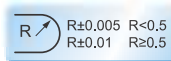
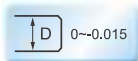
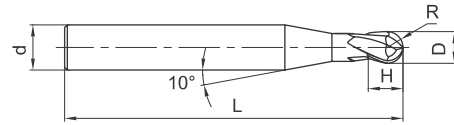


**HM-2BS** series for machining high hardness steel · **HM-2BS** Serie für die Hartbearbeitung

2-flute tiny diameter ball nose end mills with straight shank  
2-Schneiden Mirco-Kugelpkopfräser mit Zylinderschaft



| Type<br>Typ  | Dimension(mm)<br>Abmessungen |      |     |     |    | Teeth<br>Zähne<br>Z | Grade<br>Sorte<br>KMG 555 |
|--------------|------------------------------|------|-----|-----|----|---------------------|---------------------------|
|              | D                            | R    | d   | H   | L  |                     |                           |
| HM-2BS-R0.15 | 0.30                         | 0.15 | 4.0 | 0.5 | 50 | 2                   | ●                         |
| HM-2BS-R0.20 | 0.40                         | 0.20 | 4.0 | 0.6 | 50 | 2                   | ●                         |
| HM-2BS-R0.25 | 0.50                         | 0.25 | 4.0 | 0.8 | 50 | 2                   | ●                         |
| HM-2BS-R0.30 | 0.60                         | 0.30 | 4.0 | 0.9 | 50 | 2                   | ●                         |
| HM-2BS-R0.35 | 0.70                         | 0.35 | 4.0 | 1.0 | 50 | 2                   | ●                         |
| HM-2BS-R0.40 | 0.80                         | 0.40 | 4.0 | 1.2 | 50 | 2                   | ●                         |
| HM-2BS-R0.45 | 0.90                         | 0.45 | 4.0 | 1.3 | 50 | 2                   | ●                         |
| HM-2BS-R0.50 | 1.00                         | 0.50 | 4.0 | 1.5 | 50 | 2                   | ●                         |
| HM-2BS-R0.60 | 1.20                         | 0.60 | 4.0 | 1.8 | 50 | 2                   | ●                         |
| HM-2BS-R0.70 | 1.40                         | 0.70 | 4.0 | 2.0 | 50 | 2                   | ●                         |
| HM-2BS-R0.75 | 1.50                         | 0.75 | 4.0 | 2.3 | 50 | 2                   | ●                         |
| HM-2BS-R0.80 | 1.60                         | 0.80 | 4.0 | 2.5 | 50 | 2                   | ●                         |
| HM-2BS-R0.90 | 1.80                         | 0.90 | 4.0 | 2.7 | 50 | 2                   | ●                         |
| HM-2BS-R1.00 | 2.00                         | 1.00 | 4.0 | 3.0 | 50 | 2                   | ●                         |
| HM-2BS-R1.25 | 2.50                         | 1.25 | 4.0 | 3.7 | 50 | 2                   | ●                         |
| HM-2BS-R1.50 | 3.00                         | 1.50 | 4.0 | 4.5 | 50 | 2                   | ●                         |

**B**

Solid Carbide end mills  
Vollhartmetallschaftfräser

### Material Overview · Material Übersicht

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

| Workpiece material<br>Werkstückstoff |                                   |  |        |                                      |        |   |   |                               |                              |                                |  |
|--------------------------------------|-----------------------------------|--|--------|--------------------------------------|--------|---|---|-------------------------------|------------------------------|--------------------------------|--|
| Carbon steel<br>Kohlenstoff<br>Stahl | Alloy steel<br>Legierter<br>Stahl | Quenched and<br>tempered steel ·<br>Vergüteter Stahl |        | Hardened steel ·<br>Gehärteter Stahl |        | Stainless<br>steel ·<br>Rostfreier<br>Stahl | Cast iron,<br>Nodular<br>cast iron<br>Grauguss<br>GGG | Copper<br>alloy<br>Kupfer Leg | Aluminum<br>alloy<br>Alu Leg | Titanium<br>alloy<br>Titan Leg | Heat resist<br>alloy<br>warmfeste<br>Leg |
|                                      |                                   | ~40HRC   | ~50HRC | ~60HRC                               | ~68HRC |   |   |                               |                              |                                |  |
|                                      |                                   |  | ✓      | ✓                                    | ✓      |   | ✓   |                               |                              |                                |  |

KMG555

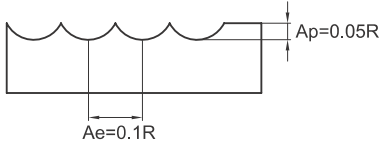


# Milling · Fräsen

Solid Carbide end mills · Vollhartmetallschaftfräser

## Recommended cutting data · Empfohlene Schnittdaten

### HM-2BS

| Workpiece material<br>Werkstückmaterial | Pre-hardened steel, Hardened steel<br>Vergüteter Stahl, Gehärteter Stahl<br>40~50HRC |  | Hardened steel<br>Gehärteter Stahl<br>50~60HRC |  |                              |
|---|--|--|--|--|------------------------------|
|   | Diameter Ø<br>Durchmesser<br>(mm)  | Rotating<br>Drehzahl<br>(min <sup>-1</sup> ) | Feed<br>Vorschub<br>(mm/min)                   | Rotating<br>Drehzahl<br>(min <sup>-1</sup> ) | Feed<br>Vorschub<br>(mm/min) |
| <b>R0.15</b>                            |  | 25000  | 135  | 25000  | 115                          |
| <b>R0.2</b>                             |  | 25000  | 140  | 25000  | 120                          |
| <b>R0.25</b>                            |  | 25000  | 150  | 25000  | 130                          |
| <b>R0.3</b>                             |  | 25000  | 175  | 24000  | 150                          |
| <b>R0.35</b>                            |  | 25000  | 190  | 24000  | 150                          |
| <b>R0.4</b>                             |  | 24000  | 210  | 18000  | 140                          |
| <b>R0.45</b>                            |  | 21000  | 210  | 15000  | 140                          |
| <b>R0.5</b>                             |  | 19000  | 210  | 14000  | 140                          |
| <b>R1.0</b>                             |  | 9500   | 210  | 7200   | 140                          |
| <b>R1.5</b>                             |  | 6400   | 210  | 4800   | 140                          |
| Max. cutting depth<br>max Schnitttiefe  |  |  |  |  |                              |

1. Please select high precise machine and tool holder.
2. Please use air blow or cutting liquid with high mist retardant property.
3. Make overhang as short as possible if no interference.
4. Reduce Feed correspondingly when rotating speed is low.

1. Bitte präzise Maschine und Werkzeugaufnahmen wählen
2. Bitte Luftkühlung oder MQL (Minimalmengen) benutzen.
3. Werkzeugauskragung so kurz wie möglich wählen.
4. Bitte Vorschub entsprechend reduzieren, wenn die Drehzahlen niedrig sind.

**B**

Solid Carbide end mills  
Vollhartmetallschaftfräser