

Makine / uygulama

1 CNC freze makineleri

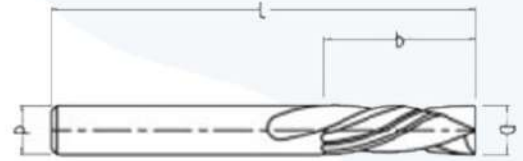
1 yuvarlak ve kareli frezelemek için

1 z ekseninde ve x veya y ekseninde

1 Kaba talaş Kapa kilit yeni açma



Roughing Cutters with solid carbide body	D	b	B	L	d	Z
	12	40	40	120	12	3
	12	50	50	150	12	3
	14	50	50	150	14	3
	16	50	50	150	16	3
	16	50	70	170	16	3
	18	50	50	150	18	3
	18	50	70	170	18	3
	20	50	50	150	20	3
	20	50	70	170	20	3



HW / Negatif Pozitif Hassas Kesim	D	b	B	L	d	Z
	4	20	-	65	4	2+2
	5	22	-	65	5	2+2
	6	22	-	65	6	2+2
	8	25	-	65	8	2+2
	8	32	-	82	8	2+2
	8	42	-	82	8	2+2
	10	32	-	82	10	2+2
	10	42	-	82	10	2+2
	12	32	-	82	12	2+2
	12	32	-	82	12	3+3
	12	42	-	82	12	2+2
	14	32	-	82	14	2+2
	16	32	-	82	16	2+2

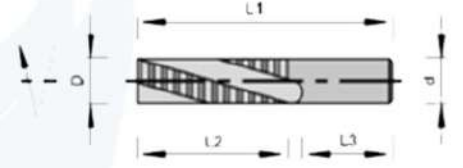
Makine / uygulama

CNC freze makineleri

İyukları ve konturları frezelemek için

Iz ekseninde ve x veya y ekseninde

İ Masif ahşap ve kontrplak ile kaplanmamış ahşap esaslı malzemelerin kaba işlenmesi için



Roughing Cutters with solid carbide body

D	L2	d	L1	Z
5	22	5	55	3
6	22	6	55	3
6	32	6	65	3
6	55	8	90	3
8	25	8	55	3
8	32	8	65	3
8	42	8	82	3
8	52	8	100	3
10	25	10	55	3
10	32	10	65	3
10	42	10	82	3
10	52	10	100	3
12	32	12	65	3
12	42	12	82	3
12	52	12	100	3
12	62	12	110	3
14	32	12	65	3
14	42	14	82	3
14	52	14	100	3
14	62	14	110	3
16	42	16	82	3
16	52	16	100	3
16	62	16	110	3
16	72	16	110	3
18	52	18	100	3
18	72	18	110	3
20	52	20	100	3
20	72	20	110	3

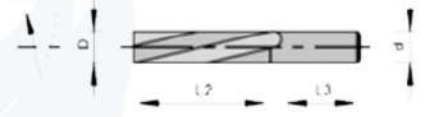
Makine / uygulama

1 CNC freze makineleri

1 masif alaşım ve plastikleri bitirmek için

1 oyukları ve konturları frezelemek için

1 z ekseninde ve x veya y ekseninde eşzamanki besleme ile delme için



Finishing Cutters with solid carbide body

D	L2	d	L1	Z
2	10	3	47	2
3	14	3	47	2
3	20	3	55	2
4	20	4	55	2
6	22	6	55	2
6	32	6	65	2
6	55	6	90	2
8	25	8	55	2
8	32	8	65	2
8	42	8	82	2
8	52	8	100	2
10	25	10	55	2
10	32	10	65	2
10	42	10	82	2
10	52	10	100	2
12	32	12	65	2
12	42	12	82	2
12	52	12	100	2
12	62	12	110	2
14	32	12	65	2
14	42	14	82	2
14	52	14	100	2
14	62	14	110	2
16	42	16	82	2
16	52	16	100	2
16	62	16	110	2
16	72	16	110	2
18	52	18	100	2
18	72	18	110	2
20	52	20	100	2
20	72	20	110	2

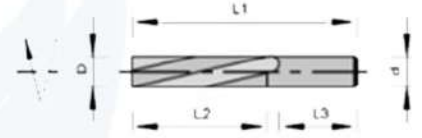
Makine / uygulama

1 CNC freze makineleri

İ masif ahşap ve plastikleri bitirmek için

İ oyukları ve köşüleri frezelemek için

İ z ekseninde ve x veya y ekseninde eşzamanlı besleme ile delme için



D	L2	d	L1	Z
3	20	3	55	3
4	20	4	55	3
5	22	5	55	3
6	22	6	55	3
6	32	6	65	3
6	55	8	90	3
8	25	8	55	3
8	32	8	65	3
8	42	8	82	3
8	52	8	100	3
10	25	10	55	3
10	32	10	65	3
10	42	10	82	3
10	52	10	100	3
12	32	12	65	3
12	42	12	82	3
12	52	12	100	3
12	62	12	110	3
14	32	12	65	3
14	42	14	82	3
14	52	14	100	3
14	62	14	110	3
16	42	16	82	3
16	52	16	100	3
16	62	16	110	3
16	72	16	110	3
18	52	18	100	3
18	72	18	110	3
20	52	20	100	3
20	72	20	110	3

Finishing Cutters with solid carbide body



A 0442

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0442-01	8	25	70	8	2+2
0442-02	9	25	70	9	2+2
0442-03	10	42	80	10	2+2
0442-04	10	42	90	10	2+2
0442-05	12	42	100	12	2+2
0442-06	12	52	100	12	2+2
0442-07	14	42	100	14	2+2
0442-08	14	52	100	14	2+2
0442-09	16	42	100	16	2+2
0442-10	16	52	110	16	2+2
0442-11	18	52	100	18	2+2
0442-12	20	52	100	20	2+2

SPİRAL HASSAS KESİM BIÇAĞA (PVC MALZEME KESİMİ İÇİN)

A 0443-01 A 0443-03
A 0443-02 A 0443-04
A 0443-05



A 0443

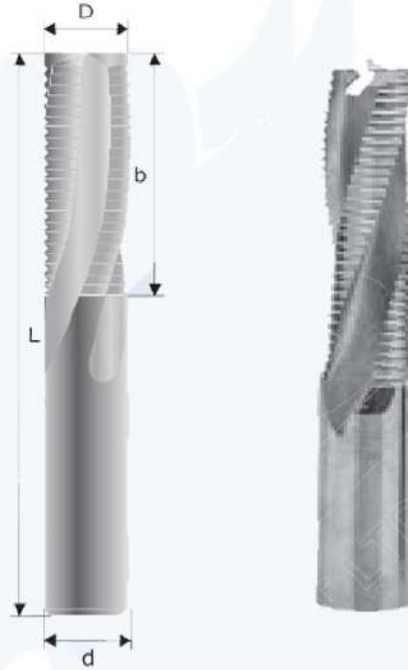
Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0443-01	4	22	60	4	1
0443-02	5	22	60	5	1
0443-03	6	22	60	6	1
0443-04	8	30	65	8	1
0443-05	10	30	80	10	1

A 0444

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0444-01	8	22	65	8	3
0444-02	8	35	75	8	3
0444-03	10	35	80	10	3
0444-04	10	45	100	10	3
0444-05	12	35	80	12	3
0444-06	12	45	100	12	3
0444-07	14	45	100	14	3
0444-08	14	55	100	16	3
0444-09	16	55	100	16	3
0444-10	16	62	110	16	3
0444-11	18	55	100	18	3



SPİRAŞ HASSAS KESİM BIÇAĞA (PVC MALZEME KESİMİ İÇİN)

A 0445-01
A 0445-02
A 0445-03

A 0445

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	B	L	d	Z	a°
0445-01	14	8	55	65	14	3	30°
0445-02	16	9	65	75	16	3	30°
0445-03	18	10	65	80	18	3	30°





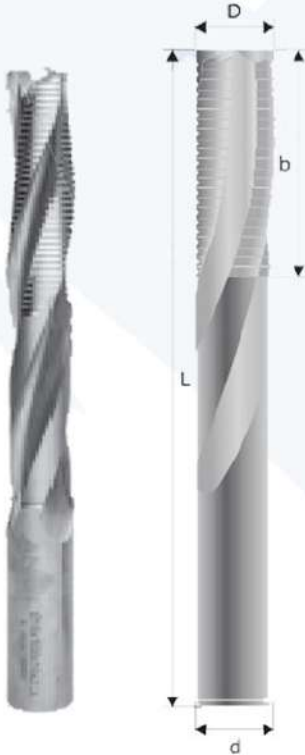
A 0446

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0446-01	8	22	65	8	3
0446-02	8	35	75	8	3
0446-03	10	35	80	10	3
0446-04	10	45	100	10	3
0446-05	12	35	80	12	3
0446-06	12	45	100	12	3
0446-07	14	52	100	14	3
0446-08	14	42	100	16	3
0446-09	16	52	100	16	3
0446-10	16	52	100	18	3

SPIRAL KABA TALAŞ KESİM BIÇAĞI (KAPI KİLİT YERİ AÇMA) 3 FLUTE ROUCHING SPIRAL

A 0447-01 A 0447-03
A 0447-02 A 0447-04
A 0447-05



A 0447

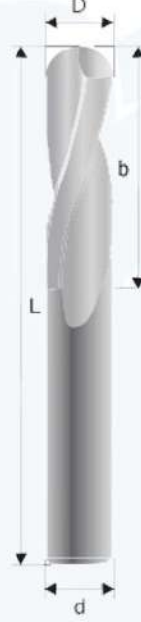
Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0447-01	14	45	150	14	3
0447-02	16	50	150	16	3
0447-03	16	50	170	16	3
0447-04	18	50	150	10	3
0447-05	18	50	170	18	3

A 0448

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	r	L	d	Z
0448-01	4	22	2	65	4	2
0448-02	5	35	2,5	75	5	2
0448-03	6	35	3	75	6	2
0448-04	8	45	4	75	8	2
0448-05	10	35	5	75	10	2
0448-06	12	45	6	85	12	2
0448-07	14	52	7	110	14	2
0448-08	16	42	8	115	16	2



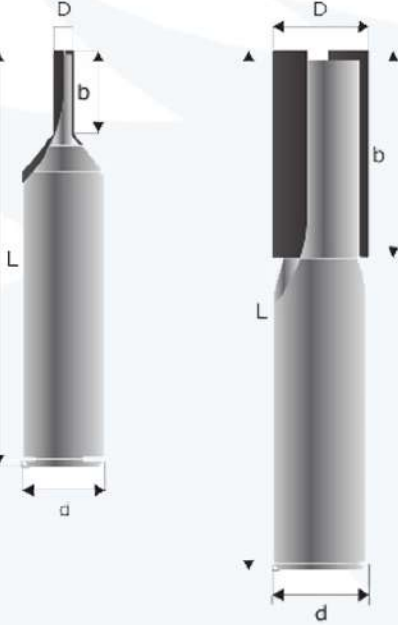
SİVRİ PANTOĞRAF BİÇAĞI

A 0449

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	a°	L	d	Z
0449-01	6	30°	60	4	1
0449-02	6	45°	60	5	1
0449-03	8	30°	60	8	1
0449-04	8	45°	60	8	1
0449-05	10	30°	60	10	1
0449-06	10	45°	60	10	1
0449-07	12	30°	60	12	1
0449-08	12	45°	60	12	1





A 0450

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	L	d	Z
0450-01	3	12	62	14-12	2
0450-02	4	15	65	14-12	2
0450-03	5	17	67	14-12	2
0450-04	6	20	68	14-12	2
0450-05	8	25	68	14-12	2
0450-06	9	25	68	14-12	2
0450-07	10	25	68	14-12	2
0450-08	12	30	73	14-12	2
0450-09	14	30	73	14	2
0450-10	16	35	78	14	2
0450-11	18	35	78	14	2
0450-12	20	35	78	14	2
0450-13	22	35	78	14	2
0450-14	24	35	78	14	2
0450-15	25	35	78	14	2
0450-16	26	35	78	14	2
0450-17	28	26	76	14	2
0450-18	30	26	76	14	2
0450-19	3	12	55	6	2
0450-20	4	15	59	6	2
0450-21	5	20	59	6	2
0450-22	6	20	59	6	2
0450-23	8	20	59	6	2
0450-24	10	20	59	6	2
0450-25	5	20	59	8	2
0450-26	6	20	59	8	2





A 0453

Kod / Art Number Ölçüler / Dimensions

Kod No:	D	b	r	L	d	Z
0453-01	4	10	2	60	14	2
0453-02	5	12	2,5	62	14	2
0453-03	6	15	3	65	14	2
0453-04	8	20	4	70	14	2
0453-05	10	20	5	70	14	2
0453-06	12	20	6	70	14	2



A 465

Kod / Art Number	Ölçüler / Dimensions						
Kod No:	D	B	b	a	L	d	Z
0465-01	8	-	7	15	40	6-8	2
0465-02	6	7,5	2	-	40	6-8	2

SERT METAL PLAKETLİ FİTİL BIÇAKLARI
WICK DOOR, WINDOW CUTTERS T.C.T.



A 0466

Kod / Art Number	Ölçüler / Dimensions						
Kod No:	D	b	a	L	d	Z	
0466-01	6	8	36,5	60	6	2	

**[HW]** Karbür Alüminyum Parmak Freze

Ø	B	L	d	z	HRC	HRC
1	4	50	3	1	HRC48	HRC58
1,5	6	50	3	1	HRC48	HRC58
2	8	50	3	1	HRC48	HRC58
2,5	8	50	3	1	HRC48	HRC58
3	10	57	6	1	HRC48	HRC58
4	12	57	6	1	HRC48	HRC58
5	14	57	6	1	HRC48	HRC58
3	12	50	3	1	HRC48	HRC58
4	14	21	4	1	HRC48	HRC58
5	16	21	5	1	HRC48	HRC58
6	19	28	6	1	HRC48	HRC58
7	20	64	8	1	HRC48	HRC58
8	20	64	8	1	HRC48	HRC58
9	21	73	10	1	HRC48	HRC58
10	21	73	10	1	HRC48	HRC58
11	25	84	12	1	HRC48	HRC58
12	25	84	12	1	HRC48	HRC58

**[HW] Karbür Gravür Parmak Freze**

\emptyset	B	L	d	z	a°	HRC
3	6	50	3	1	30°	HRC48
4	8	50	5	1	30°	HRC48
5	10	50	6	1	30°	HRC48
6	12	57	6	1	30°	HRC48
3	6	50	3	1	45°	HRC48
4	8	50	5	1	45°	HRC48
5	10	50	6	1	45°	HRC48
6	12	57	6	1	45°	HRC48

**[HW] Karbür Gravür Parmak Freze**

\emptyset	B	L	d	z	a°	HRC
3	6	50	3	1	30°	HRC48
4	8	50	5	1	30°	HRC48
5	10	50	6	1	30°	HRC48
6	12	57	6	1	30°	HRC48
3	6	50	3	1	45°	HRC48
4	8	50	5	1	45°	HRC48
5	10	50	6	1	45°	HRC48
6	12	57	6	1	45°	HRC48



[HW] Karbür Alüminyum Uzun Finish Freze

Ø	B	L	d	z	Tip	HRC
3	20	75	3	2/3	Finish	HRC48
4	20	75	4	2/3	Finish	HRC48
5	25	75	5	2/3	Finish	HRC48
6	30	75	6	2/3	Finish	HRC48
8	30	75	8	2/3	Finish	HRC48
3	20	100	3	2/3	Finish	HRC48
4	20	100	4	2/3	Finish	HRC48
5	25	100	5	2/3	Finish	HRC48
6	30	100	6	2/3	Finish	HRC48
8	30	100	8	2/3	Finish	HRC48
10	45	100	10	2/3	Finish	HRC48
12	45	100	12	2/3	Finish	HRC48
14	45	100	14	2/3	Finish	HRC48
16	45	100	16	2/3	Finish	HRC48
18	45	100	18	2/3	Finish	HRC48
20	45	100	20	2/3	Finish	HRC48
8	65	150	8	2/3	Finish	HRC48
10	65	150	10	2/3	Finish	HRC48
12	65	150	12	2/3	Finish	HRC48
14	65	150	14	2/3	Finish	HRC48
16	75	150	16	2/3	Finish	HRC48
18	75	150	18	2/3	Finish	HRC48
20	75	150	20	2/3	Finish	HRC48



[HW] Karbür Al-Performans Freze

Ø	B	L	d	z	Tip	HRC
3	12	50	3	3	Performans	HRC48
4	14	51	4	3	Performans	HRC48
5	16	51	5	3	Performans	HRC48
6	19	58	6	3	Performans	HRC48
7	20	64	7	3	Performans	HRC48
8	20	64	8	3	Performans	HRC48
9	21	73	9	3	Performans	HRC48
10	21	73	10	3	Performans	HRC48
11	25	84	11	3	Performans	HRC48
12	25	84	12	3	Performans	HRC48
13	32	84	13	3	Performans	HRC48
14	32	84	14	3	Performans	HRC48
15	32	93	15	3	Performans	HRC48
16	32	93	16	3	Performans	HRC48
18	35	93	18	3	Performans	HRC48
20	38	100	20	3	Performans	HRC48



[HW] Karbür Al-Uzun Performans Freze

\emptyset	B	L	d	z	Tip	HRC
3	20	75	3	3	Performans	HRC48
4	20	75	4	3	Performans	HRC48
5	25	75	5	3	Performans	HRC48
6	30	75	6	3	Performans	HRC48
8	30	75	8	3	Performans	HRC48
3	20	100	3	3	Performans	HRC48
4	20	100	4	3	Performans	HRC48
5	25	100	5	3	Performans	HRC48
6	30	100	6	3	Performans	HRC48
8	30	100	8	3	Performans	HRC48
10	45	100	10	3	Performans	HRC48
12	45	100	12	3	Performans	HRC48
14	45	100	14	3	Performans	HRC48
16	45	100	16	3	Performans	HRC48
18	45	100	18	3	Performans	HRC48
20	45	100	20	3	Performans	HRC48
8	65	150	8	3	Performans	HRC48
10	65	150	10	3	Performans	HRC48
12	65	150	12	3	Performans	HRC48
14	65	150	14	3	Performans	HRC48
16	75	150	16	3	Performans	HRC48
18	75	150	18	3	Performans	HRC48
20	75	150	20	3	Performans	HRC48

**[HW]** Karbür Al-Köşe Radius Freze

Ø	B	L	d	z	Tip	HRC
3	12	50	3	3	Radius	HRC48
4	14	51	4	3	Radius	HRC48
5	16	51	5	3	Radius	HRC48
6	19	58	6	3	Radius	HRC48
7	20	64	7	3	Radius	HRC48
8	20	64	8	3	Radius	HRC48
9	21	73	9	3	Radius	HRC48
10	21	73	10	3	Radius	HRC48
11	25	84	11	3	Radius	HRC48
12	25	84	12	3	Radius	HRC48
13	32	84	13	3	Radius	HRC48
14	32	84	14	3	Radius	HRC48
15	32	93	15	3	Radius	HRC48
16	32	93	16	3	Radius	HRC48
18	35	93	18	3	Radius	HRC48
20	38	100	20	3	Radius	HRC48



[HW] Karbür Al-Köşe Radius Uzun Freze

Ø	B	L	d	z	Tip	HRC
3	20	75	3	3	Radius	HRC48
4	20	75	4	3	Radius	HRC48
5	25	75	5	3	Radius	HRC48
6	30	75	6	3	Radius	HRC48
8	30	75	8	3	Radius	HRC48
3	20	100	3	3	Radius	HRC48
4	20	100	4	3	Radius	HRC48
5	25	100	5	3	Radius	HRC48
6	30	100	6	3	Radius	HRC48
8	30	100	8	3	Radius	HRC48
10	45	100	10	3	Radius	HRC48
12	45	100	12	3	Radius	HRC48
14	45	100	14	3	Radius	HRC48
16	45	100	16	3	Radius	HRC48
18	45	100	18	3	Radius	HRC48
20	45	100	20	3	Radius	HRC48
8	65	150	8	3	Radius	HRC48
10	65	150	10	3	Performans	HRC48
12	65	150	12	3	Performans	HRC48
14	65	150	14	3	Performans	HRC48
16	75	150	16	3	Performans	HRC48
18	75	150	18	3	Performans	HRC48
20	75	150	20	3	Performans	HRC48

**[HW]** Karbür Al-Küre Freze

\varnothing	B	L	d	z	Tip	HRC
3	12	50	3	3	Küre	HRC48
4	14	51	4	3	Küre	HRC48
5	16	51	5	3	Küre	HRC48
6	19	58	6	3	Küre	HRC48
7	20	64	7	3	Küre	HRC48
8	20	64	8	3	Küre	HRC48
9	21	73	9	3	Küre	HRC48
10	21	73	10	3	Küre	HRC48
11	25	84	11	3	Küre	HRC48
12	25	84	12	3	Küre	HRC48
13	32	84	13	3	Küre	HRC48
14	32	84	14	3	Küre	HRC48
15	32	93	15	3	Küre	HRC48
16	32	93	16	3	Küre	HRC48
18	35	93	18	3	Küre	HRC48
20	38	100	20	3	Küre	HRC48



[HW] Karbür Al-Küre Uzun Freze

Ø	B	L	d	z	Tip	HRC
3	20	75	3	3	Küre	HRC48
4	20	75	4	3	Küre	HRC48
5	25	75	5	3	Küre	HRC48
6	30	75	6	3	Küre	HRC48
8	30	75	8	3	Küre	HRC48
3	20	100	3	3	Küre	HRC48
4	20	100	4	3	Küre	HRC48
5	25	100	5	3	Küre	HRC48
6	30	100	6	3	Küre	HRC48
8	30	100	8	3	Küre	HRC48
10	45	100	10	3	Küre	HRC48
12	45	100	12	3	Küre	HRC48
14	45	100	14	3	Küre	HRC48
16	45	100	16	3	Küre	HRC48
18	45	100	18	3	Küre	HRC48
20	45	100	20	3	Küre	HRC48
8	65	150	8	3	Küre	HRC48
10	65	150	10	3	Küre	HRC48
12	65	150	12	3	Küre	HRC48
14	65	150	14	3	Küre	HRC48
16	75	150	16	3	Küre	HRC48
18	75	150	18	3	Küre	HRC48
20	75	150	20	3	Küre	HRC48