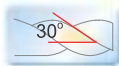
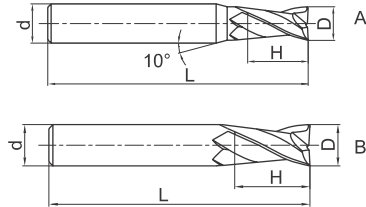


2-flute flattened end mills with straight shank 2-Schneiden Eckfräser mit Zylinderschaft



PM-2E



Type Typ	Dimension(mm) Abmessungen				Teeth Zähne Z	Geometry Ausführung	Grade Sorte KMG 405
	D	d	H	L			
PM-2E-D1.0S	1.0	4	3	50	2	A	●
PM-2E-D1.5S	1.5	4	4	50	2	A	●
PM-2E-D2.0S	2.0	4	6	50	2	A	●
PM-2E-D2.5S	2.5	4	8	50	2	A	●
PM-2E-D3.0S	3.0	4	8	50	2	A	●
PM-2E-D4.0S	4.0	4	11	50	2	B	●
PM-2E-D1.0	1.0	6	3	50	2	A	●
PM-2E-D1.5	1.5	6	4	50	2	A	●
PM-2E-D2.0	2.0	6	6	50	2	A	●
PM-2E-D2.5	2.5	6	8	50	2	A	●
PM-2E-D3.0	3.0	6	8	50	2	A	●
PM-2E-D3.5	3.5	6	10	50	2	A	●
PM-2E-D4.0	4.0	6	11	50	2	A	●
PM-2E-D4.5	4.5	6	11	50	2	A	●
PM-2E-D5.0	5.0	6	13	50	2	A	●
PM-2E-D5.5	5.5	6	16	50	2	A	●
PM-2E-D6.0	6.0	6	16	50	2	B	●
PM-2E-D7.0	7.0	8	20	60	2	A	●
PM-2E-D8.0	8.0	8	20	60	2	B	●
PM-2E-D9.0	9.0	10	22	75	2	A	●
PM-2E-D10.0	10.0	10	25	75	2	B	●
PM-2E-D11.0	11.0	12	26	75	2	A	●
PM-2E-D12.0	12.0	12	30	75	2	B	●
PM-2E-D14.0	14.0	14	32	75	2	B	●
PM-2E-D16.0	16.0	16	45	100	2	B	●
PM-2E-D18.0	18.0	18	45	100	2	B	●
PM-2E-D20.0	20.0	20	45	100	2	B	●

Material Overview · Material Übersicht

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

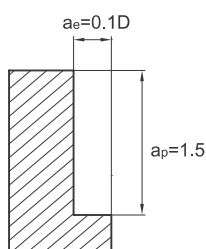
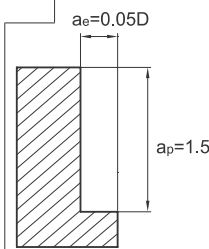
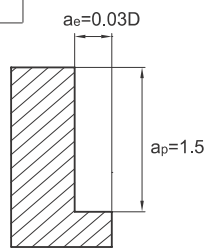
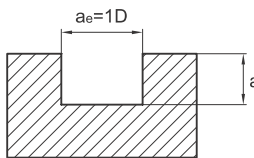
Workpiece material Werkstückstoff											
Carbon steel Kohlenstoff Stahl	Alloy steel Legierter Stahl	Quenched and tempered steel · Vergüteter Stahl		Hardened steel · Gehärteter Stahl		Stainless steel · Rostfreier Stahl	Cast iron, Nodular cast iron Grauguss GGG	Copper alloy Kupfer Leg	Aluminum alloy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

KMG405



Recommended cutting data · Empfohlene Schnittdaten

PM-2E | PM-2EL

Workpiece material Werkstück-material	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 Durchmesse (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)									
1	20000	200	20000	60	20000	165	20000	120	20000	90									
2	15000	320	11150	85	15000	285	13000	180	11140	130									
3	14000	545	7500	120	10600	420	8500	330	7430	240									
4	10800	560	5500	135	8000	425	6500	335	5570	245									
5	8200	585	4500	135	6400	445	5000	355	4460	260									
6	7000	600	3700	140	5300	465	4200	360	3710	260									
8	5200	595	2800	140	4000	455	3200	365	2785	270									
10	4200	585	2200	140	3200	445	2500	350	2230	250									
12	3500	585	1850	140	2650	445	2100	350	1855	250									
14	3000	545	1600	135	2300	420	1800	330	1590	240									
16	2600	545	1400	120	2000	420	1600	330	1390	240									
18	2300	535	1250	120	1800	415	1400	325	1240	235									
20	2050	535	1100	120	1600	415	1250	325	1115	235									
Max. cutting depth max Schnitttiefe																			
																			
						<table><thead><tr><th>Milling slot</th><th>Nutenfräsen</th></tr><tr><th>Ø</th><th>Ap</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>					Milling slot	Nutenfräsen	Ø	Ap	Ø1≤D<Ø3	0.15D	Ø3≤D<Ø6	0.3D	Ø6≤D<Ø20
Milling slot	Nutenfräsen																		
Ø	Ap																		
Ø1≤D<Ø3	0.15D																		
Ø3≤D<Ø6	0.3D																		
Ø6≤D<Ø20	0.5D																		
	<table><thead><tr><th>Milling slot</th><th>Nutenfräsen</th></tr><tr><th>Ø</th><th>Ap</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>										Milling slot	Nutenfräsen	Ø	Ap	Ø1≤D<Ø3	0.1D	Ø3≤D	0.2D	
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.