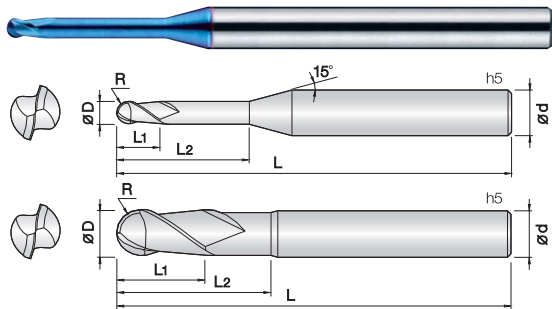


2HRBE Fraise Hémisphérique 2 Coupes pour Rainurage

Fresa Sferica 2 Tagli Scaricata per Nervature



- Fresa per un'ampia gamma di materiali (~HRc56), acciai al carbonio, acciai da stampi, acciai bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Geometria sviluppata per vari tipi di impiego.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRc.**
- *Excellent contre l'usure rapide grâce au revêtement à base de Si.*
- *Tolérance élevée des arêtes de coupe.*
- *Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.*



| d | Tolleranza/Tolérance |
|----------|----------------------|
| ø0.2 ~ 5 | +0 ~ -0.01 mm |
| ø6 ~ 12 | -0.005 ~ -0.015 mm |

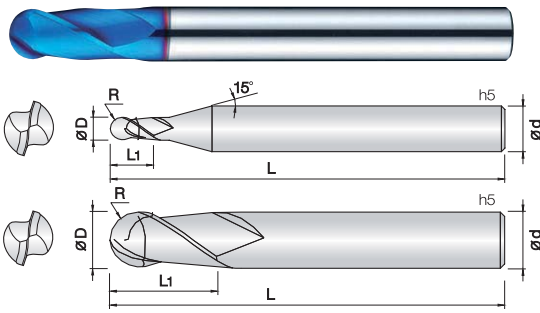
| Numero d'Ordine Reference | R x D | L1 | L2 | L | d | Numero d'Ordine Reference | R x D | L1 | L2 | L | d |
|------------------------------|-------------|-----|-----|----|---|------------------------------|-------------|-----|----|----|---|
| 2HRBE 002 005 S04 | 0.1R X 0.2 | 0.2 | 0.5 | 40 | 4 | 2HRBE 009 060 S04 | 0.45R X 0.9 | 0.9 | 6 | 45 | 4 |
| 2HRBE 002 010 S04 | 0.1R X 0.2 | 0.2 | 1 | 40 | 4 | 2HRBE 009 080 S04 | 0.45R X 0.9 | 0.9 | 8 | 45 | 4 |
| 2HRBE 002 015 S04 | 0.1R X 0.2 | 0.2 | 1.5 | 40 | 4 | 2HRBE 009 100 S04 | 0.45R X 0.9 | 0.9 | 10 | 50 | 4 |
| 2HRBE 002 020 S04 | 0.1R X 0.2 | 0.2 | 2 | 40 | 4 | 2HRBE 010 020 S04 | 0.5R X 1 | 1 | 2 | 45 | 4 |
| 2HRBE 003 010 S04 | 0.15R X 0.3 | 0.3 | 1 | 40 | 4 | 2HRBE 010 030 S04 | 0.5R X 1 | 1 | 3 | 45 | 4 |
| 2HRBE 003 015 S04 | 0.15R X 0.3 | 0.3 | 1.5 | 40 | 4 | 2HRBE 010 040 S04 | 0.5R X 1 | 1 | 4 | 45 | 4 |
| 2HRBE 003 020 S04 | 0.15R X 0.3 | 0.3 | 2 | 40 | 4 | 2HRBE 010 050 S04 | 0.5R X 1 | 1 | 5 | 45 | 4 |
| 2HRBE 003 030 S04 | 0.15R X 0.3 | 0.3 | 3 | 40 | 4 | 2HRBE 010 060 S04 | 0.5R X 1 | 1 | 6 | 45 | 4 |
| 2HRBE 003 040 S04 | 0.15R X 0.3 | 0.3 | 4 | 40 | 4 | 2HRBE 010 080 S04 | 0.5R X 1 | 1 | 8 | 45 | 4 |
| 2HRBE 004 010 S04 | 0.2R X 0.4 | 0.4 | 1 | 40 | 4 | 2HRBE 010 100 S04 | 0.5R X 1 | 1 | 10 | 50 | 4 |
| 2HRBE 004 020 S04 | 0.2R X 0.4 | 0.4 | 2 | 40 | 4 | 2HRBE 010 120 S04 | 0.5R X 1 | 1 | 12 | 50 | 4 |
| 2HRBE 004 030 S04 | 0.2R X 0.4 | 0.4 | 3 | 40 | 4 | 2HRBE 010 140 S04 | 0.5R X 1 | 1 | 14 | 50 | 4 |
| 2HRBE 004 040 S04 | 0.2R X 0.4 | 0.4 | 4 | 40 | 4 | 2HRBE 010 160 S04 | 0.5R X 1 | 1 | 16 | 50 | 4 |
| 2HRBE 004 050 S04 | 0.2R X 0.4 | 0.4 | 5 | 40 | 4 | 2HRBE 010 180 S04 | 0.5R X 1 | 1 | 18 | 50 | 4 |
| 2HRBE 004 060 S04 | 0.2R X 0.4 | 0.4 | 6 | 40 | 4 | 2HRBE 010 200 S04 | 0.5R X 1 | 1 | 20 | 50 | 4 |
| 2HRBE 004 080 S04 | 0.2R X 0.4 | 0.4 | 8 | 40 | 4 | 2HRBE 010 220 S04 | 0.5R X 1 | 1 | 22 | 60 | 4 |
| 2HRBE 005 010 S04 | 0.25R X 0.5 | 0.5 | 1 | 45 | 4 | 2HRBE 010 250 S04 | 0.5R X 1 | 1 | 25 | 60 | 4 |
| 2HRBE 005 020 S04 | 0.25R X 0.5 | 0.5 | 2 | 45 | 4 | 2HRBE 012 040 S04 | 0.6R X 1.2 | 1.2 | 4 | 45 | 4 |
| 2HRBE 005 030 S04 | 0.25R X 0.5 | 0.5 | 3 | 45 | 4 | 2HRBE 012 060 S04 | 0.6R X 1.2 | 1.2 | 6 | 45 | 4 |
| 2HRBE 005 040 S04 | 0.25R X 0.5 | 0.5 | 4 | 45 | 4 | 2HRBE 012 080 S04 | 0.6R X 1.2 | 1.2 | 8 | 45 | 4 |
| 2HRBE 005 050 S04 | 0.25R X 0.5 | 0.5 | 5 | 45 | 4 | 2HRBE 012 100 S04 | 0.6R X 1.2 | 1.2 | 10 | 50 | 4 |
| 2HRBE 005 060 S04 | 0.25R X 0.5 | 0.5 | 6 | 45 | 4 | 2HRBE 012 120 S04 | 0.6R X 1.2 | 1.2 | 12 | 50 | 4 |
| 2HRBE 005 080 S04 | 0.25R X 0.5 | 0.5 | 8 | 45 | 4 | 2HRBE 012 160 S04 | 0.6R X 1.2 | 1.2 | 16 | 50 | 4 |
| 2HRBE 005 100 S04 | 0.25R X 0.5 | 0.5 | 10 | 45 | 4 | 2HRBE 012 200 S04 | 0.6R X 1.2 | 1.2 | 20 | 50 | 4 |
| 2HRBE 005 120 S04 | 0.25R X 0.5 | 0.5 | 12 | 45 | 4 | 2HRBE 012 240 S04 | 0.6R X 1.2 | 1.2 | 24 | 60 | 4 |
| 2HRBE 006 010 S04 | 0.3R X 0.6 | 0.6 | 1 | 45 | 4 | 2HRBE 014 060 S04 | 0.7R X 1.4 | 1.4 | 6 | 45 | 4 |
| 2HRBE 006 020 S04 | 0.3R X 0.6 | 0.6 | 2 | 45 | 4 | 2HRBE 014 080 S04 | 0.7R X 1.4 | 1.4 | 8 | 45 | 4 |
| 2HRBE 006 030 S04 | 0.3R X 0.6 | 0.6 | 3 | 45 | 4 | 2HRBE 014 120 S04 | 0.7R X 1.4 | 1.4 | 12 | 50 | 4 |
| 2HRBE 006 040 S04 | 0.3R X 0.6 | 0.6 | 4 | 45 | 4 | 2HRBE 014 160 S04 | 0.7R X 1.4 | 1.4 | 16 | 50 | 4 |
| 2HRBE 006 050 S04 | 0.3R X 0.6 | 0.6 | 5 | 45 | 4 | 2HRBE 015 030 S04 | 0.75R X 1.5 | 1.5 | 3 | 45 | 4 |
| 2HRBE 006 060 S04 | 0.3R X 0.6 | 0.6 | 6 | 45 | 4 | 2HRBE 015 040 S04 | 0.75R X 1.5 | 1.5 | 4 | 45 | 4 |
| 2HRBE 006 080 S04 | 0.3R X 0.6 | 0.6 | 8 | 45 | 4 | 2HRBE 015 060 S04 | 0.75R X 1.5 | 1.5 | 6 | 45 | 4 |
| 2HRBE 006 100 S04 | 0.3R X 0.6 | 0.6 | 10 | 45 | 4 | 2HRBE 015 080 S04 | 0.75R X 1.5 | 1.5 | 8 | 45 | 4 |
| 2HRBE 006 120 S04 | 0.3R X 0.6 | 0.6 | 12 | 45 | 4 | 2HRBE 015 100 S04 | 0.75R X 1.5 | 1.5 | 10 | 50 | 4 |
| 2HRBE 006 140 S04 | 0.3R X 0.6 | 0.6 | 14 | 45 | 4 | 2HRBE 015 120 S04 | 0.75R X 1.5 | 1.5 | 12 | 50 | 4 |
| 2HRBE 007 020 S04 | 0.35R X 0.7 | 0.7 | 2 | 45 | 4 | 2HRBE 015 140 S04 | 0.75R X 1.5 | 1.5 | 14 | 50 | 4 |
| 2HRBE 007 040 S04 | 0.35R X 0.7 | 0.7 | 4 | 45 | 4 | 2HRBE 015 160 S04 | 0.75R X 1.5 | 1.5 | 16 | 50 | 4 |
| 2HRBE 007 060 S04 | 0.35R X 0.7 | 0.7 | 6 | 45 | 4 | 2HRBE 015 180 S04 | 0.75R X 1.5 | 1.5 | 18 | 50 | 4 |
| 2HRBE 007 080 S04 | 0.35R X 0.7 | 0.7 | 8 | 45 | 4 | 2HRBE 015 200 S04 | 0.75R X 1.5 | 1.5 | 20 | 50 | 4 |
| 2HRBE 007 100 S04 | 0.35R X 0.7 | 0.7 | 10 | 45 | 4 | 2HRBE 015 220 S04 | 0.75R X 1.5 | 1.5 | 22 | 60 | 4 |
| 2HRBE 007 120 S04 | 0.35R X 0.7 | 0.7 | 12 | 45 | 4 | 2HRBE 015 250 S04 | 0.75R X 1.5 | 1.5 | 25 | 60 | 4 |
| 2HRBE 008 020 S04 | 0.4R X 0.8 | 0.8 | 2 | 45 | 4 | 2HRBE 015 300 S04 | 0.75R X 1.5 | 1.5 | 30 | 70 | 4 |
| 2HRBE 008 030 S04 | 0.4R X 0.8 | 0.8 | 3 | 45 | 4 | 2HRBE 016 060 S04 | 0.8R X 1.6 | 1.6 | 6 | 45 | 4 |
| 2HRBE 008 040 S04 | 0.4R X 0.8 | 0.8 | 4 | 45 | 4 | 2HRBE 016 080 S04 | 0.8R X 1.6 | 1.6 | 8 | 45 | 4 |
| 2HRBE 008 050 S04 | 0.4R X 0.8 | 0.8 | 5 | 45 | 4 | 2HRBE 016 120 S04 | 0.8R X 1.6 | 1.6 | 12 | 50 | 4 |
| 2HRBE 008 060 S04 | 0.4R X 0.8 | 0.8 | 6 | 45 | 4 | 2HRBE 016 160 S04 | 0.8R X 1.6 | 1.6 | 16 | 50 | 4 |
| 2HRBE 008 080 S04 | 0.4R X 0.8 | 0.8 | 8 | 45 | 4 | 2HRBE 016 200 S04 | 0.8R X 1.6 | 1.6 | 20 | 50 | 4 |
| 2HRBE 008 100 S04 | 0.4R X 0.8 | 0.8 | 10 | 45 | 4 | 2HRBE 018 060 S04 | 0.9R X 1.8 | 1.8 | 6 | 45 | 4 |
| 2HRBE 008 120 S04 | 0.4R X 0.8 | 0.8 | 12 | 45 | 4 | 2HRBE 018 080 S04 | 0.9R X 1.8 | 1.8 | 8 | 45 | 4 |
| 2HRBE 009 040 S04 | 0.45R X 0.9 | 0.9 | 4 | 45 | 4 | 2HRBE 018 120 S04 | 0.9R X 1.8 | 1.8 | 12 | 50 | 4 |

Unità: mm

| Numero d'Ordine Reference | R x D | L1 | L2 | L | d | Numero d'Ordine Reference | R x D | L1 | L2 | L | d |
|------------------------------|-------------|-----|----|----|---|------------------------------|---------|----|----|----|----|
| 2HRBE 018 160 S04 | 0.9R X 1.8 | 1.8 | 16 | 50 | 4 | 2HRBE 100 300 070 | 5R X 10 | 16 | 30 | 70 | 10 |
| 2HRBE 018 200 S04 | 0.9R X 1.8 | 1.8 | 20 | 50 | 4 | 2HRBE 120 300 075 | 6R X 12 | 18 | 30 | 75 | 12 |
| 2HRBE 020 040 S04 | 1R X 2 | 2 | 4 | 45 | 4 | | | | | | |
| 2HRBE 020 060 S04 | 1R X 2 | 2 | 6 | 45 | 4 | | | | | | |
| 2HRBE 020 080 S04 | 1R X 2 | 2 | 8 | 45 | 4 | | | | | | |
| 2HRBE 020 100 S04 | 1R X 2 | 2 | 10 | 50 | 4 | | | | | | |
| 2HRBE 020 120 S04 | 1R X 2 | 2 | 12 | 50 | 4 | | | | | | |
| 2HRBE 020 140 S04 | 1R X 2 | 2 | 14 | 50 | 4 | | | | | | |
| 2HRBE 020 160 S04 | 1R X 2 | 2 | 16 | 50 | 4 | | | | | | |
| 2HRBE 020 180 S04 | 1R X 2 | 2 | 18 | 50 | 4 | | | | | | |
| 2HRBE 020 200 S04 | 1R X 2 | 2 | 20 | 50 | 4 | | | | | | |
| 2HRBE 020 220 S04 | 1R X 2 | 2 | 22 | 60 | 4 | | | | | | |
| 2HRBE 020 250 S04 | 1R X 2 | 2 | 25 | 60 | 4 | | | | | | |
| 2HRBE 020 300 S04 | 1R X 2 | 2 | 30 | 60 | 4 | | | | | | |
| 2HRBE 025 080 S04 | 1.25R X 2.5 | 2.5 | 8 | 45 | 4 | | | | | | |
| 2HRBE 025 100 S04 | 1.25R X 2.5 | 2.5 | 10 | 50 | 4 | | | | | | |
| 2HRBE 025 120 S04 | 1.25R X 2.5 | 2.5 | 12 | 50 | 4 | | | | | | |
| 2HRBE 025 160 S04 | 1.25R X 2.5 | 2.5 | 16 | 50 | 4 | | | | | | |
| 2HRBE 025 200 S04 | 1.25R X 2.5 | 2.5 | 20 | 60 | 4 | | | | | | |
| 2HRBE 025 250 S04 | 1.25R X 2.5 | 2.5 | 25 | 60 | 4 | | | | | | |
| 2HRBE 025 300 S04 | 1.25R X 2.5 | 2.5 | 30 | 70 | 4 | | | | | | |
| 2HRBE 030 060 S06 | 1.5R X 3 | 3 | 6 | 50 | 6 | | | | | | |
| 2HRBE 030 080 S06 | 1.5R X 3 | 3 | 8 | 50 | 6 | | | | | | |
| 2HRBE 030 100 S06 | 1.5R X 3 | 3 | 10 | 50 | 6 | | | | | | |
| 2HRBE 030 120 S06 | 1.5R X 3 | 3 | 12 | 50 | 6 | | | | | | |
| 2HRBE 030 160 S06 | 1.5R X 3 | 3 | 16 | 60 | 6 | | | | | | |
| 2HRBE 030 200 S06 | 1.5R X 3 | 3 | 20 | 60 | 6 | | | | | | |
| 2HRBE 030 250 S06 | 1.5R X 3 | 3 | 25 | 65 | 6 | | | | | | |
| 2HRBE 030 300 S06 | 1.5R X 3 | 3 | 30 | 70 | 6 | | | | | | |
| 2HRBE 030 350 S06 | 1.5R X 3 | 3 | 35 | 75 | 6 | | | | | | |
| 2HRBE 030 400 S06 | 1.5R X 3 | 3 | 40 | 80 | 6 | | | | | | |
| 2HRBE 030 450 S06 | 1.5R X 3 | 3 | 45 | 90 | 6 | | | | | | |
| 2HRBE 040 080 S06 | 2R X 4 | 4 | 8 | 50 | 6 | | | | | | |
| 2HRBE 040 100 S06 | 2R X 4 | 4 | 10 | 50 | 6 | | | | | | |
| 2HRBE 040 120 S06 | 2R X 4 | 4 | 12 | 50 | 6 | | | | | | |
| 2HRBE 040 160 S06 | 2R X 4 | 4 | 16 | 60 | 6 | | | | | | |
| 2HRBE 040 200 S06 | 2R X 4 | 4 | 20 | 60 | 6 | | | | | | |
| 2HRBE 040 250 S06 | 2R X 4 | 4 | 25 | 65 | 6 | | | | | | |
| 2HRBE 040 300 S06 | 2R X 4 | 4 | 30 | 70 | 6 | | | | | | |
| 2HRBE 040 350 S06 | 2R X 4 | 4 | 35 | 75 | 6 | | | | | | |
| 2HRBE 040 400 S06 | 2R X 4 | 4 | 40 | 80 | 6 | | | | | | |
| 2HRBE 040 450 S06 | 2R X 4 | 4 | 45 | 90 | 6 | | | | | | |
| 2HRBE 050 160 S06 | 2.5R X 5 | 6 | 16 | 60 | 6 | | | | | | |
| 2HRBE 050 200 S06 | 2.5R X 5 | 6 | 20 | 60 | 6 | | | | | | |
| 2HRBE 050 250 S06 | 2.5R X 5 | 6 | 25 | 70 | 6 | | | | | | |
| 2HRBE 050 300 S06 | 2.5R X 5 | 6 | 30 | 75 | 6 | | | | | | |
| 2HRBE 050 400 S06 | 2.5R X 5 | 6 | 40 | 80 | 6 | | | | | | |
| 2HRBE 050 500 S06 | 2.5R X 5 | 6 | 50 | 90 | 6 | | | | | | |
| 2HRBE 060 150 S06 | 3R X 6 | 10 | 15 | 55 | 6 | | | | | | |
| 2HRBE 080 250 060 | 4R X 8 | 12 | 25 | 60 | 8 | | | | | | |

2HCBE *Fraise Hémisphérique 2 Coupes Serie Standard pour Ebauche*

Fresa Sferica 2 Tagli per Lavorazione Gravosa



- Fresa per un'ampia gamma di materiali (~HRc56), acciai al carbonio, acciai da stampi, acciai bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Geometria sviluppata per vari tipi di impiego.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRc.**
- Excellent contre l'usure rapide grâce au revêtement à base de Si.
- Tolérance élevée des arêtes de coupe.
- Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.

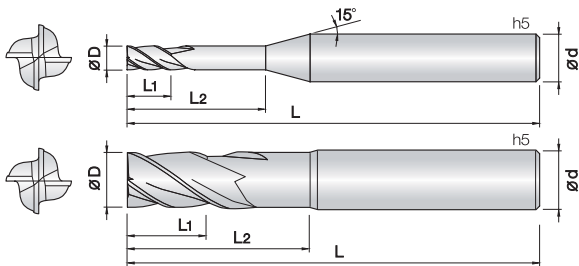


List. p.98

| d | Tolleranza/Tolérance |
|-----------|----------------------|
| ø 0.2 ~ 5 | +0 ~ -0.01 mm |
| ø 6 ~ 12 | -0.005 ~ -0.015 mm |
| ø 16 | -0.01 ~ -0.02 mm |

Unità: mm

| Numero d'Ordine Reference | R x D | L1 | L | d | Numero d'Ordine Reference | R x D | L1 | L | d |
|------------------------------|-------------|-----|-----|----|------------------------------|-------|----|---|---|
| 2HCBE 002 004 S04 | 0.1R X 0.2 | 0.4 | 40 | 4 | | | | | |
| 2HCBE 003 006 S04 | 0.15R X 0.3 | 0.6 | 40 | 4 | | | | | |
| 2HCBE 004 008 S04 | 0.2R X 0.4 | 0.8 | 40 | 4 | | | | | |
| 2HCBE 005 010 S04 | 0.25R X 0.5 | 1 | 45 | 4 | | | | | |
| 2HCBE 006 012 S04 | 0.3R X 0.6 | 1.2 | 45 | 4 | | | | | |
| 2HCBE 007 014 S04 | 0.35R X 0.7 | 1.4 | 45 | 4 | | | | | |
| 2HCBE 008 016 S04 | 0.4R X 0.8 | 1.6 | 45 | 4 | | | | | |
| 2HCBE 009 018 S04 | 0.45R X 0.9 | 1.8 | 45 | 4 | | | | | |
| 2HCBE 010 025 S04 | 0.5R X 1 | 2.5 | 50 | 4 | | | | | |
| 2HCBE 010 025 S06 | 0.5R X 1 | 2.5 | 50 | 6 | | | | | |
| 2HCBE 012 030 S04 | 0.6R X 1.2 | 3 | 50 | 4 | | | | | |
| 2HCBE 015 040 S04 | 0.75R X 1.5 | 4 | 50 | 4 | | | | | |
| 2HCBE 015 040 S06 | 0.75R X 1.5 | 4 | 50 | 6 | | | | | |
| 2HCBE 020 050 S04 | 1R X 2 | 5 | 50 | 4 | | | | | |
| 2HCBE 020 050 S06 | 1R X 2 | 5 | 50 | 6 | | | | | |
| 2HCBE 025 050 S04 | 1.25R X 2.5 | 5 | 50 | 4 | | | | | |
| 2HCBE 025 050 S06 | 1.25R X 2.5 | 5 | 50 | 6 | | | | | |
| 2HCBE 030 060 S04 | 1.5R X 3 | 6 | 50 | 4 | | | | | |
| 2HCBE 030 060 S06 | 1.5R X 3 | 6 | 50 | 6 | | | | | |
| 2HCBE 030 060 060 | 1.5R X 3 | 6 | 60 | 6 | | | | | |
| 2HCBE 040 080 S04 | 2R X 4 | 8 | 50 | 4 | | | | | |
| 2HCBE 040 080 080 | 2R X 4 | 8 | 80 | 4 | | | | | |
| 2HCBE 040 080 S06 | 2R X 4 | 8 | 50 | 6 | | | | | |
| 2HCBE 040 080 070 | 2R X 4 | 8 | 70 | 6 | | | | | |
| 2HCBE 050 100 S06 | 2.5R X 5 | 10 | 50 | 6 | | | | | |
| 2HCBE 050 120 S06 | 2.5R X 5 | 12 | 80 | 6 | | | | | |
| 2HCBE 060 100 050 | 3R X 6 | 10 | 50 | 6 | | | | | |
| 2HCBE 060 100 060 | 3R X 6 | 10 | 60 | 6 | | | | | |
| 2HCBE 060 120 080 | 3R X 6 | 12 | 80 | 6 | | | | | |
| 2HCBE 060 120 100 | 3R X 6 | 12 | 100 | 6 | | | | | |
| 2HCBE 080 120 060 | 4R X 8 | 12 | 60 | 8 | | | | | |
| 2HCBE 080 140 080 | 4R X 8 | 14 | 80 | 8 | | | | | |
| 2HCBE 080 140 100 | 4R X 8 | 14 | 100 | 8 | | | | | |
| 2HCBE 100 150 075 | 5R X 10 | 15 | 75 | 10 | | | | | |
| 2HCBE 100 180 100 | 5R X 10 | 18 | 100 | 10 | | | | | |
| 2HCBE 120 180 080 | 6R X 12 | 18 | 80 | 12 | | | | | |
| 2HCBE 120 220 110 | 6R X 12 | 22 | 110 | 12 | | | | | |
| 2HCBE 160 300 110 | 8R X 16 | 30 | 110 | 16 | | | | | |



- Fresa per un'ampia gamma di materiali (~HRC56), leghe a base Ti/Ni, acciai inossidabili, inconel, acciai legati, bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Riduzione delle vibrazioni grazie all'elica asimmetrica.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRC.**
- Excellent contre l'usure rapide grâce au revêtement à base de Si.
- Reduction des vibrations
- Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.

4

WC
미립자

BLUE
Coating

D
+0 -0.01

D
-0.01 -0.025

D
-0.015 -0.03

42°
Helix Angle

Rinforzato

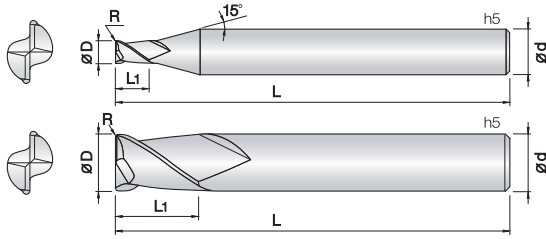
€

ø1~ø5 ø6~ø12 ø16~ø20 List. p.100

| d | Tolleranza/Tolérance |
|----------|----------------------|
| ø1 ~ 5 | +0 ~ -0.01 mm |
| ø6 ~ 12 | -0.01 ~ -0.025 mm |
| ø16 ~ 20 | -0.015 ~ -0.03 mm |

Unità: mm

| Numero d'Ordine Reference | D | L1 | L2 | L | d | Numero d'Ordine Reference | D | L1 | L2 | L | d |
|------------------------------|-----|-----|----|-----|----|------------------------------|---|----|----|---|---|
| 4NSE 010 025 S04 | 1 | 2.5 | - | 45 | 4 | | | | | | |
| 4NSE 010 040 S04 | 1 | 2.5 | 4 | 45 | 4 | | | | | | |
| 4NSE 012 030 S04 | 1.2 | 3 | - | 45 | 4 | | | | | | |
| 4NSE 012 050 S04 | 1.2 | 3 | 5 | 45 | 4 | | | | | | |
| 4NSE 015 040 S04 | 1.5 | 4 | - | 45 | 4 | | | | | | |
| 4NSE 015 060 S04 | 1.5 | 4 | 6 | 45 | 4 | | | | | | |
| 4NSE 020 060 S04 | 2 | 6 | - | 45 | 4 | | | | | | |
| 4NSE 020 100 S04 | 2 | 6 | 10 | 45 | 4 | | | | | | |
| 4NSE 025 070 S04 | 2.5 | 7 | - | 45 | 4 | | | | | | |
| 4NSE 025 100 S04 | 2.5 | 7 | 10 | 45 | 4 | | | | | | |
| 4NSE 030 080 S06 | 3 | 8 | - | 50 | 6 | | | | | | |
| 4NSE 030 100 S06 | 3 | 10 | - | 50 | 6 | | | | | | |
| 4NSE 030 120 S06 | 3 | 8 | 12 | 50 | 6 | | | | | | |
| 4NSE 040 100 S06 | 4 | 10 | - | 50 | 6 | | | | | | |
| 4NSE 040 120 S06 | 4 | 12 | - | 50 | 6 | | | | | | |
| 4NSE 040 160 S06 | 4 | 10 | 16 | 50 | 6 | | | | | | |
| 4NSE 050 120 S06 | 5 | 12 | - | 55 | 6 | | | | | | |
| 4NSE 050 160 S06 | 5 | 16 | - | 55 | 6 | | | | | | |
| 4NSE 050 200 S06 | 5 | 12 | 20 | 55 | 6 | | | | | | |
| 4NSE 060 130 S06 | 6 | 13 | - | 55 | 6 | | | | | | |
| 4NSE 060 180 S06 | 6 | 18 | - | 55 | 6 | | | | | | |
| 4NSE 060 210 S05 | 6 | 13 | 21 | 55 | 6 | | | | | | |
| 4NSE 080 200 S08 | 8 | 20 | - | 60 | 8 | | | | | | |
| 4NSE 080 250 S08 | 8 | 25 | - | 70 | 8 | | | | | | |
| 4NSE 080 270 S07 | 8 | 20 | 27 | 70 | 8 | | | | | | |
| 4NSE 100 220 S10 | 10 | 22 | - | 70 | 10 | | | | | | |
| 4NSE 100 300 S10 | 10 | 30 | - | 75 | 10 | | | | | | |
| 4NSE 100 320 S07 | 10 | 22 | 32 | 75 | 10 | | | | | | |
| 4NSE 120 260 S12 | 12 | 26 | - | 75 | 12 | | | | | | |
| 4NSE 120 300 S12 | 12 | 30 | - | 80 | 12 | | | | | | |
| 4NSE 120 380 S08 | 12 | 26 | 38 | 80 | 12 | | | | | | |
| 4NSE 140 320 S09 | 14 | 32 | - | 90 | 14 | | | | | | |
| 4NSE 160 450 S16 | 16 | 35 | 45 | 90 | 16 | | | | | | |
| 4NSE 200 520 S20 | 20 | 40 | 52 | 100 | 20 | | | | | | |



- Fresa per un'ampia gamma di materiali (~HRc56), acciai al carbonio, acciai da stampi, acciai bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Geometria sviluppata per vari tipi di impiego.
- Ampia gamma di raggi e lunghezze per soddisfare varie applicazioni.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRc.**
- Excellent contre l'usure rapide grâce au revêtement à base de Si.
- Prévu pour réduire l'usure.
- Différents rayons et longueurs pour satisfaire plusieurs applications.
- Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.



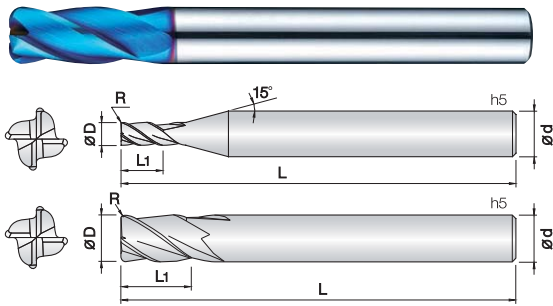
| d | Tolleranza/Tolérance |
|---------|----------------------|
| Ø1 ~ 5 | +0 ~ -0.01mm |
| Ø6 ~ 12 | -0.005 ~ -0.015mm |

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Unità: mm

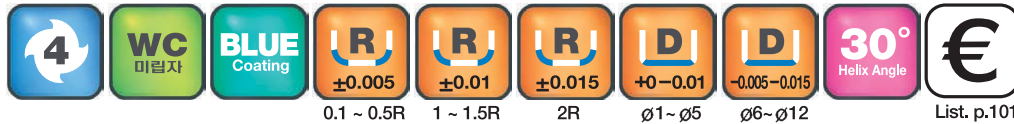
| Numero d'Ordine Reference | D x R | L1 | L | d | Numero d'Ordine Reference | D x R | L1 | L | d |
|------------------------------|------------|----|-----|----|------------------------------|---------|----|-----|----|
| 2NCRE 010 001 S04 | 1 X R0.1 | 3 | 50 | 4 | 2NCRE 120 010 110 | 12 X R1 | 26 | 110 | 12 |
| 2NCRE 010 002 S04 | 1 X R0.2 | 3 | 50 | 4 | 2NCRE 120 020 110 | 12 X R2 | 26 | 110 | 12 |
| 2NCRE 010 003 S04 | 1 X R0.3 | 3 | 50 | 4 | | | | | |
| New 2NCRE 012 001 S04 | 1.2 X R0.1 | 4 | 50 | 4 | | | | | |
| New 2NCRE 012 002 S04 | 1.2 X R0.2 | 4 | 50 | 4 | | | | | |
| New 2NCRE 012 003 S04 | 1.2 X R0.3 | 4 | 50 | 4 | | | | | |
| 2NCRE 015 001 S04 | 1.5 X R0.1 | 4 | 50 | 4 | | | | | |
| 2NCRE 015 002 S04 | 1.5 X R0.2 | 4 | 50 | 4 | | | | | |
| 2NCRE 015 003 S04 | 1.5 X R0.3 | 4 | 50 | 4 | | | | | |
| 2NCRE 015 005 S04 | 1.5 X R0.5 | 4 | 50 | 4 | | | | | |
| 2NCRE 020 001 S04 | 2 X R0.1 | 6 | 50 | 4 | | | | | |
| 2NCRE 020 002 S04 | 2 X R0.2 | 6 | 50 | 4 | | | | | |
| 2NCRE 020 003 S04 | 2 X R0.3 | 6 | 50 | 4 | | | | | |
| 2NCRE 020 005 S04 | 2 X R0.5 | 6 | 50 | 4 | | | | | |
| 2NCRE 025 001 S04 | 2.5 X R0.1 | 6 | 50 | 4 | | | | | |
| 2NCRE 025 002 S04 | 2.5 X R0.2 | 6 | 50 | 4 | | | | | |
| 2NCRE 025 003 S04 | 2.5 X R0.3 | 6 | 50 | 4 | | | | | |
| 2NCRE 025 005 S04 | 2.5 X R0.5 | 6 | 50 | 4 | | | | | |
| 2NCRE 030 001 S06 | 3 X R0.1 | 8 | 60 | 6 | | | | | |
| 2NCRE 030 002 S06 | 3 X R0.2 | 8 | 60 | 6 | | | | | |
| 2NCRE 030 003 S06 | 3 X R0.3 | 8 | 60 | 6 | | | | | |
| 2NCRE 030 005 S06 | 3 X R0.5 | 8 | 60 | 6 | | | | | |
| 2NCRE 030 010 S06 | 3 X R1 | 8 | 60 | 6 | | | | | |
| 2NCRE 040 001 S04 | 4 X R0.1 | 10 | 50 | 4 | | | | | |
| 2NCRE 040 001 S06 | 4 X R0.1 | 10 | 70 | 6 | | | | | |
| 2NCRE 040 002 S04 | 4 X R0.2 | 10 | 50 | 4 | | | | | |
| 2NCRE 040 002 S06 | 4 X R0.2 | 10 | 70 | 6 | | | | | |
| 2NCRE 040 003 S04 | 4 X R0.3 | 10 | 50 | 4 | | | | | |
| 2NCRE 040 003 S06 | 4 X R0.3 | 10 | 70 | 6 | | | | | |
| 2NCRE 040 005 S04 | 4 X R0.5 | 10 | 50 | 4 | | | | | |
| 2NCRE 040 005 S06 | 4 X R0.5 | 10 | 70 | 6 | | | | | |
| 2NCRE 040 010 S04 | 4 X R1 | 10 | 50 | 4 | | | | | |
| 2NCRE 040 010 S06 | 4 X R1 | 10 | 70 | 6 | | | | | |
| 2NCRE 050 001 S06 | 5 X R0.1 | 13 | 75 | 6 | | | | | |
| 2NCRE 050 002 S06 | 5 X R0.2 | 13 | 75 | 6 | | | | | |
| 2NCRE 050 003 S06 | 5 X R0.3 | 13 | 75 | 6 | | | | | |
| 2NCRE 050 005 S06 | 5 X R0.5 | 13 | 75 | 6 | | | | | |
| 2NCRE 050 010 S06 | 5 X R1 | 13 | 75 | 6 | | | | | |
| 2NCRE 060 002 080 | 6 X R0.2 | 13 | 80 | 6 | | | | | |
| 2NCRE 060 003 080 | 6 X R0.3 | 13 | 80 | 6 | | | | | |
| 2NCRE 060 005 080 | 6 X R0.5 | 13 | 80 | 6 | | | | | |
| 2NCRE 060 010 080 | 6 X R1 | 13 | 80 | 6 | | | | | |
| 2NCRE 080 003 090 | 8 X R0.3 | 19 | 90 | 8 | | | | | |
| 2NCRE 080 005 090 | 8 X R0.5 | 19 | 90 | 8 | | | | | |
| 2NCRE 080 010 090 | 8 X R1 | 19 | 90 | 8 | | | | | |
| 2NCRE 100 003 100 | 10 X R0.3 | 22 | 100 | 10 | | | | | |
| 2NCRE 100 005 100 | 10 X R0.5 | 22 | 100 | 10 | | | | | |
| 2NCRE 100 010 100 | 10 X R1 | 22 | 100 | 10 | | | | | |
| 2NCRE 120 003 110 | 12 X R0.3 | 26 | 110 | 12 | | | | | |
| 2NCRE 120 005 110 | 12 X R0.5 | 26 | 110 | 12 | | | | | |

4NCRE *Fraise Torique 4 Coupes Standard pour Ebauche* *Fresa Torica 4 Tagli per Lavorazione Gravosa*



- Fresa per un'ampia gamma di materiali (~HRc56), acciai al carbonio, acciai da stampi, acciai bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Geometria sviluppata per vari tipi di impiego.
- Ampia gamma di raggi e lunghezze per soddisfare varie applicazioni.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRc.**
- Excellent contre l'usure rapide grâce au revêtement à base de Si.
- Prévu pour réduire l'usure.
- Différents rayons et longueurs pour satisfaire plusieurs applications.
- Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.

E series

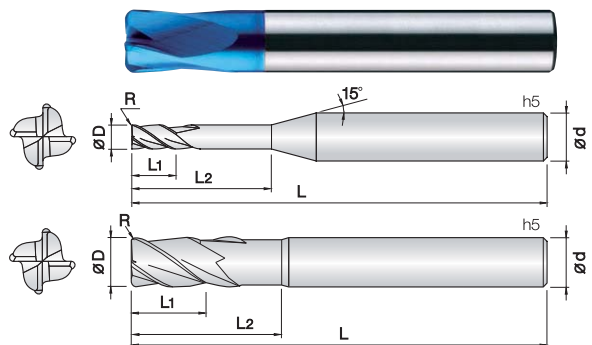


| d | Tolleranza/Tolérance |
|---------|----------------------|
| ø1 ~ 5 | +0 ~ -0.01mm |
| ø6 ~ 12 | -0.005 ~ -0.015mm |

List. p.101

Unità: mm

| Numero d'Ordine Reference | D x R | L1 | L | d | Numero d'Ordine Reference | D x R | L1 | L | d |
|------------------------------|------------|----|----|---|------------------------------|-----------|----|-----|----|
| 4NCRE 010 001 S04 | 1 X R0.1 | 3 | 50 | 4 | 4NCRE 050 002 S06 | 5 X R0.2 | 10 | 50 | 6 |
| 4NCRE 010 002 S04 | 1 X R0.2 | 3 | 50 | 4 | 4NCRE 050 002 075 | 5 X R0.2 | 13 | 75 | 6 |
| 4NCRE 010 003 S04 | 1 X R0.3 | 3 | 50 | 4 | 4NCRE 050 003 S06 | 5 X R0.3 | 10 | 50 | 6 |
| New 4NCRE 012 001 S04 | 1.2 X R0.1 | 4 | 50 | 4 | 4NCRE 050 003 075 | 5 X R0.3 | 13 | 75 | 6 |
| New 4NCRE 012 002 S04 | 1.2 X R0.2 | 4 | 50 | 4 | 4NCRE 050 005 S06 | 5 X R0.5 | 10 | 50 | 6 |
| New 4NCRE 012 003 S04 | 1.2 X R0.3 | 4 | 50 | 4 | 4NCRE 050 005 075 | 5 X R0.5 | 13 | 75 | 6 |
| 4NCRE 015 001 S04 | 1.5 X R0.1 | 4 | 50 | 4 | 4NCRE 050 010 S06 | 5 X R1 | 10 | 50 | 6 |
| 4NCRE 015 002 S04 | 1.5 X R0.2 | 4 | 50 | 4 | 4NCRE 050 010 075 | 5 X R1 | 13 | 75 | 6 |
| 4NCRE 015 003 S04 | 1.5 X R0.3 | 4 | 50 | 4 | 4NCRE 060 001 050 | 6 X R0.1 | 10 | 50 | 6 |
| 4NCRE 015 005 S04 | 1.5 X R0.5 | 4 | 50 | 4 | 4NCRE 060 001 080 | 6 X R0.1 | 13 | 80 | 6 |
| 4NCRE 020 001 S04 | 2 X R0.1 | 6 | 50 | 4 | 4NCRE 060 002 050 | 6 X R0.2 | 10 | 50 | 6 |
| 4NCRE 020 002 S04 | 2 X R0.2 | 6 | 50 | 4 | 4NCRE 060 002 080 | 6 X R0.2 | 13 | 80 | 6 |
| 4NCRE 020 003 S04 | 2 X R0.3 | 6 | 50 | 4 | 4NCRE 060 003 050 | 6 X R0.3 | 10 | 50 | 6 |
| 4NCRE 020 005 S04 | 2 X R0.5 | 6 | 50 | 4 | 4NCRE 060 003 080 | 6 X R0.3 | 13 | 80 | 6 |
| 4NCRE 025 001 S04 | 2.5 X R0.1 | 6 | 50 | 4 | 4NCRE 060 005 050 | 6 X R0.5 | 10 | 50 | 6 |
| 4NCRE 025 002 S04 | 2.5 X R0.2 | 6 | 50 | 4 | 4NCRE 060 005 080 | 6 X R0.5 | 13 | 80 | 6 |
| 4NCRE 025 003 S04 | 2.5 X R0.3 | 6 | 50 | 4 | 4NCRE 060 010 050 | 6 X R1 | 10 | 50 | 6 |
| 4NCRE 025 005 S04 | 2.5 X R0.5 | 6 | 50 | 4 | 4NCRE 060 010 080 | 6 X R1 | 13 | 80 | 6 |
| 4NCRE 030 001 S04 | 3 X R0.1 | 8 | 50 | 4 | 4NCRE 080 002 060 | 8 X R0.2 | 16 | 60 | 8 |
| 4NCRE 030 001 S06 | 3 X R0.1 | 8 | 50 | 6 | 4NCRE 080 002 090 | 8 X R0.2 | 19 | 90 | 8 |
| 4NCRE 030 001 060 | 3 X R0.1 | 8 | 60 | 6 | 4NCRE 080 003 060 | 8 X R0.3 | 16 | 60 | 8 |
| 4NCRE 030 002 S04 | 3 X R0.2 | 8 | 50 | 4 | 4NCRE 080 003 090 | 8 X R0.3 | 19 | 90 | 8 |
| 4NCRE 030 002 S06 | 3 X R0.2 | 8 | 50 | 6 | 4NCRE 080 005 060 | 8 X R0.5 | 16 | 60 | 8 |
| 4NCRE 030 002 060 | 3 X R0.2 | 8 | 60 | 6 | 4NCRE 080 005 090 | 8 X R0.5 | 19 | 90 | 8 |
| 4NCRE 030 003 S04 | 3 X R0.3 | 8 | 50 | 4 | 4NCRE 080 010 060 | 8 X R1 | 16 | 60 | 8 |
| 4NCRE 030 003 S06 | 3 X R0.3 | 8 | 50 | 6 | 4NCRE 080 010 090 | 8 X R1 | 19 | 90 | 8 |
| 4NCRE 030 003 060 | 3 X R0.3 | 8 | 60 | 6 | 4NCRE 080 020 060 | 8 X R2 | 16 | 60 | 8 |
| 4NCRE 030 005 S04 | 3 X R0.5 | 8 | 50 | 4 | 4NCRE 080 020 090 | 8 X R2 | 19 | 90 | 8 |
| 4NCRE 030 005 S06 | 3 X R0.5 | 8 | 50 | 6 | 4NCRE 100 002 075 | 10 X R0.2 | 18 | 75 | 10 |
| 4NCRE 030 005 060 | 3 X R0.5 | 8 | 60 | 6 | 4NCRE 100 002 100 | 10 X R0.2 | 22 | 100 | 10 |
| 4NCRE 030 010 S04 | 3 X R1 | 8 | 50 | 4 | 4NCRE 100 003 075 | 10 X R0.3 | 18 | 75 | 10 |
| 4NCRE 030 010 S06 | 3 X R1 | 8 | 50 | 6 | 4NCRE 100 003 100 | 10 X R0.3 | 22 | 100 | 10 |
| 4NCRE 030 010 060 | 3 X R1 | 8 | 60 | 6 | 4NCRE 100 005 075 | 10 X R0.5 | 18 | 75 | 10 |
| 4NCRE 040 001 S04 | 4 X R0.1 | 10 | 50 | 4 | 4NCRE 100 005 100 | 10 X R0.5 | 22 | 100 | 10 |
| 4NCRE 040 001 S06 | 4 X R0.1 | 10 | 50 | 6 | 4NCRE 100 010 075 | 10 X R1 | 18 | 75 | 10 |
| 4NCRE 040 001 070 | 4 X R0.1 | 10 | 70 | 6 | 4NCRE 100 010 100 | 10 X R1 | 22 | 100 | 10 |
| 4NCRE 040 002 S04 | 4 X R0.2 | 10 | 50 | 4 | 4NCRE 100 020 075 | 10 X R2 | 18 | 75 | 10 |
| 4NCRE 040 002 S06 | 4 X R0.2 | 10 | 50 | 6 | 4NCRE 100 020 100 | 10 X R2 | 22 | 100 | 10 |
| 4NCRE 040 002 070 | 4 X R0.2 | 10 | 70 | 6 | 4NCRE 120 002 075 | 12 X R0.2 | 22 | 75 | 12 |
| 4NCRE 040 003 S04 | 4 X R0.3 | 10 | 50 | 4 | 4NCRE 120 002 110 | 12 X R0.2 | 26 | 110 | 12 |
| 4NCRE 040 003 S06 | 4 X R0.3 | 10 | 50 | 6 | 4NCRE 120 003 075 | 12 X R0.3 | 22 | 75 | 12 |
| 4NCRE 040 003 070 | 4 X R0.3 | 10 | 70 | 6 | 4NCRE 120 003 110 | 12 X R0.3 | 26 | 110 | 12 |
| 4NCRE 040 005 S04 | 4 X R0.5 | 10 | 50 | 4 | 4NCRE 120 005 075 | 12 X R0.5 | 22 | 75 | 12 |
| 4NCRE 040 005 S06 | 4 X R0.5 | 10 | 50 | 6 | 4NCRE 120 005 110 | 12 X R0.5 | 26 | 110 | 12 |
| 4NCRE 040 005 070 | 4 X R0.5 | 10 | 70 | 6 | 4NCRE 120 010 075 | 12 X R1 | 22 | 75 | 12 |
| 4NCRE 040 010 S04 | 4 X R1 | 10 | 50 | 4 | 4NCRE 120 010 110 | 12 X R1 | 26 | 110 | 12 |
| 4NCRE 040 010 S06 | 4 X R1 | 10 | 50 | 6 | 4NCRE 120 020 075 | 12 X R2 | 22 | 75 | 12 |
| 4NCRE 040 010 070 | 4 X R1 | 10 | 70 | 6 | 4NCRE 120 020 110 | 12 X R2 | 26 | 110 | 12 |
| 4NCRE 050 001 S06 | 5 X R0.1 | 10 | 50 | 6 | | | | | |
| 4NCRE 050 001 075 | 5 X R0.1 | 13 | 75 | 6 | | | | | |



- Fresa per un'ampia gamma di materiali (~HRc56), acciai al carbonio, acciai da stampi, acciai bonificati.
- Buona resistenza all'usura grazie al rivestimento a base Si.
- Geometria sviluppata per vari tipi di impiego.
- Ampia gamma di raggi e lunghezze per soddisfare varie applicazioni.
- Riduzione di scheggiature grazie all'elevata resistenza alla rottura trasversale (TRS) e della micrograna impiegata (0,5 µm).
- **Fraise pour aciers doux, alliés et trempés jusqu'à 56HRc.**
- Excellent contre l'usure rapide grâce au revêtement à base de Si.
- Prèvu pour réduire l'usure.
- Différents rayons et longueurs pour satisfaire plusieurs applications.
- Prévention de l'usure de l'arête de coupe grâce à l'haute TRS et au carbure micrograin 0,5 µm.



| d | Tolleranza/Tolérance |
|---------|----------------------|
| Ø1 ~ 5 | +0 ~ -0.01 mm |
| Ø6 ~ 12 | -0.005 ~ -0.015 mm |

0.2 ~ 0.5R

1 ~ 1.5R

2 ~ 3R

Ø1 ~ Ø5

Ø6 ~ Ø12

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Unità: mm

| Numero d'Ordine Reference | D x R | L1 | L2 | L | d | Numero d'Ordine Reference | R x D | L1 | L2 | L | d |
|------------------------------|------------|------|-----|-----|----|------------------------------|-------|----|----|---|---|
| 4RCUE 010 002 025 | 1 X R0.2 | 0.75 | 2.5 | 50 | 4 | | | | | | |
| 4RCUE 015 005 040 | 1.5 X R0.5 | 1.2 | 4 | 50 | 4 | | | | | | |
| 4RCUE 020 005 060 | 2 X R0.5 | 1.5 | 6 | 50 | 6 | | | | | | |
| 4RCUE 030 005 080 | 3 X R0.5 | 2.3 | 8 | 50 | 6 | | | | | | |
| 4RCUE 040 005 120 | 4 X R0.5 | 3 | 12 | 60 | 6 | | | | | | |
| 4RCUE 040 005 160 | 4 X R0.5 | 3 | 16 | 60 | 6 | | | | | | |
| 4RCUE 040 010 120 | 4 X R1 | 3 | 12 | 60 | 6 | | | | | | |
| 4RCUE 040 010 160 | 4 X R1 | 3 | 16 | 60 | 6 | | | | | | |
| 4RCUE 050 005 150 | 5 X R0.5 | 4 | 15 | 60 | 6 | | | | | | |
| 4RCUE 050 010 150 | 5 X R1 | 4 | 15 | 60 | 6 | | | | | | |
| 4RCUE 060 005 150 | 6 X R0.5 | 4.5 | 15 | 60 | 6 | | | | | | |
| 4RCUE 060 005 250 | 6 X R0.5 | 4.5 | 25 | 80 | 6 | | | | | | |
| 4RCUE 060 010 150 | 6 X R1 | 4.5 | 15 | 60 | 6 | | | | | | |
| 4RCUE 060 010 250 | 6 X R1 | 4.5 | 25 | 80 | 6 | | | | | | |
| 4RCUE 060 015 150 | 6 X R1.5 | 4.5 | 15 | 60 | 6 | | | | | | |
| 4RCUE 060 015 250 | 6 X R1.5 | 4.5 | 25 | 80 | 6 | | | | | | |
| 4RCUE 080 005 200 | 8 X R0.5 | 6 | 20 | 60 | 8 | | | | | | |
| 4RCUE 080 005 300 | 8 X R0.5 | 6 | 30 | 90 | 8 | | | | | | |
| 4RCUE 080 010 200 | 8 X R1 | 6 | 20 | 60 | 8 | | | | | | |
| 4RCUE 080 010 300 | 8 X R1 | 6 | 30 | 90 | 8 | | | | | | |
| 4RCUE 080 020 200 | 8 X R2 | 6 | 20 | 60 | 8 | | | | | | |
| 4RCUE 080 020 300 | 8 X R2 | 6 | 30 | 90 | 8 | | | | | | |
| 4RCUE 100 005 250 | 10 X R0.5 | 7.5 | 25 | 70 | 10 | | | | | | |
| 4RCUE 100 005 400 | 10 X R0.5 | 7.5 | 40 | 100 | 10 | | | | | | |
| 4RCUE 100 010 250 | 10 X R1 | 7.5 | 25 | 70 | 10 | | | | | | |
| 4RCUE 100 010 400 | 10 X R1 | 7.5 | 40 | 100 | 10 | | | | | | |
| 4RCUE 100 020 250 | 10 X R2 | 7.5 | 25 | 70 | 10 | | | | | | |
| 4RCUE 100 020 400 | 10 X R2 | 7.5 | 40 | 100 | 10 | | | | | | |
| 4RCUE 120 005 300 | 12 X R0.5 | 9 | 30 | 80 | 12 | | | | | | |
| 4RCUE 120 005 400 | 12 X R0.5 | 9 | 40 | 100 | 12 | | | | | | |
| 4RCUE 120 010 300 | 12 X R1 | 9 | 30 | 80 | 12 | | | | | | |
| 4RCUE 120 010 400 | 12 X R1 | 9 | 40 | 100 | 12 | | | | | | |
| 4RCUE 120 020 300 | 12 X R2 | 9 | 30 | 80 | 12 | | | | | | |
| 4RCUE 120 020 400 | 12 X R2 | 9 | 40 | 100 | 12 | | | | | | |
| 4RCUE 120 030 300 | 12 X R3 | 9 | 30 | 80 | 12 | | | | | | |