

RRD

KESİCİ UÇLARI YUVARLAK FREZELER
ÇOK YÖNLÜ PERFORMANS VE UZUN TAKIM ÖMRÜ



Mplus...

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ÜRÜN ÖZELLİKLERİ



- Kalıp ve kalıp lokmaları için yuvarlak kesici uçlu freze
- 60 HRC'ye kadar işleme için çok yönlü kesici uç kalite aralığı
- Çok çeşitli tip frezeler mevcuttur: Malafalı, vidalı, şaftlı ve Weldon tipli
- Geniş kesici uç boyutu aralığı: R2,5, 3,5, 5,0, 6,0 ve 8,0

RRD

YUVARLAK KESİCİ UÇLU FREZELER

RRD FREZELER

Düz Şaftlı

Weldon Şaftlı

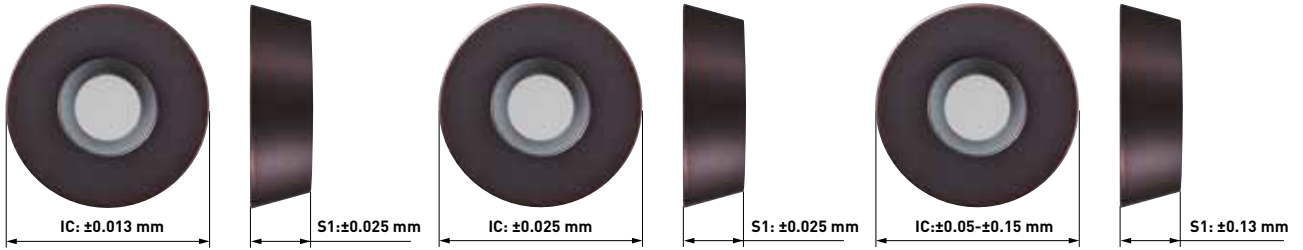
Vidalı

Malafa bağlantılı



ÖZELLİKLER

3 farklı toleransa sahip tüm uygulamalara uyacak şekilde kesici uçlar.



RDHX

- Taşlanmış (H Toleransı)
- Yüksek hassasiyet için
- Finişe yakın ve finiş işleme için

RDZX

- Hassas sinterlenmiş (E Toleransı)
- Ünlversal kullanım için
- Uzun takım ömrüne sahip ekonomik kesici uç

RDMX

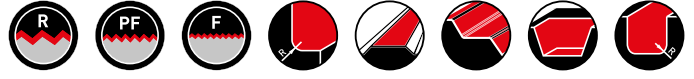
- Sinterlenmiş (M Toleransı)
- Ünlversal kullanım için
- Kaba işleme ve finişe yakın işleme için

KALİTEYE BAKIŞ

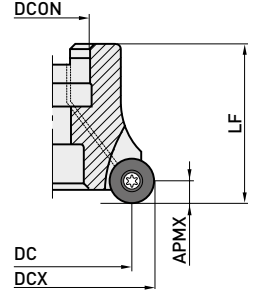
ISO	Kaplamalı Karbür	Kaplamasız Karbür
P01	VP05HT	
P10	VP10H	
P20	VP15TF	UT120T
P30	VP20M	
P40	F7030	
K01		
K10		
K20	VP15TF	UT120T
K30		
H01	VP05HT	
H10	VP10H	
H20	VP15TF	
H30		

Aşınma direnci ↑
Tokluk ↓

RRD N



P K H



Yalnız sağ takım tutucu.

MALAFBA BAĞLANTILI (Nötr)

RE	Sipariş Numarası	Stok	Ağız sayısı	DCX	DC	LF	DCON	APMX	WT *1	Kesici uç
5	RRD050N-042A06R	●	6	42	32	44	16	5	0.26	RDH/M/Z
	RRD050N-052A07R	●	7	52	42	50	22	5	0.4	1003M0
	RRD060N-042A05R	●	5	42	30	42	16	6	0.26	
6	RRD060N-050A05R	●	5	50	38	50	22	6	0.38	RDH/M/Z
	RRD060N-052A05R	●	5	52	40	50	22	6	0.4	12T3M0
	RRD060N-063A06R	●	6	63	51	50	22	6	0.33	
	RRD080N-050A04R	●	4	50	34	50	22	8	0.4	
8	RRD080N-052A04R	●	4	52	36	50	22	8	0.4	
	RRD080N-052A05R	●	5	52	36	50	22	8	0.4	
	RRD080N-063A05R	●	5	63	47	50	22	8	0.58	
	RRD080N-066A05R	●	5	66	50	50	27	8	0.6	RDH/M/Z
	RRD080N-080A06R	●	6	80	64	52	27	8	1	1604M0
	RRD080N-100A07R*2	●	7	100	84	52	32	8	1.5	
	RRD080N-125B08R*2	□	8	125	109	52	40	8	2.5	
	RRD080N-160C09R*2	●	9	160	144	52	40	8	3.5	

*1 WT : kg cinsinden takım ağırlığı

*2 İçten soğutmasız

YEDEK PARÇALAR

RE	Sipariş Numarası	Altlık	Altlık Vidası	Sıkma Vidası	Sıkma Vidası	Anahtar
5	RRD050N-042A06R					
	RRD050N-052A07R					
	RRD060N-042A05R					
6	RRD060N-050A05R			B-TS35		TKY15F
	RRD060N-052A05R				TS1001	
	RRD060N-063A06R					
	RRD080N-050A04R					
8	RRD080N-052A04R					
	RRD080N-052A05R					
	RRD080N-063A05R					
	RRD080N-066A05R	KS-12	B-TS45	214		TKY20F
	RRD080N-080A06R					
	RRD080N-100A07R					
	RRD080N-125B08R					
RRD080N-160C09R						

● Kaba

● Finişe yakın

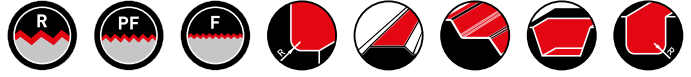
● Finiş

● : Avrupa standart stokta.

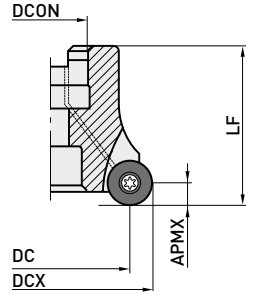
★ : Japonya standart stokta.

□ : Yalnızca Siparişe Yönelik Üretilmektedir.

RRD P



P K H



Yalnız sağ takım tutucu.

MALAF BAĞLANTILI (Pozitif)

RE	Sipariş Numarası	Stok	Ağız sayısı	DCX	DC	LF	DCON	APMX	WT *1	Kesici uç
6	RRD060P-050A05R	●	5	50	38	50	22	6	0.33	RDH/M/Z 12T3M0E
	RRD060P-052A05R	●	5	52	40	50	22	6	0.35	
	RRD060P-063A06R	●	6	63	51	50	22	6	0.58	
	RRD060P-066A06R	●	6	66	54	52	27	6	0.6	
	RRD060P-080A07R	●	7	80	68	50	27	6	1	
8	RRD080P-050A04R	●	4	50	34	50	22	8	0.33	RDH/M/Z 1604M0E
	RRD080P-063A05R	●	5	63	47	50	22	8	0.53	
	RRD080P-066A05R	●	5	66	50	50	27	8	0.55	
	RRD080P-080A06R	●	6	80	64	52	27	8	1	
	RRD080P-100A07R *2	●	7	100	84	52	32	8	1.5	
RRD080P-125B08R *2	●	8	125	109	52	40	8	2.6		
RRD080P-160C09R *2	●	9	160	144	52	40	8	3.5		

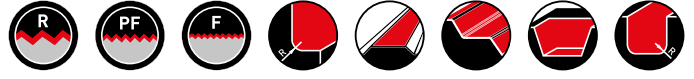
*1 WT : kg cinsinden takım ağırlığı

*2 İçten soğutmasız

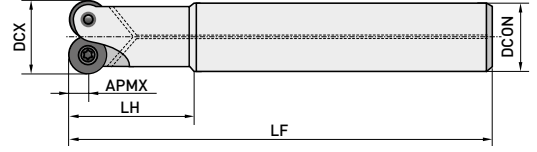
YEDEK PARÇALAR

RE	Sipariş Numarası	Altlık	Altlık Vidası	Sıkma Vidası	Sıkma Vidası	Anahtar
6	050A05R	—	—	B-TS35	TS1001	TKY15F
	052A05R					
	063A06R					
	066A06R					
	080A07R					
8	050A04R	KS-12	B-TS45	214	—	TKY20F
	063A05R					
	066A05R					
	080A06R					
	100A07R					
125B08R						
160C09R						

RRD



P K H



DÜZ ŞAFTLI TİP

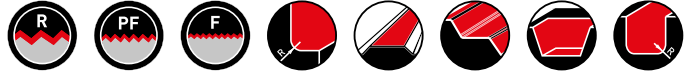
Yalnız sağ takım tutucu.

RE	Sipariş Numarası	Stok	Ağız sayısı	DCX	DCON	LF	LH	APMX	Kesici uç
2.5	RRD025R102S10Z	●	2	10	10	75	23	2.5	RDH/Z 0501M0
	RRD025R123S12Z	●	3	12	12	75	23	2.5	
	RRD025R154S16Z	●	4	15	16	80	23	2.5	
3.5	RRD035R122S10Z	●	2	12	10	75	23	3.5	RDH/M/Z 07T1M0
	RRD035R122S12Z	●	2	12	12	75	23	3.5	
	RRD035R122S16Z	□	2	12	16	88	15	3.5	
	RRD035R122S16ZL	●	2	12	16	128	15	3.5	
	RRD035R122S16ZM	●	2	12	16	108	15	3.5	
	RRD035R152S16Z	□	2	15	16	88	18	3.5	
3.5	RRD035R152S16ZM	□	2	15	16	108	18	3.5	RDH/M/Z 0702M0
	RRD035R152S20Z	●	2	15	20	130	20	3.5	
	RRD035R152S20ZM	●	2	15	20	150	20	3.5	
	RRD035R152S25Z	□	2	15	25	176	20	3.5	
3.5	RRD035R153S12Z	□	3	15	12	75	17	3.5	RDH/M/Z 07T1M0
	RRD035R153S16Z	□	3	15	16	78	30	3.5	
5	RRD050R202S20Z	●	2	20	20	90	31	5.0	RDH/M/Z 1003M0
	RRD050R202S20ZM	●	2	20	20	110	51	5.0	
	RRD050R202S25Z	●	2	20	25	136	72	5.0	
	RRD050R202S25ZL	●	2	20	25	176	112	5.0	
	RRD050R202S25ZM	●	2	20	25	156	92	5.0	

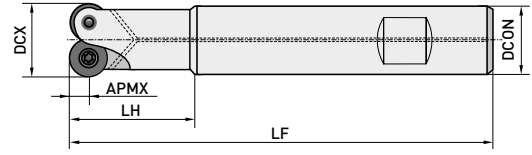
YEDEK PARÇALAR

RE	Sipariş Numarası	Altlık	Altlık Vidası	Sıkma Vidası	Sıkma Vidası	Anahtar
2.5	RRD025R 102S10Z	—	—	B-TS20	—	TKY06F
	123S12Z	—	—	—	—	—
	54S16Z	—	—	—	—	—
3.5	RRD035R 122S10Z	—	—	B-TS253	—	TKY07F
	122S12Z	—	—	—	—	—
	122S16Z	—	—	—	—	—
	122S16ZL	—	—	—	—	—
	122S16ZM	—	—	—	—	—
	152S16Z	—	—	—	—	—
3.5	RRD035R 152S16ZM	—	—	TS25	—	TKY08F
	152S20Z	—	—	—	—	—
	152S20ZM	—	—	—	—	—
	152S25Z	—	—	—	—	—
	153S12Z	—	—	TS253	—	TKY08F
5	RRD050R 202S20Z	—	—	B-TS35	—	TKY15F
	202S20ZM	—	—	—	—	—
	202S25Z	—	—	—	—	—
	202S25ZL	—	—	—	—	—
202S25ZM	—	—	—	—	—	

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WELDON ŞAFTLI TİP

Yalnız sağ takım tutucu.

RE	Sipariş Numarası	Stok	Ağız ayısı	DCX	DCON	LF	LH	APMX	Kesici uç
3.5	RRD035R122S16W	●	2	12	16	88	15	3.5	RDH/M/Z 07T1M0
	RRD035R122S16WL	□	2	12	16	128	15	3.5	
	RRD035R122S16WM	□	2	12	16	108	15	3.5	
3.5	RRD035R152S16W	□	2	15	16	88	18	3.5	RDH/M/Z 0702M0
	RRD035R152S16WM	□	2	15	16	108	18	3.5	
	RRD035R152S20W	□	2	15	20	130	20	3.5	
	RRD035R152S20WM	□	2	15	20	150	20	3.5	
3.5	RRD035R152S25W	□	2	15	25	176	20	3.5	RDH/M/Z 07T1M0
RRD035R153S16W	●	3	15	16	78	30	3.5		
RRD050R202S20W	●	2	20	20	90	31	5.0		
5	RRD050R202S20WM	●	2	20	20	110	51	5.0	RDH/M/Z 1003M0
	RRD050R202S25W	●	2	20	25	135	72	5.0	
	RRD050R202S25WL	●	2	20	25	176	112	5.0	
	RRD050R202S25WM	●	2	20	25	156	92	5.0	

YEDEK PARÇALAR

RE	Sipariş Numarası	Altlık	Altlık Vidası	Sıkma Vidası	sıkma Vidası	Anahtar
3.5	RRD035R					
	122S16W					
	122S16WL	—	—	B-TS253	—	TKY07F
	122S16WM					
	152S16W					
	152S16WM					
	152S20W			TS25	—	TKY08F
5	RRD050R					
	152S20WM					
	152S20W					
	202S20WM					
	202S25W	—	—	B-TS35	—	TKY15F
202S25WL						
202S25WM						

● Kaba

● Finişe yakın

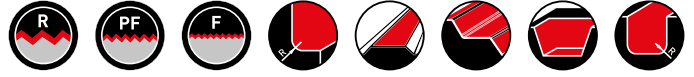
● Finiş

● : Avrupa standart stokta.

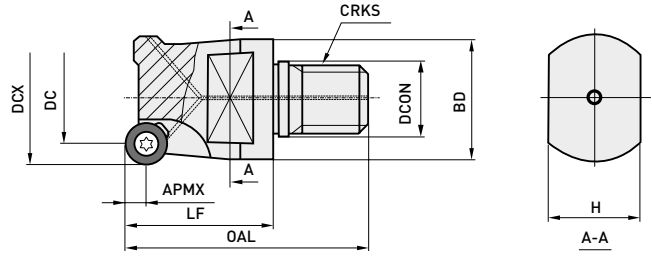
★ : Japonya standart stokta.

□ : Yalnızca Siparişe Yönelik Üretilmektedir.

RRD



P K H



VİDALI TİP

Yalnız sağ takım tutucu.

RE	Sipariş Numarası	Stok	Ağız sayısı	DCX	DC	OAL	LF	DCON	BD	CRKS	APMX	H	Kesici uç
2.5	RRD025R102M5	●	2	10	5	35	20	5.5	9.9	M5	2.5	6	RDH/Z 0501M0
	RRD025R123M8	●	3	12	7	38	20	8.5	13.5	M8	2.5	9	
	RRD025R154M8	●	4	15	10	38	20	8.5	13.5	M8	2.5	10	
	RRD025R205M10	●	5	20	15	44	25	10.5	18	M10	2.5	15	
3.5	RRD035R122M8	●	2	12	5	46	28	8.5	13.5	M8	3.5	9	RDH/M/Z 07T1M0
	RRD035R153M8	●	3	15	8	46	28	8.5	13.5	M8	3.5	10	
	RRD035R204M10	●	4	20	13	47	28	10.5	18	M10	3.5	15	
	RRD035R255M12	●	5	25	18	50	28	12.5	21	M12	3.5	17	
	RRD035R306M16	●	6	30	23	51	28	17	29	M16	3.5	22	
3.5	RRD035R357M16	●	7	35	28	51	28	17	29	M16	3.5	22	RDH/M/Z 0702M0
	RRD035R152M8	●	2	15	8	46	28	8.5	13.5	M8	3.5	10	
5	RRD035R153M8X	●	3	15	8	43	28	8.5	13.5	M8	3.5	10	RDH/M/Z 1003M0
	RRD050R202M10	●	2	20	10	47	28	10.5	18	M10	5.0	15	
	RRD050R252M12	●	2	25	15	54	32	12.5	21	M12	5.0	17	
	RRD050R253M12	●	3	25	15	54	32	12.5	21	M12	5.0	17	
	RRD050R304M12	●	4	30	20	54	32	12.5	21	M12	5.0	17	
	RRD050R304M16	●	4	30	20	55	32	17	29	M16	5.0	22	
	RRD050R355M16	●	5	35	25	65	42	17	29	M16	5.0	22	
6	RRD050R426M16	●	6	42	32	65	42	17	29	M16	5.0	22	RDH/M/Z 12T3M0
	RRD060R242M12	●	2	24	12	54	32	12.5	21	M12	6.0	17	
	RRD060R353M16	●	3	35	23	65	42	17	29	M16	6.0	22	
	RRD060R354M16	●	4	35	23	65	42	17	29	M16	6.0	22	
	RRD060R424M16	●	4	42	30	55	32	17	29	M16	6.0	24	
8	RRD060R425M16	●	5	42	30	65	42	17	29	M16	6.0	22	RDH/M/Z 1604M0
8	RRD080R322M16	●	2	32	16	65	42	17	29	M16	8.0	22	

● Kaba

● Finişe yakın

● Finiş

● : Avrupa standart stokta.

★ : Japonya standart stokta.

□ : Yalnızca Siparişe Yönelik Üretilmektedir.

YEDEK PARÇALAR

RE	Sipariş Numarası						
		Altık	Altık Vidası	Sıkma Vidası	Sıkma Vidası	Anahtar	
2.5	RRD025R	102M5					
		123M8	—	—	B-TS20	—	TKY06F
		154M8					
		205M10					
3.5	RRD035R	122M8			B-TS253	—	TKY07F
		153M8					
		204M10					
		255M12	—	—	TS253	—	TKY08F
		306M16					
		357M16					
		152M8			TS25	—	TKY08F
5	RRD050R	153M8X					
		202M10					
		252M12					
		253M12					
		304M12	—	—	B-TS35	—	TKY15F
		304M16					
6	RRD060R	355M16					
		426M16					
		242M12				—	
		353M16					
8	RRD080R	354M16	—	—	B-TS35	TS1001	TKY15F
		424M16					
		425M16					
8	RRD080R	322M16			214	—	TKY20F

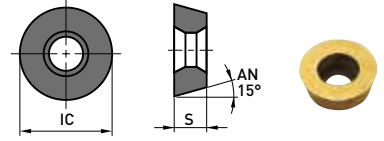
KESİCİ UÇLAR

P	Çelik	●	●	●	●	●	●
K	Dökme Demir	✱	✱	✱	✱	✱	✱
H	Sertleştirilmiş Çelik	●	●	●	●	●	●

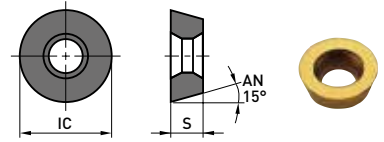
Kesme Koşulları (Kılavuz):

●: Düz Kesme ●: Genel Kesme ✱: Darbeli Kesme

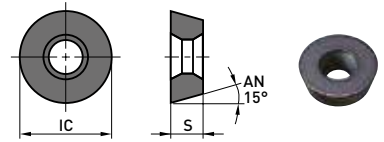
Sipariş Numarası	Sınıf	Honlama	F7030	VP15TF	VP20M	VP10H	VP05HT	UT120T	IC	S
RDHX0501M0E	H	E	●	●		●	●		5	1.5
RDHX0501M0S	H	S	●	●		●			5	1.5
RDHX07T1M0E	H	E	●	●		●	●		7	1.98
RDHX07T1M0S	H	S	●	●		●	●		7	1.98
RDHX0702M0E	H	E	●	●		●	●		7	2.38
RDHX0702M0S	H	S	●	●		●			7	2.38
RDHX1003M0E	H	E	●	●		●	●		10	3.18
RDHX1003M0S	H	S	●	●		●	●		10	3.18
RDHX12T3M0E	H	E	●	●		●	●		12	3.97
RDHX12T3M0S	H	S	●	●		●			12	3.97
RDHX1604M0E	H	E	●	●		●	●		16	4.76
RDHX1604M0S	H	S	●	●		●			16	4.76
RDMX07T1M0E	M	E					●		7	1.98
RDMX07T1M0T	M	T	●		●	●			7	1.98
RDMX0702M0E	M	E					●		7	2.38
RDMX0702M0T	M	T	●		●	●		□	7	2.38
RDMX1003M0E	M	E					●		10	3.18
RDMX1003M0S	M	S		●		●			10	3.18
RDMX1003M0T	M	T	●		●	●		●	10	3.18
RDMX12T3M0E	M	E					●		12	3.97
RDMX12T3M0S	M	S		●		●			12	3.97
RDMX12T3M0T	M	T	●		●	●		●	12	3.97
RDMX1604M0E	M	E					●		16	4.76
RDMX1604M0S	M	S		●		●			16	4.76
RDMX1604M0T	M	T	●		●	●		●	16	4.76
RDZX0501M0E	Z	E		●					5	1.50
RDZX07T1M0E	Z	E		●					7	1.98
RDZX0702M0E	Z	E		●					7	2.38
RDZX1003M0E	Z	E		●					10	3.18
RDZX1003M0S	Z	S	●	●					10	3.18
RDZX12T3M0E	Z	E		●					12	3.97
RDZX12T3M0S	Z	S	●	●					12	3.97
RDZX1604M0E	Z	E		●					16	4.76
RDZX1604M0S	Z	S	●	●					16	4.76



IC: ±0.013 mm S: ±0.025 mm

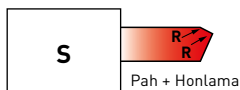


IC: ±0.05-±0.15 mm S: ±0.15 mm

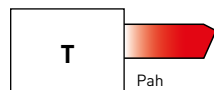


IC: ±0.025 mm S: ±0.025 mm

Kesme Kenarı Yapısı



● Kaba işleme için



● Kaba ve Finiş işleme için



● Finiş işleme için

ÖNERİLEN KESME KOŞULLARI

KABA İŞLEME İÇİN KESME KOŞULLARI (ae = %50 Ø)

İş parçası Malzemesi	Sertlik	Kalite	Vc (m/dak)	Ø 10-15 mm		Ø 20 mm		Ø 24-25 mm		Ø 30-42 mm		Ø 50-80 mm		Ø 100-160 mm	
				ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)
P Yumuşak Çelik	<180HB	F7030 VP15TF	(250-320)	-0.2	0.25	-0.5	0.45	-1.0	0.35	-1.0	0.40	-1.0	0.50	-1.5	0.60
			(240-300)	0.2-0.3	0.20	0.5-1.0	0.25	1.0-2.0	0.30	1.5-2.0	0.32	1.0-1.5	0.40	1.5-2.5	0.45
			(200-280)	0.3-0.5	0.12	1.0-1.5	0.15	2.0-2.5	0.20	2.0-3.0	0.25	1.5-3.0	0.35	2.5-5.0	0.35
Karbon Çeliği Alaşımlı Çelik	180- 350HB	F7030 VP15TF	(220-300)	-0.2	0.20	-0.5	0.40	-1.0	0.30	-1.0	0.40	-1.0	0.50	-1.5	0.55
			(200-290)	0.2-0.3	0.15	0.5-1.0	0.20	1.0-1.5	0.25	1.5-2.0	0.30	1.0-1.5	0.38	1.5-2.5	0.40
			(160-250)	0.3-0.5	0.10	1.0-1.5	0.10	1.5-2.0	0.22	2.0-3.0	0.22	1.5-3.0	0.30	2.5-4.5	0.32
K Dökme Demir	Kopma Muka- vemeti <450 MPa	VP15TF VP20M VP10H	(200-250)	-0.1	0.15	-0.5	0.18	-1.0	0.20	-1.0	0.25	-1.0	0.30	-1.5	0.35
			(180-230)	0.1-0.2	0.10	0.5-1.0	0.10	1.0-1.5	0.15	1.5-2.0	0.18	1.0-1.5	0.25	1.5-2.5	0.22
			(160-200)	0.2-0.25	0.10	1.0-1.5	0.10	1.5-2.0	0.12	2.0-3.0	0.15	1.5-3.0	0.18	2.5-4.5	0.20
H Sertleştirilmiş Çelik	-52HRC -58HRC -60HRC	VP15TF VP10H VP05HT	(140-200)	-0.1	0.12	-0.1	0.14	-0.1	0.15	-0.1	0.18	-0.1	0.18	-0.1	0.20
			(110-180)	0.1-0.15	0.10	0.1-0.20	0.12	0.1-0.30	0.12	0.1-0.30	0.14	0.1-0.30	0.14	0.1-0.30	0.15
			(100-170)	0.1-0.15	0.10	0.1-0.20	0.10	0.1-0.30	0.10	0.1-0.30	0.12	0.1-0.30	0.12	0.1-0.30	0.12

1. Takımın tam kesme genişliği kullanıldığında lütfen kesme koşullarını %20 oranında düşürün.
2. Takım boyu uzun kullanıldığında lütfen ilerleme oranını %20 düşürün.

FİNİŞ İŞLEME İÇİN KESME KOŞULLARI (ae = %20 Ø)

İş parçası Malzemesi	Sertlik	Kalite	Vc (m/dak)	Ø 10-15 mm		Ø 20 mm		Ø 24-25 mm		Ø 30-42 mm		Ø 50-80 mm		Ø 100-160 mm	
				ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)	ap (mm)	fz (mm)
P Yumuşak Çelik	<180HB	F7030 VP15TF	(260-360)	-0.1	0.15	-0.15	0.20	-0.15	0.25	-0.15	0.30	-0.15	0.32	-0.3	0.35
			(240-320)	0.1-0.2	0.15	0.1-0.2	0.15	0.1-0.2	0.18	0.1-0.3	0.20	0.1-0.3	0.22	0.2-0.3	0.25
			(220-280)	0.2-0.24	0.10	0.1-0.30	0.15	0.1-0.30	0.18	0.1-0.30	0.20	0.2-0.30	0.20	0.3-0.40	0.20
Karbon Çeliği Alaşımlı Çelik	180- 350HB	F7030 VP15TF	(250-350)	-0.1	0.12	-0.1	0.15	-0.1	0.18	-0.1	0.25	-0.1	0.28	-0.15	0.30
			(230-310)	0.1-0.15	0.12	0.1-0.30	0.15	0.1-0.30	0.15	0.1-0.30	0.20	0.1-0.3	0.22	0.15-0.3	0.25
			(210-270)	0.15-0.2	0.10	0.15-0.30	0.12	0.15-0.30	0.15	0.15-0.30	0.15	0.2-0.3	0.18	0.2-0.3	0.18
K Dökme Demir	Kopma Muka- vemeti <450 MPa	VP15TF VP20M VP10H	(200-300)	-0.1	0.15	-0.1	0.18	-0.1	0.20	-0.1	0.22	-0.1	0.25	-0.15	0.30
			(200-280)	0.1-0.2	0.10	0.1-0.30	0.10	0.1-0.3	0.15	0.1-0.3	0.15	0.1-0.3	0.20	0.15-0.3	0.22
			(180-240)	0.2-0.25	0.10	0.2-0.40	0.10	0.2-0.4	0.12	0.2-0.4	0.12	0.2-0.4	0.15	0.2-0.4	0.18
H Sertleştirilmiş Çelik	-52HRC -58HRC -60HRC	VP15TF VP10H VP05HT	(150-200)	-0.1	0.15	-0.1	0.14	-0.1	0.15	-0.1	0.18	-0.1	0.18	-0.1	0.20
			(120-180)	0.1-0.15	0.10	0.1-0.20	0.12	0.1-0.30	0.12	0.1-0.30	0.14	0.1-0.30	0.14	0.1-0.30	0.15
			(100-180)	0.1-0.15	0.10	0.1-0.20	0.10	0.1-0.30	0.10	0.1-0.30	0.12	0.1-0.30	0.12	0.1-0.30	0.12

1. takımın tam kesme genişliği kullanıldığında lütfen kesme koşullarını %20 oranında düşürün.
2. Takım boyu uzun kullanıldığında lütfen ilerleme oranını %20 düşürün.



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Sipariş Kodu: B087TR 

Yayın Tarihi: 2018.02 (0), Almanya'da basılmıştır