4000

Répertoire **Fraises en bout**
Verzeichnis **Schaftfräser**
Index **End mills**

Sharp Corner

Fraises en bout avec angle vif
Schaftfräser mit scharfkantigen Ecken
End mills with sharp corners

Z	λ	D1	D2	Type	page
Z=3	Div.	Ø1.00 - 8.00	Ø3/6/8	E-DHP4300-1.5	4.07
Z=4	26° / 33°	Ø10.00	Ø10 h6	E-DHP4400-1.5	
Z=3	Div.	Ø1.00 - 8.00	Ø3/6/8	E-DHP4300-2.5	4.08
Z=4	26° / 33°	Ø10.00	Ø10h6	E-DHP4400-2.5	
Z=1	23°	Ø1.00 - 6.00	Ø6h5	4123-2	4.09
		Ø1.00 - 6.00	Ø6h5	4123-4	4.10
Z=2	60°	Ø0.50 - 6.00	Ø3/6/8	4260MV	4.11
	90°	Ø0.30 - 6.00	Ø3/6/8	4290MV	4.12
	120°	Ø0.50 - 6.00	Ø3/6/8	42120MV	4.13
Z=2	30°	Ø1.00 - 6.00	Ø6 h5	4230	4.14
		Ø3.00 - 6.00	Ø6 h5	4230-1.5	4.15
		Ø3.00 - 6.00	Ø6 h5	4230-3	4.16
		Ø2.00 - 6.00	D1 = D2	4231	4.17
		Ø3.00 - 6.00	Ø6 h5	4239T-2.5X	4.18
		Ø3.00 - 6.00	Ø6 h5	4239T-4X	4.19
Z=3	30°	Ø1.00 - 6.00	Ø6 h5	4330-S	4.20
		Ø3.00 - 6.00	D1 = D2	4330	4.21
		Ø3.00 - 6.00	Ø6 h5	4330-4	4.22
		Ø2.00 - 6.00	D1 = D2	4331	4.23
		Ø1.50 - 6.00	Ø6 h5	4336	4.24
		Ø1.50 - 6.00	Ø6 h5	4337	4.25
	45°	Ø2.00 - 6.00	D1 = D2	4341	4.26
		Ø0.50 - 6.00	Ø6 h5	4345-S	4.27
	60°	Ø2.00 - 6.00	D1 = D2	4361	4.28
	35° / 38°	Ø1.00 - 6.00	Ø6 h5	DHP4336	4.29
Z=4	30°	Ø3.00 - 6.00	D1 = D2	4430	4.30
		Ø2.00 - 6.00	D1 = D2	4431	4.31
	45°	Ø2.00 - 6.00	D1 = D2	4441	4.32
		Ø0.50 - 6.00	Ø6 h5	4445-S	4.33
	50°	Ø1.00 - 6.00	Ø6 h5	4450	4.34
	35° / 38°	Ø1.00 - 6.00	Ø6 h5	DHP4436	4.35
	30°	Ø3.00 - 6.00	Ø6 h5	4439T-2.5X	4.36
		Ø3.00 - 6.00	Ø6 h5	4439T-4X	4.37
Z=5	45°	Ø1.00 - 6.00	Ø6 h5	4545	4.38
Z=4/5/6		Ø1.00 - 6.00	Ø6 h5	45645	4.39
Z=8	10°	Ø6.00	Ø6 h5	4810	4.40

Répertoire **Fraises en bout**
Verzeichnis **Schaftfräser**
Index **End mills**

Sharp Corner	Z	λ	D1	D2	Type	page
	Z=2	30°	Ø2.00 - 6.00	D1 = D2	4238	4.41
	Z=3	30°	Ø2.00 - 6.00	D1 = D2	4338	4.42
	Z=3	0°	Ø0.50 - 3.00	Ø3 h4	4611	4.43
	Z=3	0°	Ø0.30 - 3.00	Ø3 h4	4911	4.44
	Z=4	0°	Ø3.00 - 8.00	Ø3 h4 Ø6 h5 Ø8 h6	4901	4.45
				Ø6 h4	701S2300-P	4.47
				Ø6 h4	701S2300-R	4.48
	Z=1	0°	Ø0.50 - 3.00	Ø6 h4	701S4170R-2	4.49
	Z=2	30°	Ø0.30 - 3.00	Ø6 h4	701S4279T-3X	4.50
	Z=3	Div.	Ø0.30 - 3.20	Ø6 h4	701S4370-1	4.51
	Z=3	Div.	Ø0.30 - 3.00	Ø6 h4	701S4370-2	4.52
	Z=3	Div.	Ø0.30 - 2.50	Ø6 h4	701S4370-3	4.53
	Z=3	30°	Ø1.00 - 2.00	Ø6 h4	701S4379T-3X	4.54
	Z=3	0°	Ø0.40 - 2.00	Ø6 h4	701S4911	4.55

Paramètres de coupe indicatifs **Fraises ébauches**
Empfohlene Schnittwerte **Schruppfräser**
Standard machining data **Roughing mills**

Matière **Werkstoff** **Material**	C (m/min)	1.0 - 2.0 fz (mm)	2.0 - 4.0 fz (mm)	4.0 - 6.0 fz (mm)	6.0 - 10.0 fz (mm)	**N**	**TiAlN***	**STF***
Acier de décolletage Automatenstahl Free-cutting steel **P**	100 - 140	0.010 - 0.015	0.015 - 0.030	0.030 - 0.040	0.040 - 0.060	-	+++	+++
Acier Stahl < 600 N/mm² **P** Steel	90 - 140	0.010 - 0.015	0.015 - 0.030	0.030 - 0.040	0.040 - 0.060	-	+++	+++
Acier Stahl < 800 N/mm² **P** Steel	90 - 140	0.010 - 0.015	0.015 - 0.030	0.030 - 0.040	0.040 - 0.060	-	+++	+++
Acier Stahl > 800 N/mm² **P** Steel	80 - 120	0.010 - 0.015	0.015 - 0.030	0.030 - 0.040	0.040 - 0.060	-	+++	+++
Acier trempé Gehärteter Stahl -55HRC **H** Hardened steel	120 - 170	0.005 - 0.008	0.008 - 0.015	0.015 - 0.020	0.020 - 0.035	-	+++	+++
Acier trempé Gehärteter Stahl +55HRC **H** Hardened steel	110 - 150	0.005 - 0.008	0.008 - 0.015	0.015 - 0.020	0.020 - 0.035	-	+++	+++
Inox Rostfreistahl **M** Stainless steel	50 - 90	0.004 - 0.008	0.008 - 0.012	0.012 - 0.020	0.020 - 0.040	-	+++	+++
Aluminium **N**	250 - 350	0.008 - 0.015	0.015 - 0.030	0.030 - 0.040	0.040 - 0.065	-	+++	++
Cuivre, laiton, bronze Kupfer, Messing, Bronze **N** Copper, brass, bronze	130 - 240	0.005 - 0.010	0.010 - 0.020	0.020 - 0.030	0.030 - 0.050	-	+++	++
Matière synthétique Synthetisches Material **N** Synthetic material	150 - 300	0.020 - 0.030	0.030 - 0.050	0.050 - 0.080	0.080 - 0.150	-	+++	++
Métaux précieux Edelmetalle **N** Precious metals	120 - 150	0.005 - 0.010	0.010 - 0.020	0.020 - 0.030	0.030 - 0.050	-	+++	++
Titane Titan **S** Titanium	50 - 100	0.010 - 0.015	0.015 - 0.020	0.020 - 0.030	0.030 - 0.050	-	+++	+++
Alliage de nickel Nickel-Legierung **S** Nickel alloy	40 - 60	0.005 - 0.007	0.007-0.012	0.012 - 0.020	0.020 - 0.030	-	+++	+++
Matière exotique Exotisches material **O** Exotic material	15 - 25	0.005 - 0.010	0.010 - 0.020	0.020 - 0.030	0.030 - 0.050	-	+++	+++

*** Avec revêtement, augmenter les valeurs de 20-30%**
Mit Beschichtung, Daten um 20-30% erhöhen
With coating, increase data by 20-30%

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

Paramètres de coupe indicatifs **Fraises en bout**
Empfohlene Schnittwerte **Schaftfräser**
Standard machining data **End mills**

Matière **Werkstoff** **Material**	VC (m/min)	0.50 - 2.0 fz (mm)	2.0 - 4.0 fz (mm)	4.0 - 6.0 fz (mm)	6.0 - 8.0 fz (mm)	8.0 - 12.0 fz (mm)	N	TiAlN*	STF*	ALFA-TOP*
Acier de décolletage Automatenstahl Free-cutting steel (P)	80 - 130	0.004-0.015	0.015 - 0.025	0.025 - 0.035	0.035 - 0.050	0.050 - 0.080	-	+++	+++	-
Acier Stahl < 600 N/mm² (P) Steel	70 - 100	0.004-0.015	0.015 - 0.025	0.025 - 0.035	0.035 - 0.050	0.050 - 0.080	-	+++	+++	-
Acier Stahl < 800 N/mm² (P) Steel	70 - 100	0.004-0.015	0.015 - 0.025	0.025 - 0.035	0.035 - 0.050	0.050 - 0.080	-	+++	+++	-
Acier Stahl > 800 N/mm² (P) Steel	50 - 80	0.004-0.015	0.015 - 0.025	0.025 - 0.035	0.035 - 0.050	0.050 - 0.080	-	+++	+++	-
Acier trempé Gehärteter Stahl -55HRC (H) Hardened steel	60 - 90	0.002 - 0.008	0.008 - 0.015	0.012 - 0.020	0.020 - 0.025	0.025 - 0.030	-	+++	+++	-
Acier trempé Gehärteter Stahl +55HRC (H) Hardened steel	40 - 70	0.002 - 0.008	0.008 - 0.015	0.012 - 0.020	0.020 - 0.025	0.020 - 0.030	-	+++	+++	-
Inox Rostfreistahl (M) Stainless steel	40 - 80	0.003 - 0.008	0.008 - 0.015	0.015 - 0.020	0.020 - 0.030	0.030 - 0.050	-	+++	+++	-
Aluminium (N)	230 - 320	0.003 - 0.010	0.010 - 0.025	0.025 - 0.030	0.030 - 0.050	0.050 - 0.080	++	+	++	+++
Cuivre, laiton, bronze Kupfer, Messing, Bronze (N) Copper, brass, bronze	100 - 190	0.003 - 0.010	0.010 - 0.020	0.020 - 0.030	0.030 - 0.040	0.040 - 0.070	++	+	++	+++
Matière synthétique Synthetisches Material (N) Synthetic material	250 - 500	0.005 - 0.030	0.030 - 0.050	0.050 - 0.080	0.080 - 0.100	0.100 - 0.200	+++	-	++	+++
Métaux précieux Edelmetalle (N) Precious metals	90 - 150	0.003 - 0.015	0.015 - 0.025	0.025 - 0.030	0.030 - 0.050	0.050 - 0.080	+++	+	++	+++
Titane Titan (S) Titanium	30 - 70	0.004 - 0.010	0.010 - 0.017	0.017-0.025	0.025 - 0.035	0.035 - 0.050	-	++	+++	-
Alliage de nickel Nickel-Legierung (S) Nickel alloy	30 - 60	0.003 - 0.008	0.008 - 0.015	0.015 - 0.020	0.020 - 0.025	0.025 - 0.040	-	+++	+++	-
Matière exotique Exotisches material (O) Exotic material	15 - 25	0.002 - 0.008	0.008 - 0.020	0.020 - 0.030	0.030 - 0.040	0.040 - 0.050	-	+++	+++	++

*** 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

Paramètres de coupe indicatifs **Outils WM 701S**
Empfohlene Schnittwerte **Werkzeuge WM 701S**
Standard machining data **Tools WM 701S**

Matière **Werkstoff** **Material**	VC (m/min)	**N**	**TiAlN***	**STF***	**ALFA-TOP***
Acier de décolletage Automatenstahl Free-cutting steel (P)	120 - 180	-	+++	+++	-
Acier Stahl Steel < 600 N/mm² (P)	100 - 150	-	+++	+++	-
Acier Stahl Steel < 800 N/mm² (P)	100 - 130	-	+++	+++	-
Acier Stahl Steel > 800 N/mm² (P)	80 - 100	-	+++	+++	-
Acier trempé Gehärteter Stahl Hardened steel -55HRC (H)	-	-	+++	+++	-
Acier trempé Gehärteter Stahl Hardened steel +55HRC (H)	-	-	+++	+++	-
Inox Rostfreistahl Stainless steel (M)	60 - 90	-	+++	+++	-
Aluminium (N)	250 - 400	++	+++	+++	+++
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze (N)	150 - 200	+++	++	++	+++
Matière synthétique Synthetisches Material Synthetic material (N)	100 - 150	+++	++	++	+++
Métaux précieux Edelmetalle Precious metals (N)	140 - 200	+++	++	++	+++
Titane Titan Titanium (S)	40 - 70	-	+++	+++	-
Alliage de nickel Nickel-Legierung Nickel alloy (S)	30 - 60	-	+++	+++	-
Matière exotique Exotisches material Exotic material (O)	30 - 60	-	+++	+++	+++

*** 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

Paramètres de coupe indicatifs **Fraises à angler**
Empfohlene Schnittwerte **Kegelsenker**
Standard machining data **Chamfering tool**

Matière **Werkstoff** **Material**	VC (m/min)	**N**	**TiAlN***	**STF***
Acier de décolletage Automatenstahl Free-cutting steel (P)	80 - 130	+	+++	+++
Acier Stahl < 600 N/mm² Steel (P)	70 - 100	+	+++	+++
Acier Stahl < 800 N/mm² Steel (P)	70 - 100	+	+++	+++
Acier Stahl > 800 N/mm² Steel (P)	50 - 80	+	+++	+++
Acier trempé Gehärteter Stahl -55HRC Hardened steel (H)	60 - 90	-	++	+++
Acier trempé Gehärteter Stahl +55HRC Hardened steel (H)	40 - 70	-	++	+++
Inox Rostfreistahl Stainless steel (M)	50 - 100	+	+++	+++
Aluminium (N)	200 - 300	+++	++	+++
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze (N)	100 - 200	+++	++	+++
Matière synthétique Synthetisches Material Synthetic material (N)	200 - 500	+++	++	++
Métaux précieux Edelmetalle Precious metals (N)	90 - 140	+++	++	+++
Titane Titan Titanium (S)	30 - 80	-	+++	+++
Alliage de nickel Nickel-Legierung Nickel alloy (S)	30 - 60	-	+++	+++
Matière exotique Exotisches material Exotic material (O)	20 - 30	-	+++	+++

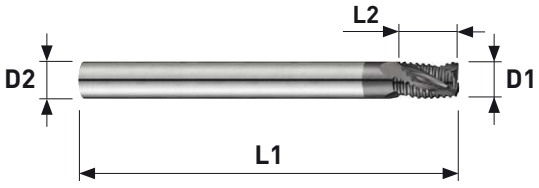
*** Avec revêtement, augmenter les valeurs de 20 %**
Mit Beschichtung, Daten um 20 % erhöhen
With coating, increase data by 20 %

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

E-DHP4300-1.5

Fraises ébauches
Schruppfräser
Roughing mills

MD VHM HM | 45° E | 1.5xD1 | Z = 3

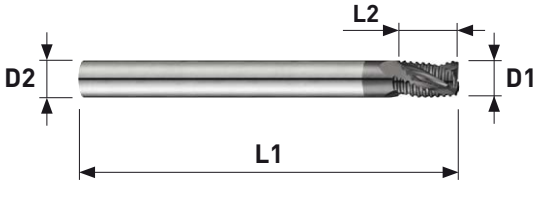


Art. N°	λ	Z	E	D1 h10	L2	D2 Ø3h4 Ø6h5 Ø8h6	L1	N	TiAlN	STF
E-DHP4300-1.5-1.00	26°/30°	3	0.05	1.00	1.50	3.00	39	●	●	●
E-DHP4300-1.5-1.50	26°/30°	3	0.10	1.50	2.25	3.00	39	●	●	●
E-DHP4300-1.5-2.00	26°/30°	3	0.20	2.00	3.00	3.00	39	●	●	●
E-DHP4300-1.5-2.50	26°/33°	3	0.20	2.50	3.75	6.00	50	●	●	●
E-DHP4300-1.5-3.00	26°/33°	3	0.20	3.00	4.25	6.00	50	●	●	●
E-DHP4300-1.5-4.00	26°/33°	3	0.30	4.00	6.00	6.00	50	●	●	●
E-DHP4300-1.5-5.00	26°/33°	3	0.30	5.00	7.50	6.00	50	●	●	●
E-DHP4300-1.5-6.00	26°/33°	3	0.40	6.00	9.00	6.00	50	●	●	●
E-DHP4300-1.5-8.00	26°/33°	3	0.50	8.00	12.00	8.00	64	●	●	●

E-DHP4400-1.5

Fraises ébauches
Schruppfräser
Roughing mills

MD VHM HM | 45° E | 1.5xD1 | Z = 4



Art. N°	λ	Z	E	D1 h10	L2	D2 h6	L1	N	TiAlN	STF
E-DHP4400-1.5-10.00	26°/30°	4	0.50	10.00	15.00	10.00	73	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

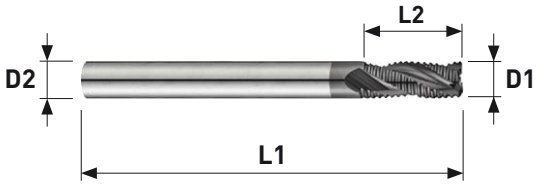
E-DHP4300-2.5

Fraises ébauches
Schruppfräser
Roughing mills

MD
VHM
HM

2.5xD1

Z = 3



Art. N°	λ	Z	E	D1 h10	L2	D2 Ø3h4 Ø6h5 Ø8h6	L1	N	TiAlN	STF
E-DHP4300-2.5-1.00	26°/30°	3	0.05	1.00	2.50	3.00	39	●	●	●
E-DHP4300-2.5-1.50	26°/30°	3	0.10	1.50	3.75	3.00	39	●	●	●
E-DHP4300-2.5-2.00	26°/30°	3	0.20	2.00	5.00	3.00	39	●	●	●
E-DHP4300-2.5-2.50	26°/33°	3	0.20	2.50	6.25	6.00	57	●	●	●
E-DHP4300-2.5-3.00	26°/33°	3	0.20	3.00	7.50	6.00	57	●	●	●
E-DHP4300-2.5-4.00	26°/33°	3	0.30	4.00	10.00	6.00	57	●	●	●
E-DHP4300-2.5-5.00	26°/33°	3	0.30	5.00	12.50	6.00	57	●	●	●
E-DHP4300-2.5-6.00	26°/33°	3	0.40	6.00	15.00	6.00	57	●	●	●
E-DHP4300-2.5-8.00	26°/33°	3	0.50	8.00	20.00	8.00	64	●	●	●

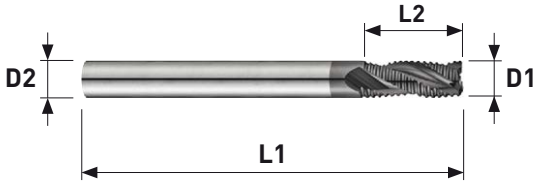
E-DHP4400-2.5

Fraises ébauches
Schruppfräser
Roughing mills

MD
VHM
HM

2.5xD1

Z = 4



Art. N°	λ	Z	E	D1 h10	L2	D2 h6	L1	N	TiAlN	STF
E-DHP4400-2.5-10.00	26°/33°	4	0.50	10.00	25.00	10.00	73	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

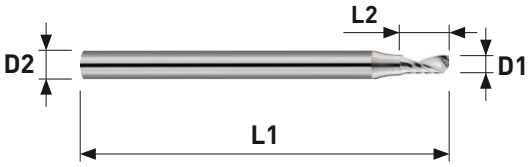
MD
VHM
HM

λ 23°

Sharp Corner

2xD1

Z = 1



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF	ALFA-TOP
4123-2-1.0	1.00	2.00	6.00	50	●	●	●	●
4123-2-2.0	2.00	4.00	6.00	50	●	●	●	●
4123-2-3.0	3.00	6.00	6.00	50	●	●	●	●
4123-2-4.0	4.00	8.00	6.00	50	●	●	●	●
4123-2-5.0	5.00	10.00	6.00	50	●	●	●	●
4123-2-6.0	6.00	12.00	6.00	50	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

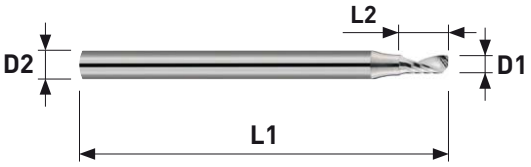
MD
VHM
HM

λ 23°

Sharp Corner

4xD1

Z = 1



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF	ALFA-TOP
4123-4-1.0	1.00	4.00	6.00	50	●	●	●	●
4123-4-2.0	2.00	8.00	6.00	50	●	●	●	●
4123-4-3.0	3.00	12.00	6.00	50	●	●	●	●
4123-4-4.0	4.00	16.00	6.00	50	●	●	●	●
4123-4-5.0	5.00	20.00	6.00	50	●	●	●	●
4123-4-6.0	6.00	24.00	6.00	50	●	●	●	●

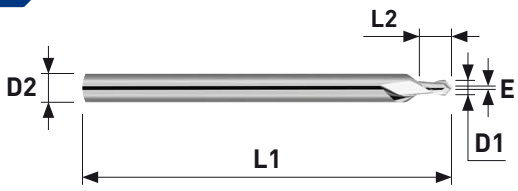
• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

60°

Z = 2



Art. N°	D1 h10	E	L2	D2 Ø3h4 Ø6h5 Ø8h6	L1	N	TiAlN	STF
4260MV-0.5	0.50	0.05	1.00	3.00	39	●	●	●
4260MV-1.0	1.00	0.10	2.00	3.00	39	●	●	●
4260MV-1.5	1.50	0.15	3.00	3.00	39	●	●	●
4260MV-2.0	2.00	0.20	4.00	3.00	39	●	●	●
4260MV-2.5	2.50	0.25	5.00	3.00	39	●	●	●
4260MV-3.0	3.00	0.30	6.00	6.00	50	●	●	●
4260MV-4.0	4.00	0.40	8.00	6.00	50	●	●	●
4260MV-6.0	6.00	0.60	12.00	8.00	64	●	●	●

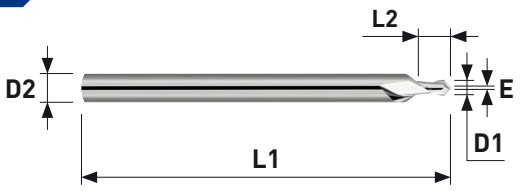
• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

90°

Z = 2



Art. N°	D1 h10	E	L2	D2 Ø3h4 Ø6h5 Ø8h6	L1	N	TiAlN	STF
4290MV-0.3	0.30	0.03	0.60	3.00	39	●	●	●
4290MV-0.4	0.40	0.04	0.80	3.00	39	●	●	●
4290MV-0.5	0.50	0.05	1.00	3.00	39	●	●	●
4290MV-0.6	0.60	0.06	1.20	3.00	39	●	●	●
4290MV-0.7	0.70	0.07	1.40	3.00	39	●	●	●
4290MV-0.8	0.80	0.08	1.60	3.00	39	●	●	●
4290MV-0.9	0.90	0.09	1.80	3.00	39	●	●	●
4290MV-1.0	1.00	0.10	2.00	3.00	39	●	●	●
4290MV-1.1	1.10	0.11	2.20	3.00	39	●	●	●
4290MV-1.2	1.20	0.12	2.40	3.00	39	●	●	●
4290MV-1.3	1.30	0.13	2.60	3.00	39	●	●	●
4290MV-1.4	1.40	0.14	2.80	3.00	39	●	●	●
4290MV-1.5	1.50	0.15	3.00	3.00	39	●	●	●
4290MV-1.6	1.60	0.16	3.20	3.00	39	●	●	●
4290MV-1.7	1.70	0.17	3.40	3.00	39	●	●	●
4290MV-1.8	1.80	0.18	3.60	3.00	39	●	●	●
4290MV-1.9	1.90	0.19	3.80	3.00	39	●	●	●
4290MV-2.0	2.00	0.20	4.00	3.00	39	●	●	●
4290MV-2.5	2.50	0.25	5.00	3.00	39	●	●	●
4290MV-3.0	3.00	0.30	6.00	6.00	50	●	●	●
4290MV-4.0	4.00	0.40	8.00	6.00	50	●	●	●
4290MV-6.0	6.00	0.60	12.00	8.00	64	●	●	●

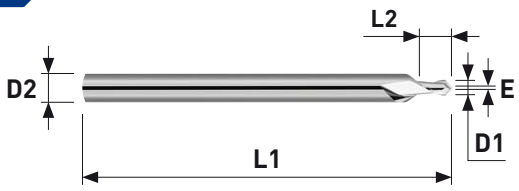
• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

120°

Z = 2



Art. N°	D1 h10	E	L2	D2 Ø3h4 Ø6h5 Ø8h6	L1	N	TiAlN	STF
42120MV-0.5	0.50	0.05	1.00	3.00	39	●	●	●
42120MV-1.0	1.00	0.10	2.00	3.00	39	●	●	●
42120MV-1.5	1.50	0.15	3.00	3.00	39	●	●	●
42120MV-2.0	2.00	0.20	4.00	3.00	39	●	●	●
42120MV-2.5	2.50	0.25	5.00	3.00	39	●	●	●
42120MV-3.0	3.00	0.30	6.00	6.00	50	●	●	●
42120MV-4.0	4.00	0.40	8.00	6.00	50	●	●	●
42120MV-6.0	6.00	0.60	12.00	8.00	64	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

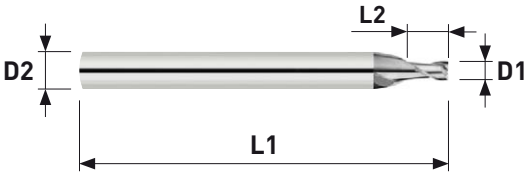
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 2



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4230-1.0	1.00	1.00	6.00	50	●	●	●
4230-1.5	1.50	1.50	6.00	50	●	●	●
4230-2.0	2.00	2.00	6.00	50	●	●	●
4230-2.5	2.50	2.50	6.00	50	●	●	●
4230-3.0	3.00	3.00	6.00	50	●	●	●
4230-4.0	4.00	4.00	6.00	50	●	●	●
4230-5.0	5.00	5.00	6.00	50	●	●	●
4230-6.0	6.00	6.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

1.5xD1

Z = 2

Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4230-1.5-3.0	3.00	4.50	6.00	50	●	●	●
4230-1.5-3.5	3.50	5.00	6.00	50	●	●	●
4230-1.5-4.0	4.00	6.00	6.00	50	●	●	●
4230-1.5-4.5	4.50	7.00	6.00	50	●	●	●
4230-1.5-5.0	5.00	8.00	6.00	50	●	●	●
4230-1.5-6.0	6.00	9.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

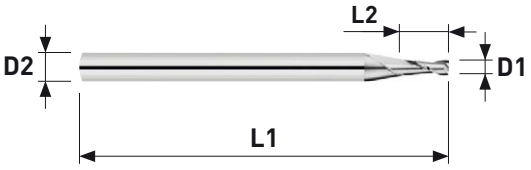
MD
VHM
HM

λ 30°

Sharp Corner

3xD1

Z = 2



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4230-3-3.0	3.00	9.00	6.00	50	●	●	●
4230-3-3.5	3.50	10.00	6.00	50	●	●	●
4230-3-4.0	4.00	12.00	6.00	50	●	●	●
4230-3-4.5	4.50	13.00	6.00	50	●	●	●
4230-3-5.0	5.00	15.00	6.00	50	●	●	●
4230-3-6.0	6.00	18.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

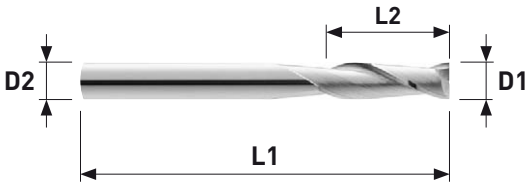
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 2



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4231-2.0	2.00	8.00	2.00	32	●	●	●
4231-2.5	2.50	8.00	2.50	32	●	●	●
4231-3.0	3.00	12.00	3.00	32	●	●	●
4231-3.5	3.50	12.00	3.50	32	●	●	●
4231-4.0	4.00	12.00	4.00	40	●	●	●
4231-4.5	4.50	14.00	4.50	50	●	●	●
4231-5.0	5.00	14.00	5.00	50	●	●	●
4231-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

4239T-2.5X

Fraises en bout toriques
Torische Schaftfräser
Toric End mills

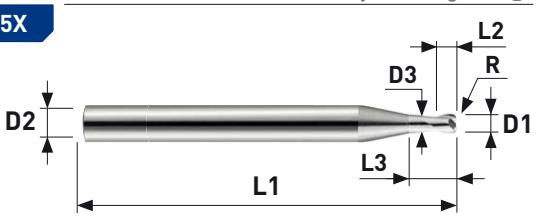
MD
VHM
HM

λ 30°

Radius Corner

L3
2.5xD1

Z = 2



Art. N°	D1 h10	R +/- 0.02	L2	L3	D3	D2 h5	L1	N	TiAlN	STF
4239T-2.5X-3.0	3.00	0.50	3.00	7.50	2.95	6.00	57	●	●	●
4239T-2.5X-3.5	3.50	0.50	3.50	8.75	3.45	6.00	57	●	●	●
4239T-2.5X-4.0	4.00	0.50	4.00	10.00	3.95	6.00	57	●	●	●
4239T-2.5X-4.5	4.50	0.50	4.50	11.25	4.45	6.00	57	●	●	●
4239T-2.5X-5.0	5.00	0.50	5.00	12.50	4.95	6.00	57	●	●	●
4239T-2.5X-5.5	5.50	0.50	5.50	13.75	5.45	6.00	57	●	●	●
4239T-2.5X-6.0	6.00	0.50	6.00	15.00	5.95	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout toriques
Torische Schaftfräser
Toric End mills

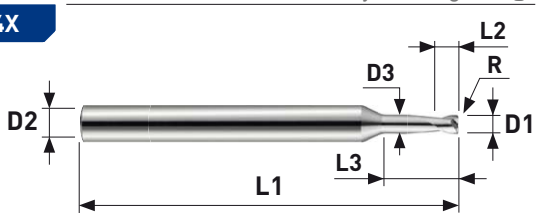
MD
VHM
HM

λ 30°

Radius Corner

L3 4xD1

Z = 2



Art. N°	D1 h10	R +/- 0.02	L2	L3	D3	D2 h5	L1	N	TiAlN	STF
4239T-4X-3.0	3.00	0.50	3.00	12.00	2.95	6.00	57	●	●	●
4239T-4X-3.5	3.50	0.50	3.50	14.00	3.45	6.00	57	●	●	●
4239T-4X-4.0	4.00	0.50	4.00	16.00	3.95	6.00	57	●	●	●
4239T-4X-4.5	4.50	0.50	4.50	18.00	4.45	6.00	57	●	●	●
4239T-4X-5.0	5.00	0.50	5.00	20.00	4.95	6.00	57	●	●	●
4239T-4X-5.5	5.50	0.50	5.50	22.00	5.45	6.00	57	●	●	●
4239T-4X-6.0	6.00	0.50	6.00	24.00	5.95	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

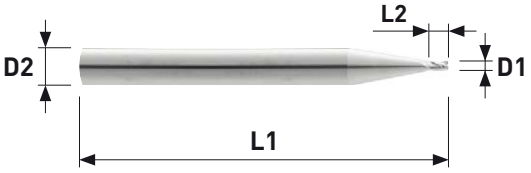
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 3



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4330-1.0-S	1.00	3.00	6.00	40	●	●	●
4330-1.5-S	1.50	3.00	6.00	40	●	●	●
4330-2.0-S	2.00	3.00	6.00	40	●	●	●
4330-2.5-S	2.50	3.00	6.00	40	●	●	●
4330-3.0-S	3.00	4.00	6.00	40	●	●	●
4330-3.5-S	3.50	4.00	6.00	40	●	●	●
4330-4.0-S	4.00	5.00	6.00	40	●	●	●
4330-4.5-S	4.50	5.00	6.00	40	●	●	●
4330-5.0-S	5.00	6.00	6.00	40	●	●	●
4330-6.0-S	6.00	7.00	6.00	40	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

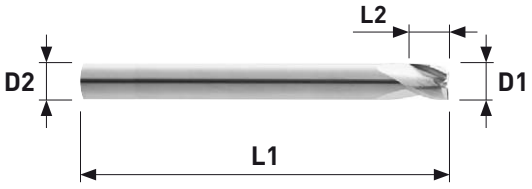
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 3



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4330-3.0	3.00	3.00	3.00	39	●	●	●
4330-4.0	4.00	4.00	4.00	50	●	●	●
4330-5.0	5.00	5.00	5.00	50	●	●	●
4330-6.0	6.00	6.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

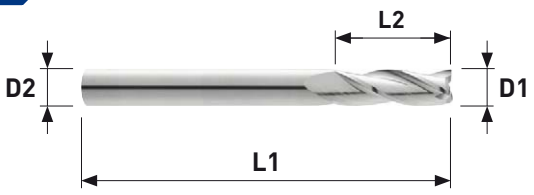
MD
VHM
HM

λ 30°

Sharp Corner

4xD1

Z = 3



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4330-4-3.0	3.00	12.00	6.00	50	●	●	●
4330-4-4.0	4.00	16.00	6.00	50	●	●	●
4330-4-5.0	5.00	20.00	6.00	50	●	●	●
4330-4-6.0	6.00	24.00	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

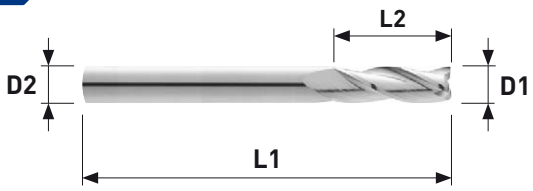
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 3



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4331-2.0	2.00	8.00	2.00	32	●	●	●
4331-2.5	2.50	8.00	2.50	32	●	●	●
4331-3.0	3.00	12.00	3.00	32	●	●	●
4331-3.5	3.50	12.00	3.50	32	●	●	●
4331-4.0	4.00	12.00	4.00	40	●	●	●
4331-4.5	4.50	14.00	4.50	50	●	●	●
4331-5.0	5.00	14.00	5.00	50	●	●	●
4331-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

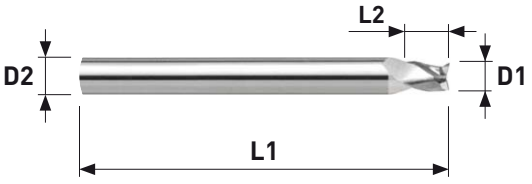
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 3



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4336-1.5	1.50	3.00	6.00	50	●	●	●
4336-1.8	1.80	3.00	6.00	50	●	●	●
4336-2.0	2.00	3.00	6.00	50	●	●	●
4336-2.5	2.50	3.00	6.00	50	●	●	●
4336-2.8	2.80	4.00	6.00	50	●	●	●
4336-3.0	3.00	4.00	6.00	50	●	●	●
4336-3.5	3.50	4.00	6.00	50	●	●	●
4336-3.8	3.80	5.00	6.00	54	●	●	●
4336-4.0	4.00	5.00	6.00	54	●	●	●
4336-4.5	4.50	5.00	6.00	54	●	●	●
4336-4.8	4.80	6.00	6.00	54	●	●	●
4336-5.0	5.00	6.00	6.00	54	●	●	●
4336-5.5	5.50	7.00	6.00	54	●	●	●
4336-5.8	5.80	7.00	6.00	54	●	●	●
4336-6.0	6.00	7.00	6.00	54	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

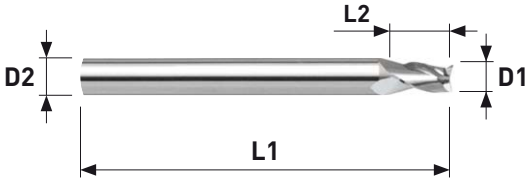
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 3



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4337-1.5	1.50	6.00	6.00	57	●	●	●
4337-1.8	1.80	6.00	6.00	57	●	●	●
4337-2.0	2.00	6.00	6.00	57	●	●	●
4337-2.5	2.50	6.00	6.00	57	●	●	●
4337-2.8	2.80	7.00	6.00	57	●	●	●
4337-3.0	3.00	7.00	6.00	57	●	●	●
4337-3.5	3.50	7.00	6.00	57	●	●	●
4337-3.8	3.80	8.00	6.00	57	●	●	●
4337-4.0	4.00	8.00	6.00	57	●	●	●
4337-4.5	4.50	8.00	6.00	57	●	●	●
4337-4.8	4.80	10.00	6.00	57	●	●	●
4337-5.0	5.00	10.00	6.00	57	●	●	●
4337-5.5	5.50	10.00	6.00	57	●	●	●
4337-5.8	5.80	10.00	6.00	57	●	●	●
4337-6.0	6.00	10.00	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

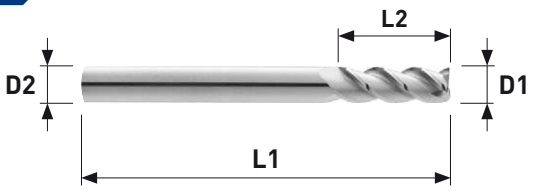
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 3



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4341-2.0	2.00	8.00	2.00	32	●	●	●
4341-2.5	2.50	8.00	2.50	32	●	●	●
4341-3.0	3.00	12.00	3.00	32	●	●	●
4341-3.5	3.50	12.00	3.50	32	●	●	●
4341-4.0	4.00	12.00	4.00	40	●	●	●
4341-4.5	4.50	14.00	4.50	50	●	●	●
4341-5.0	5.00	14.00	5.00	50	●	●	●
4341-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

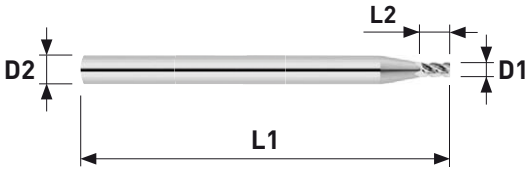
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 3



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4345-0.5-S	0.50	1.00	6.00	40	●	●	●
4345-0.6-S	0.60	1.20	6.00	40	●	●	●
4345-0.7-S	0.70	1.40	6.00	40	●	●	●
4345-0.8-S	0.80	1.60	6.00	40	●	●	●
4345-0.9-S	0.90	1.80	6.00	40	●	●	●
4345-1.0-S	1.00	2.00	6.00	40	●	●	●
4345-1.1-S	1.10	2.20	6.00	40	●	●	●
4345-1.2-S	1.20	2.40	6.00	40	●	●	●
4345-1.3-S	1.30	2.60	6.00	40	●	●	●
4345-1.4-S	1.40	2.80	6.00	40	●	●	●
4345-1.5-S	1.50	3.00	6.00	40	●	●	●
4345-1.6-S	1.60	3.20	6.00	40	●	●	●
4345-1.7-S	1.70	3.40	6.00	40	●	●	●
4345-1.8-S	1.80	3.60	6.00	40	●	●	●
4345-1.9-S	1.90	3.80	6.00	40	●	●	●
4345-2.0-S	2.00	4.00	6.00	40	●	●	●
4345-2.1-S	2.10	4.20	6.00	40	●	●	●
4345-2.2-S	2.20	4.40	6.00	40	●	●	●
4345-2.3-S	2.30	4.60	6.00	40	●	●	●
4345-2.4-S	2.40	4.80	6.00	40	●	●	●
4345-2.5-S	2.50	5.00	6.00	40	●	●	●
4345-2.6-S	2.60	5.20	6.00	40	●	●	●
4345-2.7-S	2.70	5.40	6.00	40	●	●	●
4345-2.8-S	2.80	5.60	6.00	40	●	●	●
4345-2.9-S	2.90	5.80	6.00	40	●	●	●
4345-3.0-S	3.00	6.00	6.00	40	●	●	●
4345-3.5-S	3.50	7.00	6.00	40	●	●	●
4345-4.0-S	4.00	8.00	6.00	40	●	●	●
4345-4.5-S	4.50	9.00	6.00	40	●	●	●
4345-5.0-S	5.00	10.00	6.00	40	●	●	●
4345-6.0-S	6.00	12.00	6.00	40	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

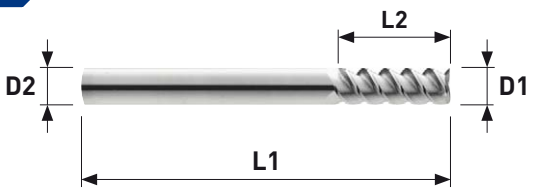
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 60°

Sharp Corner

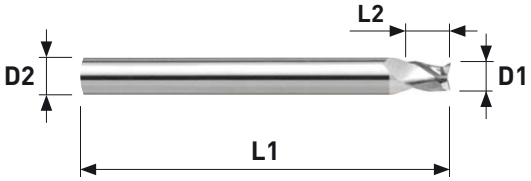
Z = 3



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4361-2.0	2.00	8.00	2.00	32	●	●	●
4361-2.5	2.50	8.00	2.50	32	●	●	●
4361-3.0	3.00	12.00	3.00	32	●	●	●
4361-3.5	3.50	12.00	3.50	32	●	●	●
4361-4.0	4.00	12.00	4.00	40	●	●	●
4361-4.5	4.50	14.00	4.50	50	●	●	●
4361-5.0	5.00	14.00	5.00	50	●	●	●
4361-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills



MD
VHM
HM

λ 35°/38°

Sharp Corner

Z = 3

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

Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
DHP4336-1.0	1.00	4.00	6.00	40	●	●	●
DHP4336-1.5	1.50	4.00	6.00	40	●	●	●
DHP4336-2.0	2.00	4.00	6.00	40	●	●	●
DHP4336-2.5	2.50	4.00	6.00	40	●	●	●
DHP4336-3.0	3.00	5.00	6.00	40	●	●	●
DHP4336-3.5	3.50	5.00	6.00	40	●	●	●
DHP4336-4.0	4.00	6.00	6.00	40	●	●	●
DHP4336-5.0	5.00	7.00	6.00	40	●	●	●
DHP4336-6.0	6.00	8.00	6.00	40	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

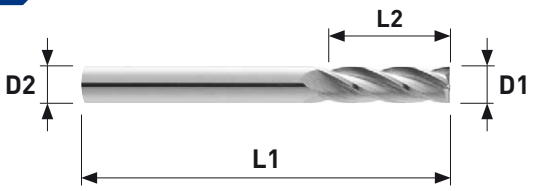
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 4



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4430-3.0	3.00	3.00	3.00	39	●	●	●
4430-4.0	4.00	4.00	4.00	50	●	●	●
4430-5.0	5.00	5.00	5.00	50	●	●	●
4430-6.0	6.00	6.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

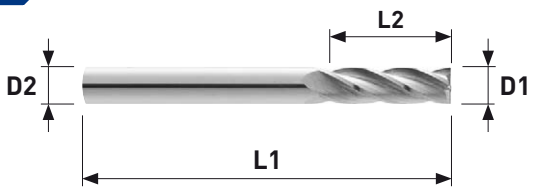
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Sharp Corner

Z = 4



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4431-2.0	2.00	8.00	2.00	32	●	●	●
4431-2.5	2.50	8.00	2.50	32	●	●	●
4431-3.0	3.00	12.00	3.00	32	●	●	●
4431-3.5	3.50	12.00	3.50	32	●	●	●
4431-4.0	4.00	12.00	4.00	40	●	●	●
4431-4.5	4.50	14.00	4.50	50	●	●	●
4431-5.0	5.00	14.00	5.00	50	●	●	●
4431-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

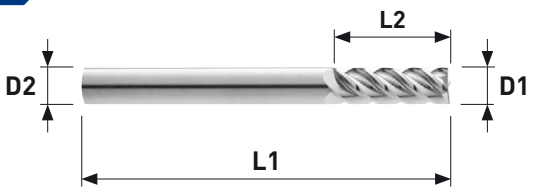
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 4



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4441-2.0	2.00	8.00	2.00	32	●	●	●
4441-2.5	2.50	8.00	2.50	32	●	●	●
4441-3.0	3.00	12.00	3.00	32	●	●	●
4441-3.5	3.50	12.00	3.50	32	●	●	●
4441-4.0	4.00	12.00	4.00	40	●	●	●
4441-4.5	4.50	14.00	4.50	50	●	●	●
4441-5.0	5.00	14.00	5.00	50	●	●	●
4441-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

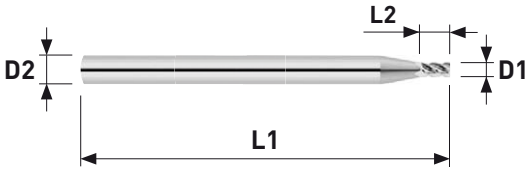
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 4



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4445-0.5-S	0.50	1.00	6.00	40	●	●	●
4445-0.6-S	0.60	1.20	6.00	40	●	●	●
4445-0.7-S	0.70	1.40	6.00	40	●	●	●
4445-0.8-S	0.80	1.60	6.00	40	●	●	●
4445-0.9-S	0.90	1.80	6.00	40	●	●	●
4445-1.0-S	1.00	2.00	6.00	40	●	●	●
4445-1.1-S	1.10	2.20	6.00	40	●	●	●
4445-1.2-S	1.20	2.40	6.00	40	●	●	●
4445-1.3-S	1.30	2.60	6.00	40	●	●	●
4445-1.4-S	1.40	2.80	6.00	40	●	●	●
4445-1.5-S	1.50	3.00	6.00	40	●	●	●
4445-1.6-S	1.60	3.20	6.00	40	●	●	●
4445-1.7-S	1.70	3.40	6.00	40	●	●	●
4445-1.8-S	1.80	3.60	6.00	40	●	●	●
4445-1.9-S	1.90	3.80	6.00	40	●	●	●
4445-2.0-S	2.00	4.00	6.00	40	●	●	●
4445-2.1-S	2.10	4.20	6.00	40	●	●	●
4445-2.2-S	2.20	4.40	6.00	40	●	●	●
4445-2.3-S	2.30	4.60	6.00	40	●	●	●
4445-2.4-S	2.40	4.80	6.00	40	●	●	●
4445-2.5-S	2.50	5.00	6.00	40	●	●	●
4445-2.6-S	2.60	5.20	6.00	40	●	●	●
4445-2.7-S	2.70	5.40	6.00	40	●	●	●
4445-2.8-S	2.80	5.60	6.00	40	●	●	●
4445-2.9-S	2.90	5.80	6.00	40	●	●	●
4445-3.0-S	3.00	6.00	6.00	40	●	●	●
4445-3.5-S	3.50	7.00	6.00	40	●	●	●
4445-4.0-S	4.00	8.00	6.00	40	●	●	●
4445-4.5-S	4.50	9.00	6.00	40	●	●	●
4445-5.0-S	5.00	10.00	6.00	40	●	●	●
4445-6.0-S	6.00	12.00	6.00	40	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

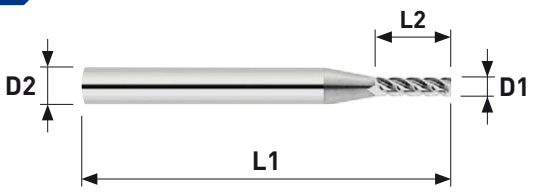
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 50°

Sharp Corner

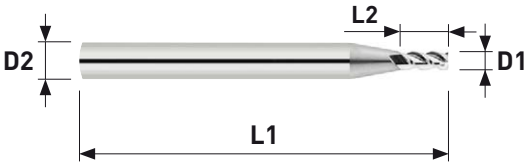
Z = 4



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4450-1.0	1.00	1.50	6.00	50	●	●	●
4450-1.5	1.50	2.25	6.00	50	●	●	●
4450-2.0	2.00	3.00	6.00	50	●	●	●
4450-2.5	2.50	3.75	6.00	50	●	●	●
4450-3.0	3.00	4.50	6.00	50	●	●	●
4450-3.5	3.50	5.25	6.00	50	●	●	●
4450-4.0	4.00	6.00	6.00	50	●	●	●
4450-5.0	5.00	7.50	6.00	50	●	●	●
4450-6.0	6.00	9.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills



MD
VHM
HM

λ 35°/38°

Sharp Corner

Z = 4

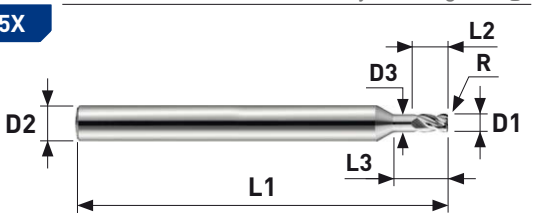
DHP — Denture à pas irrégulier, hélice progressive
Ungleiche Teilung, progressive Spirale
Uneven tooth pitch, progressive helix

Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
DHP4436-1.0	1.00	4.00	6.00	40	●	●	●
DHP4436-1.5	1.50	4.00	6.00	40	●	●	●
DHP4436-2.0	2.00	4.00	6.00	40	●	●	●
DHP4436-2.5	2.50	4.00	6.00	40	●	●	●
DHP4436-3.0	3.00	5.00	6.00	40	●	●	●
DHP4436-3.5	3.50	5.00	6.00	40	●	●	●
DHP4436-4.0	4.00	6.00	6.00	40	●	●	●
DHP4436-5.0	5.00	7.00	6.00	40	●	●	●
DHP4436-6.0	6.00	8.00	6.00	40	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

4439T-2.5X

Fraises en bout toriques
Torische Schaftfräser
Toric End mills



MD
VHM
HM

λ 30°

Radius
Corner

L3
2.5xD1

Z = 4

Art. N°	D1 h10	R +/- 0.02	L2	L3	D3	D2 h5	L1	N	TiAlN	STF
4439T-2.5X-3.0	3.00	0.50	3.00	7.50	2.95	6.00	57	●	●	●
4439T-2.5X-3.5	3.50	0.50	3.50	8.75	3.45	6.00	57	●	●	●
4439T-2.5X-4.0	4.00	0.50	4.00	10.00	3.95	6.00	57	●	●	●
4439T-2.5X-4.5	4.50	0.50	4.50	11.25	4.45	6.00	57	●	●	●
4439T-2.5X-5.0	5.00	0.50	5.00	12.50	4.95	6.00	57	●	●	●
4439T-2.5X-5.5	5.50	0.50	5.50	13.75	5.45	6.00	57	●	●	●
4439T-2.5X-6.0	6.00	0.50	6.00	15.00	5.95	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

4439T-4X

Fraises en bout toriques
Torische Schaftfräser
Toric End mills

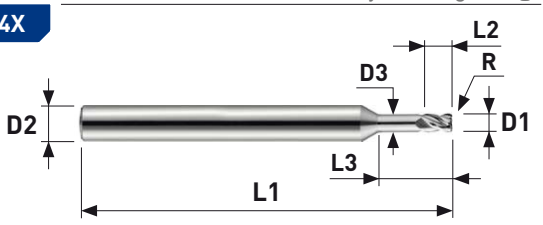
MD
VHM
HM

λ 30°

Radius Corner

L3 4xD1

Z = 4



Art. N°	D1 h10	R +/- 0.02	L2	L3	D3	D2 h5	L1	N	TiAlN	STF
4439T-4X-3.0	3.00	0.50	3.00	12.00	2.95	6.00	57	●	●	●
4439T-4X-3.5	3.50	0.50	3.50	14.00	3.45	6.00	57	●	●	●
4439T-4X-4.0	4.00	0.50	4.00	16.00	3.95	6.00	57	●	●	●
4439T-4X-4.5	4.50	0.50	4.50	18.00	4.45	6.00	57	●	●	●
4439T-4X-5.0	5.00	0.50	5.00	20.00	4.95	6.00	57	●	●	●
4439T-4X-5.5	5.50	0.50	5.50	22.00	5.45	6.00	57	●	●	●
4439T-4X-6.0	6.00	0.50	6.00	24.00	5.95	6.00	57	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

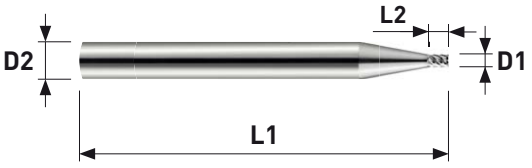
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 5



Art. N°	D1 h10	L2	D2 h5	L1	N	TiAlN	STF
4545-1.0	1.00	1.50	6.00	50	●	●	●
4545-2.0	2.00	3.00	6.00	50	●	●	●
4545-3.0	3.00	4.50	6.00	50	●	●	●
4545-4.0	4.00	6.00	6.00	50	●	●	●
4545-5.0	5.00	7.50	6.00	50	●	●	●
4545-6.0	6.00	9.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

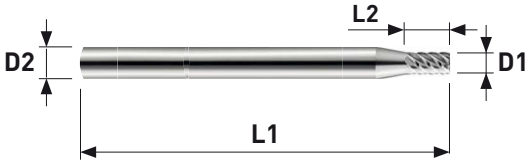
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 45°

Sharp Corner

Z = 4
Z = 5
Z = 6



Art. N°	D1 h10	L2	Z	D2 h5	L1	N	TiAlN	STF
45645-1.0	1.00	2.00	4	6.00	50	●	●	●
45645-1.5	1.50	3.00	5	6.00	50	●	●	●
45645-2.0	2.00	4.00	5	6.00	50	●	●	●
45645-2.5	2.50	5.00	5	6.00	50	●	●	●
45645-3.0	3.00	6.00	5	6.00	50	●	●	●
45645-3.5	3.50	7.00	5	6.00	50	●	●	●
45645-4.0	4.00	8.00	6	6.00	50	●	●	●
45645-4.5	4.50	9.00	6	6.00	50	●	●	●
45645-5.0	5.00	10.00	6	6.00	50	●	●	●
45645-6.0	6.00	12.00	6	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

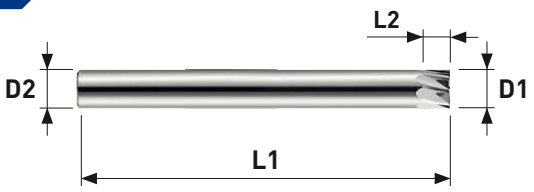
Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 10°

Sharp Corner

Z = 8



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4810-0.65-6.0	6.00	4.00	6.00	50	●	●	●
4810-1.0-6.0	6.00	6.00	6.00	57	●	●	●
4810-1.5-6.0	6.00	9.00	6.00	57	●	●	●

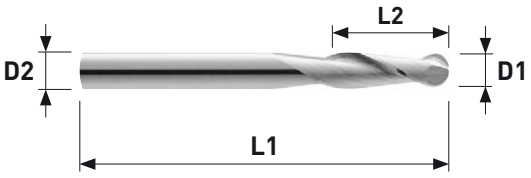
• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Z = 2



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4238-2.0	2.00	8.00	2.00	32	●	●	●
4238-2.5	2.50	8.00	2.50	32	●	●	●
4238-3.0	3.00	12.00	3.00	32	●	●	●
4238-3.5	3.50	12.00	3.50	32	●	●	●
4238-4.0	4.00	12.00	4.00	40	●	●	●
4238-4.5	4.50	14.00	4.50	50	●	●	●
4238-5.0	5.00	14.00	5.00	50	●	●	●
4238-6.0	6.00	16.00	6.00	50	●	●	●

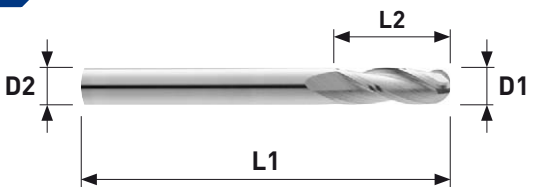
• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout
Schaftfräser
End mills

MD
VHM
HM

λ 30°

Z = 3



Art. N°	D1 e9	L2	D2 h5	L1	N	TiAlN	STF
4338-2.0	2.00	8.00	2.00	32	●	●	●
4338-2.5	2.50	8.00	2.50	32	●	●	●
4338-3.0	3.00	12.00	3.00	32	●	●	●
4338-3.5	3.50	12.00	3.50	32	●	●	●
4338-4.0	4.00	12.00	4.00	40	●	●	●
4338-4.5	4.50	14.00	4.50	50	●	●	●
4338-5.0	5.00	14.00	5.00	50	●	●	●
4338-6.0	6.00	16.00	6.00	50	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

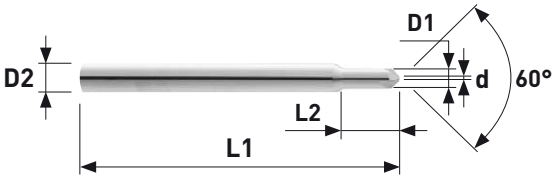
Fraises à angler
Kegelsenker
Chamfering tools

MD
VHM
HM

λ 0°

Z = 3

60°



Art. N°	D1 +0.01 -0.01	L2	D2 h4	L1	d	N	TiAlN	STF
4611-0.5	0.50	3.00	3.00	39	0.10	●	●	●
4611-0.6	0.60	3.00	3.00	39	0.10	●	●	●
4611-0.7	0.70	3.00	3.00	39	0.10	●	●	●
4611-0.8	0.80	3.00	3.00	39	0.10	●	●	●
4611-0.9	0.90	3.00	3.00	39	0.10	●	●	●
4611-1.0	1.00	3.00	3.00	39	0.10	●	●	●
4611-1.5	1.50	4.50	3.00	39	0.10	●	●	●
4611-2.0	2.00	6.00	3.00	39	0.10	●	●	●
4611-2.5	2.50	7.50	3.00	39	0.10	●	●	●
4611-3.0	3.00	-	3.00	39	0.10	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

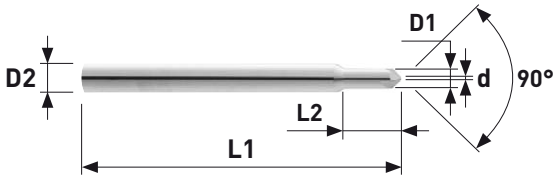
Fraises à angler
Kegelsenker
Chamfering tools

MD
VHM
HM

λ 0°

Z = 3

90°



Art. N°	D1 +0.010 -0.010	L2	D2 h4	L1	d	N	TiAlN	STF
4911-0.30	0.30	2.00	3.00	39	0.05	●	●	●
4911-0.40	0.40	2.00	3.00	39	0.05	●	●	●
4911-0.50	0.50	3.00	3.00	39	0.10	●	●	●
4911-0.60	0.60	3.00	3.00	39	0.10	●	●	●
4911-0.70	0.70	3.00	3.00	39	0.10	●	●	●
4911-0.80	0.80	3.00	3.00	39	0.10	●	●	●
4911-0.90	0.90	3.00	3.00	39	0.10	●	●	●
4911-1.00	1.00	3.00	3.00	39	0.10	●	●	●
4911-1.10	1.10	3.00	3.00	39	0.10	●	●	●
4911-1.20	1.20	3.00	3.00	39	0.10	●	●	●
4911-1.30	1.30	3.00	3.00	39	0.10	●	●	●
4911-1.40	1.40	3.00	3.00	39	0.10	●	●	●
4911-1.50	1.50	4.50	3.00	39	0.10	●	●	●
4911-2.00	2.00	6.00	3.00	39	0.10	●	●	●
4911-2.50	2.50	7.50	3.00	39	0.10	●	●	●
4911-3.00	3.00	-	3.00	39	0.10	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

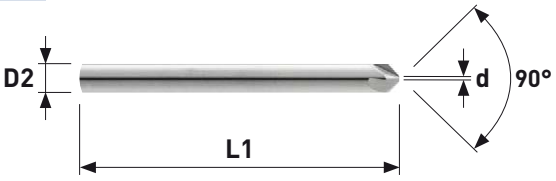
Fraises à angler
Kegelsenker
Chamfering tools

MD
VHM
HM

λ 0°

Z = 4

90°



Art. N°	D2 Ø3h4 Ø6h5 Ø8h6	d	L1	N	TiAlN	STF
4901-3.0	3.00	0.30	39	●	●	●
4901-6.0	6.00	0.70	50	●	●	●
4901-8.0	8.00	1.20	59	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Outils pour machine **WM 701S**
Werkzeuge für Maschine **WM 701S**
Executions for machine **WM 701S**

Tous les outils de notre catalogue sont réalisables pour la machine WM 701S sur demande.

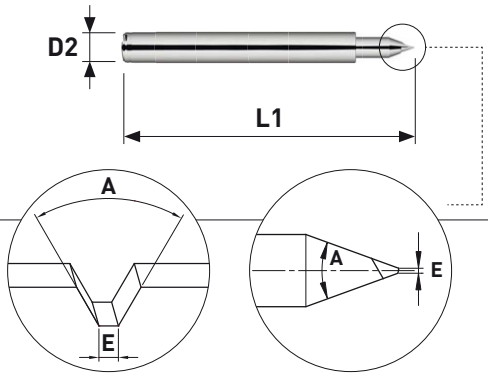
Alle Werkzeuge unseres Katalogs sind machbar für die Maschine WM 701S auf Anfrage.

All tools of our catalogue can be produced for the machine WM 701S on request.

701S2300-P

Fraises à graver avec plat - WM 701S
Gravierfräser mit Fläche - WM 701S
Engraving mills with flat - WM 701S

MD
VHM
HM



Art. N°	A	E	D2 h4	L1	N	TiAlN	STF	ALFA-TOP
701S2330-P-_(E)	30°	0.02-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2335-P-_(E)	35°	0.02-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2340-P-_(E)	40°	0.02-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2350-P-_(E)	50°	0.02-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2360-P-_(E)	60°	0.02-0.10* / 0.10-0.30**	6.00	33	●	●	●	●

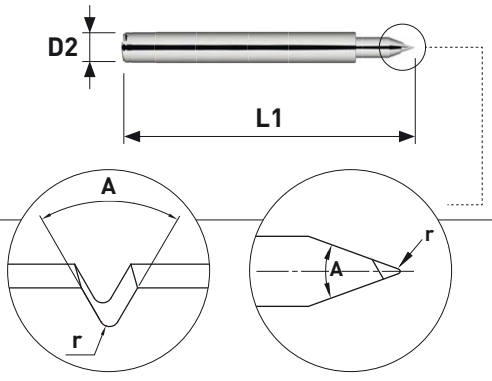
* tous les 0.01 mm
alle 0.01 mm
every 0.01 mm

** tous les 0.05 mm
alle 0.05 mm
every 0.05 mm

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises à graver à rayon - WM 701S
Gravierfräser mit Radius - WM 701S
Engraving mills with radius - WM 701S

MD
VHM
HM



Art. N°	A	r	D2 h4	L1	N	TiAlN	STF	ALFA-TOP
701S2330-R-_(r)	30°	0.04-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2335-R-_(r)	35°	0.04-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2340-R-_(r)	40°	0.04-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2350-R-_(r)	50°	0.04-0.10* / 0.10-0.30**	6.00	33	●	●	●	●
701S2360-R-_(r)	60°	0.04-0.10* / 0.10-0.30**	6.00	33	●	●	●	●

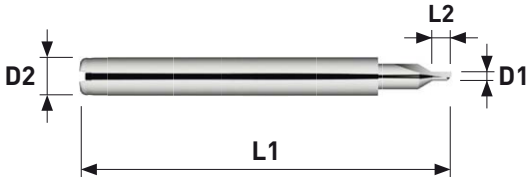
* tous les 0.01 mm
alle 0.01 mm
every 0.01 mm

** tous les 0.05 mm
alle 0.05 mm
every 0.05 mm

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout - WM 701S
Schaftfräser - WM 701S
End mills - WM 701S

MD VHM HM | λ 0° | Sharp Corner | 2xD1 | Z = 1

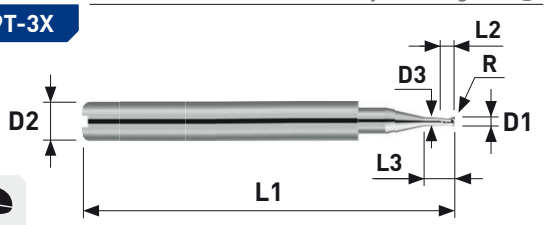


Art. N°	D1 +0.005 -0.010	L2	D2 h4	L1	N	TiAlN	STF	ALFA-TOP
701S4170R-2-0.50	0.50	1.00	6.00	33	●	●	●	●
701S4170R-2-1.00	1.00	2.00	6.00	33	●	●	●	●
701S4170R-2-1.50	1.50	3.00	6.00	33	●	●	●	●
701S4170R-2-2.00	2.00	4.00	6.00	33	●	●	●	●
701S4170R-2-2.50	2.50	5.00	6.00	33	●	●	●	●
701S4170R-2-3.00	3.00	6.00	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

701S4279T-3X

Fraises en bout toriques - WM 701S
Torische Schaftfräser - WM 701S
Toric end mills - WM 701S



MD
VHM
HM

λ 30°

Radius Corner

L3 3xD1

Z = 2

Art. N°	D1 +0.005 -0.010	R +/-0.020	L2	L3	D3	D2 h4	L1	N	TiAlN	STF	ALFA-TOP
701S4279T-3X-0.30	0.30	0.05	0.30	0.90	0.27	6.00	33	●	●	●	●
701S4279T-3X-0.40	0.40	0.05	0.40	1.20	0.45	6.00	33	●	●	●	●
701S4279T-3X-0.50	0.50	0.05	0.50	1.50	0.45	6.00	33	●	●	●	●
701S4279T-3X-0.60	0.60	0.05	0.60	1.80	0.55	6.00	33	●	●	●	●
701S4279T-3X-0.80	0.80	0.05	0.80	2.40	0.75	6.00	33	●	●	●	●
701S4279T-3X-1.00	1.00	0.10	1.00	3.00	0.95	6.00	33	●	●	●	●
701S4279T-3X-1.20	1.20	0.10	1.20	3.60	1.15	6.00	33	●	●	●	●
701S4279T-3X-1.50	1.50	0.20	1.50	4.50	1.45	6.00	33	●	●	●	●
701S4279T-3X-1.80	1.80	0.20	1.80	5.40	1.75	6.00	33	●	●	●	●
701S4279T-3X-2.00	2.00	0.20	2.00	6.00	1.95	6.00	33	●	●	●	●
701S4279T-3X-2.50	2.50	0.20	2.50	7.50	2.45	6.00	33	●	●	●	●
701S4279T-3X-3.00	3.00	0.20	3.00	9.00	2.95	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout - WM 701S
Schaftfräser - WM 701S
End mills - WM 701S

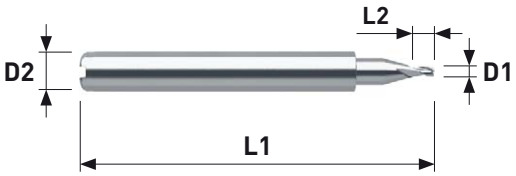
MD
VHM
HM

λ 36°
λ 37°
λ 38°

Sharp Corner

1xD1

Z = 3



Art. N°	D1 +0.005 -0.010	L2	D2 h4	L1	N	TiAlN	TiCN	ALFA-TOP
701S4370-1-0.30	0.30	0.30	6.00	33	●	●	●	●
701S4370-1-0.40	0.40	0.40	6.00	33	●	●	●	●
701S4370-1-0.50	0.50	0.50	6.00	33	●	●	●	●
701S4370-1-0.60	0.60	0.60	6.00	33	●	●	●	●
701S4370-1-0.80	0.80	0.80	6.00	33	●	●	●	●
701S4370-1-1.00	1.00	1.00	6.00	33	●	●	●	●
701S4370-1-1.20	1.20	1.20	6.00	33	●	●	●	●
701S4370-1-1.50	1.50	1.50	6.00	33	●	●	●	●
701S4370-1-1.80	1.80	1.80	6.00	33	●	●	●	●
701S4370-1-2.00	2.00	2.00	6.00	33	●	●	●	●
701S4370-1-2.50	2.50	2.50	6.00	33	●	●	●	●
701S4370-1-3.00	3.00	3.00	6.00	33	●	●	●	●
701S4370-1-3.20	3.20	3.20	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout - WM 701S
Schaftfräser - WM 701S
End mills - WM 701S

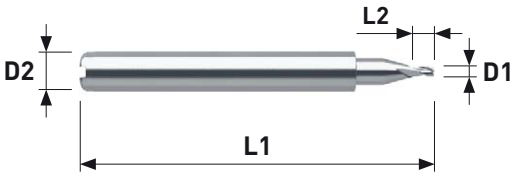
MD
VHM
HM

λ 36°
λ 37°
λ 38°

Sharp Corner

2xD1

Z = 3



Art. N°	D1 +0.005 -0.010	L2	D2 h4	L1	N	TiAlN	TiCN	ALFA-TOP
701S4370-2-0.30	0.30	0.60	6.00	33	●	●	●	●
701S4370-2-0.40	0.40	0.80	6.00	33	●	●	●	●
701S4370-2-0.50	0.50	1.00	6.00	33	●	●	●	●
701S4370-2-0.60	0.60	1.20	6.00	33	●	●	●	●
701S4370-2-0.80	0.80	1.60	6.00	33	●	●	●	●
701S4370-2-1.00	1.00	2.00	6.00	33	●	●	●	●
701S4370-2-1.20	1.20	2.40	6.00	33	●	●	●	●
701S4370-2-1.50	1.50	3.00	6.00	33	●	●	●	●
701S4370-2-1.80	1.80	3.60	6.00	33	●	●	●	●
701S4370-2-2.00	2.00	4.00	6.00	33	●	●	●	●
701S4370-2-2.50	2.50	5.00	6.00	33	●	●	●	●
701S4370-2-3.00	3.00	6.00	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Fraises en bout - WM 701S
Schaftfräser - WM 701S
End mills - WM 701S

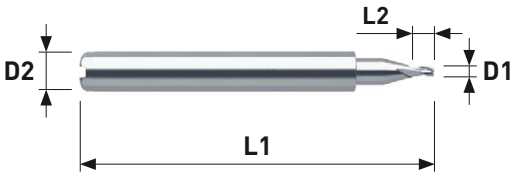
MD
VHM
HM

λ 36°
λ 37°
λ 38°

Sharp Corner

3xD1

Z = 3



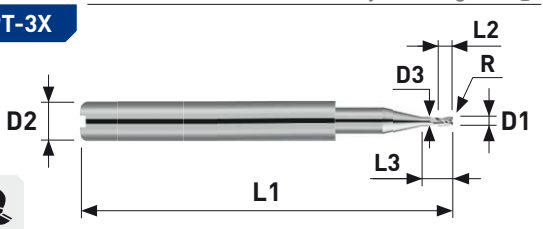
Art. N°	D1 +0.005 -0.010	L2	D2 h4	L1	N	TiAlN	TiCN	ALFA-TOP
701S4370-3-0.30	0.30	0.90	6.00	33	●	●	●	●
701S4370-3-0.40	0.40	1.20	6.00	33	●	●	●	●
701S4370-3-0.50	0.50	1.50	6.00	33	●	●	●	●
701S4370-3-0.60	0.60	1.80	6.00	33	●	●	●	●
701S4370-3-0.80	0.80	2.40	6.00	33	●	●	●	●
701S4370-3-1.00	1.00	3.00	6.00	33	●	●	●	●
701S4370-3-1.20	1.20	3.60	6.00	33	●	●	●	●
701S4370-3-1.50	1.50	4.50	6.00	33	●	●	●	●
701S4370-3-1.80	1.80	5.40	6.00	33	●	●	●	●
701S4370-3-2.00	2.00	6.00	6.00	33	●	●	●	●
701S4370-3-2.50	2.50	7.50	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

701S4379T-3X

Fraises en bout toriques - WM 701S
Torische Schaftfräser - WM 701S
Toric end mills - WM 701S

MD VHM HM | λ 30° | Radius Corner | L3 3xD1 | Z = 3



Art. N°	D1 +0.005 -0.010	R +/-0.020	L2	L3	D3	D2 h4	L1	N	TiAlN	STF	ALFA-TOP
701S4379T-3X-1.00	1.00	0.10	2.00	3.00	0.95	6.00	33	●	●	●	●
701S4379T-3X-1.50	1.50	0.20	3.00	4.50	1.45	6.00	33	●	●	●	●
701S4379T-3X-2.00	2.00	0.20	4.00	6.00	1.95	6.00	33	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

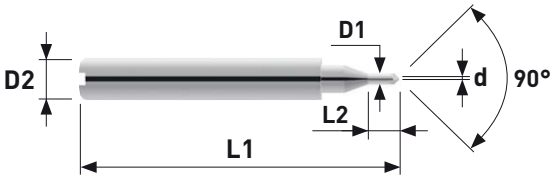
Fraises à angler - WM 701S
Kegelsenker - WM 701S
Chamfering tools - WM 701S

MD
VHM
HM

λ 0°

Z = 3

90°



Art. N°	D1 +0.010 -0.010	L2	D2 h4	L1	d +/-0.020	N	TiAlN	STF	ALFA-TOP
701S4911-0.40	0.40	2.00	6.00	33	0.05	●	●	●	●
701S4911-0.50	0.50	2.50	6.00	33	0.05	●	●	●	●
701S4911-0.60	0.60	2.50	6.00	33	0.05	●	●	●	●
701S4911-1.00	1.00	3.00	6.00	33	0.05	●	●	●	●
701S4911-1.50	1.50	4.50	6.00	33	0.05	●	●	●	●
701S4911-2.00	2.00	4.50	6.00	33	0.05	●	●	●	●

• Autre revêtement sur demande/Andere Beschichtung auf Anfrage/Other coating on request

Informations techniques et symboles
Technische Informationen und Symbole
Technical information and symbols

60°
90°
120°
Angle
Winkel
Angle

λ 25°
Angle d'hélice
Spiralwinkel
Helix angle

λ **36°**
λ **38°**
λ **40°**
Hélice différente
Unterschiedliche Spirale
Different helix

λ 35°/38°
Hélice progressive
Progressive Spirale
Progressive helix

Z
Nombre de dents
Anzahl der Zähne
Number of teeth

2xD1
Rapport longueur-diamètre
Länge-Durchmesser Verhältnis
Length to diameter ratio


Lèvres, affûtage à facettes
Schneiden, Facettenschärfen
Flutes, sharpening with facets


Taillage demi-lune
Kanonenbohrer Spitze
Gundrills tip


Taillage renforcé 3/4
3/4 genuteter Fräser
3/4 straight fluted


Usinage radial, diagonal et axial
Radiale, diagonale und axiale Bearbeitung
Radial, diagonal and axial machining


Usinage radial et axial
Radiale und axiale Bearbeitung
Radial and axial machining

Chanfrein
Fase
Chamfer

Coin vif
Scharfkantige Ecke
Sharp corner


Fraises hémisphériques
Radiusfräser
End mills with ball nose

Rayon de coin
Eckradius
Corner radius


Dents avec coupe centrale
Zähne Zentrumschnitt
Teeth center cutting


Denture décalée
Versetzte Verzahnung
Alterned teeth

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

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


Usinage torique
Torusbearbeitung
Toroidal machining

CW
Sens horaire
Uhrzeigersinn
Clockwise

CCW
Sens antihoraire
Gegenuhrzeigersinn
Counterclockwise

MD
VHM
HM
Métal dur
Vollhartmetall
Hard metal