







**NEW
PRODUCT!**

Achteck High-efficiency End Mill PRO Series













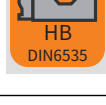
M150 End Mills for Stainless Steel, Titanium Alloy








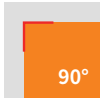
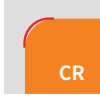

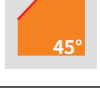




◆ Solid Carbide End Mills-M150

Series	Pictures	Category	Teeth	Helix angles	Application	Cutting edge tolerance	Diameter	Material	Application
M150-4ES		PRO	Z=4	36°/38°		h9	3-20	P、M、S	Used in stainless steel, Titanium alloy, 4 cutting edges design for good surface quality, differential teeth distance and helix eliminate vibration, geometry in U type for smooth chip removal.
M150-4RS		PRO	Z=4	36°/38°		h9	4-20	P、M、S	Used in stainless steel, Titanium alloy, round corner can effectively reduce the edge breakage, 4 cutting edge design for good surface quality, differential teeth distance and helix eliminate vibration, geometry in U type for smooth chip removal.

Icon Description

Icons	Description
	Slot milling and square shoulder milling
	Square shoulder Rough milling
	Square shoulder Finish milling
	High feed milling
	Dynamic milling Cycloid milling
	Profile milling
	Chamfering and deburring
	AlTiN coating
	Uncoated
	AlCrN coating
	AlTiN/Zr coating
	Cylindrical shank
	Side lock shank

图标	说明
	30° Helix angle
	35° Helix angle
	35°/38° Helix angle
	36°/38° Helix angle
	40° Helix angle
	45° Helix angle
	37°/39°/41° Helix angle
	Square
	Round corner
	Ball-nose
	Corner chamfer
	Chamfer
	Waved edge



◆ **ACHTECK M150 End Mills**

Tool

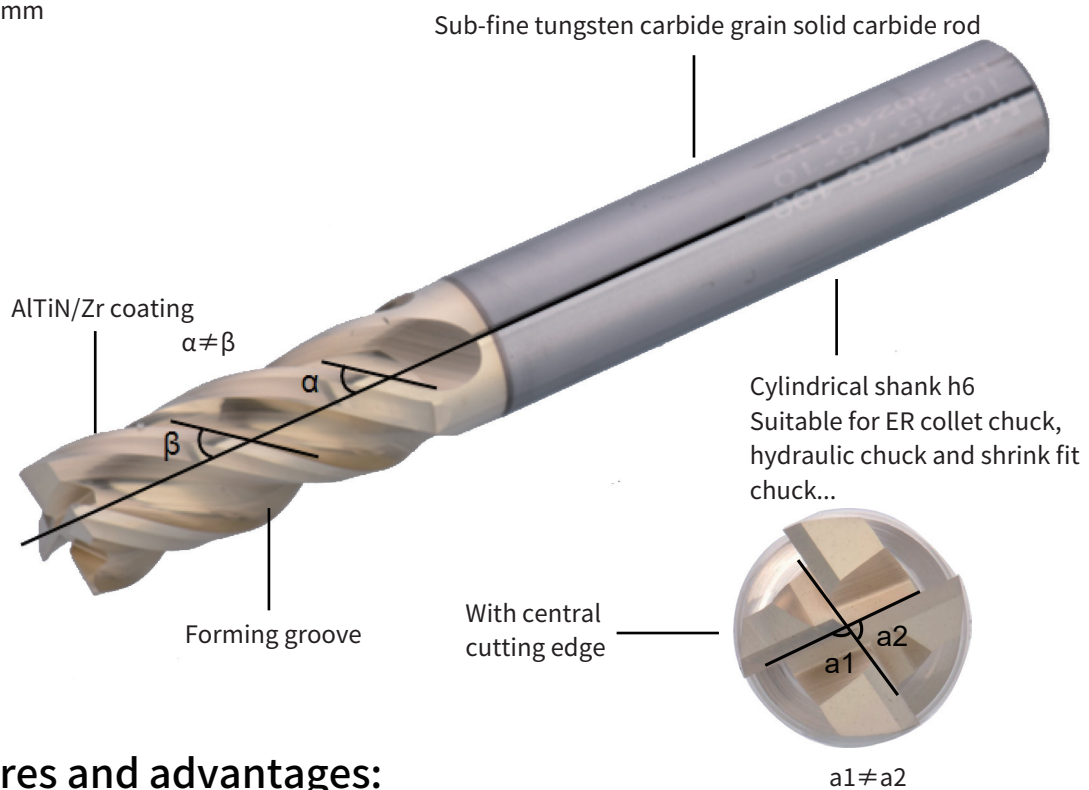
- Solid carbide end mills M150
- Metric
- 2 categories with 18 dimensions
- Square, round corner
- Diameter range D3-D16

Application

- ISO workpiece material group: P, M and S
- Side edge milling, full slot milling, pocket milling, helical interpolated milling, slope milling, forming milling
- Application range: medical industry, aerospace industry and 3C industry

◆ **M150 end mills for stainless steel, Titanium alloy**

φ3-16mm

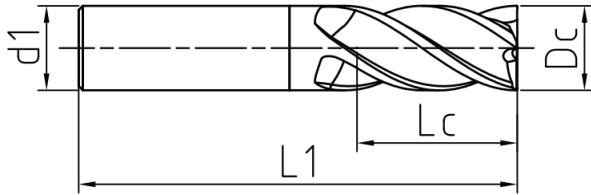


Features and advantages:

- The differential teeth distance and helix eliminate vibration.
- The forming groove design acquires smoother chip removal.
- Sub-fine tungsten carbide grain solid carbide rod has good impact resistance and thermal fatigue resistance.
- AlTiN/Zr coating with smooth surface effectively reduces the stickiness of workpiece and the built-up edge in the machining.

● Solid Carbide End Mills M150

Square end mills with 4 cutting edges



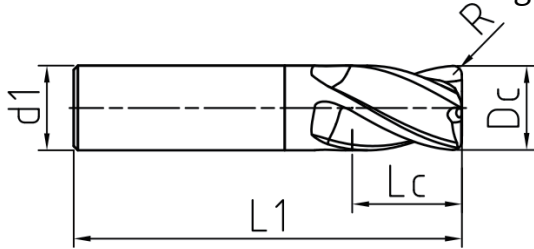
P	M	K	N	S	H
●	●			●	

Product Code	Dc mm h9	d1 mm h6	Lc mm	L1 mm	Z	Stock
M150-4ES-030	3	4	8	50	4	●
M150-4ES-040	4	4	12	50	4	●
M150-4ES-050	5	6	13	50	4	●
M150-4ES-060	6	6	16	50	4	●
M150-4ES-080	8	8	20	60	4	●
M150-4ES-100	10	10	25	75	4	●
M150-4ES-120	12	12	30	75	4	●
M150-4ES-160	16	16	36	100	4	●

Marked: ● Stocked ○ Non-stocked

◆ Solid Carbide End Mills M150

Round corner end mills with 4 cutting edges



P	M	K	N	S	H
●●	●●			●●	

Product Code	Dc mm h9	d1 mm h6	Rmm ±0.02	Lc mm	L1 mm	Z	Stock
M150-4RS-040002	4	4	0.2	12	50	4	●
M150-4RS-060005	6	6	0.5	16	50	4	●
M150-4RS-080005	8	8	0.5	20	60	4	●
M150-4RS-080010	8	8	1	20	60	4	●
M150-4RS-100005	10	10	0.5	25	75	4	●
M150-4RS-100010	10	10	1	25	75	4	●
M150-4RS-100020	10	10	2	25	75	4	●
M150-4RS-120005	12	12	0.5	30	75	4	●
M150-4RS-120010	12	12	1	30	75	4	●
M150-4RS-120020	12	12	2	30	75	4	●

Marked: ● Stocked ○ Non-stocked

● Solid Carbide End Mills M150 Cutting Parameter

The provided cutting data represents typical recommended values. Adjustment may be necessary for specific or unique applications.

Workpiece Materials						
ISO	Material classification			Brinell hardness (HB)	Tensile strength Rm(N/ mm ²)	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	
		0.25 < C ≤ 0.55%	Annealed	190	639	
		0.25 < C ≤ 0.55%	Heat-treated	210	708	
		C > 0.55%	Annealed	190	639	
		C > 0.55%	Heat-treated	300	1013	
	Low-alloyed steel	Free cutting steel (short-chipping)		Annealed	220	745
				Annealed	175	591
				Heat-treated	300	1013
				Heat-treated	380	1282
	High-alloyed steel and high-alloyed tool steel			Heat-treated	430	1477
				Annealed	200	675
				Hardened and tempered	300	1013
	Stainless steel			Hardened and tempered	400	1361
				Ferritic/martensitic, annealed	200	675
M	Stainless steel			Martensitic, heat-treated	330	1114
				Austenitic, quench hardened	200	675
				Austenitic, precipitation hardened (PH)	300	1013
K	Malleable cast iron			Austenitic/ferritic, duplex	230	778
				Ferritic	200	400
	Grey cast iron			Pearlitic	260	700
				Low tensile strength	180	200
	Cast iron with spheroidal graphite			High tensile strength/austenitic	245	350
				Ferritic	155	400
GGV(CGI)			Pearlitic	265	700	
N	Wrought aluminium alloys			230	400	
				non-aging	30	-
	Cast aluminium alloys			aged	100	340
				≤ 12% Si, non-aging	75	260
				≤ 12% Si, aged	90	310
	Magnesium-based alloys			> 12% Si, non-aging	130	450
					70	250
				Unalloyed, electrolytic copper	100	340
Copper and copper alloys (bronze/brass)			Brass, bronze, red brass	90	310	
			Cu alloys, short-chipping	110	380	
			High tensile, Ampco	300	1010	
S	Heat-resistant alloys	Fe-based	Annealed	200	680	
			Hardened	280	940	
		Ni or Co based	Annealed	250	840	
			Hardened	350	1180	
	Titanium alloys			Cast	320	1080
				Pure titanium	200	680
				α and β alloys, hardened	375	1260
	Tungsten alloys			β alloys	410	1400
Molybdenum alloys				300	1010	
H	Hardened steel			300	1010	
				50HRC		
				55HRC		
	Chilled cast iron			60HRC		
				50HRC		

◆ Solid Carbide End Mills M150 Cutting Parameter

The provided cutting data represents typical recommended values. Adjustment may be necessary for specific or unique applications.

Workpiece Materials						
ISO	Material classification			Brinell hardness (HB)	Tensile strength Rm(N/ mm ²)	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	
		0.25 < C ≤ 0.55%	Annealed	190	639	
		0.25 < C ≤ 0.55%	Heat-treated	210	708	
		C > 0.55%	Annealed	190	639	
		C > 0.55%	Heat-treated	300	1013	
		Free cutting steel (short-chipping)	Annealed	220	745	
	Low-alloyed steel	Annealed			175	591
		Heat-treated			300	1013
		Heat-treated			380	1282
		Heat-treated			430	1477
	High-alloyed steel and high-alloyed tool steel	Annealed			200	675
		Hardened and tempered			300	1013
		Hardened and tempered			400	1361
	Stainless steel	Ferritic/martensitic, annealed			200	675
Martensitic, heat-treated			330	1114		
M	Stainless steel	Austenitic, quench hardened		200	675	
		Austenitic, precipitation hardened (PH)		300	1013	
		Austenitic/ferritic, duplex		230	778	
K	Malleable cast iron	Ferritic		200	400	
		Pearlitic		260	700	
	Grey cast iron	Low tensile strength		180	200	
		High tensile strength/austenitic		245	350	
	Cast iron with spheroidal graphite	Ferritic		155	400	
		Pearlitic		265	700	
	GGV (CGI)			230	400	
N	Wrought aluminium alloys	non-aging		30	-	
		aged		100	340	
	Cast aluminium alloys	≤ 12% Si, non-aging		75	260	
		≤ 12% Si, aged		90	310	
		> 12% Si, non-aging		130	450	
	Magnesium-based alloys			70	250	
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper		100	340	
		Brass, bronze, red brass		90	310	
		Cu alloys, short-chipping		110	380	
High tensile, Ampco		300	1010			
S	Heat-resistant alloys	Fe-based	Annealed	200	680	
			Hardened	280	940	
		Ni or Co based	Annealed	250	840	
			Hardened	350	1180	
			Cast	320	1080	
	Titanium alloys	Pure titanium		200	680	
		α and β alloys, hardened		375	1260	
		β alloys		410	1400	
Tungsten alloys			300	1010		
Molybdenum alloys			300	1010		
H	Hardened steel	Hardened and tempered		50HRC		
		Hardened and tempered		55HRC		
		Hardened and tempered		60HRC		
	Chilled cast iron	Hardened and tempered		50HRC		



◆ **Solid Carbide End Mills M150 Cutting Parameter**

The provided cutting data represents typical recommended values. Adjustment may be necessary for specific or unique applications.

Workpiece Materials						
ISO	Material classification			Brinell hardness (HB)	Tensile strength Rm(N/ mm ²)	
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	428	
		0.25 < C ≤ 0.55%	Annealed	190	639	
		0.25 < C ≤ 0.55%	Heat-treated	210	708	
		C > 0.55%	Annealed	190	639	
		C > 0.55%	Heat-treated	300	1013	
		Free cutting steel (short-chipping)	Annealed	220	745	
	Low-alloyed steel			Annealed	175	591
				Heat-treated	300	1013
				Heat-treated	380	1282
				Heat-treated	430	1477
	High-alloyed steel and high-alloyed tool steel			Annealed	200	675
				Hardened and tempered	300	1013
				Hardened and tempered	400	1361
	Stainless steel	Ferritic/martensitic, annealed		200	675	
Martensitic, heat-treated		330	1114			
M	Stainless steel	Austenitic, quench hardened		200	675	
		Austenitic, precipitation hardened (PH)		300	1013	
		Austenitic/ferritic, duplex		230	778	
K	Malleable cast iron	Ferritic		200	400	
		Pearlitic		260	700	
	Grey cast iron	Low tensile strength		180	200	
		High tensile strength/austenitic		245	350	
	Cast iron with spheroidal graphite	Ferritic		155	400	
		Pearlitic		265	700	
GGV (CGI)			230	400		
N	Wrought aluminium alloys	non-aging		30	-	
		aged		100	340	
	Cast aluminium alloys	≤ 12% Si, non-aging		75	260	
		≤ 12% Si, aged		90	310	
		> 12% Si, non-aging		130	450	
	Magnesium-based alloys			70	250	
		Unalloyed, electrolytic copper		100	340	
	Copper and copper alloys (bronze/brass)	Brass, bronze, red brass		90	310	
Cu alloys, short-chipping		110	380			
High tensile, Ampco		300	1010			
S	Heat-resistant alloys	Fe-based	Annealed	200	680	
			Hardened	280	940	
		Ni or Co based	Annealed	250	840	
			Hardened	350	1180	
			Cast	320	1080	
	Titanium alloys	Pure titanium		200	680	
		α and β alloys, hardened		375	1260	
		β alloys		410	1400	
Tungsten alloys			300	1010		
Molybdenum alloys			300	1010		
H	Hardened steel	Hardened and tempered		50HRC		
		Hardened and tempered		55HRC		
		Hardened and tempered		60HRC		
	Chilled cast iron	Hardened and tempered		50HRC		

