

Ocak 2016

**MTEOR**ange 'la  
Performansı Yakala

Sayfa 76 - 102



**MAKINA TAKIM**

[www.makinatakim.com.tr](http://www.makinatakim.com.tr)



Fiyatlarımıza K.D.V. dahil değildir.  
Listede bulunmayan her türlü özel ve standart kesici takım ihtiyaçlarınız için  
0 (262) 744 18 80 numaralı telefonu arayabilirsiniz.  
Oluşabilecek baskı hatalarından firmamız sorumlu değildir.



**MAKINA TAKIM ENDÜSTRİSİ A.Ş.**

**OCAK 2016 FİYAT LİSTESİ**



MAKİNA TAKİM ENDÜSTRİSİ A.Ş.

ISO 9001:2008














ISO 9001:2008





# MAKİNA TAKİM ENDÜSTRİSİ A.Ş.

Malzeme Material	<b>HSS</b> Yüksek Hız Çeliği High Speed Steel	<b>HSS-E</b> Kobaltlı Yüksek Hız Çeliği High Speed Steel With Co	<b>KSM</b> Komple Sert Metal Solid Carbide			
Norm Norm	<b>DIN 9</b>	<b>DIN 8094</b>				
Tip Type	<b>N</b>	<b>H</b>	<b>W</b>			
Uç Açısı Point Angle						
Vida Tipi Thread Type	<b>M</b>	<b>MF</b>	<b>UNC</b>	<b>UNF</b>	<b>BSW</b>	<b>BSP</b>
Vida Profil Açısı Thread Angle						
Helis Açısı Helix Angle	<b>R25°</b>	<b>R35°</b>	<b>R45°</b>			
Kesme Yönü Cutting Direction	 Sağ Kesme Yönü	 Sol Kesme Yönü				
Şaft Tipi The Shank						





**KOMPLE SERT METAL**



**MAKINA TAKIM ENDÜSTRİSİ A.Ş.**



## Komple Sert Metal

Ürün Tanımı	Kalite	Standart	Sayfa No
Komple Sert Metal Matkap Ucu	KSM	DIN 338	1
Komple Sert Metal Matkap Ucu	KSM	DIN 6539	1
Komple Sert Metal Parmak Freze 2 Ağızlı	KSM	DIN 6528	2
Komple Sert Metal Parmak Freze 3 Ağızlı	KSM	DIN 6528	2
Komple Sert Metal Parmak Freze 4 Ağızlı	KSM	DIN 6528	3
Komple Sert Metal Küresel Başlı Parmak Freze 2 Ağızlı	KSM		4
Komple Sert Metal Küresel Başlı Parmak Freze 4 Ağızlı	KSM		4
Komple Sert Metal Parmak Freze 4 Ağızlı - 35°/38°- Köşe Pahlı	KSM		5
Komple Sert Metal Matkap Ucu 3XD - İçten Soğutmalı	KSM		6
Komple Sert Metal Matkap Ucu 5XD	KSM		8



## KSM, Matkap ve Freze Önerilen Çalışma Şartları

MALZEME TABLOSU			KSM Matkap çapı ,(mm)		
			MATKAP	Ø3-6	Ø6-10
Malzemeler	DIN	Kesme hızı (Vc),m/dk	İlerleme hızı		
<b>Çelik</b>					
P	Yumuşak Yapı Çelikleri	St37-3	100-130	0,10-0,25	0,15-0,30
	Otomat çeliği	9 S 20 ,9 SMn 28	90-120	0,10-0,25	0,15-0,30
	Sementasyon çeliği ,Yapı çeliği	St33-1 ,St37-3 ,C10			
	Karbon çelikleri	35S20 ,St52-3	70-100	0,10-0,25	0,15-0,30
	Düşük alaşımlı çelik	9SMnPb28 ,C45			
	Döküm çelikleri	St-50-2 ,GS40Mn5	60-80	0,08-0,14	0,10-0,22
	Alaşım çeliği	C55 ,C60			
Soğuk iş takım çeliği	41CrAlMo7 ,41Cr4 100Cr6				
Temperlenmiş çelik 38 Hrc'ye kadar	30CrNiMo8 34CrMo4 ,40NiCrMo2 36CrNiMo4 ,42CrMo4	40-70	0,10-0,25	0,15-0,30	
	Sertleştirilmiş yüksek alaşımlı çelik 44 Hrc'ye kadar	55NiCrMoV6 S6-5-2 ,50CrV4	30-50	0,06-0,12	0,08-0,18
<b>Paslanmaz çelik</b>					
M	Ferritik	X 46 Cr 13 X 5CrNi18 10 X2CrNiMoN22-5-3	40-70*	0,08-0,14	0,08-0,20
	Martensitik paslanmaz çelikler, ,Östenitik-ferritik dubleks				
<b>Dökme demir</b>					
K	Gri dökme demir	GG15 ,GG20 GG25 ,GG30	100-120	0,12-0,25	0,25-0,40
	Dövülebilir dökme demir	GTS-35-10 ,GTS-45-06 GTS-55-04,GTW-35-04	70-90	0,12-0,25	0,25-0,40
	Küresel grafitli dökme demir	GGG40 ,GGG50 GGG60 ,GGG70	90-120	0,12-0,25	0,25-0,40
<b>Demir dışı malzemeler - Alüminyum alaşımları</b>					
N	Alaşımsız alüminyum, dövme alaşımları,	Alüminyum AlCuSiMn GAlSi10Mg	180-220	0,12-0,20	0,15-0,35
	<b>Bakır alaşımları</b>				
	Saf bakır ,Düşük alaşımlı bakır Bakır çinko alaşımları (Pirinç, uzun talaş) Bakır çinko alaşımları (Pirinç, kısa talaş)	Cu - OF Cu Zn 37 ,Cu Zn 15 Cu Zn 39 Pb 3 Cu Zn 39 Pb 2	110-160 150-170 180-240	0,12-0,20	0,15-0,35
<b>Özel malzemeler - Titanyum alaşımları</b>					
S	Titanyum alaşımları	Ti Al 6 V 4	20-40*	0,06-0,12	0,08-0,15
	<b>Isı dirençli süper alaşımlar</b>				
	Nikel alaşımları	Ni Cu 30 Fe	10-25*	0,06-0,10	0,08-0,12
<b>Sert malzemeler</b>					
H	Yüksek mukavemetli çelikler Sertleştirilmiş çelikler Sert dökümler	Weldox1100 Hardox 500 Armox 600T HSSE	20-40*	0,06-0,10	0,08-0,12

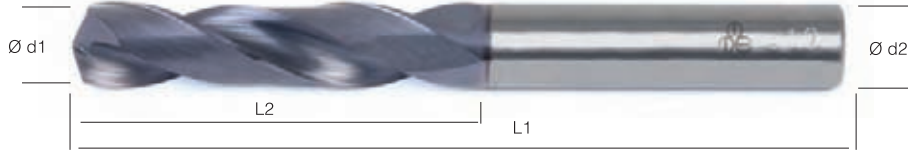
\*Uygun olmayan malzemelerde standart takımlar önerilmez.





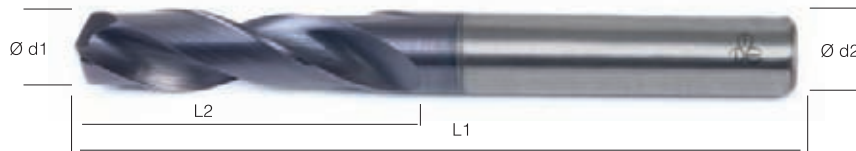
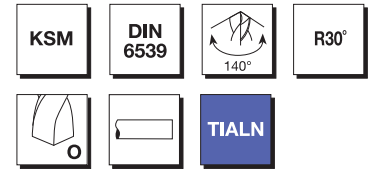
		KSM Freze çapı, (mm) Kenar frezeleme (ap=2xD ae=0,5xD) Alın frezeleme (ap=1xD ae=1xD)										
Ø10-14	Ø14-20		Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20
fn mm/dev		Kesme hızı (Vc),m/dk	İlerleme hızı fz mm/diş									
0,20-0,40	0,22-0,40	100-120	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,20-0,40	0,22-0,40	80-110	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,20-0,40	0,22-0,40	80-110	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,12-0,25	0,18-0,28	70-90	0.008	0.015	0.015	0.018	0.03	0.035	0.04	0.04	0.06	0.08
0,20-0,40	0,22-0,40	70-90	0.008	0.015	0.015	0.018	0.03	0.035	0.04	0.04	0.06	0.08
0,10-0,20	0,15-0,22	80-100	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.06	0.08	0.1
0,12-0,22	0,14-0,24	30-50*	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,30-0,45	0,40-0,52	110-130	0.008	0.015	0.015	0.018	0.03	0.035	0.04	0.04	0.06	0.08
0,30-0,45	0,40-0,52	50-80	0.02	0.027	0.03	0.033	0.045	0.056	0.068	0.075	0.09	0.11
0,30-0,45	0,40-0,52	80-100	0.02	0.027	0.03	0.033	0.045	0.056	0.068	0.075	0.09	0.11
0,25-0,40	0,30-0,50	180-220	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,25-0,40	0,30-0,50	70-90	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
		90-120	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
		100-130	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,10-0,20	0,15-0,25	40-60*	0.012	0.025	0.03	0.035	0.05	0.06	0.09	0.1	0.11	0.13
0,10-0,15	0,12-0,18	30-50*										
0,10-0,15	0,12-0,18	30-50*	0.007	0.014	0.014	0.02	0.028	0.034	0.043	0.043	0.051	0.056

## Komple Sert Metal Matkap Ucu DIN 338



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	EURO/Adet
B12551003000	3,0	3,0	61	33	<b>22,08</b>	B12551009500	9,5	9,5	125	81	<b>60,06</b>
B12551003500	3,5	3,5	70	39	<b>22,08</b>	B12551010000	10,0	10,0	133	87	<b>60,06</b>
B12551004000	4,0	4,0	75	43	<b>24,74</b>	B12551011000	11,0	11,0	142	94	<b>75,08</b>
B12551004500	4,5	4,5	80	47	<b>24,74</b>	B12551012000	12,0	12,0	151	101	<b>75,08</b>
B12551005000	5,0	5,0	86	52	<b>24,74</b>	B12551013000	13,0	13,0	151	101	<b>100,69</b>
B12551005500	5,5	5,5	93	57	<b>24,74</b>	B12551014000	14,0	14,0	160	108	<b>100,69</b>
B12551006000	6,0	6,0	93	57	<b>24,74</b>	B12551015000	15,0	15,0	169	114	<b>123,65</b>
B12551006500	6,5	6,5	101	63	<b>39,74</b>	B12551016000	16,0	16,0	178	120	<b>123,65</b>
B12551007000	7,0	7,0	109	69	<b>39,74</b>	B12551017000	17,0	17,0	184	125	<b>150,15</b>
B12551007500	7,5	7,5	109	69	<b>39,74</b>	B12551018000	18,0	18,0	191	130	<b>150,15</b>
B12551008000	8,0	8,0	117	75	<b>39,74</b>	B12551019000	19,0	19,0	198	135	<b>176,65</b>
B12551008500	8,5	8,5	117	75	<b>60,06</b>	B12551020000	20,0	20,0	205	140	<b>176,65</b>
B12551009000	9,0	9,0	125	81	<b>60,06</b>						

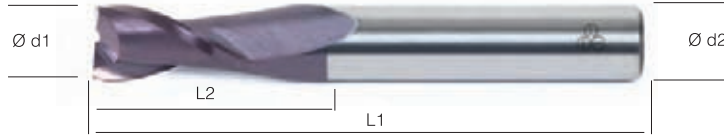
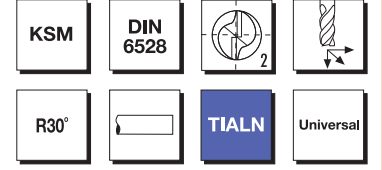
## Komple Sert Metal Matkap Ucu DIN 6539



d1=d2

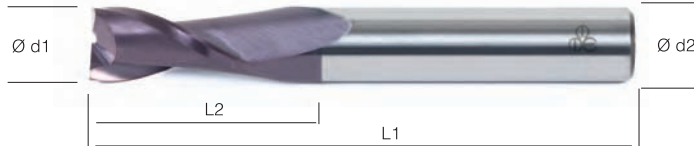
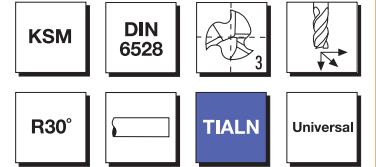
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	EURO/Adet
B12551103000	3,0	3,0	46	16	<b>9,71</b>	B12551108500	8,5	8,5	79	37	<b>50,34</b>
B12551103500	3,5	3,5	52	20	<b>11,04</b>	B12551109000	9,0	9,0	84	40	<b>50,34</b>
B12551104000	4,0	4,0	55	22	<b>11,04</b>	B12551109500	9,5	9,5	84	40	<b>50,34</b>
B12551104500	4,5	4,5	58	24	<b>18,10</b>	B12551110000	10,0	10,0	89	43	<b>50,34</b>
B12551105000	5,0	5,0	62	26	<b>18,10</b>	B12551111000	11,0	11,0	95	47	<b>71,98</b>
B12551105500	5,5	5,5	66	28	<b>18,10</b>	B12551112000	12,0	12,0	102	51	<b>71,98</b>
B12551106000	6,0	6,0	66	28	<b>18,10</b>	B12551114000	14,0	14,0	107	54	<b>88,32</b>
B12551106500	6,5	6,5	70	31	<b>34,45</b>	B12551116000	16,0	16,0	115	58	<b>121,88</b>
B12551106800	6,8	6,8	74	34	<b>34,45</b>	B12551118000	18,0	18,0	123	62	<b>163,40</b>
B12551108000	8,0	8,0	79	37	<b>37,09</b>	B12551120000	20,0	20,0	131	66	<b>163,40</b>

## Komple Sert Metal Parmak Freze 2 Ağızlı



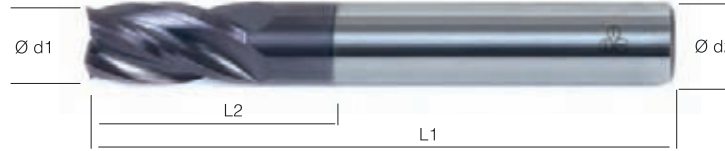
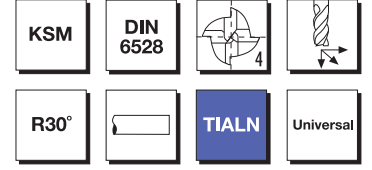
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12553203000	3	3	50	7	2	<b>10,60</b>	B12553210000	10	10	72	19	2	<b>36,21</b>
B12553204000	4	4	50	8	2	<b>11,48</b>	B12553212000	12	12	83	22	2	<b>45,92</b>
B12553205000	5	5	50	10	2	<b>12,37</b>	B12553214000	14	14	83	22	2	<b>60,06</b>
B12553206000	6	6	57	10	2	<b>17,66</b>	B12553216000	16	16	92	26	2	<b>89,20</b>
B12553208000	8	8	63	16	2	<b>23,85</b>	B12553220000	20	20	104	32	2	<b>130,72</b>

## Komple Sert Metal Parmak Freze 3 Ağızlı



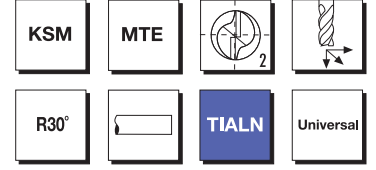
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12553103000	3	3	50	7	3	<b>10,60</b>	B12553110000	10	10	72	19	3	<b>36,21</b>
B12553104000	4	4	50	8	3	<b>11,48</b>	B12553112000	12	12	83	22	3	<b>45,92</b>
B12553105000	5	5	50	10	3	<b>12,37</b>	B12553114000	14	14	83	22	3	<b>60,06</b>
B12553106000	6	6	57	10	3	<b>17,66</b>	B12553116000	16	16	92	26	3	<b>89,20</b>
B12553108000	8	8	63	16	3	<b>23,85</b>	B12553120000	20	20	104	32	3	<b>130,72</b>

## Komple Sert Metal Parmak Freze 4 Ağızlı



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12553003000	3	3	50	10	4	<b>10,60</b>	B12553010000	10	10	72	22	4	<b>36,21</b>
B12553004000	4	4	50	11	4	<b>11,48</b>	B12553012000	12	12	83	26	4	<b>45,92</b>
B12553005000	5	5	50	13	4	<b>12,37</b>	B12553014000	14	14	83	26	4	<b>60,06</b>
B12553006000	6	6	57	13	4	<b>17,66</b>	B12553016000	16	16	92	32	4	<b>89,20</b>
B12553008000	8	8	63	19	4	<b>23,85</b>	B12553020000	20	20	104	38	4	<b>130,72</b>

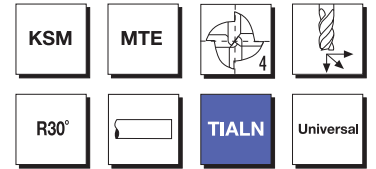
## Komple Sert Metal Küresel Başlı Parmak Freze 2 Ağızlı



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12554003000	3	3	57	7	2	<b>13,25</b>
B12554004000	4	4	57	8	2	<b>15,01</b>
B12554005000	5	5	57	10	2	<b>16,78</b>
B12554006000	6	6	57	10	2	<b>22,08</b>
B12554008000	8	8	63	16	2	<b>31,80</b>
B12554010000	10	10	72	19	2	<b>46,81</b>

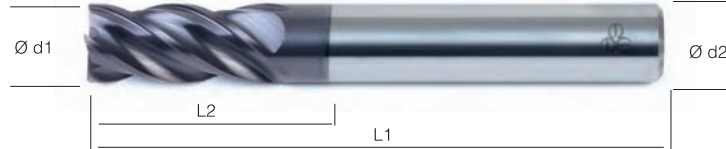
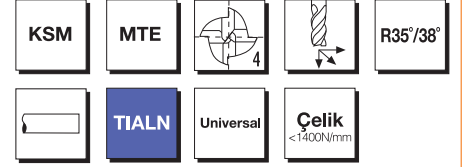
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12554012000	12	12	83	22	2	<b>59,17</b>
B12554014000	14	14	83	22	2	<b>78,60</b>
B12554016000	16	16	92	26	2	<b>116,58</b>
B12554018000	18	18	92	26	2	<b>143,08</b>
B12554020000	20	20	104	32	2	<b>156,33</b>

## Komple Sert Metal Küresel Başlı Parmak Freze 4 Ağızlı



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12554103000	3	3	57	7	4	<b>13,25</b>
B12554104000	4	4	57	8	4	<b>15,01</b>
B12554105000	5	5	57	10	4	<b>16,78</b>
B12554106000	6	6	57	13	4	<b>22,08</b>
B12554108000	8	8	63	19	4	<b>31,80</b>
B12554110000	10	10	72	22	4	<b>46,81</b>

Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12554112000	12	12	83	26	4	<b>59,17</b>
B12554114000	14	14	83	26	4	<b>78,60</b>
B12554116000	16	16	92	32	4	<b>116,58</b>
B12554118000	18	18	92	32	4	<b>143,08</b>
B12554120000	20	20	104	38	4	<b>156,33</b>

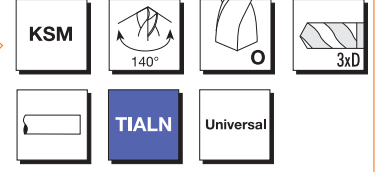
**Komple Sert Metal Parmak Freze  
4 Ağzılı - 35°/38° - Köşe Pahlı**


Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12557006000	6	6	57	13	4	<b>18,75</b>
B12557008000	8	8	69	19	4	<b>25,64</b>
B12557010000	10	10	72	22	4	<b>37,48</b>
B12557012000	12	12	79	22	4	<b>47,33</b>

Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	z	EURO/Adet
B12557014000	14	14	83	26	4	<b>63,12</b>
B12557016000	16	16	92	32	4	<b>82,85</b>
B12557018000	18	18	92	32	4	<b>114,41</b>
B12557020000	20	20	104	38	4	<b>126,25</b>

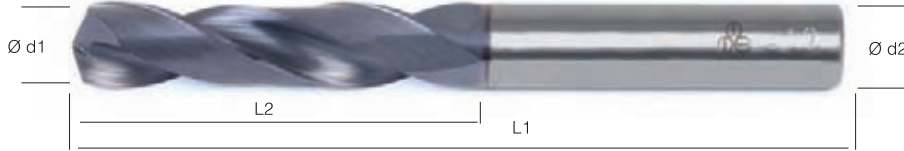
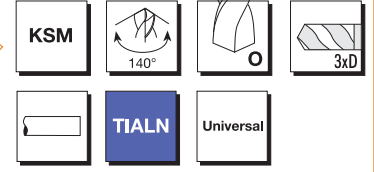


## Komple Sert Metal Matkap Ucu 3XD



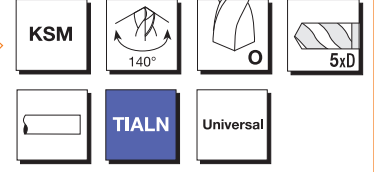
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet
B12560300300	3,0	6	62	20	14	21,87	B12560300720	7,2	8	79	41	29	27,67
B12560300310	3,1	6	62	20	14	21,87	B12560300730	7,3	8	79	41	29	27,67
B12560300320	3,2	6	62	20	14	21,87	B12560300740	7,4	8	79	41	29	27,67
B12560300330	3,3	6	62	20	14	21,87	B12560300750	7,5	8	79	41	29	27,67
B12560300340	3,4	6	62	20	14	21,87	B12560300760	7,6	8	79	41	29	27,67
B12560300350	3,5	6	62	20	14	21,87	B12560300770	7,7	8	79	41	29	27,67
B12560300360	3,6	6	62	20	14	21,87	B12560300780	7,8	8	79	41	29	27,67
B12560300370	3,7	6	62	20	14	21,87	B12560300790	7,9	8	79	41	29	27,67
B12560300380	3,8	6	66	24	17	21,87	B12560300800	8,0	8	79	41	29	27,67
B12560300390	3,9	6	66	24	17	21,87	B12560300810	8,1	10	89	47	35	38,37
B12560300400	4,0	6	66	24	17	21,87	B12560300820	8,2	10	89	47	35	38,37
B12560300410	4,1	6	66	24	17	24,77	B12560300830	8,3	10	89	47	35	38,37
B12560300420	4,2	6	66	24	17	24,77	B12560300840	8,4	10	89	47	35	38,37
B12560300430	4,3	6	66	24	17	24,77	B12560300850	8,5	10	89	47	35	38,37
B12560300440	4,4	6	66	24	17	24,77	B12560300860	8,6	10	89	47	35	38,37
B12560300450	4,5	6	66	24	17	24,77	B12560300870	8,7	10	89	47	35	38,37
B12560300460	4,6	6	66	24	17	24,77	B12560300880	8,8	10	89	47	35	38,37
B12560300470	4,7	6	66	24	17	24,77	B12560300890	8,9	10	89	47	35	38,37
B12560300480	4,8	6	66	28	20	24,77	B12560300900	9,0	10	89	47	35	38,37
B12560300490	4,9	6	66	28	20	24,77	B12560300910	9,1	10	89	47	35	38,37
B12560300500	5,0	6	66	28	20	24,77	B12560300920	9,2	10	89	47	35	38,37
B12560300510	5,1	6	66	28	20	24,77	B12560300930	9,3	10	89	47	35	38,37
B12560300520	5,2	6	66	28	20	24,77	B12560300940	9,4	10	89	47	35	38,37
B12560300530	5,3	6	66	28	20	24,77	B12560300950	9,5	10	89	47	35	38,37
B12560300540	5,4	6	66	28	20	24,77	B12560300960	9,6	10	89	47	35	38,37
B12560300550	5,5	6	66	28	20	24,77	B12560300970	9,7	10	89	47	35	38,37
B12560300560	5,6	6	66	28	20	24,77	B12560300980	9,8	10	89	47	35	38,37
B12560300570	5,7	6	66	28	20	24,77	B12560300990	9,9	10	89	47	35	38,37
B12560300580	5,8	6	66	28	20	24,77	B12560301000	10,0	10	89	47	35	38,37
B12560300590	5,9	6	66	28	20	24,77	B12560301010	10,1	12	102	55	40	55,12
B12560300600	6,0	6	66	28	20	24,77	B12560301020	10,2	12	102	55	40	55,12
B12560300610	6,1	8	79	34	24	27,67	B12560301030	10,3	12	102	55	40	55,12
B12560300620	6,2	8	79	34	24	27,67	B12560301040	10,4	12	102	55	40	55,12
B12560300630	6,3	8	79	34	24	27,67	B12560301050	10,5	12	102	55	40	55,12
B12560300640	6,4	8	79	34	24	27,67	B12560301060	10,6	12	102	55	40	55,12
B12560300650	6,5	8	79	34	24	27,67	B12560301070	10,7	12	102	55	40	55,12
B12560300660	6,6	8	79	34	24	27,67	B12560301080	10,8	12	102	55	40	55,12
B12560300670	6,7	8	79	34	24	27,67	B12560301090	10,9	12	102	55	40	55,12
B12560300680	6,8	8	79	34	24	27,67	B12560301100	11,0	12	102	55	40	55,12
B12560300690	6,9	8	79	34	24	27,67	B12560301110	11,1	12	102	55	40	55,12
B12560300700	7,0	8	79	34	24	27,67	B12560301120	11,2	12	102	55	40	55,12
B12560300710	7,1	8	79	41	29	27,67	B12560301130	11,3	12	102	55	40	55,12

## Komple Sert Metal Matkap Ucu 3XD



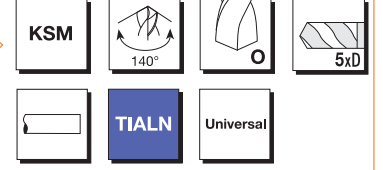
Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet
B12560301140	11,4	12	102	55	40	<b>55,12</b>	B12560301500	15,0	16	115	65	45	<b>99,63</b>
B12560301150	11,5	12	102	55	40	<b>55,12</b>	B12560301550	15,5	16	115	65	45	<b>99,63</b>
B12560301160	11,6	12	102	55	40	<b>55,12</b>	B12560301580	15,8	16	115	65	45	<b>99,63</b>
B12560301170	11,7	12	102	55	40	<b>55,12</b>	B12560301600	16,0	16	115	65	45	<b>99,63</b>
B12560301180	11,8	12	102	55	40	<b>55,12</b>	B12560301650	16,5	18	123	73	51	<b>159,00</b>
B12560301190	11,9	12	102	55	40	<b>55,12</b>	B12560301680	16,8	18	123	73	51	<b>159,00</b>
B12560301200	12,0	12	102	55	40	<b>55,12</b>	B12560301700	17,0	18	123	73	51	<b>159,00</b>
B12560301230	12,3	14	107	60	43	<b>72,07</b>	B12560301750	17,5	18	123	73	51	<b>159,00</b>
B12560301250	12,5	14	107	60	43	<b>72,07</b>	B12560301780	17,8	18	123	73	51	<b>159,00</b>
B12560301280	12,8	14	107	60	43	<b>72,07</b>	B12560301800	18,0	18	123	73	51	<b>159,00</b>
B12560301300	13,0	14	107	60	43	<b>72,07</b>	B12560301850	18,5	20	131	79	55	<b>190,80</b>
B12560301350	13,5	14	107	60	43	<b>72,07</b>	B12560301900	19,0	20	131	79	55	<b>190,80</b>
B12560301380	13,8	14	107	60	43	<b>72,07</b>	B12560301950	19,5	20	131	79	55	<b>190,80</b>
B12560301400	14,0	14	107	60	43	<b>72,07</b>	B12560301980	19,8	20	131	79	55	<b>190,80</b>
B12560301450	14,5	16	115	65	45	<b>99,63</b>	B12560302000	20,0	20	131	79	55	<b>190,80</b>
B12560301480	14,8	16	115	65	45	<b>99,63</b>							

## Komple Sert Metal Matkap Ucu 5XD



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet
B12560500300	3,0	6	28	66	23,0	37,15	B12560500720	7,2	8	8	91	43,0	37,78
B12560500310	3,1	6	28	66	23,0	37,15	B12560500730	7,3	8	8	91	43,0	37,78
B12560500320	3,2	6	28	66	23,0	37,15	B12560500740	7,4	8	8	91	43,0	37,78
B12560500330	3,3	6	28	66	23,0	37,15	B12560500750	7,5	8	8	91	43,0	37,78
B12560500340	3,4	6	28	66	23,0	37,15	B12560500760	7,6	8	8	91	43,0	37,78
B12560500350	3,5	6	28	66	23,0	37,15	B12560500770	7,7	8	8	91	43,0	37,78
B12560500360	3,6	6	28	66	23,0	37,15	B12560500780	7,8	8	8	91	43,0	37,78
B12560500370	3,7	6	28	66	23,0	37,15	B12560500790	7,9	8	8	91	43,0	37,78
B12560500380	3,8	6	36	74	29,0	37,15	B12560500800	8,0	10	10	91	43,0	37,78
B12560500390	3,9	6	36	74	29,0	37,15	B12560500810	8,1	10	10	103	49,0	41,66
B12560500400	4,0	6	36	74	29,0	37,15	B12560500820	8,2	10	10	103	49,0	41,66
B12560500410	4,1	6	36	74	29,0	37,15	B12560500830	8,3	10	10	103	49,0	41,66
B12560500420	4,2	6	36	74	29,0	37,15	B12560500840	8,4	10	10	103	49,0	41,66
B12560500430	4,3	6	36	74	29,0	37,15	B12560500850	8,5	10	10	103	49,0	41,66
B12560500440	4,4	6	36	74	29,0	37,15	B12560500860	8,6	10	10	103	49,0	41,66
B12560500450	4,5	6	36	74	29,0	37,15	B12560500870	8,7	10	10	103	49,0	41,66
B12560500460	4,6	6	36	74	29,0	37,15	B12560500880	8,8	10	10	103	49,0	41,66
B12560500470	4,7	6	36	74	29,0	37,15	B12560500890	8,9	10	10	103	49,0	41,66
B12560500480	4,8	6	44	82	35,0	37,15	B12560500900	9,0	10	10	103	49,0	41,66
B12560500490	4,9	6	44	82	35,0	37,15	B12560500910	9,1	10	10	103	49,0	41,66
B12560500500	5,0	6	44	82	35,0	37,15	B12560500920	9,2	10	10	103	49,0	41,66
B12560500510	5,1	6	44	82	35,0	37,15	B12560500930	9,3	10	10	103	49,0	41,66
B12560500520	5,2	6	44	82	35,0	37,15	B12560500940	9,4	10	10	103	49,0	41,66
B12560500530	5,3	6	44	82	35,0	37,15	B12560500950	9,5	10	10	103	49,0	41,66
B12560500540	5,4	6	44	82	35,0	37,15	B12560500960	9,6	10	10	103	49,0	41,66
B12560500550	5,5	6	44	82	35,0	37,15	B12560500970	9,7	10	10	103	49,0	41,66
B12560500560	5,6	6	44	82	35,0	37,15	B12560500980	9,8	10	10	103	49,0	41,66
B12560500570	5,7	6	44	82	35,0	37,15	B12560500990	9,9	10	10	103	49,0	41,66
B12560500580	5,8	6	44	82	35,0	37,15	B12560501000	10,0	10	10	103	49,0	41,66
B12560500590	5,9	6	44	82	35,0	37,15	B12560501010	10,1	12	12	118	56,0	63,33
B12560500600	6,0	6	44	82	35,0	37,15	B12560501020	10,2	12	12	118	56,0	63,33
B12560500610	6,1	8	53	91	43,0	37,78	B12560501030	10,3	12	12	118	56,0	63,33
B12560500620	6,2	8	53	91	43,0	37,78	B12560501040	10,4	12	12	118	56,0	63,33
B12560500630	6,3	8	53	91	43,0	37,78	B12560501050	10,5	12	12	118	56,0	63,33
B12560500640	6,4	8	53	91	43,0	37,78	B12560501060	10,6	12	12	118	56,0	63,33
B12560500650	6,5	8	53	91	43,0	37,78	B12560501070	10,7	12	12	118	56,0	63,33
B12560500660	6,6	8	53	91	43,0	37,78	B12560501080	10,8	12	12	118	56,0	63,33
B12560500670	6,7	8	53	91	43,0	37,78	B12560501090	10,9	12	12	118	56,0	63,33
B12560500680	6,8	8	53	91	43,0	37,78	B12560501100	11,0	12	12	118	56,0	63,33
B12560500690	6,9	8	8	91	43,0	37,78	B12560501110	11,1	12	12	118	56,0	63,33
B12560500700	7,0	8	8	91	43,0	37,78	B12560501120	11,2	12	12	118	56,0	63,33
B12560500710	7,1	8	8	91	43,0	37,78	B12560501130	11,3	12	71	118	56,0	63,33

## Komple Sert Metal Matkap Ucu 5XD



Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet	Ürün kodu	d1 mm	d2 mm	L1 mm	L2 mm	UÇB mm	EURO/Adet
B12560501140	11,4	12	71	118	56,0	<b>63,33</b>	B12560501480	14,8	16	83	133	63,0	<b>106,59</b>
B12560501150	11,5	12	71	118	56,0	<b>63,33</b>	B12560501500	15,0	16	83	133	63,0	<b>106,59</b>
B12560501160	11,6	12	71	118	56,0	<b>63,33</b>	B12560501550	15,5	16	83	133	63,0	<b>106,59</b>
B12560501170	11,7	12	71	118	56,0	<b>63,33</b>	B12560501580	15,8	16	83	133	63,0	<b>106,59</b>
B12560501180	11,8	12	71	118	56,0	<b>63,33</b>	B12560501600	16,0	16	83	133	63,0	<b>106,59</b>
B12560501190	11,9	12	71	118	56,0	<b>63,33</b>	B12560501650	16,5	18	93	143	71,0	<b>172,50</b>
B12560501200	12,0	12	71	118	56,0	<b>63,33</b>	B12560501680	16,8	18	93	143	71,0	<b>172,50</b>
B12560501220	12,2	14	77	124	60,0	<b>84,54</b>	B12560501700	17,0	18	93	143	71,0	<b>172,50</b>
B12560501230	12,3	14	77	124	60,0	<b>84,54</b>	B12560501750	17,5	18	93	143	71,0	<b>172,50</b>
B12560501250	12,5	14	77	124	60,0	<b>84,54</b>	B12560501780	17,8	18	93	143	71,0	<b>172,50</b>
B12560501280	12,8	14	77	124	60,0	<b>84,54</b>	B12560501800	18,0	18	93	143	71,0	<b>172,50</b>
B12560501300	13,0	14	77	124	60,0	<b>84,54</b>	B12560501850	18,5	20	101	153	77,0	<b>247,69</b>
B12560501350	13,5	14	77	124	60,0	<b>84,54</b>	B12560501900	19,0	20	101	153	77,0	<b>247,69</b>
B12560501380	13,8	14	77	124	60,0	<b>84,54</b>	B12560501950	19,5	20	101	153	77,0	<b>247,69</b>
B12560501400	14,0	14	77	124	60,0	<b>84,54</b>	B12560502000	20,0	20	101	153	77,0	<b>247,69</b>
B12560501450	14,5	16	83	133	63,0	<b>106,59</b>							