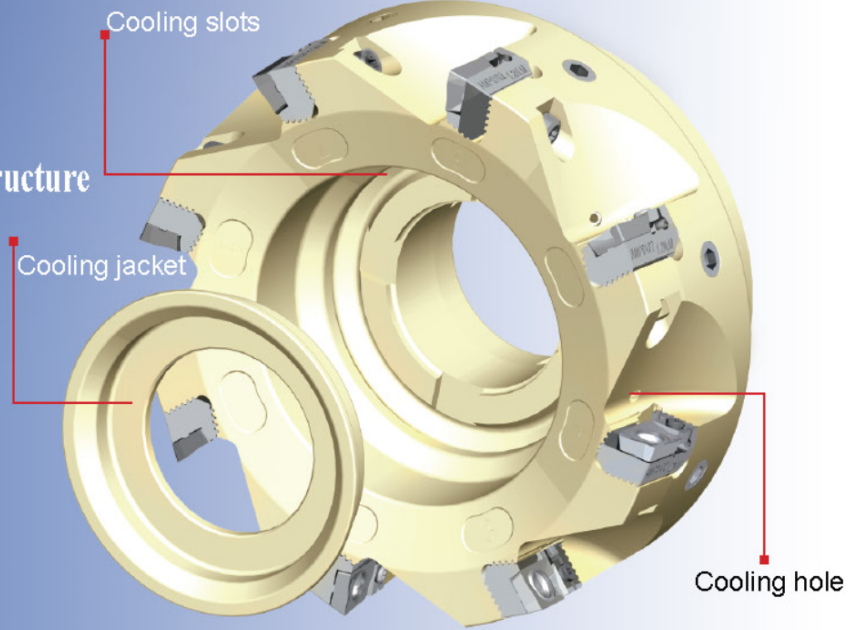
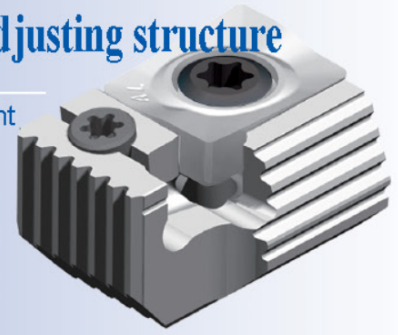


**Outstanding double seal internal cooling structure**  
with excellent sealing and cooling performance



**Precise flexible run-out adjusting structure**

high stability, with range of adjustment 0~0.05mm, able to precisely adjust run-out as low as 0.001mm.



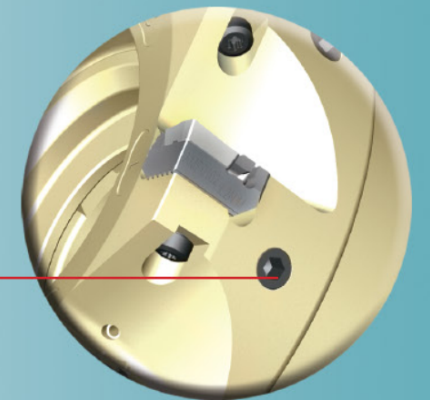
**High precision inserts**

Cutting tool run-out can be controlled within 0.001 mm, with excellent surface quality. PCD inserts ensure longer tool life of inserts.



**Dynamic balance adjustment screws**

Dynamic balance adjustment screws for interface fit possess excellent ability to resist centrifugal flying out. In the test where  $V_c = 5000$  m/min, without loose.

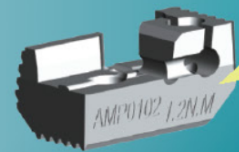


**Unique tool clamping structure**

Side and face saw tooth positioning and high strength screw locking form flexible positioning clamping structure with excellent positioning accuracy. Tool body, tool holder and insert concave-convex structure design of Tool body, tool holder and insert, more firmly clamping secures safety and stability in high-speed cutting.

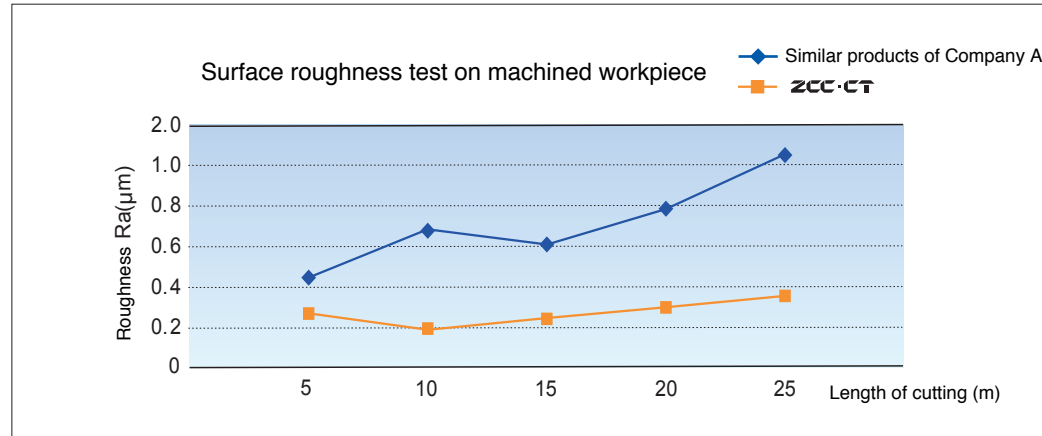
Cutter groove identification convenient for adjusting  
**Cutter groove identification**

**Wrench torque identification**



# Excellent surface quality

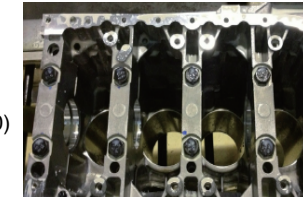
- Machine type: vertical machine center
- Coupling: BT40
- Workpiece material: 3G10 aluminum cylinder block (HB110)
- Tool: AMA01-160-B40-SE12-10C
- Tool: YD201/SEH12T3AFFN-AL
- Cutting data: n=2000r/min  
fz=0.1mm/z Ap=0.5mm Ae=125mm
- Cooling style: external cooling



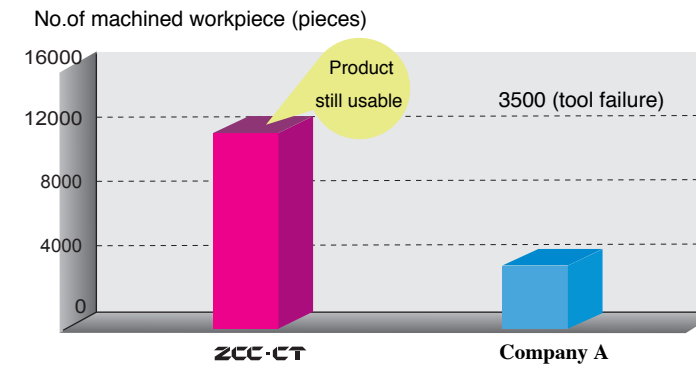
**Result: AMA01 surface roughness is below Ra0.4, superior to that of company A, meanwhile, cutting efficiency improved greatly.**

# Sustained and stable tool life

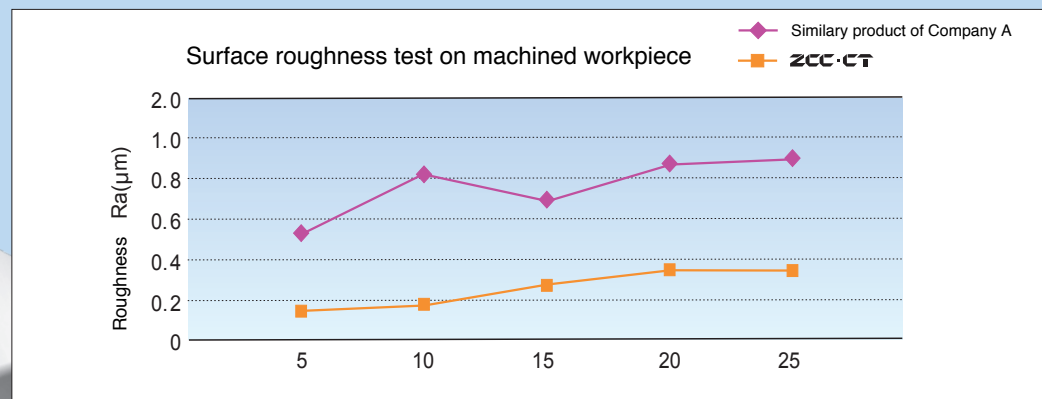
- Machined part: block bottom surface
- Machine: machining center
- Cooling style: internal cooling
- Workpiece material: aluminum alloy (HB 110)
- Machining style: surface milling



	ZCC-CT	Company A
Tool	AMP01-100-A32-AP12-06C	--
Grade	YCD411/APHT12T304PPFR-PCD	
Cutting data	n=11141r/min fz=0.1mm/z	
Result	12000 pieces (still usable)	3500



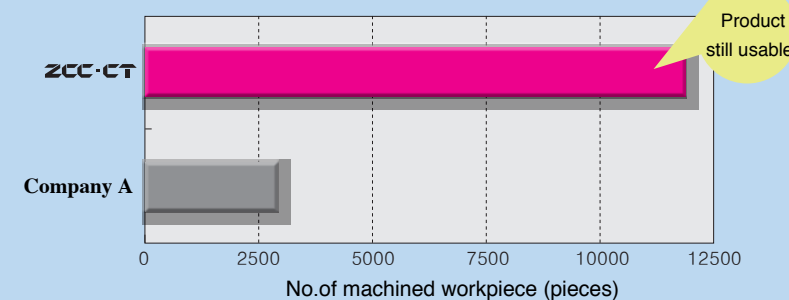
- Workpiece material: Cu-Al (HB150)
- Machine: machining center
- Tool: AMP01-100-A32-AP12-06C
- Insert: YCD411/APHT12T304PPFR-PCD
- Cutting data: n=10000r/min fz=0.15mm/z  
ap=0.2mm ae=80mm
- Cooling style: external cooling



**Result: AMA01 surface roughness is below Ra0.4, cutting efficiency improved greatly.**

- Machined part: block bottom surface
- Machine: machining center
- Workpiece material: aluminum alloy (HB 110)
- Cooling style: external cooling
- Machining style: face milling

	ZCC-CT	Company A
Tool	AMA01-125-B40-SE12-08C	--
Grade	SEHT12T308AFFN-PCD	
Cutting data	n= 8000r/min fz= 0.15mm/z Ap=0.5-1.0mm Ae=100mm	
Result	11000 pieces (still usable)	3000



## AMA01/AMP01 Recommended Cutting data

Workpiece materials	Grade	Cutting data	
		Vc(m/min)	Fz(mm /z)
N Aluminium alloy (Content of Si ≤ 12%)	YD201	200-1500	0.02-0.3
	YCD411	200-3500	0.05-0.3
	YCD421	200-5000	0.05-0.3
N Aluminium alloy (Content of Si > 12%)	YD201	200-600	0.02-0.3
	YCD411	200-1500	0.05-0.3
	YCD421	200-2000	0.05-0.3
K Copper alloy	YD201	200-800	0.02-0.3
	YCD411	200-1800	0.05-0.3
	YCD421	200-2500	0.05-0.3
K Grey cast iron	YCB011	500-1500	0.03-0.3
		300-900	
H Hardened steel	YCB012	100-300	0.05-0.2
		200-400	

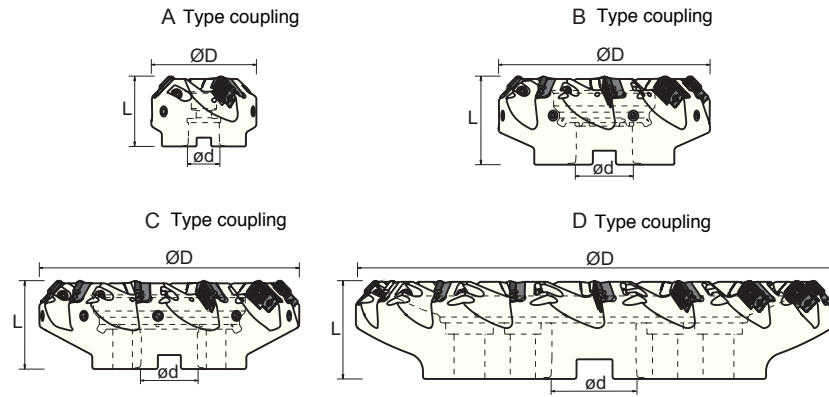
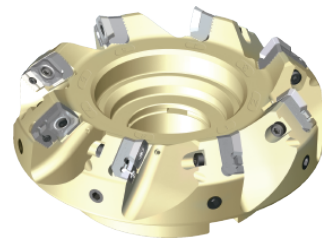
Note: Wiper insert fz ≤ 2.1mm/z, when cutter body is mounted with only one wiper insert, feed rate per tooth equals feed rate per revolution of cutter body). It is recommended that the ratio of quantity of wiper inserts to ordinary inserts mounted should be no less than 1/7.

# AMA01 Series

Series



Kr 45°



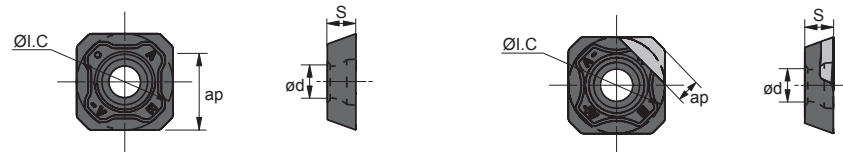
## Specification

Cutter type	Basic dimension (mm)			Teeth	Coupling type	Weight (kg)
	ØD	ød	L			
AMA01-050-A22-SE12-03C	50	22	50	3	A	0.39
AMA01-063-A27-SE12-04C	63	27	50	4	A	0.48
AMA01-080-A27-SE12-05C	80	27	50	5	A	1.0
AMA01-100-A32-SE12-06C	100	32	50	6	A	0.98
AMA01-125-B40-SE12-08C	125	40	63	8	B	1.93
AMA01-160-B40-SE12-10C	160	40	63	10	B	2.62
AMA01-160-C40-SE12-10C	160	40	63	10	C	2.27
AMA01-200-C60-SE12-12C	200	60	63	12	C	3.07
AMA01-250-C60-SE12-14C	250	60	63	14	C	5.22
AMA01-315-D60-SE12-16	315	60	70	16	D	8.46
AMA01-400-D60-SE12-18	400	60	80	18	D	13.76
AMA01-500-D60-SE12-20	500	60	80	20	D	16.3

Cutter body that diameter 315mm and above, without internal cooling and dynamic balance adjustment structure, type A and B coupling with internal cooling screw.

## Accessories

Tool Diameter	Tool chuck	Insert screw	Balance screw	Adjusting screw	Toolholder screw	Wrench
Ø50-Ø63	AMA0101	I60M4×8.4	GB77-85 M8×8	I20M3×10X	M4x12-TP	WT15IT
Ø80-Ø200	AMA0102		GB77-85 M8×12			WT09T
Ø250-Ø500	AMA0103					WT15T

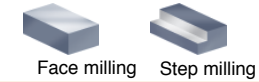


## Selection

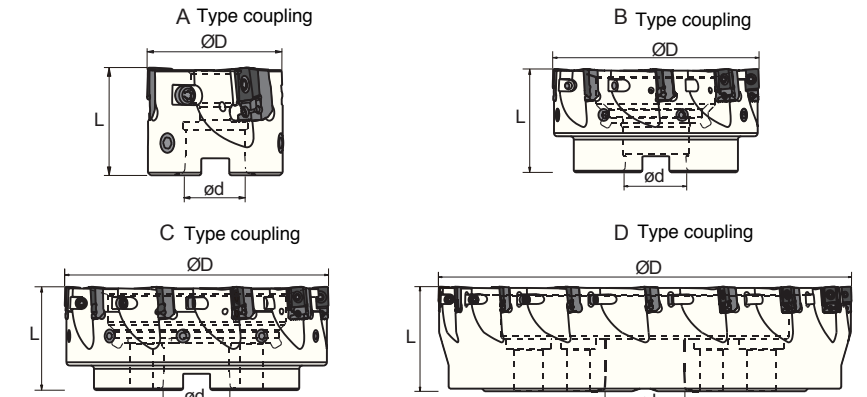
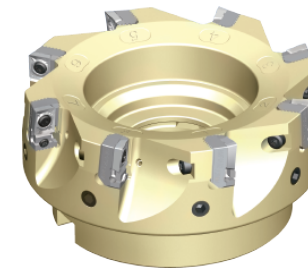
Insert shape	Insert type	Basic dimension (mm)				Grade				
		IC	S	d	ap <sub>max</sub>	YD201	YCD411	YCD421	YCB011	YCB012
	SEHT12T3AFFN-AL	12.7	3.97	4.4	6.6	★				
	SEHT12T308AFFN-PCD	12.7	3.97	4.4	2.5		★	★		
	SEHT12T308AFFN-CBN	12.7	3.97	4.4	2.5				★	★

# AMP01 Series

Series



Kr 90°



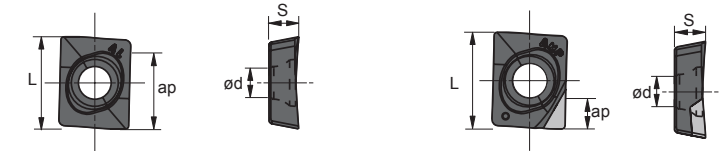
## Specification

Cutter type	Basic dimension (mm)			Teeth	Coupling type	Weight (kg)
	ØD	ød	L			
AMP01-050-A22-AP12-03C	50	22	40	3	A	0.2
AMP01-063-A27-AP12-05C	63	27	50	5	A	0.39
AMP01-080-A27-AP12-06C	80	27	50	6	A	0.55
AMP01-100-A32-AP12-06C	100	32	50	6	A	0.85
AMP01-125-B40-AP12-08C	125	40	63	8	B	1.68
AMP01-160-B40-AP12-10C	160	40	63	10	B	2.57
AMP01-160-C40-AP12-10C	160	40	63	10	C	2.22
AMP01-200-C60-AP12-12C	200	60	63	12	C	2.92
AMP01-250-C60-AP12-14C	250	60	63	14	C	4.93
AMP01-315-D60-AP12-16	315	60	80	16	D	8.9
AMP01-400-D60-AP12-18	400	60	80	18	D	14.56
AMP01-500-D60-AP12-20	500	60	80	20	D	14.3

Cutter body that diameter 315mm and above, without internal cooling and dynamic balance adjustment structure, type A and B coupling with internal cooling screw.

## Accessories

Tool Diameter	Tool chuck	Insert screw	Balance screw	Adjusting screw	Toolholder screw	Wrench
Ø50-Ø63	AMP0101	I60M4×8.4	GB77-85 M8×8	I20M3×10X	M4x12-TP	WT15IT
Ø80-Ø200	AMP0102		GB77-85 M8×12			WT09T
Ø250-Ø500	AMP0103					WT15T



## Selection

Insert shape	Insert type	Basic dimension (mm)				Grade				
		L	S	d	ap <sub>max</sub>	YD201	YCD411	YCD421	YCB011	YCB012
	APHT12T304PPFR-AL	12.7	3.97	4.4	12	★				
	APHT12T304PPFR-PCD	12.7	3.97	4.4	5		★	★		
	APHT12T304PPFR-CBN	12.7	3.97	4.4	5				★	★
	APHT12T3-W	12.7	3.97	4.4	--	★	★	★	★	★