

BN60





BN 60 STANDARD BALLNOSE CUTTERS

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

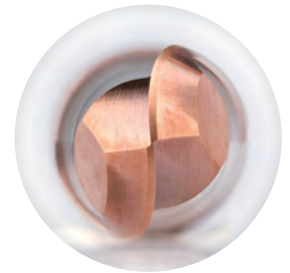
United Kingdom Solid Carbide BN 60 Standard Ballnose Cutters, 2 flutes

France Fraises BN 60 Standard en carbure monobloc, à bout hémisphérique, 2 dents

China 整体硬质合金 BN 60 系列 球头 立铣刀 2 刃 - 标准长度

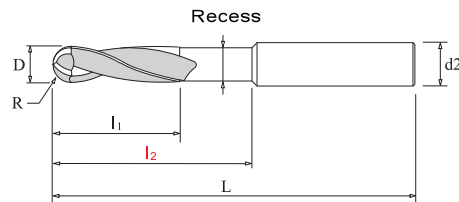
Germany VHM Standard BN 60 Radiuschafffräser, 2 Zähne

Italy Frese cilindriche a raggio in metallo duro integrale, tipo BN 60 Standard, 2 taglienti



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | 657* | A69* |
|--|------------------|-------|-----|----|-----|---------|-------|-------|
| | D | R | l1 | l2 | L | d2 (h6) | B0819 | B0909 |
| 0050 | 0.5 | 0.25 | 1.2 | | 40 | 4 | ● | ● |
| 0050 050 06 | 0.5 | 0.25 | 1.2 | | 50 | 6 | ● | ● |
| 0060 | 0.6 | 0.3 | 1.4 | | 40 | 4 | ● | ● |
| 0060 050 06 | 0.6 | 0.3 | 1.4 | | 50 | 6 | ● | ● |
| 0080 | 0.8 | 0.4 | 1.8 | | 40 | 4 | ● | ● |
| 0080 050 06 | 0.8 | 0.4 | 1.8 | | 50 | 6 | ● | ● |
| 0100 | 1 | 0.5 | 3 | 4 | 40 | 4 | ● | ● |
| 0100 050 06 | 1 | 0.5 | 3 | 4 | 50 | 6 | ● | ● |
| 0150 | 1.5 | 0.75 | 3 | 6 | 40 | 4 | ● | ● |
| 0150 050 06 | 1.5 | 0.75 | 3 | 6 | 50 | 6 | ● | ● |
| 0200 | 2 | 1 | 4 | 8 | 40 | 4 | ● | ● |
| 0200 050 06 | 2 | 1 | 4 | 8 | 50 | 6 | ● | ● |
| 0250 | 2.5 | 1.25 | 4 | 10 | 40 | 4 | ● | ● |
| 0250 050 06 | 2.5 | 1.25 | 4 | 10 | 50 | 6 | ● | ● |
| 0300 | 3 | 1.5 | 5 | 14 | 40 | 3 | ● | ● |
| 0300 050 04 | 3 | 1.5 | 5 | 14 | 50 | 4 | ● | ● |
| 0300 050 06 | 3 | 1.5 | 5 | 14 | 50 | 6 | ● | ● |
| 0400 | 4 | 2 | 8 | 20 | 50 | 4 | ● | ● |
| 0400 050 06 | 4 | 2 | 8 | 20 | 50 | 6 | ● | ● |
| 0500 | 5 | 2.5 | 9 | 20 | 50 | 5 | ● | ● |
| 0500 050 06 | 5 | 2.5 | 9 | 20 | 50 | 6 | ● | ● |
| 0600 050 | 6 | 3 | 10 | 20 | 50 | 6 | ● | ● |
| 0600 060 | 6 | 3 | 10 | 30 | 60 | 6 | ● | ● |
| 0800 | 8 | 4 | 12 | 30 | 64 | 8 | ● | ● |
| 1000 | 10 | 5 | 14 | 32 | 70 | 10 | ● | ● |
| 1200 | 12 | 6 | 16 | 38 | 75 | 12 | ● | ● |
| 1400 | 14 | 7 | 32 | 44 | 90 | 14 | ● | ● |
| 1600 | 16 | 8 | 32 | 46 | 90 | 16 | ● | ● |
| 1800 | 18 | 9 | 38 | 53 | 100 | 18 | ● | ● |
| 2000 | 20 | 10 | 38 | 58 | 100 | 20 | ● | ● |
| 2200 | 22 | 11 | 40 | 58 | 100 | 22 | ● | ● |
| 2500 | 25 | 12.85 | 40 | 58 | 100 | 25 | ● | ● |

658* A70*



United Kingdom Tools with recess upon request

Germany Fräser mit Freistellung auf Bestellung

France Outils avec dégagement sur demande

Italy Utensilli con riduzione gambo su richiesta

China 密齿 立铣刀 带颈位 特别要求

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material Cutting Parameter

576

346

若有技术规格变更, 恕不事先通知

BN 60 STANDARD BALLNOSE CUTTERS

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

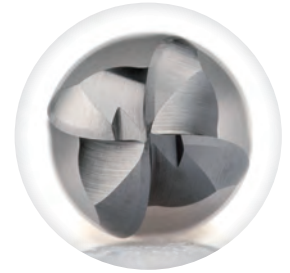
Solid Carbide BN 60 Standard Ballnose Cutters, 4 flutes

Fraises BN 60 Standard en carbure monobloc, à bout hémisphérique, 4 dents

整体硬质合金 BN 60 系列 球头 立铣刀 4 刃 - 标准长度

VHM Standard BN 60 Radiuschaftfräser, 4 Zähne

Frese cilindrica a raggio in metallo duro integrale, tipo BN 60 Standard, 4 taglienti



| | | | | | | | |
|-----|-----------|------|---------|--------------|--------------|--|----------------------------|
| | | | | B0819 | B0909 | | |
| VHM | R+0/-0.02 | -10° | λ = 30° | HPT | HSC | | DIN 6535 HA HB HE |

| EDPNo./EDV-Nr./ CODEusine/CodiceEDP = *+Ødata | Dimension (mm) | | | | | | 529* | | A1L* |
|---|------------------|------|----|----|-----|---------|-------|-------|------|
| | D | R | I1 | I2 | L | d2 (h6) | B0819 | B0909 | |
| 0300 | 3 | 1.5 | 5 | | 40 | 3 | ○ | ● | |
| 0300 050 06 | 3 | 1.5 | 5 | | 50 | 6 | ○ | ● | |
| 0400 | 4 | 2 | 8 | | 50 | 4 | ○ | ● | |
| 0400 050 06 | 4 | 2 | 8 | | 50 | 6 | ○ | ● | |
| 0500 | 5 | 2.5 | 9 | | 50 | 5 | ○ | ● | |
| 0500 050 06 | 5 | 2.5 | 9 | | 50 | 6 | ○ | ● | |
| 0600 050 | 6 | 3 | 10 | | 50 | 6 | ○ | ● | |
| 0600 060 | 6 | 3 | 10 | | 60 | 6 | ○ | ● | |
| 0800 | 8 | 4 | 12 | | 64 | 8 | ○ | ● | |
| 1000 | 10 | 5 | 14 | | 70 | 10 | ○ | ● | |
| 1200 | 12 | 6 | 16 | | 75 | 12 | ○ | ● | |
| 1400 | 14 | 7 | 32 | | 90 | 14 | ○ | ● | |
| 1600 | 16 | 8 | 32 | | 90 | 16 | ○ | ● | |
| 1800 | 18 | 9 | 38 | | 100 | 18 | ○ | ● | |
| 2000 | 20 | 10 | 38 | | 100 | 20 | ○ | ● | |
| 2200 | 22 | 11 | 40 | | 100 | 22 | ○ | ● | |
| 2500 | 25 | 12.5 | 40 | | 100 | 25 | ○ | ● | |

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material | Cutting Parameter

576

349



BN 60 BALLNOSE CUTTERS - LONG

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

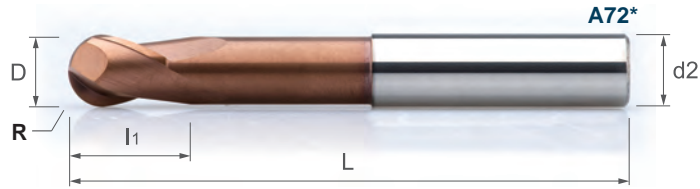
UK Solid Carbide BN 60 Long Ballnose Cutters, 2 flutes

FR Fraises BN 60 longues en carbure monobloc, à bout hémisphérique, 2 dents

CN 整体硬质合金 BN 60 系列 球头 立铣刀 2 刃 - 中长

DE VHM lange BN 60 Radiuschaftfräser, 2 Zähne

IT Frese cilindrica a raggio in metallo duro integrale, tipo BN 60 lunghe, 2 taglienti



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP = *+Ødata | Dimension (mm) | | | | | | 790* | A71* |
|---|------------------|------|----|----|-----|---------|-------|-------|
| | D | R | I1 | I2 | L | d2 (h6) | B0819 | B0909 |
| 0100 04 | 1 | 0.5 | 3 | 7 | 75 | 4 | ● | ● |
| 0100 075 06 | 1 | 0.5 | 3 | 7 | 75 | 6 | ● | ● |
| 0150 04 | 1.5 | 0.75 | 3 | 10 | 75 | 4 | ● | ● |
| 0150 075 06 | 1.5 | 0.75 | 3 | 10 | 75 | 6 | ● | ● |
| 0200 04 | 2 | 1 | 4 | 14 | 75 | 4 | ● | ● |
| 0200 075 06 | 2 | 1 | 4 | 14 | 75 | 6 | ● | ● |
| 0250 04 | 2.5 | 1.25 | 4 | 18 | 75 | 4 | ● | ● |
| 0250 075 06 | 2.5 | 1.25 | 4 | 18 | 75 | 6 | ● | ● |
| 0300 | 3 | 1.5 | 5 | 21 | 60 | 3 | ● | ● |
| 0300 075 06 | 3 | 1.5 | 5 | 21 | 75 | 6 | ● | ● |
| 0400 | 4 | 2 | 8 | 28 | 60 | 4 | ● | ● |
| 0400 075 06 | 4 | 2 | 8 | 28 | 75 | 6 | ● | ● |
| 0500 | 5 | 2.5 | 9 | 32 | 60 | 5 | ● | ● |
| 0500 075 06 | 5 | 2.5 | 9 | 32 | 75 | 6 | ● | ● |
| 0600 | 6 | 3 | 10 | 40 | 75 | 6 | ● | ● |
| 0800 | 8 | 4 | 12 | 40 | 75 | 8 | ● | ● |
| 1000 075 | 10 | 5 | 14 | 40 | 75 | 10 | ● | ● |
| 1000 100 | 10 | 5 | 14 | 60 | 100 | 10 | ● | ● |
| 1200 | 12 | 6 | 16 | 60 | 100 | 12 | ● | ● |
| 1400 | 14 | 7 | 32 | 80 | 125 | 14 | ● | ● |
| 1600 | 16 | 8 | 32 | 80 | 125 | 16 | ● | ● |
| 1800 | 18 | 9 | 38 | 80 | 125 | 18 | ● | ● |
| 2000 | 20 | 10 | 38 | 80 | 125 | 20 | ● | ● |

791* A72*

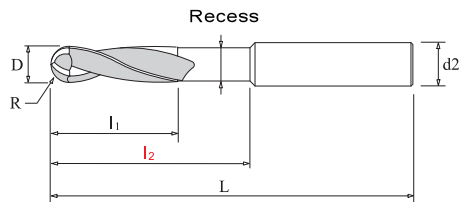
UK Tools with recess upon request

DE Fräser mit Freistellung auf Bestellung

FR Outils avec dégagement sur demande

IT Utensilli con riduzione gambo su richiesta

CN 密齿 立铣刀 带颈位 特别要求



Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material Cutting Parameter

576

352

BN 60 BALLNOSE CUTTERS - LONG

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

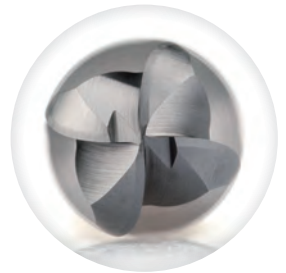
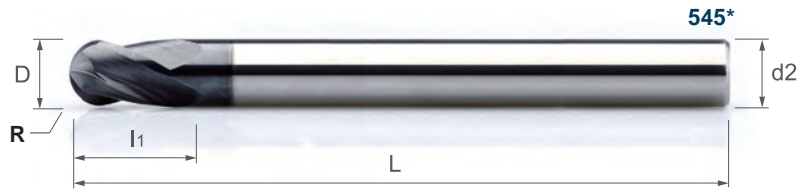
Solid Carbide BN 60 Long Ballnose Cutters, 4 flutes

Fraises BN 60 longues en carbure monobloc, à bout hémisphérique, 4 dents

整体硬质合金 BN 60 系列 球头 立铣刀 4 刃 - 中长

VHM lange BN 60 Radiusschaftfräser, 4 Zähne

Frese cilindrica a raggio in metallo duro integrale, tipo BN 60 lunghe, 4 taglienti



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP = *+Ødata | Dimension (mm) | | | | | | 545* |
|---|------------------|-----|----|----|-----|---------|-------|
| | D | R | I1 | I2 | L | d2 (h6) | B0819 |
| 0300 | 3 | 1.5 | 5 | | 60 | 3 | ○ |
| 0300 075 06 | 3 | 1.5 | 5 | | 75 | 6 | ○ |
| 0400 | 4 | 2 | 8 | | 60 | 4 | ○ |
| 0400 075 06 | 4 | 2 | 8 | | 75 | 6 | ○ |
| 0500 | 5 | 2.5 | 9 | | 60 | 5 | ○ |
| 0500 075 06 | 5 | 2.5 | 9 | | 75 | 6 | ○ |
| 0600 | 6 | 3 | 10 | | 75 | 6 | ○ |
| 0800 | 8 | 4 | 12 | | 75 | 8 | ○ |
| 1000 075 | 10 | 5 | 14 | | 75 | 10 | ○ |
| 1000 100 | 10 | 5 | 14 | | 100 | 10 | ○ |
| 1200 | 12 | 6 | 16 | | 100 | 12 | ○ |
| 1400 | 14 | 7 | 32 | | 125 | 14 | ○ |
| 1600 | 16 | 8 | 32 | | 125 | 16 | ○ |
| 1800 | 18 | 9 | 38 | | 125 | 18 | ○ |
| 2000 | 20 | 10 | 38 | | 125 | 20 | ○ |

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material 576
Cutting Parameter 355



BN 60 BALLNOSE CUTTERS - EXTRA-LONG

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

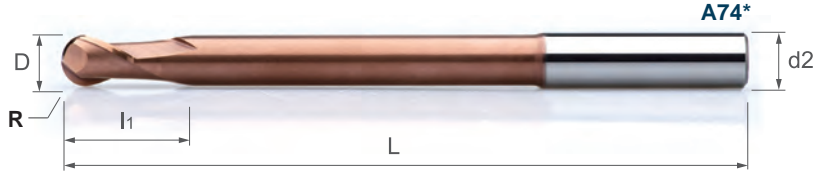
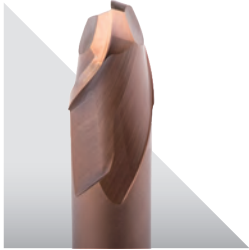
Solid Carbide BN 60 Extra-Long Ballnose Cutters, 2 flutes

Fraises BN 60 extra-longues en carbure monobloc, à bout hémisphérique, 2 dents

整体硬质合金 BN 60 系列 球头 立铣刀 2 刃 - 加长

VHM extra-lange BN 60 Radiuschaftfräser, 2 Zähne

Frese cilindrica a raggio in metallo duro integrale, tipo BN 60 extra-lunghe, 2 taglienti

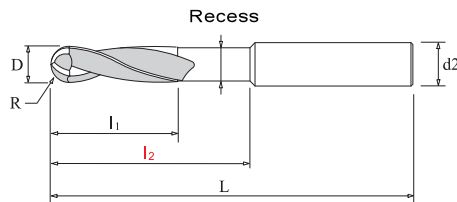


| | | | | | | |
|-----|-----------|------|---------|--------------|--------------|----------------------------|
| | | | | B0819 | B0909 | |
| VHM | R+0/-0.02 | -10° | λ = 30° | HPT | HSC | DIN 6535 HA HB HE |

| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | 797* | A73* |
|--|------------------|------|----|-----|-----|---------|-------|-------|
| | D | R | l1 | l2 | L | d2 (h6) | B0819 | B0909 |
| 0100 04 | 1 | 0.5 | 3 | 10 | 100 | 4 | ● | ● |
| 0100 100 06 | 1 | 0.5 | 3 | 10 | 100 | 6 | ● | ● |
| 0150 04 | 1.5 | 0.75 | 3 | 15 | 100 | 4 | ● | ● |
| 0150 100 06 | 1.5 | 0.75 | 3 | 15 | 100 | 6 | ● | ● |
| 0200 04 | 2 | 1 | 4 | 20 | 100 | 4 | ● | ● |
| 0200 100 06 | 2 | 1 | 4 | 20 | 100 | 6 | ● | ● |
| 0250 04 | 2.5 | 1.25 | 4 | 25 | 100 | 4 | ● | ● |
| 0250 100 06 | 2.5 | 1.25 | 4 | 25 | 100 | 6 | ● | ● |
| 0300 04 | 3 | 1.5 | 5 | 30 | 100 | 4 | ● | ● |
| 0300 100 06 | 3 | 1.5 | 5 | 30 | 100 | 6 | ● | ● |
| 0400 | 4 | 2 | 8 | 40 | 100 | 4 | ● | ● |
| 0400 100 06 | 4 | 2 | 8 | 40 | 100 | 6 | ● | ● |
| 0500 | 5 | 2.5 | 9 | 50 | 100 | 5 | ● | ● |
| 0500 100 06 | 5 | 2.5 | 9 | 50 | 100 | 6 | ● | ● |
| 0600 100 | 6 | 3 | 10 | 60 | 100 | 6 | ● | ● |
| 0600 150 | 6 | 3 | 10 | 60 | 150 | 6 | ● | ● |
| 0800 100 | 8 | 4 | 12 | 60 | 100 | 8 | ● | ● |
| 0800 150 | 8 | 4 | 12 | 80 | 150 | 8 | ● | ● |
| 1000 125 | 10 | 5 | 14 | 85 | 125 | 10 | ● | ● |
| 1000 150 | 10 | 5 | 14 | 100 | 150 | 10 | ● | ● |
| 1200 125 | 12 | 6 | 16 | 85 | 125 | 12 | ● | ● |
| 1200 150 | 12 | 6 | 16 | 110 | 150 | 12 | ● | ● |
| 1400 150 | 14 | 7 | 32 | 110 | 150 | 14 | ● | ● |
| 1400 200 | 14 | 7 | 32 | 150 | 200 | 14 | ● | ● |
| 1600 150 | 16 | 8 | 32 | 110 | 150 | 16 | ● | ● |
| 1600 200 | 16 | 8 | 32 | 150 | 200 | 16 | ● | ● |
| 1800 150 | 18 | 9 | 38 | 110 | 150 | 18 | ● | ● |
| 1800 200 | 18 | 9 | 38 | 150 | 200 | 18 | ● | ● |
| 2000 150 | 20 | 10 | 38 | 110 | 150 | 20 | ● | ● |
| 2000 200 | 20 | 10 | 38 | 150 | 200 | 20 | ● | ● |

911* A74*

- Tools with **recess** upon request
- Fräser mit **Freistellung** auf Bestellung
- Outils avec **dégagement** sur demande
- Utensilli con **riduzione gambo** su richiesta
- 密齿 立铣刀 带颈位 特别要求



Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material Cutting Parameter

576

358

MODIFICHE TECNICHE POSSIBILI SENZA PREAVVISO



BN 60 MINIATURE BALLNOSE CUTTERS

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

Solid Carbide BN 60 Miniature Ballnose Cutters, 2 flutes

Micro-fraises BN 60 en carbure monobloc à bout hémisphérique, 2 dents

整体硬质合金 BN 60 系列 微型球头 立铣刀 2 刃 - 标准长度

VHM BN 60 Radiuskleinstschafffräser, 2 Zähne

Micro-frese cilindriche a raggio in metallo duro integrale, tipo BN60, 2 taglienti



| | | | | | | |
|-----|-----------|-----|---------|--------------|--------------|----------------------------|
| | | | | B0819 | B0909 | |
| VHM | R+0/-0.02 | -5° | λ = 30° | HPT | HSC | DIN 6535 HA HB HE |

| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | 993* | A75* |
|--|------------------|------|-----|----|----|---------|-------|-------|
| | D | R | l1 | l2 | L | d2 (h6) | B0819 | B0909 |
| 0020 03 | 0.2 | 0.1 | 0.4 | | 40 | 3 | ● | ● |
| 0020 04 | 0.2 | 0.1 | 0.4 | | 40 | 4 | ● | ● |
| 0030 03 | 0.3 | 0.15 | 0.6 | | 40 | 3 | ● | ● |
| 0030 04 | 0.3 | 0.15 | 0.6 | | 40 | 4 | ● | ● |
| 0040 03 | 0.4 | 0.2 | 0.8 | | 40 | 3 | ● | ● |
| 0040 04 | 0.4 | 0.2 | 0.8 | | 40 | 4 | ● | ● |
| 0050 03 | 0.5 | 0.25 | 1.2 | | 40 | 3 | ● | ● |
| 0050 04 | 0.5 | 0.25 | 1.2 | | 40 | 4 | ● | ● |
| 0060 03 | 0.6 | 0.3 | 1.4 | | 40 | 3 | ● | ● |
| 0060 04 | 0.6 | 0.3 | 1.4 | | 40 | 4 | ● | ● |
| 0070 03 | 0.7 | 0.35 | 1.6 | | 40 | 3 | ● | ● |
| 0070 04 | 0.7 | 0.35 | 1.6 | | 40 | 4 | ● | ● |
| 0080 03 | 0.8 | 0.4 | 1.8 | | 40 | 3 | ● | ● |
| 0080 04 | 0.8 | 0.4 | 1.8 | | 40 | 4 | ● | ● |
| 0090 03 | 0.9 | 0.45 | 2 | | 40 | 3 | ● | ● |
| 0090 04 | 0.9 | 0.45 | 2 | | 40 | 4 | ● | ● |

| Ø mm | Tol. µm |
|-----------|---------|
| 0.1 ~ 0.7 | 0 / -12 |
| 0.7 ~ 4.0 | 0 / -20 |

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

| | |
|------------------|-------------------|
| Working Material | Cutting Parameter |
| 576 | 361 |

若有技术规格变更, 恕不事先通知



BN 60 MINIATURE BALLNOSE CUTTERS - with Long Neck

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

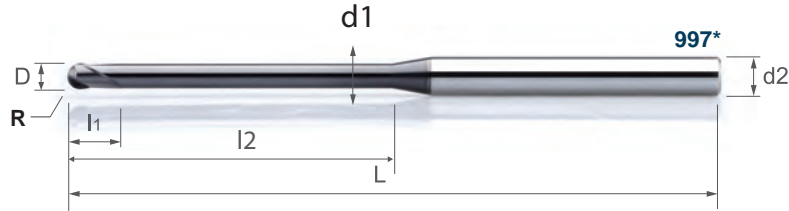
UK Solid Carbide BN 60 Miniature Ballnose Cutters with long neck, 2 flutes

DE VHM Kleinst-Radiusfräser BN 60 mit langem Hals, 2 Zähne

FR Micro-fraises BN 60 en carbure monobloc avec bout hémisphérique et cou long, 2 dents

IT Micro-frese cilindriche BN 60 a raggio con collo lungo, 2 taglienti

CN 整体硬质合金 BN 60 系列 长颈短刃 球头 立铣刀 2 刃



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | | 997* | | A76* | |
|--|------------------|------|-----|------|----|------|---------|-------|-------|-------|-------|
| | D | R | I1 | I2 | L | d1 | d2 (h6) | B0819 | B0909 | B0819 | B0909 |
| 0020 050 0400 005 | 0.2 | 0.10 | 0.2 | 0.5 | 50 | 0.15 | 4 | ● | ● | ● | ● |
| 0020 050 0400 010 | 0.2 | 0.10 | 0.2 | 1.0 | 50 | 0.15 | 4 | ● | ● | ● | ● |
| 0020 050 0400 015 | 0.2 | 0.10 | 0.2 | 1.5 | 50 | 0.15 | 4 | ● | ● | ● | ● |
| 0030 050 0400 010 | 0.3 | 0.15 | 0.3 | 1.0 | 50 | 0.25 | 4 | ● | ● | ● | ● |
| 0030 050 0400 020 | 0.3 | 0.15 | 0.3 | 2.0 | 50 | 0.25 | 4 | ● | ● | ● | ● |
| 0030 050 0400 030 | 0.3 | 0.15 | 0.3 | 3.0 | 50 | 0.25 | 4 | ● | ● | ● | ● |
| 0040 050 0400 010 | 0.4 | 0.20 | 0.4 | 1.0 | 50 | 0.35 | 4 | ● | ● | ● | ● |
| 0040 050 0400 020 | 0.4 | 0.20 | 0.4 | 2.0 | 50 | 0.35 | 4 | ● | ● | ● | ● |
| 0040 050 0400 030 | 0.4 | 0.20 | 0.4 | 3.0 | 50 | 0.35 | 4 | ● | ● | ● | ● |
| 0040 050 0400 040 | 0.4 | 0.20 | 0.4 | 4.0 | 50 | 0.35 | 4 | ● | ● | ● | ● |
| 0040 050 0400 050 | 0.4 | 0.20 | 0.4 | 5.0 | 50 | 0.35 | 4 | ● | ● | ● | ● |
| 0050 050 0400 020 | 0.5 | 0.25 | 0.4 | 2.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0050 050 0400 030 | 0.5 | 0.25 | 0.4 | 3.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0050 050 0400 040 | 0.5 | 0.25 | 0.4 | 4.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0050 050 0400 050 | 0.5 | 0.25 | 0.4 | 5.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0050 050 0400 060 | 0.5 | 0.25 | 0.4 | 6.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0050 050 0400 080 | 0.5 | 0.25 | 0.4 | 8.0 | 50 | 0.45 | 4 | ● | ● | ● | ● |
| 0060 050 0400 020 | 0.6 | 0.30 | 0.5 | 2.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0060 050 0400 030 | 0.6 | 0.30 | 0.5 | 3.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0060 050 0400 040 | 0.6 | 0.30 | 0.5 | 4.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0060 050 0400 050 | 0.6 | 0.30 | 0.5 | 5.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0060 050 0400 060 | 0.6 | 0.30 | 0.5 | 6.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0060 050 0400 080 | 0.6 | 0.30 | 0.5 | 8.0 | 50 | 0.55 | 4 | ● | ● | ● | ● |
| 0080 050 0400 020 | 0.8 | 0.40 | 0.6 | 2.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 040 | 0.8 | 0.40 | 0.6 | 4.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 050 | 0.8 | 0.40 | 0.6 | 5.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 060 | 0.8 | 0.40 | 0.6 | 6.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 070 | 0.8 | 0.40 | 0.6 | 7.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 080 | 0.8 | 0.40 | 0.6 | 8.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0080 050 0400 100 | 0.8 | 0.40 | 0.6 | 10.0 | 50 | 0.75 | 4 | ● | ● | ● | ● |
| 0100 050 0400 030 | 1.0 | 0.50 | 0.8 | 3.0 | 50 | 0.95 | 4 | ● | ● | ● | ● |

cont'd ▶

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

M02 M03 M04 M05 M06 M07 M08 M09 M10 M11 M12 M13 M14 M15 M18 M22 M25 M31 M16 M20 M17 M19 M21 M23 M24 M32
M26 M27 M28 M33 M01 M29 M30

Working Material | Cutting Parameter

576

361

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE



BN 60 MINIATURE BALLNOSE CUTTERS - with Long Neck

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

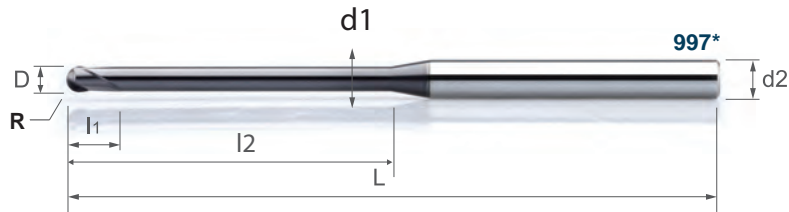
UK Solid Carbide BN 60 Miniature Ballnose Cutters with long neck, 2 flutes

DE VHM Kleinst-Radiusfräser BN 60 mit langem Hals, 2 Zähne

FR Micro-fraises BN 60 en carbure monobloc avec bout hémisphérique et cou long, 2 dents

IT Micro-frese cilindriche BN 60 a raggio con collo lungo, 2 taglienti

CN 整体硬质合金 BN 60 系列 长颈短刃 球头 立铣刀 2 刃



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | | 997* | | A76* | |
|--|------------------|------|-----|------|----|------|---------|-------|-------|-------|-------|
| | D | R | I1 | I2 | L | d1 | d2 (h6) | B0819 | B0909 | B0819 | B0909 |
| 0100 050 0400 040 | 1.0 | 0.50 | 0.8 | 4.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 050 | 1.0 | 0.50 | 0.8 | 5.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 060 | 1.0 | 0.50 | 0.8 | 6.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 070 | 1.0 | 0.50 | 0.8 | 7.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 080 | 1.0 | 0.50 | 0.8 | 8.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 090 | 1.0 | 0.50 | 0.8 | 9.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 100 | 1.0 | 0.50 | 0.8 | 10.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 120 | 1.0 | 0.50 | 0.8 | 12.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 140 | 1.0 | 0.50 | 0.8 | 14.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 050 0400 160 | 1.0 | 0.50 | 0.8 | 14.0 | 50 | 0.95 | 4 | ● | ● | | |
| 0100 060 0400 200 | 1.0 | 0.50 | 0.8 | 20.0 | 60 | 0.95 | 4 | ● | ● | | |
| 0120 050 0400 060 | 1.2 | 0.60 | 1.0 | 6.0 | 50 | 1.15 | 4 | ● | ● | | |
| 0120 050 0400 080 | 1.2 | 0.60 | 1.0 | 8.0 | 50 | 1.15 | 4 | ● | ● | | |
| 0120 050 0400 100 | 1.2 | 0.60 | 1.0 | 10.0 | 50 | 1.15 | 4 | ● | ● | | |
| 0120 050 0400 120 | 1.2 | 0.60 | 1.0 | 12.0 | 50 | 1.15 | 4 | ● | ● | | |
| 0140 050 0400 080 | 1.4 | 0.70 | 1.1 | 8.0 | 50 | 1.35 | 4 | ● | ● | | |
| 0140 050 0400 120 | 1.4 | 0.70 | 1.1 | 12.0 | 50 | 1.35 | 4 | ● | ● | | |
| 0140 050 0400 160 | 1.4 | 0.70 | 1.1 | 16.0 | 50 | 1.35 | 4 | ● | ● | | |
| 0150 050 0400 080 | 1.5 | 0.75 | 1.2 | 8.0 | 50 | 1.45 | 4 | ● | ● | | |
| 0150 050 0400 120 | 1.5 | 0.75 | 1.2 | 12.0 | 50 | 1.45 | 4 | ● | ● | | |
| 0150 050 0400 160 | 1.5 | 0.75 | 1.2 | 16.0 | 50 | 1.45 | 4 | ● | ● | | |
| 0150 060 0400 180 | 1.5 | 0.75 | 1.2 | 18.0 | 60 | 1.45 | 4 | ● | ● | | |
| 0160 050 0400 080 | 1.6 | 0.80 | 1.3 | 8.0 | 50 | 1.55 | 4 | ● | ● | | |
| 0160 050 0400 120 | 1.6 | 0.80 | 1.3 | 12.0 | 50 | 1.55 | 4 | ● | ● | | |
| 0160 050 0400 160 | 1.6 | 0.80 | 1.3 | 16.0 | 50 | 1.55 | 4 | ● | ● | | |
| 0160 060 0400 200 | 1.6 | 0.80 | 1.3 | 20.0 | 60 | 1.55 | 4 | ● | ● | | |
| 0180 050 0400 080 | 1.8 | 0.90 | 1.4 | 8.0 | 50 | 1.75 | 4 | ● | ● | | |
| 0180 050 0400 120 | 1.8 | 0.90 | 1.4 | 12.0 | 50 | 1.75 | 4 | ● | ● | | |
| 0180 050 0400 160 | 1.8 | 0.90 | 1.4 | 16.0 | 50 | 1.75 | 4 | ● | ● | | |
| 0180 060 0400 200 | 1.8 | 0.90 | 1.4 | 20.0 | 60 | 1.75 | 4 | ● | ● | | |
| 0200 050 0400 040 | 2 | 1.00 | 1.6 | 4.0 | 50 | 1.95 | 4 | ● | ● | | |

cont'd ▶

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material | Cutting Parameter

576

361



BN 60 MINIATURE BALLNOSE CUTTERS - with Long Neck

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

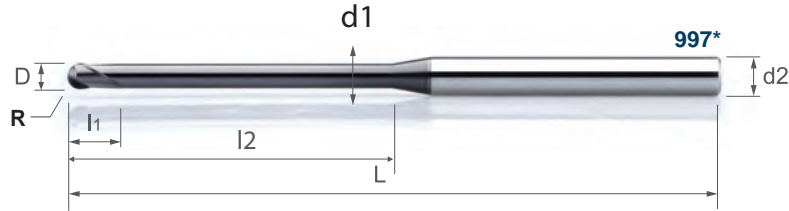
Solid Carbide BN 60 Miniature Ballnose Cutters with long neck, 2 flutes

VHM Kleinst-Radiusfräser BN 60 mit langem Hals, 2 Zähne

Micro-fraises BN 60 en carbure monobloc avec bout hémisphérique et cou long, 2 dents

Micro-frese cilindriche BN 60 a raggio con collo lungo, 2 taglienti

整体硬质合金 BN 60 系列 长颈短刃 球头 立铣刀 2 刃



| | | | | | | | |
|-----|-----------|-----|---------|--------------|--------------|--|----------|
| | | | | B0819 | B0909 | | |
| VHM | R+0/-0.02 | -5° | λ = 30° | HPT | HSC | | DIN 6535 |

| EDPNo./EDV-Nr./ CODEusine/CodiceEDP = *+Ødata | Dimension (mm) | | | | | | | 997* | | A76* | |
|---|----------------|------|-----|------|-----|------|---------|-------|-------|------|--|
| | D | R | I1 | I2 | L | d1 | d2 (h6) | B0819 | B0909 | | |
| 0200 050 0400 060 | 2 | 1.00 | 1.6 | 6.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 050 0400 080 | 2 | 1.00 | 1.6 | 8.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 050 0400 100 | 2 | 1.00 | 1.6 | 10.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 050 0400 120 | 2 | 1.00 | 1.6 | 12.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 050 0400 140 | 2 | 1.00 | 1.6 | 14.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 050 0400 160 | 2 | 1.00 | 1.6 | 16.0 | 50 | 1.95 | 4 | ● | ● | | |
| 0200 060 0400 180 | 2 | 1.00 | 1.6 | 18.0 | 60 | 1.95 | 4 | ● | ● | | |
| 0200 060 0400 200 | 2 | 1.00 | 1.6 | 20.0 | 60 | 1.95 | 4 | ● | ● | | |
| 0200 060 0400 220 | 2 | 1.00 | 1.6 | 22.0 | 60 | 1.95 | 4 | ● | ● | | |
| 0200 075 0400 250 | 2 | 1.00 | 1.6 | 25.0 | 75 | 1.95 | 4 | ● | ● | | |
| 0200 075 0400 300 | 2 | 1.00 | 1.6 | 30.0 | 75 | 1.95 | 4 | ● | ● | | |
| 0300 050 0600 080 | 3 | 1.50 | 2.4 | 8.0 | 50 | 2.85 | 6 | ● | ● | | |
| 0300 050 0600 100 | 3 | 1.50 | 2.4 | 10.0 | 50 | 2.85 | 6 | ● | ● | | |
| 0300 060 0600 160 | 3 | 1.50 | 2.4 | 16.0 | 60 | 2.85 | 6 | ● | ● | | |
| 0300 060 0600 200 | 3 | 1.50 | 2.4 | 20.0 | 60 | 2.85 | 6 | ● | ● | | |
| 0300 075 0600 250 | 3 | 1.50 | 2.4 | 25.0 | 75 | 2.85 | 6 | ● | ● | | |
| 0300 075 0600 300 | 3 | 1.50 | 2.4 | 30.0 | 75 | 2.85 | 6 | ● | ● | | |
| 0300 075 0600 350 | 3 | 1.50 | 2.4 | 35.0 | 75 | 2.85 | 6 | ● | ● | | |
| 0400 050 0600 100 | 4 | 2.00 | 3.2 | 10.0 | 50 | 3.85 | 6 | ● | ● | | |
| 0400 060 0600 160 | 4 | 2.00 | 3.2 | 16.0 | 60 | 3.85 | 6 | ● | ● | | |
| 0400 060 0600 200 | 4 | 2.00 | 3.2 | 20.0 | 60 | 3.85 | 6 | ● | ● | | |
| 0400 075 0600 250 | 4 | 2.00 | 3.2 | 25.0 | 75 | 3.85 | 6 | ● | ● | | |
| 0400 075 0600 300 | 4 | 2.00 | 3.2 | 30.0 | 75 | 3.85 | 6 | ● | ● | | |
| 0400 075 0600 350 | 4 | 2.00 | 3.2 | 35.0 | 75 | 3.85 | 6 | ● | ● | | |
| 0400 100 0600 400 | 4 | 2.00 | 3.2 | 40.0 | 100 | 3.85 | 6 | ● | ● | | |
| 0400 100 0600 450 | 4 | 2.00 | 3.2 | 45.0 | 100 | 3.85 | 6 | ● | ● | | |
| 0400 100 0600 500 | 4 | 2.00 | 3.2 | 50.0 | 100 | 3.85 | 6 | ● | ● | | |

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M02 | M03 | M04 | M05 | M06 | M07 | M08 | M09 | M10 | M11 | M12 | M13 | M14 | M15 | M18 | M22 | M25 | M31 | M16 | M20 | M17 | M19 | M21 | M23 | M24 | M32 |
| M26 | M27 | M28 | M33 | M01 | M29 | M30 | | | | | | | | | | | | | | | | | | | |

Working Material | Cutting Parameter

576

361

BN 60 BALLNOSE CUTTERS - with Taper Neck

≤ 1.600 N/mm² + B0819 / B0909 ≤ 53 - 68 HRC

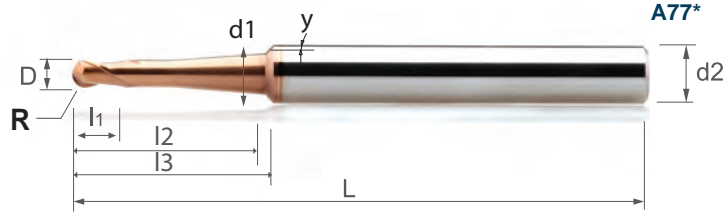
Solid Carbide BN 60 Ballnose Cutters with taper neck, 2 flutes

Fraises à bout hémisphérique BN 60 en carbure monobloc avec cou conique, 2 dents

整体硬质合金 BN 60 系列 锥颈位 球头 立铣刀 2 刃

VHM BN 60 Radiusfräser mit konischem Hals, 2 Zähne

Frese cilindrica BN 60 a raggio in metallo duro integrale con collo conico, 2 taglienti



| EDPNo./EDV-Nr./ CODEusine/CodiceEDP =*+Ødata | Dimension (mm) | | | | | | | | | 984* | A77* |
|--|----------------|------|------|------|-----|-----|---------|------|-------|-------|------|
| | D | R | l1 | l2 | l3 | L | d2 (h6) | y | B0819 | B0909 | |
| 0100 020 06 080 | 1.0 | 0.5 | 1.5 | 4.0 | 20 | 60 | 6 | 8° | ● | ● | |
| 0100 040 06 040 | 1.0 | 0.5 | 1.5 | 4.0 | 40 | 75 | 6 | 4° | ● | ● | |
| 0150 020 06 070 | 1.5 | 0.75 | 2.3 | 7.5 | 20 | 60 | 6 | 7° | ● | ● | |
| 0150 040 06 035 | 1.5 | 0.75 | 2.3 | 7.5 | 40 | 75 | 6 | 3.5° | ● | ● | |
| 0200 020 06 067 | 2.0 | 1 | 3.0 | 8.0 | 20 | 60 | 6 | 6.7° | ● | ● | |
| 0200 040 06 029 | 2.0 | 1 | 3.0 | 8.0 | 40 | 75 | 6 | 2.9° | ● | ● | |
| 0200 040 06 010 | 2.0 | 1 | 3.0 | 8.0 | 40 | 75 | 6 | 1° | ● | ● | |
| 0300 020 06 043 | 3.0 | 1.5 | 3.5 | 10.0 | 20 | 60 | 6 | 4.3° | ● | ● | |
| 0300 040 06 022 | 3.0 | 1.5 | 3.5 | 12.0 | 40 | 75 | 6 | 2.2° | ● | ● | |
| 0300 045 06 010 | 3.0 | 1.5 | 3.5 | 12.0 | 45 | 75 | 6 | 1° | ● | ● | |
| 0400 020 06 029 | 4.0 | 2 | 4.0 | 12.0 | 20 | 60 | 6 | 2.9° | ● | ● | |
| 0400 040 06 014 | 4.0 | 2 | 4.0 | 20.0 | 40 | 75 | 6 | 1.4° | ● | ● | |
| 0400 060 06 010 | 4.0 | 2 | 4.0 | 20.0 | 60 | 100 | 6 | 1° | ● | ● | |
| 0500 040 06 007 | 5.0 | 2.5 | 6.0 | 25.0 | 40 | 75 | 6 | 0.7° | ● | ● | |
| 0600 020 06 000 | 6.0 | 3 | 6.0 | 20.0 | 20 | 60 | 6 | - | ● | ● | |
| 0600 040 06 000 | 6.0 | 3 | 6.0 | 40.0 | 40 | 75 | 6 | - | ● | ● | |
| 0600 060 08 010 | 6.0 | 3 | 6.0 | 25.0 | 60 | 100 | 8 | 1° | ● | ● | |
| 0600 080 08 010 | 6.0 | 3 | 6.0 | 25.0 | 80 | 125 | 8 | 1° | ● | ● | |
| 0800 025 08 000 | 8.0 | 4 | 7.0 | 25.0 | 25 | 64 | 8 | - | ● | ● | |
| 0800 060 08 000 | 8.0 | 4 | 7.0 | 60.0 | 60 | 100 | 8 | - | ● | ● | |
| 0800 075 10 008 | 8.0 | 4 | 7.0 | 30.0 | 75 | 125 | 10 | 0.8° | ● | ● | |
| 0800 105 10 006 | 8.0 | 4 | 7.0 | 20.0 | 105 | 150 | 10 | 0.6° | ● | ● | |
| 1000 030 10 000 | 10.0 | 5 | 8.0 | 30.0 | 30 | 75 | 10 | - | ● | ● | |
| 1000 075 10 000 | 10.0 | 5 | 8.0 | 75.0 | 75 | 125 | 10 | - | ● | ● | |
| 1000 070 12 008 | 10.0 | 5 | 8.0 | 30.0 | 70 | 125 | 12 | 0.8° | ● | ● | |
| 1200 035 12 000 | 12.0 | 6 | 10.0 | 35.0 | 35 | 100 | 12 | - | ● | ● | |
| 1200 070 12 000 | 12.0 | 6 | 10.0 | 70.0 | 70 | 125 | 12 | - | ● | ● | |
| 1200 090 16 013 | 12.0 | 6 | 10.0 | 35.0 | 90 | 150 | 16 | 1.3° | ● | ● | |

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

M02 M03 M04 M05 M06 M07 M08 M09 M10 M11 M12 M13 M14 M15 M18 M22 M25 M31 M16 M20 M17 M19 M21 M23 M24 M32
M26 M27 M28 M33 M01 M29 M30

Working Material | Cutting Parameter