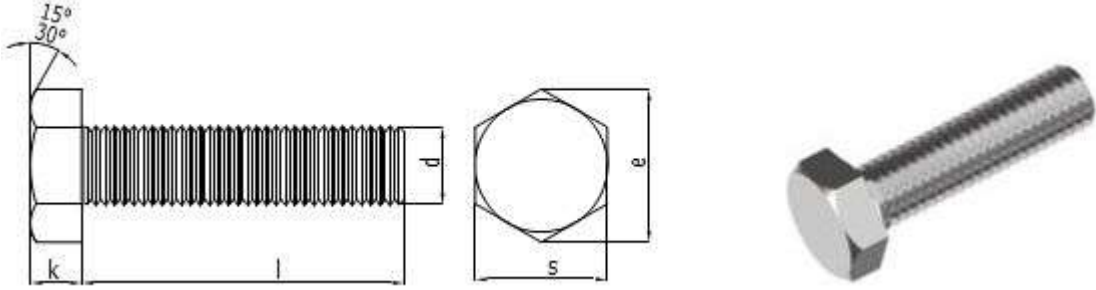


**DIN 933 ISO 4017**

**ALTİKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTSCHRAUBE MIT GEWINDE BIS KOPF**



**Technical Informations / Teknik Bilgiler**

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
		A	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 ağı	s	A	min.	7,78	9,78	10,73	12,73	16,73
		A	max.	7,64	9,64	10,57	12,57	16,57
	Nominal	min.	8,00	10,00	11,00	13,00	17,00	
		max.	8,79	11,05	12,12	14,38	18,90	
Diagonal / Köşegen	e	A	min.	8,79	11,05	12,12	14,38	18,90
		B	min.	8,63	10,89	11,94	14,20	18,72

Thread size / Anma çapı (d)	A		B		M5	M6	M7	M8	M10
	min.	max.	min.	max.					
Length / Boy (l)	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	50,5	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

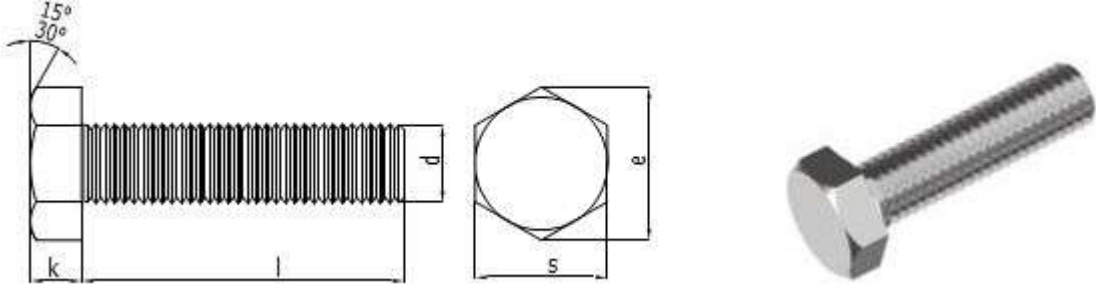
Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTİKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTSCHRAUBE MIT GEWINDE BIS KOPF**



**Technical Informations / Teknik Bilgiler**

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

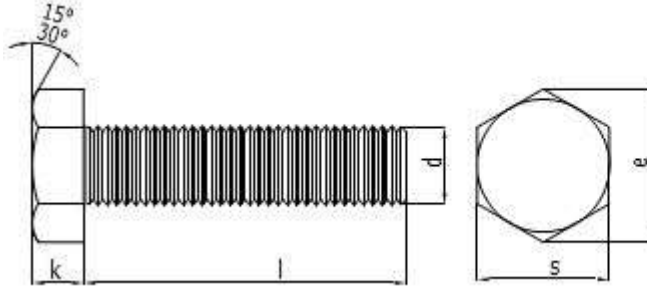
Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTİKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTSCHRAUBE MIT GEWINDE BIS KOPF**



**Technical Informations / Teknik Bilgiler**

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	min.	18,67	21,67	23,67	26,67	29,67		
		max.	18,48	21,16	23,16	26,15	29,16		
	Nominal	min.	19,00	22,00	24,00	27,00	30,00		
		max.	21,10	24,49	26,75	30,14	33,53		
Diaçonal / Köşegen e	A	min.	20,88	23,91	26,17	29,56	32,95		
	B	min.							
Thread size / Anma çapı (d)	A	B	M12	M14	M16	M18	M20		
Length / Boy (l)	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	50,5	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

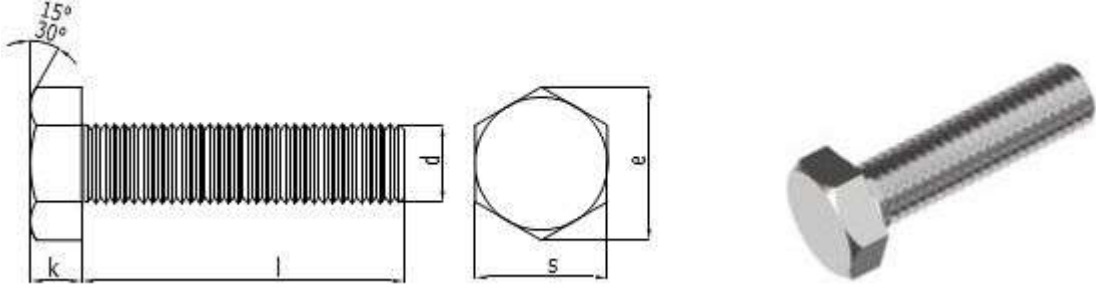
Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTİKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTSCHRAUBE MIT GEWINDE BIS KOPF**



**Technical Informations / Teknik Bilgiler**

Thread size / Anma çapı (d)	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

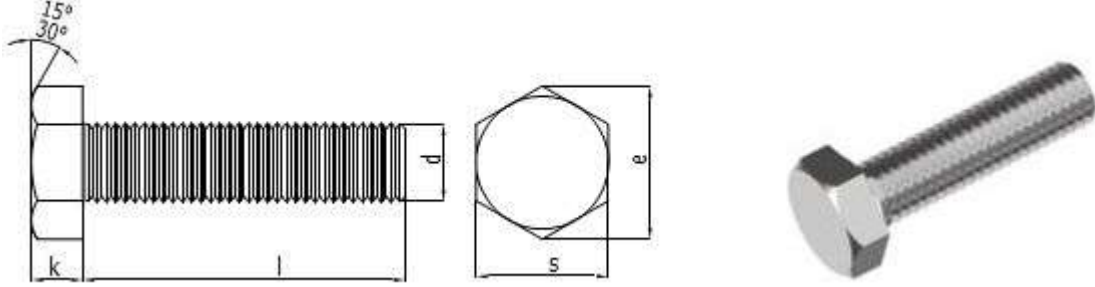
Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTIKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTENSCHEIBE MIT GEWINDE BIS KOPF**



**Technical Informations / Teknik Bilgiler**

Thread size / Anma çapı (d)			M22	M24	M27	M30	
Pitch / Diş adımı	P	Nominal	2,50	3,00	3,00	3,50	
			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	min.	31,61	35,38	-	-
			min.	31,00	35,00	40,00	45,00
	Nominal	max.	32,00	36,00	41,00	46,00	
Diagonal / Köşegen	e	A	min.	35,72	39,98	-	-
		B	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	50,5	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

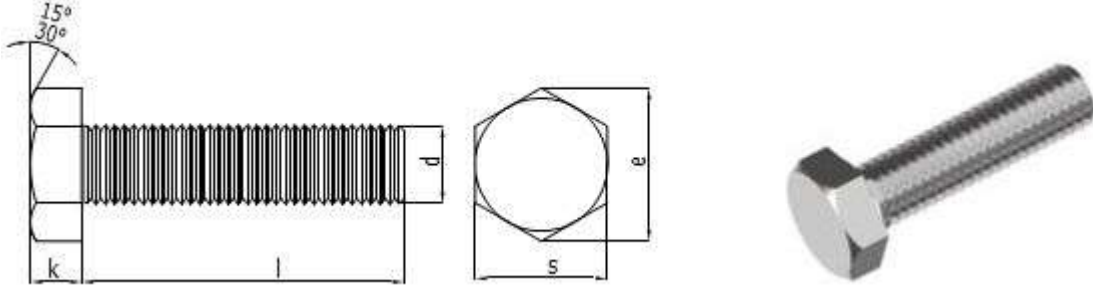
Values are given in milimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTIKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**

**HEXAGON HEAD BOLTS THREADED UP TO HEAD**

**SECHSKANTSCHRAUBE MIT GEWINDE BIS KOPF**



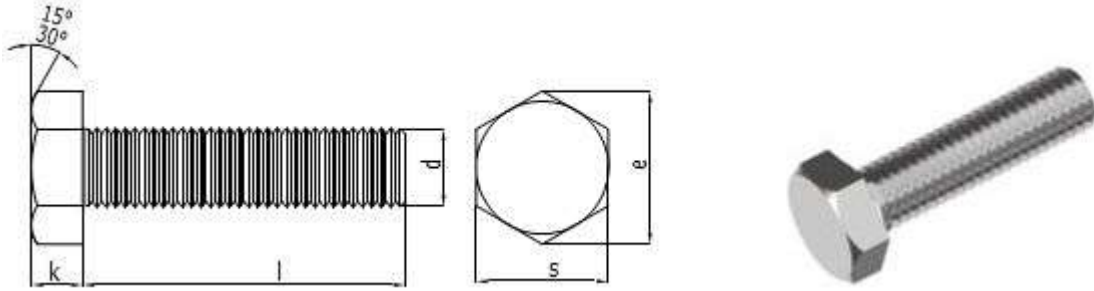
**Technical Informations / Teknik Bilgiler**

Thread size / Anma çapı (d)	A		B		M22	M24	M27	M30
	min.	max.	min.	max.				
Length / Boy (l)	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

Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTIKÖŞE BAŞLI TAM DİŞ CIVATA CL:8.8 - 10.9 - 12.9**



**Technical Informations / Teknik Bilgiler**

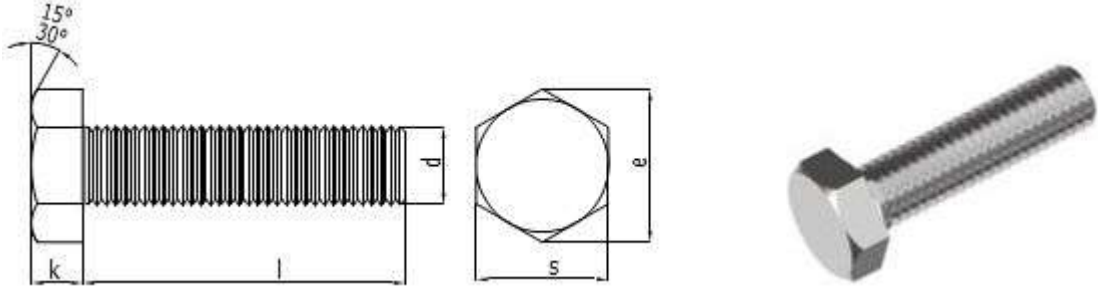
Thread size / Anma çapı (d)		M33	M36	M39	
Pitch / Diş adımı	P	3,50	4,00	4,00	
	Nominal	21,00	22,50	25,00	
Head height / Kafa yüksekliği	k	min.			
		max.			
	A	min.	20,58	22,08	24,58
		max.	21,42	22,92	25,42
Head width / Anahtar ağızı	s	min.			
		max.			
	A	min.	49,00	53,80	58,80
		max.	50,00	55,00	60,00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

Thread size / Anma çapı	A		B		M33	M36	M39
	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					
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	50,5	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

Values are given in millimeters. / Değerler milimetre olarak verilmiştir.

**DIN 933 ISO 4017**

**ALTİKÖŞE BAŞLI TAM DIŞ CIVATA CL:8.8 - 10.9 - 12.9**  
**HEXAGON HEAD BOLTS THREADED UP TO HEAD**



**Technical Informations / Teknik Bilgiler**

Thread size / Anma çapı (d)	A		B		M33	M36	M39
	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

Values are given in millimeters. / Değerler milimetre olarak verilmiştir.