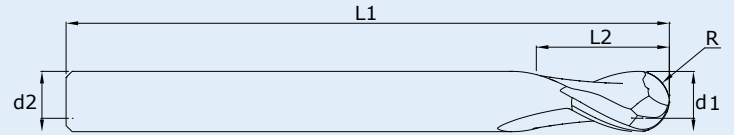


Solid carbide ball nose end mills - Long Hard  
VHM - Radiusfräser - Lange Hart  
Fraises a rayon carbure - Longue Dure  
Karbür Küre Freze - Uzun Sert



| F        | H       | 1000     | R        | 2      | C          | 16           | A       | 50     | N               | 100         |
|----------|---------|----------|----------|--------|------------|--------------|---------|--------|-----------------|-------------|
| END MILL | MG-08   |          | DIN 6528 |        |            |              |         |        | nAco Multilayer |             |
| TYPE     | QUALITY | DIAMETER | NORM     | FLUTES | SHAFT TYPE | FLUTE LENGTH | HELICAL | RADIUS | COATED          | FULL LENGTH |

| d1(e8) | L2 | L1  | d2(h6) | Z | R    | Coated Code        | Price (Euro) |
|--------|----|-----|--------|---|------|--------------------|--------------|
| 3      | 6  | 40  | 3      | 2 | 1,5  | FH0300R2C06A15N040 |              |
| 4      | 8  | 50  | 4      | 2 | 2,0  | FH0400R2C08A20N050 |              |
| 5      | 10 | 50  | 5      | 2 | 2,5  | FH0500R2C10A25N050 |              |
| 6      | 12 | 57  | 6      | 2 | 3,0  | FH0600R2C12A30N057 |              |
| 8      | 14 | 63  | 8      | 2 | 4,0  | FH0800R2C14A40N063 |              |
| 10     | 16 | 72  | 10     | 2 | 5,0  | FH1000R2C16A50N072 |              |
| 12     | 18 | 83  | 12     | 2 | 6,0  | FH1200R2C18A60N083 |              |
| 14     | 19 | 83  | 14     | 2 | 7,0  | FH1400R2C19A70N083 |              |
| 16     | 20 | 92  | 16     | 2 | 8,0  | FH1600R2C20A80N092 |              |
| 18     | 22 | 92  | 18     | 2 | 9,0  | FH1800R2C22A90N092 |              |
| 20     | 24 | 104 | 20     | 2 | 10,0 | FH2000R2C24A10N104 |              |
|        |    |     |        |   |      |                    |              |
| 3      | 6  | 65  | 3      | 2 | 1,5  | FH0300R2C06A15N065 |              |
| 4      | 8  | 65  | 4      | 2 | 2,0  | FH0400R2C08A20N065 |              |
| 5      | 10 | 80  | 5      | 2 | 2,5  | FH0500R2C10A25N080 |              |
| 6      | 12 | 80  | 6      | 2 | 3,0  | FH0600R2C12A30N080 |              |
| 8      | 14 | 88  | 8      | 2 | 4,0  | FH0800R2C14A40N088 |              |
| 10     | 16 | 100 | 10     | 2 | 5,0  | FH1000R2C16A50N100 |              |
| 12     | 18 | 100 | 12     | 2 | 6,0  | FH1200R2C18A60N100 |              |
| 16     | 20 | 100 | 16     | 2 | 8,0  | FH1600R2C20A80N100 |              |
|        |    |     |        |   |      |                    |              |
| 3      | 6  | 100 | 3      | 2 | 1,5  | FH0300R2C06A15N100 |              |
| 4      | 8  | 100 | 4      | 2 | 2,0  | FH0400R2C08A20N100 |              |
| 5      | 10 | 100 | 5      | 2 | 2,5  | FH0500R2C10A25N100 |              |
| 6      | 12 | 100 | 6      | 2 | 3,0  | FH0600R2C12A30N100 |              |
| 8      | 14 | 100 | 8      | 2 | 4,0  | FH0800R2C14A40N100 |              |
| 10     | 16 | 130 | 10     | 2 | 5,0  | FH1000R2C16A50N130 |              |
| 12     | 18 | 130 | 12     | 2 | 6,0  | FH1200R2C18A60N130 |              |
| 14     | 19 | 130 | 14     | 2 | 7,0  | FH1400R2C19A70N130 |              |
| 16     | 20 | 130 | 16     | 2 | 8,0  | FH1600R2C20A80N130 |              |

|                           |     |     |      |                                  |       |       |                            |       |       |                            |       |       |                            |       |        |                            |       |        |                            |       |        |                            |       |       |                            |  |  |
|---------------------------|-----|-----|------|----------------------------------|-------|-------|----------------------------|-------|-------|----------------------------|-------|-------|----------------------------|-------|--------|----------------------------|-------|--------|----------------------------|-------|--------|----------------------------|-------|-------|----------------------------|--|--|
|                           |     |     |      | <b>HRC<br/>20-30</b>             |       |       | <b>HRC<br/>30-40</b>       |       |       | <b>INOX</b>                |       |       | <b>GG</b>                  |       |        | <b>AL</b>                  |       |        | <b>CU</b>                  |       |        | <b>TITAN</b>               |       |       | <b>&lt; 52 HRC</b>         |  |  |
|                           |     |     |      | 1.0050-2<br>1.0060-2<br>1.0070-2 |       |       | 1.5864<br>1.6580<br>1.7225 |       |       | 1.4405<br>1.4460<br>1.4505 |       |       | 0.6035<br>0.7080<br>0.8055 |       |        | 3.2151<br>3.2373<br>3.2382 |       |        | 2.1247<br>2.0580<br>2.0598 |       |        | 3.7035<br>3.7055<br>3.7065 |       |       | 1.3255<br>1.3265<br>1.3333 |  |  |
| $V_c = 160 \text{ m/dk.}$ |     |     |      | $V_c = 140 \text{ m/dk.}$        |       |       | $V_c = 90 \text{ m/dk.}$   |       |       | $V_c = 240 \text{ m/dk.}$  |       |       | $V_c = 480 \text{ m/dk.}$  |       |        | $V_c = 300 \text{ m/dk.}$  |       |        | $V_c = 90 \text{ m/dk.}$   |       |        | $V_c = 90 \text{ m/dk.}$   |       |       |                            |  |  |
| d1                        | de  | ap  | ae   | fz                               | n     | Vf    | fz                         | n     | Vf    | fz                         | n     | Vf    | fz                         | n     | Vf     | fz                         | n     | Vf     | fz                         | n     | Vf     | fz                         | n     | Vf    |                            |  |  |
| 3                         | 1,8 | 0,3 | 0,50 | 0,026                            | 28308 | 750xZ | 0,026                      | 24770 | 650xZ | 0,028                      | 15923 | 450xZ | 0,035                      | 42463 | 1500xZ | 0,050                      | 60000 | 3000xZ | 0,038                      | 53000 | 2000xZ | 0,025                      | 15923 | 400xZ |                            |  |  |
| 4                         | 2,8 | 0,4 | 0,55 | 0,042                            | 17693 | 750xZ | 0,042                      | 15481 | 650xZ | 0,045                      | 9951  | 450xZ | 0,057                      | 26539 | 1500xZ | 0,056                      | 53078 | 3000xZ | 0,060                      | 33170 | 2000xZ | 0,040                      | 9952  | 400xZ |                            |  |  |
| 5                         | 3,0 | 0,5 | 0,83 | 0,044                            | 16985 | 750xZ | 0,044                      | 14862 | 650xZ | 0,047                      | 9554  | 450xZ | 0,059                      | 25478 | 1500xZ | 0,059                      | 50955 | 3000xZ | 0,063                      | 31845 | 2000xZ | 0,042                      | 9554  | 400xZ |                            |  |  |
| 6                         | 3,6 | 0,6 | 1,00 | 0,053                            | 14154 | 750xZ | 0,053                      | 12385 | 650xZ | 0,056                      | 7962  | 450xZ | 0,071                      | 21231 | 1500xZ | 0,071                      | 42463 | 3000xZ | 0,075                      | 26535 | 2000xZ | 0,050                      | 7962  | 400xZ |                            |  |  |
| 8                         | 4,8 | 0,8 | 1,33 | 0,071                            | 10616 | 750xZ | 0,070                      | 9288  | 650xZ | 0,075                      | 5971  | 450xZ | 0,094                      | 15923 | 1500xZ | 0,094                      | 31847 | 3000xZ | 0,101                      | 19900 | 2000xZ | 0,067                      | 5971  | 400xZ |                            |  |  |
| 10                        | 6,0 | 1,0 | 1,66 | 0,088                            | 8492  | 750xZ | 0,088                      | 7431  | 650xZ | 0,094                      | 4777  | 450xZ | 0,118                      | 12739 | 1500xZ | 0,118                      | 25478 | 3000xZ | 0,126                      | 15923 | 2000xZ | 0,084                      | 4777  | 400xZ |                            |  |  |
| 12                        | 7,2 | 1,2 | 2,00 | 0,106                            | 7077  | 750xZ | 0,105                      | 6192  | 650xZ | 0,113                      | 3981  | 450xZ | 0,141                      | 10616 | 1500xZ | 0,141                      | 21231 | 3000xZ | 0,151                      | 13270 | 2000xZ | 0,101                      | 3981  | 400xZ |                            |  |  |
| 14                        | 8,4 | 1,4 | 2,33 | 0,124                            | 6066  | 750xZ | 0,120                      | 5308  | 650xZ | 0,132                      | 3412  | 450xZ | 0,165                      | 9099  | 1500xZ | 0,165                      | 18198 | 3000xZ | 0,176                      | 11370 | 2000xZ | 0,117                      | 3412  | 400xZ |                            |  |  |
| 16                        | 9,6 | 1,6 | 2,66 | 0,141                            | 5308  | 750xZ | 0,140                      | 4644  | 650xZ | 0,151                      | 2986  | 450xZ | 0,188                      | 7962  | 1500xZ | 0,180                      | 15923 | 3000xZ | 0,201                      | 9952  | 2000xZ | 0,134                      | 2986  | 400xZ |                            |  |  |