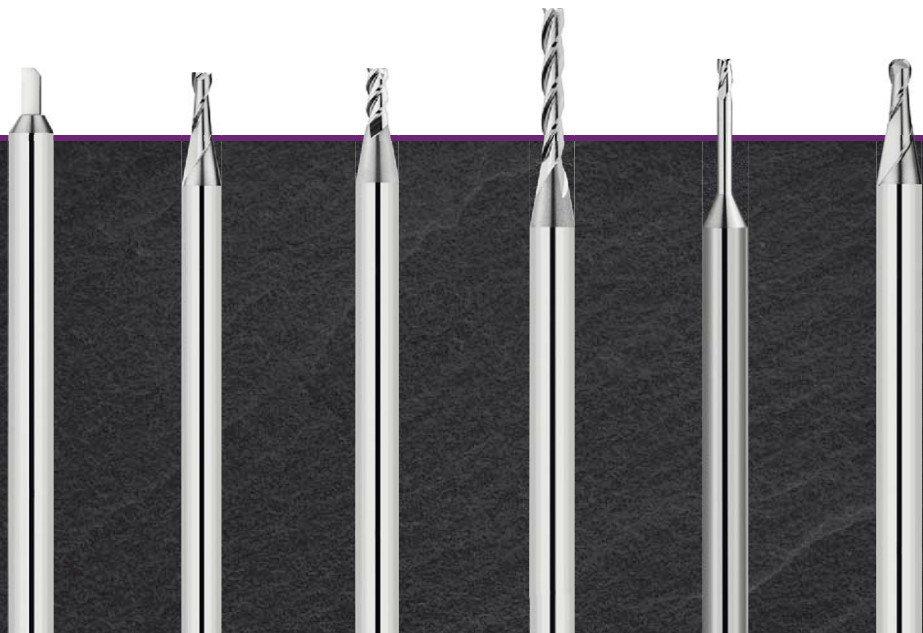


4000



Répertoire **Micro-fraises**
Verzeichnis **Mikrofräser**
Index **Micro end mills**

Paramètres de coupe indicatifs
Empfohlene Schnittwerte
Standard machining data

3.03

Sharp Corner Radius Corner	Micro-fraises avec angles vifs / angles à rayon Mikrofräser mit scharfkantigen Ecken / Radienecken Micro end mills with sharp corners / radius corners						
	Z	λ	L2	D1	D2	Type	page
	Z=1	0°	2x D1	Ø0.20 - 3.00	Ø3h4 / Ø4h5	4170-2	3.04
			2x D1	Ø0.20 - 3.00	Ø3h4 / Ø4h5	4170R-2	3.05
			3x D1	Ø0.20 - 3.00	Ø3h4 / Ø4h5	4170R-3	3.06
			4x D1	Ø0.30 - 3.00	Ø3h4 / Ø4h5	4170R-4	3.07
	Z=2	30°	0.75x D1	Ø0.20 - 2.00	Ø3h4	4270-0.75	3.08
			1x D1	Ø0.30 - 2.50	Ø3h4	4270-1	3.09
			1.5x D1	Ø0.10 - 2.00	Ø3h4	4270-1.5	3.10
			2x D1	Ø0.10 - 2.00	Ø3h4	4270-2	3.11
			3x D1	Ø0.10 - 2.90	Ø3h4	4270-3	3.12
			5x D1	Ø0.30 - 2.50	Ø3h4	4270-5	3.13
			8x D1	Ø0.40 - 2.50	Ø3h4 / Ø4h5	4270-8	3.14
			2x D1	Ø0.20 - 3.00	Ø3h4 / Ø6h5	4270S-3X	3.15
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4270S-6X	3.16
			2x D1	Ø0.40 - 3.00	Ø3h4 / Ø6h5	4270S-9X	3.17
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4279T-3X	3.18
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4279T-6X	3.19
			2x D1	Ø0.40 - 3.00	Ø3h4 / Ø6h5	4279T-9X	3.20
	Z=3	30°	1.3x D1	Ø0.30 - 2.90	Ø3h4	4370-1.3	3.21
			2x D1	Ø0.30 - 2.90	Ø3h4	4370-2	3.22
			3x D1	Ø0.30 - 2.90	Ø3h4	4370-3	3.23
			4x D1	Ø0.30 - 2.90	Ø3h4	4370-4	3.24
			5x D1	Ø0.50 - 2.50	Ø3h4	4370-5	3.25
		45°	8x D1	Ø0.50 - 2.50	Ø3h4 / Ø4h5	4370-8	3.26
			2.5x D1	Ø0.30 - 2.90	Ø3h4	4375-2.5	3.27
		36°-38°-40°	1.5x D1	Ø0.30 - 2.50	Ø3h4	DHD4370-1.5	3.28
			3x D1	Ø0.30 - 2.50	Ø3h4	DHD4370-3	3.29
		30°	2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4370S-3X	3.30
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4370S-6X	3.31
			2x D1	Ø0.40 - 3.00	Ø3h4 / Ø6h5	4370S-9X	3.32
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4379T-3X	3.33
			2x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4379T-6X	3.34
			2x D1	Ø0.40 - 3.00	Ø3h4 / Ø6h5	4379T-9X	3.35
			1.5x D1	Ø0.30 - 2.90	Ø3h4	4470-1.5	3.36
	Z=4	30°	3x D1	Ø0.30 - 2.90	Ø3h4	4470-3	3.37
			2x D1	Ø0.30 - 2.90	Ø3h4	4472-2	3.38
		40°	4x D1	Ø0.40 - 2.90	Ø3h4	4472-4	3.39
			3x D1	Ø0.50 - 2.50	Ø3h4	DHP4470-3	3.40
		35°-38°	3x D1	Ø0.50 - 2.50	Ø3h4	DHP4470-3	3.40

Répertoire **Micro-fraises**
 Verzeichnis **Mikrofräser**
 Index **Micro end mills**

U	Micro-fraises hémisphériques Vollradius Mikrofräser Ball nose micro end mills						
	Z	λ	L2	Range	D2	Type	page
	Z = 2	30°	0.75x D1	Ø0.20 - 2.50	Ø3h4	4278-0.75	3.41
			1x D1	Ø0.20 - 2.90	Ø3h4	4278-1	3.42
			1.5x D1	Ø0.20 - 2.90	Ø3h4	4278-1.5	3.43
			3x D1	Ø0.20 - 2.90	Ø3h4	4278-3	3.44
			1.5x D1	Ø0.20 - 3.00	Ø3h4 / Ø6h5	4278H-3X	3.45
			1.5x D1	Ø0.30 - 3.00	Ø3h4 / Ø6h5	4278H-6X	3.46
			1.5x D1	Ø0.40 - 3.00	Ø3h4 / Ø6h5	4278H-9X	3.47

Paramètres de coupe indicatifs **Micro-fraises**
 Empfohlene Schnittwerte **Mikrofräser**
 Standard machining data **Micro end mills**

Matière Werkstoff Material		C	0.10 - 0.50	0.60 - 1.50	1.60 - 2.90	N	TiAlN*	STF*	TiCN*	ALFA- TOP*
		(m/min)	fz (mm)	fz (mm)	fz (mm)					
Acier de décolletage Automatenstahl Free-cutting steel	P	80 - 130	0.003 - 0.005	0.006 - 0.010	0.013 - 0.020	-	+++	+++	++	-
Acier Stahl Steel	< 600 N/mm ² P	70 - 100	0.003 - 0.005	0.006 - 0.010	0.013 - 0.020	-	+++	+++	++	-
Acier Stahl Steel	< 800 N/mm ² P	70 - 100	0.003 - 0.005	0.006 - 0.010	0.013 - 0.020	-	+++	+++	++	-
Acier Stahl Steel	> 800 N/mm ² P	50 - 80	0.003 - 0.005	0.006 - 0.010	0.013 - 0.020	-	+++	+++	++	-
Acier trempé Gehärteter Stahl Hardened steel	-55HRC H	60 - 90	0.001 - 0.002	0.003 - 0.005	0.007 - 0.010	-	+++	+++	+	-
Acier trempé Gehärteter Stahl Hardened steel	+55HRC H	40 - 70	0.001 - 0.002	0.003 - 0.005	0.007 - 0.010	-	+++	+++	+	-
Inox Rostfreistahl Stainless steel	M	40 - 80	0.003 - 0.005	0.006 - 0.010	0.013 - 0.020	-	+++	+++	++	-
Aluminium	N	200 - 300	0.002 - 0.005	0.005 - 0.010	0.010 - 0.030	+++	-	-	++	+++
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze	N	100 - 200	0.001 - 0.005	0.006 - 0.010	0.010 - 0.015	+++	++	++	++	+++
Matière synthétique Synthetisches Material Synthetic material	N	200 - 700	0.002 - 0.004	0.006 - 0.015	0.015 - 0.050	+++	++	++	++	+++
Métaux précieux Edelmetalle Precious metals	N	90 - 140	0.002 - 0.003	0.004 - 0.012	0.012 - 0.025	+++	++	++	+	+++
Titane Titan Titanium	S	25 - 70	0.001 - 0.003	0.004 - 0.010	0.006 - 0.015	-	+++	+++	++	-
Alliage de nickel Nickel-Legierung Nickel alloy	S	40 - 70	0.001 - 0.003	0.004 - 0.008	0.008 - 0.012	-	+++	+++	++	-
Matière exotique Exotisches material Exotic material	O	15 - 25	0.001 - 0.002	0.003 - 0.005	0.006 - 0.010	-	+++	+++	++	+++

* Avec revêtement, augmenter les valeurs de 20 %
 Mit Beschichtung, Daten um 20 % erhöhen
 With coating, increase data by 20 %

+ Bien / Gut / Good
 ++ Très bien / Sehr gut / Very good
 +++ Excellent / Ausgezeichnet / Excellent

Micro-fraises

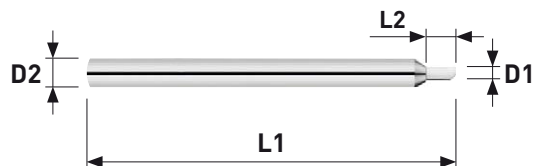
Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 0^\circ$ Sharp
Corner

2xD1

Z = 1



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4170-2-0.20	0.20	0.40	3.00	39	●				
4170-2-0.30	0.30	0.60	3.00	39	●	●	●	●	●
4170-2-0.40	0.40	0.80	3.00	39	●	●	●	●	●
4170-2-0.50	0.50	1.00	3.00	39	●	●	●	●	●
4170-2-0.60	0.60	1.20	3.00	39	●	●	●	●	●
4170-2-0.70	0.70	1.40	3.00	39	●	●	●	●	●
4170-2-0.80	0.80	1.60	3.00	39	●	●	●	●	●
4170-2-0.90	0.90	1.80	3.00	39	●	●	●	●	●
4170-2-1.00	1.00	2.00	3.00	39	●	●	●	●	●
4170-2-1.10	1.10	2.20	3.00	39	●	●	●	●	●
4170-2-1.20	1.20	2.40	3.00	39	●	●	●	●	●
4170-2-1.30	1.30	2.60	3.00	39	●	●	●	●	●
4170-2-1.40	1.40	2.80	3.00	39	●	●	●	●	●
4170-2-1.50	1.50	3.00	3.00	39	●	●	●	●	●
4170-2-1.60	1.60	3.20	3.00	39	●	●	●	●	●
4170-2-1.70	1.70	3.40	3.00	39	●	●	●	●	●
4170-2-1.80	1.80	3.60	3.00	39	●	●	●	●	●
4170-2-1.90	1.90	3.80	3.00	39	●	●	●	●	●
4170-2-2.00	2.00	4.00	3.00	39	●	●	●	●	●
4170-2-2.10	2.10	4.20	3.00	39	●	●	●	●	●
4170-2-2.20	2.20	4.40	3.00	39	●	●	●	●	●
4170-2-2.30	2.30	4.60	3.00	39	●	●	●	●	●
4170-2-2.40	2.40	4.80	3.00	39	●	●	●	●	●
4170-2-2.50	2.50	5.00	3.00	39	●	●	●	●	●
4170-2-2.60	2.60	5.20	3.00	39	●	●	●	●	●
4170-2-2.70	2.70	5.40	3.00	39	●	●	●	●	●
4170-2-2.80	2.80	5.60	3.00	39	●	●	●	●	●
4170-2-2.90	2.90	5.80	3.00	39	●	●	●	●	●
4170-2-3.00	3.00	6.00	4.00	40	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 0^\circ$ Sharp
Corner

2xD1

Z = 1



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4170R-2-0.20	0.20	0.40	3.00	39	●				
4170R-2-0.30	0.30	0.60	3.00	39	●	●	●	●	●
4170R-2-0.40	0.40	0.80	3.00	39	●	●	●	●	●
4170R-2-0.50	0.50	1.00	3.00	39	●	●	●	●	●
4170R-2-0.60	0.60	1.20	3.00	39	●	●	●	●	●
4170R-2-0.70	0.70	1.40	3.00	39	●	●	●	●	●
4170R-2-0.80	0.80	1.60	3.00	39	●	●	●	●	●
4170R-2-0.90	0.90	1.80	3.00	39	●	●	●	●	●
4170R-2-1.00	1.00	2.00	3.00	39	●	●	●	●	●
4170R-2-1.10	1.10	2.20	3.00	39	●	●	●	●	●
4170R-2-1.20	1.20	2.40	3.00	39	●	●	●	●	●
4170R-2-1.30	1.30	2.60	3.00	39	●	●	●	●	●
4170R-2-1.40	1.40	2.80	3.00	39	●	●	●	●	●
4170R-2-1.50	1.50	3.00	3.00	39	●	●	●	●	●
4170R-2-1.60	1.60	3.20	3.00	39	●	●	●	●	●
4170R-2-1.70	1.70	3.40	3.00	39	●	●	●	●	●
4170R-2-1.80	1.80	3.60	3.00	39	●	●	●	●	●
4170R-2-1.90	1.90	3.80	3.00	39	●	●	●	●	●
4170R-2-2.00	2.00	4.00	3.00	39	●	●	●	●	●
4170R-2-2.10	2.10	4.10	3.00	39	●	●	●	●	●
4170R-2-2.20	2.20	4.40	3.00	39	●	●	●	●	●
4170R-2-2.30	2.30	4.60	3.00	39	●	●	●	●	●
4170R-2-2.40	2.40	4.80	3.00	39	●	●	●	●	●
4170R-2-2.50	2.50	5.00	3.00	39	●	●	●	●	●
4170R-2-2.60	2.60	5.20	3.00	39	●	●	●	●	●
4170R-2-2.70	2.70	5.40	3.00	39	●	●	●	●	●
4170R-2-2.80	2.80	5.60	3.00	39	●	●	●	●	●
4170R-2-2.90	2.90	5.80	3.00	39	●	●	●	●	●
4170R-2-3.00	3.00	6.00	4.00	40	●	●	●	●	●



Micro-fraises

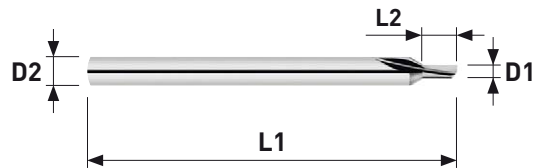
Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 0^\circ$ Sharp
Corner

3xD1

Z = 1



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4170R-3-0.20	0.20	0.60	3.00	39	●				
4170R-3-0.30	0.30	0.90	3.00	39	●	●	●	●	●
4170R-3-0.40	0.40	1.20	3.00	39	●	●	●	●	●
4170R-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
4170R-3-0.60	0.60	1.80	3.00	39	●	●	●	●	●
4170R-3-0.70	0.70	2.10	3.00	39	●	●	●	●	●
4170R-3-0.80	0.80	2.40	3.00	39	●	●	●	●	●
4170R-3-0.90	0.90	2.70	3.00	39	●	●	●	●	●
4170R-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
4170R-3-1.10	1.10	3.30	3.00	39	●	●	●	●	●
4170R-3-1.20	1.20	3.60	3.00	39	●	●	●	●	●
4170R-3-1.30	1.30	3.90	3.00	39	●	●	●	●	●
4170R-3-1.40	1.40	4.20	3.00	39	●	●	●	●	●
4170R-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
4170R-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
4170R-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●
4170R-3-3.00	3.00	9.00	4.00	40	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 0°Sharp
Corner

4xD1

Z = 1



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4170R-4-0.30	0.30	1.20	3.00	39	●	●	●	●	●
4170R-4-0.40	0.40	1.60	3.00	39	●	●	●	●	●
4170R-4-0.50	0.50	2.00	3.00	39	●	●	●	●	●
4170R-4-0.60	0.60	2.40	3.00	39	●	●	●	●	●
4170R-4-0.70	0.70	2.80	3.00	39	●	●	●	●	●
4170R-4-0.80	0.80	3.20	3.00	39	●	●	●	●	●
4170R-4-0.90	0.90	3.60	3.00	39	●	●	●	●	●
4170R-4-1.00	1.00	4.00	3.00	39	●	●	●	●	●
4170R-4-1.10	1.10	4.40	3.00	39	●	●	●	●	●
4170R-4-1.20	1.20	4.80	3.00	39	●	●	●	●	●
4170R-4-1.30	1.30	5.20	3.00	39	●	●	●	●	●
4170R-4-1.40	1.40	5.60	3.00	39	●	●	●	●	●
4170R-4-1.50	1.50	6.00	3.00	39	●	●	●	●	●
4170R-4-2.00	2.00	8.00	3.00	39	●	●	●	●	●
4170R-4-2.50	2.50	10.00	3.00	39	●	●	●	●	●
4170R-4-3.00	3.00	12.00	4.00	40	●	●	●	●	●



Micro-fraises

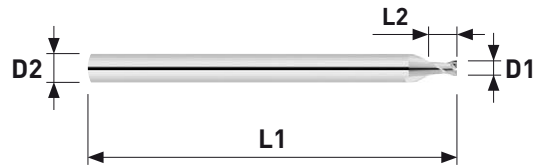
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

0.75xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-0.75-0.20	0.20	0.15	3.00	39	●				
4270-0.75-0.30	0.30	0.25	3.00	39	●	●	●	●	●
4270-0.75-0.40	0.40	0.30	3.00	39	●	●	●	●	●
4270-0.75-0.50	0.50	0.37	3.00	39	●	●	●	●	●
4270-0.75-0.60	0.60	0.45	3.00	39	●	●	●	●	●
4270-0.75-0.70	0.70	0.53	3.00	39	●	●	●	●	●
4270-0.75-0.80	0.80	0.60	3.00	39	●	●	●	●	●
4270-0.75-0.90	0.90	0.70	3.00	39	●	●	●	●	●
4270-0.75-1.00	1.00	0.75	3.00	39	●	●	●	●	●
4270-0.75-1.10	1.10	0.90	3.00	39	●	●	●	●	●
4270-0.75-1.20	1.20	0.90	3.00	39	●	●	●	●	●
4270-0.75-1.30	1.30	1.00	3.00	39	●	●	●	●	●
4270-0.75-1.40	1.40	1.10	3.00	39	●	●	●	●	●
4270-0.75-1.50	1.50	1.15	3.00	39	●	●	●	●	●
4270-0.75-1.60	1.60	1.20	3.00	39	●	●	●	●	●
4270-0.75-1.70	1.70	1.30	3.00	39	●	●	●	●	●
4270-0.75-1.80	1.80	1.40	3.00	39	●	●	●	●	●
4270-0.75-1.90	1.90	1.45	3.00	39	●	●	●	●	●
4270-0.75-2.00	2.00	1.50	3.00	39	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

1xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-1-0.30	0.30	0.30	3.00	39	●	●	●	●	●
4270-1-0.40	0.40	0.40	3.00	39	●	●	●	●	●
4270-1-0.50	0.50	0.50	3.00	39	●	●	●	●	●
4270-1-0.60	0.60	0.60	3.00	39	●	●	●	●	●
4270-1-0.70	0.70	0.70	3.00	39	●	●	●	●	●
4270-1-0.80	0.80	0.80	3.00	39	●	●	●	●	●
4270-1-0.90	0.90	0.90	3.00	39	●	●	●	●	●
4270-1-1.00	1.00	1.00	3.00	39	●	●	●	●	●
4270-1-1.10	1.10	1.10	3.00	39	●	●	●	●	●
4270-1-1.20	1.20	1.20	3.00	39	●	●	●	●	●
4270-1-1.30	1.30	1.30	3.00	39	●	●	●	●	●
4270-1-1.40	1.40	1.40	3.00	39	●	●	●	●	●
4270-1-1.50	1.50	1.50	3.00	39	●	●	●	●	●
4270-1-1.60	1.60	1.60	3.00	39	●	●	●	●	●
4270-1-1.70	1.70	1.70	3.00	39	●	●	●	●	●
4270-1-1.80	1.80	1.80	3.00	39	●	●	●	●	●
4270-1-1.90	1.90	1.90	3.00	39	●	●	●	●	●
4270-1-2.00	2.00	2.00	3.00	39	●	●	●	●	●
4270-1-2.50	2.50	2.50	3.00	39	●	●	●	●	●



Micro-fraises

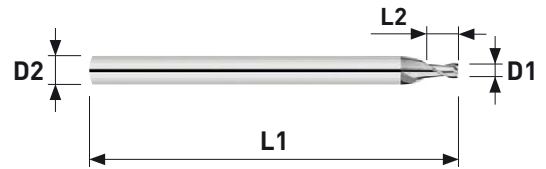
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

1.5xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-1.5-0.10	0.10	0.15	3.00	39	●				
4270-1.5-0.15	0.15	0.20	3.00	39	●				
4270-1.5-0.20	0.20	0.30	3.00	39	●				
4270-1.5-0.25	0.25	0.35	3.00	39	●				
4270-1.5-0.30	0.30	0.45	3.00	39	●	●	●	●	●
4270-1.5-0.40	0.40	0.60	3.00	39	●	●	●	●	●
4270-1.5-0.45	0.45	0.70	3.00	39	●	●	●	●	●
4270-1.5-0.50	0.50	0.75	3.00	39	●	●	●	●	●
4270-1.5-0.60	0.60	0.90	3.00	39	●	●	●	●	●
4270-1.5-0.70	0.70	1.05	3.00	39	●	●	●	●	●
4270-1.5-0.80	0.80	1.20	3.00	39	●	●	●	●	●
4270-1.5-0.90	0.90	1.35	3.00	39	●	●	●	●	●
4270-1.5-1.00	1.00	1.50	3.00	39	●	●	●	●	●
4270-1.5-1.10	1.10	1.65	3.00	39	●	●	●	●	●
4270-1.5-1.20	1.20	1.80	3.00	39	●	●	●	●	●
4270-1.5-1.30	1.30	1.95	3.00	39	●	●	●	●	●
4270-1.5-1.40	1.40	2.10	3.00	39	●	●	●	●	●
4270-1.5-1.50	1.50	2.25	3.00	39	●	●	●	●	●
4270-1.5-1.60	1.60	2.40	3.00	39	●	●	●	●	●
4270-1.5-1.70	1.70	2.55	3.00	39	●	●	●	●	●
4270-1.5-1.80	1.80	2.70	3.00	39	●	●	●	●	●
4270-1.5-1.90	1.90	2.85	3.00	39	●	●	●	●	●
4270-1.5-2.00	2.00	3.00	3.00	39	●	●	●	●	●



Micro-fraises

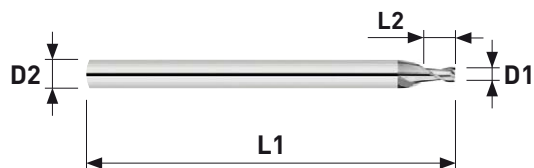
Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Sharp
Corner

2xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-2-0.10	0.10	0.20	3.00	39	●				
4270-2-0.15	0.15	0.30	3.00	39	●				
4270-2-0.20	0.20	0.40	3.00	39	●				
4270-2-0.25	0.25	0.50	3.00	39	●				
4270-2-0.30	0.30	0.60	3.00	39	●	●	●	●	●
4270-2-0.40	0.40	0.80	3.00	39	●	●	●	●	●
4270-2-0.50	0.50	1.00	3.00	39	●	●	●	●	●
4270-2-0.60	0.60	1.20	3.00	39	●	●	●	●	●
4270-2-0.70	0.70	1.40	3.00	39	●	●	●	●	●
4270-2-0.80	0.80	1.60	3.00	39	●	●	●	●	●
4270-2-0.90	0.90	1.80	3.00	39	●	●	●	●	●
4270-2-1.00	1.00	2.00	3.00	39	●	●	●	●	●
4270-2-1.10	1.10	2.20	3.00	39	●	●	●	●	●
4270-2-1.20	1.20	2.40	3.00	39	●	●	●	●	●
4270-2-1.30	1.30	2.60	3.00	39	●	●	●	●	●
4270-2-1.40	1.40	2.80	3.00	39	●	●	●	●	●
4270-2-1.50	1.50	3.00	3.00	39	●	●	●	●	●
4270-2-1.60	1.60	3.20	3.00	39	●	●	●	●	●
4270-2-1.70	1.70	3.40	3.00	39	●	●	●	●	●
4270-2-1.80	1.80	3.60	3.00	39	●	●	●	●	●
4270-2-1.90	1.90	3.80	3.00	39	●	●	●	●	●
4270-2-2.00	2.00	4.00	3.00	39	●	●	●	●	●



Micro-fraises

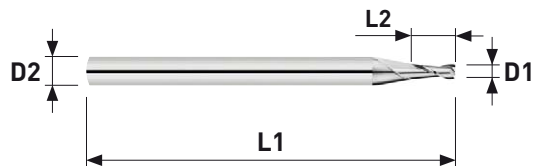
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

3xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-3-0.10	0.10	0.25	3.00	39	●				
4270-3-0.15	0.15	0.45	3.00	39	●				
4270-3-0.20	0.20	0.50	3.00	39	●				
4270-3-0.25	0.25	0.75	3.00	39	●				
4270-3-0.30	0.30	1.00	3.00	39	●	●	●	●	●
4270-3-0.35	0.35	1.10	3.00	39	●	●	●	●	●
4270-3-0.40	0.40	1.20	3.00	39	●	●	●	●	●
4270-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
4270-3-0.60	0.60	2.00	3.00	39	●	●	●	●	●
4270-3-0.65	0.65	2.00	3.00	39	●	●	●	●	●
4270-3-0.70	0.70	2.00	3.00	39	●	●	●	●	●
4270-3-0.75	0.75	2.00	3.00	39	●	●	●	●	●
4270-3-0.80	0.80	2.50	3.00	39	●	●	●	●	●
4270-3-0.90	0.90	2.50	3.00	39	●	●	●	●	●
4270-3-0.95	0.95	3.00	3.00	39	●	●	●	●	●
4270-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
4270-3-1.05	1.05	3.00	3.00	39	●	●	●	●	●
4270-3-1.10	1.10	3.00	3.00	39	●	●	●	●	●
4270-3-1.15	1.15	3.50	3.00	39	●	●	●	●	●
4270-3-1.20	1.20	4.00	3.00	39	●	●	●	●	●
4270-3-1.30	1.30	4.00	3.00	39	●	●	●	●	●
4270-3-1.35	1.35	4.00	3.00	39	●	●	●	●	●
4270-3-1.40	1.40	4.00	3.00	39	●	●	●	●	●
4270-3-1.45	1.45	4.40	3.00	39	●	●	●	●	●
4270-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
4270-3-1.55	1.55	4.50	3.00	39	●	●	●	●	●
4270-3-1.60	1.60	4.50	3.00	39	●	●	●	●	●
4270-3-1.65	1.65	5.00	3.00	39	●	●	●	●	●
4270-3-1.70	1.70	5.00	3.00	39	●	●	●	●	●
4270-3-1.75	1.75	5.30	3.00	39	●	●	●	●	●
4270-3-1.80	1.80	6.00	3.00	39	●	●	●	●	●
4270-3-1.85	1.85	6.00	3.00	39	●	●	●	●	●
4270-3-1.90	1.90	6.00	3.00	39	●	●	●	●	●
4270-3-1.95	1.95	6.00	3.00	39	●	●	●	●	●
4270-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
4270-3-2.10	2.10	6.00	3.00	39	●	●	●	●	●
4270-3-2.20	2.20	6.50	3.00	39	●	●	●	●	●
4270-3-2.30	2.30	7.00	3.00	39	●	●	●	●	●
4270-3-2.40	2.40	7.00	3.00	39	●	●	●	●	●
4270-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●
4270-3-2.60	2.60	7.50	3.00	39	●	●	●	●	●
4270-3-2.70	2.70	8.00	3.00	39	●	●	●	●	●
4270-3-2.80	2.80	8.00	3.00	39	●	●	●	●	●
4270-3-2.90	2.90	8.00	3.00	39	●	●	●	●	●



Micro-fraises

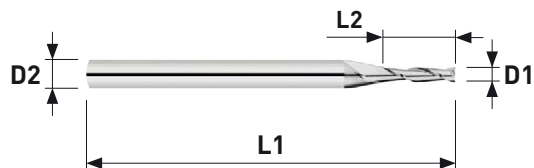
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

5xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-5-0.30	0.30	1.50	3.00	39	●	●	●	●	●
4270-5-0.35	0.35	1.80	3.00	39	●	●	●	●	●
4270-5-0.40	0.40	2.00	3.00	39	●	●	●	●	●
4270-5-0.50	0.50	2.50	3.00	39	●	●	●	●	●
4270-5-0.55	0.55	2.80	3.00	39	●	●	●	●	●
4270-5-0.60	0.60	3.00	3.00	39	●	●	●	●	●
4270-5-0.65	0.65	3.30	3.00	39	●	●	●	●	●
4270-5-0.70	0.70	3.50	3.00	39	●	●	●	●	●
4270-5-0.75	0.75	3.80	3.00	39	●	●	●	●	●
4270-5-0.80	0.80	4.00	3.00	39	●	●	●	●	●
4270-5-0.85	0.85	4.30	3.00	39	●	●	●	●	●
4270-5-0.90	0.90	4.50	3.00	39	●	●	●	●	●
4270-5-0.95	0.95	4.80	3.00	39	●	●	●	●	●
4270-5-1.00	1.00	5.00	3.00	39	●	●	●	●	●
4270-5-1.10	1.10	5.50	3.00	39	●	●	●	●	●
4270-5-1.20	1.20	6.00	3.00	39	●	●	●	●	●
4270-5-1.50	1.50	7.50	3.00	39	●	●	●	●	●
4270-5-2.00	2.00	10.00	3.00	39	●	●	●	●	●
4270-5-2.50	2.50	12.50	3.00	39	●	●	●	●	●



Micro-fraises
Mikrofräser
Micro end mills

MD
VHM
HM

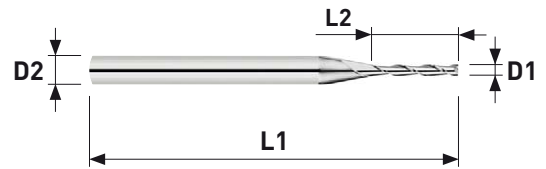
λ 30°

Sharp
Corner



8xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270-8-0.40	0.40	3.20	3.00	39	●	●	●	●	●
4270-8-0.50	0.50	4.00	3.00	39	●	●	●	●	●
4270-8-0.60	0.60	5.00	3.00	39	●	●	●	●	●
4270-8-0.70	0.70	5.60	3.00	39	●	●	●	●	●
4270-8-0.80	0.80	6.00	3.00	39	●	●	●	●	●
4270-8-0.90	0.90	7.20	3.00	39	●	●	●	●	●
4270-8-1.00	1.00	8.00	3.00	39	●	●	●	●	●
4270-8-1.20	1.20	9.00	3.00	39	●	●	●	●	●
4270-8-1.50	1.50	12.00	4.00	50	●	●	●	●	●
4270-8-2.00	2.00	16.00	4.00	50	●	●	●	●	●
4270-8-2.50	2.50	20.00	4.00	50	●	●	●	●	●



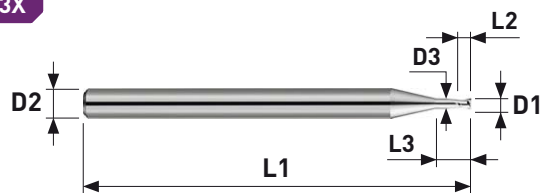
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
CornerL3
3xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270S-3X-0.20	0.20	0.40	0.60	0.17	3.00	39	●				
4270S-3X-0.30	0.30	0.60	0.90	0.27	3.00	39	●	●	●	●	●
4270S-3X-0.40	0.40	0.80	1.20	0.37	3.00	39	●	●	●	●	●
4270S-3X-0.50	0.50	1.00	1.50	0.45	3.00	39	●	●	●	●	●
4270S-3X-0.60	0.60	1.20	1.80	0.55	3.00	39	●	●	●	●	●
4270S-3X-0.70	0.70	1.40	2.10	0.65	3.00	39	●	●	●	●	●
4270S-3X-0.80	0.80	1.60	2.40	0.75	3.00	39	●	●	●	●	●
4270S-3X-0.90	0.90	1.80	2.70	0.85	3.00	39	●	●	●	●	●
4270S-3X-1.00	1.00	2.00	3.00	0.95	3.00	39	●	●	●	●	●
4270S-3X-1.10	1.10	2.20	3.30	1.05	3.00	39	●	●	●	●	●
4270S-3X-1.20	1.20	2.40	3.60	1.15	3.00	39	●	●	●	●	●
4270S-3X-1.30	1.30	2.60	3.90	1.25	3.00	39	●	●	●	●	●
4270S-3X-1.40	1.40	2.80	4.20	1.35	3.00	39	●	●	●	●	●
4270S-3X-1.50	1.50	3.00	4.50	1.45	3.00	39	●	●	●	●	●
4270S-3X-1.60	1.60	3.20	4.80	1.55	3.00	39	●	●	●	●	●
4270S-3X-1.70	1.70	3.40	5.10	1.65	3.00	39	●	●	●	●	●
4270S-3X-1.80	1.80	3.60	5.40	1.75	3.00	39	●	●	●	●	●
4270S-3X-1.90	1.90	3.80	5.70	1.85	3.00	39	●	●	●	●	●
4270S-3X-2.00	2.00	4.00	6.00	1.95	6.00	50	●	●	●	●	●
4270S-3X-2.10	2.10	4.20	6.30	2.05	6.00	50	●	●	●	●	●
4270S-3X-2.20	2.20	4.40	6.60	2.15	6.00	50	●	●	●	●	●
4270S-3X-2.30	2.30	4.60	6.90	2.25	6.00	50	●	●	●	●	●
4270S-3X-2.40	2.40	4.80	7.20	2.35	6.00	50	●	●	●	●	●
4270S-3X-2.50	2.50	5.00	7.50	2.45	6.00	50	●	●	●	●	●
4270S-3X-3.00	3.00	6.00	9.00	2.95	6.00	50	●	●	●	●	●



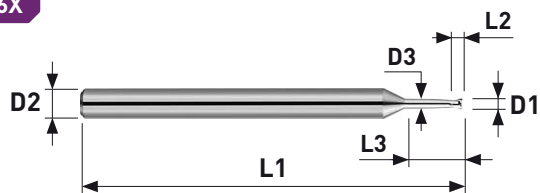
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
CornerL3
6xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270S-6X-0.30	0.30	0.60	1.80	0.27	3.00	39	●	●	●	●	●
4270S-6X-0.40	0.40	0.80	2.40	0.37	3.00	39	●	●	●	●	●
4270S-6X-0.50	0.50	1.00	3.00	0.45	3.00	39	●	●	●	●	●
4270S-6X-0.60	0.60	1.20	3.60	0.55	3.00	39	●	●	●	●	●
4270S-6X-0.70	0.70	1.40	4.20	0.65	3.00	39	●	●	●	●	●
4270S-6X-0.80	0.80	1.60	4.80	0.75	3.00	39	●	●	●	●	●
4270S-6X-0.90	0.90	1.80	5.40	0.85	3.00	39	●	●	●	●	●
4270S-6X-1.00	1.00	2.00	6.00	0.95	3.00	39	●	●	●	●	●
4270S-6X-1.10	1.10	2.20	6.60	1.05	3.00	39	●	●	●	●	●
4270S-6X-1.20	1.20	2.40	7.20	1.15	3.00	39	●	●	●	●	●
4270S-6X-1.30	1.30	2.60	7.80	1.25	3.00	39	●	●	●	●	●
4270S-6X-1.40	1.40	2.80	8.40	1.35	3.00	39	●	●	●	●	●
4270S-6X-1.50	1.50	3.00	9.00	1.45	3.00	39	●	●	●	●	●
4270S-6X-1.60	1.60	3.20	9.60	1.55	3.00	39	●	●	●	●	●
4270S-6X-1.70	1.70	3.40	10.20	1.65	3.00	39	●	●	●	●	●
4270S-6X-1.80	1.80	3.60	10.80	1.75	3.00	39	●	●	●	●	●
4270S-6X-1.90	1.90	3.80	11.40	1.85	3.00	39	●	●	●	●	●
4270S-6X-2.00	2.00	4.00	12.00	1.95	6.00	50	●	●	●	●	●
4270S-6X-2.10	2.10	4.20	12.60	2.05	6.00	50	●	●	●	●	●
4270S-6X-2.20	2.20	4.40	13.20	2.15	6.00	50	●	●	●	●	●
4270S-6X-2.30	2.30	4.60	13.80	2.25	6.00	50	●	●	●	●	●
4270S-6X-2.40	2.40	4.80	14.40	2.35	6.00	50	●	●	●	●	●
4270S-6X-2.50	2.50	5.00	15.00	2.45	6.00	50	●	●	●	●	●
4270S-6X-3.00	3.00	6.00	18.00	2.95	6.00	50	●	●	●	●	●



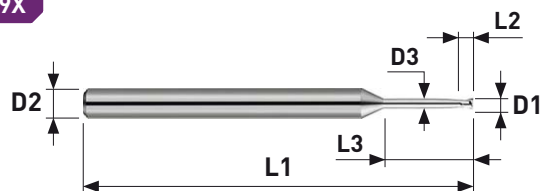
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
CornerL3
9xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4270S-9X-0.40	0.40	0.80	3.60	0.37	3.00	39	●	●	●	●	●
4270S-9X-0.50	0.50	1.00	4.50	0.45	3.00	39	●	●	●	●	●
4270S-9X-0.60	0.60	1.20	5.40	0.55	3.00	39	●	●	●	●	●
4270S-9X-0.70	0.70	1.40	6.30	0.65	3.00	39	●	●	●	●	●
4270S-9X-0.80	0.80	1.60	7.20	0.75	3.00	39	●	●	●	●	●
4270S-9X-0.90	0.90	1.80	8.10	0.85	3.00	39	●	●	●	●	●
4270S-9X-1.00	1.00	2.00	9.00	0.95	3.00	39	●	●	●	●	●
4270S-9X-1.10	1.10	2.20	9.90	1.05	3.00	39	●	●	●	●	●
4270S-9X-1.20	1.20	2.40	10.80	1.15	3.00	39	●	●	●	●	●
4270S-9X-1.30	1.30	2.60	11.70	1.25	3.00	39	●	●	●	●	●
4270S-9X-1.40	1.40	2.80	12.60	1.35	3.00	39	●	●	●	●	●
4270S-9X-1.50	1.50	3.00	13.50	1.45	3.00	39	●	●	●	●	●
4270S-9X-1.60	1.60	3.20	14.40	1.55	3.00	39	●	●	●	●	●
4270S-9X-1.70	1.70	3.40	15.30	1.65	3.00	39	●	●	●	●	●
4270S-9X-1.80	1.80	3.60	16.20	1.75	3.00	39	●	●	●	●	●
4270S-9X-1.90	1.90	3.80	17.10	1.85	3.00	39	●	●	●	●	●
4270S-9X-2.00	2.00	4.00	18.00	1.95	6.00	50	●	●	●	●	●
4270S-9X-2.10	2.10	4.20	18.90	2.05	6.00	50	●	●	●	●	●
4270S-9X-2.20	2.20	4.40	19.80	2.15	6.00	50	●	●	●	●	●
4270S-9X-2.30	2.30	4.60	20.70	2.25	6.00	50	●	●	●	●	●
4270S-9X-2.40	2.40	4.80	21.60	2.35	6.00	50	●	●	●	●	●
4270S-9X-2.50	2.50	5.00	22.50	2.45	6.00	50	●	●	●	●	●
4270S-9X-3.00	3.00	6.00	27.00	2.95	6.00	50	●	●	●	●	●



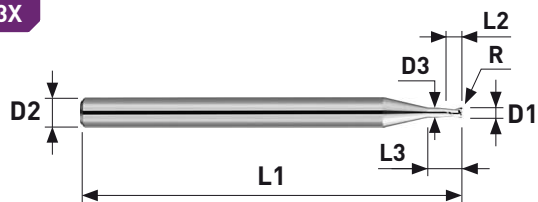
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Radius
CornerL3
3xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4279T-3X-0.30	0.30	0.05	0.60	0.90	0.27	3.00	39	●	●	●	●	●
4279T-3X-0.40	0.40	0.05	0.80	1.20	0.37	3.00	39	●	●	●	●	●
4279T-3X-0.50	0.50	0.05	1.00	1.50	0.45	3.00	39	●	●	●	●	●
4279T-3X-0.60	0.60	0.05	1.20	1.80	0.55	3.00	39	●	●	●	●	●
4279T-3X-0.70	0.70	0.05	1.40	2.10	0.65	3.00	39	●	●	●	●	●
4279T-3X-0.80	0.80	0.05	1.60	2.40	0.75	3.00	39	●	●	●	●	●
4279T-3X-0.90	0.90	0.05	1.80	2.70	0.85	3.00	39	●	●	●	●	●
4279T-3X-1.00	1.00	0.10	2.00	3.00	0.95	3.00	39	●	●	●	●	●
4279T-3X-1.10	1.10	0.10	2.20	3.30	1.05	3.00	39	●	●	●	●	●
4279T-3X-1.20	1.20	0.10	2.40	3.60	1.15	3.00	39	●	●	●	●	●
4279T-3X-1.30	1.30	0.10	2.60	3.90	1.25	3.00	39	●	●	●	●	●
4279T-3X-1.40	1.40	0.10	2.80	4.20	1.35	3.00	39	●	●	●	●	●
4279T-3X-1.50	1.50	0.20	3.00	4.50	1.45	3.00	39	●	●	●	●	●
4279T-3X-1.60	1.60	0.20	3.20	4.80	1.55	3.00	39	●	●	●	●	●
4279T-3X-1.70	1.70	0.20	3.40	5.10	1.65	3.00	39	●	●	●	●	●
4279T-3X-1.80	1.80	0.20	3.60	5.40	1.75	3.00	39	●	●	●	●	●
4279T-3X-1.90	1.90	0.20	3.80	5.70	1.85	3.00	39	●	●	●	●	●
4279T-3X-2.00	2.00	0.20	4.00	6.00	1.95	6.00	50	●	●	●	●	●
4279T-3X-2.10	2.10	0.20	4.20	6.30	2.05	6.00	50	●	●	●	●	●
4279T-3X-2.20	2.20	0.20	4.40	6.60	2.15	6.00	50	●	●	●	●	●
4279T-3X-2.30	2.30	0.20	4.60	6.90	2.25	6.00	50	●	●	●	●	●
4279T-3X-2.40	2.40	0.20	4.80	7.20	2.35	6.00	50	●	●	●	●	●
4279T-3X-2.50	2.50	0.20	5.00	7.50	2.45	6.00	50	●	●	●	●	●
4279T-3X-3.00	3.00	0.20	6.00	9.00	2.95	6.00	50	●	●	●	●	●



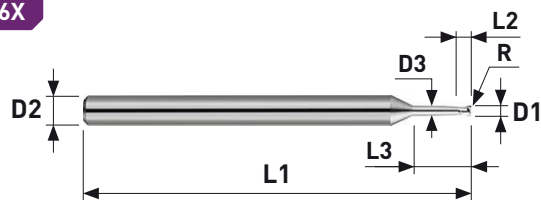
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Radius
CornerL3
6xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4279T-6X-0.30	0.30	0.05	0.60	1.80	0.27	3.00	39	●	●	●	●	●
4279T-6X-0.40	0.40	0.05	0.80	2.40	0.37	3.00	39	●	●	●	●	●
4279T-6X-0.50	0.50	0.05	1.00	3.00	0.45	3.00	39	●	●	●	●	●
4279T-6X-0.60	0.60	0.05	1.20	3.60	0.55	3.00	39	●	●	●	●	●
4279T-6X-0.70	0.70	0.05	1.40	4.20	0.65	3.00	39	●	●	●	●	●
4279T-6X-0.80	0.80	0.05	1.60	4.80	0.75	3.00	39	●	●	●	●	●
4279T-6X-0.90	0.90	0.05	1.80	5.40	0.85	3.00	39	●	●	●	●	●
4279T-6X-1.00	1.00	0.10	2.00	6.00	0.95	3.00	39	●	●	●	●	●
4279T-6X-1.10	1.10	0.10	2.20	6.60	1.05	3.00	39	●	●	●	●	●
4279T-6X-1.20	1.20	0.10	2.40	7.20	1.15	3.00	39	●	●	●	●	●
4279T-6X-1.30	1.30	0.10	2.60	7.80	1.25	3.00	39	●	●	●	●	●
4279T-6X-1.40	1.40	0.10	2.80	8.40	1.35	3.00	39	●	●	●	●	●
4279T-6X-1.50	1.50	0.20	3.00	9.00	1.45	3.00	39	●	●	●	●	●
4279T-6X-1.60	1.60	0.20	3.20	9.60	1.55	3.00	39	●	●	●	●	●
4279T-6X-1.70	1.70	0.20	3.40	10.20	1.65	3.00	39	●	●	●	●	●
4279T-6X-1.80	1.80	0.20	3.60	10.80	1.75	3.00	39	●	●	●	●	●
4279T-6X-1.90	1.90	0.20	3.80	11.40	1.85	3.00	39	●	●	●	●	●
4279T-6X-2.00	2.00	0.20	4.00	12.00	1.95	6.00	50	●	●	●	●	●
4279T-6X-2.10	2.10	0.20	4.20	12.60	2.05	6.00	50	●	●	●	●	●
4279T-6X-2.20	2.20	0.20	4.40	13.20	2.15	6.00	50	●	●	●	●	●
4279T-6X-2.30	2.30	0.20	4.60	13.80	2.25	6.00	50	●	●	●	●	●
4279T-6X-2.40	2.40	0.20	4.80	14.40	2.35	6.00	50	●	●	●	●	●
4279T-6X-2.50	2.50	0.20	5.00	15.00	2.45	6.00	50	●	●	●	●	●
4279T-6X-3.00	3.00	0.20	6.00	18.00	2.95	6.00	50	●	●	●	●	●



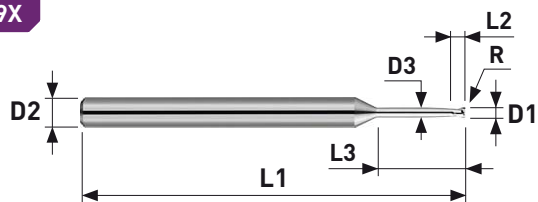
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Radius
CornerL3
9xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4279T-9X-0.40	0.40	0.05	0.80	3.60	0.37	3.00	39	●	●	●	●	●
4279T-9X-0.50	0.50	0.05	1.00	4.50	0.45	3.00	39	●	●	●	●	●
4279T-9X-0.60	0.60	0.05	1.20	5.40	0.55	3.00	39	●	●	●	●	●
4279T-9X-0.70	0.70	0.05	1.40	6.30	0.65	3.00	39	●	●	●	●	●
4279T-9X-0.80	0.80	0.05	1.60	7.20	0.75	3.00	39	●	●	●	●	●
4279T-9X-0.90	0.90	0.05	1.80	8.10	0.85	3.00	39	●	●	●	●	●
4279T-9X-1.00	1.00	0.10	2.00	9.00	0.95	3.00	39	●	●	●	●	●
4279T-9X-1.10	1.10	0.10	2.20	9.90	1.05	3.00	39	●	●	●	●	●
4279T-9X-1.20	1.20	0.10	2.40	10.80	1.15	3.00	39	●	●	●	●	●
4279T-9X-1.30	1.30	0.10	2.60	11.70	1.25	3.00	39	●	●	●	●	●
4279T-9X-1.40	1.40	0.10	2.80	12.60	1.35	3.00	39	●	●	●	●	●
4279T-9X-1.50	1.50	0.20	3.00	13.50	1.45	3.00	39	●	●	●	●	●
4279T-9X-1.60	1.60	0.20	3.20	14.40	1.55	3.00	39	●	●	●	●	●
4279T-9X-1.70	1.70	0.20	3.40	15.30	1.65	3.00	39	●	●	●	●	●
4279T-9X-1.80	1.80	0.20	3.60	16.20	1.75	3.00	39	●	●	●	●	●
4279T-9X-1.90	1.90	0.20	3.80	17.10	1.85	3.00	39	●	●	●	●	●
4279T-9X-2.00	2.00	0.20	4.00	18.00	1.95	6.00	50	●	●	●	●	●
4279T-9X-2.10	2.10	0.20	4.20	18.90	2.05	6.00	50	●	●	●	●	●
4279T-9X-2.20	2.20	0.20	4.40	19.80	2.15	6.00	50	●	●	●	●	●
4279T-9X-2.30	2.30	0.20	4.60	20.70	2.25	6.00	50	●	●	●	●	●
4279T-9X-2.40	2.40	0.20	4.80	21.60	2.35	6.00	50	●	●	●	●	●
4279T-9X-2.50	2.50	0.20	5.00	22.50	2.45	6.00	50	●	●	●	●	●
4279T-9X-3.00	3.00	0.20	6.00	27.00	2.95	6.00	50	●	●	●	●	●



Micro-fraises

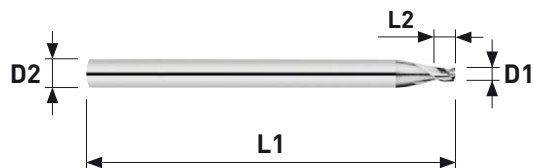
Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Sharp
Corner

1.3xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-1.3-0.30	0.30	0.40	3.00	39	●	●	●	●	●
4370-1.3-0.35	0.35	0.50	3.00	39	●	●	●	●	●
4370-1.3-0.40	0.40	0.50	3.00	39	●	●	●	●	●
4370-1.3-0.45	0.45	0.60	3.00	39	●	●	●	●	●
4370-1.3-0.50	0.50	0.70	3.00	39	●	●	●	●	●
4370-1.3-0.60	0.60	0.80	3.00	39	●	●	●	●	●
4370-1.3-0.70	0.70	0.90	3.00	39	●	●	●	●	●
4370-1.3-0.80	0.80	1.00	3.00	39	●	●	●	●	●
4370-1.3-0.90	0.90	1.30	3.00	39	●	●	●	●	●
4370-1.3-1.00	1.00	1.30	3.00	39	●	●	●	●	●
4370-1.3-1.10	1.10	1.50	3.00	39	●	●	●	●	●
4370-1.3-1.20	1.20	1.60	3.00	39	●	●	●	●	●
4370-1.3-1.30	1.30	1.80	3.00	39	●	●	●	●	●
4370-1.3-1.40	1.40	1.80	3.00	39	●	●	●	●	●
4370-1.3-1.50	1.50	2.00	3.00	39	●	●	●	●	●
4370-1.3-1.55	1.55	2.00	3.00	39	●	●	●	●	●
4370-1.3-1.60	1.60	2.00	3.00	39	●	●	●	●	●
4370-1.3-1.65	1.65	2.00	3.00	39	●	●	●	●	●
4370-1.3-1.70	1.70	2.00	3.00	39	●	●	●	●	●
4370-1.3-1.80	1.80	2.40	3.00	39	●	●	●	●	●
4370-1.3-1.90	1.90	2.40	3.00	39	●	●	●	●	●
4370-1.3-2.00	2.00	2.60	3.00	39	●	●	●	●	●
4370-1.3-2.05	2.05	2.70	3.00	39	●	●	●	●	●
4370-1.3-2.20	2.20	3.00	3.00	39	●	●	●	●	●
4370-1.3-2.50	2.50	3.30	3.00	39	●	●	●	●	●
4370-1.3-2.80	2.80	3.50	3.00	39	●	●	●	●	●
4370-1.3-2.90	2.90	3.50	3.00	39	●	●	●	●	●



Micro-fraises

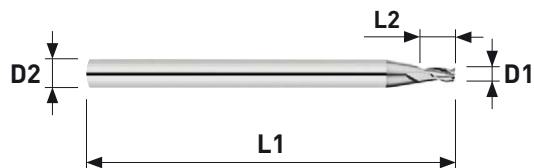
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

2xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-2-0.30	0.30	0.60	3.00	39	●	●	●	●	●
4370-2-0.35	0.35	0.70	3.00	39	●	●	●	●	●
4370-2-0.40	0.40	0.80	3.00	39	●	●	●	●	●
4370-2-0.45	0.45	0.90	3.00	39	●	●	●	●	●
4370-2-0.50	0.50	1.00	3.00	39	●	●	●	●	●
4370-2-0.60	0.60	1.20	3.00	39	●	●	●	●	●
4370-2-0.70	0.70	1.40	3.00	39	●	●	●	●	●
4370-2-0.75	0.75	1.50	3.00	39	●	●	●	●	●
4370-2-0.80	0.80	1.60	3.00	39	●	●	●	●	●
4370-2-0.90	0.90	1.80	3.00	39	●	●	●	●	●
4370-2-0.95	0.95	1.90	3.00	39	●	●	●	●	●
4370-2-1.00	1.00	2.00	3.00	39	●	●	●	●	●
4370-2-1.10	1.10	2.20	3.00	39	●	●	●	●	●
4370-2-1.20	1.20	2.40	3.00	39	●	●	●	●	●
4370-2-1.30	1.30	2.60	3.00	39	●	●	●	●	●
4370-2-1.40	1.40	2.80	3.00	39	●	●	●	●	●
4370-2-1.50	1.50	3.00	3.00	39	●	●	●	●	●
4370-2-1.60	1.60	3.20	3.00	39	●	●	●	●	●
4370-2-1.70	1.70	3.40	3.00	39	●	●	●	●	●
4370-2-1.80	1.80	3.60	3.00	39	●	●	●	●	●
4370-2-1.90	1.90	3.80	3.00	39	●	●	●	●	●
4370-2-2.00	2.00	4.00	3.00	39	●	●	●	●	●
4370-2-2.10	2.10	4.20	3.00	39	●	●	●	●	●
4370-2-2.20	2.20	4.40	3.00	39	●	●	●	●	●
4370-2-2.30	2.30	4.60	3.00	39	●	●	●	●	●
4370-2-2.40	2.40	4.80	3.00	39	●	●	●	●	●
4370-2-2.50	2.50	5.00	3.00	39	●	●	●	●	●
4370-2-2.60	2.60	5.20	3.00	39	●	●	●	●	●
4370-2-2.70	2.70	5.40	3.00	39	●	●	●	●	●
4370-2-2.80	2.80	5.60	3.00	39	●	●	●	●	●
4370-2-2.90	2.90	5.80	3.00	39	●	●	●	●	●



Micro-fraises

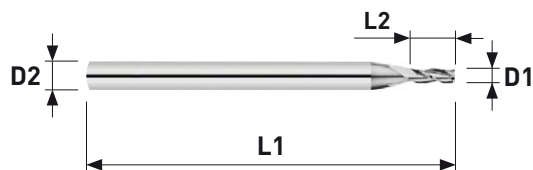
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

3xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-3-0.30	0.30	0.90	3.00	39	●	●	●	●	●
4370-3-0.40	0.40	1.20	3.00	39	●	●	●	●	●
4370-3-0.45	0.45	1.40	3.00	39	●	●	●	●	●
4370-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
4370-3-0.55	0.55	1.80	3.00	39	●	●	●	●	●
4370-3-0.60	0.60	2.00	3.00	39	●	●	●	●	●
4370-3-0.65	0.65	2.00	3.00	39	●	●	●	●	●
4370-3-0.70	0.70	2.00	3.00	39	●	●	●	●	●
4370-3-0.75	0.75	2.00	3.00	39	●	●	●	●	●
4370-3-0.80	0.80	2.50	3.00	39	●	●	●	●	●
4370-3-0.85	0.85	2.50	3.00	39	●	●	●	●	●
4370-3-0.90	0.90	2.50	3.00	39	●	●	●	●	●
4370-3-0.95	0.95	2.90	3.00	39	●	●	●	●	●
4370-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
4370-3-1.05	1.05	3.20	3.00	39	●	●	●	●	●
4370-3-1.10	1.10	3.30	3.00	39	●	●	●	●	●
4370-3-1.15	1.15	3.50	3.00	39	●	●	●	●	●
4370-3-1.20	1.20	4.00	3.00	39	●	●	●	●	●
4370-3-1.25	1.25	4.00	3.00	39	●	●	●	●	●
4370-3-1.30	1.30	4.00	3.00	39	●	●	●	●	●
4370-3-1.35	1.35	4.00	3.00	39	●	●	●	●	●
4370-3-1.40	1.40	4.00	3.00	39	●	●	●	●	●
4370-3-1.45	1.45	4.50	3.00	39	●	●	●	●	●
4370-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
4370-3-1.60	1.60	4.50	3.00	39	●	●	●	●	●
4370-3-1.65	1.65	5.00	3.00	39	●	●	●	●	●
4370-3-1.70	1.70	5.00	3.00	39	●	●	●	●	●
4370-3-1.80	1.80	6.00	3.00	39	●	●	●	●	●
4370-3-1.85	1.85	6.00	3.00	39	●	●	●	●	●
4370-3-1.90	1.90	6.00	3.00	39	●	●	●	●	●
4370-3-1.95	1.95	6.00	3.00	39	●	●	●	●	●
4370-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
4370-3-2.10	2.10	6.00	3.00	39	●	●	●	●	●
4370-3-2.20	2.20	6.50	3.00	39	●	●	●	●	●
4370-3-2.30	2.30	7.00	3.00	39	●	●	●	●	●
4370-3-2.40	2.40	7.00	3.00	39	●	●	●	●	●
4370-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●
4370-3-2.60	2.60	7.50	3.00	39	●	●	●	●	●
4370-3-2.70	2.70	8.00	3.00	39	●	●	●	●	●
4370-3-2.80	2.80	8.00	3.00	39	●	●	●	●	●
4370-3-2.90	2.90	8.50	3.00	39	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

4xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-4-0.30	0.30	1.20	3.00	39	●	●	●	●	●
4370-4-0.40	0.40	1.60	3.00	39	●	●	●	●	●
4370-4-0.50	0.50	2.00	3.00	39	●	●	●	●	●
4370-4-0.60	0.60	2.40	3.00	39	●	●	●	●	●
4370-4-0.70	0.70	2.80	3.00	39	●	●	●	●	●
4370-4-0.80	0.80	3.20	3.00	39	●	●	●	●	●
4370-4-0.90	0.90	3.60	3.00	39	●	●	●	●	●
4370-4-1.00	1.00	4.00	3.00	39	●	●	●	●	●
4370-4-1.10	1.10	4.40	3.00	39	●	●	●	●	●
4370-4-1.20	1.20	4.80	3.00	39	●	●	●	●	●
4370-4-1.30	1.30	5.20	3.00	39	●	●	●	●	●
4370-4-1.40	1.40	5.60	3.00	39	●	●	●	●	●
4370-4-1.50	1.50	6.00	3.00	39	●	●	●	●	●
4370-4-1.60	1.60	6.40	3.00	39	●	●	●	●	●
4370-4-1.70	1.70	6.80	3.00	39	●	●	●	●	●
4370-4-1.80	1.80	7.20	3.00	39	●	●	●	●	●
4370-4-1.90	1.90	7.60	3.00	39	●	●	●	●	●
4370-4-2.00	2.00	8.00	3.00	39	●	●	●	●	●
4370-4-2.10	2.10	8.40	3.00	39	●	●	●	●	●
4370-4-2.20	2.20	8.80	3.00	39	●	●	●	●	●
4370-4-2.30	2.30	9.20	3.00	39	●	●	●	●	●
4370-4-2.40	2.40	9.60	3.00	39	●	●	●	●	●
4370-4-2.50	2.50	10.00	3.00	39	●	●	●	●	●
4370-4-2.60	2.60	10.40	3.00	39	●	●	●	●	●
4370-4-2.70	2.70	10.80	3.00	39	●	●	●	●	●
4370-4-2.80	2.80	11.20	3.00	39	●	●	●	●	●
4370-4-2.90	2.90	11.60	3.00	39	●	●	●	●	●



Micro-fraises

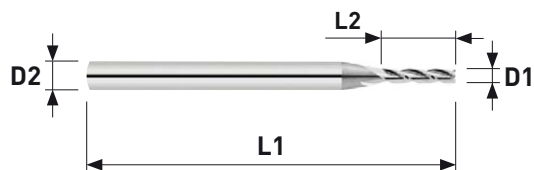
Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Sharp
Corner

5xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-5-0.50	0.50	2.50	3.00	39	●	●	●	●	●
4370-5-0.60	0.60	3.00	3.00	39	●	●	●	●	●
4370-5-0.70	0.70	3.50	3.00	39	●	●	●	●	●
4370-5-0.80	0.80	4.00	3.00	39	●	●	●	●	●
4370-5-0.90	0.90	4.50	3.00	39	●	●	●	●	●
4370-5-1.00	1.00	5.00	3.00	39	●	●	●	●	●
4370-5-1.10	1.10	5.50	3.00	39	●	●	●	●	●
4370-5-1.20	1.20	6.00	3.00	39	●	●	●	●	●
4370-5-1.50	1.50	7.50	3.00	39	●	●	●	●	●
4370-5-2.00	2.00	10.00	3.00	39	●	●	●	●	●
4370-5-2.50	2.50	12.50	3.00	39	●	●	●	●	●



Micro-fraises
Mikrofräser
Micro end mills

MD
VHM
HM

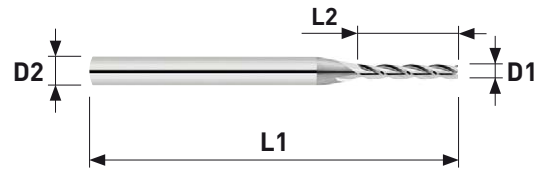
λ 30°

Sharp
Corner



8xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 ø3h4 ø4h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370-8-0.50	0.50	4.00	3.00	39	●	●	●	●	●
4370-8-0.60	0.60	5.00	3.00	39	●	●	●	●	●
4370-8-0.70	0.70	5.60	3.00	39	●	●	●	●	●
4370-8-0.80	0.80	6.00	3.00	39	●	●	●	●	●
4370-8-0.90	0.90	7.20	3.00	39	●	●	●	●	●
4370-8-1.00	1.00	8.00	3.00	39	●	●	●	●	●
4370-8-1.20	1.20	9.00	3.00	39	●	●	●	●	●
4370-8-1.30	1.30	11.00	3.00	39	●	●	●	●	●
4370-8-1.50	1.50	12.00	4.00	50	●	●	●	●	●
4370-8-2.00	2.00	16.00	4.00	50	●	●	●	●	●
4370-8-2.50	2.50	20.00	4.00	50	●	●	●	●	●



Micro-fraises

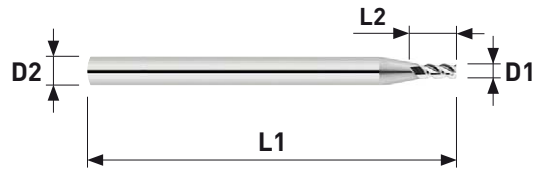
Mikrofräser

Micro end mills

MD
VHM
HM λ 45°Sharp
Corner

2,5xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4375-2.5-0.30	0.30	0.80	3.00	39	●	●	●	●	●
4375-2.5-0.40	0.40	1.00	3.00	39	●	●	●	●	●
4375-2.5-0.50	0.50	1.30	3.00	39	●	●	●	●	●
4375-2.5-0.60	0.60	1.50	3.00	39	●	●	●	●	●
4375-2.5-0.70	0.70	1.70	3.00	39	●	●	●	●	●
4375-2.5-0.80	0.80	2.00	3.00	39	●	●	●	●	●
4375-2.5-0.90	0.90	2.30	3.00	39	●	●	●	●	●
4375-2.5-1.00	1.00	2.50	3.00	39	●	●	●	●	●
4375-2.5-1.10	1.10	2.80	3.00	39	●	●	●	●	●
4375-2.5-1.20	1.20	3.00	3.00	39	●	●	●	●	●
4375-2.5-1.30	1.30	3.30	3.00	39	●	●	●	●	●
4375-2.5-1.40	1.40	3.50	3.00	39	●	●	●	●	●
4375-2.5-1.50	1.50	3.80	3.00	39	●	●	●	●	●
4375-2.5-1.60	1.60	4.00	3.00	39	●	●	●	●	●
4375-2.5-1.70	1.70	4.30	3.00	39	●	●	●	●	●
4375-2.5-1.80	1.80	4.50	3.00	39	●	●	●	●	●
4375-2.5-1.90	1.90	4.80	3.00	39	●	●	●	●	●
4375-2.5-2.00	2.00	5.00	3.00	39	●	●	●	●	●
4375-2.5-2.10	2.10	5.30	3.00	39	●	●	●	●	●
4375-2.5-2.20	2.20	5.50	3.00	39	●	●	●	●	●
4375-2.5-2.30	2.30	5.80	3.00	39	●	●	●	●	●
4375-2.5-2.40	2.40	6.00	3.00	39	●	●	●	●	●
4375-2.5-2.50	2.50	6.30	3.00	39	●	●	●	●	●
4375-2.5-2.60	2.60	6.50	3.00	39	●	●	●	●	●
4375-2.5-2.70	2.70	6.80	3.00	39	●	●	●	●	●
4375-2.5-2.80	2.80	7.00	3.00	39	●	●	●	●	●
4375-2.5-2.90	2.90	7.30	3.00	39	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 36°
 λ 38°
 λ 40°Sharp
Corner

1.5xD1

Z = 3



DHD

Denture à pas irrégulier, hélice différente
 Ungleiche Teilung, unterschiedliche Spirale
 Uneven tooth pitch, different helix

Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
DHD4370-1.5-0.30	0.30	0.45	3.00	39	●	●	●	●	●
DHD4370-1.5-0.40	0.40	0.60	3.00	39	●	●	●	●	●
DHD4370-1.5-0.50	0.50	0.75	3.00	39	●	●	●	●	●
DHD4370-1.5-0.60	0.60	0.90	3.00	39	●	●	●	●	●
DHD4370-1.5-0.70	0.70	1.05	3.00	39	●	●	●	●	●
DHD4370-1.5-0.80	0.80	1.20	3.00	39	●	●	●	●	●
DHD4370-1.5-0.90	0.90	1.35	3.00	39	●	●	●	●	●
DHD4370-1.5-1.00	1.00	1.50	3.00	39	●	●	●	●	●
DHD4370-1.5-1.10	1.10	1.65	3.00	39	●	●	●	●	●
DHD4370-1.5-1.20	1.20	1.80	3.00	39	●	●	●	●	●
DHD4370-1.5-1.30	1.30	1.95	3.00	39	●	●	●	●	●
DHD4370-1.5-1.40	1.40	2.10	3.00	39	●	●	●	●	●
DHD4370-1.5-1.50	1.50	2.25	3.00	39	●	●	●	●	●
DHD4370-1.5-1.60	1.60	2.40	3.00	39	●	●	●	●	●
DHD4370-1.5-1.70	1.70	2.55	3.00	39	●	●	●	●	●
DHD4370-1.5-1.80	1.80	2.70	3.00	39	●	●	●	●	●
DHD4370-1.5-1.90	1.90	2.85	3.00	39	●	●	●	●	●
DHD4370-1.5-2.00	2.00	3.00	3.00	39	●	●	●	●	●
DHD4370-1.5-2.50	2.50	3.75	3.00	39	●	●	●	●	●



Micro-fraises

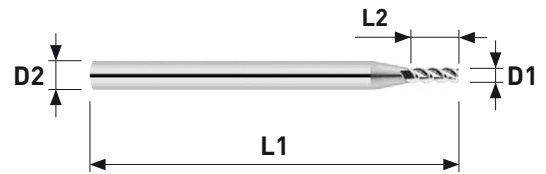
Mikrofräser

Micro end mills

MD
VHM
HMλ 36°
λ 38°
λ 40°Sharp
Corner

3xD1

Z = 3



DHD

Denture à pas irrégulier, hélice différente
 Ungleiche Teilung, unterschiedliche Spirale
 Uneven tooth pitch, different helix

Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
DHD4370-3-0.30	0.30	0.90	3.00	39	●	●	●	●	●
DHD4370-3-0.40	0.40	1.20	3.00	39	●	●	●	●	●
DHD4370-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
DHD4370-3-0.60	0.60	1.80	3.00	39	●	●	●	●	●
DHD4370-3-0.70	0.70	2.10	3.00	39	●	●	●	●	●
DHD4370-3-0.80	0.80	2.40	3.00	39	●	●	●	●	●
DHD4370-3-0.90	0.90	2.70	3.00	39	●	●	●	●	●
DHD4370-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
DHD4370-3-1.10	1.10	3.30	3.00	39	●	●	●	●	●
DHD4370-3-1.20	1.20	3.60	3.00	39	●	●	●	●	●
DHD4370-3-1.30	1.30	3.90	3.00	39	●	●	●	●	●
DHD4370-3-1.40	1.40	4.20	3.00	39	●	●	●	●	●
DHD4370-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
DHD4370-3-1.60	1.60	4.80	3.00	39	●	●	●	●	●
DHD4370-3-1.70	1.70	5.10	3.00	39	●	●	●	●	●
DHD4370-3-1.80	1.80	5.40	3.00	39	●	●	●	●	●
DHD4370-3-1.90	1.90	5.70	3.00	39	●	●	●	●	●
DHD4370-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
DHD4370-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●



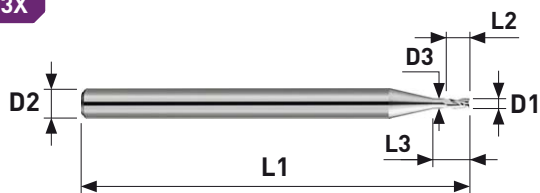
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
CornerL3
3xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370S-3X-0.30	0.30	0.60	0.90	0.27	3.00	39	●	●	●	●	●
4370S-3X-0.40	0.40	0.80	1.20	0.37	3.00	39	●	●	●	●	●
4370S-3X-0.50	0.50	1.00	1.50	0.45	3.00	39	●	●	●	●	●
4370S-3X-0.60	0.60	1.20	1.80	0.55	3.00	39	●	●	●	●	●
4370S-3X-0.70	0.70	1.40	2.10	0.65	3.00	39	●	●	●	●	●
4370S-3X-0.80	0.80	1.60	2.40	0.75	3.00	39	●	●	●	●	●
4370S-3X-0.90	0.90	1.80	2.70	0.85	3.00	39	●	●	●	●	●
4370S-3X-1.00	1.00	2.00	3.00	0.95	3.00	39	●	●	●	●	●
4370S-3X-1.10	1.10	2.20	3.30	1.05	3.00	39	●	●	●	●	●
4370S-3X-1.20	1.20	2.40	3.60	1.15	3.00	39	●	●	●	●	●
4370S-3X-1.30	1.30	2.60	3.90	1.25	3.00	39	●	●	●	●	●
4370S-3X-1.40	1.40	2.80	4.20	1.35	3.00	39	●	●	●	●	●
4370S-3X-1.50	1.50	3.00	4.50	1.45	3.00	39	●	●	●	●	●
4370S-3X-1.60	1.60	3.20	4.80	1.55	3.00	39	●	●	●	●	●
4370S-3X-1.70	1.70	3.40	5.10	1.65	3.00	39	●	●	●	●	●
4370S-3X-1.80	1.80	3.60	5.40	1.75	3.00	39	●	●	●	●	●
4370S-3X-1.90	1.90	3.80	5.70	1.85	3.00	39	●	●	●	●	●
4370S-3X-2.00	2.00	4.00	6.00	1.95	6.00	50	●	●	●	●	●
4370S-3X-2.10	2.10	4.20	6.30	2.05	6.00	50	●	●	●	●	●
4370S-3X-2.20	2.20	4.40	6.60	2.15	6.00	50	●	●	●	●	●
4370S-3X-2.30	2.30	4.60	6.90	2.25	6.00	50	●	●	●	●	●
4370S-3X-2.40	2.40	4.80	7.20	2.35	6.00	50	●	●	●	●	●
4370S-3X-2.50	2.50	5.00	7.50	2.45	6.00	50	●	●	●	●	●
4370S-3X-3.00	3.00	6.00	9.00	2.95	6.00	50	●	●	●	●	●



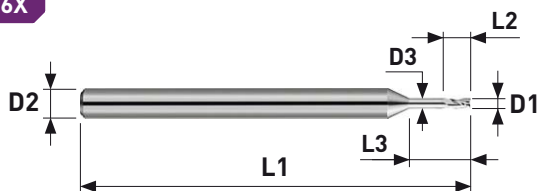
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Sharp
CornerL3
6xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370S-6X-0.30	0.30	0.60	1.80	0.27	3.00	39	●	●	●	●	●
4370S-6X-0.40	0.40	0.80	2.40	0.37	3.00	39	●	●	●	●	●
4370S-6X-0.50	0.50	1.00	3.00	0.45	3.00	39	●	●	●	●	●
4370S-6X-0.60	0.60	1.20	3.60	0.55	3.00	39	●	●	●	●	●
4370S-6X-0.70	0.70	1.40	4.20	0.65	3.00	39	●	●	●	●	●
4370S-6X-0.80	0.80	1.60	4.80	0.75	3.00	39	●	●	●	●	●
4370S-6X-0.90	0.90	1.80	5.40	0.85	3.00	39	●	●	●	●	●
4370S-6X-1.00	1.00	2.00	6.00	0.95	3.00	39	●	●	●	●	●
4370S-6X-1.10	1.10	2.20	6.60	1.05	3.00	39	●	●	●	●	●
4370S-6X-1.20	1.20	2.40	7.20	1.15	3.00	39	●	●	●	●	●
4370S-6X-1.30	1.30	2.60	7.80	1.25	3.00	39	●	●	●	●	●
4370S-6X-1.40	1.40	2.80	8.40	1.35	3.00	39	●	●	●	●	●
4370S-6X-1.50	1.50	3.00	9.00	1.45	3.00	39	●	●	●	●	●
4370S-6X-1.60	1.60	3.20	9.60	1.55	3.00	39	●	●	●	●	●
4370S-6X-1.70	1.70	3.40	10.20	1.65	3.00	39	●	●	●	●	●
4370S-6X-1.80	1.80	3.60	10.80	1.75	3.00	39	●	●	●	●	●
4370S-6X-1.90	1.90	3.80	11.40	1.85	3.00	39	●	●	●	●	●
4370S-6X-2.00	2.00	4.00	12.00	1.95	6.00	50	●	●	●	●	●
4370S-6X-2.10	2.10	4.20	12.60	2.05	6.00	50	●	●	●	●	●
4370S-6X-2.20	2.20	4.40	13.20	2.15	6.00	50	●	●	●	●	●
4370S-6X-2.30	2.30	4.60	13.80	2.25	6.00	50	●	●	●	●	●
4370S-6X-2.40	2.40	4.80	14.40	2.35	6.00	50	●	●	●	●	●
4370S-6X-2.50	2.50	5.00	15.00	2.45	6.00	50	●	●	●	●	●
4370S-6X-3.00	3.00	6.00	18.00	2.95	6.00	50	●	●	●	●	●



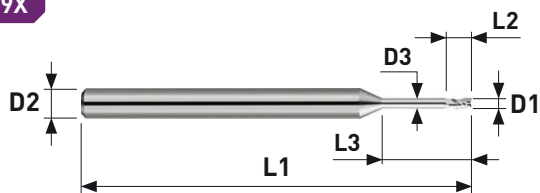
Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Sharp
CornerL3
9xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4370S-9X-0.40	0.40	0.80	3.60	0.37	3.00	39	●	●	●	●	●
4370S-9X-0.50	0.50	1.00	4.50	0.45	3.00	39	●	●	●	●	●
4370S-9X-0.60	0.60	1.20	5.40	0.55	3.00	39	●	●	●	●	●
4370S-9X-0.70	0.70	1.40	6.30	0.65	3.00	39	●	●	●	●	●
4370S-9X-0.80	0.80	1.60	7.20	0.75	3.00	39	●	●	●	●	●
4370S-9X-0.90	0.90	1.80	8.10	0.85	3.00	39	●	●	●	●	●
4370S-9X-1.00	1.00	2.00	9.00	0.95	3.00	39	●	●	●	●	●
4370S-9X-1.10	1.10	2.20	9.90	1.05	3.00	39	●	●	●	●	●
4370S-9X-1.20	1.20	2.40	10.80	1.15	3.00	39	●	●	●	●	●
4370S-9X-1.30	1.30	2.60	11.70	1.25	3.00	39	●	●	●	●	●
4370S-9X-1.40	1.40	2.80	12.60	1.35	3.00	39	●	●	●	●	●
4370S-9X-1.50	1.50	3.00	13.50	1.45	3.00	39	●	●	●	●	●
4370S-9X-1.60	1.60	3.20	14.40	1.55	3.00	39	●	●	●	●	●
4370S-9X-1.70	1.70	3.40	15.30	1.65	3.00	39	●	●	●	●	●
4370S-9X-1.80	1.80	3.60	16.20	1.75	3.00	39	●	●	●	●	●
4370S-9X-1.90	1.90	3.80	17.10	1.85	3.00	39	●	●	●	●	●
4370S-9X-2.00	2.00	4.00	18.00	1.95	6.00	50	●	●	●	●	●
4370S-9X-2.10	2.10	4.20	18.90	2.05	6.00	50	●	●	●	●	●
4370S-9X-2.20	2.20	4.40	19.80	2.15	6.00	50	●	●	●	●	●
4370S-9X-2.30	2.30	4.60	20.70	2.25	6.00	50	●	●	●	●	●
4370S-9X-2.40	2.40	4.80	21.60	2.35	6.00	50	●	●	●	●	●
4370S-9X-2.50	2.50	5.00	22.50	2.45	6.00	50	●	●	●	●	●
4370S-9X-3.00	3.00	6.00	27.00	2.95	6.00	50	●	●	●	●	●



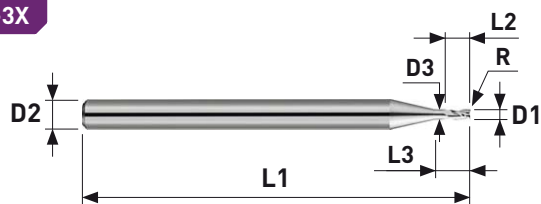
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM λ 30°Radius
CornerL3
3xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4379T-3X-0.30	0.30	0.05	0.60	0.90	0.27	3.00	39	●	●	●	●	●
4379T-3X-0.40	0.40	0.05	0.80	1.20	0.37	3.00	39	●	●	●	●	●
4379T-3X-0.50	0.50	0.05	1.00	1.50	0.45	3.00	39	●	●	●	●	●
4379T-3X-0.60	0.60	0.05	1.20	1.80	0.55	3.00	39	●	●	●	●	●
4379T-3X-0.70	0.70	0.05	1.40	2.10	0.65	3.00	39	●	●	●	●	●
4379T-3X-0.80	0.80	0.05	1.60	2.40	0.75	3.00	39	●	●	●	●	●
4379T-3X-0.90	0.90	0.05	1.80	2.70	0.85	3.00	39	●	●	●	●	●
4379T-3X-1.00	1.00	0.10	2.00	3.00	0.95	3.00	39	●	●	●	●	●
4379T-3X-1.10	1.10	0.10	2.20	3.30	1.05	3.00	39	●	●	●	●	●
4379T-3X-1.20	1.20	0.10	2.40	3.60	1.15	3.00	39	●	●	●	●	●
4379T-3X-1.30	1.30	0.10	2.60	3.90	1.25	3.00	39	●	●	●	●	●
4379T-3X-1.40	1.40	0.10	2.80	4.20	1.35	3.00	39	●	●	●	●	●
4379T-3X-1.50	1.50	0.20	3.00	4.50	1.45	3.00	39	●	●	●	●	●
4379T-3X-1.60	1.60	0.20	3.20	4.80	1.55	3.00	39	●	●	●	●	●
4379T-3X-1.70	1.70	0.20	3.40	5.10	1.65	3.00	39	●	●	●	●	●
4379T-3X-1.80	1.80	0.20	3.60	5.40	1.75	3.00	39	●	●	●	●	●
4379T-3X-1.90	1.90	0.20	3.80	5.70	1.85	3.00	39	●	●	●	●	●
4379T-3X-2.00	2.00	0.20	4.00	6.00	1.95	6.00	50	●	●	●	●	●
4379T-3X-2.10	2.10	0.20	4.20	6.30	2.05	6.00	50	●	●	●	●	●
4379T-3X-2.20	2.20	0.20	4.40	6.60	2.15	6.00	50	●	●	●	●	●
4379T-3X-2.30	2.30	0.20	4.60	6.90	2.25	6.00	50	●	●	●	●	●
4379T-3X-2.40	2.40	0.20	4.80	7.20	2.35	6.00	50	●	●	●	●	●
4379T-3X-2.50	2.50	0.20	5.00	7.50	2.45	6.00	50	●	●	●	●	●
4379T-3X-3.00	3.00	0.20	6.00	9.00	2.95	6.00	50	●	●	●	●	●



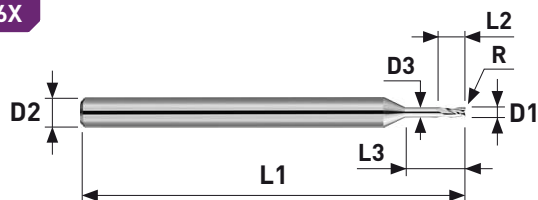
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ Radius
CornerL3
6xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4379T-6X-0.30	0.30	0.05	0.60	1.80	0.27	3.00	39	●	●	●	●	●
4379T-6X-0.40	0.40	0.05	0.80	2.40	0.37	3.00	39	●	●	●	●	●
4379T-6X-0.50	0.50	0.05	1.00	3.00	0.45	3.00	39	●	●	●	●	●
4379T-6X-0.60	0.60	0.05	1.20	3.60	0.55	3.00	39	●	●	●	●	●
4379T-6X-0.70	0.70	0.05	1.40	4.20	0.65	3.00	39	●	●	●	●	●
4379T-6X-0.80	0.80	0.05	1.60	4.80	0.75	3.00	39	●	●	●	●	●
4379T-6X-0.90	0.90	0.05	1.80	5.40	0.85	3.00	39	●	●	●	●	●
4379T-6X-1.00	1.00	0.10	2.00	6.00	0.95	3.00	39	●	●	●	●	●
4379T-6X-1.10	1.10	0.10	2.20	6.60	1.05	3.00	39	●	●	●	●	●
4379T-6X-1.20	1.20	0.10	2.40	7.20	1.15	3.00	39	●	●	●	●	●
4379T-6X-1.30	1.30	0.10	2.60	7.80	1.25	3.00	39	●	●	●	●	●
4379T-6X-1.40	1.40	0.10	2.80	8.40	1.35	3.00	39	●	●	●	●	●
4379T-6X-1.50	1.50	0.20	3.00	9.00	1.45	3.00	39	●	●	●	●	●
4379T-6X-1.60	1.60	0.20	3.20	9.60	1.55	3.00	39	●	●	●	●	●
4379T-6X-1.70	1.70	0.20	3.40	10.20	1.65	3.00	39	●	●	●	●	●
4379T-6X-1.80	1.80	0.20	3.60	10.80	1.75	3.00	39	●	●	●	●	●
4379T-6X-1.90	1.90	0.20	3.80	11.40	1.85	3.00	39	●	●	●	●	●
4379T-6X-2.00	2.00	0.20	4.00	12.00	1.95	6.00	50	●	●	●	●	●
4379T-6X-2.10	2.10	0.20	4.20	12.60	2.05	6.00	50	●	●	●	●	●
4379T-6X-2.20	2.20	0.20	4.40	13.20	2.15	6.00	50	●	●	●	●	●
4379T-6X-2.30	2.30	0.20	4.60	13.80	2.25	6.00	50	●	●	●	●	●
4379T-6X-2.40	2.40	0.20	4.80	14.40	2.35	6.00	50	●	●	●	●	●
4379T-6X-2.50	2.50	0.20	5.00	15.00	2.45	6.00	50	●	●	●	●	●
4379T-6X-3.00	3.00	0.20	6.00	18.00	2.95	6.00	50	●	●	●	●	●



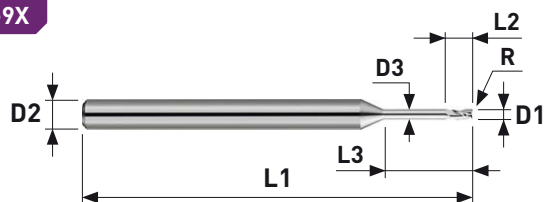
Micro-fraises toriques

Torische Mikrofräser

Toric micro end mills

MD
VHM
HM λ 30°Radius
CornerL3
9xD1

Z = 3



Art. N°	D1 +0.005 / -0.010	R +/- 0.02	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4379T-9X-0.40	0.40	0.05	0.80	3.60	0.37	3.00	39	●	●	●	●	●
4379T-9X-0.50	0.50	0.05	1.00	4.50	0.45	3.00	39	●	●	●	●	●
4379T-9X-0.60	0.60	0.05	1.20	5.40	0.55	3.00	39	●	●	●	●	●
4379T-9X-0.70	0.70	0.05	1.40	6.30	0.65	3.00	39	●	●	●	●	●
4379T-9X-0.80	0.80	0.05	1.60	7.20	0.75	3.00	39	●	●	●	●	●
4379T-9X-0.90	0.90	0.05	1.80	8.10	0.85	3.00	39	●	●	●	●	●
4379T-9X-1.00	1.00	0.10	2.00	9.00	0.95	3.00	39	●	●	●	●	●
4379T-9X-1.10	1.10	0.10	2.20	9.90	1.05	3.00	39	●	●	●	●	●
4379T-9X-1.20	1.20	0.10	2.40	10.80	1.15	3.00	39	●	●	●	●	●
4379T-9X-1.30	1.30	0.10	2.60	11.70	1.25	3.00	39	●	●	●	●	●
4379T-9X-1.40	1.40	0.10	2.80	12.60	1.35	3.00	39	●	●	●	●	●
4379T-9X-1.50	1.50	0.20	3.00	13.50	1.45	3.00	39	●	●	●	●	●
4379T-9X-1.60	1.60	0.20	3.20	14.40	1.55	3.00	39	●	●	●	●	●
4379T-9X-1.70	1.70	0.20	3.40	15.30	1.65	3.00	39	●	●	●	●	●
4379T-9X-1.80	1.80	0.20	3.60	16.20	1.75	3.00	39	●	●	●	●	●
4379T-9X-1.90	1.90	0.20	3.80	17.10	1.85	3.00	39	●	●	●	●	●
4379T-9X-2.00	2.00	0.20	4.00	18.00	1.95	6.00	50	●	●	●	●	●
4379T-9X-2.10	2.10	0.20	4.20	18.90	2.05	6.00	50	●	●	●	●	●
4379T-9X-2.20	2.20	0.20	4.40	19.80	2.15	6.00	50	●	●	●	●	●
4379T-9X-2.30	2.30	0.20	4.60	20.70	2.25	6.00	50	●	●	●	●	●
4379T-9X-2.40	2.40	0.20	4.80	21.60	2.35	6.00	50	●	●	●	●	●
4379T-9X-2.50	2.50	0.20	5.00	22.50	2.45	6.00	50	●	●	●	●	●
4379T-9X-3.00	3.00	0.20	6.00	27.00	2.95	6.00	50	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

1.5xD1

Z = 4



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4470-1.5-0.30	0.30	0.45	3.00	39	●	●	●	●	●
4470-1.5-0.40	0.40	0.60	3.00	39	●	●	●	●	●
4470-1.5-0.50	0.50	0.75	3.00	39	●	●	●	●	●
4470-1.5-0.60	0.60	0.90	3.00	39	●	●	●	●	●
4470-1.5-0.70	0.70	1.05	3.00	39	●	●	●	●	●
4470-1.5-0.80	0.80	1.20	3.00	39	●	●	●	●	●
4470-1.5-0.90	0.90	1.35	3.00	39	●	●	●	●	●
4470-1.5-1.00	1.00	1.50	3.00	39	●	●	●	●	●
4470-1.5-1.10	1.10	1.65	3.00	39	●	●	●	●	●
4470-1.5-1.20	1.20	1.80	3.00	39	●	●	●	●	●
4470-1.5-1.30	1.30	1.95	3.00	39	●	●	●	●	●
4470-1.5-1.40	1.40	2.10	3.00	39	●	●	●	●	●
4470-1.5-1.50	1.50	2.25	3.00	39	●	●	●	●	●
4470-1.5-1.60	1.60	2.40	3.00	39	●	●	●	●	●
4470-1.5-1.70	1.70	2.55	3.00	39	●	●	●	●	●
4470-1.5-1.80	1.80	2.70	3.00	39	●	●	●	●	●
4470-1.5-1.90	1.90	2.85	3.00	39	●	●	●	●	●
4470-1.5-2.00	2.00	3.00	3.00	39	●	●	●	●	●
4470-1.5-2.10	2.10	3.15	3.00	39	●	●	●	●	●
4470-1.5-2.20	2.20	3.30	3.00	39	●	●	●	●	●
4470-1.5-2.30	2.30	3.45	3.00	39	●	●	●	●	●
4470-1.5-2.40	2.40	3.60	3.00	39	●	●	●	●	●
4470-1.5-2.50	2.50	3.75	3.00	39	●	●	●	●	●
4470-1.5-2.60	2.60	3.90	3.00	39	●	●	●	●	●
4470-1.5-2.70	2.70	4.05	3.00	39	●	●	●	●	●
4470-1.5-2.80	2.80	4.20	3.00	39	●	●	●	●	●
4470-1.5-2.90	2.90	4.35	3.00	39	●	●	●	●	●



Micro-fraises

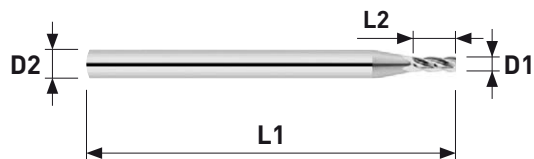
Mikrofräser

Micro end mills

MD
VHM
HM λ 30°Sharp
Corner

3xD1

Z = 4



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA-TOP
4470-3-0.30	0.30	0.90	3.00	39	●	●	●	●	●
4470-3-0.40	0.40	1.20	3.00	39	●	●	●	●	●
4470-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
4470-3-0.55	0.55	1.70	3.00	39	●	●	●	●	●
4470-3-0.60	0.60	1.80	3.00	39	●	●	●	●	●
4470-3-0.70	0.70	2.10	3.00	39	●	●	●	●	●
4470-3-0.75	0.75	2.30	3.00	39	●	●	●	●	●
4470-3-0.80	0.80	2.40	3.00	39	●	●	●	●	●
4470-3-0.85	0.85	2.60	3.00	39	●	●	●	●	●
4470-3-0.90	0.90	2.70	3.00	39	●	●	●	●	●
4470-3-0.95	0.95	2.90	3.00	39	●	●	●	●	●
4470-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
4470-3-1.10	1.10	3.30	3.00	39	●	●	●	●	●
4470-3-1.20	1.20	3.60	3.00	39	●	●	●	●	●
4470-3-1.30	1.30	3.90	3.00	39	●	●	●	●	●
4470-3-1.40	1.40	4.20	3.00	39	●	●	●	●	●
4470-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
4470-3-1.60	1.60	4.80	3.00	39	●	●	●	●	●
4470-3-1.70	1.70	5.10	3.00	39	●	●	●	●	●
4470-3-1.80	1.80	5.40	3.00	39	●	●	●	●	●
4470-3-1.90	1.90	5.70	3.00	39	●	●	●	●	●
4470-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
4470-3-2.10	2.10	6.30	3.00	39	●	●	●	●	●
4470-3-2.20	2.20	6.60	3.00	39	●	●	●	●	●
4470-3-2.30	2.30	6.90	3.00	39	●	●	●	●	●
4470-3-2.40	2.40	7.20	3.00	39	●	●	●	●	●
4470-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●
4470-3-2.60	2.60	7.80	3.00	39	●	●	●	●	●
4470-3-2.70	2.70	8.10	3.00	39	●	●	●	●	●
4470-3-2.80	2.80	8.40	3.00	39	●	●	●	●	●
4470-3-2.90	2.90	8.70	3.00	39	●	●	●	●	●



Micro-fraises

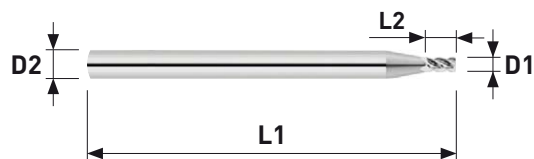
Mikrofräser

Micro end mills

MD
VHM
HM λ 40°Sharp
Corner

2xD1

Z = 4



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4472-2-0.30	0.30	0.60	3.00	39	●	●	●	●	●
4472-2-0.40	0.40	0.80	3.00	39	●	●	●	●	●
4472-2-0.50	0.50	1.00	3.00	39	●	●	●	●	●
4472-2-0.60	0.60	1.20	3.00	39	●	●	●	●	●
4472-2-0.70	0.70	1.40	3.00	39	●	●	●	●	●
4472-2-0.80	0.80	1.60	3.00	39	●	●	●	●	●
4472-2-0.90	0.90	1.80	3.00	39	●	●	●	●	●
4472-2-1.00	1.00	2.00	3.00	39	●	●	●	●	●
4472-2-1.10	1.10	2.20	3.00	39	●	●	●	●	●
4472-2-1.20	1.20	2.40	3.00	39	●	●	●	●	●
4472-2-1.30	1.30	2.60	3.00	39	●	●	●	●	●
4472-2-1.40	1.40	2.80	3.00	39	●	●	●	●	●
4472-2-1.50	1.50	3.00	3.00	39	●	●	●	●	●
4472-2-1.60	1.60	3.20	3.00	39	●	●	●	●	●
4472-2-1.70	1.70	3.40	3.00	39	●	●	●	●	●
4472-2-1.80	1.80	3.60	3.00	39	●	●	●	●	●
4472-2-1.90	1.90	3.80	3.00	39	●	●	●	●	●
4472-2-2.00	2.00	4.00	3.00	39	●	●	●	●	●
4472-2-2.10	2.10	4.20	3.00	39	●	●	●	●	●
4472-2-2.20	2.20	4.40	3.00	39	●	●	●	●	●
4472-2-2.30	2.30	4.60	3.00	39	●	●	●	●	●
4472-2-2.40	2.40	4.80	3.00	39	●	●	●	●	●
4472-2-2.50	2.50	5.00	3.00	39	●	●	●	●	●
4472-2-2.60	2.60	5.20	3.00	39	●	●	●	●	●
4472-2-2.70	2.70	5.40	3.00	39	●	●	●	●	●
4472-2-2.80	2.80	5.60	3.00	39	●	●	●	●	●
4472-2-2.90	2.90	5.80	3.00	39	●	●	●	●	●



Micro-fraises

Mikrofräser

Micro end mills

MD
VHM
HM λ 40°Sharp
Corner

4xD1

Z = 4



Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4472-4-0.40	0.40	1.60	3.00	39	●	●	●	●	●
4472-4-0.50	0.50	2.00	3.00	39	●	●	●	●	●
4472-4-0.60	0.60	2.40	3.00	39	●	●	●	●	●
4472-4-0.70	0.70	2.80	3.00	39	●	●	●	●	●
4472-4-0.80	0.80	3.20	3.00	39	●	●	●	●	●
4472-4-0.90	0.90	3.60	3.00	39	●	●	●	●	●
4472-4-1.00	1.00	4.00	3.00	39	●	●	●	●	●
4472-4-1.10	1.10	4.40	3.00	39	●	●	●	●	●
4472-4-1.20	1.20	4.80	3.00	39	●	●	●	●	●
4472-4-1.30	1.30	5.20	3.00	39	●	●	●	●	●
4472-4-1.40	1.40	5.60	3.00	39	●	●	●	●	●
4472-4-1.50	1.50	6.00	3.00	39	●	●	●	●	●
4472-4-1.60	1.60	6.40	3.00	39	●	●	●	●	●
4472-4-1.70	1.70	6.80	3.00	39	●	●	●	●	●
4472-4-1.80	1.80	7.20	3.00	39	●	●	●	●	●
4472-4-1.90	1.90	7.60	3.00	39	●	●	●	●	●
4472-4-2.00	2.00	8.00	3.00	39	●	●	●	●	●
4472-4-2.10	2.10	8.40	3.00	39	●	●	●	●	●
4472-4-2.20	2.20	8.80	3.00	39	●	●	●	●	●
4472-4-2.30	2.30	9.20	3.00	39	●	●	●	●	●
4472-4-2.40	2.40	9.60	3.00	39	●	●	●	●	●
4472-4-2.50	2.50	10.00	3.00	39	●	●	●	●	●
4472-4-2.60	2.60	10.40	3.00	39	●	●	●	●	●
4472-4-2.70	2.70	10.80	3.00	39	●	●	●	●	●
4472-4-2.80	2.80	11.20	3.00	39	●	●	●	●	●
4472-4-2.90	2.90	11.60	3.00	39	●	●	●	●	●



Micro-fraises

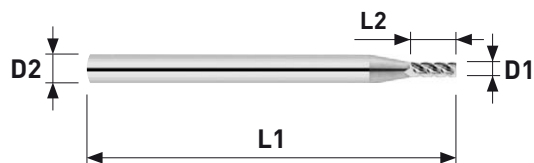
Mikrofräser

Micro end mills

MD
VHM
HM λ
35°/38°Sharp
Corner

3xD1

Z = 4



DHP

Denture à pas irrégulier, hélice progressive
 Ungleiche Teilung, progressive Spirale
 Uneven tooth pitch, progressive helix

Art. N°	D1 +0.005 / -0.010	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA-TOP
DHP4470-3-0.50	0.50	1.50	3.00	39	●	●	●	●	●
DHP4470-3-0.60	0.60	1.80	3.00	39	●	●	●	●	●
DHP4470-3-0.70	0.70	2.10	3.00	39	●	●	●	●	●
DHP4470-3-0.80	0.80	2.40	3.00	39	●	●	●	●	●
DHP4470-3-0.90	0.90	2.70	3.00	39	●	●	●	●	●
DHP4470-3-1.00	1.00	3.00	3.00	39	●	●	●	●	●
DHP4470-3-1.10	1.10	3.30	3.00	39	●	●	●	●	●
DHP4470-3-1.20	1.20	3.60	3.00	39	●	●	●	●	●
DHP4470-3-1.30	1.30	3.90	3.00	39	●	●	●	●	●
DHP4470-3-1.40	1.40	4.20	3.00	39	●	●	●	●	●
DHP4470-3-1.50	1.50	4.50	3.00	39	●	●	●	●	●
DHP4470-3-1.60	1.60	4.80	3.00	39	●	●	●	●	●
DHP4470-3-1.70	1.70	5.10	3.00	39	●	●	●	●	●
DHP4470-3-1.80	1.80	5.40	3.00	39	●	●	●	●	●
DHP4470-3-1.90	1.90	5.70	3.00	39	●	●	●	●	●
DHP4470-3-2.00	2.00	6.00	3.00	39	●	●	●	●	●
DHP4470-3-2.50	2.50	7.50	3.00	39	●	●	●	●	●



Micro-fraises hémisphériques

Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ 

0.75xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278-0.75-0.20	0.20	0.10	0.15	3.00	39	●				
4278-0.75-0.30	0.30	0.15	0.20	3.00	39	●	●	●	●	●
4278-0.75-0.40	0.40	0.20	0.30	3.00	39	●	●	●	●	●
4278-0.75-0.50	0.50	0.25	0.35	3.00	39	●	●	●	●	●
4278-0.75-0.60	0.60	0.30	0.45	3.00	39	●	●	●	●	●
4278-0.75-0.70	0.70	0.35	0.55	3.00	39	●	●	●	●	●
4278-0.75-0.80	0.80	0.40	0.60	3.00	39	●	●	●	●	●
4278-0.75-0.90	0.90	0.45	0.70	3.00	39	●	●	●	●	●
4278-0.75-1.00	1.00	0.50	0.75	3.00	39	●	●	●	●	●
4278-0.75-1.50	1.50	0.75	1.15	3.00	39	●	●	●	●	●
4278-0.75-2.00	2.00	1.00	1.50	3.00	39	●	●	●	●	●
4278-0.75-2.50	2.50	1.25	1.90	3.00	39	●	●	●	●	●



Micro-fraises hémisphériques

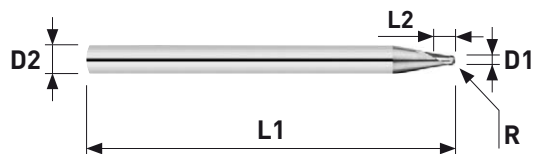
Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ 

1xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278-1-0.20	0.20	0.10	0.20	3.00	39	●				
4278-1-0.30	0.30	0.15	0.30	3.00	39	●	●	●	●	●
4278-1-0.40	0.40	0.20	0.40	3.00	39	●	●	●	●	●
4278-1-0.50	0.50	0.25	0.50	3.00	39	●	●	●	●	●
4278-1-0.60	0.60	0.30	0.60	3.00	39	●	●	●	●	●
4278-1-0.70	0.70	0.35	0.70	3.00	39	●	●	●	●	●
4278-1-0.80	0.80	0.40	0.80	3.00	39	●	●	●	●	●
4278-1-0.90	0.90	0.45	0.90	3.00	39	●	●	●	●	●
4278-1-1.00	1.00	0.50	1.00	3.00	39	●	●	●	●	●
4278-1-1.10	1.10	0.55	1.10	3.00	39	●	●	●	●	●
4278-1-1.20	1.20	0.60	1.20	3.00	39	●	●	●	●	●
4278-1-1.30	1.30	0.35	1.30	3.00	39	●	●	●	●	●
4278-1-1.40	1.40	0.70	1.40	3.00	39	●	●	●	●	●
4278-1-1.50	1.50	0.75	1.50	3.00	39	●	●	●	●	●
4278-1-1.60	1.60	0.80	1.60	3.00	39	●	●	●	●	●
4278-1-1.70	1.70	0.85	1.70	3.00	39	●	●	●	●	●
4278-1-1.80	1.80	0.90	1.80	3.00	39	●	●	●	●	●
4278-1-1.90	1.90	0.95	1.90	3.00	39	●	●	●	●	●
4278-1-2.00	2.00	1.00	2.00	3.00	39	●	●	●	●	●
4278-1-2.10	2.10	1.05	2.10	3.00	39	●	●	●	●	●
4278-1-2.20	2.20	1.10	2.20	3.00	39	●	●	●	●	●
4278-1-2.30	2.30	1.15	2.30	3.00	39	●	●	●	●	●
4278-1-2.40	2.40	1.20	2.40	3.00	39	●	●	●	●	●
4278-1-2.50	2.50	1.25	2.50	3.00	39	●	●	●	●	●
4278-1-2.60	2.60	1.30	2.60	3.00	39	●	●	●	●	●
4278-1-2.70	2.70	1.35	2.70	3.00	39	●	●	●	●	●
4278-1-2.80	2.80	1.40	2.80	3.00	39	●	●	●	●	●
4278-1-2.90	2.90	1.45	2.90	3.00	39	●	●	●	●	●



Micro-fraises hémisphériques

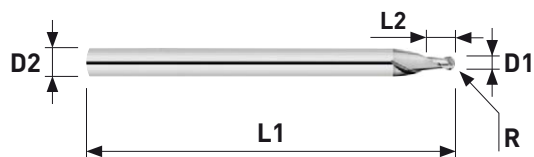
Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM λ 30°

1.5xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278-1.5-0.20	0.20	0.10	0.30	3.00	39	●				
4278-1.5-0.25	0.25	0.125	0.35	3.00	39	●				
4278-1.5-0.30	0.30	0.15	0.45	3.00	39	●	●	●	●	●
4278-1.5-0.40	0.40	0.20	0.60	3.00	39	●	●	●	●	●
4278-1.5-0.50	0.50	0.25	0.75	3.00	39	●	●	●	●	●
4278-1.5-0.60	0.60	0.30	0.90	3.00	39	●	●	●	●	●
4278-1.5-0.70	0.70	0.35	1.05	3.00	39	●	●	●	●	●
4278-1.5-0.80	0.80	0.40	1.20	3.00	39	●	●	●	●	●
4278-1.5-0.85	0.85	0.40	1.30	3.00	39	●	●	●	●	●
4278-1.5-0.90	0.90	0.45	1.35	3.00	39	●	●	●	●	●
4278-1.5-1.00	1.00	0.50	1.50	3.00	39	●	●	●	●	●
4278-1.5-1.10	1.10	0.55	1.65	3.00	39	●	●	●	●	●
4278-1.5-1.15	1.15	0.55	1.75	3.00	39	●	●	●	●	●
4278-1.5-1.20	1.20	0.60	1.80	3.00	39	●	●	●	●	●
4278-1.5-1.30	1.30	0.65	1.95	3.00	39	●	●	●	●	●
4278-1.5-1.40	1.40	0.70	2.10	3.00	39	●	●	●	●	●
4278-1.5-1.50	1.50	0.75	2.25	3.00	39	●	●	●	●	●
4278-1.5-1.60	1.60	0.80	2.40	3.00	39	●	●	●	●	●
4278-1.5-1.70	1.70	0.85	2.60	3.00	39	●	●	●	●	●
4278-1.5-1.80	1.80	0.90	2.70	3.00	39	●	●	●	●	●
4278-1.5-1.90	1.90	0.95	2.90	3.00	39	●	●	●	●	●
4278-1.5-2.00	2.00	1.00	3.00	3.00	39	●	●	●	●	●
4278-1.5-2.10	2.10	1.05	3.20	3.00	39	●	●	●	●	●
4278-1.5-2.20	2.20	1.10	3.30	3.00	39	●	●	●	●	●
4278-1.5-2.30	2.30	1.15	3.50	3.00	39	●	●	●	●	●
4278-1.5-2.40	2.40	1.20	3.60	3.00	39	●	●	●	●	●
4278-1.5-2.50	2.50	1.25	3.75	3.00	39	●	●	●	●	●
4278-1.5-2.60	2.60	1.30	3.90	3.00	39	●	●	●	●	●
4278-1.5-2.70	2.70	1.35	4.00	3.00	39	●	●	●	●	●
4278-1.5-2.80	2.80	1.40	4.20	3.00	39	●	●	●	●	●
4278-1.5-2.90	2.90	1.45	4.40	3.00	39	●	●	●	●	●



Micro-fraises hémisphériques

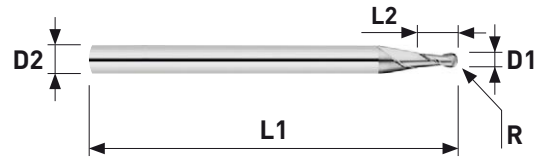
Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ 

3xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	D2 h4	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278-3-0.20	0.20	0.10	0.60	3.00	39	●				
4278-3-0.30	0.30	0.15	1.00	3.00	39	●	●	●	●	●
4278-3-0.40	0.40	0.20	1.00	3.00	39	●	●	●	●	●
4278-3-0.50	0.50	0.25	1.50	3.00	39	●	●	●	●	●
4278-3-0.60	0.60	0.30	1.50	3.00	39	●	●	●	●	●
4278-3-0.70	0.70	0.35	2.00	3.00	39	●	●	●	●	●
4278-3-0.80	0.80	0.40	2.00	3.00	39	●	●	●	●	●
4278-3-0.90	0.90	0.45	2.50	3.00	39	●	●	●	●	●
4278-3-1.00	1.00	0.50	3.00	3.00	39	●	●	●	●	●
4278-3-1.20	1.20	0.60	4.00	3.00	39	●	●	●	●	●
4278-3-1.30	1.30	0.65	4.00	3.00	39	●	●	●	●	●
4278-3-1.40	1.40	0.70	4.00	3.00	39	●	●	●	●	●
4278-3-1.50	1.50	0.75	4.50	3.00	39	●	●	●	●	●
4278-3-1.55	1.55	0.775	5.00	3.00	39	●	●	●	●	●
4278-3-1.60	1.60	0.80	5.00	3.00	39	●	●	●	●	●
4278-3-1.80	1.80	0.90	5.50	3.00	39	●	●	●	●	●
4278-3-2.00	2.00	1.00	6.00	3.00	39	●	●	●	●	●
4278-3-2.10	2.10	1.05	6.50	3.00	39	●	●	●	●	●
4278-3-2.20	2.20	1.10	7.00	3.00	39	●	●	●	●	●
4278-3-2.50	2.50	1.25	7.50	3.00	39	●	●	●	●	●
4278-3-2.60	2.60	1.30	7.80	3.00	39	●	●	●	●	●
4278-3-2.70	2.70	1.35	8.10	3.00	39	●	●	●	●	●
4278-3-2.80	2.80	1.40	8.40	3.00	39	●	●	●	●	●
4278-3-2.90	2.90	1.45	8.70	3.00	39	●	●	●	●	●



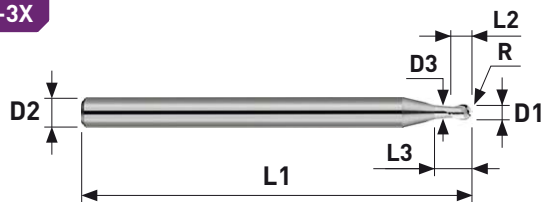
Micro-fraises hémisphériques

Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ L3
3xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278H-3X-0.20	0.20	0.10	0.30	0.60	0.19	3.00	39	●				
4278H-3X-0.30	0.30	0.15	0.45	0.90	0.27	3.00	39	●	●	●	●	●
4278H-3X-0.40	0.40	0.20	0.60	1.20	0.37	3.00	39	●	●	●	●	●
4278H-3X-0.50	0.50	0.25	0.75	1.50	0.45	3.00	39	●	●	●	●	●
4278H-3X-0.60	0.60	0.30	0.90	1.80	0.55	3.00	39	●	●	●	●	●
4278H-3X-0.70	0.70	0.35	1.05	2.10	0.65	3.00	39	●	●	●	●	●
4278H-3X-0.80	0.80	0.40	1.20	2.40	0.75	3.00	39	●	●	●	●	●
4278H-3X-0.90	0.90	0.45	1.35	2.70	0.85	3.00	39	●	●	●	●	●
4278H-3X-1.00	1.00	0.50	1.50	3.00	0.95	3.00	39	●	●	●	●	●
4278H-3X-1.10	1.10	0.55	1.65	3.30	1.05	3.00	39	●	●	●	●	●
4278H-3X-1.20	1.20	0.60	1.80	3.60	1.15	3.00	39	●	●	●	●	●
4278H-3X-1.30	1.30	0.65	1.95	3.90	1.25	3.00	39	●	●	●	●	●
4278H-3X-1.40	1.40	0.70	2.10	4.20	1.35	3.00	39	●	●	●	●	●
4278H-3X-1.50	1.50	0.75	2.25	4.50	1.45	3.00	39	●	●	●	●	●
4278H-3X-1.60	1.60	0.80	2.40	4.80	1.55	3.00	39	●	●	●	●	●
4278H-3X-1.70	1.70	0.85	2.55	5.10	1.65	3.00	39	●	●	●	●	●
4278H-3X-1.80	1.80	0.90	2.70	5.40	1.75	3.00	39	●	●	●	●	●
4278H-3X-1.90	1.90	0.95	2.85	5.70	1.85	3.00	39	●	●	●	●	●
4278H-3X-2.00	2.00	1.00	3.00	6.00	1.95	6.00	50	●	●	●	●	●
4278H-3X-2.10	2.10	1.05	3.15	6.30	2.05	6.00	50	●	●	●	●	●
4278H-3X-2.20	2.20	1.10	3.30	6.60	2.15	6.00	50	●	●	●	●	●
4278H-3X-2.30	2.30	1.15	3.45	6.90	2.25	6.00	50	●	●	●	●	●
4278H-3X-2.40	2.40	1.20	3.60	7.20	2.35	6.00	50	●	●	●	●	●
4278H-3X-2.50	2.50	1.25	3.75	7.50	2.45	6.00	50	●	●	●	●	●
4278H-3X-3.00	3.00	1.50	4.50	9.00	2.95	6.00	50	●	●	●	●	●



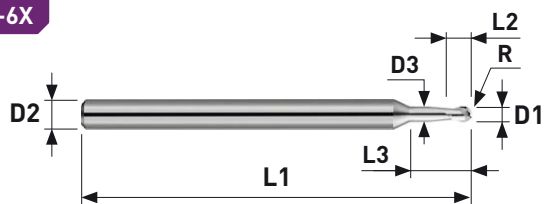
Micro-fraises hémisphériques

Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM $\lambda \ 30^\circ$ L3
6xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	L3	D3	D2 Ø3h4 Ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278H-6X-0.30	0.30	0.15	0.45	1.80	0.27	3.00	39	●	●	●	●	●
4278H-6X-0.40	0.40	0.20	0.60	2.40	0.37	3.00	39	●	●	●	●	●
4278H-6X-0.50	0.50	0.25	0.75	3.00	0.45	3.00	39	●	●	●	●	●
4278H-6X-0.60	0.60	0.30	0.90	3.60	0.55	3.00	39	●	●	●	●	●
4278H-6X-0.70	0.70	0.35	1.05	4.20	0.65	3.00	39	●	●	●	●	●
4278H-6X-0.80	0.80	0.40	1.20	4.80	0.75	3.00	39	●	●	●	●	●
4278H-6X-0.90	0.90	0.45	1.35	5.40	0.85	3.00	39	●	●	●	●	●
4278H-6X-1.00	1.00	0.50	1.50	6.00	0.95	3.00	39	●	●	●	●	●
4278H-6X-1.10	1.10	0.55	1.65	6.60	1.05	3.00	39	●	●	●	●	●
4278H-6X-1.20	1.20	0.60	1.80	7.20	1.15	3.00	39	●	●	●	●	●
4278H-6X-1.30	1.30	0.65	1.95	7.80	1.25	3.00	39	●	●	●	●	●
4278H-6X-1.40	1.40	0.70	2.10	8.40	1.35	3.00	39	●	●	●	●	●
4278H-6X-1.50	1.50	0.75	2.25	9.00	1.45	3.00	39	●	●	●	●	●
4278H-6X-1.60	1.60	0.80	2.40	9.60	1.55	3.00	39	●	●	●	●	●
4278H-6X-1.70	1.70	0.85	2.55	10.20	1.65	3.00	39	●	●	●	●	●
4278H-6X-1.80	1.80	0.90	2.70	10.80	1.75	3.00	39	●	●	●	●	●
4278H-6X-1.90	1.90	0.95	2.85	11.40	1.85	3.00	39	●	●	●	●	●
4278H-6X-2.00	2.00	1.00	3.00	12.00	1.95	6.00	50	●	●	●	●	●
4278H-6X-2.10	2.10	1.05	3.15	12.60	2.05	6.00	50	●	●	●	●	●
4278H-6X-2.20	2.20	1.10	3.30	13.20	2.15	6.00	50	●	●	●	●	●
4278H-6X-2.30	2.30	1.15	3.45	13.80	2.25	6.00	50	●	●	●	●	●
4278H-6X-2.40	2.40	1.20	3.60	14.40	2.35	6.00	50	●	●	●	●	●
4278H-6X-2.50	2.50	1.25	3.75	15.00	2.45	6.00	50	●	●	●	●	●
4278H-6X-3.00	3.00	1.50	4.50	18.00	2.95	6.00	50	●	●	●	●	●



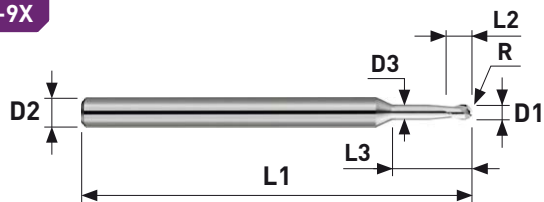
Micro-fraises hémisphériques

Vollradius Mikrofräser

Ball nose micro end mills

MD
VHM
HM λ 30°L3
9xD1

Z = 2



Art. N°	D1 +0.005 / -0.010	R	L2	L3	D3	D2 ø3h4 ø6h5	L1	N	TiAlN	STF	TiCN	ALFA- TOP
4278H-9X-0.40	0.40	0.20	0.60	3.60	0.37	3.00	39	●	●	●	●	●
4278H-9X-0.50	0.50	0.25	0.75	4.50	0.45	3.00	39	●	●	●	●	●
4278H-9X-0.60	0.60	0.30	0.90	5.40	0.55	3.00	39	●	●	●	●	●
4278H-9X-0.70	0.70	0.35	1.05	6.30	0.65	3.00	39	●	●	●	●	●
4278H-9X-0.80	0.80	0.40	1.20	7.20	0.75	3.00	39	●	●	●	●	●
4278H-9X-0.90	0.90	0.45	1.35	8.10	0.85	3.00	39	●	●	●	●	●
4278H-9X-1.00	1.00	0.50	1.50	9.00	0.95	3.00	39	●	●	●	●	●
4278H-9X-1.10	1.10	0.55	1.65	9.90	1.05	3.00	39	●	●	●	●	●
4278H-9X-1.20	1.20	0.60	1.80	10.80	1.15	3.00	39	●	●	●	●	●
4278H-9X-1.30	1.30	0.65	1.95	11.70	1.25	3.00	39	●	●	●	●	●
4278H-9X-1.40	1.40	0.70	2.10	12.60	1.35	3.00	39	●	●	●	●	●
4278H-9X-1.50	1.50	0.75	2.25	13.50	1.45	3.00	39	●	●	●	●	●
4278H-9X-1.60	1.60	0.80	2.40	14.40	1.55	3.00	39	●	●	●	●	●
4278H-9X-1.70	1.70	0.85	2.55	15.30	1.65	3.00	39	●	●	●	●	●
4278H-9X-1.80	1.80	0.90	2.70	16.20	1.75	3.00	39	●	●	●	●	●
4278H-9X-1.90	1.90	0.95	2.85	17.10	1.85	3.00	39	●	●	●	●	●
4278H-9X-2.00	2.00	1.00	3.00	18.00	1.95	6.00	50	●	●	●	●	●
4278H-9X-2.10	2.10	1.05	3.15	18.90	2.05	6.00	50	●	●	●	●	●
4278H-9X-2.20	2.20	1.10	3.30	19.80	2.15	6.00	50	●	●	●	●	●
4278H-9X-2.30	2.30	1.15	3.45	20.70	2.25	6.00	50	●	●	●	●	●
4278H-9X-2.40	2.40	1.20	3.60	21.60	2.35	6.00	50	●	●	●	●	●
4278H-9X-2.50	2.50	1.25	3.75	22.50	2.45	6.00	50	●	●	●	●	●
4278H-9X-3.00	3.00	1.50	4.50	27.00	2.95	6.00	50	●	●	●	●	●



Informations techniques et symboles

Technische Informationen und Symbole

Technical information and symbols

 60° 90° 120°	Angle Winkel Angle	 Sharp Corner	Coin vif Scharfkantige Ecke Sharp corner
 λ 25°	Angle d'hélice Spiralwinkel Helix angle		Fraises hémisphériques Radiusfräser End mills with ball nose
 λ 36° λ 38° λ 40°	Hélice différente Unterschiedliche Spirale Different helix	 Radius Corner	Rayon de coin Eckradius Corner radius
 λ 35°/38°	Hélice progressive Progressive Spirale Progressive helix		Dents avec coupe centrale Zähne Zentrumschnitt Teeth center cutting
 Z	Nombre de dents Anzahl der Zähne Number of teeth		Denture décalée Versetzte Verzahnung Alternated teeth
 2xD1	Rapport longueur-diamètre Länge-Durchmesser Verhältnis Length to diameter ratio	 DHD	Denture à pas irrégulier, hélice différente Ungleiche Teilung, unterschiedliche Spirale Uneven tooth pitch, different helix
	Lèvres, affûtage à facettes Schneiden, Facettenschärfen Flutes, sharpening with facets	 DHP	Denture à pas irrégulier, hélice progressive Ungleiche Teilung, progressive Spirale Uneven tooth pitch, progressive helix
	Taillage demi-lune Kanonenbohrer Spitze Gundrills tip		Usinage torique Torusbearbeitung Toroidal machining
	Taillage renforcé 3/4 3/4 genuteter Fräser 3/4 straight fluted	 CW	Sens horaire Uhrzeigersinn Clockwise
	Usinage radial, diagonal et axial Radiale, diagonale und axiale Bearbeitung Radial, diagonal and axial machining	 CCW	Sens antihoraire Gegenuhrzeigersinn Counterclockwise
	Usinage radial et axial Radiale und axiale Bearbeitung Radial and axial machining	 MD VHM HM	Métal dur Vollhartmetall Hard metal
 45° E	Chanfrein Fase Chamfer		