

High speed & high efficiency of Aluminum alloy milling tool

New
PRODUCT

Aero Mill



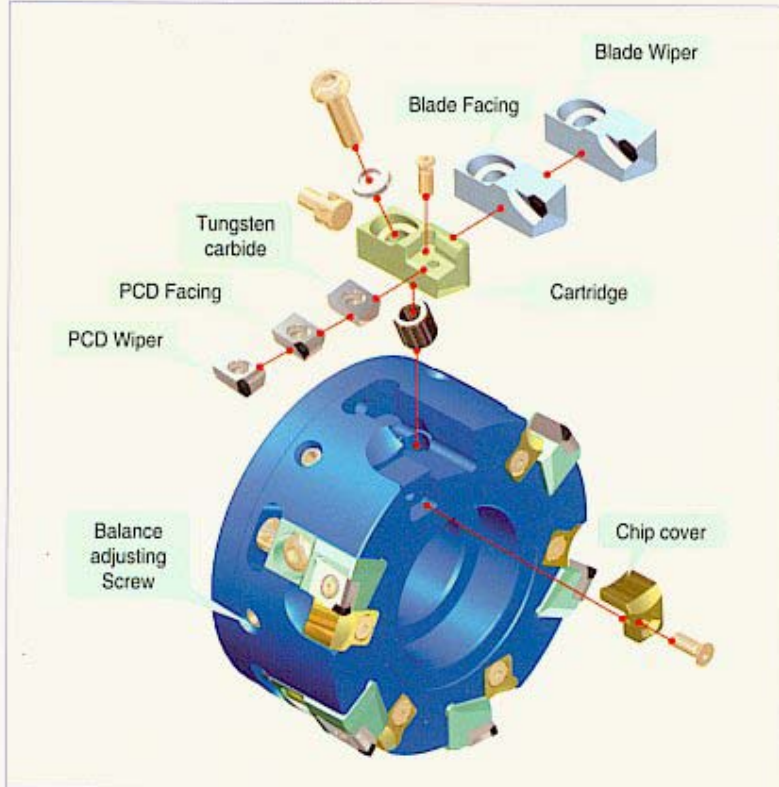
Feature

- Light Aluminum Body.
 - Weight : 50% of steel body.
 - High speed cutting, low power machine.
 - Easy handling.
- Aluminum precision cutting tool.
- Rigid Body adopting high tensile aluminum.
- Locator for excellent durability.
- Tungsten carbide tool and PCD tool available.
- High rake angle : low cutting resistance.
- Balance level : G2.5

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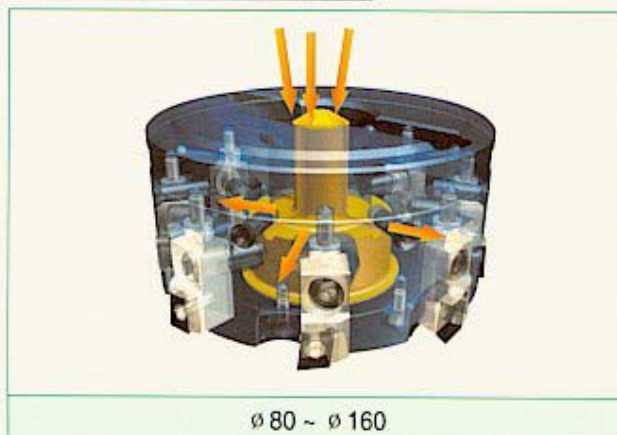


- Aero Mill, preventing overload on the axis, is suitable for all kinds of high speed processing.
- The use of insert-based and blade-based cutters allows a wider range of tooling.
- From finishing to roughing application available thanks to wide chip pocket area.
- High tensile aluminum alloy body guarantees Excellent performance.
- Chip cover protect the body from the breakage of chip action.

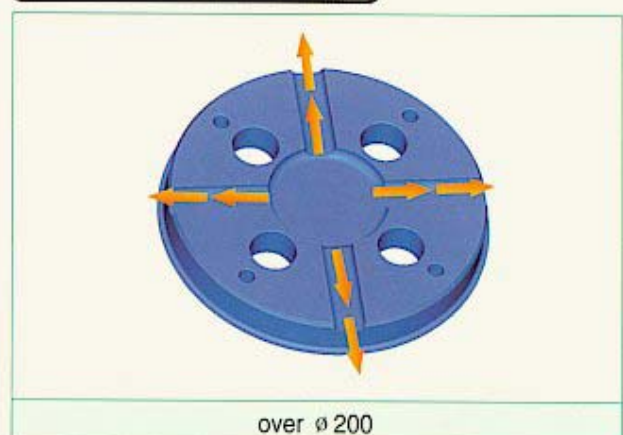
Inner Coolant System

- The coolant injection is directed toward the cutting area of the insert, in order to guarantee higher chip evacuation performance and a superb cooling effect. .
 - coolant bolt for under $\sim \varnothing 160$, coolant cover for over $\varnothing 200$ cutters,
- ※Note
- Extra charge for the coolant bolt and cover.
 - Through coolant type arbor applicable only.

COOLANT BOLT



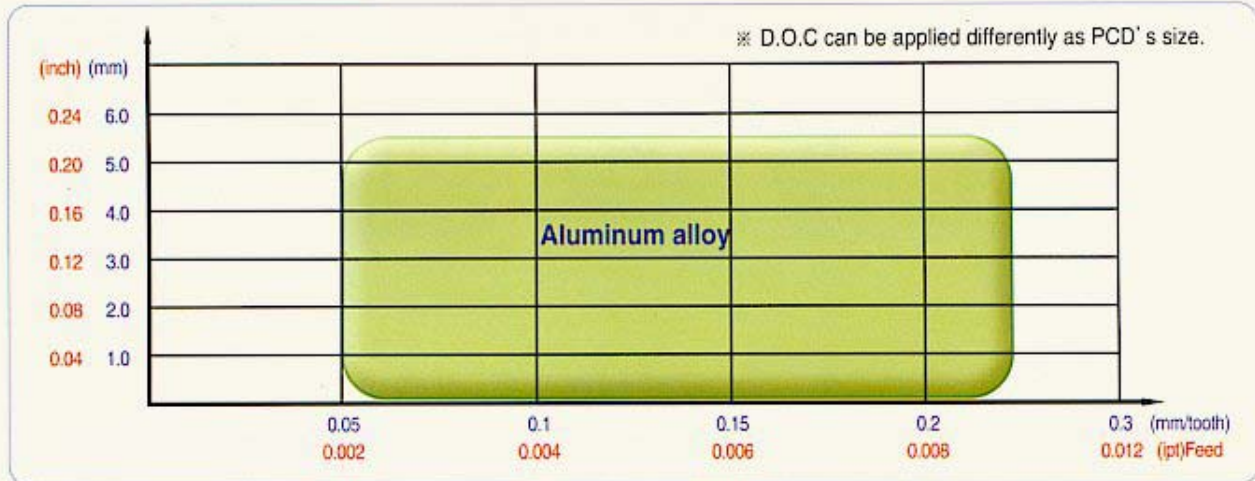
COOLANT COVER



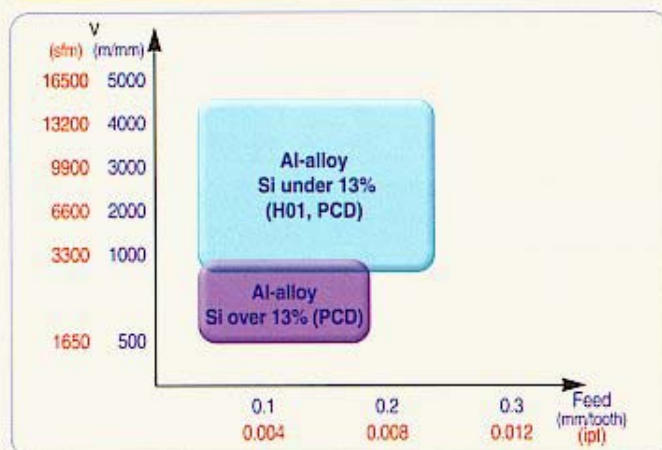
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Application



Cutting speed



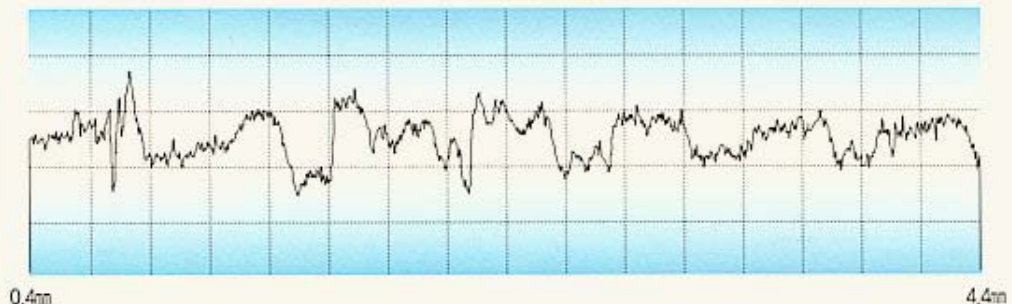
Max R.P.M.

Diameter	Max R.P.M
∅ 80	16,000
∅ 100	15,000
∅ 125	12,500
∅ 160	10,000
∅ 200	8,000
∅ 250	6,500
∅ 315	5,000

Surface finish

- Machine : PCV620
- CUTTER : APD100R-A6Z (6 tooth)
- S=5000 rpm
- V=1570m/min
- F=3000mm/min
- WORK : A6061
- INSERT : CDEW1204R-XCF(H01)
- f=0.1mm/tooth
- d=0.5mm
- V=5200 sfm
- F=120 inch/min
- f=0.004 ipt
- d=0.02 inch

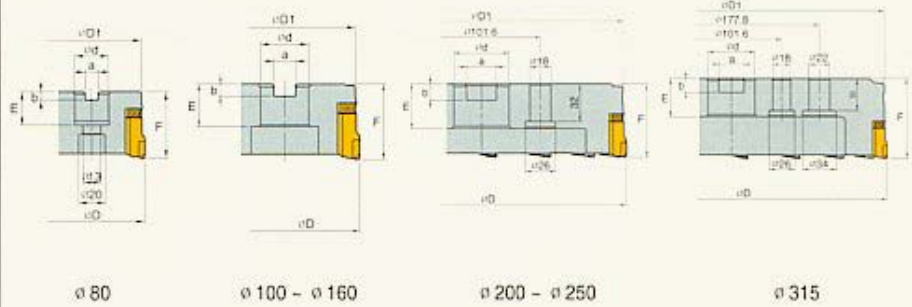
- Rmax : 2.1 μ m
- Rz : 1.6 μ m
- Ra : 0.3 μ m



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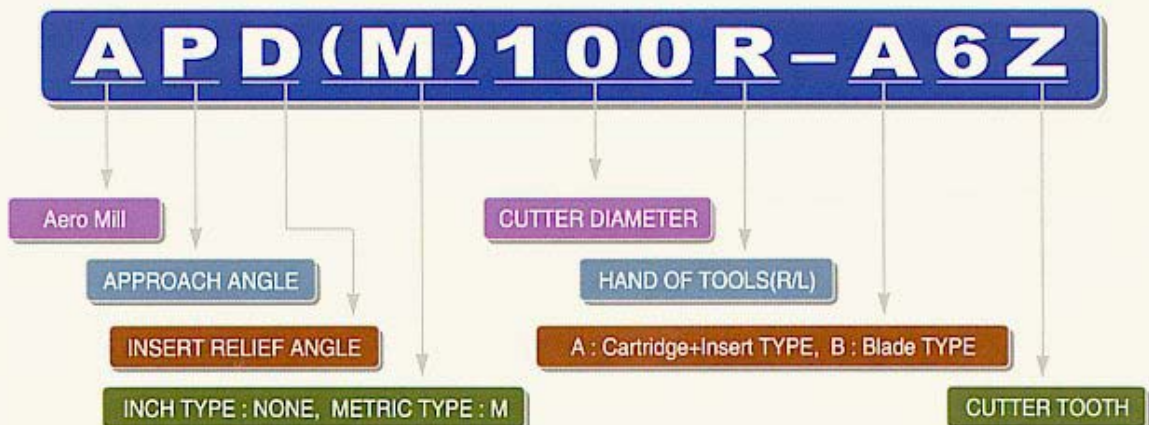
APD(M)000-A CUTTER



Designation	stock		ø D	ø D ₁	ø d	a	b	E	F	tooth	Weight (kg)
	R	L									
APD 080R/L-A6Z			80	76	25.4	9.5	6	25	50	6	0.75
100R/L-A6Z	•		100	95	31.75	12.7	8	32	50	6	0.95
125R/L-A8Z	•		125	120	38.1	15.9	10	38	63	8	1.8
160R/L-A10Z			160	155	50.8	19.0	11	38	63	10	2.9
200R/L-A12Z			200	195	47.625	25.4	13.5	38	63	12	4.0
250R/L-A16Z			250	245	47.625	25.4	13.5	38	63	16	6.3
315R/L-A18Z			315	310	47.625	25.4	13.5	38	80	18	11.3

Designation	stock		ø D	ø D ₁	ø d	a	b	E	F	tooth	Weight (kg)
	R	L									
APDM 080R/L-A6Z			80	76	27	12.4	7	22	50	6	0.75
100R/L-A6Z	•		100	95	32	14.4	8	28	50	6	0.95
125R/L-A8Z	•		125	120	40	16.4	9	30	63	8	1.8
160R/L-A10Z			160	155	40	16.4	9	30	63	10	2.9
200R/L-A12Z			200	195	60	25.7	14	38	63	12	4.0
250R/L-A16Z			250	245	60	25.7	14	38	63	16	6.3
315R/L-A18Z			315	310	60	25.7	14	38	80	18	11.3

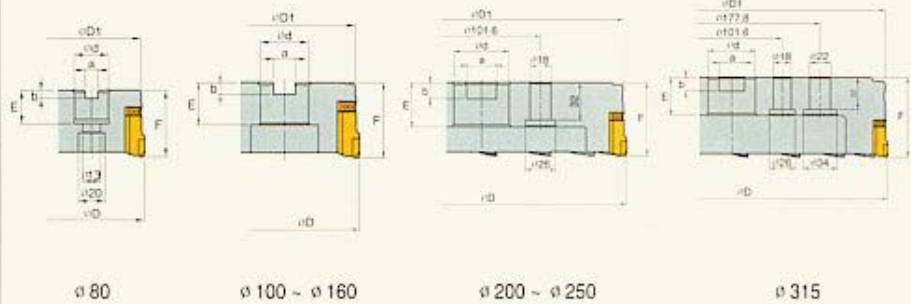
Designation of Aero Mill



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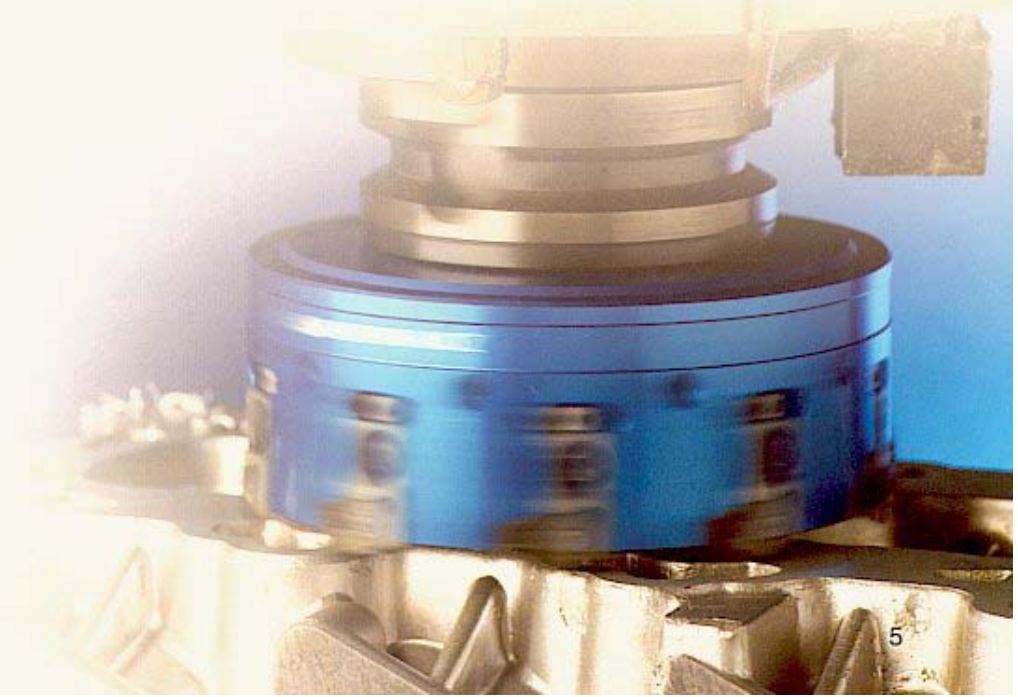
Aero Mill

APD(M)000-B CUTTER



Designation	stock		ø D	ø D ₁	ø d	a	b	E	F	tooth	Weight (kg)
	R	L									
APD 080R/L-B6Z			80	76	25.4	9.5	6	25	50	6	0.75
100R/L-B6Z			100	95	31.75	12.7	8	32	50	6	0.95
125R/L-B8Z			125	120	38.1	15.9	10	38	63	8	1.8
160R/L-B10Z			160	155	50.8	19.0	11	38	63	10	2.9
200R/L-B12Z			200	195	47.625	25.4	13.5	38	63	12	4.0
250R/L-B16Z			250	245	47.625	25.4	13.5	38	63	16	6.3
315R/L-B18Z			315	310	47.625	25.4	13.5	38	80	18	11.3

Designation	stock		ø D	ø D ₁	ø d	a	b	E	F	tooth	Weight (kg)
	R	L									
APDM 080R/L-B6Z			80	76	27	12.4	7	22	50	6	0.75
100R/L-B6Z			100	95	32	14.4	8	28	50	6	0.95
125R/L-B8Z			125	120	40	16.4	9	30	63	8	1.8
160R/L-B10Z			160	155	40	16.4	9	30	63	10	2.9
200R/L-B12Z			200	195	60	25.7	14	38	63	12	4.0
250R/L-B16Z			250	245	60	25.7	14	38	63	16	6.3
315R/L-B18Z			315	310	60	25.7	14	38	80	18	11.3

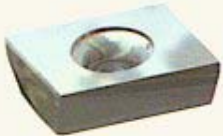
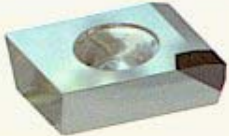



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INSERT TYPE

◎ : Most recommended ○ : Optimal
 △ : Normal × : Not recommended

	Designation	Stock			Insert	
		H01			Finish	Rough
	CDEW1204R-XCF	●			△	◎
	Designation	Stock			Facing insert	
		DP150	DP200	DP2200	Finish	Rough
	CDEW1204R-XAF	○	●	○	◎	○
	Designation	Stock			Wiper insert	
		DP150	DP200	DP2200	Finish	Rough
	CDEW1204R-XAW	○	●	○	◎	×

● : Stock ○ : Non-Stock

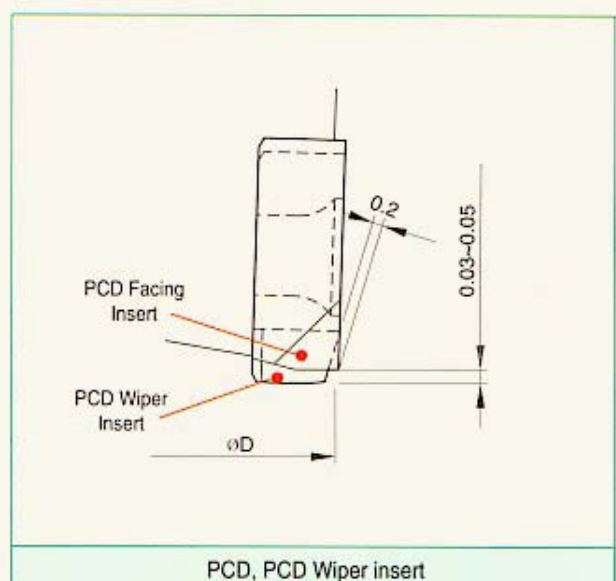
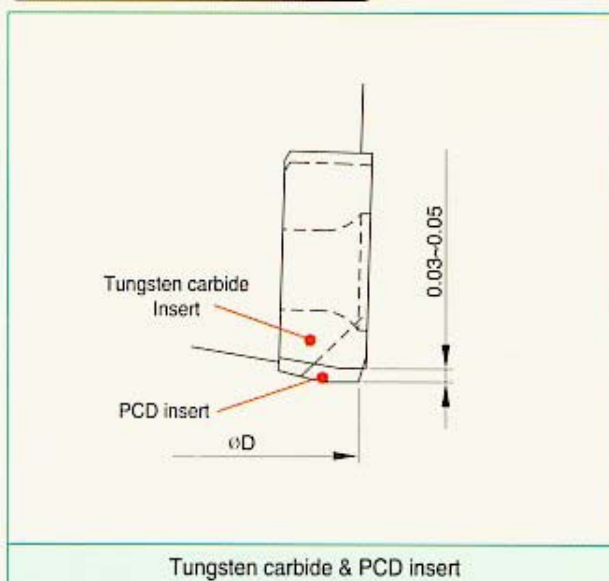
BLADE TYPE

○ : Optimal ◎ : Most recommended
 △ : Normal × : Not recommended

	Designation	Stock			Facing blade	
		DP150	DP200	DP2200	Finish	Rough
	BAPD-XAF	○	●	○	◎	○
	Designation	Stock			Wiper blade	
		DP150	DP200	DP2200	Finish	Rough
	BAPD-XAW	○	●	○	◎	×

● : Stock ○ : Non-Stock









Cutting edge locating





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Parts

Cartridge	Chip cover	Screw				Wrench	
		Chip cover	Insert	Adjust	Cartridge	Insert	Cartridge
							
LAPDR-AJ	CAPDR-AJ	PTMA0411	FTNA0411	AZ0514	BHA0616	TW15S	HW50

COOLANT part

Diameter	Type	Designation	Shape	Note
φ 80	COOLANT BOLT	CBP080-IN/MM		Extra Charge
φ 100	COOLANT BOLT	CBP100-IN CBP100-MM		
φ 125	COOLANT BOLT	CBP125-IN CBP125-MM		
φ 160	COOLANT BOLT	CBP160-IN CBP160-MM		
φ 200	COOLANT COVER	CCP200		Extra Charge
φ 250	COOLANT COVER	CCP250		
φ 315	COOLANT COVER	CCP315		

※ How to choose : CBP100-IN for APD - φ 100, CBP100-MM for APDM - φ 100, None for applicable to both type.

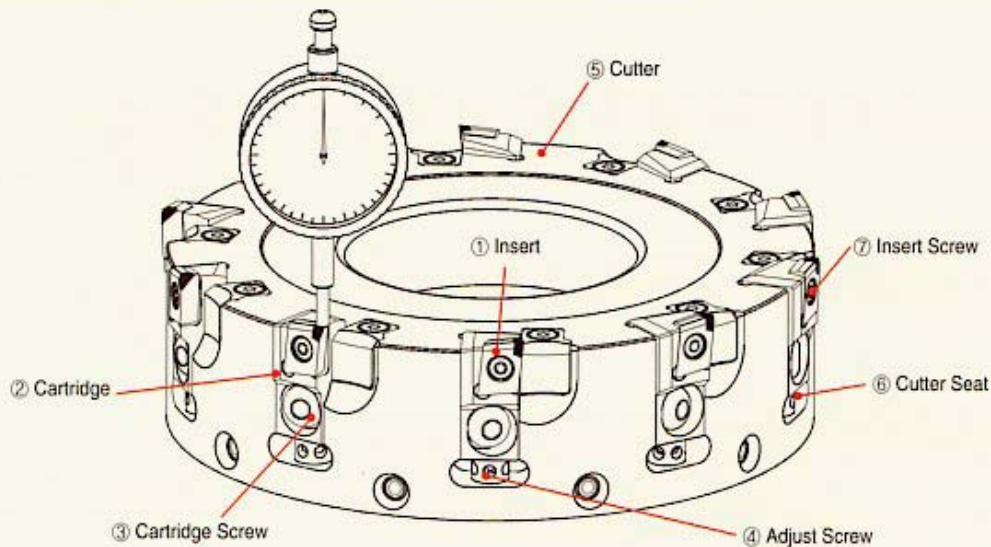
Safety instruction

- Do not touch the tools with bare hand.
- Wear safety glasses or face cover.
- Make appropriate tool substitution if possible.
- Be careful when you handle hot and acute chips. Use special tools for chip removal.
- Be Equipped with fire extinguisher in case of fire.
- Clamp workpiece tightly.
- Apply recommended cutting condition for your safe and efficient operation.

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Customer's manual



● How to assemble the AEROMILL

1. Place ④ Adjust screw in ⑥ Cutter Seat.
2. Insert ② Cartridge to ④ Adjust screw in ⑥ Cutter Seat.
3. Insert ③ Cartridge screw and joint right direction by 10Nm.
4. Place Insert on the Cartridge and joint them together by 5Nm.

● How to adjust run-out of the AEROMILL

1. Clean the measuring instrument and set the position of the Aero mill cutter.
2. Release ③ Cartridge screw first, then joint slightly by 2Nm.
3. Rotate the ④ Adjust screw right direction and adjust it up to $5\mu\text{m}$ (dial gage).
4. Joint ③ Cartridge screw tightly by 10Nm.
5. Adjust it to the zero tolerance by rotating ④ Adjust screw to the right direction.
※ When you rotate ④ Adjust screw to the right direction, inserts move to upper direction.

● Notice

1. Please use OHP film to protect PCD insert and blade when you adjust tolerance.
It can cause chipping during adjusting run-out.
2. Please rotate the adjust screw to right direction only. When you exceed zero tolerance, should release cartridge screw first and rotate adjust screw to left direction, then rotate it to right and adjust again.



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