

**ER8 Collets for Models 202HD, 600X, 601, 602, 700 and 800CX, 800LT, 820MX Series**

Model	Part Number
Collet 0.50mm	10953-UP
Collet 1/8"	10954-UP
Collet 1/16"	10955-UP
Collet 3/16"	10956-UP
Collet 1mm	10957-UP
Collet 1.50mm	10958-UP
Collet 2mm	10959-UP
Collet 2.50mm	10960-UP
Collet 3mm	10961-UP
Collet 3.50mm	10962-UP
Collet 4mm	10963-UP
Collet 4.50mm	10964-UP
Wrench (ER-8)	10967
Collet Nut	10968
Wrench (5/16")	12677

**Collets for Models 200, 201, 0190, 0145**

Model	Part Number
Collet Long 1/8"	12141
Collet Long 3mm	12142
Collet Long 1/16"	12143
Collet Long 3/32"	12144
Collet Nut Long	12149
Wrench Combo (1/4" + 9/32")	12173

**Collets for Models 202SV**

Model	Part Number
Collet Long 1/8"	12291
Collet Long 3mm	12292
Collet Long 5/32"	12293
Collet Long 4mm	12294
Collet Long 1/16"	12295
Collet Long 3/32"	12296
Collet Nut Long	12298
Wrench (9/32")	12172
Wrench (5/16")	12677

**ER11 Optional Sized Nut & Collets Models 310RSV, 450, 602, 625, 650, 660, 825 and 700 Series**

Model	Part Number
Collet 1mm	11040-UP
Collet 1.5mm	11041-UP
Collet 1/16"	11042-UP
Collet 2mm	11043-UP
Collet 2.5mm	11044-UP
Collet 3mm	11045-UP
Collet 1/8"	11046-UP
Collet 3.5mm	11047-UP
Collet 4mm	11048-UP
Collet 4.5mm	11049-UP
Collet 3/16"	11050-UP
Collet 5mm	11051-UP
Collet 5.5mm	11052-UP
Collet 6mm	11053-UP
Collet 1/4"	11054-UP
Collet 6.5mm	11055-UP
Collet 7mm	11056-UP
Collet Nut - Rego-Fix	11057
Wrench (Er-11)	11058
Wrench (7/16")	12473

**Collets for Models 206, 525, 210, 230, 2590, 2545**

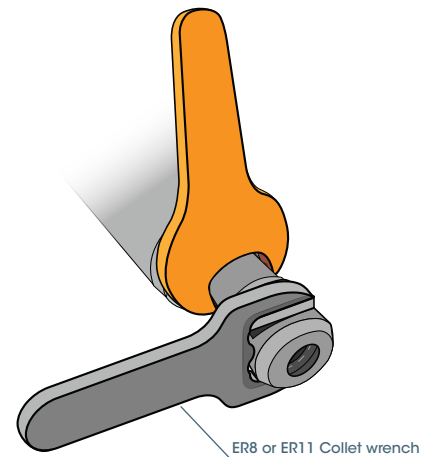
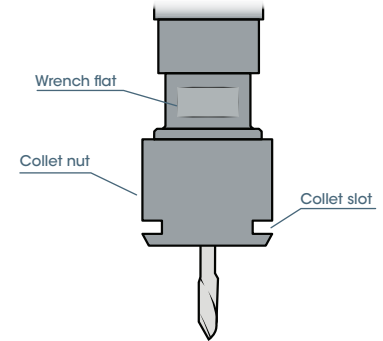
Model	Part Number
Collet Long Style 3mm	12442
Collet Long Style 1/8"	12443
Collet Long Style 3/16"	12444
Collet Long Style 6mm	12445
Collet Long Style 1/4"	12446
Collet Long Style 8mm	12447
Collet Nut Long Style	12438
Wrench (7/16")	12473
Wrench (9/16")	12479

Press-Fit Powergrip collets available for ultra-precision.

### Installation or Removal of Collet and Cutting Tool

Ensure your cutting tool is rated for the rotational speed you are using. **Your tool must be balanced and truly concentric to operate at the high speed of Air Turbine Tools®.**

Incorrect tool selection results in unbalanced rotation or overloading, which will result in stress on the bearings and premature failure. **The stick-out extension length of the cutting tool from your collet should optimally be no more than 3 times the diameter of your cutting tool.** Do not impact the collet when opening your collet.



**Figure 1:** Correct insertion of both the wrench and the ER8 or ER11 collet wrench to remove or secure the collet nut.

1. Take the wrench included with your Air Turbine Tool® and insert it to the wrench flat of your Air Turbine Tools® shaft.
2. Take the ER8 or ER11 collet wrench included with your Air Turbine Tool® and apply it on the collet slot as shown in **Figure 1**. Turn the wrench counterclockwise to release the current cutting tool.
3. After the cutting tool is free, continue to turn the collet nut counterclockwise with the ER8 or ER11 collet wrench to fully remove the collet nut and release the existing collet. Remove the wrench from the shaft.
4. Remove the existing collet from the shaft and replace it with the new collet. Re-apply the collet nut by turning it clockwise on the shaft, use **Figure 3 to determine the torque (ft-lbs) needed for your collet.**
5. Insert the new cutting tool by sliding it into the shaft of your Air Turbine Tool®. Ensure that the new cutting tool goes completely through the collet as shown in **Figure 2**.
6. Re-insert the wrench onto the wrench flat of your Air Turbine Tools® shaft, and turn the collet nut clockwise until it's firmly held. **Do not over tighten the collet nut**, refer to **Figure 3** for the torque needed for your collet.
7. Insert the collet wrench into the collet nut and turn it clockwise as shown in **Figure 1** to ensure the new collet and cutting tool is firmly held.



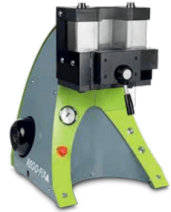
**Figure 2:** A comparison showing the correct and incorrect way to insert the cutting tool into the collet. **Ensure that the cutting tool goes completely through the collet** and that the stick-out extension length of the cutting tool from your collet is no more than 3 times the diameter of your cutting tool.

Collet Type	Collet Size	ft-lbs	Torco-Fix
ER8	Ø 0.039" (1.0mm) - 0.196" (5.0mm)	4	Micro
ER11	Ø 0.039" (1.0mm) - 0.098" (2.9mm)	7	Micro, S
	Ø 0.118" (3.0mm) - 0.256" (7.0mm)	7	Micro, S

**Figure 3:** Rego-Fix recommended torque (ft-lbs) for ER8 and ER11 collet nuts.

### Rigid Ultra Precision

Both Power or Manual Clamping Options ensure correct clamping diameter and T.I.R on every tool change. The resultant high torque transmission extends tool life. The powRgrip option dampens the already low vibration of the direct drive.



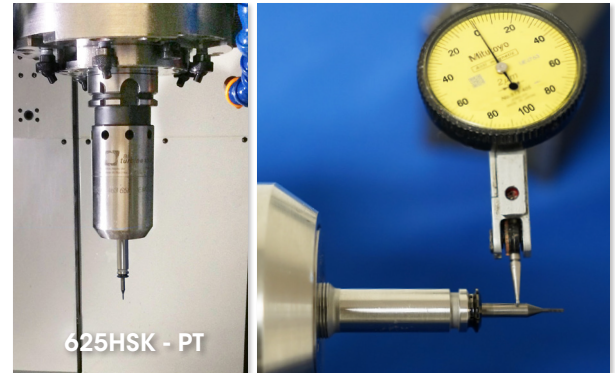
Automatic Clamping Unit



PG Collet



Manual Clamping Unit



Our Press-Fit Collet System locks in runout stability in collet at TIR  $\leq 2 \mu\text{m}$  and TIR  $\leq 3 \mu\text{m}$  at 3 x D.



No Heat in 12 Hours Continuous Milling

### Extend Tool Life and Improve RA Surface

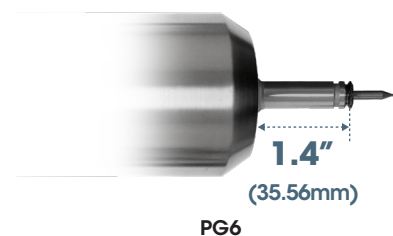
Eliminate problems thermal growth of your spindle resulting in problems with accuracy: no change in tool length and spindle temperature was recorded in independent testing at 50,000 rpm. Available on the **625** and **650** Spindles with speeds from **25,000 rpm to 65,000 rpm**.

BT, CAT, DIN, HSK and JS Straight Shank (3/4" / 20mm).  
Selectable rear or side air feed.

### ER11 Collet Length VS PG6 Collet Length

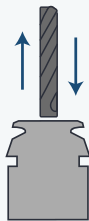


ER11



PG6

### Advantages of PG6



Maximum Clamping Force  
and Lowest Runout



Ready to use  
in 10 Seconds



Vibration Dampening  
and Rigidity