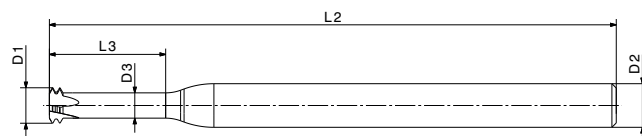


# TH0342-NR01101 (2.5xD)

Fraise à tourbillonner profil double  
Fresa per tourbillonage a profilo doppio



| M    | P     | D1<br>±0.01 | L3    | D2 | L2 | D3   | Z |  | Art. N°       | DWS<br>Art. N° |
|------|-------|-------------|-------|----|----|------|---|-------------------------------------------------------------------------------------|---------------|----------------|
| 0.80 | 0.200 | 0.58        | 2.20  | 3  | 39 | 0.30 | 3 | 0.66                                                                                | <b>439792</b> | <b>439662</b>  |
| 0.90 | 0.225 | 0.65        | 2.50  | 3  | 39 | 0.33 | 3 | 0.74                                                                                | <b>439793</b> | <b>439728</b>  |
| 1.00 | 0.250 | 0.72        | 2.80  | 3  | 39 | 0.37 | 3 | 0.75                                                                                | <b>439794</b> | <b>439729</b>  |
| 1.20 | 0.250 | 0.92        | 3.30  | 3  | 39 | 0.57 | 3 | 0.95                                                                                | <b>439796</b> | <b>439730</b>  |
| 1.40 | 0.300 | 1.06        | 3.80  | 3  | 39 | 0.64 | 3 | 1.10                                                                                | <b>439798</b> | <b>439731</b>  |
| 1.60 | 0.350 | 1.21        | 4.40  | 3  | 39 | 0.72 | 3 | 1.30                                                                                | <b>439800</b> | <b>439732</b>  |
| 1.80 | 0.350 | 1.41        | 4.90  | 3  | 39 | 0.92 | 3 | 1.50                                                                                | <b>439801</b> | <b>439733</b>  |
| 2.00 | 0.200 | 1.78        | 5.20  | 3  | 39 | 1.50 | 3 | 1.80                                                                                | <b>443383</b> | <b>443327</b>  |
| 2.00 | 0.250 | 1.72        | 5.30  | 3  | 39 | 1.37 | 3 | 1.75                                                                                | <b>443382</b> | <b>443328</b>  |
| 2.00 | 0.400 | 1.55        | 5.40  | 3  | 39 | 0.99 | 3 | 1.65                                                                                | <b>439802</b> | <b>439734</b>  |
| 2.30 | 0.400 | 1.85        | 6.20  | 3  | 39 | 1.29 | 3 | 1.90                                                                                | <b>439803</b> | <b>439735</b>  |
| 2.50 | 0.200 | 2.28        | 6.50  | 3  | 39 | 2.00 | 3 | 2.30                                                                                | <b>443385</b> | <b>443329</b>  |
| 2.50 | 0.250 | 2.22        | 6.50  | 3  | 39 | 1.87 | 3 | 2.25                                                                                | <b>443384</b> | <b>443330</b>  |
| 2.50 | 0.450 | 2.00        | 6.70  | 3  | 39 | 1.37 | 3 | 2.10                                                                                | <b>439804</b> | <b>439736</b>  |
| 2.60 | 0.450 | 2.10        | 7.00  | 3  | 39 | 1.47 | 3 | 2.15                                                                                | <b>439805</b> | <b>439738</b>  |
| 3.00 | 0.350 | 2.61        | 7.90  | 3  | 39 | 2.12 | 4 | 2.65                                                                                | <b>443386</b> | <b>443331</b>  |
| 3.00 | 0.500 | 2.44        | 8.00  | 3  | 39 | 1.74 | 4 | 2.55                                                                                | <b>439806</b> | <b>439739</b>  |
| 3.50 | 0.600 | 2.82        | 9.40  | 5  | 51 | 1.98 | 4 | 2.90                                                                                | <b>443387</b> | <b>443342</b>  |
| 4.00 | 0.500 | 3.43        | 10.50 | 5  | 51 | 2.73 | 4 | 3.50                                                                                | <b>443389</b> | <b>443343</b>  |
| 4.00 | 0.700 | 3.20        | 10.70 | 5  | 51 | 2.22 | 4 | 3.30                                                                                | <b>443388</b> | <b>443344</b>  |
| 5.00 | 0.500 | 4.43        | 13.00 | 5  | 51 | 3.73 | 4 | 4.50                                                                                | <b>443391</b> | <b>443345</b>  |
| 5.00 | 0.800 | 4.09        | 13.30 | 5  | 51 | 2.97 | 4 | 4.20                                                                                | <b>443390</b> | <b>443346</b>  |
| 6.00 | 0.750 | 4.95        | 15.80 | 5  | 51 | 3.90 | 4 | 5.30                                                                                | <b>443393</b> | <b>443347</b>  |
| 6.00 | 1.000 | 4.86        | 16.00 | 5  | 51 | 3.46 | 4 | 5.00                                                                                | <b>443392</b> | <b>443348</b>  |

Autres dimensions et revêtements sur demande  
Altre dimensioni e rivestimenti su richiesta

# TH0342-NR01101 (3xD)

Fraise à tourbillonner profil double  
Fresa per tourbillonage a profilo doppio



|    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|
| P1 | P2 | P3 | P4 | P5 | M1 | M2 | M3 | K1 | N1 | N2 |
| N3 | N4 | N5 | N6 | N7 | N8 | S1 | S2 | S3 | H1 |    |



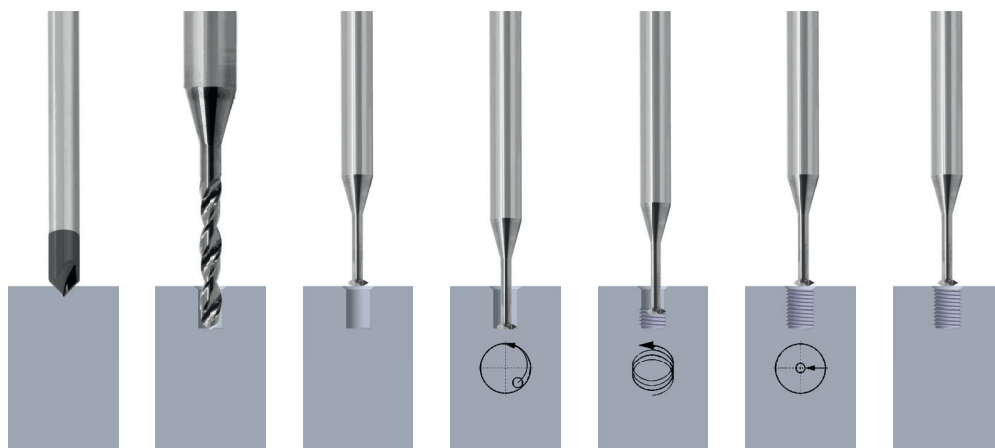
| M    | P     | D1<br>±0.01 | L3    | D2 | L2 | D3   | Z |  | Art. N°       | DWS<br>Art. N° |
|------|-------|-------------|-------|----|----|------|---|-------------------------------------------------------------------------------------|---------------|----------------|
| 0.80 | 0.200 | 0.58        | 2.60  | 3  | 39 | 0.30 | 3 | 0.66                                                                                | <b>439792</b> | <b>439745</b>  |
| 0.90 | 0.225 | 0.65        | 3.00  | 3  | 39 | 0.33 | 3 | 0.74                                                                                | <b>439793</b> | <b>439746</b>  |
| 1.00 | 0.250 | 0.72        | 3.30  | 3  | 39 | 0.37 | 3 | 0.75                                                                                | <b>439794</b> | <b>439747</b>  |
| 1.20 | 0.250 | 0.92        | 3.90  | 3  | 39 | 0.57 | 3 | 0.95                                                                                | <b>439796</b> | <b>439748</b>  |
| 1.40 | 0.300 | 1.06        | 4.50  | 3  | 39 | 0.64 | 3 | 1.10                                                                                | <b>439798</b> | <b>439749</b>  |
| 1.60 | 0.350 | 1.21        | 5.20  | 3  | 39 | 0.72 | 3 | 1.30                                                                                | <b>439800</b> | <b>439750</b>  |
| 1.80 | 0.350 | 1.41        | 5.80  | 3  | 39 | 0.92 | 3 | 1.50                                                                                | <b>439801</b> | <b>439751</b>  |
| 2.00 | 0.200 | 1.78        | 5.20  | 3  | 39 | 1.50 | 3 | 1.80                                                                                | <b>443383</b> | <b>443332</b>  |
| 2.00 | 0.250 | 1.72        | 5.30  | 3  | 39 | 1.37 | 3 | 1.75                                                                                | <b>443382</b> | <b>443333</b>  |
| 2.00 | 0.400 | 1.55        | 6.40  | 3  | 39 | 0.99 | 3 | 1.65                                                                                | <b>439802</b> | <b>439752</b>  |
| 2.30 | 0.400 | 1.85        | 7.30  | 3  | 39 | 1.29 | 3 | 1.90                                                                                | <b>439803</b> | <b>439753</b>  |
| 2.50 | 0.200 | 2.28        | 7.70  | 3  | 39 | 2.00 | 3 | 2.30                                                                                | <b>443385</b> | <b>443334</b>  |
| 2.50 | 0.250 | 2.22        | 7.80  | 3  | 39 | 1.87 | 3 | 2.25                                                                                | <b>443384</b> | <b>443335</b>  |
| 2.50 | 0.450 | 2.00        | 8.00  | 3  | 39 | 1.37 | 3 | 2.10                                                                                | <b>439804</b> | <b>439754</b>  |
| 2.60 | 0.450 | 2.10        | 8.30  | 3  | 39 | 1.47 | 3 | 2.15                                                                                | <b>439805</b> | <b>439755</b>  |
| 3.00 | 0.350 | 2.61        | 9.40  | 3  | 39 | 2.12 | 4 | 2.65                                                                                | <b>443386</b> | <b>443336</b>  |
| 3.00 | 0.500 | 2.44        | 9.50  | 3  | 39 | 1.74 | 4 | 2.55                                                                                | <b>439806</b> | <b>439756</b>  |
| 3.50 | 0.600 | 2.82        | 11.10 | 5  | 51 | 1.98 | 4 | 2.90                                                                                | <b>443387</b> | <b>443349</b>  |
| 4.00 | 0.500 | 3.43        | 12.50 | 5  | 51 | 2.73 | 4 | 3.50                                                                                | <b>443389</b> | <b>443350</b>  |
| 4.00 | 0.700 | 3.20        | 12.70 | 5  | 51 | 2.22 | 4 | 3.30                                                                                | <b>443388</b> | <b>443351</b>  |
| 5.00 | 0.500 | 4.43        | 15.50 | 5  | 51 | 3.73 | 4 | 4.50                                                                                | <b>443391</b> | <b>443352</b>  |
| 5.00 | 0.800 | 4.09        | 15.80 | 5  | 51 | 2.97 | 4 | 4.20                                                                                | <b>443390</b> | <b>443353</b>  |
| 6.00 | 0.750 | 4.95        | 18.80 | 5  | 51 | 3.90 | 4 | 5.30                                                                                | <b>443393</b> | <b>443354</b>  |
| 6.00 | 1.000 | 4.86        | 19.00 | 5  | 51 | 3.46 | 4 | 5.00                                                                                | <b>443392</b> | <b>443355</b>  |

Autres dimensions et revêtements sur demande  
Altre dimensioni e rivestimenti su richiesta

# TH0342-NR01101

Paramètres de coupe  
Parametri di taglio

Processus d'usinage  
Processo di lavorazione



|     |                        | f <sub>z</sub> [mm] |               |               |               |
|-----|------------------------|---------------------|---------------|---------------|---------------|
| ISO | V <sub>c</sub> [m/min] | Ø 0.30 - 0.80       | Ø 0.81 - 1.20 | Ø 1.21 - 3.00 | Ø 3.01 - 6.00 |
| P1  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P2  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P3  | 60 - 90                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P4  | 60 - 80                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| P5  | 40 - 60                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| M1  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M2  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M3  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| K1  | 90 - 120               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N1  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N2  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N3  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N4  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N5  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N6  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N7  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N8  | 150 - 220              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| S1  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S2  | 15 - 35                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S3  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| H1  | 20 - 40                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.015 - 0.030 |
| H2  |                        |                     |               |               |               |

Valeurs indicatives  
Valori indicativi

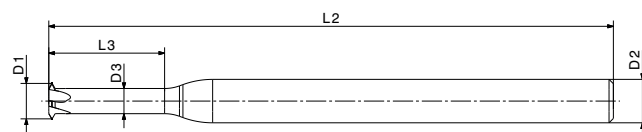
# TH0343-NR01101

Fraise à tourbillonner profil unique  
Fresa per tourbillonage a profilo unico



|    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|
| P1 | P2 | P3 | P4 | P5 | M1 | M2 | M3 | K1 | N1 | N2 |
| N3 | N4 | N5 | N6 | N7 | N8 | S1 | S2 | S3 | H1 |    |

|     |    |  |  |  |        |        |       |  |
|-----|----|--|--|--|--------|--------|-------|--|
| VHM | h5 |  |  |  | DIN 13 | DIN 14 | 2.5xØ |  |
|-----|----|--|--|--|--------|--------|-------|--|



| M    | P     | D1<br>±0.01 | L3    | D2 | L2 | D3   | Z |      | Art. N° | DWS<br>Art. N° |
|------|-------|-------------|-------|----|----|------|---|------|---------|----------------|
| 0.80 | 0.200 | 0.58        | 2.20  | 3  | 39 | 0.30 | 3 | 0.66 | 439792  | 439681         |
| 0.90 | 0.225 | 0.65        | 2.50  | 3  | 39 | 0.33 | 3 | 0.74 | 439793  | 439762         |
| 1.00 | 0.250 | 0.72        | 2.80  | 3  | 39 | 0.37 | 3 | 0.75 | 439794  | 439763         |
| 1.20 | 0.250 | 0.92        | 3.30  | 3  | 39 | 0.57 | 3 | 0.95 | 439796  | 439764         |
| 1.40 | 0.300 | 1.06        | 3.80  | 3  | 39 | 0.64 | 3 | 1.10 | 439798  | 439765         |
| 1.60 | 0.350 | 1.21        | 4.40  | 3  | 39 | 0.72 | 3 | 1.30 | 439800  | 439766         |
| 1.80 | 0.350 | 1.41        | 4.90  | 3  | 39 | 0.92 | 3 | 1.50 | 439801  | 439767         |
| 2.00 | 0.400 | 1.55        | 5.40  | 3  | 39 | 0.99 | 3 | 1.65 | 439802  | 439768         |
| 2.30 | 0.400 | 1.85        | 6.20  | 3  | 39 | 1.29 | 3 | 1.90 | 439803  | 439769         |
| 2.50 | 0.450 | 2.00        | 6.70  | 3  | 39 | 1.37 | 3 | 2.10 | 439804  | 439770         |
| 2.60 | 0.450 | 2.10        | 7.00  | 3  | 39 | 1.47 | 3 | 2.15 | 439805  | 439771         |
| 3.00 | 0.500 | 2.44        | 8.00  | 3  | 39 | 1.74 | 4 | 2.55 | 439806  | 443369         |
| 3.50 | 0.600 | 2.82        | 9.40  | 5  | 51 | 1.98 | 4 | 2.90 | 443387  | 443371         |
| 4.00 | 0.700 | 3.20        | 10.70 | 5  | 51 | 2.22 | 4 | 3.30 | 443388  | 443372         |
| 5.00 | 0.800 | 4.09        | 13.30 | 5  | 51 | 2.97 | 4 | 4.20 | 443390  | 443373         |
| 6.00 | 1.000 | 4.86        | 16.00 | 5  | 51 | 3.46 | 4 | 5.00 | 443392  | 443374         |

|     |    |  |  |  |      |       |  |
|-----|----|--|--|--|------|-------|--|
| VHM | h5 |  |  |  | NIHS | 2.5xØ |  |
|-----|----|--|--|--|------|-------|--|

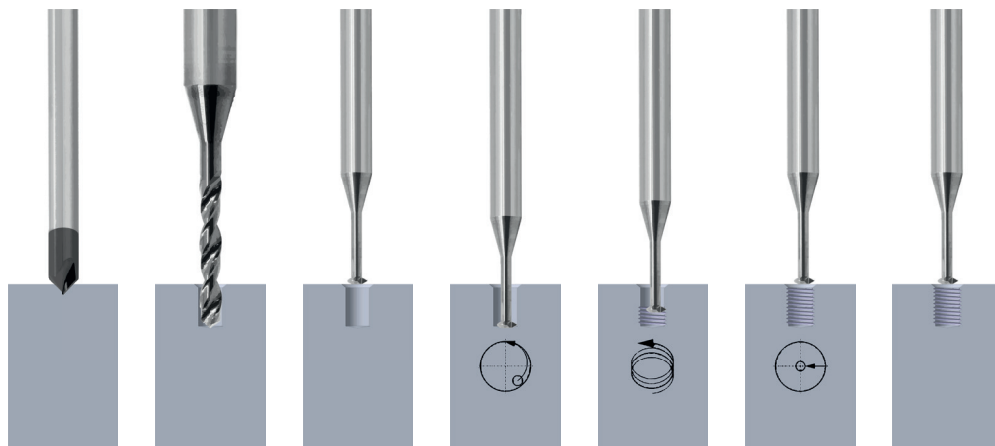
| S    | P     | D1<br>±0.01 | L3   | D2 | L2 | D3   | Z |      | Art. N° | DWS<br>Art. N° |
|------|-------|-------------|------|----|----|------|---|------|---------|----------------|
| 0.50 | 0.125 | 0.36        | 1.40 | 3  | 39 | 0.19 | 3 | 0.41 | 439789  | 439772         |
| 0.60 | 0.150 | 0.43        | 1.70 | 3  | 39 | 0.22 | 3 | 0.50 | 439790  | 439773         |
| 0.70 | 0.175 | 0.50        | 2.00 | 3  | 39 | 0.26 | 3 | 0.58 | 439791  | 439774         |
| 0.80 | 0.200 | 0.58        | 2.20 | 3  | 39 | 0.30 | 3 | 0.66 | 439792  | 439775         |
| 0.90 | 0.225 | 0.65        | 2.50 | 3  | 39 | 0.33 | 3 | 0.74 | 439793  | 439776         |
| 1.00 | 0.250 | 0.72        | 2.80 | 3  | 39 | 0.37 | 3 | 0.82 | 439795  | 439777         |
| 1.20 | 0.250 | 0.92        | 3.30 | 3  | 39 | 0.57 | 3 | 1.02 | 439797  | 439778         |
| 1.40 | 0.300 | 1.06        | 3.80 | 3  | 39 | 0.64 | 3 | 1.18 | 439799  | 439779         |

Autres dimensions et revêtements sur demande  
Altre dimensioni e rivestimenti su richiesta

# TH0343-NR01101

Paramètres de coupe  
Parametri di taglio

Processus d'usinage  
Processo di lavorazione



|     |                        | f <sub>z</sub> [mm] |               |               |               |
|-----|------------------------|---------------------|---------------|---------------|---------------|
| ISO | V <sub>c</sub> [m/min] | Ø 0.30 - 0.80       | Ø 0.81 - 1.20 | Ø 1.21 - 3.00 | Ø 3.01 - 6.00 |
| P1  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P2  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P3  | 60 - 90                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P4  | 60 - 80                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| P5  | 40 - 60                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| M1  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M2  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M3  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| K1  | 90 - 120               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N1  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N2  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N3  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N4  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N5  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N6  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N7  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N8  | 150 - 220              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| S1  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S2  | 15 - 35                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S3  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| H1  | 20 - 40                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.015 - 0.030 |
| H2  |                        |                     |               |               |               |

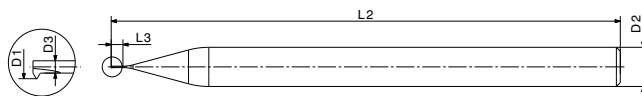
Valeurs indicatives  
Valori indicativi

# TH0344-NR01102

Fraise à tourbillonner dent unique  
Fresa per tourbillonage a dente singolo



|    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|
| P1 | P2 | P3 | P4 | P5 | M1 | M2 | M3 | K1 | N1 | N2 |
| N3 | N4 | N5 | N6 | N7 | N8 | S1 | S2 | S3 |    |    |



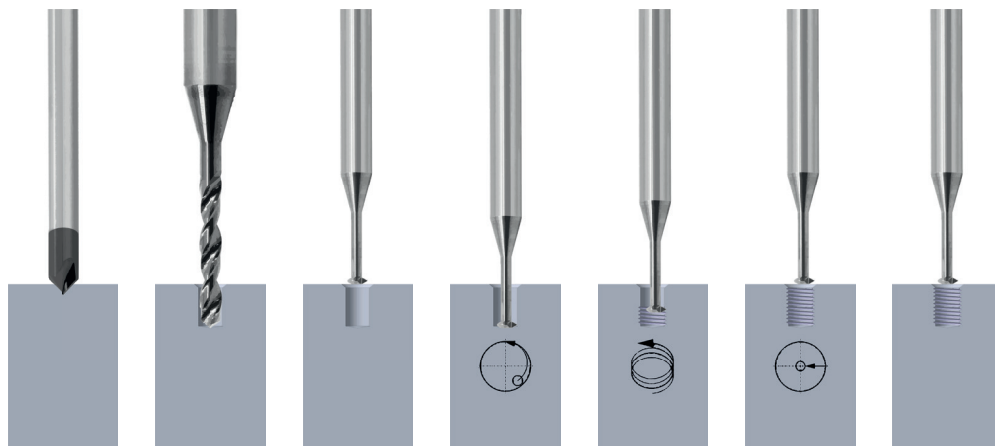
| S    | P     | D1<br>±0.005 | L3   | D2 | L2 | D3   | Z |      | Art. N°       | DWS<br>Art. N° |
|------|-------|--------------|------|----|----|------|---|------|---------------|----------------|
| 0.30 | 0.080 | 0.21         | 0.90 | 3  | 39 | 0.11 | 1 | 0.23 | <b>439665</b> | <b>439682</b>  |
| 0.35 | 0.090 | 0.25         | 1.00 | 3  | 39 | 0.13 | 1 | 0.28 | <b>439787</b> | <b>439780</b>  |
| 0.40 | 0.100 | 0.29         | 1.10 | 3  | 39 | 0.16 | 1 | 0.32 | <b>439788</b> | <b>439781</b>  |
| 0.50 | 0.125 | 0.36         | 1.40 | 3  | 39 | 0.20 | 1 | 0.41 | <b>439789</b> | <b>439782</b>  |
| 0.60 | 0.150 | 0.43         | 1.70 | 3  | 39 | 0.24 | 1 | 0.50 | <b>439790</b> | <b>439783</b>  |

Autres dimensions et revêtements sur demande  
Altre dimensioni e rivestimenti su richiesta

# TH0344-NR01101

Paramètres de coupe  
Parametri di taglio

Processus d'usinage  
Processo di lavorazione



| ISO | V <sub>c</sub> [m/min] | f <sub>z</sub> [mm] |               |               |               |
|-----|------------------------|---------------------|---------------|---------------|---------------|
|     |                        | Ø 0.30 - 0.80       | Ø 0.81 - 1.20 | Ø 1.21 - 3.00 | Ø 3.01 - 6.00 |
| P1  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P2  | 80 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P3  | 60 - 90                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| P4  | 60 - 80                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| P5  | 40 - 60                | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.040 - 0.080 |
| M1  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M2  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| M3  | 40 - 60                | 0.003 - 0.008       | 0.008 - 0.020 | 0.020 - 0.045 | 0.030 - 0.050 |
| K1  | 90 - 120               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N1  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N2  | 220 - 280              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N3  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N4  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N5  | 200 - 250              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N6  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N7  | 70 - 110               | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| N8  | 150 - 220              | 0.004 - 0.009       | 0.009 - 0.025 | 0.025 - 0.050 | 0.050 - 0.100 |
| S1  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S2  | 15 - 35                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| S3  | 30 - 50                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.020 - 0.040 |
| H1  | 20 - 40                | 0.003 - 0.008       | 0.008 - 0.015 | 0.015 - 0.030 | 0.015 - 0.030 |
| H2  |                        |                     |               |               |               |

Valeurs indicatives  
Valori indicativi

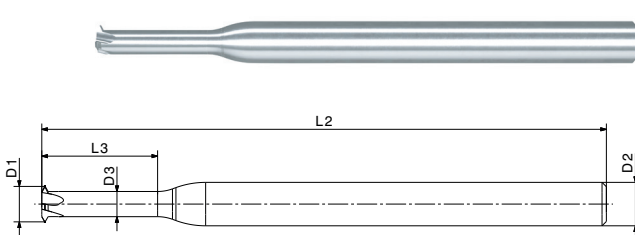
# TH0343-SR04103

Fraise à tourbillonner en céramique  
Fresa per tourbillonage in ceramica



K1 N1 N2

N3 N4 N5 N6 N7 N8



| M    | P     | D1<br>±0.005 | L3    | D2 | L2 | D3   | Z |      | Art. N° | Cer<br>Art. N° |
|------|-------|--------------|-------|----|----|------|---|------|---------|----------------|
| 1.60 | 0.350 | 1.21         | 4.40  | 3  | 39 | 0.72 | 3 | 1.30 | 439800  | 443762         |
| 1.80 | 0.350 | 1.41         | 4.90  | 3  | 39 | 0.92 | 3 | 1.50 | 439801  | 443763         |
| 2.00 | 0.400 | 1.55         | 5.40  | 3  | 39 | 0.99 | 3 | 1.65 | 439802  | 443764         |
| 2.30 | 0.400 | 1.85         | 6.20  | 3  | 39 | 1.29 | 3 | 1.90 | 439803  | 443765         |
| 2.50 | 0.450 | 2.00         | 6.70  | 3  | 39 | 1.37 | 3 | 2.10 | 439804  | 443766         |
| 2.60 | 0.450 | 2.10         | 7.00  | 3  | 39 | 1.47 | 3 | 2.15 | 439805  | 443767         |
| 3.00 | 0.500 | 2.44         | 8.00  | 3  | 39 | 1.74 | 4 | 2.55 | 439806  | 443768         |
| 3.50 | 0.600 | 2.82         | 9.40  | 5  | 51 | 1.98 | 4 | 2.90 | 443387  | 443769         |
| 4.00 | 0.700 | 3.20         | 10.70 | 5  | 51 | 2.22 | 4 | 3.30 | 443388  | 443770         |
| 5.00 | 0.800 | 4.09         | 13.30 | 5  | 51 | 2.97 | 4 | 4.20 | 443390  | 443771         |
| 6.00 | 1.000 | 4.86         | 16.00 | 5  | 51 | 3.46 | 4 | 5.00 | 443392  | 443772         |



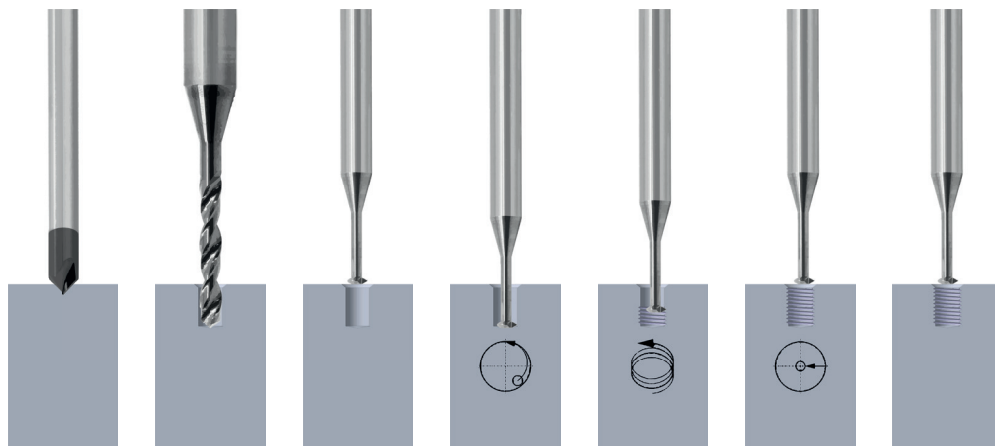
| S    | P     | D1<br>±0.005 | L3   | D2 | L2 | D3   | Z |      | Art. N° | Cer<br>Art. N° |
|------|-------|--------------|------|----|----|------|---|------|---------|----------------|
| 0.50 | 0.125 | 0.36         | 1.40 | 3  | 39 | 0.19 | 3 | 0.41 | 439789  | 440551         |
| 0.60 | 0.150 | 0.43         | 1.70 | 3  | 39 | 0.22 | 3 | 0.50 | 439790  | 440552         |
| 0.70 | 0.175 | 0.50         | 2.00 | 3  | 39 | 0.26 | 3 | 0.58 | 439791  | 440553         |
| 0.80 | 0.200 | 0.58         | 2.20 | 3  | 39 | 0.30 | 3 | 0.66 | 439792  | 440554         |
| 0.90 | 0.225 | 0.65         | 2.50 | 3  | 39 | 0.33 | 3 | 0.74 | 439793  | 440555         |
| 1.00 | 0.250 | 0.72         | 2.80 | 3  | 39 | 0.37 | 3 | 0.82 | 439795  | 440556         |
| 1.20 | 0.250 | 0.92         | 3.30 | 3  | 39 | 0.57 | 3 | 1.02 | 439797  | 440557         |
| 1.40 | 0.300 | 1.06         | 3.80 | 3  | 39 | 0.64 | 3 | 1.18 | 439799  | 440558         |

Autres dimensions et revêtements sur demande  
Altre dimensioni e rivestimenti su richiesta

# TH0343-SR04102

Paramètres de coupe  
Parametri di taglio

Processus d'usinage  
Processo di lavorazione



| ISO | V <sub>c</sub> [m/min] | f <sub>z</sub> [mm] |               |               |
|-----|------------------------|---------------------|---------------|---------------|
|     |                        | Ø 0.50 - 1.40       | Ø 1.41 - 3.50 | Ø 3.51 - 6.00 |
| P1  |                        |                     |               |               |
| P2  |                        |                     |               |               |
| P3  |                        |                     |               |               |
| P4  |                        |                     |               |               |
| P5  |                        |                     |               |               |
| M1  |                        |                     |               |               |
| M2  |                        |                     |               |               |
| M3  |                        |                     |               |               |
| K1  | 150 - 200              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N1  | 220 - 300              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N2  | 220 - 300              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N3  | 250 - 300              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N4  | 220 - 300              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N5  | 200 - 250              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N6  | 100 - 150              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N7  | 100 - 150              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| N8  | 150 - 220              | 0.009 - 0.025       | 0.025 - 0.050 | 0.050 - 0.100 |
| S1  |                        |                     |               |               |
| S2  |                        |                     |               |               |
| S3  |                        |                     |               |               |
| H1  |                        |                     |               |               |
| H2  |                        |                     |               |               |

Valeurs indicatives  
Valori indicativi