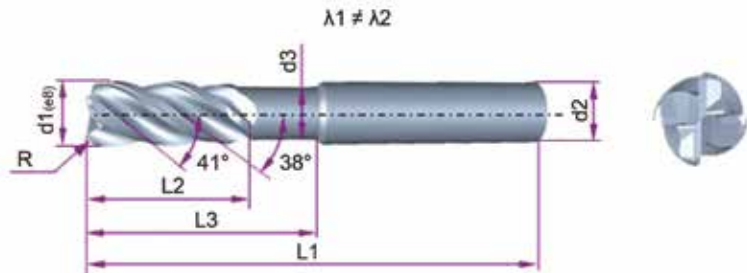
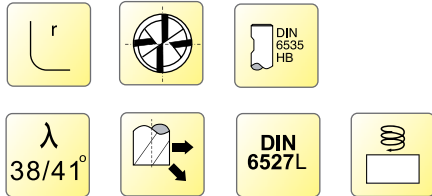


5502R38414GM-R

4-flute end mills with radius
4-Schneiden VHM Schaftfräser mit Radius



| Type Typ | Dimension(mm) Abmessungen | | | | | | | Teeth Zähne Z | Application Anwendung Grade Sorte | P M K |
|-----------------------|------------------------------|--------|--------|-----|----|-------|----|---------------------|--|--|
| | d1(e8) | R±0.01 | d2(h6) | L1 | L2 | d3 | L3 | | | |
| 5502R38414GM-R02-0400 | 4 | 0.2 | 6 | 57 | 11 | 3.70 | 19 | 4 | | • |
| 5502R38414GM-R05-0400 | 4 | 0.5 | 6 | 57 | 11 | 3.70 | 19 | 4 | | • |
| 5502R38414GM-R02-0500 | 5 | 0.2 | 6 | 57 | 13 | 4.70 | 21 | 4 | | • |
| 5502R38414GM-R05-0500 | 5 | 0.5 | 6 | 57 | 13 | 4.70 | 21 | 4 | | • |
| 5502R38414GM-R02-0600 | 6 | 0.2 | 6 | 57 | 13 | 5.70 | 21 | 4 | | • |
| 5502R38414GM-R05-0600 | 6 | 0.5 | 6 | 57 | 13 | 5.70 | 21 | 4 | | • |
| 5502R38414GM-R10-0600 | 6 | 1.0 | 6 | 57 | 13 | 5.70 | 21 | 4 | | • |
| 5502R38414GM-R02-0800 | 8 | 0.2 | 8 | 63 | 19 | 7.70 | 27 | 4 | | • |
| 5502R38414GM-R05-0800 | 8 | 0.5 | 8 | 63 | 19 | 7.70 | 27 | 4 | | • |
| 5502R38414GM-R10-0800 | 8 | 1.0 | 8 | 63 | 19 | 7.70 | 27 | 4 | | • |
| 5502R38414GM-R15-0800 | 8 | 1.5 | 8 | 63 | 19 | 7.70 | 27 | 4 | | • |
| 5502R38414GM-R20-0800 | 8 | 2.0 | 8 | 63 | 19 | 7.70 | 27 | 4 | | • |
| 5502R38414GM-R02-1000 | 10 | 0.2 | 10 | 72 | 22 | 9.50 | 32 | 4 | | • |
| 5502R38414GM-R05-1000 | 10 | 0.5 | 10 | 72 | 22 | 9.50 | 32 | 4 | | • |
| 5502R38414GM-R10-1000 | 10 | 1.0 | 10 | 72 | 22 | 9.50 | 32 | 4 | | • |
| 5502R38414GM-R15-1000 | 10 | 1.5 | 10 | 72 | 22 | 9.50 | 32 | 4 | | • |
| 5502R38414GM-R20-1000 | 10 | 2.0 | 10 | 72 | 22 | 9.50 | 32 | 4 | | • |
| 5502R38414GM-R05-1200 | 12 | 0.5 | 12 | 83 | 26 | 11.50 | 38 | 4 | | • |
| 5502R38414GM-R10-1200 | 12 | 1.0 | 12 | 83 | 26 | 11.50 | 38 | 4 | | • |
| 5502R38414GM-R15-1200 | 12 | 1.5 | 12 | 83 | 26 | 11.50 | 38 | 4 | | • |
| 5502R38414GM-R20-1200 | 12 | 2.0 | 12 | 83 | 26 | 11.50 | 38 | 4 | | • |
| 5502R38414GM-R10-1600 | 16 | 1.0 | 16 | 92 | 32 | 15.50 | 44 | 4 | | • |
| 5502R38414GM-R15-1600 | 16 | 1.5 | 16 | 92 | 32 | 15.50 | 44 | 4 | | • |
| 5502R38414GM-R20-1600 | 16 | 2.0 | 16 | 92 | 32 | 15.50 | 44 | 4 | | • |
| 5502R38414GM-R30-1600 | 16 | 3.0 | 16 | 92 | 32 | 15.50 | 44 | 4 | | • |
| 5502R38414GM-R10-2000 | 20 | 1.0 | 20 | 104 | 38 | 19.50 | 54 | 4 | | • |
| 5502R38414GM-R15-2000 | 20 | 1.5 | 20 | 104 | 38 | 19.50 | 54 | 4 | | • |
| 5502R38414GM-R20-2000 | 20 | 2.0 | 20 | 104 | 38 | 19.50 | 54 | 4 | | • |
| 5502R38414GM-R30-2000 | 20 | 3.0 | 20 | 104 | 38 | 19.50 | 54 | 4 | | • |

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 | ~60HRC | ~68HRC | | | | | | |
| ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ |

Code key B231 ISO Kennzeichen
Cutting data B431-B456 Schnittdaten
Graphics identification & application B232 Graphische Werkzeug- & Anwendungsbeschr.
Order form for non-standard products B497-B498 Bestellformular für Sonderwerkzeuge

B

Solid Carbide end mills
Vollhartmetallschaftfräser

KMG405

B375

Recommended cutting data · Empfohlene Schnittdaten

5501R38414GM | 5502R38414GM(-R) | 5602R38414GM(-R)

| Workpiece material Werkstückmaterial | Carbon steel, Alloy steel Kohlenstoffstahl Leg. Stahl ~30HRC | | Alloy steel, Tool steel, Pre-hardened steel Leg. Stahl, Vergüteter Stahl 30 ~ 45HRC | | Austenitic Stainless steel, Titanium alloy Austenitischer rostfreier Stahl, Titan-Legier. | | hardened steel Gehärteter Stahl 45 ~ 55 HRC | | Heat resist. super alloy Warmfeste Superlegierung. | |
|---|---|--|---|--|--|--|---|--|--|--|
| | 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) |
| 4 | 10000 | 1800 | 10000 | 1800 | 6800 | 1080 | 4800 | 384 | 2800 | 224 |
| 5 | 8000 | 1760 | 8000 | 1760 | 5500 | 1100 | 3800 | 380 | 2200 | 220 |
| 6 | 7000 | 1960 | 7000 | 1960 | 4600 | 1120 | 3200 | 384 | 1900 | 228 |
| 8 | 5000 | 1400 | 5000 | 1400 | 3400 | 800 | 2400 | 384 | 1400 | 168 |
| 10 | 4000 | 1200 | 4000 | 1200 | 2700 | 680 | 1900 | 380 | 1100 | 144 |
| 12 | 3500 | 1040 | 3500 | 1040 | 2300 | 640 | 1600 | 320 | 900 | 136 |
| 14 | 3000 | 1020 | 3000 | 1020 | 2000 | 560 | 1400 | 308 | 800 | 120 |
| 16 | 2600 | 920 | 2600 | 920 | 1700 | 480 | 1200 | 288 | 700 | 116 |
| 18 | 2300 | 840 | 2300 | 840 | 1500 | 420 | 1100 | 308 | 620 | 100 |
| 20 | 2100 | 760 | 2100 | 760 | 1400 | 440 | 1000 | 320 | 560 | 96 |

| | | | |
|---|--|--|--|
| Max. cutting depth max. Schnitttiefe | | | |
|---|--|--|--|

1. The above table shows the standard value of side milling.
2. Please select high precise machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in side milling.
5. 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.
6. Make overhang as short as possible if no interference.

1. Die obige Tabelle zeigt Standard Werte für das Eckfräsen.
2. Bitte präzise Maschinen und Werkzeughalter verwenden.
3. Bitte Luftkühlung oder Schneidflüssigkeit benutzen.
4. Empfohlene Fräsmethode: Gleichlaufräsen.
5. Bei Vibrationen oder unüblichen Geräuschen reduzieren Sie die Schnittdaten (wie oben empfohlen) entsprechend.
6. Werkzeugauskragung so kurz wie möglich wählen.

Milling - Fräsen

Solid Carbide end mills - Vollhartmetallschaftfräser

Recommended cutting data - Empfohlene Schnittdaten

5501R38414GM | 5502R38414GM(-R) | 5602R38414GM (-R)

| Workpiece material Werkstückmaterial | Carbon steel, Alloy steel Kohlenstoffstahl Leg. Stahl ~30HRC | | Alloy steel, Tool steel, Pre-hardened steel Leg. Stahl, Vergüteter Stahl 30 ~ 45HRC | | Austenitic Stainless steel, Titanium alloy Austenitischer rostfreier Stahl, Titan-Legier. | | hardened steel Gehärteter Stahl 45 ~ 55 HRC | | Heat resist. super alloy Warmfeste Superlegierung | |
|---|---|--|---|--|--|--|---|--|--|--|
| | 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) |
| 4 | 8400 | 1000 | 4800 | 480 | 4800 | 480 | 2100 | 160 | 2100 | 160 |
| 5 | 6700 | 1080 | 3800 | 480 | 3800 | 480 | 1700 | 140 | 1700 | 140 |
| 6 | 5600 | 1120 | 3200 | 520 | 3200 | 520 | 1400 | 140 | 1400 | 140 |
| 8 | 4200 | 1000 | 2400 | 480 | 2400 | 480 | 1000 | 120 | 1000 | 120 |
| 10 | 3300 | 800 | 1900 | 400 | 1900 | 400 | 800 | 120 | 800 | 120 |
| 12 | 2800 | 720 | 1600 | 360 | 1600 | 360 | 700 | 120 | 700 | 120 |
| 14 | 2400 | 640 | 1400 | 320 | 1400 | 320 | 600 | 96 | 600 | 96 |
| 16 | 2100 | 600 | 1200 | 280 | 1200 | 280 | 500 | 80 | 500 | 80 |
| 18 | 1900 | 520 | 1100 | 280 | 1100 | 280 | 500 | 80 | 500 | 80 |
| 20 | 1700 | 560 | 1000 | 240 | 1000 | 240 | 400 | 80 | 400 | 80 |

| | | | |
|--|--|--|--|
| Max. cutting depth max Schnitttiefe | | | |
|--|--|--|--|

1. The above table shows the standard value of slot milling..
2. Please select high precise machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in side milling.
5. 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.
6. Make overhang as short as possible if no interference.

1. Die obige Tabelle zeigt Standard Werte für das Nutenfräsen.
2. Bitte präzise Maschinen und Werkzeughalter verwenden.
3. Bitte Luftkühlung oder Schneidflüssigkeit benutzen.
4. Empfohlene Fräsmethode: Gleichlaufräsen.
5. Bei Vibrationen oder unüblichen Geräuschen reduzieren Sie die Schnittdaten (wie oben empfohlen) entsprechend.
6. Werkzeugauskragung so kurz wie möglich wählen.