# i-Xmill END MILLS

**XMB110A SERIES**
**XMB120C SERIES**
**XMB260T SERIES**

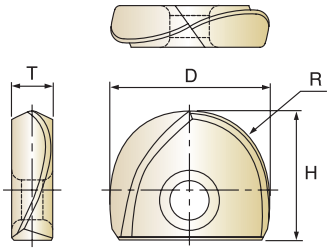
## i-Xmill BALL INSERTS

**i-Xmill WECHSELPLATTE mit RUNDER STIRN**
**i-Xmill - Plaquette hémisphérique**
**i-Xmill Placca emisferica**

- ▶Exchangeable Ball End Mill for economic use
- ▶Three Types of Inserts are available
  - For General Purpose (~HRc50)
  - For Hardened Material (HRc40~HRc65)
  - For Graphite
- ▶Special Geometry and Coating for Excellent Performance

- ▶ Kopierfräser mit Wechselplatte für wirtschaftlichen Einsatz.
- ▶ Drei Typen von Schneideinsätzen lieferbar
  - Für allgemeinen Einsatz (HRc50)
  - Für gehärtete Materialien (HRc40~HRc65)
  - Für graphit
- ▶ Spezielle Geometrie und Beschichtung für höchste Leistu






cutting conditions : p.C60

Recommended ToolHolder — Plain Shank; POWER MILLING CHUCK; ER COLLET CHUCK

Unit : mm

| EDP No. AlTiN | EDP No. XC-Coating | EDP No. Z-Coating | Radius of Ball Nose | Mill Diameter | Height | Thickness |
|---|---|---|---|---|---|---|
| General Purpose | Pre-Hardened Steels | High Hardened Steels | R | D | H | T |
| **XMB110A080** | **XMB120C080** | **XMB260T080** | R4.0 | **8.0** | 8.0 | 2.4 |
| **XMB110A100** | **XMB120C100** | **XMB260T100** | R5.0 | **10.0** | 9.5 | 2.7 |
| **XMB110A110** | **XMB120C110** | **XMB260T110** | R5.5 | **11.0** | 10.0 | 2.7 |
| **XMB110A120** | **XMB120C120** | **XMB260T120** | R6.0 | **12.0** | 11.0 | 3.2 |
| **XMB110A130** | **XMB120C130** | **XMB260T130** | R6.5 | **13.0** | 11.5 | 3.2 |
| **XMB110A160** | **XMB120C160** | **XMB260T160** | R8.0 | **16.0** | 13.0 | 4.2 |
| **XMB110A170** | **XMB120C170** | **XMB260T170** | R8.5 | **17.0** | 13.5 | 4.2 |
| **XMB110A200** | **XMB120C200** | **XMB260T200** | R10.0 | **20.0** | 16.0 | 5.2 |
| **XMB110A210** | **XMB120C210** | **XMB260T210** | R10.5 | **21.0** | 16.5 | 5.2 |
| **XMB110A250** | **XMB120C250** | **XMB260T250** | R12.5 | **25.0** | 19.5 | 6.2 |
| **XMB110A260** | **XMB120C260** | **XMB260T260** | R13.0 | **26.0** | 20.0 | 6.2 |
| **XMB110A300** | **XMB120C300** | **XMB260T300** | R15.0 | **30.0** | 23.5 | 7.2 |
| **XMB110A320** | **XMB120C320** | **XMB260T320** | R16.0 | **32.0** | 24.5 | 7.2 |
| **XMB110A330** | **XMB120C330** | **XMB260T330** | R16.5 | **33.0** | 25.0 | 7.2 |

▶ The ball radius tolerance is ±0.01mm and the set-up accuracy is ±0.02mm.

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| XMB110A | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | | | | | | | | | | | | |
| XMB120C | | | | | | | | | ◎ | ○ | ◎ | | | | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |
| XMB260T | | | | | | | | | | | | | | | | | | | | |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400 Rm | 1050 Rm | 550 | 630 | 400 | 550 |
| XMB110A | | | | | | | | | | | | | | | | | | | | | |
| XMB120C | | | | | | | | | | | | | | | | | | ○ | | | |
| XMB260T | | | | | | | | | | | | | | | | | | ◎ | ◎ | ○ | ◎ |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