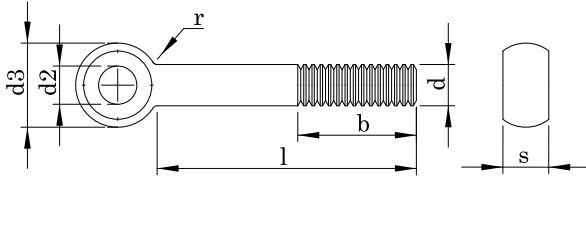


Teknik Bilgiler / Technical Informations

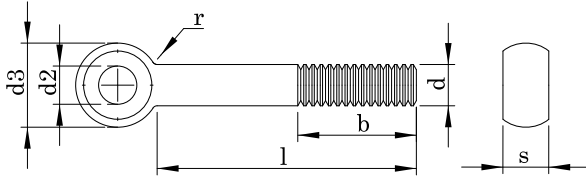
Screw Thread d1 p1)	M4	M5	M6	M8	M10	M12	M16	M20	M24
a	0,70	0,80	1,00	1,25	0,50	1,75	2,00	2,50	3,00
max.	2,10	2,40	3,00	4,00	4,50	5,30	6,00	7,50	9,00
d2	8,00	11,00	13,00	16,00	20,00	23,00	29,00	35,00	44,00
min.	6,00	8,00	10,00	13,00	17,00	20,00	26,00	32,00	41,00
d3	7,00	9,00	11,00	12,50	16,50	19,50	23,00	29,00	37,50
min.	5,50	7,50	9,00	10,50	14,50	17,50	21,00	27,00	35,00
e	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	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	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	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	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
d3	TypeA	12,00	14,00	18,00	20,00	25,00
	TypeB and C	10,90	12,90	16,90	18,70	23,70
r	~	11,57	13,57	17,57	19,48	24,48
s	max.	2,50	4,00	4,00	4,00	6,00
	TypeA	8,00	9,00	11,00	14,00	17,00
	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
		min.	5,88	6,85	8,85	11,82

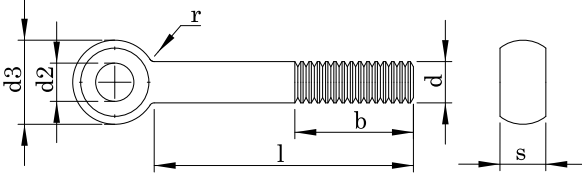
Type A		Type B		Type C		M5	M6	M8	M10	M12
Nominal size	min.	max.	min.	max.	min.	max.	Weight /Ağırlık gr/p			
30	28,95	31,05	29,35	30,65	29,60	30,40	7,93			
35	33,75	36,25	34,20	35,80	34,50	35,50	8,70	12,60		
40	38,75	41,25	39,20	40,80	39,50	40,50	9,47	13,70	25,00	
45	43,75	46,25	44,20	45,80	44,50	45,50	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
60	58,50	61,50	59,05	60,95	59,40	60,60	12,60	18,10	32,80	45,30
65	63,50	66,50	64,05	65,95	64,40	65,60	13,30	19,20	34,80	48,40
70	68,50	71,50	69,05	70,95	69,40	70,60	14,10	20,30	36,80	51,50
75	73,50	76,50	74,05	75,95	74,40	75,60	14,90	21,50	38,80	54,60
80	78,50	81,50	79,05	80,95	79,40	80,60	15,70	22,60	40,70	57,60
90	88,25	91,75	88,90	91,10	89,30	90,70		23,70	44,70	63,80
100	98,25	101,75	98,90	101,10	99,30	100,70			48,60	70,00
110	108,25	111,75	108,90	111,10	109,30	110,70			52,60	76,10
120	118,25	121,75	118,90	121,10	119,30	120,70			56,50	82,30
130	128,00	132,00	128,75	131,25	129,20	130,80			60,50	88,40
140	138,00	142,00	138,75	141,25	139,20	140,80			64,40	94,50
150	148,00	152,00	148,75	151,25	149,20	150,80				101,00
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	max.	32,00	40,00	45,00	50,00
	TypeB and C		30,40	38,40	43,40	48,40
r		min.	31,38	39,38	44,38	49,38
	~		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

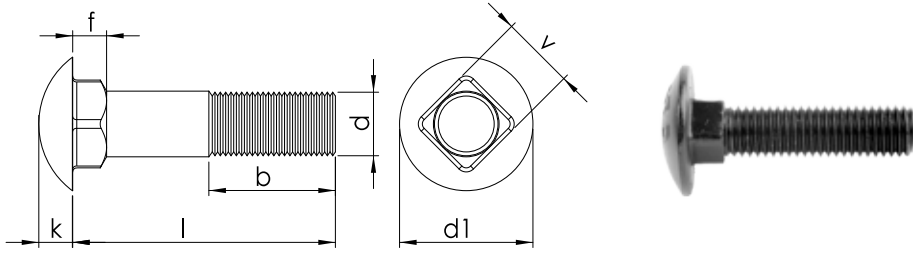
L							M16	M20	M24	M27
Type A			Type B		Type C					
Nominal size	min.	max.	min.	max.	min.	max.	Weight /Ağırlık gr/p			
30	28,95	31,05	29,35	30,65	29,60	30,40				
35	33,75	36,25	34,20	35,80	34,50	35,50				
40	38,75	41,25	39,20	40,80	39,50	40,50				
45	43,75	46,25	44,20	45,80	44,50	45,50				
50	48,75	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			3,50	3,50	4,00	4,00
b+ ² P	1		66,00	-	-	-
	2		72,00	78,00	84,00	90,00
	3		85,00	91,00	97,00	103,00
d2			27-28	30,00	32-33	35-36
d3	TypeA	max.	55,00	60,00	65,00	70,00
	TypeB and C	min.	53,10	58,10	63,10	68,10
r	~		10,00	16,00	16,00	16,00
s	TypeA	max.	34,00	38,00	41,00	46,00
	TypeB and C	min.	33,00	37,00	40,00	45,00
		max.	30,00	34,00	38,00	41,00
		min.	29,79	33,75	37,75	40,75

Type A		Type B		Type C		M30	M33	M36	M39
Nominal size	min.	max.	min.	max.	min.	max.	Weight /Ağırlık gr/p		
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
180	176,00	184,00	178,75	181,25	179,20	180,80	1160,00	1440,00	1730,00
200	195,40	204,60	198,55	201,45	199,10	200,90	1270,00	1570,00	1890,00
220	215,40	224,60	218,55	221,45	219,10	220,90	1370,00	1690,00	2050,00
240	235,40	244,60	238,55	241,45	239,10	240,90	1480,00	1820,00	2200,00
260	254,80	265,20	258,40	261,60	258,90	261,00	1590,00	1960,00	2350,00
280	274,80	285,20	278,40	281,60	278,90	281,00	1700,00	2100,00	2500,00
300	294,80	305,20	298,40	301,60	298,90	301,00	1810,00	2240,00	2650,00



Teknik Bilgiler / Technical Informations

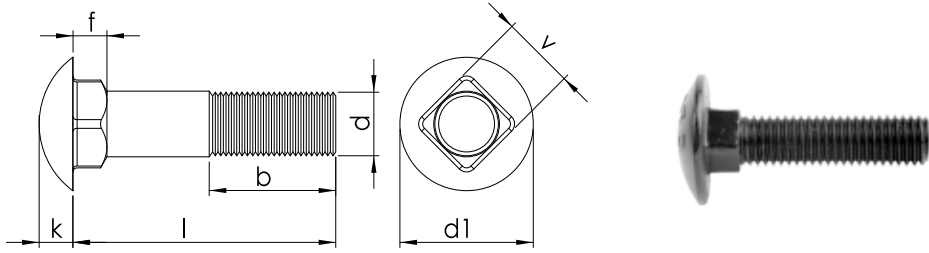
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,50
Head height / Kafa yüksekliği	k	max. 3,30	max. 3,88	max. 4,88	max. 5,38	max. 6,95	max. 8,95	max. 11,05
		min. 2,70	min. 3,12	min. 4,12	min. 4,62	min. 6,05	min. 8,05	min. 9,95
Head Dia / Kafa çapı	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						
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

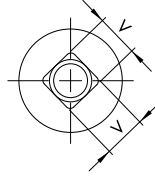
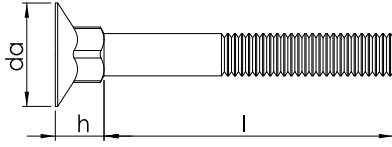
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,50
Head height / Kafa yüksekliği	k	max. 3,30	max. 3,88	max. 4,88	max. 5,38	max. 6,95	max. 8,95	max. 11,05
Head Dia / Kafa çapı	dk	max. 13,55	max. 16,55	max. 20,65	max. 24,65	max. 30,65	max. 38,80	max. 46,80
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
Neck width / Boyun genişliği	v	max. 4,52	max. 5,52	max. 7,42	max. 9,42	max. 11,30	max. 15,30	max. 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.

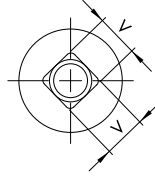
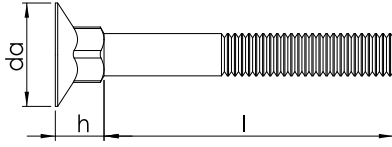
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M16	M20
Length / Boy	min. max.	Weight / Ağırlık gr/p						
80	78,50 81,50	13,90	20,60	36,80	57,50	87,00	165,00	272,00
90	88,25 91,75		22,80	40,80	63,70	96,00	181,00	297,00
100	98,25 101,75		25,00	44,80	69,90	105,00	197,00	322,00
110	108,25 111,75		27,20	48,80	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
		max.	6,40	7,45	9,45
Head Dia / Kafa çapı	da	min.	12,55	15,55	19,45
		max.	13,45	16,45	20,55
Square width / Kafa genişliği	v	min.	4,52	5,52	7,42
		max.	5,48	6,48	8,58

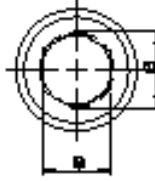
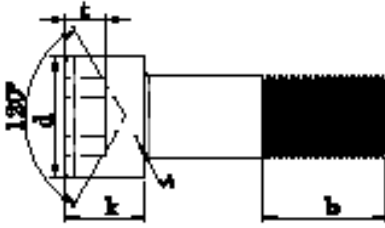
Thread size / Anma çapı (d)		M5	M6	M8	M10
Length / Boy (l)	min. max.	Weight /Ağırlık gr/p			
30	28,95 31,05	5,40	8,80	15,40	
35	33,95 36,05	6,20	9,80	17,40	
40	38,95 41,05	6,90	10,80	19,30	30,60
45	43,75 46,25		11,90	21,30	33,60
50	48,75 51,25		12,90	23,20	36,50
55	53,75 56,25		13,90	25,20	38,40
60	58,75 61,25		14,90	27,10	42,40
65	64,50 66,50			29,10	45,30
70	68,50 71,50			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 max. 14,55	min. 16,45 max. 17,55	min. 21,35 max. 22,65
Head Dia / Kafa çapı	da	min. 27,35 max. 28,65	min. 37,35 max. 38,65	min. 43,25 max. 44,75
Square width / Kafa genişliği	v	min. 11,32 max. 12,68	min. 15,32 max. 16,68	min. 19,22 max. 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

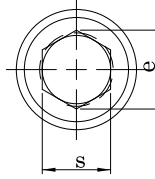
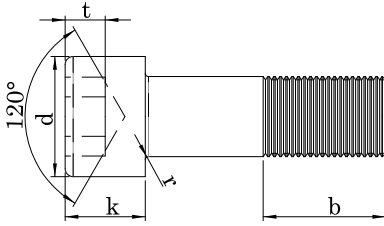
Thread size / Anma çapı (d)		M3	M4	M5	M6	M8	M10	M12	M14
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00
Head height / Kafa yüksekliği	k	max.	3,00	4,00	5,00	6,00	8,00	10,00	12,00
		min.	2,86	3,82	4,82	5,70	7,64	9,64	11,57
Head Dia / Kafa çapı	d	max.	5,50	7,00	8,50	10,00	13,00	16,00	21,00
		min.	5,32	6,78	8,28	9,78	12,73	15,73	20,67
	s		2,50	3,00	4,00	5,00	6,00	8,00	10,00
			2,52	3,02	4,02	5,02	6,02	8,03	10,03
Socket width / Söket genişliği		min.	2,58	3,08	4,10	5,14	6,14	8,18	10,18
		max.	2,58	3,08	4,10	5,14	6,14	8,18	10,18
Socket dia / Söket çapı	e	2,87	3,44	4,58	5,72	6,86	9,15	11,43	13,72
Socket depth / Söket 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

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								

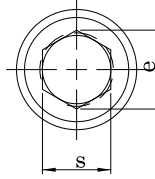
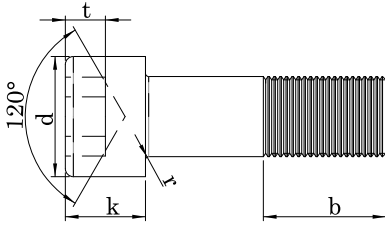
Fully threaded. /Tam dişli.

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	120,00
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

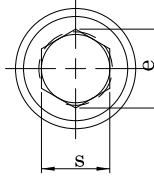
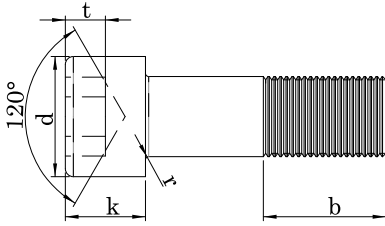
Thread size / Anma çapı (d)		M16	M18	M20	M22	M24	M27	M30	M33
Pitch / Diş adımı	P	2,00	2,50	2,50	2,50	3,00	3,00	3,50	3,50
Head height / Kafa yüksekliği	k	max. 16,00	18,00	20,00	22,00	24,00	27,00	30,00	33,00
		min. 15,57	17,57	19,48	21,48	23,48	26,48	29,48	32,38
Head Dia / Kafa çapı	d	max. 24,00	27,00	30,00	33,00	36,00	40,00	45,00	50,00
		min. 23,67	26,67	29,67	32,61	35,61	39,61	44,61	49,61
	s	14,00	14,00	17,00	17,00	19,00	19,00	22,00	24,00
Socket width / Söket genişliği		min. 14,03	14,03	17,05	17,05	19,07	19,07	22,07	24,07
		max. 14,21	14,21	17,23	17,23	19,28	19,28	22,28	24,28
Socket dia / Söket çapı	e	16,00	16,00	19,44	19,44	21,73	21,73	25,15	27,43
Socket depth / Söket 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	59,40	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 min. 15,57	max. 18,00 min. 17,57	max. 20,00 min. 19,48	max. 22,00 min. 21,48	max. 24,00 min. 23,48	max. 27,00 min. 26,48	max. 30,00 min. 29,48	max. 33,00 min. 32,38
Head Dia / Kafa çapı	d	max. 24,00 min. 23,67	max. 27,00 min. 26,67	max. 30,00 min. 29,67	max. 33,00 min. 32,61	max. 36,00 min. 35,61	max. 40,00 min. 39,61	max. 45,00 min. 44,61	max. 50,00 min. 49,61
	s	14,00	14,00	17,00	17,00	19,00	19,00	22,00	24,00
Socket width / Soket genişliği		min. 14,03 max. 14,21	min. 14,03 max. 14,21	min. 17,05 max. 17,23	min. 17,05 max. 17,23	min. 19,07 max. 19,28	min. 19,07 max. 19,28	min. 22,07 max. 22,28	min. 24,07 max. 24,28
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 b ²	44,00 44,00	48,00 48,00	52,00 52,00	56,00 56,00	60,00 60,00	66,00 66,00	72,00 72,00	78,00 78,00

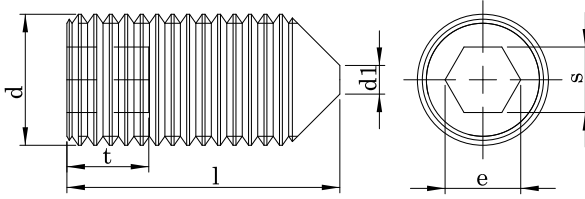
Fully threaded. /Tam dişli.

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

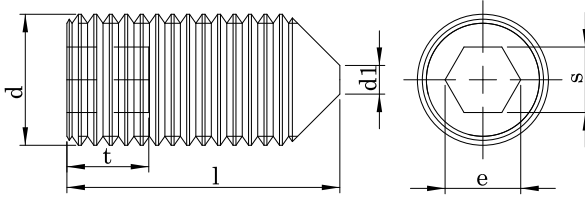
Thread size / Anma çapı (d)			M16	M18	M20	M22	M24	M27	M30	M33
Length Boy	min.	max.	Weight /Ağırlık gr/p							
100	99,30	100,70	186,00	243,00	291,00	396,00	471,00	574,00	800,00	970,00
110	109,30	110,70	202,00	263,00	316,00	426,00	507,00	619,00	855,00	1040,00
120	119,30	120,70	218,00	283,00	341,00	456,00	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)	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
	nominal size	0,70	0,70	0,70	0,90	1,30	1,50	2,00	2,50	3,00
s	min.	0,71	0,71	0,71	0,89	1,27	1,52	2,02	2,52	3,02
	max.	0,72	0,72	0,72	0,90	1,30	1,55	2,05	2,56	3,08
t	min.3)	0,60	0,70	0,80	0,80	1,20	1,20	1,50	2,00	2,00
	min.4)	1,40	1,50	1,60	1,70	2,00	2,00	2,50	3,00	3,50

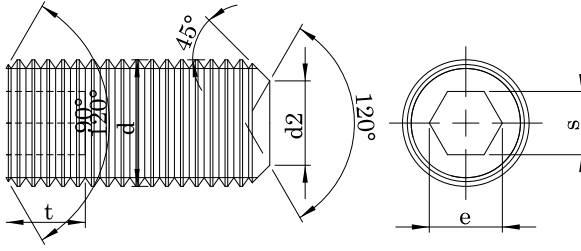
min.	max.	L		M1,4	M1,6	M1,8	M2	M2,5	M3	M4	M5	M6	M8
Nominal Size	min.	max.	Weight / Ağırlık gr/p										
2	1,80	2,20											
2,5	2,30	2,70	0,02	0,02	0,03								
3	2,80	3,20	0,02	0,03	0,04	0,04							
3,5	3,26	3,74											
4	3,76	4,24	0,03	0,04	0,05	0,06	0,10	0,13					
5	4,76	5,24	0,04	0,05	0,06	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										4,90	
35	34,50	35,50										5,78	11,90
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											



Teknik Bilgiler / Technical Informations

Screw Thread d1		M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
p)		1,50	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

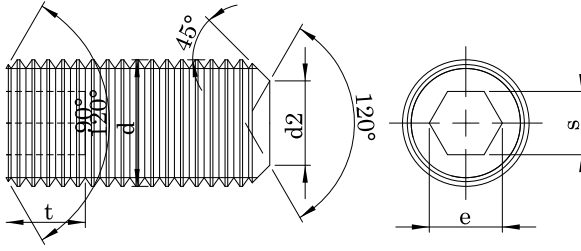
Nominal Size	L									
	min.	max.	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
	Weight / Ağırlık gr/p									
2	1,80	2,20								
2,5	2,30	2,70								
3	2,80	3,20								
3,5	3,26	3,74								
4	3,76	4,24								
5	4,76	5,24								
6	5,76	6,24								
8	7,00	8,29								
10	7,10	10,29	3,94							
12	9,71	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		71,60		98,20
45	44,50	45,50	21,23	30,34				81,90		113,00
50	49,50	50,50	23,70	33,93				92,20		128,00
55	54,40	55,60								143,00
60	59,40	60,60	28,64	41,10						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
	s	0,70	0,70	0,70	0,90	1,30	1,50	2,00	2,50
Head width / Anahtar ağızı	min.	0,71	0,71	0,71	0,89	1,27	1,52	2,02	2,52
	max.	0,72	0,72	0,72	0,90	1,30	1,55	2,05	2,56
Diagonal / Köşegen	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

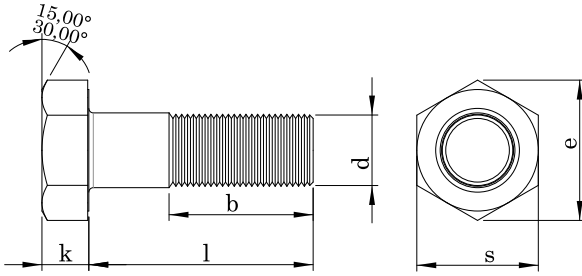
Thread size / Anma çapı (d)			M1.4	M1.6	M1.8	M2	M2.5	M3	M4	M5
Length Boy	min.	max.	Weight / Ağırlık gr/p							
6	5,76	6,24	0,04	0,06	0,07	0,09	0,15	0,22	0,38	0,54
8	7,71	8,29				0,12	0,20	0,31	0,53	0,78
10	9,71	10,29				0,15	0,25	0,40	0,68	1,02
12	11,65	12,35						0,49	0,83	1,26
16	15,65	16,35						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
	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
Head width / Anahtar ağız	e	2,80	3,80	4,00	4,80	6,40	7,20	8,30	10,00
Diagonal / Köşegen	t	3,50	5,00	6,00	8,00	10,00	11,00	12,00	15,00
Slot depth / Anahtar derinliği									

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

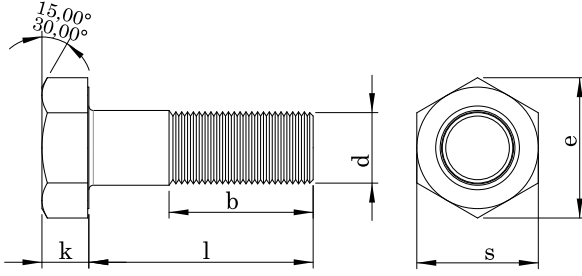
Thread size / Anma çapı (d)		M3	M4	M5	M6	M7	M8	M10	M12
Pitch / Diş adımı	P	0,50	0,70	0,80	1,00	1,00	1,25	1,50	1,75
Nominal size		2,00	2,80	3,50	4,00	4,80	5,30	6,40	7,50
Head height / Kafa yüksekliği	A min.	1,88	2,68	3,35	3,85	4,65	5,15	6,22	7,32
	max.	2,12	2,92	3,65	4,15	4,95	5,45	6,58	7,68
	B min.	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

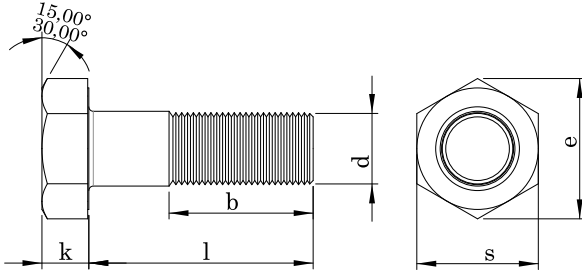
b² for lengths l 125 mm. ≤ 200 mm.

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

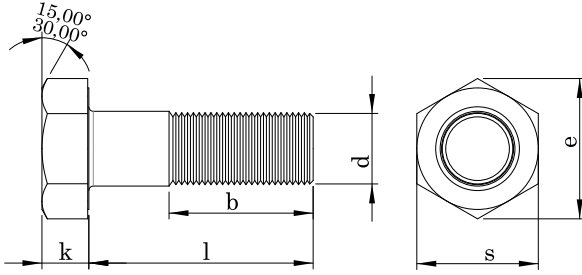
Thread size / Anma çapı (d)				M14	M16	M18	M20	M22
Pitch / Diş adımı		P		2,00	2,00	2,50	2,50	2,50
		Nominal size max.		8,80	10,00	11,50	12,50	14,00
Head height / Kafa yüksekliği	A	min.		8,62	9,82	11,28	12,28	13,78
		max.		8,98	10,18	11,72	12,72	14,22
	B	min.			9,71	11,15	12,15	13,65
		max.			10,29	11,85	12,85	14,35
		Nominal size max.		22,00	24,00	27,00	30,00	32,00
Head width / Anahtar ağızı	Product Grade	§	A	21,67	23,67	26,67	29,67	31,61
		min.	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.

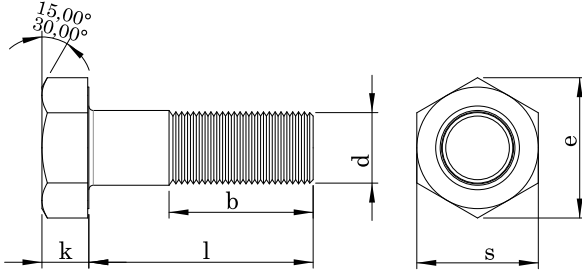
b³ for lengths > 200 mm.

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

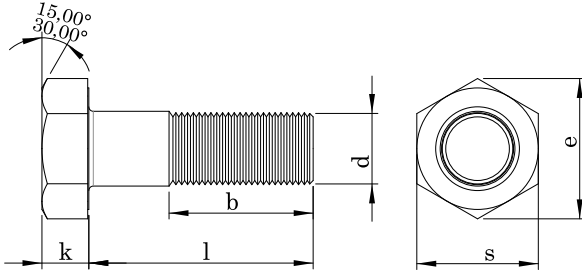
Thread size / Anma çapı (d)				M24	M27	M30	M33	M36	M39
Pitch / Diş adımı		P		3,00	3,00	3,50	3,50	4,00	4,00
Nominal size max.				15,00	17,00	18,70	21,00	22,50	25,00
Head height / Kafa yüksekliği		A	min.	14,78					
			max.	15,22					
		B	min.	14,65	16,65	18,28	20,58	22,08	24,58
			max.	15,35	17,35	19,12	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	58,80
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		54,00	60,00	66,00	72,00	78,00	84,00
		b ²		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.

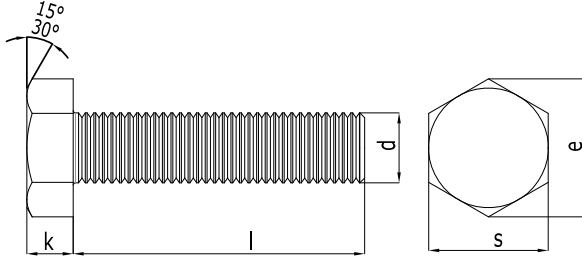
b³ for lengths > 200 mm.

Thread size Anma çapı	Product Grade				M24	M27	M30	M33	M36	M39
Length Boy	A		B		Weight /Ağırlık gr/p					
	min.	max.	min.	max.						
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

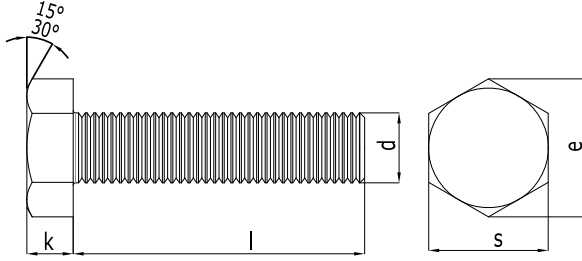
Thread size Anma çapı	Product Grade				M24	M27	M30	M33	M36	M39
	A		B							
Length Boy	min.	max.	min.	max.	Weight /Ağırlık gr/p					
100	99,30	100,70	-	-	464,00	603,00	767,00	951,00		
110	109,30	110,70	-	-	500,00	650,00	823,00	1020,00	1240,00	
120	119,30	120,70	-	-	535,00	695,00	880,00	1090,00	1320,00	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

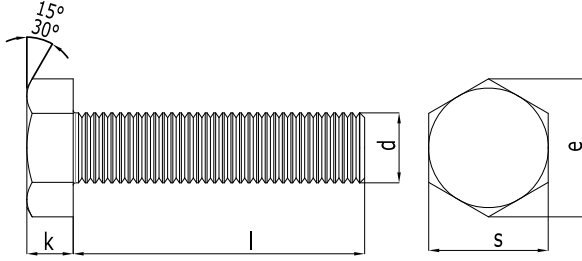
Thread size / Anma çapı (d)				M5	M6	M7	M8	M10
Pitch / Diş adımı		P		0,80	1,00	1,00	1,25	1,50
		Nominal		3,50	4,00	4,80	5,30	6,40
Head height / Kafa yüksekliği	k	A	min.	3,35	3,85	4,65	5,15	6,22
			max.	3,65	4,15	4,95	5,45	6,56
		B	min.	3,26	3,76	4,56	4,06	6,11
			max.	3,74	4,24	5,04	5,54	6,69
Head width / 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

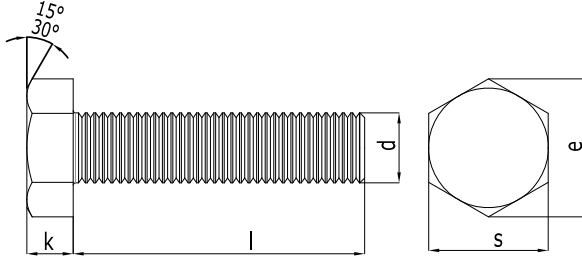
Thread size Anma çapı	A		B		M5	M6	M7	M8	M10
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p				
65	64,40	65,60	63,50	66,50	9,45	13,60	20,00	26,60	43,80
70	69,40	70,60	68,50	71,50	10,10	14,40	21,20	28,20	46,30
75	74,40	75,60	73,50	76,50	10,70	15,30	22,50	29,80	48,80
80	79,40	80,60	78,50	81,50	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					



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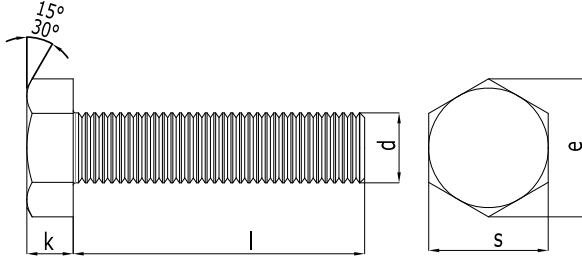
Thread size / Anma çapı (d)				M12	M14	M16	M18	M20
Pitch / Diş adımı				P	1,75	2,00	2,00	2,50
Nominal					7,50	8,80	10,00	11,50
Head height / Kafa yüksekliği	k	A	min.	7,32	8,62	9,82	11,28	12,28
			max.	7,68	8,98	10,18	11,72	12,72
	B		min.	7,21	8,51	9,71	11,15	12,15
			max.	7,79	9,09	10,29	11,85	12,85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

Thread size Anma çapı	A		B		M12	M14	M16	M18	M20
Length Boy	min.	max.	min.	max.	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



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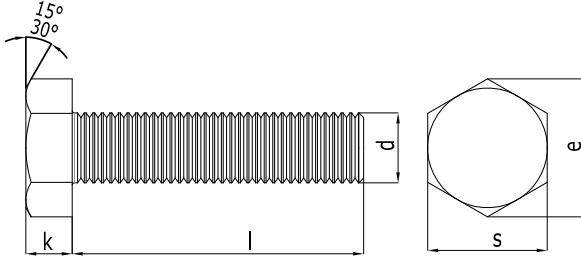
Thread size Anma çapı	A		B		M12	M14	M16	M18	M20
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p				
65	64,40	65,60	63,50	66,50	62,80	92,80	123,00	161,00	207,00
70	69,40	70,60	68,50	71,50	66,40	97,90	130,00	169,00	217,00
75	74,40	75,60	73,50	76,50	70,00	102,00	137,00	177,00	227,00
80	79,40	80,60	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



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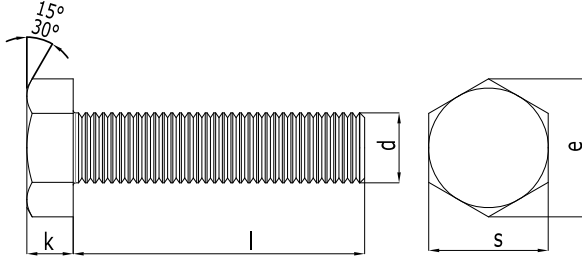
Thread size / Anma çapı (d)				M22	M24	M27	M30
Pitch / Diş adımı				P			
Nominal				14,00	15,00	17,00	18,70
Head height / Kafa yüksekliği	k	A	min.	13,78	14,78	-	-
			max.	14,22	15,22	-	-
	B		min.	13,65	14,65	16,65	18,28
			max.	14,35	15,35	17,35	19,12
Head width / Anahtar ağızı	s	A	max.	31,61	35,38	-	-
			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
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	-	-	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



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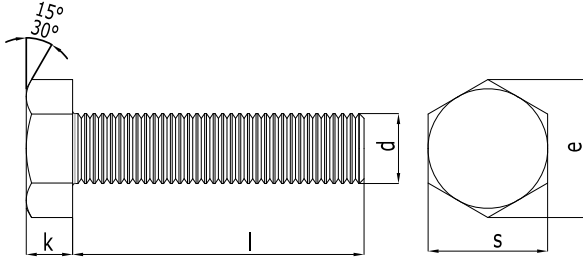
Thread size Anma çapı	A		B		M22	M24	M27	M30
Length Boy (l)	min.	max.	min.	max.	Weight /Ağırlık gr/p			
65	64,40	65,60	63,50	66,50	257,00	319,00	435,00	566,00
70	69,40	70,60	68,50	71,50	269,00	334,00	454,00	590,00
75	74,40	75,60	73,50	76,50	282,00	348,00	473,00	614,00
80	79,40	80,60	78,50	81,50	295,00	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



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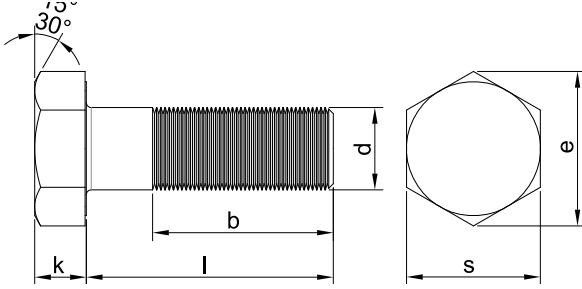
Thread size / Anma çapı (d)			M33	M36	M39	
Pitch / Diş adımı			P	3,50	4,00	4,00
Nominal			21,00	22,50	25,00	
Head height / Kafa yüksekliği	k	A	min.			
			max.			
		B	min.	20,58	22,08	24,58
			max.	21,42	22,92	25,42
Head width / Anahtar ağızı	s	A	min.			
		B	min.	49,00	53,80	58,80
Nominal			max.	50,00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



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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



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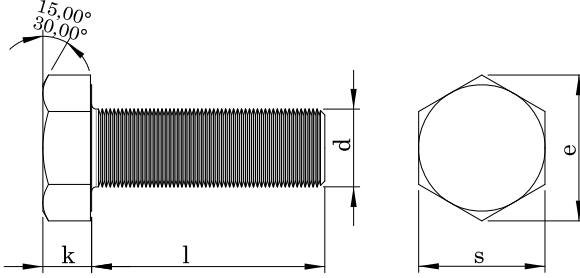
Thread size / Anma çapı (d)	M8	M10	M12	M14	M16	M18	M20
Pitch / Diş adımı	1,00	1,25	1,00	1,50	1,50	1,50	1,50
Nominal	5,30	6,40	7,50	8,80	10,00	11,50	12,50
Head height / Kafa yüksekliği	min. 5,14 max. 5,45	min. 6,22 max. 6,58	min. 7,32 max. 7,68	min. 8,62 max. 8,98	min. 9,82 max. 10,18	min. 11,29 max.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



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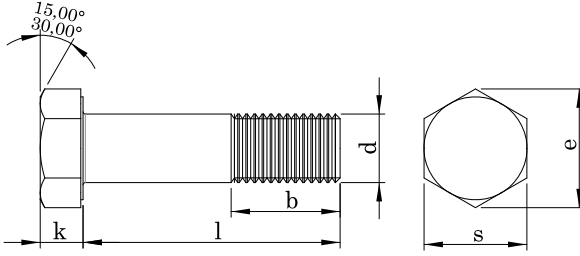
Thread size / Anma çapı (d)	M8	M10	M12	M14	M16	M18	M20
Pitch / Diş adımı P	1,00	1,00 1,25	1,50 1,25	1,50	1,50	1,50	1,50 2,00
Nominal	5,30	6,40	7,50	8,80	10,00	11,50	12,50
Head height / Kafa yüksekliği k	min. 5,15 max. 5,45	min. 6,22 max. 6,58	min. 7,32 max. 7,68	min. 8,62 max. 8,98	min. 9,82 max. 10,18	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
Length Boy (l)	Weight /Ağırlık gr/p								
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



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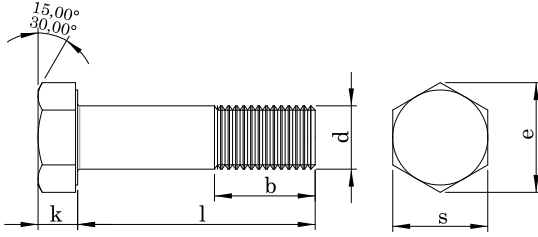
Thread size / Anma çapı (d)		M12	M16	M20	M22	M24	M27	M30	M36
Pitch / Diş adımı	p	1,75	2,00	2,50	2,50	3,00	3,00	3,50	4,00
Head height / Kafa yüksekliği	k min.	7,55	9,25	12,10	13,10	14,10	16,10	17,95	21,95
	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05	24,05
Head width / Anahtar ağız	s min.	22,00	27,00	32,00	36,00	41,00	46,00	50,00	60,00
	max.	21,60	26,16	31,00	35,00	40,00	45,00	49,00	58,80
Diagonal / Köşegen	e min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37	66,44
	max.	21,00	26,00	31,00	32,00	34,00	37,00	40,00	48,00
Thread length / Diş uzunluğu	b ¹	23,00	28,00	33,00	34,00	37,00	39,00	42,00	50,00
	b ²								

b¹ for lengths l ≤ 125 mm.

b² for lengths l 125 mm. ≤ 200 mm.

b³ for lengths > 200 mm.

Thread size Anma çapı			M12	M16	M20	M22	M24	M27	M30	M36
Length Boy (l)	min.	max.	Weight / Ağırlık gr/p							
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

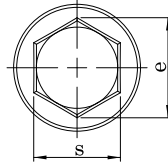
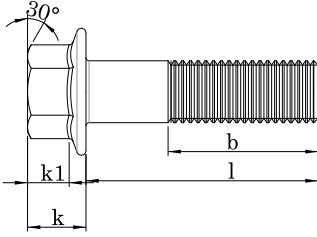
Thread size / Anma çapı (d)	M12	M16	M20	M22	M24	M27	M30	M36
Pitch / Diş adımı P	1,75	2,00	2,50	2,50	3,00	3,00	3,50	4,00
Head height / Kafa yüksekliği k min.	7,55	9,25	12,10	13,10	14,10	16,10	17,95	21,95
	max. 8,45	10,75	13,90	14,90	15,90	17,90	20,05	24,05
Head width / Anahtar ağı s max.	22,00	27,00	32,00	36,00	41,00	46,00	50,00	60,00
	min. 21,60	26,16	31,00	35,00	40,00	45,00	49,00	58,80
Diagonal / Köşegen e min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37	66,44
Thread length / Diş uzunluğu b ¹	21,00	26,00	31,00	32,00	34,00	37,00	40,00	48,00
	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 (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

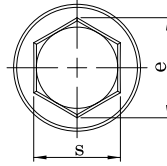
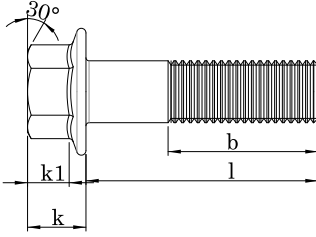
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,00
Flange dia / Flanş çapı	dc	11,80	14,20	18,00	22,30	26,60	30,50	35,00
Flange heigth / Flanş yüksekliği	c	1,00	1,10	1,20	1,50	1,80	2,10	2,40
Head height / Kafa yüksekliği	k	5,40	6,60	8,10	9,20	11,50	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
								142,30



Teknik Bilgiler / Technical Informations

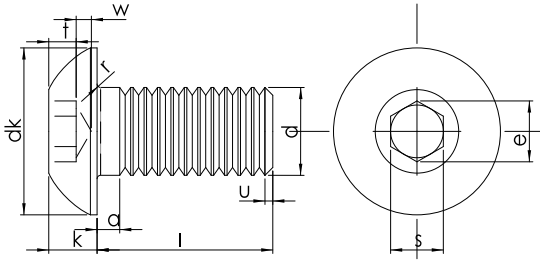
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Pitch / Diş adımı	P	0,80	1,00	1,25	1,50	1,75	2,00	2,00
Flange dia / Flanş çapı	dc	11,80	14,20	18,00	22,30	26,60	30,50	35,00
Flange heigth / Flanş yüksekliği	c	1,00	1,10	1,20	1,50	1,80	2,10	2,40
Head height / Kafa yüksekliği	k	5,40	6,60	8,10	9,20	11,50	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.

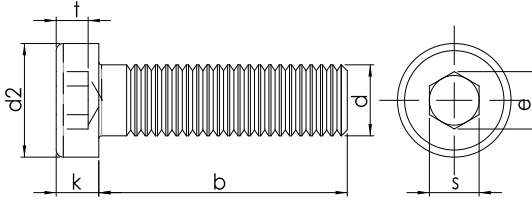
Thread size / Anma çapı (d)		M5	M6	M8	M10	M12	M14	M16
Length / Boy	min.	max.	Weight / Ağırlık gr/p					
70	69,40	70,60	11,94	19,11	35,19	57,27	85,89	117,10
80	79,40	80,60	13,43	21,26	39,03	63,29	94,56	129,00
90	89,30	90,70		23,41	42,87	69,32	103,20	140,80
100	99,30	100,70		25,57	46,70	75,35	111,90	152,70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



Teknik Bilgiler / Technical Informations

Thread size (d)		M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
P1		0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00
a	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
dk	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
e2	max.	2,30	2,87	3,44	4,58	5,72	6,86	9,15	11,43
k	max.	1,65	2,20	2,75	3,30	4,40	5,50	6,60	8,80
	min.	1,40	1,95	2,50	3,00	4,10	5,20	6,24	8,44
r	min.	0,10	0,20	0,20	0,25	0,40	0,40	0,60	0,60
	min.	2,00	2,50	3,00	4,00	5,00	6,00	8,00	10,00
s3	max.	2,05	2,56	3,07	4,08	5,08	6,10	8,12	10,12
	min.	2,02	2,52	3,02	4,02	5,02	6,02	8,03	10,03
t	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

			M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
Nominal /Length	min.	max.	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								

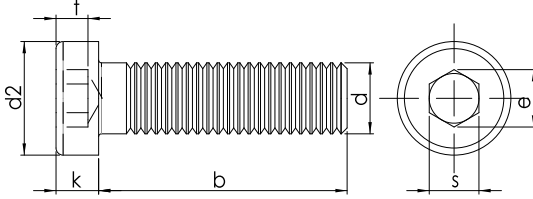


Teknik Bilgiler / Technical Informations

Thread size / Anma çapı (d)			M3	M4	M5	M6	M8	M10	M12	M14
Pitch / Diş adımı	P	P	0,50	0,70	0,80	1,00	1,25	1,50	1,75	2,00
Head height / Kafa Yüksekliği	k	min.	1,86	2,66	3,32	3,82	4,82	5,82	6,78	7,78
		max.	2,00	2,80	3,50	4,00	5,00	6,00	7,00	8,00
Head dia / Kafa çapı	d2	min.	5,32	6,78	8,28	9,78	12,73	15,73	17,73	20,67
		max.	5,50	7,00	8,50	10,00	13,00	16,00	18,00	21,00
Socket width / Soket genişliği	s	nominal	2,00	2,50	3,00	4,00	5,00	7,00	8,00	10,00
		min.	2,02	2,52	3,02	4,02	5,02	7,03	8,03	10,03
Socket dia / Soket çapı	e	min.	2,30	2,87	3,44	4,58	5,72	8,01	9,15	11,43
		nominal	1,50	2,30	2,70	3,00	3,80	4,50	5,00	5,30
Socket depth / Soket derinliği	t	min.	1,38	2,18	2,58	2,88	3,65	4,35	4,85	5,15
		max.	1,62	2,42	2,82	3,12	3,95	4,65	5,15	5,45
Thread length / Diş uzunluğu	b ₁ b ₂ b ₃		12,00	14,00	16,00	18,00	22,00	26,00	30,00	34,00
							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.	max.	Weight/Ağırlık gr/p							
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	46,50
35	34,5	35,5				8,67	16,00	24,70	34,90	51,40
40	39,5	40,5				9,78	18,00	27,80	39,30	56,30
45	44,5	45,5					20,00	30,90	43,70	62,30
50	49,5	50,5					22,00	34,00	48,10	68,30
55	54,4	55,6					24,00	37,10	52,50	74,30
60	59,4	60,6					26,00	40,20	56,90	80,30
70	69,4	70,6						46,40	65,80	92,40
80	79,4	80,6							74,70	105,00
90	89,3	90,7								
100	99,3	100,7								

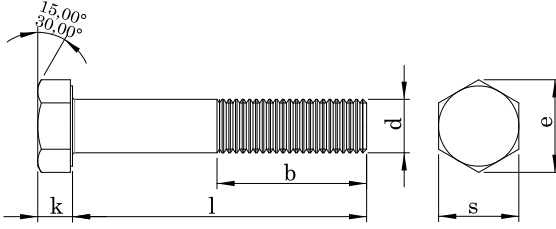


Teknik Bilgiler / Technical Informations

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.	12,21	12,21	14,21	14,21	17,23
		max.	13,72	13,72	16,00	16,00	19,44
Socket depth / Soket derinliği	t	nominal	5,50	6,50	7,50	8,00	8,00
		min.	5,35	6,32	7,32	7,82	7,82
Thread length / Diş uzunluğu	b ₁ b ₂ b ₃	max.	5,65	6,68	7,68	8,18	8,18
			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

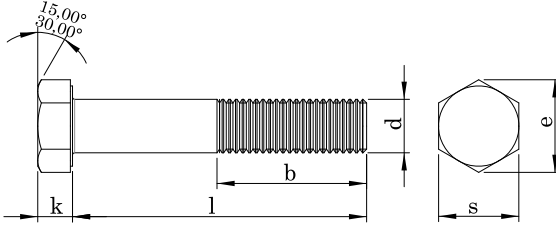
Thread size / Anma çapı (d)		M12	M16	M20	M22	M24	M27	M30
Pitch / Diş adımı	P	1,75	2,00	2,50	2,50	3,00	3,00	3,50
Head height / Kafa Yüksekliği	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05
	Nominal	8,00	10,00	13,00	14,00	15,00	17,00	19,00
Head with / Anahtar ağızı	max.	19,00	24,00	30,00	32,00	36,00	41,00	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

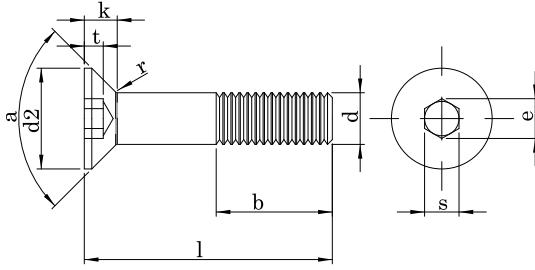
Thread size / Anma çapı (d)		M12	M16	M20	M22	M24	M27	M30
Pitch / Diş adımı	P	1,75	2,00	2,50	2,50	3,00	3,00	3,50
Head height / Kafa Yüksekliği	max.	8,45	10,75	13,90	14,90	15,90	17,90	20,05
	Nominal	8,00	10,00	13,00	14,00	15,00	17,00	19,00
Head with / Anahtar ağızı	max.	19,00	24,00	30,00	32,00	36,00	41,00	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						
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

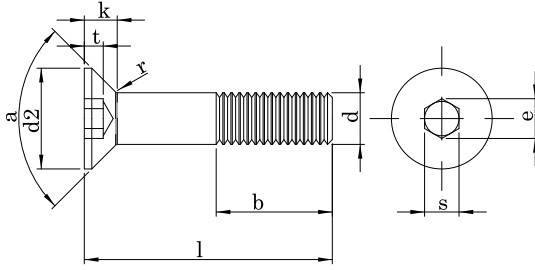
Thread size / Anma çapı (d)			M3	M4	M5	M6	M8	M10	M12
Pitch / Diş adımı	P		0,50	0,70	0,80	1,00	1,25	1,50	1,75
Head height / Kafa Yüksekliği	k	max.	1,70	2,30	2,80	3,30	4,40	5,50	6,50
Head dia / Kafa çapı	d2	max.	6,00	8,00	10,00	12,00	16,00	20,00	24,00
		min.	5,70	7,64	9,64	11,57	15,57	19,48	23,48
Socket 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.	max.	Weight/Ağırlık gr/p						
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

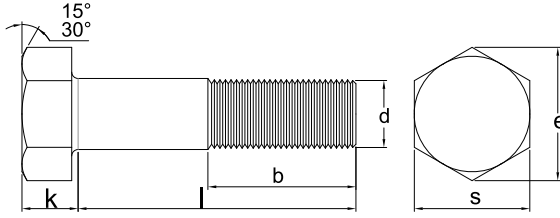
Thread size / Anma çapı (d)			M14	M16	M18	M20	M22	M24
Pitch / Diş adımı	P		2,00	2,00	2,50	2,50	2,50	3,00
Head height / Kafa Yüksekliği	k	max.	7,00	7,50	8,00	8,50	13,10	14,00
Head dia / Kafa çapı	d2	max.	27,00	30,00	33,00	36,00	36,00	39,00
		min.	26,48	29,48	32,38	35,38	35,38	38,38
Socket width / Soket 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 b ₂ b ₃		34,00	38,00	42,00	46,00	50,00	54,00
			40,00	44,00	48,00	52,00	56,00	60,00
			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.

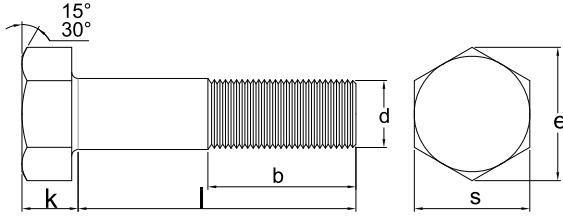
Thread size / Anma çapı (d)			M14	M16	M18	M20	M22	M24
Length/ Boyçapı (d)	min.	max.	Weight/Ağırlık gr/p					
8	7,71	8,29						
10	9,71	10,29						
12	11,65	12,35						
16	15,65	16,35						
20	19,58	20,42						
25	24,58	25,42	37,30					
30	29,58	30,42	42,20	51,80				
35	34,50	35,50	47,20	58,40		91,40		
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

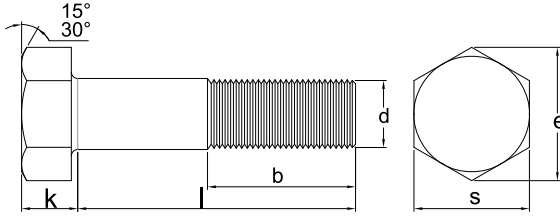
Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Length / Boy			Weight / Ağırlık gr/p					
5/8	15,88		5,94	9,98	14,70			
3/4	19,05	d: 1/4 - 3/4	6,53	10,93	16,10	23,04	36,74	
7/8	22,23	+0,05/-0,05	7,12	11,88	17,51	24,95	39,28	
1	25,40		7,89	12,84	18,91	26,85	41,82	51,17
1 1/8	28,58		8,66	14,06	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

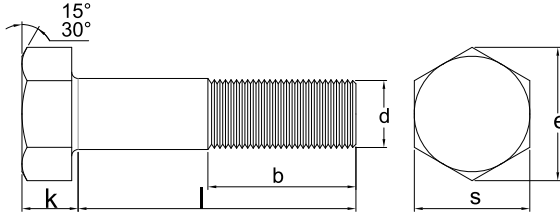
Thread size / Anma çapı (d)			1/4	5/16	3/8	7/16	1/2	9/16
Length / Boy			Weight / Ağırlık gr/p					
2 5/8	66,68		18,05	28,71	41,41	57,11	80,74	99,88
2 3/4	69,85	d: 1/4 - 3/8 -	18,82	29,94	43,18	59,51	83,87	103,87
2 7/8	73,03	1,01 / -1,52 d:	19,92	31,16	44,95	61,92	87,00	107,84
3	76,20	7/16 - 1/2 -1,52	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

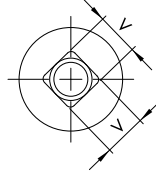
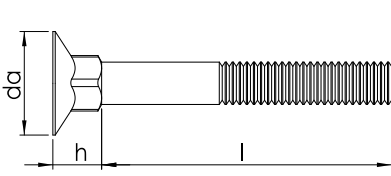
Thread size / Anma çapı (d)			5/8	3/4	7/8	1 "
Length / Boy			Weight / Ağırlık gr/p			
5/8	15,88	d: 1/4 - 3/4 +0,05/-0,05				
3/4	19,05					
7/8	22,23					
1	25,40		68,76			
1 1/8	28,58	d:1/4-3/8 +0,05 / - 1,01 d: 7/16 - 1/2 +1,01 / -1,52 d:9/16 - 3/4 +1,52 / -2,03	72,78			
1 1/4	31,75		76,79	122,74		
1 3/8	34,93		80,81	128,64		
1 1/2	38,10		84,82	134,54		
1 5/8	41,28		89,27	104,43		
1 3/4	44,45		93,71	146,33	218,73	301,54
1 7/8	47,63		98,61	152,82		
2	50,80		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**

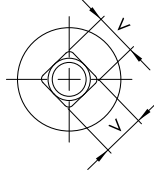
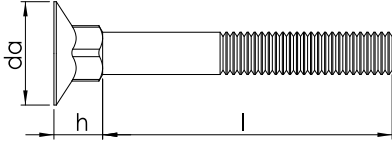
Thread size / Anma çapı (d)		7/16
Head height / Kafa yüksekliği	h	9,00
Head dia / Kafa çapı	da	20,00
Square width / Kafa genişliği	v	11,00

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

UNC BİÇAK CIVATASI CL:8.8

FLAT COUNTERSUNK SQUARE NECK BOLTS UNC
SENKESCHRAUBEN MIT HOHEM VIERKANTANSATZ

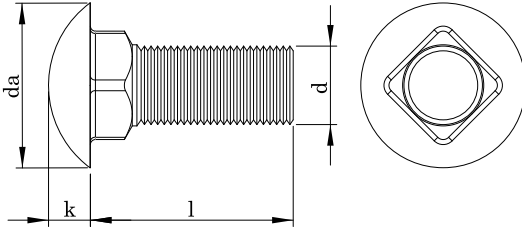
TURKUAZ
DÜŞEME MALZEMELERİ SAN. VE TİC. LTD. ŞTİ.



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

ÇAP	M5	M6 1/4	M8 5/16	M10 3/8 - 7/16	M12 1/2	M14 9/16	M16 5/8	M18	M20 3/4	M24
BOY	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE	KOLİDEKİ KUTU / SAYISI / BOX / PIECE
10	3/8	8	500	8	500					
12	1/2	8	500	8	500					
15		8	500	8	200					
16	5/8	8	500	6	200					
18		8	500	6	200					
20	3/4	8	500	6	200					
25	1	8	500	6	100					
30	1 1/4	6	500	6	100					
35	1 3/8	8	200	6	100					
40	1 1/2	8	200	6	100					
45	1 3/4	8	200	6	100					
50	2	8	200	6	100					
55	2 1/4		6	200	6	100				
60			6	200	4	100				
65	2 1/2		6	200	4	100				
70	2 3/4		6	200	4	100				
75	3		4	200	4	100				
80	3 1/4		4	200	4	100				
85			6	100	6	100				
90	3 1/2		6	100	6	100				
100	4		6	100	6	100				
110	4 1/2		6	100	6	100				
120			6	100	6	100				
130	5		6	100	6	100				
140	5 1/2		6	100	6	100				
150	6		6	100	4	100				
160										
170										
180	7									
190										
200	8									