How-to

Get More From Your ER Collets

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ER Collet Chucks are a traditional but versatile and capable toolholder style. To get the most out of your Haimer ER collets and chucks, proper maintenance and usage is critical. Additionally, Haimer offers a range of ER collet options tailored for specific machining applications, helping you squeeze even more precision, productivity and profit from your collet chucks.

Minimize Runout

All of our ER Collets are guaranteed to have runout accuracy of 5µm or less. Here are a few simple steps to make sure that you get the best accuracy each and every time:

- Keep the collet clean and free of debris.The collet slots are designed to collapse when the collet nut is tightened, and any chips in the slots will compromise both the runout and gripping force.
- Assemble correctly with the collet nut. Snap the collet into the nut first, and then tighten into the toolholder. Placing the collet into the holder first and then snapping the nut on can negatively impact runout.
- Chuck the tools to the proper length. Every ER collet has a minimum tool insertion depth. Chucking less of the tool can not only result in poor runout, but the cutting tool may pull out as well.
- Don’t use tools with Weldon flats. While ER collets can hold cutting tools that have flats, it is not recommended.

Does your application demand even greater precision? Check out ***our lineup of Power Collets***. Available in ER16, ER25 and ER32 sizes, these collets deliver enhanced clamping strength and runout of 3µm or less at 3xD.

Keep Cool

For coolant through applications, you need to make sure that you choose the right collet for your job. ***Our sealed ER collets*** feature staggered slots to form a perfect seal around the cutting tool, ideal for coolant through cutting tools.

If you aren't using coolant through cutting tools but still want to deliver coolant to the cutting edge, ***our ER Cool Jet collets*** are for you. These feature tiny ports at the front of the collet that direct coolant right where it needs to go, keeping cutting tools cool and extending tool life.

One thing to keep in mind: ER coolant collets have a smaller collapsing range than standard collets, so you’ll need to make sure that you order the exact size for each cutting tool.

Get the Best Grip

As we mentioned before, proper maintenance, assembly and cutting tool shank choice not only minimize runout, but ensure proper tool gripping as well. Additionally, make sure to tighten the collet nut to the proper torque specifications. While all of us have been guilty of using the torqueing-by-feel method, using a torque wrench and the proper tightening torque will minimize headaches later.

For applications where tool pullout is a concern, our Power Collets with Safe-Lock™ are the answer. This patented system features special drive keys in the collet that mate with grooves in the cutting tool shank to prevent spinning during aggressive machining. Safe-Lock™ Power Collets are only available from Haimer, but Safe-Lock™ tools are manufactured by a number of cutting tool manufacturers.

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