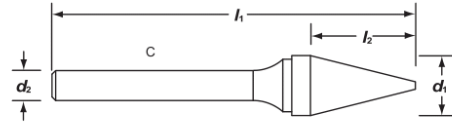
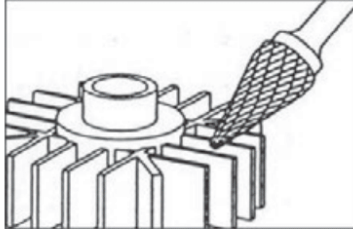


KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	KARBÜR		DIAMOND	ALUMİNYUM	
						ÇAPRAZ	TALAP KIRICILI			
SL-41M*	3	9,5	3	38	M14901	M14900	M14904	M14903	M14902	
SL-42M*	3	12,7	3	38	M15001	M15000	M15004	M15003	M15002	
SL-1M*	6	16	6	50	M15101	M15100	M15104	M15103	M15102	
SL-1ML6	6	16	6	166	M15161	M15160	M15164	M15163	M15162	
SL-2M	8	22	6	69	M15201	M15200	M15204	M15203	M15202	
SL-3M	9,5	27	6	74	M15301	M15300	M15304	M15303	M15302	
SL-3ML6	9,5	27	6	177	M15361	M15360	M15364	M15363	M15362	
SL-4M	12,7	28	6	76	M15401	M15400	M15404	M15403	M15402	
SL-4ML6	12,7	28	6	178	M15461	M15460	M15464	M15463	M15462	
SL-5M	16	30	6	77	M15501	M15500	M15504	M15503	M15502	
SL-6M	16	33	6	80	M15601	M15600	M15604	M15603	M15602	
SL-7M	19	38	6	85	M15701	M15700	M15704	M15703	M15702	
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İşleme ve Talaş Kaldırma İstendiğinde				Demir dışı malzemeler
	* Piriç					* Piriç				* Alüminyum
	* Bakır					* Bakır				* Magnezyum
	* Bronz					* Bronz				* Piriç
	* Dökme Demir					* Dökme Demir				* Çinko
	* Çelik (HrC 40-60)					* Çelik (HrC 40-60)				* Kursun
	* Karbon Nikel Çelik					* Karbon Nikel Çelik				* Plastikler
	* Paslanmaz Çelik					* Paslanmaz Çelik				
	* Kaynaklı Çelik					* Kaynaklı Çelik				
	* Titanyum					* Titanyum				

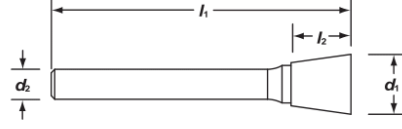
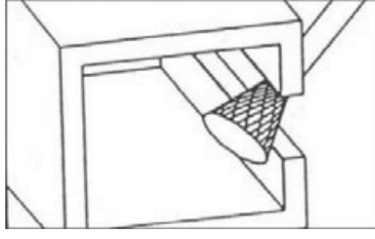
* KOMPLE KARBÜR



KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ	TALAP KIRICILI	DIAMOND	ALUMİNYUM
SM-41M*	3	8,9	3	38	M15901	M15900	M15904	M15903	M15902
SM-42M*	3	11	3	38	M16001	M16000	M16004	M16003	M16002
SM-42ML2*	3	11	3	50	M16021	M16020	M16024	M16023	M16022
SM-42ML3*	3	11	3	75	M16031	M16030	M16034	M16033	M16032
SM-43M*	3	16	3	38	M16101	M16100	M16104	M16103	M16102
SM-51M	6,3	12,7	3	54	M16201	M16200	M16204	M16203	M16202
SM-1M*	6	12,7	6	50	M16401	M16400	M16404	M16403	M16402
SM-2M	6	19	6	50	M16501	M16500	M16504	M16503	M16502
SM-3M*	6	25	6	50	M16601	M16600	M16604	M16603	M16602
SM-4M	9,5	16	6	63	M16901	M16900	M16904	M16903	M16902
SM-5M	12,7	22	6	69	M17001	M17000	M17004	M17003	M17002
SM-6M	16	25	6	73	M17101	M17100	M17104	M17103	M17102

KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda	Hızlı İşleme ve Talaş Kaldırma İstendiğinde	Demir dışı malzemeler
	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Alüminyum * Magnezyum * Piriç * Çinko * Kurşun * Plastikler

* KOMPLE KARBÜR



SN

KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ	TALAŞ KIRICILI	DIAMOND	ALUMİNYUM	KULLANIM ALANI
SN-41M*	2,5	3	3	38	M17301	M17300	M17304	M17303	M17302	* Pirinç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum
SN-42M*	3	4	3	38	M17401	M17400	M17404	M17403	M17402	
SN-51M	6,3	6	3	44	M17501	M17500	M17504	M17503	M17502	
SN-1M*	6	8	6	50	M17701	M17700	M17704	M17703	M17702	
SN-2M	9,5	9,5	6	53	M17801	M17800	M17804	M17803	M17802	
SN-4M	12,7	12,7	6	57	M18001	M18000	M18004	M18003	M18002	
SN-6M	16	19	6	63	M18201	M18200	M18204	M18203	M18202	
SN-7M	19	16	6	60	M18301	M18300	M18304	M18303	M18302	

* KOMPLE KARBÜR



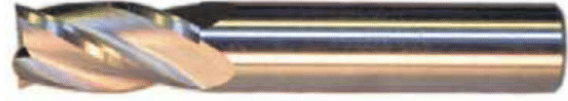
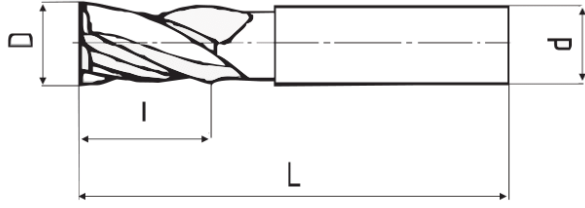
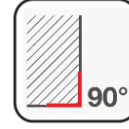
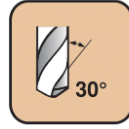
SERT METAL (KARBÜR) KALIPÇI FREZE STANDI - 52 PARÇA

Çapraz 2'per Adet	SB - 1 / SB - 2 / SB - 3 / SB - 5 / SC - 3 / SC - 5 / SD - 2 / SD - 3 / SD - 5 / SE - 3 / SF - 1 / SF - 3 / SF - 5 / SG - 3 / SG - 5 / SH - 2 / SH - 5 / SM - 2 / SM - 4 / SM - 5
Düz 1'er Adet	SB - 1 / SB - 5 / SC - 3 / SF - 1 / SF - 3 / SF - 5 / SG - 3 / SG - 5 / SH - 5 / SM - 2 / SM - 4
Aluminyum 1 Adet	SF - 5

Tavsiye Edilen Hızlar

Aşağıdaki tablo genel ve yaklaşık değerlerdir. İyi netice alabilmek için değerler değişebilir. Uzun saplı kalıpcı frezelerde düşük hızlar kullanılmalıdır.

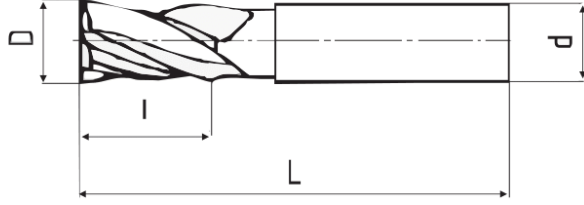
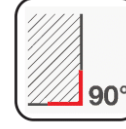
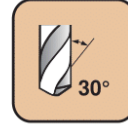
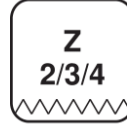
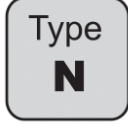
Uç Çapı	Dönüş Hızı
3mm KOMPLE KARBÜR	45,000-50,000
5mm KOMPLE KARBÜR	35,000-40,000
5mm Karbür, 3 mm Çelik Sap	30,000-35,000
6mm KOMPLE KARBÜR	30,000-35,000
6mm Karbür, 3 mm Çelik Sap	25,000-30,000
8mm Karbür, 6 mm Çelik Sap	25,000-30,000
10mm Karbür, 6 mm Çelik Sap	25,000-30,000
11mm Karbür, 6 mm Çelik Sap	20,000-25,000
12mm Karbür, 6 mm Çelik Sap	20,000-25,000
16mm Karbür, 6 mm Çelik Sap	15,000-20,000
18mm Karbür, 6 mm Çelik Sap	15,000-20,000
25mm Karbür, 6 mm Çelik Sap	12,000-18,000



D	I	d	L	4 AĞIZLI	2 AĞIZLI	3 AĞIZLI
0,5	1,5	3	38	81008	81002	81009
1	3	3	38	81000	81001	81003
1,5	5	3	38	81050	81051	81053
2	6	3	38	81100	81101	81103
2,5	7	3	38	81150	81151	81153
3	12	3	38	81200	81201	81203
3,5	12	4	50	81250	81251	81253
4	14	4	50	81300	81301	81303
4,5	14	5	50	81350	81351	81353
5	16	5	50	81400	81401	81403
6	19	6	63	81450	81451	81453
7	19	8	63	81500	81501	81503
8	19	8	63	81550	81551	81553
9	22	10	70	81600	81601	81603
10	22	10	70	81650	81651	81653
11	25	11	70	81700	81701	81703
12	25	12	75	81750	81751	81753
14	30	14	88	81800	81801	81803
16	32	16	88	81850	81851	81853
18	36	18	100	81900	81901	81903
20	38	20	100	81950	81951	81953
22	38	22	100	82000	82001	82003
25	38	25	100	82050	82051	82053

4 AĞIZLI Küresel	2 AĞIZLI Küresel
81006	81007
81004	81005
81054	81055
81104	81105
81154	81155
81204	81205
81254	81255
81304	81305
81354	81355
81404	81405
81454	81455
81504	81505
81554	81555
81604	81605
81654	81655
81704	81705
81754	81755
81804	81805
81854	81855
81904	81905
81954	81955
82004	82005
82054	82055

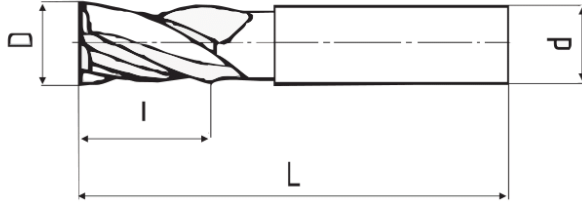
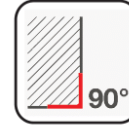
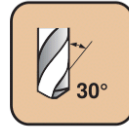
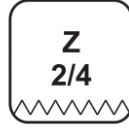




D	I	d	L	4 AĞIZLI	2 AĞIZLI	3 AĞIZLI
1	3	3	38	81030	81031	81033
1,5	5	3	38	81080	81081	81083
2	6	3	38	81130	81131	81133
2,5	7	3	38	81180	81181	81183
3	12	3	38	81230	81231	81233
3,5	12	4	50	81280	81281	81283
4	14	4	50	81330	81331	81333
4,5	14	5	50	81380	81381	81383
5	16	5	50	81430	81431	81433
6	19	6	63	81480	81481	81483
7	19	8	63	81530	81531	81533
8	19	8	63	81580	81581	81583
9	22	10	70	81630	81631	81633
10	22	10	70	81680	81681	81683
11	25	11	70	81730	81731	81733
12	25	12	75	81780	81781	81783
14	30	14	88	81830	81831	81833
16	32	16	88	81880	81881	81883
18	36	18	100	81930	81931	81933
20	38	20	100	81980	81981	81983
22	38	22	100	82030	82031	82033
25	38	25	100	82080	82081	82083

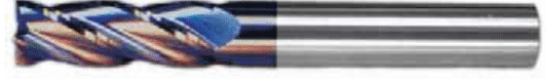
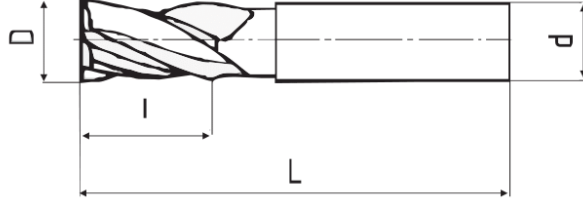
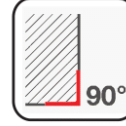
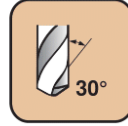
4 AĞIZLI Küresel	2 Ağızlı Küresel
81034	81035
81084	81085
81134	81135
81184	81185
81234	81235
81284	81285
81334	81335
81384	81385
81434	81435
81484	81485
81534	81535
81584	81585
81634	81635
81684	81685
81734	81735
81784	81785
81834	81835
81884	81885
81934	81935
81984	81985
82034	82035
82084	82085

UZUN SERT METAL (KARBÜR) PARMAK FREZELER



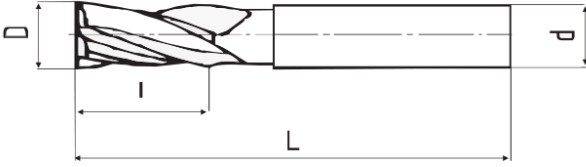
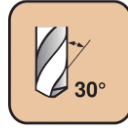
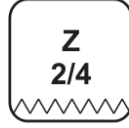
D	I	d	L	4 AĞIZLI	2 AĞIZLI
3	25	3	65	83000	83001
4	25	4	65	83050	83051
5	25	5	75	83100	83101
6	25	6	75	83150	83151
8	25	8	75	83200	83201
10	38	10	100	83250	83251
12	50	12	100	83300	83301
14	56	14	125	83350	83351
16	75	16	150	83400	83401
18	75	18	150	83450	83451
20	75	20	150	83500	83501
25	75	25	150	83550	83551

4 AĞIZLI Küresel	2 AĞIZLI Küresel
83004	83005
83054	83055
83104	83105
83154	83155
83204	83205
83254	83255
83304	83305
83354	83355
83404	83405
83454	83455
83504	83505
83554	83555



D	I	d	L	4 AĞIZLI	2 AĞIZLI
3	25	3	65	83030	83031
4	25	4	65	83080	83081
5	25	5	75	83130	83131
6	25	6	75	83180	83181
8	25	8	75	83230	83231
10	38	10	100	83280	83281
12	50	12	100	83330	83331
14	56	14	125	83380	83381
16	75	16	150	83430	83431
18	75	18	150	83480	83481
20	75	20	150	83530	83531
25	75	25	150	83580	83581

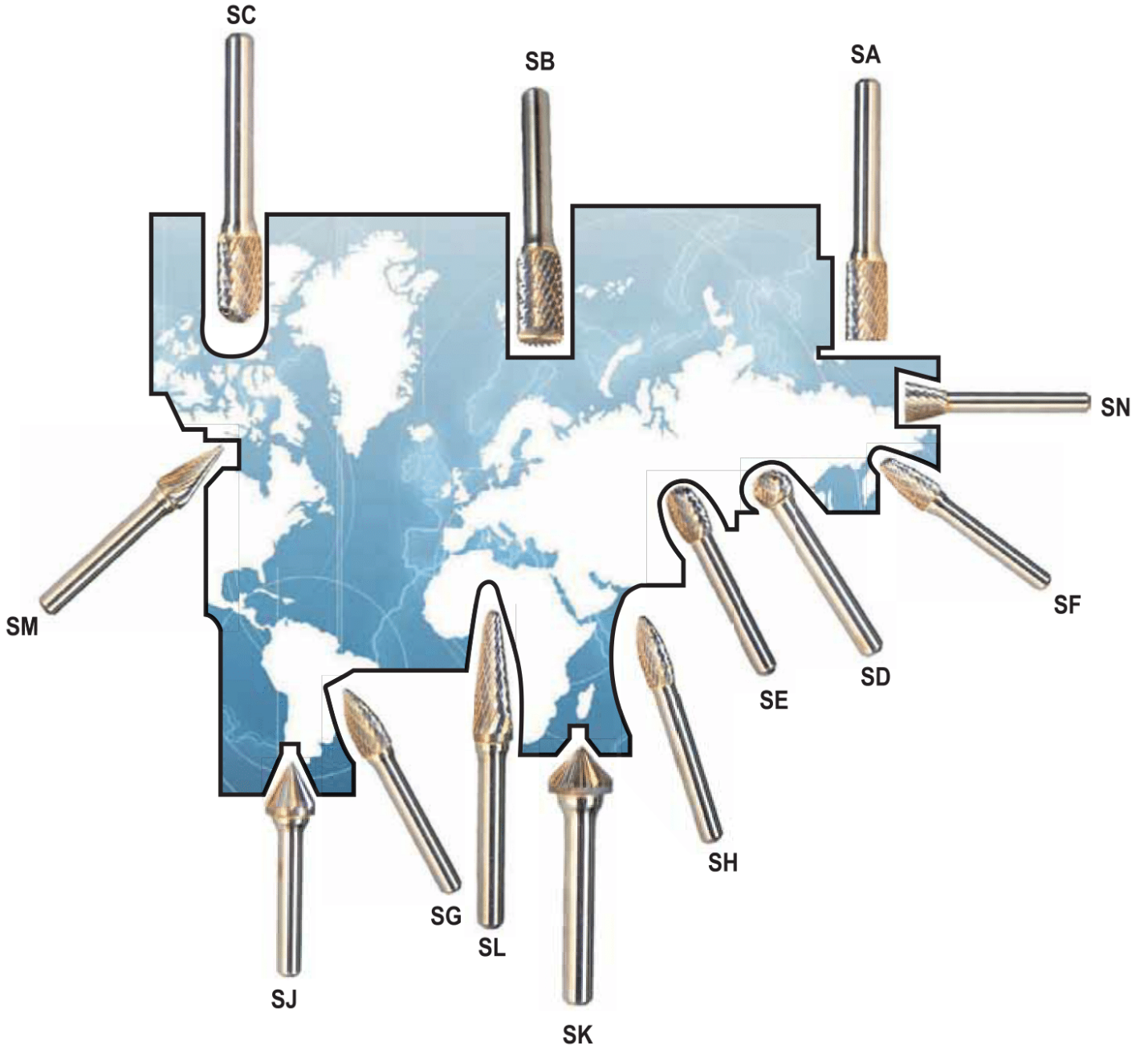
4 AĞIZLI Küresel	2 AĞIZLI Küresel
83034	83035
83084	83085
83134	83135
83184	83185
83234	83235
83284	83285
83334	83335
83384	83385
83434	83435
83484	83485
83534	83535
83584	83585

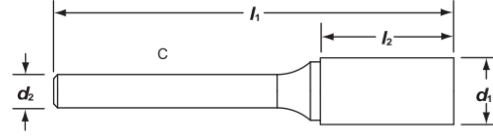
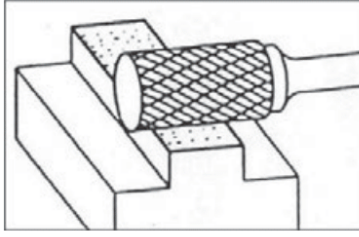


D	I	d	L	4 AĞIZLI	2 AĞIZLI
6	38	6	100	301-1000	300-1000
6	75	6	150	301-1002	300-1002
6	75	8	200	301-1004	300-1004
8	42	8	100	301-1006	300-1006
8	75	8	150	301-1008	300-1008
8	75	8	200	301-1010	300-1010
10	75	10	150	301-1014	300-1014
10	75	10	200	301-1016	300-1016
12	75	12	150	301-1018	300-1018
12	75	12	200	301-1020	300-1020
14	62	14	125	301-1022	300-1022
14	75	14	150	301-1024	300-1024
14	75	16	200	301-1026	300-1026
16	75	16	200	301-1028	300-1028
18	75	18	200	301-1030	300-1030
20	75	20	200	301-1032	300-1032

4 AĞIZLI Küresel	2 AĞIZLI Küresel
311-1000	310-1000
311-1002	310-1002
311-1004	310-1004
311-1006	310-1006
311-1008	310-1008
311-1010	310-1010
311-1014	310-1014
311-1016	310-1016
311-1018	310-1018
311-1020	310-1020
311-1022	310-1022
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311-1030	310-1030
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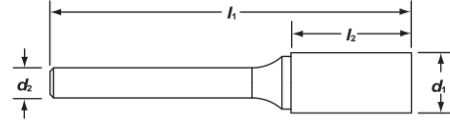
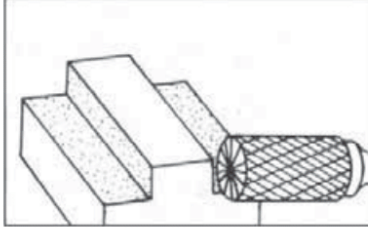
KALIPÇI FREZE KULLANIM ALANLARI





KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ	TALAP KIRICILI	DIAMOND	ALUMİNYUM	
SA-41M*	1,5	6	3	38	M00101	M00100	M00104	M00103	M00102	
SA-42M*	2,5	11	3	38	M00201	M00200	M00204	M00203	M00202	
SA-43M*	3	14	3	38	M00301	M00300	M00304	M00303	M00302	
SA-51M	6,3	12,7	3	50	M00401	M00400	M00404	M00403	M00402	
SA-12M*	3	12,7	6	60	M00601	M00600	M00604	M00603	M00602	
SA-14M*	5	16	6	50	M00701	M00700	M00704	M00703	M00702	
SA-1M*	6	16	6	50	M00801	M00800	M00804	M00803	M00802	
SA-1ML6	6	12,7	6	162	M00861	M00860	M00864	M00863	M00862	
SA-1MA*	6	25	6	50	M00901	M00900	M00904	M00903	M00902	
SA-2M	8	19	6	63	M01001	M01000	M01004	M01003	M01002	
SA-2MA	8	25	6	64	M01101	M01100	M01104	M01103	M01102	
SA-3M	9,5	19	6	63	M01201	M01200	M01204	M01203	M01202	
SA-3ML6	9,5	19	6	169	M01261	M01260	M01264	M01263	M01262	
SA-3MA	9,5	25	6	69	M01301	M01300	M01304	M01303	M01302	
SA-3MB	9,5	38	6	70	M01401	M01400	M01404	M01403	M01402	
SA-4M	11	25	6	69	M01501	M01500	M01504	M01503	M01502	
SA-5M	12,7	25	6	69	M01601	M01600	M01604	M01603	M01602	
SA-5ML6	12,7	25	6	175	M01661	M01660	M01664	M01663	M01662	
SA-6M	16	25	6	69	M01701	M01700	M01704	M01703	M01702	
SA-7M	19	25	6	69	M01901	M01900	M01904	M01903	M01902	
SA-9M	25	25	6	69	M02001	M02000	M02004	M02003	M02002	
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İlerleme ve Talaş Kaldırma İstendiğinde				Demir dışı malzemeler
	* Piriç					* Piriç				* Alüminyum
	* Bakır					* Bakır				* Magnezyum
	* Bronz					* Bronz				* Piriç
	* Dökme Demir					* Dökme Demir				* Çinko
	* Çelik (HrC 40-60)					* Çelik (HrC 40-60)				* Plastikler
	* Karbon Nikel Çelik					* Karbon Nikel Çelik				* Kurşun
	* Paslanmaz Çelik					* Paslanmaz Çelik				
	* Kaynaklı Çelik					* Kaynaklı Çelik				
	* Titanyum					* Titanyum				

* KOMPLE KARBÜR



KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	KARŞI GELEN MALZEMELER		DIAMOND	ALUMİNYUM
						ÇAPRAZ	TALAP KIRICILI		
SB-4MECO* [^]	1,5	6	3	38	M02201	-	-	-	-
SB-41M*	1,5	6	3	38	M02301	M02300	M02304	M02303	M02302
SB-42M*	2	11	3	63	M02401	M02400	M02404	M02403	M02402
SB-42M*	2,5	11	3	38	M02401	M02400	M02404	M02403	M02402
SB-42ML2,5*	2,5	13	3	65	M02401	M02400	M02404	M02403	M02402
SB-43M*	3	14	3	38	M02501	M02500	M02504	M02503	M02502
SB-43ML2,5*	3	14	3	63	M02501	M02500	M02504	M02503	M02502
SB-51M	6,3	12,7	3	43	M02601	M02600	M02604	M02603	M02602
SB-12M*	3	12,7	6	60	M02801	M02800	M02804	M02803	M02802
SB-14M*	5	16	6	50	M02901	M02900	M02904	M02903	M02902
SB-1M*	6	16	6	50	M03001	M03000	M03004	M03003	M03002
SB-1MA*	6	25	6	50	M03051	M03050	M03054	M03053	M03052
SB-1ML6	6	12,7	6	162	M03061	M03060	M03064	M03063	M03062
SB-2M	8	19	6	63	M03101	M03100	M03104	M03103	M03102
SB-2MA	8	25	6	64	M03201	M03200	M03204	M03203	M03202
SB-3M	9,5	19	6	63	M03301	M03300	M03304	M03303	M03302
SB-3ML6	9,5	19	6	169	M03361	M03360	M03364	M03363	M03362
SB-3MA	9,5	25	6	69	M03401	M03400	M03404	M03403	M03402
SB-3BM	9,5	38	6	70	M03501	M03500	M03504	M03503	M03502
SB-4M	11	25	6	69	M03601	M03600	M03604	M03603	M03602
SB-5M	12,7	25	6	69	M03701	M03700	M03704	M03703	M03702
SB-5ML6	12,7	25	6	175	M03761	M03760	M03764	M03763	M03762
SB-6M	16	25	6	69	M03801	M03800	M03804	M03803	M03802
SB-7M	19	25	6	69	M04001	M04000	M04004	M04003	M04002
SB-9M	25	25	6	69	M04101	M04100	M04104	M04103	M04102

KULLANIM ALANI

Yüksek yüzey kalitesi istenilen durumlarda

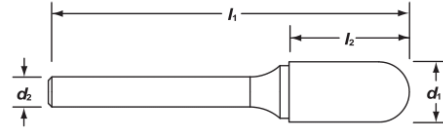
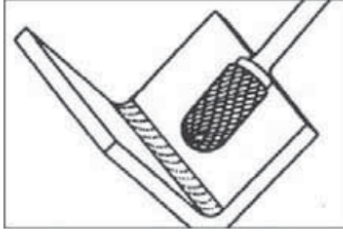
- * Pirinç
- * Bakır
- * Bronz
- * Dökme Demir
- * Çelik (HrC 40-60)
- * Karbon Nikel Çelik
- * Paslanmaz Çelik
- * Kaynaklı Çelik
- * Titanyum

Hızlı İşleme ve Talaş Kaldırma İstendiğinde

- * Pirinç
- * Bakır
- * Bronz
- * Dökme Demir
- * Çelik (HrC 40-60)
- * Karbon Nikel Çelik
- * Paslanmaz Çelik
- * Kaynaklı Çelik
- * Titanyum

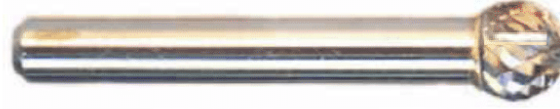
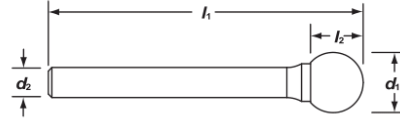
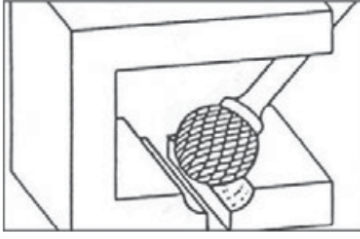
Demir dışı malzemeler

- * Alüminyum
- * Magnezyum
- * Pirinç
- * Çinko
- * Kursun
- * Plastikler
- * Kurşun



KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ		TALAP KIRICILI		DIAMOND		ALUMİNYUM	
SC-41M*	2,5	11	3	38	M04401	M04400	M04404	M04403	M04402				
SC-42M*	3	14	3	38	M04501	M04500	M04504	M04503	M04502				
SC-42ML2*	3	14	3	50	M04521	M04520	M04524	M04523	M04522				
SC-42ML3*	3	14	3	75	M04531	M04530	M04534	M04533	M04532				
SC-51M	6,3	12,7	3	50	M04601	M04600	M04604	M04603	M04602				
SC-12M*	3	16	6	60	M04801	M04800	M04804	M04803	M04802				
SC-14M*	5	16	6	50	M04901	M04900	M04904	M04903	M04902				
SC-1M*	6	16	6	50	M05001	M05000	M05004	M05003	M05002				
SC-1MA*	6	25	6	50	M05051	M05050	M05054	M05053	M05052				
SC-1ML6	6	12,7	6	162	M05061	M05060	M05064	M05063	M05062				
SC-2M	8	19	6	63	M05201	M05200	M05204	M05203	M05202				
SC-2MA	8	25	6	64	M05301	M05300	M05304	M05303	M05302				
SC-3M	9,5	19	6	63	M05401	M05400	M05404	M05403	M05402				
SC-3ML6	9,5	19	6	169	M05461	M05460	M05464	M05463	M05462				
SC-3MA	9,5	25	6	69	M05501	M05500	M05504	M05503	M05502				
SC-4M	11	25	6	69	M05801	M05800	M05804	M05803	M05802				
SC-5M	12,7	25	6	69	M05901	M05900	M05904	M05903	M05902				
SC-5ML6	12,7	25	6	175	M05961	M05960	M05964	M05963	M05962				
SC-6M	16	25	6	69	M06001	M06000	M06004	M06003	M06002				
SC-7M	19	25	6	69	M06201	M06200	M06204	M06203	M06202				
SC-9M	25	25	6	69	M06301	M06300	M06304	M06303	M06302				
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İşleme ve Talaş Kaldırma İstendiğinde					Demir dışı malzemeler		
	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (Hrc 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 					<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (Hrc 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 					<ul style="list-style-type: none"> * Alüminyum * Magnezyum * Piriç * Çinko * Plastikler * Kurşun 		

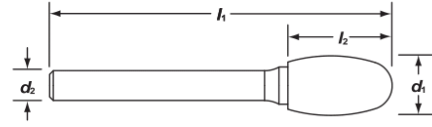
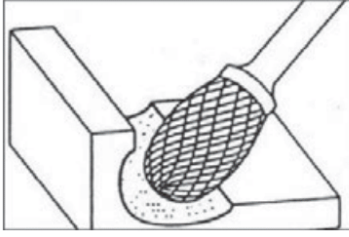
* KOMPLE KARBÜR



SD

KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ		DIAMOND	ALUMİNYUM	
						ÇAPRAZ	TALAP KIRICILI			
SD-41M*	2,5	2,3	3	38	M06601	M06600	M06604	M06603	M06602	
SD-42M*	3	2,5	3	38	M06701	M06700	M06704	M06703	M06702	
SD-42ML2*	3	2,5	3	50	M06721	M06720	M06724	M06723	M06722	
SD-42ML3*	3	2,5	3	75	M06731	M06730	M06734	M06733	M06732	
SD-51M	6,3	5	3	44	M06801	M06800	M06804	M06803	M06802	
SD-12M*	3	2	6	50	M07001	M07000	M07004	M07003	M07002	
SD-14M*	5	4	6	50	M07101	M07100	M07104	M07103	M07102	
SD-1M*	6	5	6	50	M07201	M07200	M07204	M07203	M07202	
SD-1ML6	6	5	6	155	M07261	M07260	M07264	M07263	M07262	
SD-2M	8	6,4	6	50	M07301	M07300	M07304	M07303	M07302	
SD-3M	9,5	8	6	52	M07401	M07400	M07404	M07403	M07402	
SD-3ML6	9,5	8	6	158	M07461	M07460	M07464	M07463	M07462	
SD-4M	11	9,5	6	54	M07501	M07500	M07504	M07503	M07502	
SD-5M	12,7	11	6	55	M07601	M07600	M07604	M07603	M07602	
SD-5ML6	12,7	11	6	161	M07661	M07660	M07664	M07663	M07662	
SD-6M	16	14	6	58	M07701	M07700	M07704	M07703	M07702	
SD-7M	19	16	6	62	M07801	M07800	M07804	M07803	M07802	
SD-9M	25	21	6	72	M07901	M07900	M07904	M07903	M07902	
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İşleme ve Talaş Kaldırma İstendiğinde				Demir dışı malzemeler
	* Pirinç					* Pirinç				* Alüminyum
	* Bakır					* Bakır				* Magnezyum
	* Bronz					* Bronz				* Pirinç
	* Dökme Demir					* Dökme Demir				* Çinko
	* Çelik (HrC 40-60)					* Çelik (HrC 40-60)				* Kurşun
	* Karbon Nikel Çelik					* Karbon Nikel Çelik				* Plastikler
	* Paslanmaz Çelik					* Paslanmaz Çelik				
	* Kaynaklı Çelik					* Kaynaklı Çelik				
	* Titanyum					* Titanyum				

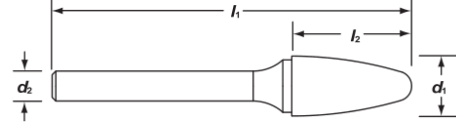
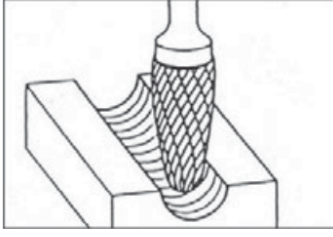
* KOMPLE KARBÜR



KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ	TALAP KIRICILI	DIAMOND	ALUMİNYUM
SE-41M*	3	5,5	3	38	M08101	M08100	M08104	M08103	M08102
SE-41ML2*	3	5,5	3	50	M08121	M08120	M08124	M08123	M08122
SE-41ML3*	3	5,5	3	75	M08131	M08130	M08134	M08133	M08132
SE-51M	6,3	9,5	3	47	M08201	M08200	M08204	M08203	M08202
SE-1M*	6	9,5	6	50	M08501	M08500	M08504	M08503	M08502
SE-1ML6	6	9,5	6	160	M08561	M08560	M08564	M08563	M08562
SE-3M	9,5	16	6	60	M08601	M08600	M08604	M08603	M08602
SE-3ML6	9,5	16	6	166	M08661	M08660	M08664	M08663	M08662
SE-5M	12,7	22	6	66	M08701	M08700	M08704	M08703	M08702
SE-5ML6	12,7	22	6	172	M08761	M08760	M08764	M08763	M08762
SE-6M	16	25	6	69	M08801	M08800	M08804	M08803	M08802
SE-7M	19	25	6	69	M08901	M08900	M08904	M08903	M08902

KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda	Hızlı İşleme ve Talaş Kaldırma İstendiğinde	Demir dışı malzemeler
	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Alüminyum * Magnezyum * Piriç * Çinko * Kurşun * Plastikler

* KOMPLE KARBÜR



KOD	d ₁	L ₂	d ₂	L ₁	DÜZ	ÇAPRAZ	TALAP KIRICILI	DIAMOND	ALUMİNYUM
SF-41M*	3	6	3	38	M09101	M09100	M09104	M09103	M09102
SF-42M*	3	12,7	3	38	M09201	M09200	M09204	M09203	M09202
SF-42ML2*	3	12,7	3	50	M09221	M09220	M09224	M09223	M09222
SF-42ML3*	3	12,7	3	75	M09231	M09230	M09234	M09233	M09232
SF-51M	6,3	12,7	3	50	M09401	M09400	M09404	M09403	M09402
SF-1M*	6	16	6	50	M09701	M09700	M09704	M09703	M09702
SF-1ML6	6	16	6	163	M09761	M09760	M09764	M09763	M09762
SF-3M	9,5	19	6	63	M09801	M09800	M09804	M09803	M09802
SF-3ML6	9,5	19	6	169	M09861	M09860	M09864	M09863	M09862
SF-4M	11	25	6	69	M09901	M09900	M09904	M09903	M09902
SF-13M	12,7	19	6	63	M10001	M10000	M10004	M10003	M10002
SF-5M	12,7	25	6	69	M10101	M10100	M10104	M10103	M10102
SF-5ML6	12,7	25	6	175	M10161	M10160	M10164	M10163	M10162
SF-6M	16	25	6	69	M10201	M10200	M10204	M10203	M10202
SF-7M	19	25	6	69	M10301	M10300	M10304	M10303	M10302
SF-14M	19	32	6	76	M10401	M10400	M10404	M10403	M10402
SF-15M	19	38	6	82	M10501	M10500	M10504	M10503	M10502

KULLANIM ALANI

Yüksek yüzey kalitesi istenilen durumlarda

- * Pirinç
- * Bakır
- * Bronz
- * Dökme Demir
- * Çelik (HrC 40-60)
- * Karbon Nikel Çelik
- * Paslanmaz Çelik
- * Kaynaklı Çelik
- * Titanyum

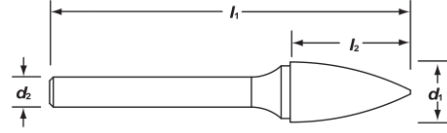
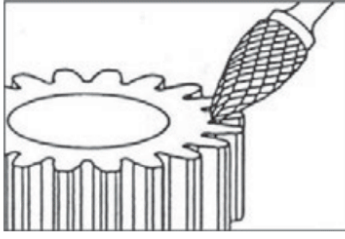
Hızlı İşleme ve Talaş Kaldırma İstendiğinde

- * Pirinç
- * Bakır
- * Bronz
- * Dökme Demir
- * Çelik (HrC 40-60)
- * Karbon Nikel Çelik
- * Paslanmaz Çelik
- * Kaynaklı Çelik
- * Titanyum

Demir dışı malzemeler

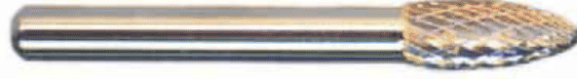
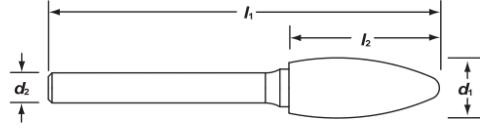
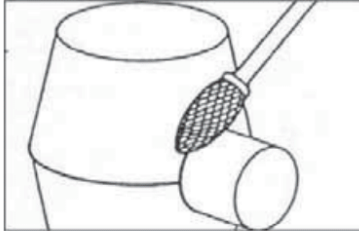
- * Alüminyum
- * Magnezyum
- * Pirinç
- * Çinko
- * Kursun
- * Plastikler

* KOMPLE KARBÜR



KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	KARŞIYAN KULLANIM ALANLARI		DIAMOND	ALUMİNYUM	
						ÇAPRAZ	TALAP KIRICILI			
SG-41M*	3	6	3	38	M10801	M10800	M10804	M10803	M10802	
SG-43M*	3	9,5	3	38	M10901	M10900	M10904	M10903	M10902	
SG44M*	3	12,7	3	38	M11001	M11000	M11004	M11003	M11002	
SG-44ML2*	3	12,7	3	50	M11021	M11020	M11024	M11023	M11022	
SG-44ML3*	3	12,7	3	75	M11031	M11030	M11034	M11033	M11032	
SG-51M	6,3	12,7	3	50	M11101	M11100	M11104	M11103	M11102	
SG-1M*	6	16	6	50	M11301	M11300	M11304	M11303	M11302	
SG-1ML6	6	12,7	6	163	M11361	M11360	M11364	M11363	M11362	
SG-2M	8	19	6	63	M11401	M11400	M11404	M11403	M11402	
SG-3M	9,5	19	6	63	M11501	M11500	M11504	M11503	M11502	
SG-3ML6	9,5	19	6	169	M11561	M11560	M11564	M11563	M11562	
SG-13M	12,7	19	6	63	M11601	M11600	M11604	M11603	M11602	
SG-5M	12,7	25	6	69	M11701	M11700	M11704	M11703	M11702	
SG-5ML6	12,7	25	6	175	M11761	M11760	M11764	M11763	M11762	
SG-6M	16	25	6	69	M11801	M11800	M11804	M11803	M11802	
SG-7M	19	25	6	69	M11901	M11900	M11904	M11903	M11902	
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İşleme ve Talas Kaldırma İstendiğinde				Demir dışı malzemeler
	* Piriç					* Piriç				* Alüminyum
	* Bakır					* Bakır				* Magnezyum
	* Bronz					* Bronz				* Piriç
	* Dökme Demir					* Dökme Demir				* Çinko
	* Çelik (HrC 40-60)					* Çelik (HrC 40-60)				* Kursun
	* Karbon Nikel Çelik					* Karbon Nikel Çelik				* Plastikler
	* Paslanmaz Çelik					* Paslanmaz Çelik				
	* Kaynaklı Çelik					* Kaynaklı Çelik				
	* Titanyum					* Titanyum				

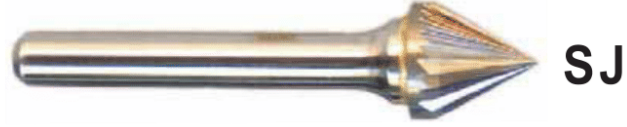
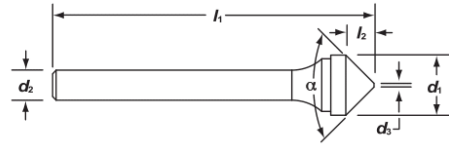
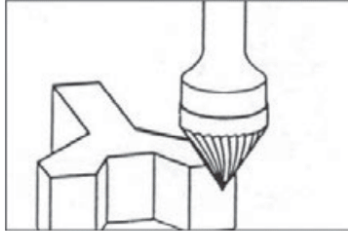
* KOMPLE KARBÜR



SH

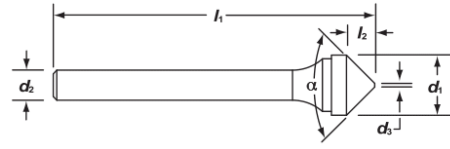
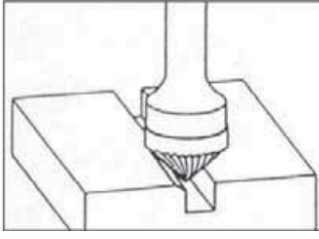
KOD	d ₁	l ₂	d ₂	l ₁	DÜZ	ÇAPRAZ		DIAMOND	ALUMİNYUM	
						ÇAPRAZ	TALAP KIRICILI			
SH-41M*	3	6,3	3	38	M12101	M12100	M12104	M12103	M12102	
SH-41ML2*	3	6,3	3	50	M12121	M12120	M12124	M12123	M12122	
SH-41ML3*	3	6,3	3	75	M12131	M12130	M12134	M12133	M12132	
SH-1M*	6	9,5	6	50	M12201	M12200	M12204	M12203	M12202	
SH-1ML6	6	9,5	6	160	M12261	M12260	M12264	M12263	M12262	
SH-2M	8	19	6	63	M12301	M12300	M12304	M12303	M12302	
SH-2ML6	8	19	6	169	M12361	M12360	M12364	M12363	M12362	
SH-5M	12,7	32	6	76	M12401	M12400	M12404	M12403	M12402	
SH-5ML6	12,7	32	6	182	M12461	M12460	M12464	M12463	M12462	
SH-6M	16	36	6	80	M12501	M12500	M12504	M12503	M12502	
SH-7M	19	41	6	85	M12601	M12600	M12604	M12603	M12602	
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda					Hızlı İşleme ve Talaş Kaldırma İstendiğinde				Demir dışı malzemeler
	<ul style="list-style-type: none"> * Pirinç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 					<ul style="list-style-type: none"> * Pirinç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 				<ul style="list-style-type: none"> * Alüminyum * Magnezyum * Pirinç * Çinko * Kursun * Plastikler

* KOMPLE KARBÜR



KOD	d ₁	l ₂	d ₂	l ₁	α	DÜZ	KARBÜR		DIAMOND	ALUMİNYUM
							ÇAPRAZ	TALAP KIRICILI		
SJ-42M*	3	2,5	3	38	60°	M12801	M12800	M12804	M12803	M12802
SJ-42MDE**^	3	2,5	3	38	60°	M12811	M12810	M12814	M12813	M12812
SJ-1M*	6	4	6	50	60°	M13001	M13000	M13004	M13003	M13002
SJ-1MDE**^	6	4	6	50	60°	M13011	M13010	M13014	M13013	M13012
SJ-3M	9,5	8	6	55	60°	M13201	M13200	M13204	M13203	M13202
SJ-5M	12,7	11	6	58	60°	M13301	M13300	M13304	M13303	M13302
SJ-6M	16	14,5	6	61	60°	M13401	M13400	M13404	M13403	M13402
SJ-7M	19	17,5	6	65	60°	M13501	M13500	M13504	M13503	M13502
SJ-9M	25	24,5	6	68	60°	M13601	M13600	M13604	M13603	M13602
KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda						Hızlı İyileme ve Talaş Kaldırma İstendiğinde			Demir dışı malzemeler
	* Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum						* Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum			* Alüminyum * Magnezyum * Piriç * Çinko * Kursun * Plastikler

* KOMPLE KARBÜR ^ ÇİFT TARAF LI



SK

KOD	d ₁	l ₂	d ₂	l ₁	α	DÜZ
SK-42M*	3	1,5	3	38	90°	M13801
SK-42MDE*^	3	1,5	3	38	90°	M13811
SK-1M*	6	3	6	50	90°	M14001
SK-1MDE*^	6	3	6	50	90°	M14011
SK-3M	9,5	4,7	6	52	90°	M14201
SK-5M	12,7	6,3	6	54	90°	M14401
SK-6M	16	8	6	57	90°	M14501
SK-7M	19	9,5	6	58	90°	M14601
SK-9M	25	12,7	6	60	90°	M14701

ÇAPRAZ	TALAP KIRICILI
M13800	M13804
M13810	M13814
M14000	M14004
M14010	M14014
M14200	M14204
M14400	M14404
M14500	M14504
M14600	M14604
M14700	M14704

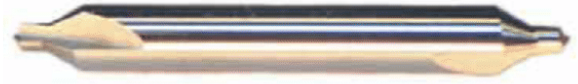
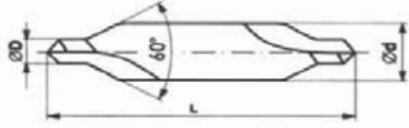
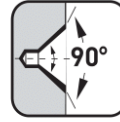
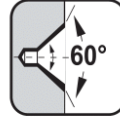
DIAMOND
M13803
M13813
M14003
M14013
M14203
M14403
M14503
M14603
M14703

ALUMİNYUM
M13802
M13812
M14002
M14012
M14202
M14402
M14502
M14602
M14702

KULLANIM ALANI	Yüksek yüzey kalitesi istenilen durumlarda	Hızlı İyileme ve Talaş Kaldırma İstendiğinde	Demir dışı malzemeler
	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Piriç * Bakır * Bronz * Dökme Demir * Çelik (HrC 40-60) * Karbon Nikel Çelik * Paslanmaz Çelik * Kaynaklı Çelik * Titanyum 	<ul style="list-style-type: none"> * Alüminyum * Magnezyum * Piriç * Çinko * Kursun * Plastikler

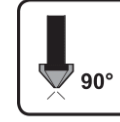
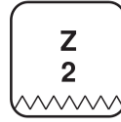
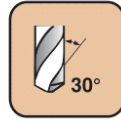
* KOMPLE KARBÜR ^ ÇİFT TARAFLI

SERT METAL (KARBÜR) PUNTA MATKABI

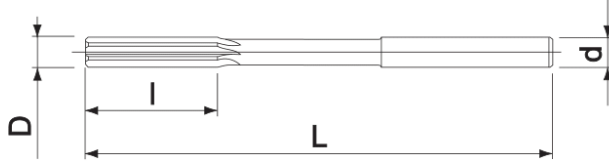
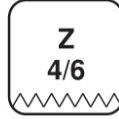


D	d	L	KOD 60 DERECE	KOD 82 DERECE	KOD 90 DERECE
1,6	4	35,5	89200	89201	89202
2	5	40	89203	89204	89205
2,5	6,3	45	89206	89207	89208
3,15	8	50	89209	89210	89211
4	10	56	89212	89213	89214
5	12,5	63	89215	89216	89217
6,3	16	71	89218	89219	89220
8	20	80	89221	89222	89223

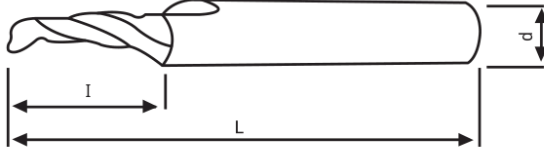
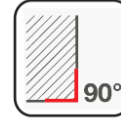
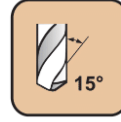
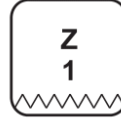
SERT METAL (KARBÜR) NC PUNTA MATKABI



D	I	d	L	AÇI	KOD
3	10	3	38	90°	89250
4	18	4	63	90°	89251
6	20	6	63	90°	89252
10	25	10	75	90°	89253
12	25	12	75	90°	89254
3	10	3	38	120°	89255
4	18	4	63	120°	89256
6	20	6	63	120°	89257
10	25	10	75	120°	89258
12	25	12	75	120°	89259



D	l	d	L	Z	KOD
2	12	2	58	4	A-30-1025
2,5	12	2,5	58	4	A-30-1050
3	12	3	58	4	A-30-1181
3,5	15	3,5	63	4	A-30-1378
4	18	4	63	4	A-30-1575
4,5	20	4,5	70	6	A-30-1772
5	22	5	75	6	A-30-1969
5,5	22	5,5	75	6	A-30-2125
6	25	6	75	6	A-30-2362
6,5	25	6,5	75	6	A-30-2559
7	25	7	75	6	A-30-2756
8	28	8	82	6	A-30-3150
9	35	9	100	6	A-30-3543
10	35	10	100	6	A-30-3937
11	35	11	100	6	A-30-4331
12	35	12	100	6	A-30-4724



Alüminyum ve Sert Plastik İçin

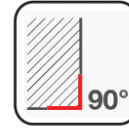
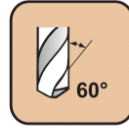
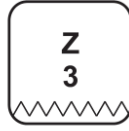
Ø	I	d	L	KOD
2	8	2	50	901-1101
2	8	6	64	901-1102
2,5	8	2,5	50	901-1103
2,5	8	6	64	901-1104
3	8	3	50	901-1105
3	8	6	64	901-1106
3	12	3	64	901-1107
3	12	6	64	901-1108
4	8	4	64	901-1109
4	12	4	64	901-1110
4	20	4	64	901-1111
4	20	6	64	901-1112
4	30	4	64	901-1113
5	16	5	64	901-1114
5	16	6	64	901-1115
5	30	5	64	901-1116
6	8	6	64	901-1117
6	12	6	64	901-1118
6	20	6	64	901-1119
6	30	6	76	901-1120
6	38	6	76	901-1121
8	25	8	64	901-1122
8	38	8	76	901-1123
10	30	10	76	901-1124

SERT METAL (KARBÜR) FREZELERİN KULLANIM DEĞERLERİ

DEVİR SAYISI (RPM)

MALZEME	Yerleme (m/dakika)	6,5 mm'e kadar	6,5 - 12,5 mm	12,6 - 19 mm	19,1 - 25 mm					
Alüminyum / Alaşımları	183	366	9168	17912	8956	9295	4620	6128	3048	4657
Bronz / Pirinç	91	168	4584	8210	4478	4269	2310	2809	1524	2135
Bakır / Alaşımları	152	274	7640	13435	7463	6986	3850	4596	2540	3493
Demir Döküm (Yumuşak ± 195 bhn)	61	152	3056	7464	2985	3881	1540	2553	1016	1941
Demir Döküm (Orta ± 255 bhn)	38	107	1910	5225	1866	2717	963	1787	635	1358
Demir Döküm (Sert ±275 bhn)	24	91	1222	4478	1194	2329	616	1532	406	1164
Magnezyum	244	427	12224	20898	11942	10867	6161	7149	4064	5436
Krom Nikel Alaşımları	20	53	993	2612	970	1358	500	894	330	679
Plastikler	183	366	9168	17913	8956	9315	4620	6128	3048	4657
Sıcak İş Çelikleri (35-40 Rc)	46	107	2292	5225	2239	2717	1155	1787	762	1358
Sıcak İş Çelikleri (40-45 Rc)	38	84	1910	4105	1866	2135	963	1404	635	1067
Sıcak İş Çelikleri (45+ Rc)	15	61	764	2985	746	1552	385	1021	254	776
Çelik - Karbon	53	107	2674	5225	2612	2717	1348	1787	889	1358
Çelik - Kalıp	15	76	764	3732	746	1941	385	1277	254	970
Çelik - T ağırm	46	76	2292	3732	2239	1941	1155	1277	762	970
Paslanmaz Çelik - Yumuşak	76	122	3820	5971	3731	3105	1925	2043	770	1552
Paslanmaz Çelik - Sert	23	76	1146	3732	1119	1941	578	1277	381	970
Titanyum Alaşımları	27	63	1375	3359	1343	1747	693	1149	457	873

60° HELİS 3 AĞIZLI SERT METAL (KARBÜR) PARMAK FREZELER



Inkonel, titanyum, paslanmaz ve çelik alaşımlarının yüksek devirde freze işlemleri için.

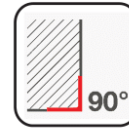
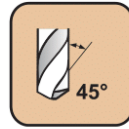
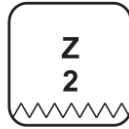
60 DERECE 3 AĞIZLI				EDP#
Çap	Kes .Boy	Sap	Tam Boy	STD
6	20	6	63	88250
8	22	8	63	88254
10	25	10	70	88258
12	25	12	75	88262
16	30	16	88	88266
20	38	20	100	88270

EDP#
T'YN
88251
88255
88259
88263
88267
88271

EDP#
T'YCN
88252
88256
88260
88264
88268
88272

EDP#
T'YALN
88253
88257
88261
88265
88269
88273

45° HELİS 2 AĞIZLI SERT METAL (KARBÜR) PARMAK FREZELER



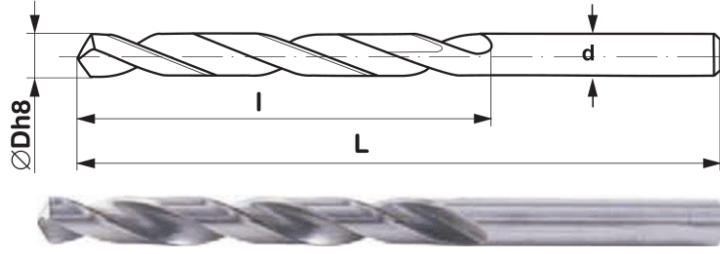
Aluminyumların yüksek hızda işlenmesi için

45 DERECE 2 AĞIZLI				EDP#
Çap	Kes .Boy	Sap	Tam Boy	STD
6	25	6	63	88200
8	25	8	63	88204
10	25	10	70	88208
12	32	12	75	88212
16	42	16	88	88216
20	48	20	100	88220

EDP#
T'YN
88201
88205
88209
88213
88217
88221

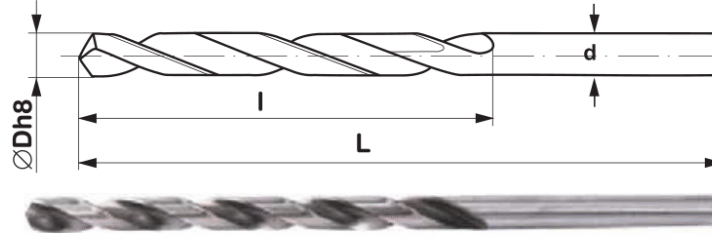
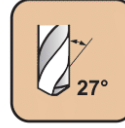
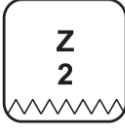
EDP#
T'YCN
88202
88206
88210
88214
88218
88222

EDP#
T'YALN
88203
88207
88211
88215
88219
88223



KOD	D	l	d	L
45-1171	2	12	2	38
45-1172	2,1	13	2,1	40
45-1173	2,2	13	2,2	40
45-1174	2,3	13	2,3	40
45-1175	2,4	14	2,4	43
45-1176	2,5	14	2,5	43
45-1177	2,6	16	2,6	46
45-1178	2,7	16	2,7	46
45-1179	2,8	16	2,8	46
45-1180	2,9	16	2,9	46
45-1182	3,0	16	3,0	46
45-1220	3,1	18	3,1	49
45-1260	3,2	18	3,2	49
45-1299	3,3	18	3,3	49
45-1339	3,1	20	3,1	52
45-1379	3,5	20	3,5	52
45-1417	3,6	20	3,6	52
45-1457	3,7	20	3,7	52
45-1496	3,8	22	3,8	55
45-1535	3,9	22	3,9	55
45-1575	4	22	4	55
45-1614	4,1	22	4,1	55
45-1654	4,2	22	4,2	55
45-1693	4,3	24	4,3	58
45-1732	4,4	24	4,4	58
45-1772	4,5	24	4,5	58
45-1811	4,6	24	4,6	58
45-1850	4,7	24	4,7	58
45-1890	4,8	26	4,8	62
45-1929	4,9	26	4,9	62
45-1969	5	26	5	62
45-2008	5,1	26	5,1	62
45-2047	5,2	26	5,2	62
45-2087	5,3	28	5,3	62
45-2126	5,4	28	5,4	66
45-2166	5,5	28	5,5	66

KOD	D	l	d	L
45-2205	5,6	28	5,6	66
45-2244	5,7	28	5,7	66
45-2283	5,8	28	5,8	66
45-2323	5,9	28	5,9	66
45-2362	6	28	6	66
45-2402	6,1	31	6,1	70
45-2441	6,2	31	6,2	70
45-2480	6,3	31	6,3	70
45-2520	6,4	31	6,4	70
45-2559	6,5	31	6,5	70
45-2756	7	34	7	74
45-2953	7,5	34	7,5	74
45-3150	8	37	8	79
45-3346	8,5	37	8,5	79
45-3543	9	40	9	84
45-3743	9,5	40	9,5	84
45-3937	10	43	10	89
45-4134	10,5	43	10,5	89
45-4331	11	47	11	95
45-4528	11,5	47	11,5	95
45-4724	12	51	12	102
45-4921	12,5	51	12,5	102
45-5118	13	54	13	102
45-5512	14	54	14	107
45-5614	14,5	56	14,5	107
45-5615	15	56	15	111
45-5715	15,5	56	15,5	111
45-5716	16	60	16	115
45-5816	16,5	60	16,5	117
45-5817	17	62	17	117
45-5917	17,5	62	17,5	123
45-5918	18	62	18	123
45-6018	18,5	64	18,5	127
45-6019	19	64	19	127
45-6119	19,5	66	19,5	131
45-6120	20	66	20	131




KOD	D	l	d	L
47-1121	2	24	2	49
47-1141	2,5	30	2,5	57
47-1181	3	33	3	61
47-1220	3,1	36	3,1	65
47-1260	3,2	36	3,2	65
47-1299	3,3	36	3,3	65
47-1339	3,4	39	3,4	70
47-1378	3,5	39	3,5	70
47-1417	3,6	39	3,6	70
47-1457	3,7	39	3,7	70
47-1496	3,8	43	3,8	75
47-1535	3,9	43	3,9	75
47-1575	4	43	4	75
47-1614	4,1	43	4,1	75
47-1654	4,2	43	4,2	75
47-1693	4,3	47	4,3	80
47-1732	4,4	47	4,4	80
47-1772	4,5	47	4,5	80
47-1811	4,6	47	4,6	80
47-1850	4,7	47	4,7	80
47-1890	4,8	52	4,8	86
47-1929	4,9	52	4,9	86
47-1969	5	52	5	86
47-2008	5,1	52	5,1	86
47-2047	5,2	52	5,2	86
47-2087	5,3	52	5,3	86
47-2126	5,4	57	5,4	93
47-2165	5,5	57	5,5	93
47-2205	5,6	57	5,6	93
47-2244	5,7	57	5,7	93
47-2283	5,8	57	5,8	93
47-2323	5,9	57	5,9	93
47-2362	6	57	6	93
47-2402	6,1	63	6,1	101
47-2441	6,2	63	6,2	101
47-2480	6,3	63	6,3	101
47-2520	6,4	63	6,4	101
47-2559	6,5	63	6,5	101
47-2598	6,6	63	6,6	101
47-2638	6,7	63	6,7	101








KOD	D	l	d	L
47-2677	6,8	69	6,8	109
47-2717	6,9	69	6,9	109
47-2756	7	69	7	109
47-2795	7,1	69	7,1	109
47-2835	7,2	69	7,2	109
47-2874	7,3	69	7,3	109
47-2913	7,4	69	7,4	109
47-2953	7,5	69	7,5	109
47-2992	7,6	75	7,6	117
47-3031	7,7	75	7,7	117
47-3071	7,8	75	7,8	117
47-3110	7,9	75	7,9	117
47-3150	8	75	8	117
47-3189	8,1	75	8,1	117
47-3228	8,2	75	8,2	117
47-3268	8,3	75	8,3	117
47-3307	8,4	75	8,4	117
47-3346	8,5	75	8,5	117
47-3386	8,6	81	8,6	125
47-3425	8,7	81	8,7	125
47-3465	8,8	81	8,8	125
47-3504	8,9	81	8,9	125
47-3543	9	81	9	125
47-3583	9,1	81	9,1	125
47-3622	9,2	81	9,2	125
47-3661	9,3	81	9,3	125
47-3701	9,4	81	9,4	125
47-3740	9,5	81	9,5	125
47-3780	9,6	87	9,6	133
47-3819	9,7	87	9,7	133
47-3858	9,8	87	9,8	133
47-3898	9,9	87	9,9	133
47-3937	10	87	10	133
47-4016	10,2	87	10,2	133
47-4134	10,5	87	10,5	133
47-4331	11	94	11	142
47-4528	11,5	94	11,5	142
47-4724	12	101	12	151
47-4812	12,5	101	12,5	151
47-4813	13	101	13	151













SERT METAL (KARBÜR) MATKAP UCU VE FREZE STANDI - 70 PARÇA

Matkap Uçları (A-47...)	3 / 3,5 / 4 / 4,5 / 5 / 5,5 / 6 / 6,5 / 7 / 7,5 / 8 / 8,5 / 9 / 10 mm
2 Ağızlı Normal Boy TIALN	2 / 3 / 4 / 5 / 6 / 8 / 10 mm
4 Ağızlı Uzun TIALN	3 / 4 / 5 / 6 / 8 / 10 / 12 mm
4 Ağızlı Normal Boy kaplamasız	1 / 1,5 / 2 / 2,5 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 12 / 14 / 16 mm
4 Ağızlı Normal Boy TIALN	1 / 1,5 / 2 / 2,5 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 12 / 14 / 16 mm
2 Ağızlı Normal Boy küresel TIALN	1 / 1,5 / 2 / 2,5 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 12 / 14 / 16 mm

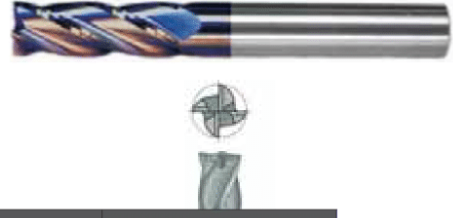
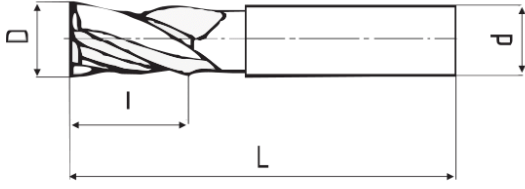
	TİP NO	KOD	ÇAP (mm)	KES.BOY (mm)	SAP (mm)	TAM BOY (mm)
	SA-021006	C170-A0210X06F	2	10	6	38
	SA-43M-DC	C170-A0313X03F	3	13	3	38
	SA-12M-DC	C170-A0313X06F	3	13	6	38
	SA-041306	C170-A0413X06F	4	13	6	38
	SA-51M-DC	C170-A0613X03F	6	13	3	56
	SA-1M-DC	C170-A0616X06F	6	16	6	56
	SA-2M-DC	C170-A0820X06F	8	20	6	60
	SA-3M-DC	C170-A1020X06F	10	20	6	60
	SA-5M-DC	C170-A1225X06F	12	25	6	65
	SA-6M-DC	C170-A1625X06F	16	25	6	65
	SA-7M-DC	C170-A1925X06F	19	25	6	65
	SB-42M-DC	C170-B0210X06F	2	10	6	38
	SB-43M-DC	C170-B0313X03F	3	13	3	38
	SB-12M-DC	C170-B0313X06F	3	13	6	38
	SB-041303	C170-B0413X03F	4	13	3	38
	SB-041306	C170-B0413X06F	4	13	6	38
	SB-51M-DC	C170-B0613X03F	6	13	3	56
	SB-1M-DC	C170-B0616X06F	6	16	6	56
	SB-2M-DC	C170-B0820X06F	8	20	6	60
	SB-3M-DC	C170-B1020X06F	10	20	6	60
	SB-5M-DC	C170-B1225X06F	12	25	6	65
	SB-6M-DC	C170-B1625X06F	16	25	6	65
	SB-7M-DC	C170-B1925X06F	19	25	6	65
	SB-9M-DC	C170-B2525X06F	25	25	6	65
	SC-021006	C170-C0210X06F	2	10	6	38
	SC-42M-DC	C170-C0313X03F	3	13	3	38
	SB-041303	C170-C0413X03F	4	13	3	38
	SC-041306	C170-C0413X06F	4	13	6	38
	SC-51M-DC	C170-C0613X03F	6	13	3	38
	SC-1M-DC	C170-C0616X06F	6	16	6	56
	SC-2M-DC	C170-C0820X06F	8	20	6	60
	SC-3M-DC	C170-C1020X06F	10	20	6	60
	SC-5M-DC	C170-C1225X06F	12	25	6	65
	SC-6M-DC	C170-C1625X06F	16	25	6	65
	SC-7M-DC	C170-C1925X06F	19	25	6	65
	SC-9M-DC	C170-C2525X06F	25	25	6	65
	SD-42M-DC	C170-D0302X03F	3	2	3	38
	SD-12M-DC	C170-D0302X06F	3	2	6	38
	SD-040303	C170-D0403X03F	4	3	3	38
	SD-040306	C170-D0403X06F	4	3	6	38
	SD-51M-DC	C170-D0605X03F	6	5	3	33
	SD-1M-DC	C170-D0605X06F	6	5	6	45
	SD-2M-DC	C170-D0807X06F	8	7	6	47
	SD-3M-DC	C170-D1009X06F	10	9	6	49
	SD-5M-DC	C170-D1210X06F	12	10	6	51
	SD-6M-DC	C170-D1614X06F	16	14	6	54
	SD-7M-DC	C170-D1914X06F	19	14	6	54
	SD-9M-DC	C170-D2521X06F	25	21	6	54
	SE-41M-DC	C170-E0307X03F	3	7	3	38
	SE-12M-DC	C170-E0307X06F	3	7	6	38
	SE-51M-DC	C170-E0610X03F	6	10	3	33
	SE-1M-DC	C170-E0610X06F	6	10	6	50
	SE-2M-DC	C170-E0813X06F	8	13	6	53
	SE-3M-DC	C170-E1016X06F	10	16	6	56
	SE-5M-DC	C170-E1220X06F	12	20	6	60
	SE-6M-DC	C170-E1625X06F	16	25	6	65
	SE-7M-DC	C170-E1925X06F	19	25	6	65
	SF-42M-DC	C170-F0313X03F	3	13	3	38
	SF-51M-DC	C170-F0613X03F	6	13	3	41
	SF-1M-DC	C170-F0618X06F	6	18	6	58
	SF-2M-DC	C170-F0820X06F	8	20	6	65
	SF-3M-DC	C170-F1020X06F	10	20	6	60
	SF-5M-DC	C170-F1225X06F	12	25	6	65
	SF-6M-DC	C170-F1625X06F	16	25	6	70
	SF-7M-DC	C170-F1925X06F	19	25	6	70

	TİP NO	KOD	ÇAP (mm)	KES.BOY (mm)	SAP (mm)	TAM BOY (mm)
	SG-43M-DC	C170-G0313X03F	3	13	3	38
	SG-51M-DC	C170-G0613X03F	6	13	3	41
	SG-1M-DC	C170-G0618X06F	6	18	6	58
	SG-2M-DC	C170-G0820X06F	8	20	6	65
	SG-3M-DC	C170-G1020X06F	10	20	6	60
	SG-5M-DC	C170-G1225X06F	12	25	6	65
	SG-6M-DC	C170-G1625X06F	16	25	6	70
	SG-7M-DC	C170-G1925X06F	19	25	6	70
	SH-41M-DC	C170-H0307X03F	3	7	3	38
	SH-1M-DC	C170-H0618X06F	6	18	6	58
	SH-2M-DC	C170-H0820X06F	8	20	6	60
	SH-3M-DC	C170-H1025X06F	10	25	6	65
	SH-5M-DC	C170-H1232X06F	12	32	6	72
	SH-6M-DC	C170-H1636X06F	16	36	6	76
	SH-7M-DC	C170-H1936X06F	19	36	6	76
	SJ-42M-DC	C170-J0302X03F	3	2	3	42
	SJ-12M-DC	C170-J0302X06F	3	2	6	42
	SJ-1M-DC	C170-J0605X06F	6	5	6	48
	SJ-2M-DC	C170-J0807X06F	8	7	6	47
	SJ-3M-DC	C170-J1008X06F	10	8	6	52
	SJ-5M-DC	C170-J1210X06F	12	10	6	54
	SJ-6M-DC	C170-J1613X06F	16	13	6	56
	SJ-7M-DC	C170-J1913X06F	19	13	6	56
	SK-42M-DC	C170-K0301X03F	3	1	3	42
	SK-1M-DC	C170-K0603X06F	6	3	6	45
	SK-2M-DC	C170-K0804X06F	8	4	6	47
	SK-3M-DC	C170-K1005X06F	10	5	6	48
	SK-5M-DC	C170-K1206X06F	12	6	6	48
	SK-6M-DC	C170-K1608X06F	16	8	6	50
	SK-7M-DC	C170-K1908X06F	19	8	6	50
	SK-9M-DC	C170-K2512X06F	25	12	6	50
	SL-021306	C170-L0213X06F	2	13	6	38
	SL-42M-DC	C170-L0313X03F	3	13	3	38
	SL-12M-DC	C170-L0313X06F	3	13	6	38
	SL-041306	C170-L0413X06F	4	13	6	38
	SL-51M-DC	C170-L0613X03F	6	13	3	41
	SL-1M-DC	C170-L0616X06F	6	16	6	56
	SL-2M-DC	C170-L0822X06F	8	22	6	62
	SL-3M-DC	C170-L1025X06F	10	25	6	65
	SL-5M-DC	C170-L1228X06F	12	28	6	68
	SL-6M-DC	C170-L1633X06F	16	33	6	73
	SL-7M-DC	C170-L1933X06F	19	33	6	73
	SM-42M-DC	C170-M0311X03F	3	11	3	38
	SM-12M-DC	C170-M0311X06F	3	11	6	38
	SM-51M-DC	C170-M0618X03F	6	18	3	46
	SM-1M-DC	C170-M0618X06F	6	18	6	58
	SM-2M-DC	C170-M0820X06F	8	20	6	65
	SM-3M-DC	C170-M1020X06F	10	20	6	60
	SM-5M-DC	C170-M1225X06F	12	25	6	65
	SM-6M-DC	C170-M1625X06F	16	25	6	65
	SM-7M-DC	C170-M1925X06F	19	25	6	65
	SN-42M-DC	C170-N0307X03F	3	7	3	38
	SN-12M-DC	C170-N0307X06F	3	7	6	38
	SN-1M-DC	C170-N0607X06F	6	7	6	47
	SN-2M-DC	C170-N0807X06F	8	7	6	50
	SN-3M-DC	C170-N1010X06F	10	10	6	55
	SN-4M-DC	C170-N1213X06F	12	13	6	53
	SN-6M-DC	C170-N1613X06F	16	13	6	58

	TİP NO	KOD	ÇAP (mm)	KES.BOY (mm)	SAP (mm)	TAM BOY (mm)
	SA-43M-DC	C175-A0313X03	3	13	3	38
	SA-1M-DC	C175-A0616X06	6	16	6	56
	SA-2M-DC	C175-A0820X06	8	20	6	60
	SA-3M-DC	C175-A1020X06	10	20	6	60
	SA-5M-DC	C175-A1225X06	12	25	6	65
	SA-6M-DC	C175-A1625X06	16	25	6	65
	SB-43M-DC	C175-B0313X03	3	13	3	38
	SB-1M-DC	C175-B0616X06	6	16	6	56
	SB-2M-DC	C175-B0820X06	8	20	6	60
	SB-3M-DC	C175-B1020X06	10	20	6	60
	SB-5M-DC	C175-B1225X06	12	25	6	65
	SB-6M-DC	C175-B1625X06	16	25	6	65
	SC-42M-DC	C175-C0313X03	3	13	3	38
	SC-1M-DC	C175-C0616X06	6	16	6	56
	SC-2M-DC	C175-C0820X06	8	20	6	60
	SC-3M-DC	C175-C1020X06	10	20	6	60
	SC-5M-DC	C175-C1225X06	12	25	6	65
	SC-6M-DC	C175-C1625X06	16	25	6	65
	SD-42M-DC	C175-D0302X03	3	2	3	38
	SD-1M-DC	C175-D0605X06	6	5	6	45
	SD-2M-DC	C175-D0807X06	8	7	6	47
	SD-3M-DC	C175-D1009X06	10	9	6	49
	SD-5M-DC	C175-D1210X06	12	10	6	51
	SD-6M-DC	C175-D1614X06	16	14	6	54
	SE-41M-DC	C175-E0307X03	3	7	3	38
	SE-1M-DC	C175-E0610X06	6	10	6	50
	SE-2M-DC	C175-E0813X06	8	13	6	53
	SE-3M-DC	C175-E1016X06	10	16	6	56
	SE-5M-DC	C175-E1220X06	12	20	6	60
	SE-6M-DC	C175-E1625X06	16	25	6	65
	SF-42M-DC	C175-F0313X03	3	13	3	38
	SF-1M-DC	C175-F0618X06	6	18	6	58
	SF-2M-DC	C175-F0820X06	8	20	6	65
	SF-3M-DC	C175-F1020X06	10	20	6	60
	SF-5M-DC	C175-F1225X06	12	25	6	65
	SF-6M-DC	C175-F1625X06	16	25	6	70
	SG-43M-DC	C175-G0313X03	3	13	3	38
	SG-1M-DC	C175-G0618X06	6	18	6	58
	SG-2M-DC	C175-G0820X06	8	20	6	65
	SG-3M-DC	C175-G1020X06	10	20	6	60
	SG-5M-DC	C175-G1225X06	12	25	6	65
	SG-6M-DC	C175-G1625X06	16	25	6	70

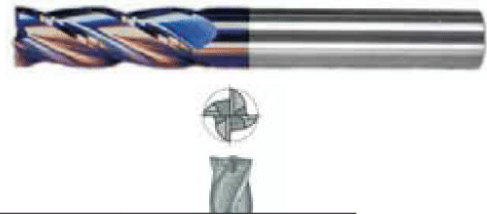
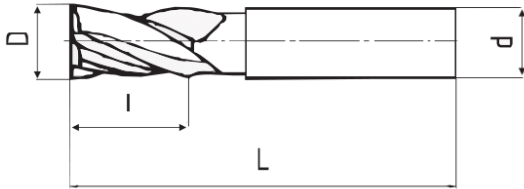
	TİP NO	KOD	ÇAP (mm)	KES.BOY (mm)	SAP (mm)	TAM BOY (mm)
	SH-41M-DC	C175-H0307X03	3	7	3	38
	SH-1M-DC	C175-H0618X06	6	18	6	58
	SH-2M-DC	C175-H0820X06	8	20	6	60
	SH-3M-DC	C175-H1025X06	10	25	6	65
	SH-5M-DC	C175-H1232X06	12	32	6	72
	SH-6M-DC	C175-H1636X06	16	36	6	76
	SJ-42M-DC	C175-J0302X03	3	2	3	42
	SJ-1M-DC	C175-J0605X06	6	5	6	48
	SJ-2M-DC	C175-J0807X06	8	7	6	47
	SJ-3M-DC	C175-J1008X06	10	8	6	52
	SJ-5M-DC	C175-J1210X06	12	10	6	54
	SJ-6M-DC	C175-J1613X06	16	13	6	56
	SK-42M-DC	C175-K0301X03	3	1	3	42
	SK-1M-DC	C175-K0603X06	6	3	6	45
	SK-2M-DC	C175-K0804X06	8	4	6	47
	SK-3M-DC	C175-K1005X06	10	5	6	48
	SK-5M-DC	C175-K1206X06	12	6	6	48
	SK-6M-DC	C175-K1608X06	16	8	6	50
	SL-42M-DC	C175-L0313X03	3	13	3	38
	SL-1M-DC	C175-L0616X06	6	16	6	56
	SL-2M-DC	C175-L0822X06	8	22	6	62
	SL-3M-DC	C175-L1025X06	10	25	6	65
	SL-5M-DC	C175-L1228X06	12	28	6	68
	SL-6M-DC	C175-L1633X06	16	33	6	73
	SM-42M-DC	C175-M0311X03	3	11	3	38
	SM-1M-DC	C175-M0618X06	6	18	6	58
	SM-2M-DC	C175-M0820X06	8	20	6	65
	SM-3M-DC	C175-M1020X06	10	20	6	60
	SM-5M-DC	C175-M1225X06	12	25	6	65
	SM-6M-DC	C175-M1625X06	16	25	6	65
	SM-7M-DC	C175-M1925X06	19	25	6	65
	SN-42M-DC	C175-N0307X03	3	7	3	38
	SN-1M-DC	C175-N0607X06	6	7	6	47
	SN-2M-DC	C175-N0807X06	8	7	6	50
	SN-3M-DC	C175-N1010X06	10	10	6	55
	SN-4M-DC	C175-N1213X06	12	13	6	53
	SN-6M-DC	C175-N1613X06	16	13	6	58

TIALN KAPLAMALI STANDART SERT METAL (KARBÜR) PARMAK FREZELER

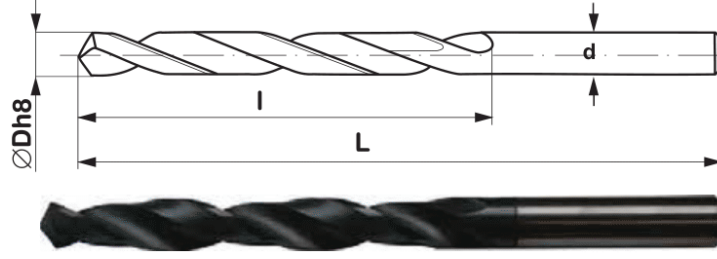


D	l	d	L	4 AĐIZLI
1	3	3	38	C211-010
1,5	5	3	38	C211-015
2	6	3	38	C211-020
3	10	3	45	C211-030
4	12	4	45	C211-040
5	15	5	50	C211-050
6	15	6	50	C211-060
7	20	7	60	C211-070
8	20	8	60	C211-080
9	25	9	70	C211-090
10	25	10	70	C211-100
11	25	11	75	C211-110
12	25	12	75	C211-120
13	25	13	75	C211-130
14	35	14	90	C211-140
15	35	14	90	C211-150
16	35	16	90	C211-160
18	40	18	105	C211-180
20	40	20	105	C211-200
22	40	22	105	C211-220
24	40	24	105	C211-240
25	40	25	105	C211-250

TIALN KAPLAMALI UZUN SERT METAL (KARBÜR) PARMAK FREZELER

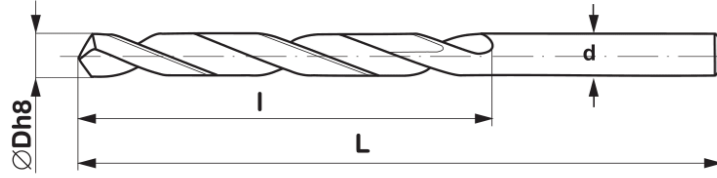
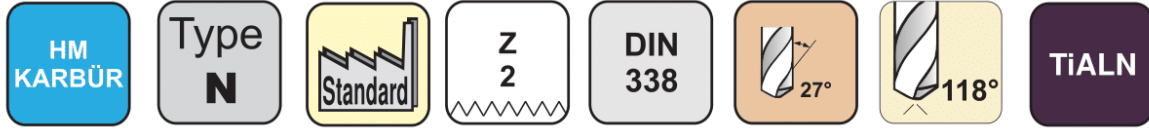


D	l	d	L	4 AĐIZLI
3	25	3	65	C241-030
4	25	4	65	C241-040
5	25	5	75	C241-050
6	25	6	75	C241-060
8	25	8	75	C241-080
10	38	10	100	C241-100
12	50	12	100	C241-120
14	56	14	125	C241-140
16	75	16	150	C241-160
18	75	18	150	C241-180
20	75	20	150	C241-200
25	75	25	150	C241-250



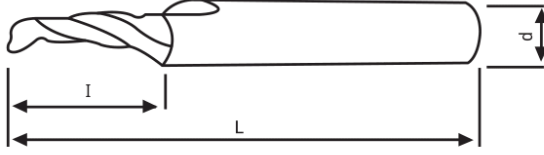
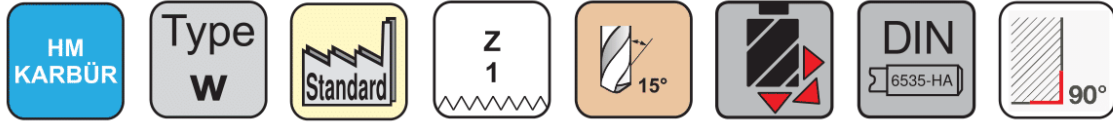
KOD	D	l	d	L
C45-020	2	12	2	38
C45-021	2,1	13	2,1	40
C45-022	2,2	13	2,2	40
C45-023	2,3	13	2,3	40
C45-024	2,4	14	2,4	43
C45-025	2,5	14	2,5	43
C45-026	2,6	16	2,6	46
C45-027	2,7	16	2,7	46
C45-028	2,8	16	2,8	46
C45-029	2,9	16	2,9	46
C45-030	3	16	3	46
C45-031	3,1	18	3,1	49
C45-032	3,2	18	3,2	49
C45-033	3,3	18	3,3	49
C45-034	3,4	20	3,4	52
C45-035	3,5	20	3,5	52
C45-036	3,6	20	3,6	52
C45-037	3,7	20	3,7	52
C45-038	3,8	22	3,8	55
C45-039	3,9	22	3,9	55
C45-040	4	22	4	55
C45-041	4,1	22	4,1	55
C45-042	4,2	22	4,2	55
C45-043	4,3	24	4,3	58
C45-044	4,4	24	4,4	58
C45-045	4,5	24	4,5	58
C45-046	4,6	24	4,6	58
C45-047	4,7	26	4,7	62
C45-048	4,8	26	4,8	62
C45-049	4,9	26	4,9	62
C45-050	5	26	5	62
C45-051	5,1	26	5,1	62
C45-052	5,2	26	5,2	62
C45-053	5,3	26	5,3	62
C45-054	5,4	28	5,4	66
C45-055	5,5	28	5,5	66
C45-057	5,7	28	5,7	66
C45-058	5,8	28	5,8	66
C45-059	5,9	28	5,9	66
C45-060	6	28	6	66
C45-061	6,1	31	6,1	70
C45-062	6,2	31	6,2	70
C45-063	6,3	31	6,3	70
C45-064	6,4	31	6,4	70
C45-065	6,5	31	6,5	70

KOD	D	l	d	L
C45-066	6,6	31	6,6	70
C45-067	6,7	31	6,7	70
C45-068	6,8	31	6,8	70
C45-069	6,9	31	6,9	70
C45-070	7	34	7	74
C45-071	7,1	34	7,1	74
C45-072	7,2	34	7,2	74
C45-073	7,3	34	7,3	74
C45-074	7,4	34	7,4	74
C45-075	7,5	34	7,5	74
C45-076	7,6	37	7,6	79
C45-077	7,7	37	7,7	79
C45-078	7,8	37	7,8	79
C45-079	7,9	37	7,9	79
C45-080	8	37	8	79
C45-081	8,1	37	8,1	79
C45-082	8,2	37	8,2	79
C45-083	8,3	37	8,3	79
C45-084	8,4	37	8,4	79
C45-085	8,5	37	8,5	79
C45-086	8,6	40	8,6	84
C45-087	8,7	40	8,7	84
C45-088	8,8	40	8,8	84
C45-089	8,9	40	8,9	84
C45-090	9	40	9	84
C45-095	9,5	40	9,5	84
C45-100	10	43	10	89
C45-102	10,2	43	10,2	89
C45-105	10,5	43	10,5	89
C45-110	11	47	11	95
C45-115	11,5	47	11,5	95
C45-120	12	51	12	102
C45-125	12,5	51	12,5	102
C45-130	13	51	13	102
C45-140	14	54	14	107
C45-145	14,5	54	14,5	107
C45-150	15	56	15	111
C45-160	16	58	16	115
C45-165	16,5	58	16,5	115
C45-170	17	60	17	117
C45-175	17,5	62	17,5	123
C45-180	18	62	18	123
C45-185	18,5	64	18,5	127
C45-190	19	64	19	127
C45-200	20	66	20	131



KOD	D	l	d	L
C47-020	2	24	2	49
C47-021	2,1	24	2,1	49
C47-022	2,2	27	2,2	53
C47-023	2,3	27	2,3	53
C47-024	2,4	30	2,4	57
C47-025	2,5	30	2,5	57
C47-026	2,6	30	2,6	57
C47-027	2,7	33	2,7	61
C47-028	2,8	33	2,8	61
C47-029	2,9	33	2,9	61
C47-030	3	33	3	61
C47-031	3,1	36	3,1	65
C47-032	3,2	36	3,2	65
C47-033	3,3	36	3,3	65
C47-034	3,4	39	3,4	70
C47-035	3,5	39	3,5	70
C47-036	3,6	39	3,6	70
C47-037	3,7	39	3,7	70
C47-038	3,8	43	3,8	75
C47-039	3,9	43	3,9	75
C47-040	4	43	4	75
C47-041	4,1	43	4,1	75
C47-042	4,2	43	4,2	75
C47-043	4,3	47	4,3	80
C47-044	4,4	47	4,4	80
C47-045	4,5	47	4,5	80
C47-046	4,6	47	4,6	80
C47-047	4,7	47	4,7	80
C47-048	4,8	52	4,8	86
C47-049	4,9	52	4,9	86
C47-050	5	52	5	86
C47-051	5,1	52	5,1	86
C47-052	5,2	52	5,2	86
C47-053	5,3	52	5,3	86
C47-054	5,4	57	5,4	93
C47-055	5,5	57	5,5	93
C47-056	5,6	57	5,6	93
C47-057	5,7	57	5,7	93
C47-058	5,8	57	5,8	93
C47-059	5,9	57	5,9	93
C47-060	6	57	6	93
C47-061	6,1	63	6,1	101
C47-062	6,2	63	6,2	101
C47-063	6,3	63	6,3	101
C47-064	6,4	63	6,4	101
C47-065	6,5	63	6,5	101
C47-066	6,6	63	6,6	101
C47-067	6,7	63	6,7	101
C47-068	6,8	69	6,8	109
C47-069	6,9	69	6,9	109
C47-070	7	69	7	109

KOD	D	l	d	L
C47-071	7,1	69	7,1	109
C47-072	7,2	69	7,2	109
C47-073	7,3	69	7,3	109
C47-074	7,4	69	7,4	109
C47-075	7,5	69	7,5	109
C47-076	7,6	69	7,6	109
C47-077	7,7	75	7,7	117
C47-078	7,8	75	7,8	117
C47-079	7,9	75	7,9	117
C47-080	8	75	8	117
C47-081	8,1	75	8,1	117
C47-082	8,2	75	8,2	117
C47-083	8,3	75	8,3	117
C47-084	8,4	75	8,4	117
C47-085	8,5	75	8,5	117
C47-086	8,6	81	8,6	125
C47-087	8,7	81	8,7	125
C47-088	8,8	81	8,8	125
C47-089	8,9	81	8,9	125
C47-090	9	81	9	125
C47-091	9,1	81	9,1	125
C47-092	9,2	81	9,2	125
C47-093	9,3	81	9,3	125
C47-094	9,4	81	9,4	125
C47-095	9,5	81	9,5	125
C47-096	9,6	81	9,6	125
C47-097	9,7	81	9,7	125
C47-098	9,8	87	9,8	133
C47-099	9,9	87	9,9	133
C47-100	10	87	10	133
C47-101	10,1	87	10,1	133
C47-102	10,2	87	10,2	133
C47-103	10,3	87	10,3	133
C47-104	10,4	87	10,4	133
C47-105	10,5	87	10,5	133
C47-106	10,6	94	10,6	142
C47-107	10,7	94	10,7	142
C47-108	10,8	94	10,8	142
C47-109	10,9	94	10,9	142
C47-110	11	94	11	142
C47-115	11,5	94	11,5	142
C47-120	12	101	12	151
C47-125	12,5	101	12,5	151
C47-130	13	101	13	151
C47-135	13,5	101	13,5	151
C47-140	14	120	14	175
C47-145	14,5	120	14,5	175
C47-150	15	120	15	175
C47-160	16	120	16	175
C47-180	18	120	18	175

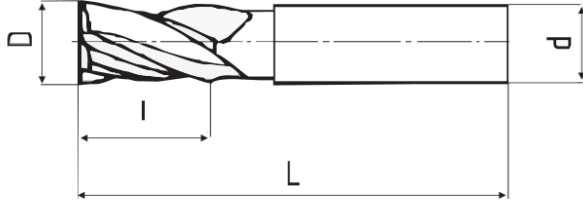
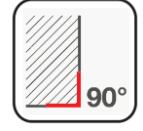
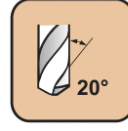
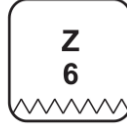


Alüminyum ve Sert Plastik İçin

Ø	I	d	L	KOD
3	8	3	60	C901-1101
3	8	8	60	C901-1102
3	8	3	90	C901-1103
4	12	4	60	C901-1111
4	12	8	60	C901-1112
4	12	4	90	C901-1113
5	16	5	60	C901-1121
5	16	8	60	C901-1122
5	16	5	90	C901-1123
6	20	6	60	C901-1131
6	20	8	60	C901-1132
6	20	6	90	C901-1133
8	25	8	60	C901-1141
8	25	8	90	C901-1143

SERT METAL (KARBÜR) FREZELERİN KULLANIM DEĞERLERİ

MALZEME	DEVİR SAYISI (RPM)									
	Yerleme (m/dakika)	6,5 mm'e kadar		6,5 - 12,5 mm		12,6 - 19 mm		19,1 - 25 mm		
Alüminyum / Alabımları	183	366	9168	17912	8956	9295	4620	6128	3048	4657
Bronz / Pirinç	91	168	4584	8210	4478	4269	2310	2809	1524	2135
Bakır / Alabımları	152	274	7640	13435	7463	6986	3850	4596	2540	3493
Demir Döküm (Yumuşak ± 195 bhn)	61	152	3056	7464	2985	3881	1540	2553	1016	1941
Demir Döküm (Orta ± 255 bhn)	38	107	1910	5225	1866	2717	963	1787	635	1358
Demir Döküm (Sert ±275 bhn)	24	91	1222	4478	1194	2329	616	1532	406	1164
Magnezyum	244	427	12224	20898	11942	10867	6161	7149	4064	5436
Krom Nikel Alabımları	20	53	993	2612	970	1358	500	894	330	679
Plastikler	183	366	9168	17913	8956	9315	4620	6128	3048	4657
Sıcak İş Çelikleri (35-40 Rc)	46	107	2292	5225	2239	2717	1155	1787	762	1358
Sıcak İş Çelikleri (40-45 Rc)	38	84	1910	4105	1866	2135	963	1404	635	1067
Sıcak İş Çelikleri (45+ Rc)	15	61	764	2985	746	1552	385	1021	254	776
Çelik - Karbon	53	107	2674	5225	2612	2717	1348	1787	889	1358
Çelik - Kalıp	15	76	764	3732	746	1941	385	1277	254	970
Çelik - T ağı	46	76	2292	3732	2239	1941	1155	1277	762	970
Paslanmaz Çelik - Yumuşak	76	122	3820	5971	3731	3105	1925	2043	770	1552
Paslanmaz Çelik - Sert	23	76	1146	3732	1119	1941	578	1277	381	970
Titanyum Alabımları	27	63	1375	3359	1343	1747	693	1149	457	873

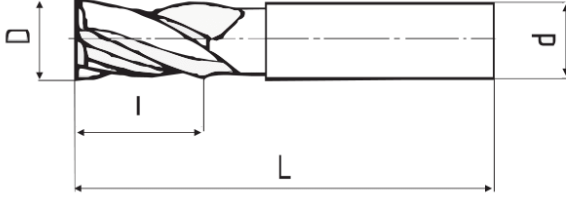


D	I	d	L	STANDART
3	12	3	38	81202
4	14	4	50	81302
5	16	5	50	81402
6	19	6	63	81452
7	19	8	63	81502
8	21	8	63	81552
9	22	10	70	81602
10	25	10	70	81652
11	25	11	70	81702
12	25	12	75	81752
14	30	14	88	81802
16	32	16	88	81852
18	35	18	100	81902
20	38	20	100	81952
22	38	22	100	82002
25	38	25	100	82052

T'YN
81212
81312
81412
81462
81512
81562
81612
81662
81712
81762
81812
81862
81912
81962
82012
82062

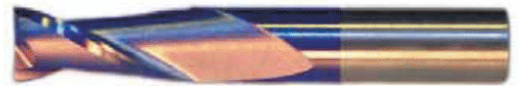
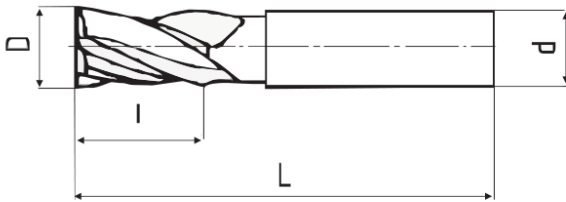
T'CN
81222
81322
81422
81472
81522
81572
81622
81672
81722
81772
81822
81872
81922
81972
82022
82072

TIALN KAPLAMALI 4 AĞIZLI (KÖŞE RADIUS)

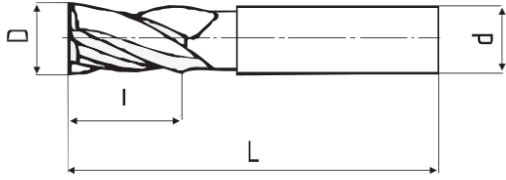
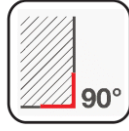
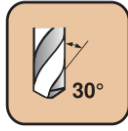


D	I	d	L	4 AĞIZLI	4 AĞIZLI	4 AĞIZLI	4 AĞIZLI	4 AĞIZLI	4 AĞIZLI
				R 0,5 mm	R 0,75 mm	R 1,0 mm	R 1,25 mm	R 1,5 mm	R 2,0 mm
3	12	3	38	81230R0.50	-----	81230R1.00	-----	-----	-----
4	14	4	50	81330R0.50	81330R0.75	81330R1.00	-----	-----	-----
5	16	5	50	81430R0.50	81430R0.75	81430R1.00	81430R1.25	81430R1.50	81430R2.00
6	19	6	63	81480R0.50	81480R0.75	81480R1.00	81480R1.25	81480R1.50	81480R2.00
8	19	8	63	81580R0.50	81580R0.75	81580R1.00	81580R1.25	81580R1.50	81580R2.00
10	25	10	70	81680R0.50	81680R0.75	81680R1.00	81680R1.25	81680R1.50	81680R2.00
12	25	12	75	81780R0.50	81780R0.75	81780R1.00	81780R1.25	81780R1.50	81780R2.00
16	32	16	88	81880R0.50	81880R0.75	81880R1.00	81880R1.25	81880R1.50	81880R2.00
20	38	20	100	81980R0.50	81980R0.75	81980R1.00	81980R1.25	81980R1.50	81980R2.00

TIALN KAPLAMALI 2 AĞIZLI (KÖŞE RADIUS)



D	I	d	L	2 AĞIZLI	2 AĞIZLI	2 AĞIZLI	2 AĞIZLI	2 AĞIZLI	2 AĞIZLI
				R 0,5 mm	R 0,75 mm	R 1,0 mm	R 1,25 mm	R 1,5 mm	R 2,0 mm
3	12	3	38	81231R0.50	-----	-----	-----	-----	-----
4	14	4	50	81331R0.50	81331R0.75	81331R1.00	-----	-----	-----
5	16	5	50	81431R0.50	81431R0.75	81431R1.00	81431R1.25	81431R1.50	81431R2.00
6	19	6	63	81481R0.50	81481R0.75	81481R1.00	81481R1.25	81481R1.50	81481R2.00
8	19	8	63	81581R0.50	81581R0.75	81581R1.00	81581R1.25	81581R1.50	81581R2.00
10	25	10	70	81681R0.50	81681R0.75	81681R1.00	81681R1.25	81681R1.50	81681R2.00
12	25	12	75	81781R0.50	81781R0.75	81781R1.00	81781R1.25	81781R1.50	81781R2.00
16	32	16	88	81881R0.50	81881R0.75	81881R1.00	81881R1.25	81881R1.50	81881R2.00
20	38	20	100	81981R0.50	81981R0.75	81981R1.00	81981R1.25	81981R1.50	81981R2.00



Paslanmaz Çelik, sertleştirilmiş çelik ve çelik alaşımları için

D	I	d	L	AĞIZ	STD
6	19	6	63	3	86900
8	19	8	63	3	86904
10	22	10	63	3	86908
12	25	12	75	4	86912
16	32	16	88	4	86916
20	38	20	100	4	86920
25	38	25	100	5	86924

TYN
86901
86905
86909
86913
86917
86921
86925

TVCN
86902
86906
86910
86914
86918
86922
86926

TVALN
86903
86907
86911
86915
86919
86923
86927

Titanyum, inkonel ve diğer mühendislik ma

çin

D	I	d	L	AĞIZ	STD
6	19	6	63	3	86828
8	19	8	63	3	86832
10	22	10	63	3	86836
12	25	12	75	4	86840
16	32	16	88	4	86844
20	38	20	100	4	86848
25	38	25	100	6	86852

TYN
86829
86833
86837
86841
86845
86849
86853

TVCN
86830
86834
86838
86842
86846
86850
86854

TVALN
86831
86835
86839
86843
86847
86851
86855

Alüminyum, Pirinç, Bronz ve diğer hafif alaşımlar için

D	I	d	L	AĞIZ	STD
6	19	6	63	3	86856
8	19	8	63	3	86860
10	22	10	63	3	86864
12	25	12	75	3	86868
16	32	16	88	3	86872
20	38	20	100	3	86876
25	38	25	100	3	86880

TYN
86857
86861
86865
86869
86873
86877
86881

TVCN
86858
86862
86866
86870
86874
86878
86882

TVALN
86859
86863
86867
86871
86875
86879
86883



TYN



TVCN



TVALN