

ALG series

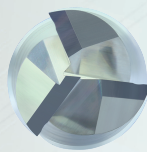
Aluminum machining end mills

ALG series aluminum machining end mills are highly versatile and can achieve efficient cutting of aluminum alloy in various working conditions, with sharp edge design, light and fast cutting, excellent anti-bonding wear performance and high surface quality.

- ▶ Super fine grain carbide matrix, perfect combination of tool wear resistance and cutting edge strength;
- ▶ Special design of the chip tank realizes the perfect unification of tool strength and chip removal performance, which greatly improves the cutting stability;
- ▶ Large rake angle and sharp cutting edge design, effectively avoiding the generation of chip tumors;
- ▶ Optimized design of the flank surface and special surface treatment, the parts are machined with excellent surface quality.



Two cutting edges



Three cutting edges

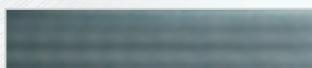
Application examples

Tool : ALG-3E-D8.0
Processing material: Aluminum alloy(HB110)
Machine: Machining center
Machining type: Side milling
Clamping type: Hydraulic toolholder
Cooling type: Emulsion
Cutting parameters : $n=13000r/min$,
 $f=900mm/min$, $a_p=8mm$, $a_e=0.5mm$

Machining surface quality comparison



ZCC•CT product



Company A's product

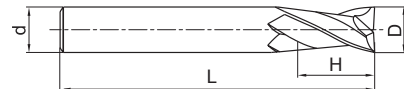
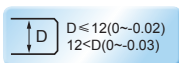
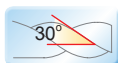
2-flute flattened end mills with straight shank



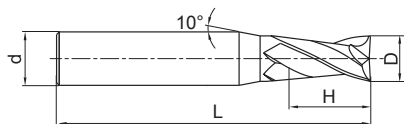
ALG-2E



- Good chip removal performance, high machining efficiency.



Picture 1



Picture 2

Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
ALG-2E-D1.0	1.0	4	3	50	2	Picture 2	○
ALG-2E-D1.5	1.5	4	4	50	2	Picture 2	○
ALG-2E-D2.0	2.0	4	6	50	2	Picture 2	○
ALG-2E-D2.5	2.5	4	8	50	2	Picture 2	○
ALG-2E-D3.0S	3.0	4	8	50	2	Picture 2	○
ALG-2E-D3.0	3.0	6	8	50	2	Picture 2	○
ALG-2E-D3.5S	3.5	4	10	50	2	Picture 2	○
ALG-2E-D3.5	3.5	6	10	50	2	Picture 2	○
ALG-2E-D4.0S	4.0	4	11	50	2	Picture 1	○
ALG-2E-D4.0	4.0	6	11	50	2	Picture 2	○
ALG-2E-D4.5	4.5	6	11	50	2	Picture 2	○
ALG-2E-D5.0	5.0	6	13	50	2	Picture 2	○
ALG-2E-D5.5	5.5	6	16	50	2	Picture 2	○
ALG-2E-D6.0	6.0	6	16	50	2	Picture 1	○
ALG-2E-D7.0	7.0	8	20	60	2	Picture 2	○
ALG-2E-D8.0	8.0	8	20	60	2	Picture 1	○
ALG-2E-D9.0	9.0	10	22	75	2	Picture 2	○
ALG-2E-D10.0	10.0	10	25	75	2	Picture 1	○
ALG-2E-D11.0	11.0	12	26	75	2	Picture 2	○
ALG-2E-D12.0	12.0	12	30	75	2	Picture 1	○
ALG-2E-D14.0	14.0	14	32	75	2	Picture 1	○
ALG-2E-D16.0	16.0	16	45	100	2	Picture 1	○
ALG-2E-D18.0	18.0	18	45	100	2	Picture 1	○
ALG-2E-D20.0	20.0	20	45	100	2	Picture 1	○

● Stock available ○ Make-to-order

Applicable workpiece material table

● Very suitable ○ Suitable

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
							●	●			

Code key

B258

Graphics category and identification

B259

Cutting parameters

B555

Non-standard customization

B570-B571

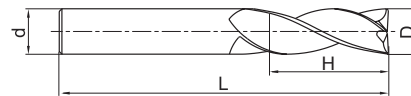
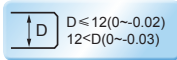
3-flute flattened end mills with straight shank



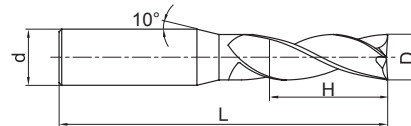
ALG-3E



● Good chip removal performance, can achieve high-precision machining.



Picture 1



Picture 2

Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
ALG-3E-D1.0	1.0	4	3	50	3	Picture 2	○
ALG-3E-D1.5	1.5	4	4	50	3	Picture 2	○
ALG-3E-D2.0	2.0	4	6	50	3	Picture 2	○
ALG-3E-D2.5	2.5	4	8	50	3	Picture 2	○
ALG-3E-D3.0S	3.0	4	8	50	3	Picture 2	○
ALG-3E-D3.0	3.0	6	8	50	3	Picture 2	○
ALG-3E-D4.0S	4.0	4	11	50	3	Picture 1	○
ALG-3E-D4.0	4.0	6	11	50	3	Picture 2	○
ALG-3E-D4.5	4.5	6	11	50	3	Picture 2	○
ALG-3E-D5.0	5.0	6	13	50	3	Picture 2	○
ALG-3E-D5.5	5.5	6	16	50	3	Picture 2	○
ALG-3E-D6.0	6.0	6	16	50	3	Picture 1	○
ALG-3E-D7.0	7.0	8	20	60	3	Picture 2	○
ALG-3E-D8.0	8.0	8	20	60	3	Picture 1	○
ALG-3E-D9.0	9.0	10	22	75	3	Picture 2	○
ALG-3E-D10.0	10.0	10	25	75	3	Picture 1	○
ALG-3E-D11.0	11.0	12	26	75	3	Picture 2	○
ALG-3E-D12.0	12.0	12	30	75	3	Picture 1	○
ALG-3E-D14.0	14.0	14	32	75	3	Picture 1	○
ALG-3E-D16.0	16.0	16	45	100	3	Picture 1	○
ALG-3E-D18.0	18.0	18	45	100	3	Picture 1	○
ALG-3E-D20.0	20.0	20	45	100	3	Picture 1	○

● Stock available ○ Make-to-order

➤ Applicable workpiece material table ○ Very suitable ○ Suitable

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
								○	○		

Code key **B258**

Graphics category and identification **B259**

Cutting parameters **B556**

Non-standard customization **B570-B571**

Indexable milling tools
Solid carbide end mills
ALG series

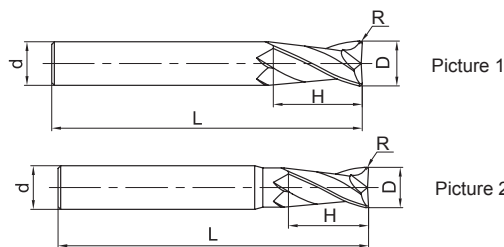
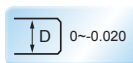
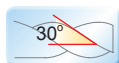
2-flute R end mills with straight shank



ALG-2R



● very suitable for super high speed milling of Al workpiece.



Picture 1

Picture 2

Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
ALG-2R-D1.0R0.2S	1.0	0.2	4	3	50	2	Picture 2	○
ALG-2R-D1.5R0.2S	1.5	0.2	4	4	50	2	Picture 2	○
ALG-2R-D2.0R0.2S	2.0	0.2	4	6	50	2	Picture 2	○
ALG-2R-D2.0R0.5S	2.0	0.5	4	6	50	2	Picture 2	○
ALG-2R-D2.5R0.2S	2.5	0.2	4	8	50	2	Picture 2	○
ALG-2R-D2.5R0.5S	2.5	0.5	4	8	50	2	Picture 2	○
ALG-2R-D3.0R0.2S	3.0	0.2	4	8	50	2	Picture 2	○
ALG-2R-D3.0R0.5S	3.0	0.5	4	8	50	2	Picture 2	○
ALG-2R-D3.5R0.2S	3.5	0.2	4	10	50	2	Picture 2	○
ALG-2R-D3.5R0.5S	3.5	0.5	4	10	50	2	Picture 2	○
ALG-2R-D4.0R0.2S	4.0	0.2	4	11	50	2	Picture 1	○
ALG-2R-D4.0R0.5S	4.0	0.5	4	11	50	2	Picture 1	○
ALG-2R-D4.0R1.0S	4.0	1.0	4	11	50	2	Picture 1	○
ALG-2R-D6.0R0.3	6.0	0.3	6	16	50	2	Picture 1	○
ALG-2R-D6.0R0.5	6.0	0.5	6	16	50	2	Picture 1	○
ALG-2R-D6.0R1.0	6.0	1.0	6	16	50	2	Picture 1	○
ALG-2R-D8.0R0.3	8.0	0.3	8	20	60	2	Picture 1	○
ALG-2R-D8.0R0.5	8.0	0.5	8	20	60	2	Picture 1	○
ALG-2R-D8.0R1.0	8.0	1.0	8	20	60	2	Picture 1	○
ALG-2R-D10.0R0.3	10.0	0.3	10	25	75	2	Picture 1	○
ALG-2R-D10.0R0.5	10.0	0.5	10	25	75	2	Picture 1	○
ALG-2R-D10.0R1.0	10.0	1.0	10	25	75	2	Picture 1	○
ALG-2R-D10.0R1.5	10.0	1.5	10	25	75	2	Picture 1	○
ALG-2R-D10.0R2.0	10.0	2.0	10	25	75	2	Picture 1	○
ALG-2R-D12.0R0.3	12.0	0.3	12	30	75	2	Picture 1	○
ALG-2R-D12.0R0.5	12.0	0.5	12	30	75	2	Picture 1	○
ALG-2R-D12.0R1.0	12.0	1.0	12	30	75	2	Picture 1	○
ALG-2R-D12.0R1.5	12.0	1.5	12	30	75	2	Picture 1	○
ALG-2R-D12.0R2.0	12.0	2.0	12	30	75	2	Picture 1	○

➤ Applicable workpiece material table ● Very suitable ○ Suitable ● Stock available ○ Make-to-order

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
							●	●			

Code key

B258

Graphics category and identification

B259

Cutting parameters

B557

Non-standard customization

B570-B571

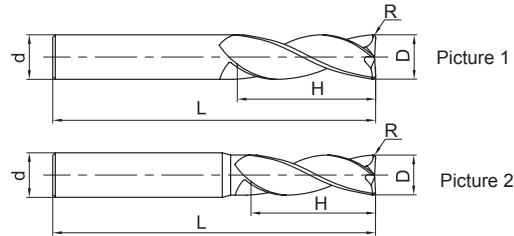
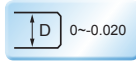
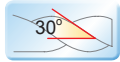
3-flute R end mills with straight shank



ALG-3R



● very suitable for super high speed milling of Al workpiece.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
ALG-3R-D1.0R0.2S	1.0	0.2	4	3	50	3	Picture 2	○
ALG-3R-D1.5R0.2S	1.5	0.2	4	4	50	3	Picture 2	○
ALG-3R-D2.0R0.2S	2.0	0.2	4	6	50	3	Picture 2	○
ALG-3R-D2.0R0.5S	2.0	0.5	4	6	50	3	Picture 2	○
ALG-3R-D2.5R0.2S	2.5	0.2	4	8	50	3	Picture 2	○
ALG-3R-D2.5R0.5S	2.5	0.5	4	8	50	3	Picture 2	○
ALG-3R-D3.0R0.2S	3.0	0.2	4	8	50	3	Picture 2	○
ALG-3R-D3.0R0.5S	3.0	0.5	4	8	50	3	Picture 2	○
ALG-3R-D3.5R0.2S	3.5	0.2	4	10	50	3	Picture 2	○
ALG-3R-D3.5R0.5S	3.5	0.5	4	10	50	3	Picture 2	○
ALG-3R-D4.0R0.2S	4.0	0.2	4	11	50	3	Picture 1	○
ALG-3R-D4.0R0.5S	4.0	0.5	4	11	50	3	Picture 1	○
ALG-3R-D4.0R1.0S	4.0	1.0	4	11	50	3	Picture 1	○
ALG-3R-D6.0R0.3	6.0	0.3	6	16	50	3	Picture 1	○
ALG-3R-D6.0R0.5	6.0	0.5	6	16	50	3	Picture 1	○
ALG-3R-D6.0R1.0	6.0	1.0	6	16	50	3	Picture 1	○
ALG-3R-D8.0R0.3	8.0	0.3	8	20	60	3	Picture 1	○
ALG-3R-D8.0R0.5	8.0	0.5	8	20	60	3	Picture 1	○
ALG-3R-D8.0R1.0	8.0	1.0	8	20	60	3	Picture 1	○
ALG-3R-D10.0R0.3	10.0	0.3	10	25	75	3	Picture 1	○
ALG-3R-D10.0R0.5	10.0	0.5	10	25	75	3	Picture 1	○
ALG-3R-D10.0R1.0	10.0	1.0	10	25	75	3	Picture 1	○
ALG-3R-D10.0R1.5	10.0	1.5	10	25	75	3	Picture 1	○
ALG-3R-D10.0R2.0	10.0	2.0	10	25	75	3	Picture 1	○
ALG-3R-D12.0R0.3	12.0	0.3	12	30	75	3	Picture 1	○
ALG-3R-D12.0R0.5	12.0	0.5	12	30	75	3	Picture 1	○
ALG-3R-D12.0R1.0	12.0	1.0	12	30	75	3	Picture 1	○
ALG-3R-D12.0R1.5	12.0	1.5	12	30	75	3	Picture 1	○
ALG-3R-D12.0R2.0	12.0	2.0	12	30	75	3	Picture 1	○

Applicable workpiece material table ● Very suitable ○ Suitable ● Stock available ○ Make-to-order

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
							●	●			

Code key

B258

Graphics category and identification B259

Cutting parameters B558

Non-standard customization B570-B571

Indexable milling tools
Solid carbide end mills
ALG series