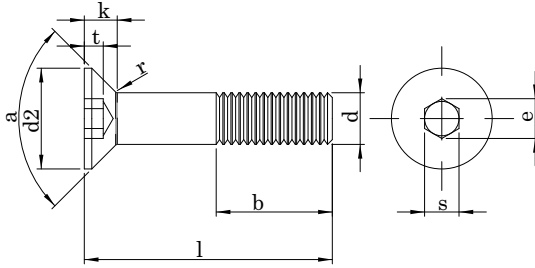
Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,25	1,50	1,75	
Head height / Kafa Yüksekliği	k	max.	1,70	2,30	2,80	3,30	4,40	5,50	6,50
Head dia / Kafa çapı	d2	max.	6,00	8,00	10,00	12,00	16,00	20,00	24,00
		min.	5,70	7,64	9,64	11,57	15,57	19,48	23,48
Socket width / Soket genişliği	s	max.	2,10	2,60	3,10	4,12	5,14	6,14	8,18
		Nominal	2,00	2,50	3,00	4,00	5,00	6,00	8,00
Socket dia / Soket çapı	e	min.	2,02	2,52	3,02	4,02	5,02	6,02	8,03
		min.	2,30	2,87	3,44	4,58	5,72	6,86	9,15
Socket depth / Soket derinliği	t	max.	1,20	1,80	2,30	2,50	3,50	4,40	4,60
		min.	0,95	1,55	2,05	2,25	3,20	4,10	4,30
Thread length / Diş uzunluğu	b ₁ b ₂ b ₃		12,00	14,00	16,00	18,00	22,00	26,00	30,00
						24,00	28,00	32,00	36,00
								45,00	49,00

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤200 mm.

b³ for lengths > 200 mm.

Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	
Length/ Boyçapı (d)	min.	Weight/Ağırlık gr/p							
	max.								
8	7,71	8,29	0,47	0,92	1,60	2,35			
10	9,71	10,29	0,56	1,07	1,85	2,70	5,47		
12	11,65	12,35	0,65	1,23	2,10	3,05	6,10	10,10	
16	15,65	16,35	0,83	1,53	2,59	3,76	7,35	12,10	
20	19,58	20,42	1,00	1,84	3,09	4,46	8,60	14,10	21,20
25	24,58	25,42	1,35	2,23	3,71	5,34	10,20	16,60	24,80
30	29,58	30,42	1,63	2,90	4,33	6,22	11,70	19,10	28,50
35	34,50	35,50		3,40	5,43	7,10	13,30	21,60	32,10
40	39,50	40,50	2,19	3,90	6,20	8,83	14,80	24,10	35,70
50	49,50	50,50	2,75	4,90	7,74	11,00	19,90	30,10	43,00
60	59,40	60,60		5,90	9,28	13,17	24,80	35,70	54,00
70	69,40	70,60		6,90	10,80	15,34	29,70	41,20	62,90
80	79,40	80,60				17,51	34,60	46,70	71,80
90	89,30	90,70				19,68	39,50	52,20	80,70
100	99,30	100,70				21,85	44,40	57,70	89,60



Teknik Bilgiler / Technical Informations

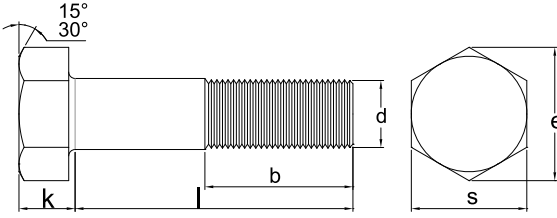
Thread size / Anma çapı (d)		M14	M16	M18	M20	M22	M24	
Pitch / Diş adımı	P	2,00	2,00	2,50	2,50	2,50	3,00	
Head height / Kafa Yüksekliği	k	max.	7,00	7,50	8,00	8,50	13,10	14,00
Head dia / Kafa çapı	d2	max.	27,00	30,00	33,00	36,00	36,00	39,00
		min.	26,48	29,48	32,38	35,38	35,38	38,38
Socket width / Soket genişliği	s	max.	10,18	10,18	12,21	12,21	14,21	14,21
		Nominal	10,00	10,00	12,00	12,00	14,00	14,00
Socket dia / Soket çapı	e	min.	10,03	10,03	12,03	12,03	14,03	14,03
		min.	11,43	11,43	13,72	13,72	16,00	16,00
Socket depth / Soket derinliği	t	max.	4,80	5,30	5,50	5,90	8,80	10,30
		min.	4,50	5,00	5,20	5,60	8,44	9,87
Thread length / Diş uzunluğu	b ₁	34,00	38,00	42,00	46,00	50,00	54,00	
	b ₂	40,00	44,00	48,00	52,00	56,00	60,00	
	b ₃	53,00	57,00	61,00	65,00	69,00	73,00	

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

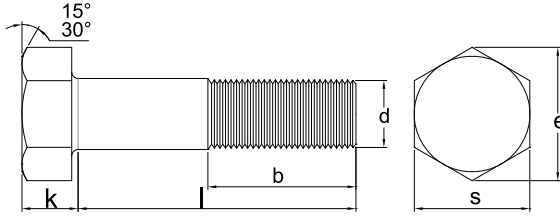
b³ for lengths > 200 mm.

Thread size / Anma çapı (d)		M14	M16	M18	M20	M22	M24
Length/ Boyçapı (d)	min.	Weight/Ağırlık gr/p					
	max.						
8	7,71	8,29					
10	9,71	10,29					
12	11,65	12,35					
16	15,65	16,35					
20	19,58	20,42					
25	24,58	25,42	37,30				
30	29,58	30,42	42,20	51,80			
35	34,50	35,50	47,20	58,40	91,40		
40	39,50	40,50	52,30	65,10	79,00	102,00	
50	49,50	50,50	64,40	78,40	96,00	123,00	179,00
60	59,40	60,60	76,40	91,70	112,00	143,00	209,00
70	69,40	70,60	88,50	111,00	128,00	164,00	239,00
80	79,40	80,60	100,60	127,00	144,00	200,00	269,00
90	89,30	90,70	110,00	143,00	160,00	226,00	299,00
100	99,30	100,70	124,80	159,00	176,00	253,00	340,00



Teknik Bilgiler / Technical Informations								
Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Pitch /Diş Adımı	P	mm.	6,35	7,94	9,52	1,00	12,70	14,29
		UNC	20,00	18,00	16,00	14,00	13,00	12,00
		UNF	28,00	24,00	24,00	20,00	20,00	18,00
Head height /Kafa Yüksekliği	k	max.	4,14	5,36	6,17	7,39	8,20	9,42
		min.	3,81	4,95	5,74	6,91	7,67	8,84
Head width /Anahtar Ağızı	s	max.	11,13	12,70	14,27	15,88	19,05	20,62
		min.	10,87	12,42	14,00	15,54	18,69	20,27
Diagonal /Köşegen	e	max.	12,83	14,66	16,51	18,34	22,00	23,83
		min.	12,40	14,15	15,95	17,73	21,34	23,11

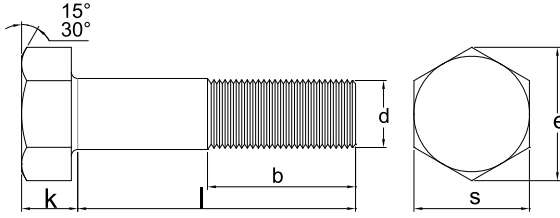
Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Length / Boy			Weight / Ağırlık gr/p					
5/8	15,88		5,94	9,98	14,70			
3/4	19,05	d: 1/4 - 3/4	6,53	10,93	16,10	23,04	36,74	
7/8	22,23	+0,05/-0,05	7,12	11,88	17,51	24,95	39,28	
1	25,40		7,89	12,84	18,91	26,85	41,82	51,17
1 1/8	28,58		8,66	14,06	20,48	28,76	44,36	54,41
1 1/4	31,75		9,43	15,29	22,04	30,66	46,90	57,65
1 3/8	34,93		10,23	16,51	23,81	33,07	49,74	60,89
1 1/2	38,10	d:1/4-3/8	11,02	17,74	25,58	35,47	52,57	64,14
1 5/8	41,28	+0,05 / -1,01	11,79	18,96	27,35	37,87	55,70	68,11
1 3/4	44,45	d: 7/16 - 1/2	12,56	20,18	29,12	40,28	58,83	72,08
1 7/8	47,63	+1,01 / -1,52	13,36	21,41	30,87	42,68	61,96	76,04
2	50,80	d:9/16 - 3/4	14,15	22,63	32,61	45,09	65,09	80,01
2 1/8	53,98	+1,52 / -2,03	14,92	23,84	34,38	47,49	68,22	83,98
2 1/4	57,15		15,69	25,04	36,15	49,90	71,35	87,95
2 3/8	60,33		16,49	26,26	37,90	52,30	74,48	91,92
2 1/2	63,50		17,28	27,49	39,64	54,70	77,61	95,89



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Pitch /Diş Adımı	P	mm.	6,35	7,94	9,52	1,00	12,70	14,29
		UNC	20,00	18,00	16,00	14,00	13,00	12,00
Head height /Kafa Yüksekliği	k	max.	4,14	5,36	6,17	7,39	8,20	9,42
		min.	3,81	4,95	5,74	6,91	7,67	8,84
Head width /Anahtar Ağızı	s	max.	11,13	12,70	14,27	15,88	19,05	20,62
		min.	10,87	12,42	14,00	15,54	18,69	20,27
Diagonal /Köşegen	e	max.	12,83	14,66	16,51	18,34	22,00	23,83
		min.	12,40	14,15	15,95	17,73	21,34	23,11

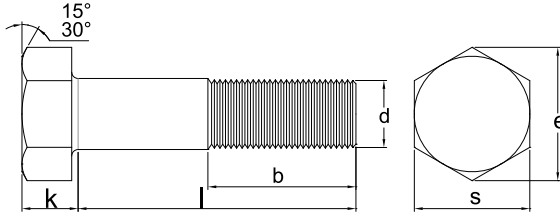
Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Length / Boy			Weight / Ağırlık gr/p					
2 5/8	66,68		18,05	28,71	41,41	57,11	80,74	99,88
2 3/4	69,85	d: 1/4 - 3/8 -	18,82	29,94	43,18	59,51	83,87	103,87
2 7/8	73,03	1,01 / -1,52 d:	19,92	31,16	44,95	61,92	87,00	107,84
3	76,20	7/16 - 1/2 -1,52	20,41	32,39	46,72	64,32	90,13	11,81
3 1/4	82,55	/ -2,03 d: 9/16 -	21,95		50,21	69,13	96,39	119,75
3 1/2	88,90	3/4 +2,03 / -	23,54		53,75	73,94	102,65	127,69
3 1/4	95,25	2,54	25,08		57,24	78,74	108,91	135,62
4	101,60		26,67		60,78	83,51	115,17	143,56
4 1/4	108,00		28,24		64,30	88,31	121,43	151,50
4 1/2	114,30	d: 1/4 - 3/8	29,80		67,81	93,12	127,69	159,44
4 3/4	120,70	+1,52 / -2,54	31,37		71,33	97,93	133,95	167,38
5	127,00	d:7/16 - 1/2	32,93		74,84	102,74	140,21	175,31
5 1/4	133,40	+2,03 / -2,54			78,38	107,55	146,60	183,27
5 1/2	139,70	d:9/16 - 3/4			81,92	112,35	152,72	191,23
5 3/4	146,10	+2,54 / -2,54			85,43	117,16	158,98	199,17
6	152,40				88,95	121,97	165,24	207,11



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)			5/8	3/4	7/8	1 "
Pitch /Diş Adımı	P	mm.	15,88	19,05	22,22	25,40
		UNC	11,00	10,00	9,00	8,00
Head height /Kafa Yüksekliği	k	max.	10,24	12,27	14,30	15,93
		min.	9,60	11,56	13,49	15,01
Head width /Anahtar Ağızı	s	max.	23,83	28,58	33,32	38,10
		min.	23,42	27,94	32,64	37,31
Diagonal /Köşegen	e	max.	27,51	32,99	38,51	43,99
		min.	26,70	31,85	37,21	42,55

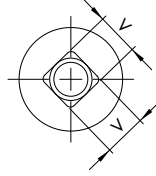
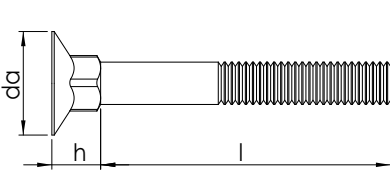
Thread size / Anma çapı (d)			5/8	3/4	7/8	1 "
Length / Boy			Weight / Ağırlık gr/p			
5/8	15,88	d: 1/4 - 3/4 +0,05/-0,05				
3/4	19,05					
7/8	22,23					
1	25,40		68,76			
1 1/8	28,58		72,78			
1 1/4	31,75		76,79	122,74		
1 3/8	34,93		80,81	128,64		
1 1/2	38,10	d:1/4-3/8 +0,05 / -	84,82	134,54		
1 5/8	41,28	1,01 d: 7/16 - 1/2	89,27	104,43		
1 3/4	44,45	+1,01 / -1,52	93,71	146,33	218,73	301,54
1 7/8	47,63	d:9/16 - 3/4	98,61	152,82		
2	50,80	+1,52 / -2,03	103,51	159,30	234,79	322,60
2 1/8	53,98		108,39	166,36		
2 1/4	57,15		113,26	173,41		
2 3/8	60,33		118,16	180,46		
2 1/2	63,50		123,06	187,20	272,57	364,72



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)			5/8	3/4	7/8	1 "
Pitch /Diş Adımı	P	mm.	15,88	19,05	22,22	25,40
		UNC	11,00	10,00	9,00	8,00
Head height /Kafa Yüksekliği	k	max.	10,24	12,27	14,30	15,93
		min.	9,60	11,56	13,49	15,01
Head width /Anahtar Ağızı	s	max.	23,83	28,58	33,32	38,10
		min.	23,42	27,94	32,64	37,31
Diagonal /Köşegen	e	max.	27,51	32,99	38,51	43,99
		min.	26,70	31,85	37,21	42,55

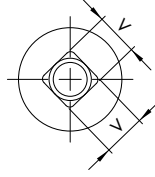
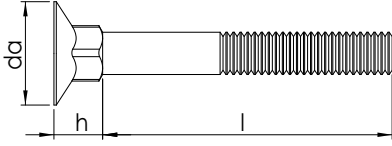
Thread size / Anma çapı (d)			5/8	3/4	7/8	1 "
Length / Boy			Weight / Ağırlık gr/p			
2 5/8	66,68		127,94	194,57		
2 3/4	69,85	d: 1/4 - 3/8 -	132,81	201,62		
2 7/8	73,03	1,01 / -1,52 d:	137,71	208,68		
3	76,20	7/16 - 1/2 -1,52	142,61	215,73	311,96	416,66
3 1/4	82,55	/ -2,03 d: 9/16 -	152,36	229,84		
3 1/2	88,90	3/4 +2,03 / -	162,16	143,94	351,36	466,65
3 1/4	95,25	2,54	171,91	258,05		
4	101,60		181,71	272,16	390,75	516,64
4 1/4	108,00		191,48	286,26		
4 1/2	114,30	d: 1/4 - 3/8	201,26	300,37	430,00	566,62
4 3/4	120,70	+1,52 / -2,54	211,03	314,48		
5	127,00	d:7/16 - 1/2	220,81	328,58	469,53	616,60
5 1/4	133,40	+2,03 / -2,54	230,58	342,69		
5 1/2	139,70	d:9/16 - 3/4	240,36	356,80	508,93	666,60
5 3/4	146,10	+2,54 / -2,54	250,13	370,90		
6	152,40		259,91	385,01	548,00	716,59



Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)		7/16
Head height / Kafa yüksekliği	h	9,00
Head dia / Kafa çapı	da	20,00
Square width / Kafa genişliği	v	11,00

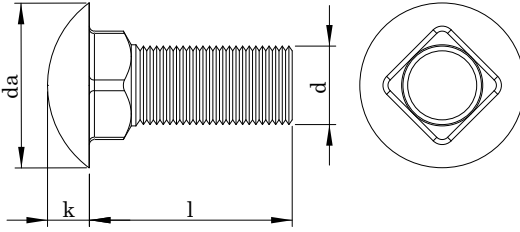
Thread size / Anma çapı (d)	7/16
Length / Boy (l)	Weight / Ağırlık gr/p
30	28,74
35	31,95
40	35,76
45	39,56
50	42,77
55	47,03
60	50,45
65	54,07
70	57,69



Teknik Bilgiler / Technical Informations						
Thread size / Anma çapı (d)		5/8	3/4	7/8	1 "	1 1/4"
Pitch / Diş adımı	P	11,00	10,00	9,00	8,00	7,00
Head height / Kafa yüksekliği	h	12,98	15,40	18,02	19,65	26,00
Head dia / Kafa çapı	da	26,13	30,09	35,28	40,06	51,00
Square width / Kafa genişliği	v	16,07	19,24	22,62	25,80	27,75

Thread size / Anma çapı (d)	5/8	3/4	7/8	1 "	1 1/4"
Length / Boy (l)	Weight / Ağırlık gr/p				
51	119,00				
57	128,00				
63,5	138,00	203,00			
76	153,00	228,00	325,00	430,00	
82			340,00	445,00	
90		260,00	360,00	475,00	
102			390,00	520,00	910,00
115		299,00		570,00	980,00
120			430,00		
127			450,00	610,00	1040,00





Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)	Kafa çapı / Diameter of Head	Head height / Kafa yüksekliği	Weight / Ağırlık
dxL	da	k	gr/p
6x12	13,50	3,00	4,50
6x15	13,50	3,00	5,10
8x15	15,00	3,50	8,10

Dayanım Sınıfı (Property Class)	SICAKLIK (Temperature) °C				
	(+)20	(+)100	(+)200	(+)250	(+)300
	Akma Dayanımı Alt Sınırı (Lower yield stress) R_{el} , veya 0,2 noktasındaki Akma Dayanımı (or proof stress) $R_{p0,2}$ N/mm ²				
5,6	300	270	230	215	195
8,8	640	590	540	510	480
10,9	940	875	790	745	705
12,9	1100	1020	925	875	825

CIVATA - SOMUN EŞLEŞMESİ

THE RIGHT NUT WITH THE RIGHT BOLT

DIE RICHTIGE BOLZEN-MUTTERN ZUSAMMENSETZUNG

DAYANIM SINIFI (Property Class)						
CIVATA (Bolt)					SOMUN (Nut)	
3.6	4.6	4.8	5.6	5.8	5	
		6.8			6	
		8.8			8	
		10.9			10	
		12.9			12	

ÜRÜN SINIFI (Product Grade)	DİŞ TOLERANSI (The Tolerance)		TOLERANS (Tolerance Grade)
	CIVATA (Bolt)	SOMUN (Nut)	
A	6g	6H	ORTA (Medium)
B	6g	6H	ORTA-KABA (Medium- Coarse)
C	8g	7H	KABA (Coarse)

ÇAP (Thread diameter) d	DELİK ÇAPI (Clearance hole) d _h		
	SERİLER (Series)		
	İNCE (FINE)	ORTA (MEDIUM)	KABA (COARSE)
1	1.1	1,2	1,3
1,2	1.3	1,4	1,5
1,4	1.5	1,6	1,8
1,6	1.7	1,8	
1,8	2	2,1	2,2
2	2.2	2,4	2,6
2,5	2.7	2,9	3,1
3	3.2	3,4	3,6
3,5	3.7	3,9	4,2
4	4.3	4,5	4,8
4,5	4.8	5	5,2
5	5.3	5,5	5,8
6	6.4	6,6	7
7	7.4	7,6	8
8	8.4	9	10
10	10.5	11	12
12	13	13,5	14,5
14	15	15,5	16,5
16	17	17,5	18,5
18	19	20	21
20	21	22	24
22	23	24	26
24	25	26	28
27	28	30	32
30	31	33	35
33	34	36	38
36	37	39	42
39	40	42	45
42	43	45	48
45	46	48	52
48	50	52	56
52	54	56	62
56	58	62	66
60	62	66	70
64	66	70	74
68	70	74	78

