

**CARBIDE, NC MACHINE REAMERS - LH SPIRAL FLUTES**

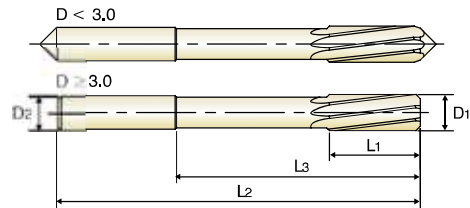
**Germany VHM, NC-MASCHINENREIBAHLEN - SPIRALGENÜTET mit LINKSDRALL**

**France ALÉSOIRS CARBURE MACHINE CN - HÉLICE À GAUCHE**

**Italy ALESATORI A MACCHINA IN MD - ELICA SINISTRA**

- ▶ Material - Up to Ø12.0 : Solid Carbide  
- Over Ø12.0 : Carbide Head Brazed
- ▶ Left Spiral Flutes, Right Hand Cut
- ▶ Unequal Flute Spacing
- ▶ O.D. Tolerances : DIN 1420 for H7
- ▶ Shank : DIN 6535-HA
- ▶ Chamfer Angle - D < 3.0 : 15°  
- D ≥ 3.0 : 45°

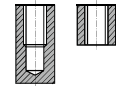
- ▶ Material - bis Ø12,0 : VHM  
- über Ø12,0 : gelötete VHM-Köpfe
- ▶ linksspiralig, rechtsschneidend
- ▶ Ungleichteilung
- ▶ Ø Toleranzen : DIN 1420 für H7
- ▶ Schaft : DIN 6535-HA
- ▶ Anschnittwinkel - bis Ø3,0 : 15°  
- über Ø3,0 : 45°



MG
H7
LH7°
15°
45°
P.1532

D < 3.0
D ≥ 3.0

**Hole type**



Unit : mm

| EDP No.    | Nominal SIZE | Shank Diameter |    | Cutting Length |     | Overall Length |  | No. of Flutes |
|------------|--------------|----------------|----|----------------|-----|----------------|--|---------------|
|            | D1           | D2             | L1 | L3             | L2  |                |  |               |
| K411100200 | 2.0          | 4              | 11 | 20             | 50  | 4              |  |               |
| K411100250 | 2.5          | 4              | 14 | 26             | 57  | 4              |  |               |
| K411100300 | 3.0          | 4              | 15 | 31             | 61  | 6              |  |               |
| K411100350 | 3.5          | 4              | 18 | 36             | 70  | 6              |  |               |
| K411100400 | 4.0          | 4              | 19 | 42             | 75  | 6              |  |               |
| K411100450 | 4.5          | 6              | 21 | 46             | 80  | 6              |  |               |
| K411100500 | 5.0          | 6              | 23 | 51             | 86  | 6              |  |               |
| K411100550 | 5.5          | 6              | 26 | 56             | 93  | 6              |  |               |
| K411100600 | 6.0          | 6              | 26 | 56             | 93  | 6              |  |               |
| K411100650 | 6.5          | 8              | 28 | 62             | 101 | 6              |  |               |
| K411100700 | 7.0          | 8              | 31 | 68             | 109 | 6              |  |               |
| K411100750 | 7.5          | 8              | 31 | 68             | 109 | 6              |  |               |
| K411100800 | 8.0          | 8              | 33 | 74             | 117 | 6              |  |               |
| K411100850 | 8.5          | 10             | 33 | 74             | 117 | 6              |  |               |
| K411100900 | 9.0          | 10             | 36 | 80             | 125 | 6              |  |               |
| K411100950 | 9.5          | 10             | 36 | 80             | 125 | 6              |  |               |
| K411101000 | 10.0         | 10             | 38 | 86             | 133 | 6              |  |               |
| K411101050 | 10.5         | 12             | 38 | 86             | 133 | 6              |  |               |
| K411101100 | 11.0         | 12             | 41 | 95             | 142 | 6              |  |               |
| K411101200 | 12.0         | 12             | 44 | 104            | 151 | 6              |  |               |
| K411101300 | 13.0         | 16             | 44 | 104            | 151 | 6              |  |               |
| K411101400 | 14.0         | 16             | 47 | 108            | 160 | 8              |  |               |
| K411101500 | 15.0         | 16             | 50 | 110            | 162 | 8              |  |               |
| K411101600 | 16.0         | 16             | 52 | 118            | 170 | 8              |  |               |
| K411101700 | 17.0         | 20             | 54 | 121            | 175 | 8              |  |               |
| K411101800 | 18.0         | 20             | 56 | 128            | 182 | 8              |  |               |
| K411101900 | 19.0         | 20             | 58 | 129            | 189 | 8              |  |               |
| K411102000 | 20.0         | 20             | 60 | 135            | 195 | 8              |  |               |

CARBIDE, NC MACHINE REAMER  
VHM, NC-MASCHINENREIBAHLEN

| Material                               | Cutting Speed<br>(m/min.) | Feed(mm/rev.) |           |           |           |           |
|--|---------------------------|---------------|-----------|-----------|-----------|-----------|
|  |                           | Up to Ø4      | Ø4 ~ Ø8   | Ø8 ~ Ø12  | Ø12 ~ Ø16 | Ø16 ~ Ø20 |
| Structural and Low carbon steel        | 15~18                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| Carbon Steels < 500N/mm <sup>2</sup>   | 15~18                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| Alloy Steels 500-1000N/mm <sup>2</sup> | 12~14                     | 0.08~0.10     | 0.10~0.16 | 0.16~0.20 | 0.20~0.25 | 0.25~0.30 |
| Hardened Steels ~ HRc40                | 10~12                     | 0.08~0.10     | 0.10~0.16 | 0.16~0.20 | 0.20~0.25 | 0.25~0.30 |
| Cast Iron < 200HB                      | 15~20                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| > 200HB                                | 12~15                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| Aluminium and Al-alloys                | 20~30                     | 0.12~0.16     | 0.16~0.25 | 0.25~0.30 | 0.30~0.40 | 0.40~0.50 |
| Magnesium alloys                       | 20~30                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| Copper, Brass                          | 20~25                     | 0.10~0.12     | 0.12~0.20 | 0.20~0.25 | 0.25~0.30 | 0.30~0.40 |
| Stainless Steels                       | 6~8                       | 0.08~0.10     | 0.10~0.16 | 0.16~0.20 | 0.20~0.25 | 0.25~0.30 |
| Plastics                               | 15~20                     | 0.12~0.16     | 0.16~0.25 | 0.25~0.30 | 0.30~0.40 | 0.40~0.50 |

REAMING ALLOWANCE  
REIB-ZUGABE

| Size Range     | Up to Ø6  | Ø6 ~ Ø10  | Ø10 ~ Ø16 | Ø16 ~ Ø25 | Over Ø25  |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Removal Amount | 0.1 ~ 0.2 | 0.2 ~ 0.3 | 0.2 ~ 0.4 | 0.3 ~ 0.5 | 0.3 ~ 0.6 |

\* For machine reaming  
\* Unit : mm