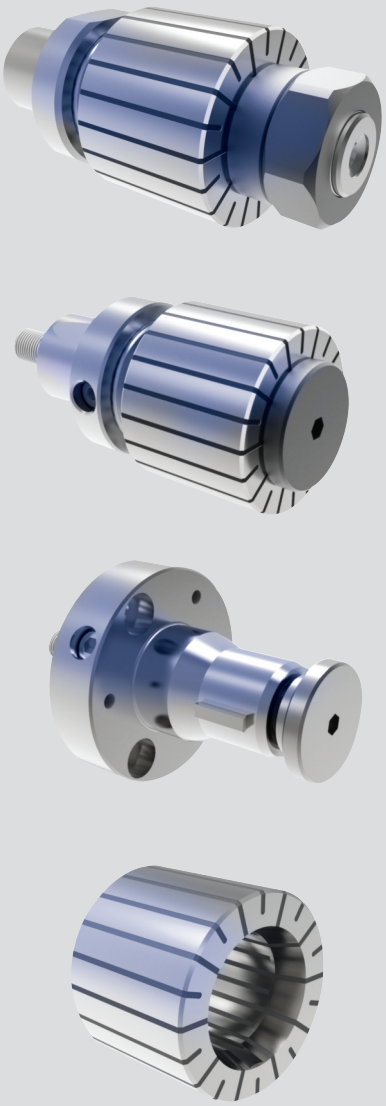
ROYAL CNC EXPANDING MANDRELS
FOR PRECISE, RIGID INTERNAL GRIPPING



ID gripping is often overlooked as a workholding option, yet in many situations it is the best choice:

- Allows for full access to the entire length of the workpiece so all external surfaces can be turned in a single operation, guaranteeing perfect concentricity.
- On sub-spindle machines, ID gripping on the second spindle eliminates the risk of surface damage that can be caused by second-op OD gripping on a previously-turned diameter.
- For many parts, the engagement-length of an ID bore can be greater than what is available for OD gripping, resulting in superior rigidity and torque transmission.
- ID systems tend to be more streamlined than OD systems, enabling better part access – especially important for use on machines with live tooling.



Full Range of In-Stock Standards, Plus Quick Delivery on Specials Ranging up to 24"

ROYAL PRODUCTS
Optimize everything.

www.royalproducts.com

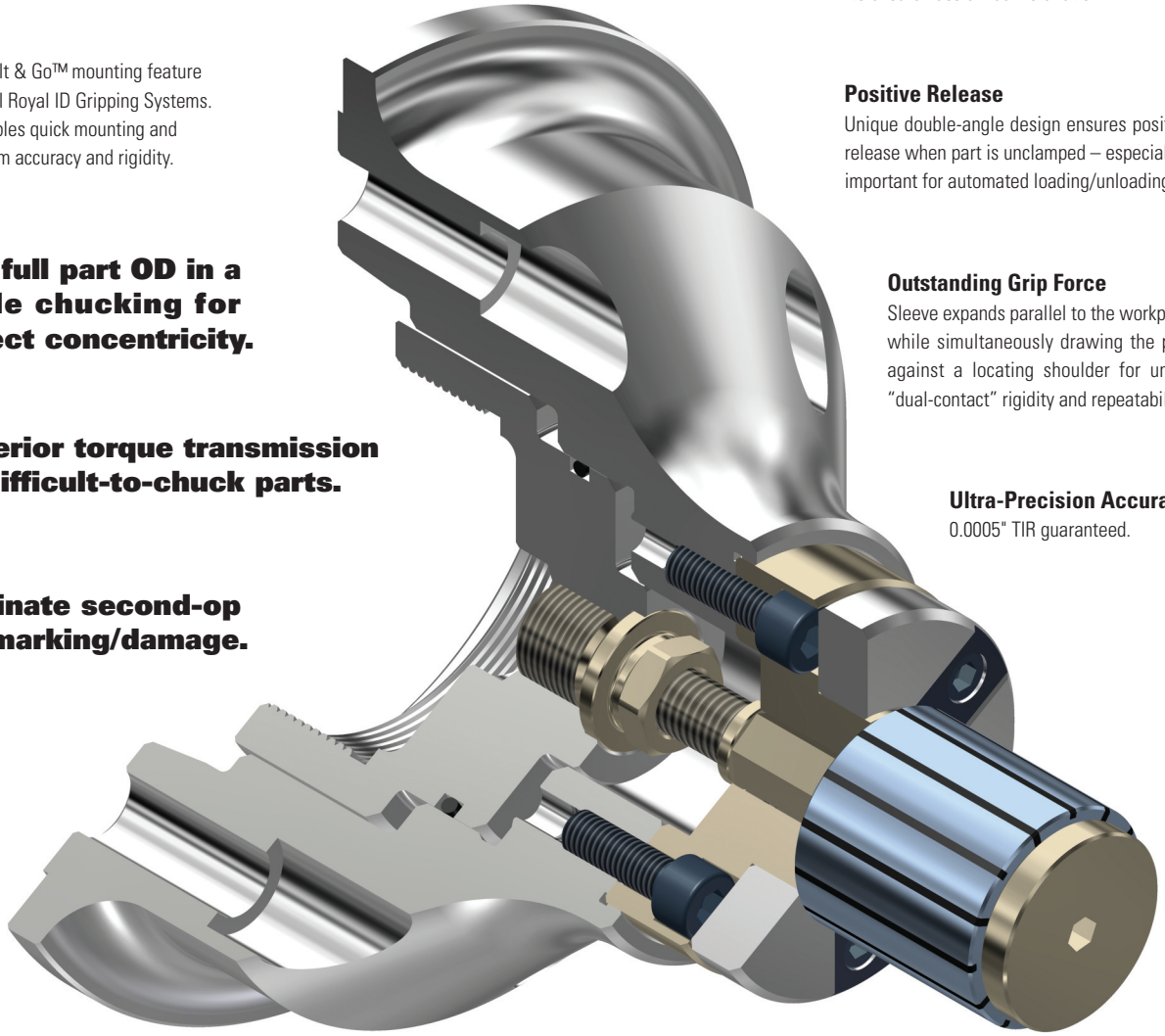
ROYAL CNC EXPANDING MANDREL SYSTEM

Specials Available
In addition to our off-the-shelf standard line, specials are available in custom configurations ranging up to 24" diameter.

Same-Day Shipping
Royal stocks the components for same-day shipping on all models ranging from 0.5" – 3.25" diameter.

Easy Installation
The Royal CNC Expanding Mandrel System includes all mounting hardware, wrenches, and a custom-machined drawtube connector to ensure hassle-free installation.

Bolt & Go™
Our exclusive Bolt & Go™ mounting feature is standard on all Royal ID Gripping Systems. Bolt & Go™ enables quick mounting and ensures maximum accuracy and rigidity.



Positive Release
Unique double-angle design ensures positive release when part is unclamped – especially important for automated loading/unloading.

☑ Turn full part OD in a single chucking for perfect concentricity.

Outstanding Grip Force
Sleeve expands parallel to the workpiece bore while simultaneously drawing the part back against a locating shoulder for unmatched "dual-contact" rigidity and repeatability.

☑ Superior torque transmission on difficult-to-chuck parts.

Ultra-Precision Accuracy
0.0005" TIR guaranteed.

☑ Eliminate second-op OD marking/damage.

Low Profile
Streamlined design for optimum tool clearance. Great for live tooling applications.

Wide Expansion Range
Sleeves have a broad .032" expansion range, enabling many bore sizes to be covered with a single sleeve.

Sealed Construction
All Royal expanding sleeves are fully sealed for complete protection against coolant and chip penetration.

Contact Your Select Royal Products Distributor: