

# ROYAL PRODUCTS

# AHB

TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS  
(800) 991-4225 www.ahbinc.com  
ISO Certified customerservice@ahbinc.com

## 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!

- ✓ 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.
- ✓ For very small diameter work, a 5C collet nose is also available (pullback actuation).

**NEW**



### 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.



# ROYAL QG COMBO CHUCK

## EASILY SWITCH BETWEEN O.D. AND I.D. APPLICATIONS



### 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.

### 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.

### 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**.

### Heavy-Duty Construction

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

### Accu-Length™ Design – A Very Important Royal Advantage

Unlike other combination chucks that are based upon a pullback collet design, the Royal QG Combo Chuck is based 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.



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

### 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.

### Bolt and Go™

The special nose cap that houses the ID 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.

### Simple Installation

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

### 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!

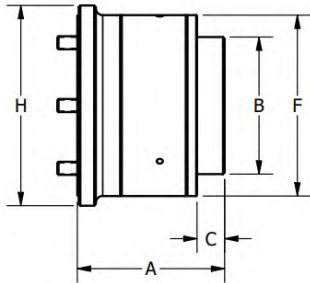
**Note-** Actuator pressure may need to be adjusted to achieve optimal clamping force.



# ROYAL QG COMBO CHUCK

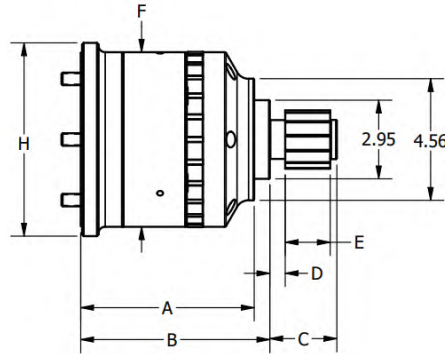
## EASILY SWITCH BETWEEN O.D. AND I.D. APPLICATIONS

### DIMENSIONS



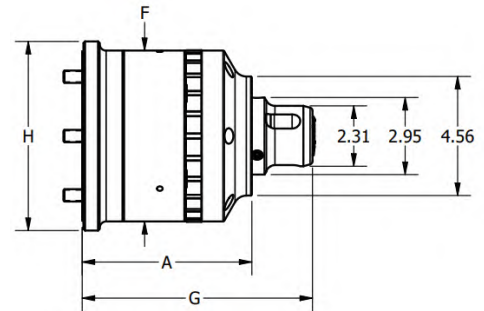
**Chuck Only**  
(O.D. Gripping with QG Collets)

A	5.33
B	4.96
C	1.00
F	6.55
H	7.25



**Chuck Setup for I.D. Gripping**  
(Cap, Mandrel, Expanding Rod Adapter, and Sleeve)

A	6.52
B	7.10
C	See Mandrel Chart in full catalog
D	
E	
F	6.55
H	7.25



**Chuck Setup for 5C Gripping**  
(Cap and 5C Collet Adapter)

A	6.52
F	6.55
G	8.85
H	7.25

### HOW TO ORDER

**NEW**



#### Royal QG Combo Chucks

Spindle Nose	Collet Type	Chuck Style	Part Number	Price
A2-5	QG-65	C	65115	\$5,940
A2-5	QG-65	UC	65116	5,940
A2-6	QG-65	C	65117	5,940
A2-6	QG-65	UC	65118	5,940
A2-6	QG-65	EL	65119	5,940
A2-8	QG-65	C	65120	6,680
110 MM	QG-65	UC	65121	6,480
140 MM	QG-65	UC	65122	6,480

\*Custom-machined drawtube connector included. Order QG collets separately.



#### 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 full catalog)