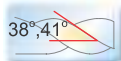
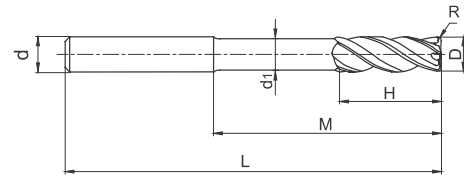


- 4-flute radius end mills with straight shank and short cutting edge and long neck
4-Schneiden Radiuseckfräser mit kurzer Schneide und Zylinderschaft



UM-4RFP



D ≤ 6 -0.020~-0.038 6 < D ≤ 10 -0.025~-0.047
10 < D ≤ 18 -0.032~-0.059 18 < D -0.04~-0.073



Type Typ	Dimension(mm) Abmessungen							Teeth Zähne Z	Stock Lager
	D	R	d	d ₁	H	M	L		
UM-4RFP-D6.0R0.5	6.0	0.5	6	5.8	6	18	75	4	●
UM-4RFP-D6.0R1.0	6.0	1.0	6	5.8	6	18	75	4	●
UM-4RFP-D8.0R0.5	8.0	0.5	8	7.7	8	24	100	4	●
UM-4RFP-D8.0R1.0	8.0	1.0	8	7.7	8	24	100	4	●
UM-4RFP-D10.0R0.5	10.0	0.5	10	9.6	10	30	100	4	●
UM-4RFP-D10.0R1.0	10.0	1.0	10	9.6	10	30	100	4	●
UM-4RFP-D10.0R2.0	10.0	2.0	10	9.6	10	30	100	4	●
UM-4RFP-D12.0R0.5	12.0	0.5	12	11.5	12	36	100	4	●
UM-4RFP-D12.0R1.0	12.0	1.0	12	11.5	12	36	100	4	●
UM-4RFP-D12.0R2.0	12.0	2.0	12	11.5	12	36	100	4	●
UM-4RFP-D16.0R1.0	16.0	1.0	16	15.5	16	40	150	4	●
UM-4RFP-D16.0R2.0	16.0	2.0	16	15.5	16	40	150	4	●

B

Solid Carbide end mills
Vollhartmetallschaftfräser

Material Overview · Material Übersicht

- ✓ = Very suitable · Sehr empfohlen
✓ = Suitable · Empfohlen

Workpiece material Werkstückstoff											
Carbon steel Kohlenstoff Stahl	Alloy steel Legierter Stahl	Quenched and tempered steel · Vergüteter Stahl		Hardened steel · Gehärteter Stahl		Stainless steel · Rostfreier Stahl	Cast iron, Nodular cast iron Grauguss GGG	Copper alloy Kupfer Leg	Aluminum alloy Alu Leg	Titanium alloy Titan Leg	Heat resist alloy warmfeste Leg
		~40HRC	~50HRC	~55HRC	~68HRC						
✓	✓	✓	✓	✓		✓	✓			✓	✓

Code key
ISO Kennzeichen

B231

Cutting data
Schnittdaten

B485-491

Graphics identification & application
Graphische Werkzeug- & Anwendungsbeschr.

B232

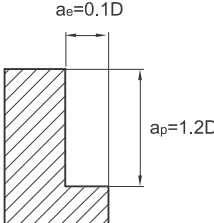
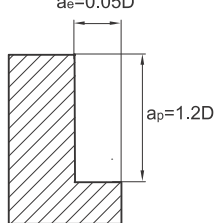
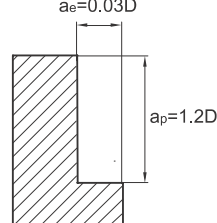
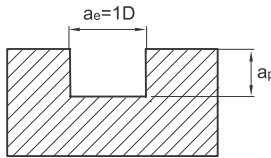
Order form for non-standard products
Bestellformular für Sonderwerkzeuge

B497-5498

B 383

Recommended cutting data · Empfohlene Schnittdaten

UM-4RFP

Workpiece material Werkstückmaterial	Carbon steel, Alloy steel Kohlenstoffstahl Leg. Stahl ~30HRC		Stainless steel Rostfreier Stahl		Pre-hardened steel, Quenched and tempered steel Vergüteter Stahl ~40HRC		Pre-hardened steel, Quenched and tempered steel Vergüteter Stahl ~50HRC		Hardened steel Gehärteter Stahl ~55HRC														
Diameter Ø Durchmesser (mm)	Rotating Drehzahl (min ⁻¹)	Feed Vorschub (mm/min)	Rotating Drehzahl (min ⁻¹)	Feed Vorschub (mm/min)	Rotating Drehzahl (min ⁻¹)	Feed Vorschub (mm/min)	Rotating Drehzahl (min ⁻¹)	Feed Vorschub (mm/min)	Rotating Drehzahl (min ⁻¹)	Feed Vorschub (mm/min)													
4	10800	1210	5500	210	8000	925	6500	720	5570	530													
5	8200	1265	4500	210	6400	965	5000	765	4460	560													
6	7000	1295	3700	235	5300	995	4200	780	3710	560													
8	5200	1285	2800	235	4000	975	3200	790	2785	580													
10	4200	1265	2200	235	3200	965	2500	750	2230	540													
12	3500	1265	1850	235	2650	965	2100	750	1855	540													
16	2600	1180	1400	210	2000	925	1600	705	1390	520													
Max. cutting depth max Schnitttiefe																							
	 <table><thead><tr><th>Ø</th><th>A_p</th></tr></thead><tbody><tr><td>Ø1≤D<Ø3</td><td>0.15D</td></tr><tr><td>Ø3≤D<Ø6</td><td>0.3D</td></tr><tr><td>Ø6≤D≤Ø20</td><td>0.5D</td></tr></tbody></table>						Ø	A _p	Ø1≤D<Ø3	0.15D	Ø3≤D<Ø6	0.3D	Ø6≤D≤Ø20	0.5D	<table><thead><tr><th>Ø</th><th>A_p</th></tr></thead><tbody><tr><td>Ø1≤D<Ø3</td><td>0.1D</td></tr><tr><td>Ø3≤D</td><td>0.2D</td></tr></tbody></table>		Ø	A _p	Ø1≤D<Ø3	0.1D	Ø3≤D	0.2D	
Ø	A _p																						
Ø1≤D<Ø3	0.15D																						
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Ø6≤D≤Ø20	0.5D																						
Ø	A _p																						
Ø1≤D<Ø3	0.1D																						
Ø3≤D	0.2D																						

- The above table shows the standard value of side milling. When slot milling, of rotating speed 50%~70% and feed rate like mentioned above 40%~60%.
- Please select high precise machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in side milling.
- Vibration and unusual noise may be generated if the machine rigidity and workpiece fixture stability is low, please reduce the rotating speed and feed rate like mentioned above.
- Make overhang as short as possible if no interference.

- Die obige Tabelle zeigt Standard Werte für das Eckfräsen. Bei Nutenfräsen, Schnittgeschwindigkeit auf 50-70% und den Vorschub auf 40-60% reduzieren.
- Bitte präzise Maschinen und Werkzeughalter verwenden.
- Bitte Luftkühlung oder Schneidflüssigkeit benutzen.
- Empfohlene Fräsmethode: Gleichlaufräsen.
- Bei Vibrationen oder unüblichen Geräuschen reduzieren Sie die Schnittdaten (wie oben empfohlen) entsprechend.
- Werkzeugauskrantung so kurz wie möglich wählen.