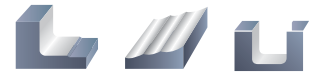
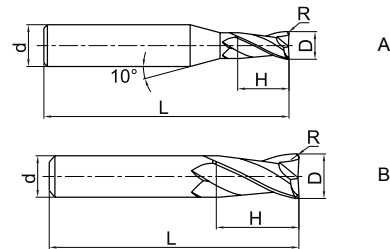


### 2-flute radius end mills with straight shank 2-Schneiden Radius Schafffräser und Zylinderschaft



#### PM-2R



Type Typ	Dimension(mm) Abmessungen					Teeth Zähne Z	Geometry Ausführung	Grade Sorte KMG 405
	D	R	d	H	L			
PM-2R-D1.0R0.2	1.0	0.2	4	3	50	2	A	●
PM-2R-D1.5R0.2	1.5	0.2	4	4	50	2	A	●
PM-2R-D2.0R0.2	2.0	0.2	4	6	50	2	A	●
PM-2R-D2.0R0.5	2.0	0.5	4	6	50	2	A	●
PM-2R-D2.5R0.2	2.5	0.2	4	8	50	2	A	●
PM-2R-D2.5R0.5	2.5	0.5	4	8	50	2	A	●
PM-2R-D3.0R0.2	3.0	0.2	4	8	50	2	A	●
PM-2R-D3.0R0.3	3.0	0.3	4	8	50	2	A	○
PM-2R-D3.0R0.5	3.0	0.5	4	8	50	2	A	●
PM-2R-D4.0R0.2	4.0	0.2	4	11	50	2	B	●
PM-2R-D4.0R0.3	4.0	0.3	4	11	50	2	B	●
PM-2R-D4.0R0.5	4.0	0.5	4	11	50	2	B	●
PM-2R-D4.0R1.0	4.0	1.0	4	11	50	2	B	●
PM-2R-D5.0R0.3	5.0	0.3	6	13	50	2	A	○
PM-2R-D5.0R0.5	5.0	0.5	6	13	50	2	A	●
PM-2R-D5.0R1.0	5.0	1.0	6	13	50	2	A	●
PM-2R-D6.0R0.3	6.0	0.3	6	16	50	2	B	○
PM-2R-D6.0R0.5	6.0	0.5	6	16	50	2	B	●
PM-2R-D6.0R1.0	6.0	1.0	6	16	50	2	B	●
PM-2R-D8.0R0.3	8.0	0.3	8	20	60	2	B	○
PM-2R-D8.0R0.5	8.0	0.5	8	20	60	2	B	●
PM-2R-D8.0R1.0	8.0	1.0	8	20	60	2	B	●
PM-2R-D10.0R0.5	10.0	0.5	10	25	75	2	B	●
PM-2R-D10.0R1.0	10.0	1.0	10	25	75	2	B	●
PM-2R-D10.0R1.5	10.0	1.5	10	25	75	2	B	●
PM-2R-D10.0R2.0	10.0	2.0	10	25	75	2	B	●
PM-2R-D12.0R0.5	12.0	0.5	12	30	75	2	B	●
PM-2R-D12.0R1.0	12.0	1.0	12	30	75	2	B	●
PM-2R-D12.0R1.5	12.0	1.5	12	30	75	2	B	●
PM-2R-D12.0R2.0	12.0	2.0	12	30	75	2	B	●

### Material Overview · Material Übersicht

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

KMG405

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 B231  
ISO Kennzeichen

Cutting data B415-430  
Schnittdaten

Graphics identification & application B232  
Graphische Werkzeug- & Anwendungsbeschr.

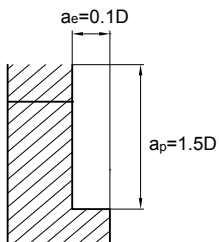
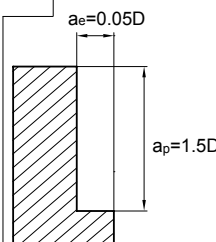
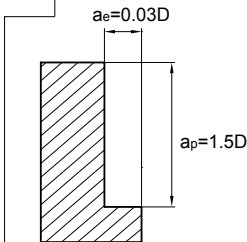
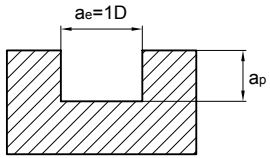
Order form for non-standard products B497-B498  
Bestellformular für Sonderwerkzeuge

### Recommended cutting data · Empfohlene Schnittdaten

#### PM-2R

Workpiece material Werkstückmaterial	Cast iron, 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 <sup>-1</sup> )	Feed Vorschub (mm/min)	Rotating Drehzahl (min <sup>-1</sup> )	Feed Vorschub (mm/min)	Rotating Drehzahl (min <sup>-1</sup> )	Feed Vorschub (mm/min)	Rotating Drehzahl (min <sup>-1</sup> )	Feed Vorschub (mm/min)	Rotating Drehzahl (min <sup>-1</sup> )
1	20000	240	20000	75	20000	195	20000	145	20000	95
2	15000	385	11150	100	15000	335	13000	215	11140	130
3	14000	655	7500	145	10600	505	8500	395	7430	245
4	10800	675	5500	155	8000	515	6500	405	5570	245
5	8200	695	4500	155	6400	540	5000	425	4460	260
6	7000	720	3700	170	5300	555	4200	435	3710	260
8	5200	720	2800	170	4000	555	3200	440	2785	275
10	4200	695	2200	170	3200	535	2500	420	2230	255
12	3500	695	1850	170	2650	535	2100	420	1855	255

Max. cutting depth max. Schnitttiefe																			
	 <table border="1" data-bbox="651 1220 901 1377"> <thead> <tr> <th>Milling slot</th> <th>Nutenfräsen</th> </tr> <tr> <th>Ø</th> <th>Ap</th> </tr> </thead> <tbody> <tr> <td>Ø1≤D&lt;Ø3</td> <td>0.15D</td> </tr> <tr> <td>Ø3≤D&lt;Ø6</td> <td>0.3D</td> </tr> <tr> <td>Ø6≤D&lt;Ø20</td> <td>0.5D</td> </tr> </tbody> </table>	Milling slot	Nutenfräsen	Ø	Ap	Ø1≤D<Ø3	0.15D	Ø3≤D<Ø6	0.3D	Ø6≤D<Ø20	0.5D	<table border="1" data-bbox="1053 1220 1300 1355"> <thead> <tr> <th>Milling slot</th> <th>Nutenfräsen</th> </tr> <tr> <th>Ø</th> <th>Ap</th> </tr> </thead> <tbody> <tr> <td>Ø1≤D&lt;Ø3</td> <td>0.1D</td> </tr> <tr> <td>Ø3≤D</td> <td>0.2D</td> </tr> </tbody> </table>	Milling slot	Nutenfräsen	Ø	Ap	Ø1≤D<Ø3	0.1D	Ø3≤D
Milling slot	Nutenfräsen																		
Ø	Ap																		
Ø1≤D<Ø3	0.15D																		
Ø3≤D<Ø6	0.3D																		
Ø6≤D<Ø20	0.5D																		
Milling slot	Nutenfräsen																		
Ø	Ap																		
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.
- Werkzeugauskragung so kurz wie möglich wählen.