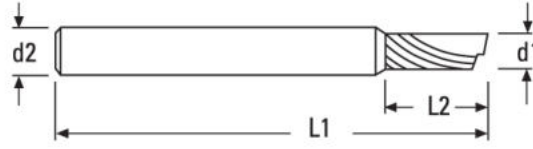


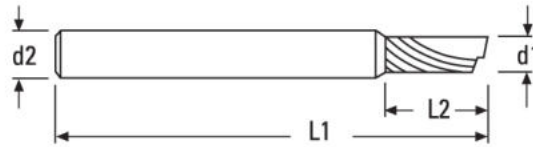


Mikro®
Solid Carbide

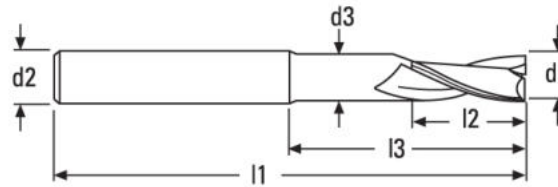
Karbür Alüminyum Frezeler
Solid Carbide Aluminium End Mills

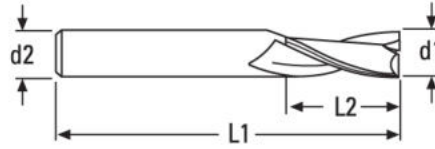


Sipariş Kodu Order Num. ①	Çap d1 mm	Kesme Boyu L2 mm	Tam Boyu L1 mm	Şaft Çapı d2 mm
MTA 030101	3.0	10	40	3
MTA 030111	3.0	11	50	6
MTA 040121	4.0	12	50	4
MTA 040131	4.0	13	50	6
MTA 050131	5.0	13	50	5
MTA 050141	5.0	14	50	6
MTA 060131	6.0	13	60	6
MTA 080181	8.0	18	60	8
MTA 100221	10.0	22	72	10

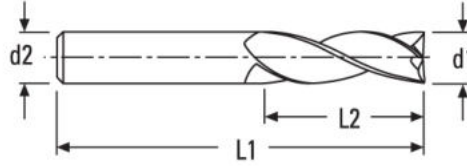


Sipariş Kodu Order Num. ①	Çap d1 mm	Kesme Boyu L2 mm	Tam Boyu L1 mm	Şaft Çapı d2 mm
MTAL 030151	3.0	15	60	3
MTAL 030161	3.0	16	60	6
MTAL 040161	4.0	16	60	4
MTAL 040171	4.0	17	60	6
MTAL 050181	5.0	18	60	5
MTAL 050191	5.0	19	60	6
MTAL 060241	6.0	24	75	6
MTAL 080321	8.0	32	75	8
MTAL 100401	10.0	40	100	10

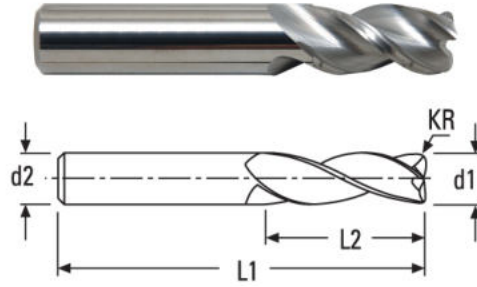
[illegible]



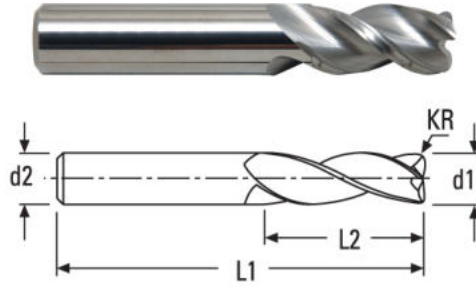
Sipariş Kodu Order Num. 	d1 h10 mm	L2 mm	L1 mm	d2 h6 mm
AHF 030902	3.0	9	38	3
AHF 031002	3.0	10	50	6
AHF 040142	4.0	14	50	4
AHF 040152	4.0	15	60	6
AHF 050162	5.0	16	50	5
AHF 050172	5.0	17	60	6
AHF 060192	6.0	19	57	6
AHF 070192	7.0	19	60	8
AHF 080202	8.0	20	60	8
AHF 100212	10.0	21	72	10
AHF 120252	12.0	25	75	12
AHF 140322	14.0	32	83	14
AHF 160322	16.0	32	92	16
AHF 180352	18.0	35	100	18
AHF 200382	20.0	38	100	20
AHF 030152	3.0	15	60	3
AHF 030162	3.0	16	60	6
AHF 040252	4.0	25	60	4
AHF 040262	4.0	26	60	6
AHF 050252	5.0	25	75	5
AHF 050262	5.0	26	75	6
AHF 060302	6.0	30	75	6
AHF 080302	8.0	30	75	8
AHF 100452	10.0	45	100	10
AHF 120452	12.0	45	100	12
AHF 140452	14.0	45	100	14
AHF 160452	16.0	45	100	16
AHF 180452	18.0	45	100	18
AHF 200452	20.0	45	100	20



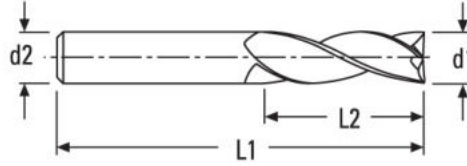
Sipariş Kodu Order Num. 	d1 h10 mm	L2 mm	L1 mm	d2 h6 mm
AKF 030903	3.0	9	38	3
AKF 031003	3.0	10	50	6
AKF 040143	4.0	14	50	4
AKF 040153	4.0	15	60	6
AKF 050163	5.0	16	50	5
AKF 050173	5.0	17	60	6
AKF 060193	6.0	19	57	6
AKF 070193	7.0	19	60	8
AKF 080203	8.0	20	60	8
AKF 100213	10.0	21	72	10
AKF 120253	12.0	25	75	12
AKF 140323	14.0	32	83	14
AKF 160323	16.0	32	92	16
AKF 180353	18.0	35	100	18
AKF 200383	20.0	38	100	20
AKF 030153	3.0	15	60	3
AKF 030163	3.0	16	60	6
AKF 040253	4.0	25	60	4
AKF 040263	4.0	26	60	6
AKF 050253	5.0	25	75	5
AKF 050263	5.0	26	75	6
AKF 060303	6.0	30	75	6
AKF 080303	8.0	30	75	8
AKF 100453	10.0	45	100	10
AKF 120453	12.0	45	100	12
AKF 140453	14.0	45	100	14
AKF 160453	16.0	45	100	16
AKF 180453	18.0	45	100	18
AKF 200453	20.0	45	100	20



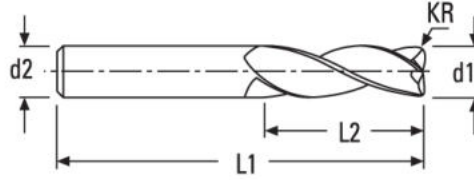
Sipariş Kodu Order Num. 	d1 h10 mm	KR mm	L2 mm	L1 mm	d2 h6 mm
AKFR 030503	3.0	0.5	10	50	6
AKFR 040503	4.0	0.5	15	60	6
AKFR 050503	5.0	0.5	17	60	6
AKFR 060503	6.0	0.5	19	57	6
AKFR 061003	6.0	1.0	19	60	8
AKFR 080503	8.0	0.5	20	60	8
AKFR 081003	8.0	1	20	60	8
AKFR 081503	8.0	1.5	20	60	8
AKFR 100503	10.0	0.5	21	72	10
AKFR 101003	10.0	1	21	72	10
AKFR 101503	10.0	1.5	21	72	10
AKFR 102003	10.0	2	21	72	10
AKFR 120503	12.0	0.5	25	75	12
AKFR 121003	12.0	1	25	75	12
AKFR 121503	12.0	1.5	25	75	12
AKFR 122003	12.0	2	25	75	12
AKFR 140503	14.0	0.5	32	83	14
AKFR 141003	14.0	1	32	83	14
AKFR 141503	14.0	1.5	32	83	14
AKFR 142003	14.0	2	32	83	14
AKFR 160503	16.0	0.5	32	92	16
AKFR 161003	16.0	1	32	92	16
AKFR 161503	16.0	1.5	32	92	16
AKFR 162003	16.0	2	32	92	16
AKFR 180503	18.0	0.5	35	100	18
AKFR 181003	18.0	1	35	100	18
AKFR 181503	18.0	1.5	35	100	18
AKFR 182003	18.0	2	35	100	18
AKFR 200503	20.0	0.5	38	100	20
AKFR 201003	20.0	1	38	100	20
AKFR 201503	20.0	1.5	38	100	20
AKFR 202003	20.0	2	38	100	20



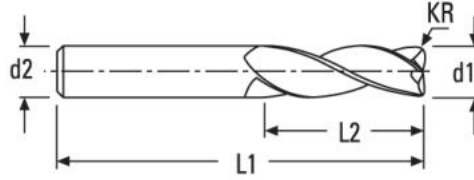
Sipariş Kodu Order Num. 	d1 h10 mm	KR mm	L2 mm	L1 mm	d2 h6 mm
AKFRL030503	3.0	0.5	16	60	6
AKFRL040503	4.0	0.5	26	60	6
AKFRL050503	5.0	0.5	26	75	6
AKFRL060503	6.0	0.5	30	75	6
AKFRL061003	6.0	1	30	75	6
AKFRL080503	8.0	0.5	30	75	8
AKFRL081003	8.0	1	30	75	8
AKFRL081503	8.0	1.5	30	75	8
AKFRL100503	10.0	0.5	45	100	10
AKFRL101003	10.0	1	45	100	10
AKFRL101503	10.0	1.5	45	100	10
AKFRL102003	10.0	2	45	100	10
AKFRL120503	12.0	0.5	45	100	12
AKFRL121003	12.0	1	45	100	12
AKFRL121503	12.0	1.5	45	100	12
AKFRL122003	12.0	2	45	100	12
AKFRL140503	14.0	0.5	45	100	14
AKFRL141003	14.0	1	45	100	14
AKFRL141503	14.0	1.5	45	100	14
AKFRL142003	14.0	2	45	100	14
AKFRL160503	16.0	0.5	45	100	16
AKFRL161003	16.0	1	45	100	16
AKFRL161503	16.0	1.5	45	100	16
AKFRL162003	16.0	2	45	100	16
AKFRL180503	18.0	0.5	45	100	18
AKFRL181003	18.0	1	45	100	18
AKFRL181503	18.0	1.5	45	100	18
AKFRL182003	18.0	2	45	100	18
AKFRL200503	20.0	0.5	45	100	20
AKFRL201003	20.0	1	45	100	20
AKFRL201503	20.0	1.5	45	100	20
AKFRL202003	20.0	2	45	100	20



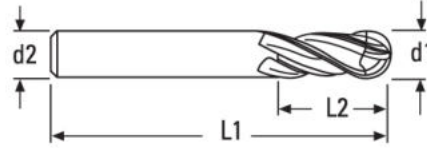
Sipariş Kodu Order Num. 	d1 h10 mm	L2 mm	L1 mm	d2 h6 mm
ASF 030903	3.0	9	38	3
ASF 031003	3.0	10	50	6
ASF 040143	4.0	14	50	4
ASF 040153	4.0	15	60	6
ASF 050163	5.0	16	50	5
ASF 050173	5.0	17	60	6
ASF 060193	6.0	19	57	6
ASF 070193	7.0	19	60	8
ASF 080203	8.0	20	60	8
ASF 100213	10.0	21	72	10
ASF 120253	12.0	25	75	12
ASF 140323	14.0	32	83	14
ASF 160323	16.0	32	92	16
ASF 180353	18.0	35	100	18
ASF 200383	20.0	38	100	20
ASF 030153	3.0	15	60	3
ASF 030163	3.0	16	60	6
ASF 040253	4.0	25	60	4
ASF 040263	4.0	26	60	6
ASF 050253	5.0	25	75	5
ASF 050263	5.0	26	75	6
ASF 060303	6.0	30	75	6
ASF 080303	8.0	30	75	8
ASF 100453	10.0	45	100	10
ASF 120453	12.0	45	100	12
ASF 140453	14.0	45	100	14
ASF 160453	16.0	45	100	16
ASF 180453	18.0	45	100	18
ASF 200453	20.0	45	100	20



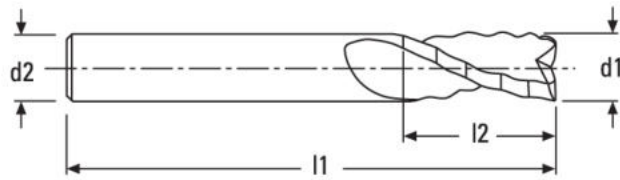
Sipariş Kodu Order Num. 	d1 h10 mm	KR mm	L2 mm	L1 mm	d2 h6 mm
ASFR 030503	3.0	0.5	10	50	6
ASFR 040503	4.0	0.5	15	60	6
ASFR 050503	5.0	0.5	17	60	6
ASFR 060503	6.0	0.5	19	57	6
ASFR 061003	6.0	1	19	57	6
ASFR 080503	8.0	0.5	20	60	8
ASFR 081003	8.0	1	20	60	8
ASFR 081503	8.0	1.5	20	60	8
ASFR 100503	10.0	0.5	21	72	10
ASFR 101003	10.0	1	21	72	10
ASFR 101503	10.0	1.5	21	72	10
ASFR 102003	10.0	2	21	72	10
ASFR 120503	12.0	0.5	25	75	12
ASFR 121003	12.0	1	25	75	12
ASFR 121503	12.0	1.5	25	75	12
ASFR 122003	12.0	2	25	75	12
ASFR 140503	14.0	0.5	32	83	14
ASFR 141003	14.0	1	32	83	14
ASFR 141503	14.0	1.5	32	83	14
ASFR 142003	14.0	2	32	83	14
ASFR 160503	16.0	0.5	32	92	16
ASFR 161003	16.0	1	32	92	16
ASFR 161503	16.0	1.5	32	92	16
ASFR 162003	16.0	2	32	92	16
ASFR 180503	18.0	0.5	35	100	18
ASFR 181003	18.0	1	35	100	18
ASFR 181503	18.0	1.5	35	100	18
ASFR 182003	18.0	2	35	100	18
ASFR 200503	20.0	0.5	38	100	20
ASFR 201003	20.0	1	38	100	20
ASFR 201503	20.0	1.5	38	100	20
ASFR 202003	20.0	2	38	100	20

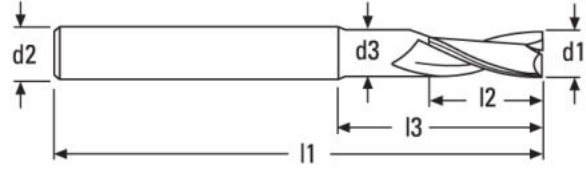


Sipariş Kodu Order Num. 	d1 h10 mm	KR mm	L2 mm	L1 mm	d2 h6 mm
ASFRL 030503	3.0	0.5	16	60	6
ASFRL 040503	4.0	0.5	26	60	6
ASFRL 050503	5.0	0.5	26	75	6
ASFRL 060503	6.0	0.5	30	75	6
ASFRL 061003	6.0	1	30	75	6
ASFRL 080503	8.0	0.5	30	75	8
ASFRL 081003	8.0	1	30	75	8
ASFRL 081503	8.0	1.5	30	75	8
ASFRL 100503	10.0	0.5	45	100	10
ASFRL 101003	10.0	1	45	100	10
ASFRL 101503	10.0	1.5	45	100	10
ASFRL 102003	10.0	2	45	100	10
ASFRL 120503	12.0	0.5	45	100	12
ASFRL 121003	12.0	1	45	100	12
ASFRL 121503	12.0	1.5	45	100	12
ASFRL 122003	12.0	2	45	100	12
ASFRL 140503	14.0	0.5	45	100	14
ASFRL 141003	14.0	1	45	100	14
ASFRL 141503	14.0	1.5	45	100	14
ASFRL 142003	14.0	2	45	100	14
ASFRL 160503	16.0	0.5	45	100	16
ASFRL 161003	16.0	1	45	100	16
ASFRL 161503	16.0	1.5	45	100	16
ASFRL 162003	16.0	2	45	100	16
ASFRL 180503	18.0	0.5	45	100	18
ASFRL 181003	18.0	1	45	100	18
ASFRL 181503	18.0	1.5	45	100	18
ASFRL 182003	18.0	2	45	100	18
ASFRL 200503	20.0	0.5	45	100	20
ASFRL 201003	20.0	1	45	100	20
ASFRL 201503	20.0	1.5	45	100	20
ASFRL 202003	20.0	2	45	100	20

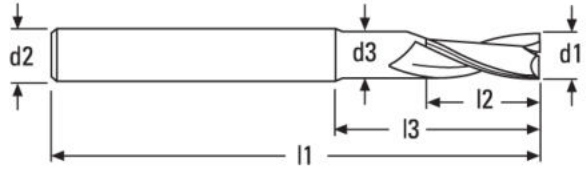


Sipariş Kodu Order Num. 2	Sipariş Kodu Order Num. 3	d1 h10 mm	L2 mm	L1 mm	d2 h6 mm
MARF 030902	MARF 030903	3.0	9	38	3
MARF 031002	MARF 031003	3.0	10	50	6
MARF 040142	MARF 040143	4.0	14	50	4
MARF 040152	MARF 040153	4.0	15	60	6
MARF 050162	MARF 050163	5.0	16	50	5
MARF 050172	MARF 050173	5.0	17	60	6
MARF 060192	MARF 060193	6.0	19	57	6
MARF 070192	MARF 070193	7.0	19	60	8
MARF 080202	MARF 080203	8.0	20	60	8
MARF 100212	MARF 100213	10.0	21	72	10
MARF 120252	MARF 120253	12.0	25	75	12
MARF 140322	MARF 140323	14.0	32	83	14
MARF 160322	MARF 160323	16.0	32	92	16
MARF 180352	MARF 180353	18.0	35	100	18
MARF 200382	MARF 200383	20.0	38	100	20
MARF 030152	MARF 030153	3.0	15	60	3
MARF 030162	MARF 030163	3.0	16	60	6
MARF 040252	MARF 040253	4.0	25	60	4
MARF 040262	MARF 040263	4.0	26	60	6
MARF 050252	MARF 050253	5.0	25	75	5
MARF 050262	MARF 050263	5.0	26	75	6
MARF 060302	MARF 060303	6.0	30	75	6
MARF 080302	MARF 080303	8.0	30	75	8
MARF 100452	MARF 100453	10.0	45	100	10
MARF 120452	MARF 120453	12.0	45	100	12
MARF 140452	MARF 140453	14.0	45	100	14
MARF 160452	MARF 160453	16.0	45	100	16
MARF 180452	MARF 180453	18.0	45	100	18
MARF 200452	MARF 200453	20.0	45	100	20

[illegible]



Sipariş Kodu Order Num.	d1 h10 mm	L2 mm	L3 mm	L1 mm	d3 mm	d2 h6 mm
HPCA 060133	6.0	13	19	60	5.5	6
HPCA 080193	8.0	19	25	60	7.5	8
HPCA 100213	10.0	21	30	72	9.5	10
HPCA 120253	12.0	25	36	75	11.2	12
HPCA 140263	14.0	26	36	83	13.2	14
HPCA 160323	16.0	32	42	92	15	16
HPCA 180323	18.0	32	42	92	17	18
HPCA 200383	20.0	38	42	100	19	20



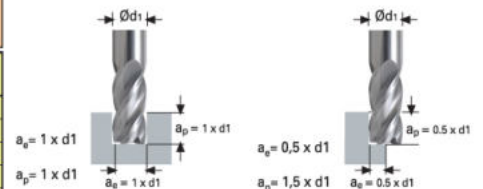
Sipariş Kodu Order Num.	d1 h10 mm	L2 mm	L3 mm	L1 mm	d3 mm	d2 h6 mm
HPCA 060134	6.0	13	19	60	5.5	6
HPCA 080194	8.0	19	25	60	7.5	8
HPCA 100214	10.0	21	30	72	9.5	10
HPCA 120254	12.0	25	36	75	11.2	12
HPCA 140264	14.0	26	36	83	13.2	14
HPCA 160324	16.0	32	42	92	15	16
HPCA 180324	18.0	32	42	92	17	18
HPCA 200384	20.0	38	42	100	19	20

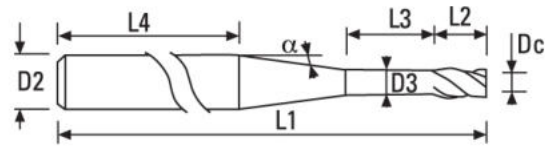
Alüminyum (alaşımız, düşük alaşımlı)
Alüminyum alaşımlar <0.5% Si
Alüminyum alaşımlar 5-10% Si
Alüminyum alaşımlar 10-15% Si
Alüminyum alaşımlar >15% Si

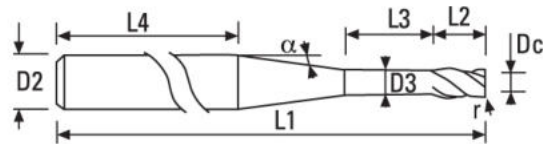
Bakır dövme alaşımlar
Özel bakır alaşımlar
Kısa talaşlı princi, bronz ve kırmızı bronz
Uzun talaşlı princi
Magnezyum ve magnezyum alaşımları
Termoplastik

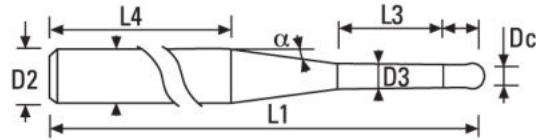
Takımlar çeşitli malzeme grupları için
üniversal kullanım alanına sahiptir,

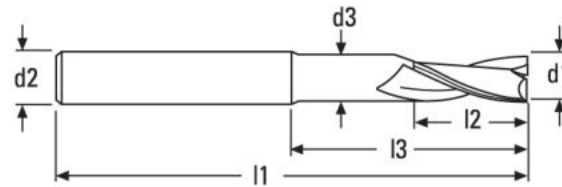
d1	ap	ae	Vc=190m/dk			Vc=170m/dk		
			fz	S	Vf	fz	S	Vf
6	6	3	0.040	7563	900	0.042	6767	852
8	8	4	0.040	7563	900	0.042	6767	852
10	10	5	0.050	6050	900	0.052	5414	844
12	12	6	0.060	5042	907	0.063	4511	852
14	14	7	0.070	4322	907	0.073	3867	846
16	16	8	0.070	3781	790	0.084	3383	852

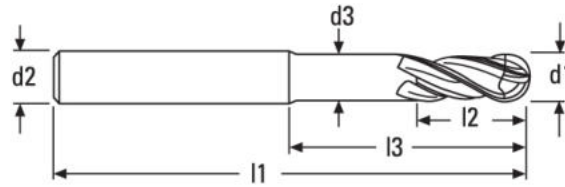


[illegible]

[illegible]

[illegible]

[illegible]

[illegible]