ROYAL PRODUCTS

QG-65 COMBO CHUCK

– QUICK O.D. TO I.D. CHANGEOVER
– FEATURING DEAD-LENGTH OPERATION
– PERFECT FOR SUB-SPINDLES!

ROYAL PRODUCTS
Optimize everything.

ROYAL QG COMBO CHUCK
Easily Switch Between O.D. and I.D. Applications

The Best of Both Worlds

The Royal QG Combo Chuck represents the next generation of our best-selling QG-65 Accu-Length™ CNC Collet Chuck - it's both a Quick-Grip™ Collet Chuck and an I.D. Workholding System All-in-One!

NEW

- ✔ At its core, this is a Quick-Grip™ Accu-Length™ Collet Chuck, and because there is no z-axis movement of the collet or workpiece, the chuck is perfectly suited for both main and sub-spindle applications.
- ✔ The chuck can also be quickly converted to an I.D. workholding system simply by attaching the nose cap and mandrel. Changeover time takes just minutes and no adjusting of the prox switches is required.
- ✔ For very small diameter work, a 5C collet nose is also available (pullback actuation).

Customer comment – "No need to adjust the prox switches because the chuck is always in the push mode. It is a real game-changer!"

Accu-Length™ Operation – A Very Important Royal Advantage!

Unlike other combination chucks that are based upon a pullback collet design, the Royal QG Combo Chuck is modeled on our Accu-Length™ design, ensuring precise part transfers from main to sub with no risk of z-axis part movement. This makes the Royal QG Combo chuck a much better solution for sub-spindle applications compared to the pullback models offered by others.

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Lightning-Fast Collet Changes
Changing collets on a Royal Quick-Grip™ collet chuck takes just a few seconds. A unique hook and groove design for securing the collet is used instead of traditional threads.

Accu-Length™ Design – A Very Important Royal Advantage
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Widest Collet Gripping Range
With a gripping range of 0.062" per collet, you don't need to worry if your stock is off-size.

Extreme Accuracy
Like all Royal QG Collet Chucks, accuracy is guaranteed to be within 0.0002" TIR when being used as a collet chuck, and the I.D. mandrel can be dialed in to almost absolute zero when being used as an I.D. system.

Parallel Workpiece Gripping
With all Royal QG Collet Chucks, the collet segments always remain parallel to the workpiece for full length part engagement, enabling much more aggressive chip removal.

Bolt and Go™
The special nose cap that houses the I.D. mandrel is based upon a precision face/taper interface to ensure near-perfect repeatability during changeovers. The mounting taper is located on the back side of the nose and is protected from chips by an aluminum ring when the I.D. system is not being used.

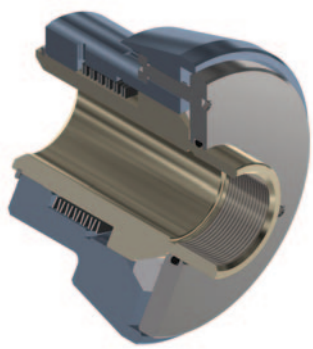
Heavy-Duty Construction
All chuck components, except for the drawtube connector, are hardened to Rc 61-63 for high rigidity and durability.

Simple Installation
All Royal QG Collet Chucks include a custom-machined drawtube connector and all mounting hardware for hassle-free installation.

An included anodized aluminum ring protects the precision locating taper from chip exposure when using as a conventional collet chuck.

Coolant Slinger
The chuck body incorporates an oversized flange to protect the machine tool spindle bearings from coolant penetration.

How It Works



To maintain precise z-axis positioning of the workpiece, the collet in a Royal Accu-Length™ Collet Chuck is fixed to the body and the chuck's closing sleeve pushes forward over the collet to compress it. The collet, and therefore the workpiece, remains fixed in the z-position.

With our I.D. Workholding System, the mandrel is fixed to the chuck body and a tapered pin is pulled back into the sleeve to expand it.

The Royal QG Combo Chuck uses a clever motion reversal adapter that converts the push-forward action of the closing sleeve to pullback motion that actuates the I.D. system via a series of hardened wedges. Simple, effective, and extremely durable!

Note – Actuator pressure may need to be adjusted to achieve optimal clamping force. Visit royalproducts.com for clamping force information.

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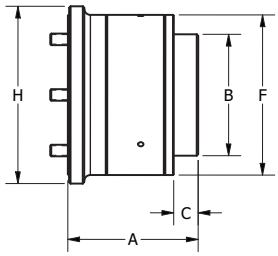
NEW



Note – Dimensions in chart below are for chuck only (O.D. gripping with QG collets). Please visit royalproducts.com for dimensions relating to I.D. and 5C gripping.

Royal Quick-Grip™ Combo CNC Collet Chucks

SPINDLE TYPE	COLLET TYPE	MAX CAPACITY BAR	MAX CAPACITY SLUG[3]	CHUCK STYLE	A	B	C	F	H	PART NUMBER	PRICE[1]
A2-5	QG-65	2.66	3.40	C	4.80	4.96	1.00	6.55	7.25	65115	**$5,940**
A2-5	QG-65	2.66	3.40	UC	4.50	4.96	1.00	6.55	6.55	65116	**5,940**
A2-6	QG-65	2.66	3.40	C	5.33	4.96	1.00	6.55	7.25	65117	**5,940**
A2-6	QG-65	2.66	3.40	UC	4.65	4.96	1.00	6.55	7.25	65118	**5,940**
A2-6	QG-65	2.66	3.40	EL[2]	7.00	4.96	1.00	6.55	7.25	65119	**5,940**
A2-8	QG-65	2.66	3.40	C	5.50	4.96	1.00	6.55	9.45	65120	**6,680**
110 MM	QG-65	2.66	3.40	UC	4.45	4.96	1.00	6.55	6.55	65121	**6,480**
140 MM	QG-65	2.66	3.40	UC	4.80	4.96	1.00	6.55	7.45	65122	**6,480**

[1] Includes drawtube connector. Collets and installation tool sold separately.
[2] Extended-length – for use on machines where z-axis turret travel is limited.
[3] Slug capacity requires counterboring of collets, See page 54 for details.

Royal QG Combo Chuck Optional Components

DESCRIPTION	PART NUMBER	PRICE
QG-65 Combo Chuck Nose Cap and Push/Pull Adapter for I.D. Workholding	65133	**$3,980***
Expanding Rod Adapter for Mandrel A	65140	**393**
Expanding Rod Adapter for Mandrel B & C	65141	**393**
Expanding Rod Adapter for Mandrel D	65142	**393**
Expanding Rod Adapter for Mandrel E	65143	**393**
5C Collet Adapter with 75mm dia. flange	65138	**1,170**

*Order mandrels, sleeves, and expanding rod adapters separately (see pages 70-71).