



GP-20

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DUAL HEAD DRILL BIT GRINDER



Model	GP-20
Drill Diameter	Φ2 ~ 20mm
Point Angle	90° ~ 140°
Power Supply	AC110V 50/60Hz / AC220V 50Hz Single-Phase(Opt.)
R.P.M. of Motor	5300 R.P.M.
Grinding Wheel	CBN #200 (For HSS Drill Bits)
Weight	N.W. 12.5Kg / G.W. 13.0Kg
Machine Size	L:290mm, W:140mm, H:200mm
Packing Size	L:360mm, W:215mm, H: 265mm
Type of Thinning	X Thinning
Standard Accessories	ER20 Collet x 12 pcs (2.5,3,4,5,6,7,8,9,10,11,12,13mm)
	ER25 Collets 7pcs (14,15,16,17,18,19,20mm)
	ER20 Chuck set x 1, ER25 Chuck set x 1 (4pcs)
	Metal Shim 3pcs (0.1mm x 2, 0.3mm x 1)
Optional Accessories	Hexagon Wrench 3mm x 1, 4mm x 1
	SD #200 Grinding Wheel for Carbide Drills
	ER20 Imperial Collets Φ3.5 ~ 12.5mm



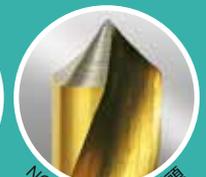
Twist drill bits 泛用鑽頭



Deep-slot drill bits 深穴鑽頭



Twist drill bits 麻花鑽頭

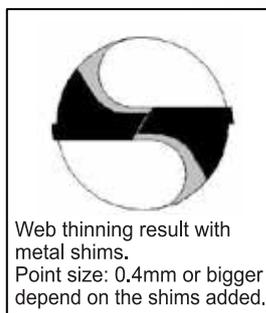
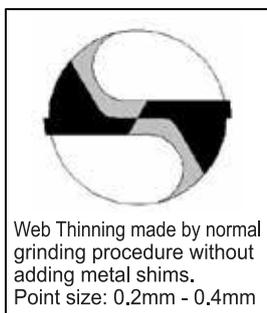
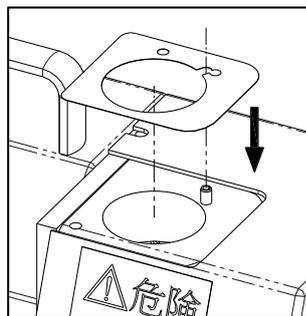


NC spotting 定位鑽頭

The Use of Metal Shims

There are 3 Metal Shims as standard accessories in the machine. 2 pcs of 0.1mm and 1pcs of 0.3mm.

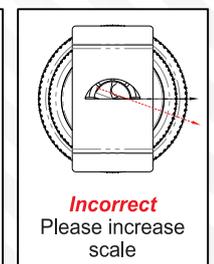
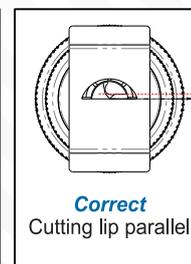
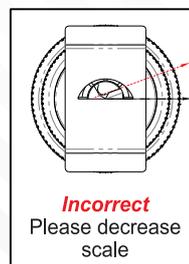
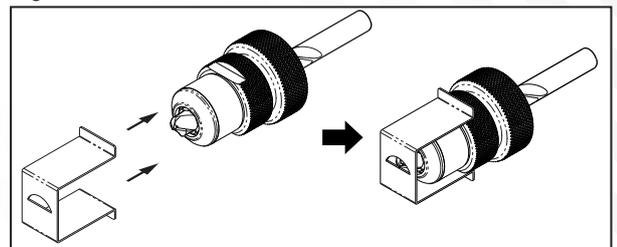
Adding one shim of 0.1mm will expand 0.2mm of the point size, adding 0.3mm shim will expand 0.6mm of the point size and so on.



The Use of the Parallel Alignment Devise

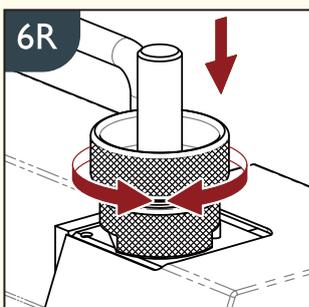
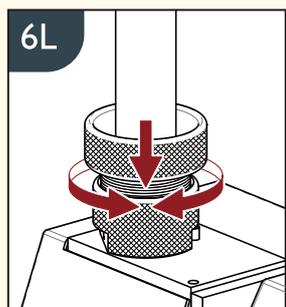
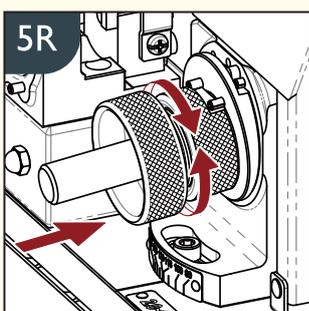
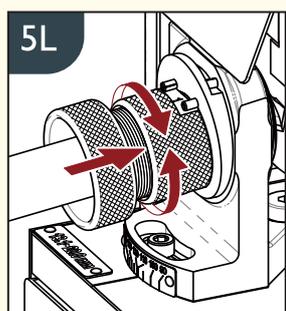
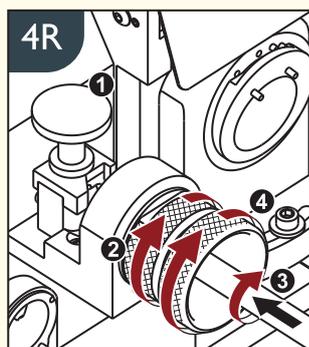
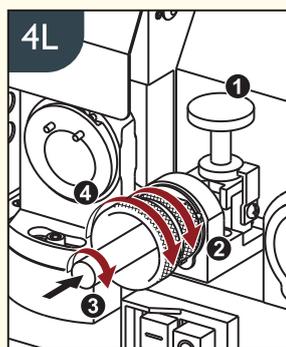
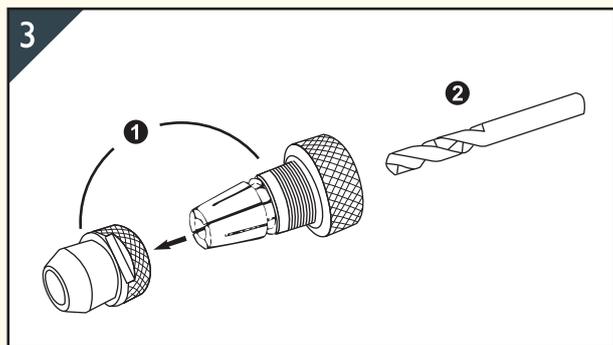
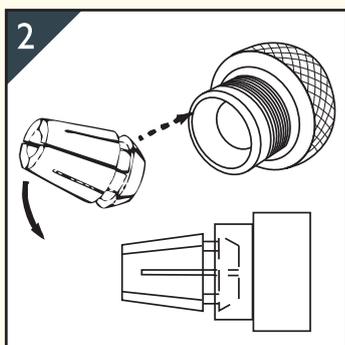
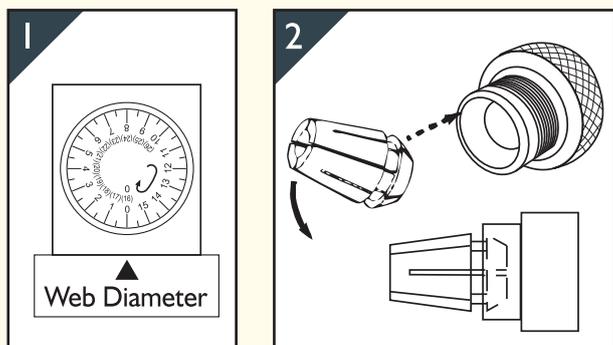
Align the Parallel Devise with the two slots of on the Clamping Nut, then connect them as shown in the left picture.

Verify the Parallelism of the Drill's Cutting Lip with the flat figure of the hole on the Parallel Devise.

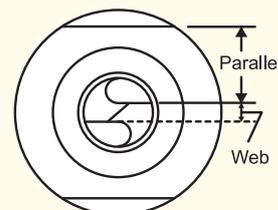


DUAL HEAD DRILL BIT GRINDER

OPERATION



- I. Choose the proper grinding wheel according to the material of the drill.
 - HSS material drill use CBN grinding wheel (Standard).
 - Carbide / Tungsten material drill use SD grinding wheel (Optional).
- II. Preset the scale of the positioning shelf. (Fig. 1)
Turn it by clockwise to the end, then counterclockwise to "0".
- III. Choose the proper chuck set according to the drill diameter.
 - 2.0 - 13.0 mm drills use ER20 chuck set.
 - 13.1 - 20.0 mm drills use ER25 chuck set.
- IV. Chuck set assembly:
 1. Choose the proper collet according to the drill diameter.
 2. Put the collet into collet holder by 45° angle. (Fig. 2)
 3. Screw in a little bit by clamping nut (Fig. 3 step ①), then insert the drill through the chuck set (Fig. 3 step ②) and push in until the drill is out of the clamping nut about 15 mm.
 - * Do not fully tighten the chuck set, keep the drill is still able to be adjusted.
- V. Drill positioning:
 - Left side positioning shelf: $\varnothing 13.1.0 - \varnothing 20.0$ mm. (Fig. 4L)
 - Right side positioning shelf: $\varnothing 2.0 - \varnothing 13.0$ mm. (Fig. 4R)
 - 1. Adjust the scale of the positioning shelf according to the drill diameter.
 - 2. Insert the chuck set into the positioning shelf and fit them with no gaps, then turn the chuck set clockwise until it stops by the pin.
 - 3. Push the drill to the end and turn it clockwise to the end.
 - 4. Turn the collet holder clockwise to secure the drill.
 - 5. Gently turn the chuck set counterclockwise and take it out.
 - * Make sure the drill's cutting edge is parallel to the slot of clamping nut before starting the grinding procedure.
 - * If it is not parallel, adjust the scale and reposition the drill.
 - The cutting edge is angled away from the slot, must increase the scale.
 - The cutting edge is angled towards the slot, must decrease the scale.
 - * If the length of a drill is shorter than original length after re-sharpening many times, the scale should be increased until the cutting edge is parallel to the slot of clamping nut.
 - * For grinding high spiral drill bit, increase the scale more than its diameter.
 - * For grinding deep hole drills, the scale is adjusted to 2 times of the drill diameter.



- VI. Drill Grinding:
 - Left side grinding shelf: $\varnothing 13.1 - \varnothing 20.0$ mm.
 - Right side grinding shelf: $\varnothing 2.0 - \varnothing 13.0$ mm.
 - * Do not hold the drill shank while grinding, it may affect the grinding accuracy.
 - 1. Verify the drill's point angle and adjust the angle of the cutting lip grinding shelf to the same before grinding procedure. (Angle adjustment available is $90^\circ - 140^\circ$).
 - 2. Turn the power switch on and wait about 10 seconds until the motor rotation is stable.
 - 3. Cutting Lip Grinding (Fig. 5L)(Fig. 5R)
Insert the chuck set into the cutting lip grinding shelf, align the slot of clamping nut to the two pins on the grinding shelf, push the chuck set gently and turn it clockwise and counterclockwise until the grinding noise stops. Turn the chuck set to the other side and grind the drill in the same way.
 - 4. Web Thinning (Fig. 6L)(Fig. 6R)
* When inserting or taking out the chuck set, the center part of the clamping nut slot should align to the pin on the grinding shelf. Insert the chuck set into the web thinning grinding shelf, push the chuck set gently and turn it clockwise and counterclockwise until the grinding noise stops. Turn the chuck set to the other side and grind the drill in the same way.
- VII. Please clean the ash on each grinding shelf after finishing the grinding job.

