



Rise Above High Performance.

The Z-Carb-AP offers performance so advanced, it goes way beyond typical "High Performance" end mills.

Features & Benefits:

- Superior chatter suppression through advanced patented design
- Increase productivity by cutting deeper and wider without harmful harmonics
- Lower cutting forces promote longer tool life





Más allá del alto rendimiento.

La Z-Carb-AP ofrece un desempeño tan avanzado, que va mucho más allá de las típicas fresas de 'alto rendimiento'.

Características y ventajas:

- Supresión de golpeteo superior, gracias a su diseño de avanzada patentado
- Incremente la productividad con cortes más profundos y anchos, sin armónicas dañinas
- Fuerzas de corte inferiores, que favorecen una vida útil más prolongada de la herramienta

Élevez-vous au-delà du seuil de haute performance.

Les produits Z-Carb-AP offrent des performances extraordinaires, bien au-delà des fraises à queue « haute performance » typiques.

Caractéristiques et avantages :

- Capacité supérieure de suppression du broutage, grâce à une conception technique brevetée
- Productivité accrue en fraisant plus profondément et plus large sans harmonique parasite
- Pression de fraisage plus faible favorisant la longévité de l'outil





Series Z1PCR • Z1MPCR

Z-Carb-AP Variable Rake End Mills –
4-Flute – Corner Radius

Serie Z1PCR • Z1MPCR

Fresas de inclinación variable
Z-Carb-AP

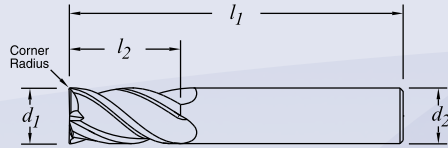
Série Z1PCR • Z1MPCR

Fraises Z-Carb-AP à vague de
coupe variable

Z-Carb-AP Patented Variable Rake End Mills

Fractional
Series

Z1PCR



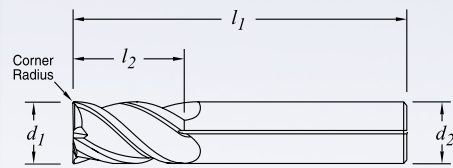
Tolerances (inch)

Diameter	d ₁	d ₂
1/8 – 1/4	+0.0000/–.0012	–.0001/–.0003
> 1/4 – 3/8	+0.0000/–.0016	–.0001/–.0003
> 3/8 – 1	+0.0000/–.0020	–.0001/–.0004

Corner Radius Tolerances

+0.000/–.002

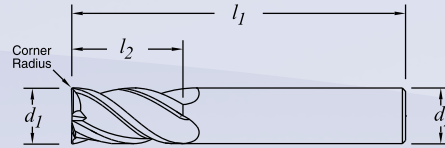
Cutting Diameter d ₁	Length of Cut l ₂	Overall Length l ₁	Shank Diameter d ₂	Corner Radius	Ti-NAMITE-A (AlTiN) EDP No.	Ti-NAMITE-A (AlTiN) EDP No. W/Flat	JetStream EDP No.
1/8	3/8	1-1/2	1/8	.015	36851	–	–
3/16	7/16	2	3/16	.015	36852	–	–
1/4	1/2	2-1/2	1/4	.020	36853	–	–
1/4	3/4	2 1/2	1/4	.020	36854	–	–
5/16	13/16	2-1/2	5/16	.020	36855	–	–
3/8	7/8	2-1/2	3/8	.020	36856	36864	–
7/16	1	2-3/4	7/16	.020	36857	36865	–
1/2	1	3	1/2	.030	36858	36866	36805
1/2	1-1/4	3-1/4	1/2	.030	36859	36867	–
9/16	1-1/8	3-1/2	9/16	.030	36860	36868	36806
5/8	1-1/4	3-1/2	5/8	.040	36861	36869	36807
3/4	1-1/2	4	3/4	.040	36862	36870	36808
1	1-1/2	4	1	.040	36863	36871	36809



JetStream Corner Radius



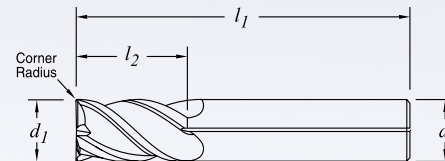
Diameter	Tolerances (mm)	
	d_1	d_2
3 – 6	+0,000/–0,030	–0,0025/–0,0075
> 6 – 10	+0,000/–0,040	–0,0025/–0,0075
> 10 – 25	+0,000/–0,050	–0,0025/–0,0100



Corner Radius Tolerances

+0,000/–0,050

Cutting Diameter d_1 mm	Length of Cut l_2 mm	Overall Length l_1 mm	Shank Diameter d_2 mm	Corner Radius	Ti-NAMITE-A (AlTiN) EDP No.	Ti-NAMITE-A (AlTiN) W/Flat EDP No.	JetStream EDP No.
3	8	57	6	0,3	46851	–	–
4	11	57	6	0,3	46852	–	–
5	13	57	6	0,3	46853	–	–
6	13	57	6	0,5	46854	–	–
6	13	57	6	1,0	46855	–	–
8	19	63	8	0,5	46856	–	–
8	19	63	8	1,0	46857	–	–
10	22	72	10	0,5	46858	–	–
10	22	72	10	1,0	46859	–	–
12	26	83	12	0,5	46860	–	–
12	26	83	12	0,75	46861	–	–
14	26	83	14	1,0	46862	–	46494
16	32	92	16	1,0	46863	–	46495
16	32	92	16	3,0	46864	–	–
20	38	104	20	1,0	46865	–	46497
25	38	104	25	1,0	46866	–	46498



JetStream Corner Radius

