



## List 78036 - PHOENIX® PFAL: Bore

### Semi-Finishing

	Work Material	Tensile Strength – Hardness	Insert Size			
			FR12...			
			Face Milling			
			Milling Speed V <sub>c</sub> (SFM)		Feed Per Tooth f <sub>z</sub> (in/t)	Depth of Cut A <sub>a</sub> (in)
CAT30	CAT40, CAT50 HSK-63					
N	Aluminum Alloys (7075, 5052, 2017, ADC12)	~12% Si	3300 (2600-6500)	6500 (3300-16400)	0.003 (0.002-0.004)	0.060 (0.040-0.080)
	Aluminum Alloys (AC9A, AC9B)	~13% Si	2000 (1300-2600)	2000 (1300-2600)	0.0025 (0.002-0.003)	0.060 (0.040-0.080)

### Finishing

	Work Material	Tensile Strength – Hardness	Insert Size			
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N	Aluminum Alloys (7075, 5052, 2017, ADC12)	~12% Si	3300 (2600-6500)	6500 (3300-16400)	0.003 (0.002-0.004)	0.020 (0.012-0.040)
	Aluminum Alloys (AC9A, AC9B)	~13% Si	2000 (1300-2600)	2000 (1300-2600)	0.0025 (0.002-0.003)	0.020 (0.012-0.040)

ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

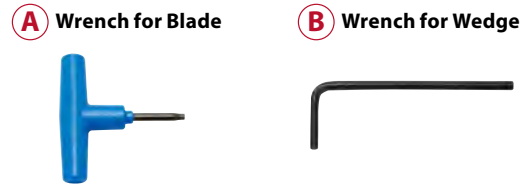
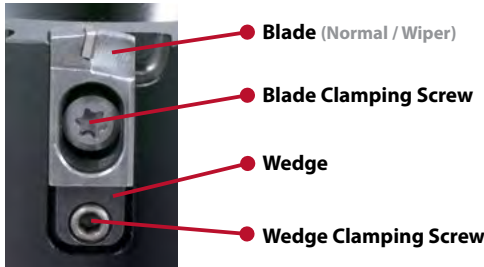
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# Adjusting Cutting Edge Height

## Names of Components:



### 1. Confirm Wedge Position

Check and ensure that all wedges are in the correct position. Make adjustments when necessary.



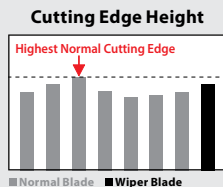
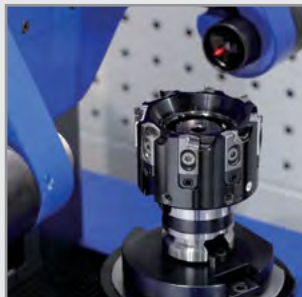
### 2. Mounting of Blades

Mount one wiper blade (FR1204-W) to the wiper blade position indicator and the normal blades (FR1204 or FR1206) to the remaining positions. Using the T-Wrench (A), tighten the clamp screw completely to 10 Nm.



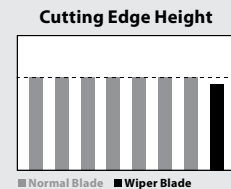
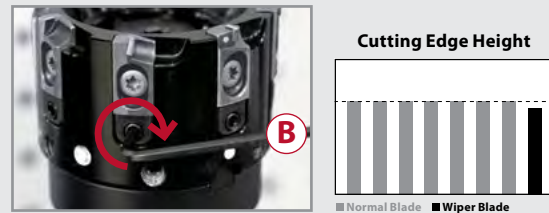
### 3. Measurement of Cutting Edge Height

Measure all of the cutting edge heights and determine the highest normal cutting edge.



### 4. Adjustment of Normal Blades

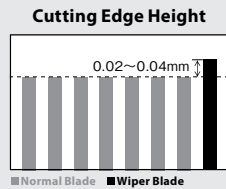
Adjust all other normal cutting edges to match the highest normal cutting edge height. The offset should be within 0.005mm. To lift the wedges, use the L-Wrench (B) to turn the wedge screw clockwise.





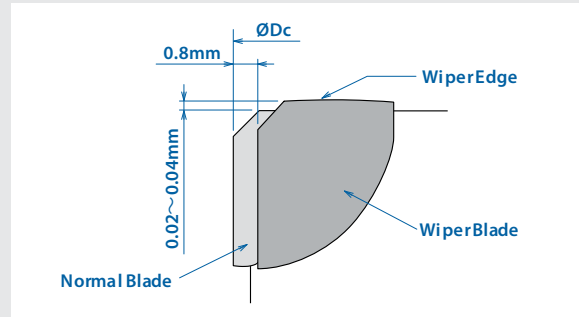
## 5. Adjustment of Wiper Blade

Use the L-Wrench (B) to adjust the wiper blade so that it is 0.02 - 0.04mm higher than the other normal blades.



## Cutting Edge Position of the Wiper Blade

The wiper blade is automatically set to be 0.8mm closer to the interior than the normal blade. Based on this design, only the bottom of the wiper edge is used during processing, thus enabling a high quality surface finish even in high depth ( $A_p$ ) milling.



## Cautions During Use

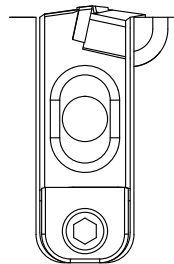
- Blades can be adjusted by lifting upward only.
- Maximum adjustment is 0.6mm.
- When the maximum adjustment limit is reached, remove the blade and start over from step (1).
- When measuring the edge height using a contact tool presetter with a touch probe, please be cautious to not damage the PCD edge.

## No need for Temporary Tightening

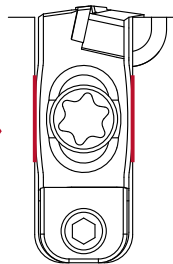
Temporary tightening is not required. Cutting edge height can be adjusted after complete tightening of the clamping screw, making the setup process quick and effortless.



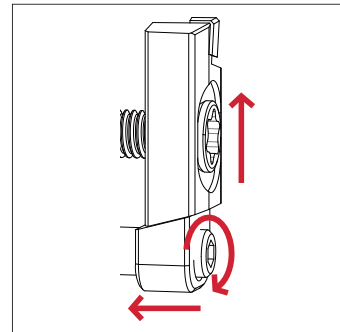
Before Clamping



After Clamping



The tightening of the clamping screw pushes sides of the blade outward, locking it tightly in place with the cutter body



After tightening the clamping screw, the blade is locked into position secured by the wedge taper. The wedge assures a fix and unmovable blade position during machining.

