

QG-65 COMBO CHUCK

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





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-GripTM Accu-LengthTM 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.



ROYAL QG COMBO CHUCK

Easily Switch Between O.D. and I.D. Applications



Lightning-Fast Collet Changes

Changing collets on a Royal Quick-GripTM 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.



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 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.

Simple Installation

All Royal QG Collet Chucks include a custommachined 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.

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

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.



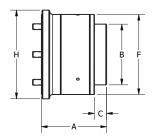


ROYAL QG COMBO CHUCK

Easily Switch Between O.D. and I.D. Applications







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 CA Bar	MAX CAPACITY Bar Slug³		Α	В	С	F	Н	PART NUMBER	PRICE ¹
A2-5	QG-65	2.66	3.40	С	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	С	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	С	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

¹Includes drawtube connector. Collets and installation tool sold separately.

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).

²Extended-length – for use on machines where z-axis turret travel is limited.



QUICK-GRIP™ WORKHOLDING

- TEN-SECOND COLLET CHANGES
- 0.0002" TIR OR BETTER
- PARALLEL GRIP COLLETS WITH A WIDE RANGE
- MOST COMPACT CHUCKS IN THE INDUSTRY
- IN-STOCK FOR SAME-DAY SHIPPING









The Most Advanced Collet Chucks Available for Today's CNC Lathes



- ✓ Ten-Second Collet Changes Slash Setup Times.
- ✓ Industry-Leading Gripping Range 0.062" (0.080" for QG-100).
- ✓ Ultra-Precision Accuracy 0.0002" TIR Guaranteed.
- Extreme Grip Force = Most Aggressive Chip Removal Rates and Fastest Cycle Times.
- Maximum Rigidity Produces Superior Part Finishes.
- ✓ Best Tool Clearance Critical For Live Tooling.
- Exclusive Royal Risk-Free Performance Guarantee.
- In-Stock for Same-Day Shipping.



Three Unique Models For All Applications



Accu-Length™

- Our best-selling model.
- Fixed-position collet maintains precise z-axis part positioning critical for secondary operations.
- Usually the best choice for main spindles, and always required for sub-spindles to ensure proper part transfer.



Pull-to-a-Stop

- Pullback design, however z-axis part positioning can be controlled with an included internal stop.
- Stop is easily removed for bar work.
- Often used in robot-load applications where workpiece confirmation is required.



Pullback

- Most economical choice, but limited primarily to first operation, main-spindle applications.
- No ability to control z-axis part position.

NOTE – In order to provide our customers with the best possible service, Royal maintains a huge inventory of Quick-Grip™ CNC Collet Chucks, plus more than 500 unique drawtube connector models – enabling same-day shipping on virtually all collet chuck orders.





Big Benefit #1

Ten-Second Collet Changes

With the Royal Quick-Grip™ CNC Collet Chuck, collet changes take just seconds. Here's how it works:



 The unique collets are constructed of hardened steel segments securely joined together by vulcanized rubber. Each collet contains an annular hook and groove configuration on the rear section of its outer diameter.



The installation tool incorporates steel pins that align with reamed holes on the collet face. When these pins engage the face holes and the trigger on the tool is actuated, the collet becomes temporarily compressed.



3. In its compressed state, the collet can then be inserted into the collet chuck, where the hooks on the rear of the collet segments become axially aligned with a retaining groove in the chuck.



4. Releasing the installation tool allows the collet to spring open, seating the hooks in the groove and drawing the matching I.D./O.D. tapers into full, positive contact. The collet is now installed.

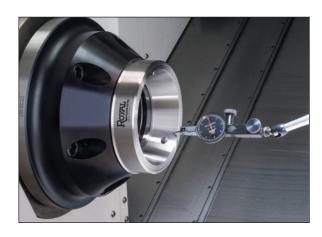
REDUCED SETUP TIME = GREATER THROUGHPUT AND HIGHER PROFITS!





Big Benefit #2

Ultra-Precision Accuracy - 0.0002" or Better



While many users purchase the Royal Quick-Grip™ CNC Collet Chuck for its lightning-fast collet changes and wide gripping range, another major benefit of this system is its extreme accuracy.

With CNC collet chucks, there are several factors which affect overall system accuracy. These include:

- Accuracy and tolerance of chuck mount (taper angle, gage line diameter, squareness of mounting flange, etc.)
- Tolerance and fit between chuck components (body to mounting adapter, closing sleeve to chuck bore, etc.)
- Accuracy and tolerance of collets (O.D. collet angle, bore sizing, concentricity of I.D. to O.D., etc.)

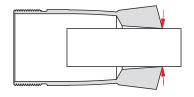
The manufacturing processes for Royal CNC collet chucks and collets have all been fully optimized to achieve the absolute tightest tolerances and highest accuracies. While we guarantee our chucks at 0.0002" TIR between the A-mount taper and collet chuck closing sleeve, they often run at 0.00005" or better! Round-bore collet accuracy is also guaranteed to be within 0.0002" TIR.

This means that out of the box, with absolutely no indicating in, you can expect to achieve a Quick-Grip™ total system accuracy of 0.0004" TIR or better. We know of no other collet chuck manufacturer that can consistently produce such an exact level of precision.

How much time do you waste boring jaws? The Royal Quick-Grip™ pays for itself in no time.

Big Benefit #3

Industry-Leading Gripping Range — 0.062"/0.080"



Spring-Type Collet

With a spring-type collet, unless the bore is exactly sized to the workpiece diameter there will be reduced contact, resulting in compromised accuracy and grip force.



Quick-Grip Collet

With a Quick-GripTM collet, the segments always remain parallel to the workpiece, helping to maintain optimum accuracy and grip force.

Royal Quick-Grip™ Collets have a much wider collapse range than conventional spring collets. A spring-type collet can only be compressed by up to 0.005" before there is a sharp drop off in both grip force and accuracy due to the changing angle of the gripping surface.

However, with the unique design of the Royal Quick-GripTM collet, each collet segment is bonded to the adjacent segments with vulcanized rubber. This ensures that **the collet segments always remain parallel to the workpiece** as the collet is compressed, giving the Quick-GripTM collet a full collapse range of .062" (nominal diameter +/- .031). For the QG-100, this range is even greater - 0.080"!

Advantages of this system include:

- The ability to compensate for oversized and undersized bar stock.
- □ Superior accuracy and grip force by remaining parallel to the workpiece, each collet segment makes contact over its entire length.
 With old-technology spring collets, over-collapsing results in just a narrow ring of contact near the collet face.
- □ The wide range of the Royal Quick-Grip™ collet provides the ability to clear larger diameters in order to grip on smaller diameters. This "over the shoulder" feature offers second-op advantages over traditional spring collets.





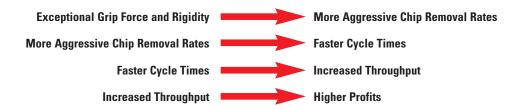
Big Benefit #4

Slash Cycle Times and Boost Throughput

Royal Quick-Grip™ Offers Unmatched Grip Force and Rigidity

The parallel-grip functionality of Royal Quick-GripTM Collets provides extremely high grip force by maintaining workpiece contact over the entire length of each collet segment (see image on previous page). Additionally, the design and construction of all Royal Quick-GripTM CNC Collet Chucks has been optimized for rock-solid rigidity.

This combination of tremendous grip force and outstanding rigidity results in something that every manufacturer strives for – the ability to **drastically** increase speeds, feeds and depth of cut, without sacrificing part accuracy or surface finish.



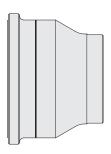
Many Royal Quick-Grip™ users have told us that they have made back their investment in just a few short weeks thanks to such a significant increase in throughput over their previous three-jaw chucks and older-style collet chucks.

Big Benefit #5

Most Compact Collet Chucks in the Industry

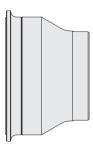
Royal Accu-Length™ CNC Collet Chucks have been optimized for tool clearance and rigidity. Short lengths maximize the usable space inside the machining envelope, while extremely compact nose diameters reduce tool interference and enable machining to take place closer to the spindle.

Compact (Standard Length/Compact Nose Diameter)



The traditional length ensures that these chucks can accommodate most machine drawtubes, while a greatly reduced nose diameter offers the **best tool clearance in the industry**.

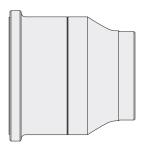
Ultra-Compact (Compact Length/Compact Nose Diameter)



These are the smallest collet chucks available. Often mounted on sub-spindles, Royal's Ultra-Compact CNC Collet Chucks make a great choice when maximum z-axis capacity is the primary requirement.

Extended-Length

(Longer Length/Compact Nose Diameter)



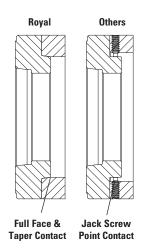
Royal stocks a few chuck models in extended-length versions to accommodate a handful of machines with limited z-axis travel. As a rule, it is usually best to choose the shortest chuck model possible for your machine.





Big Benefit #6

Exclusive Royal Bolt & Go™ Mounting Advantage



All Royal CNC Collet Chucks mount quickly, easily, and accurately due to our exclusive Bolt & Go™ mounting interface.

Many Royal chuck models mount directly to the lathe spindle without the need for an adapter plate. However, for models that do use a plate, a precision-ground tapered fit between the plate's male pilot and chuck body's female recess ensures a consistent, near-perfect fit without the need for any adjustment. This precision fit also enhances overall system rigidity by providing both face and taper contact.

Other chuck manufacturers use a less precise approach. Instead of providing a near-perfect tapered interface between the chuck body and plate, they rely on a loose fit between a male cylindrical pilot on the plate and an oversized bore within the chuck body. Because there is clearance between these two components, jack screws located around the circumference must be used to radially true-up the chuck on the plate. This process of using the jack screws and an indicator to dial out the runout each time a chuck is mounted wastes valuable production time. The rigidity of this design is also significantly less due to the limited point-contact provided by the screws against the pilot as compared to the full-contact tapered fit of the Royal Bolt & Go™ interface.

Knock 30 Minutes Off Your Setup Time with Royal Bolt & Go™

Big Benefit #7

Risk-Free Performance Guarantee



- Same-Day Shipping
- Risk-Free Guarantee

In addition to providing superior quality, service, support, and deliveries, Royal CNC Collet Chucks also carry an industry exclusive risk-free performance guarantee. This no-risk guarantee allows our customers to run a collet chuck on the toughest jobs in their shop for 45-days, and if they are not 100% satisfied with its performance, we will take it back and arrange for a full refund through their distributor.

When you buy a CNC collet chuck from Royal Products, you can have complete confidence that we will not let you down. For over 75 years, Royal has been recognized as one of the most reliable and trusted suppliers in the metalworking industry. We are here for you today, and we'll be here for you tomorrow.





Big Benefit #8

Precision-Made in USA

ISO 9001:2015 Certified

- Every Royal CNC collet chuck is completely manufactured in our modern factory on state-of-the-art automated CNC equipment.
- □ All chucks, sleeves, adapter plates, collets, etc., come off of our gantry-loaded multi-tasking machines complete - eliminating the accuracy and quality issues often associated with multiple setups/operations.
- All grinding takes place on precision Swiss-made CNC grinders that enable multiple features to be ground in a single setup, resulting in near-perfect tolerances and ensuring absolute consistency from part to part.
- Royal Products is an ISO9001:2015 registered company dedicated to continuous improvement. Every process is documented and followed down to the smallest detail for consistent quality - every time.



Big Benefit #9

Outstanding Support



Royal maintains a fleet of fully-equipped mobile showrooms designed to bring solutions to our customers' doorsteps. To schedule a visit to your company, please visit royalproducts.com.

- □ Royal's knowledgeable team of applications engineers makes it very easy for you to do business with us. When you call Royal, the person you speak with will be a workholding expert, and if we can't offer you the best solution for your application, we'll do our best to recommend a company that can - even if it's a competitor!
- Royal CNC Collet Chucks are sold through a select network of the country's top industrial and machine tool distributors. We also have strong relationships with all of the major machine tool builders and importers to make sure that our products seamlessly interface with their machines.
- □ With over forty factory-trained account managers strategically located throughout North America, our highly-qualified field support team is always ready and willing to serve you.

Big Benefit #10 We Make it Easy

- ☐ All Royal CNC collet chucks include everything needed for installation, (even the hex keys). We strive to give our customers "the mint on the pillow" treatment.
- ☐ Through the past thirty years of gathering machine tool specifications and working closely with all of the major machine tool builders, Royal Products has developed a huge database of drawtube specifications, virtually eliminating the need for a customer to ever measure a machine.
- We now stock over 375 of the most common drawtube connector models, and non-stock connectors are made very quickly from semi-finished blanks.
- ☐ All Royal CNC collet chucks come packaged in specially designed heavy-gage boxes with form-fitting foam inserts to provide complete protection of all contents.







HOW TO CHOOSE THE RIGHT QUICK-GRIP™ CNC COLLET CHUCK

Chuck Style

Royal offers four Quick-Grip™ Collet Chuck styles to suit virtually all CNC lathes and applications. If you're unsure which style is the best choice for your needs, the guidelines below should be helpful.

NEW









Combo Chuck

- Best choice for when you have a mix of both I.D. and O.D. work.
- □ Features Accu-Length[™] operation.
- Perfect for sub spindles!
- See pages 14-16 for more info.

Accu-Length

- Our best selling model.
- Fixed position collet maintains precise z-axis part positioning – critical for secondary operations.
- Usually the best choice for main spindles, and always required for sub-spindles to ensure proper part transfer.

Pull-to-a-Stop

- Pullback design, however z-axis part positioning can be controlled with an internal included stop.
- Stop is easily removed for bar work.
- Often used in robot-load applications where workpiece confirmation is required.

Pullback

- Most economical choice, but limited primarily to first operation, main-spindle applications.
- No ability to control z-axis part position.

Capacity

It is typical practice to size a collet chuck according to the I.D. bore of the CNC lathe's drawtube. When the drawtube thru capacity falls between chuck models, it is usually best to choose a chuck with a slightly larger capacity than the drawtube bore to ensure you don't limit the jobs your machine can handle.

For machines with second spindles, sometimes the capacity of the second spindle is less than that of the main spindle. In cases like this, most customers choose the same chuck model for both spindles so they can standardize on collets.

CHUCK MODEL	MAX BAR CAPACITY
QG-32	1.28"
QG-42	1.68"
QG-52	2.03"
QG-65	2.66"
QG-80	3.28"
QG-100	4.03"

Spindle Mount

All CNC lathes have industry-standard spindle mounting specifications. Simply match the spindle mount of your machine (found in your owner's manual) to the spindle mount of the collet chuck.

Drawtube Connector

In our never-ending quest to provide our customers with the best possible service, every Royal CNC Collet Chuck includes a custom-machined drawtube connector to ensure seamless, hassle-free installation.

Royal stocks over 500 unique drawtube connector models, enabling same-day shipping on virtually all collet chuck orders.



ROYAL QUICK-GRIP™ ACCU-LENGTH™ CNC COLLET CHUCKS





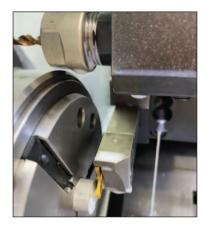






- Royal's best-selling CNC Collet Chuck great for both main and sub-spindles
- ✓ 10-second collet changes.
- ✓ Widest collet gripping range 0.062" (0.080" for QG-100).
- ✓ Extremely accurate 0.0002" TIR.
- Parallel workpiece gripping.
- ightharpoonup Exclusive Bolt & Go^{TM} mounting feature no need to tap/indicate for accuracy.
- Compact and ultra-compact models to suit all machines and applications.
- ✓ Nose diameter optimized for superior tool clearance.
- ✓ In-stock for same-day shipping.











ROYAL QUICK-GRIP™ ACCU-LENGTH™ CNC COLLET CHUCKS

Bolt & Go™

Our exclusive Bolt & Go™ mounting feature is standard on all Royal Quick-Grip™ Collet Chuck models. Bolt & Go™ enables chucks to be mounted very quickly and ensures maximum accuracy and rigidity. See page 22 for additional information.

Extremely Fast Collet Changes

Changing collets on a Royal Quick-Grip™ CNC Collet Chuck takes just a few seconds. A unique hook and groove design for securing collets is used instead of traditional threads.

Wide Gripping Range

Royal Quick-Grip[™] Collets have a 0.062" gripping range (+/- 0.031"), enabling them to accommodate undersized and oversized bar stock. This range is even larger for the QG-100 – 0.080"

Completely Sealed

Lubricated for life, these chucks incorporate multiple 0-ring seals to keep contaminants out and prevent chip pack-up on bore-thru applications.

Royal Quick-Grip™ CNC Collet Chucks are very accurate — runout on the closing angle is **guaranteed** to be within 0.0002" TIR.

High Accuracy

High RPM

All Royal Quick-Grip[™] Collet Chucks are balanced by design for high-speed operation, and can often be run at higher speeds than conventional 3-jaw chucks because they are less affected by centrifugal force.

Low-Profile

Royal Quick-Grip™ CNC Collet Chucks have smaller nose diameters than other quickchange collet chucks for superior tool clearance.



Collet Compatibility

Royal Quick-Grip[™] Collet Chucks can sometimes utilize other brands of quick-change collets. Call Royal to verify.



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

Coolant Slinger

All bodies incorporate an oversized flange to protect the machine tool spindle bearings from coolant penetration.

Shortest Length

Royal Quick-Grip™ CNC Collet Chucks are among the shortest chucks available, providing maximum work envelope utilization. This is especially important for smaller machines with limited z-axis travel.

Dead-Length Operation

Royal Quick-Grip™ Accu-Length™ CNC Collet Chucks incorporate dead length operation to eliminate part pullback. With this design, the collet is held stationary in the chuck body and a tapered sleeve pushes forward to compress it, resulting in precise z-axis workpiece positioning.

Easy Installation

Royal Quick-Grip[™] Collet Chucks include all mounting hardware, mounting wrenches, and a custom-machined drawtube connector to ensure hassle-free installation.

Specials

If you have a special application that goes beyond the scope of our standard line, we will be happy to design and build a custom system to meet your needs. Please contact a Royal applications engineer to discuss your requirements.

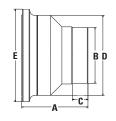
 $\label{eq:Note-Collets} Note-Collets \ and \ installation \ tool \ sold \ separately$



ROYAL QUICK-GRIP™ ACCU-LENGTH™ CNC COLLET CHUCKS







Royal Quick-Grip™ Accu-Length™ CNC Collet Chucks

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SPINDLE Type	COLLET Type	MAX (CAPACITY SLUG ³	CHUCK STYLE	A Overall Length	B Nose Diameter	C Nose Length	D BODY DIAMETER	E Flange Diameter	CHUCK WEIGHT (lbs.)	MAX Drawbar Force (lbs.)	MAX CLAMPING FORCE (lbs.)	MAX RPM	PART Number	PRICE ¹
A2-4	QG-32	1.28	1.80	UC	4.40	3.59	0.75	5.63	6.35	18	5,620	15,740	7,000	46192	\$4,810
A2-5	QG-32	1.28	1.80	UC	4.53	3.59	0.75	5.63	6.35	17	5,620	15,740	7,000	46193	4,810
A2-6	QG-32	1.28	1.80	UC	4.53	3.59	0.75	5.63	7.25	20	5,620	15,740	7,000	46194	4,810
110 MM	QG-32	1.28	1.80	UC	4.18	3.59	0.75	5.63	5.63	16	5,620	15,740	7,000	46195	4,810
140 MM	QG-32	1.28	1.80	UC	4.18	3.59	0.75	5.63	6.35	16	5,620	15,740	7,000	46196	4,810
A2-5	QG-42	1.66	2.62	С	4.60	4.07	0.75	5.70	6.45	19	7,865	17,980	6,000	46100	4,810
A2-5	QG-42	1.66	2.62	UC	4.00	4.07	0.75	5.70	6.45	15	7,865	17,980	6,000	46105	4,810
A2-6	QG-42	1.66	2.62	UC	4.45	4.07	0.75	6.20	7.25	21	7,865	17,980	6,000	46110	4,810
110 MM	GQ-42	1.66	2.62	UC	3.95	4.07	0.75	5.70	5.70	16	7,865	17,980	6,000	46112	4,810
140 MM	QG-42	1.66	2.62	UC	3.95	4.07	0.75	5.70	5.70	15	7,865	17,980	6,000	46115	4,810
A2-5	QG-52	2.03	2.57	С	4.80	4.37	0.75	6.10	6.85	24	7,865	17,980	6,000	46116	4,810
A2-5	QG-52	2.03	2.57	UC	4.20	4.37	0.75	6.10	6.10	18	7,865	17,980	6,000	46117	4,810
A2-6	QG-52	2.03	2.57	UC	4.60	4.37	0.75	6.20	7.25	23	7,865	17,980	6,000	46118	4,810
110 MM	QG-52	2.03	2.57	UC	4.20	4.37	0.75	6.10	6.10	17	7,865	17,980	6,000	46121	4,810
140 MM	QG-52	2.03	2.57	UC	4.20	4.37	0.75	6.10	6.10	19	7,865	17,980	6,000	46119	4,810
A2-5	QG-65	2.66	3.40	С	4.80	4.96	0.87	6.55	7.25	27	10,115	23,600	6,000	46120	5,430
A2-5	QG-65	2.66	3.40	UC	4.50	4.96	0.87	6.55	6.55	24	10,115	23,600	6,000	46125	5,430
A2-6	QG-65	2.66	3.40	С	5.33	4.96	0.87	6.55	7.25	31	10,115	23,600	6,000	46130	5,430
A2-6	QG-65	2.66	3.40	UC	4.65	4.96	0.87	6.55	7.25	24	10,115	23,600	6,000	46135	5,430
A2-6	QG-65	2.66	3.40	EL ²	7.00	4.96	0.87	6.55	7.25	45	10,115	23,600	6,000	46140	5,430
A2-8	QG-65	2.66	3.40	С	5.50	4.96	0.87	8.00	9.45	45	10,115	23,600	6,000	46145	6,110
110 MM	QG-65	2.66	3.40	UC	4.45	4.96	0.87	6.55	6.55	25	10,115	23,600	6,000	46150	5,930
140 MM	QG-65	2.66	3.40	UC	4.80	4.96	0.87	6.55	7.45	29	10,115	23,600	6,000	46155	5,930
A2-5	QG-80	3.28	4.00	C	4.95	5.68	0.87	7.45	7.45	33	11,240	25,850	5,000	46160	6,310
A2-6 A2-6	QG-80 QG-80	3.28	4.00 4.00	EL ²	4.95 7.00	5.68 5.68	0.87	7.45 7.45	7.45 7.45	35 58	11,240 11,240	25,850 25,850	5,000 5,000	46165 46166	6,310
A2-8	QG-80	3.28	4.00	C	5.20	5.68	0.87	8.00	9.45	43	11,240	25,850	5,000	46170	6,310
140 MM	QG-80	3.28	4.00	С	4.75	5.68	0.87	7.45	7.45	34	11,240	25,850	5,000	46175	6,310
A2-6	QG-100	4.03	5.15	С	6.18	7.07	0.87	9.40	9.40	76	14,610	33,720	5,000	46180	6,310 9,130
A2-8	QG-100	4.03	5.15	С	6.43	7.07	0.87	9.40	10.75	89	14,610	33,720	5,000	46185	9,130
A2-11	QG-100	4.03	5.15	С	6.68	7.07	0.87	9.40	12.50	93	14,610	33,720	5,000	46190	10,810
											,		,		10,010

¹ Includes drawtube connector. Collets and installation tool sold separately.

C=Compact, UC=Ultra-Compact, EL=Extended-Length



 $^{^{\}rm 2}$ Extended-length – for use on machines where z-axis turret travel is limited.

 $^{^{\}rm 3}$ Slug capacity requires counterboring of collets. See page 54 details.



ROYAL QUICK-GRIP™ PULL-TO-A-STOP CNC COLLET CHUCKS

Bolt & Go™

Our exclusive Bolt & Go™ mounting feature is standard on all Royal Quick-Grip™ Collet Chuck models. Bolt & Go™ enables chucks to be mounted very quickly and ensures maximum accuracy and rigidity. See page 22 for additional information.

Completely Sealed

Lubricated for life, these chucks incorporate multiple O-ring seals to keep contaminants out and prevent chip pack-up on bore-thru applications.

High RPM

All Royal Quick-Grip™ Collet Chucks are balanced by design for high-speed operation, and can often be run at higher speeds than conventional 3-jaw chucks because they are less affected by centrifugal force.



All bodies incorporate an oversized flange to protect the machine tool spindle bearings from coolant penetration.

Shortest Length

Royal Quick-Grip™ CNC Collet Chucks are among the shortest chucks available, providing maximum work envelope utilization. This is especially important for smaller machines with limited z-axis travel.

Note - Collets and installation tool sold separately

Extremely Fast Collet Changes

Changing collets on a Royal Quick-Grip™ CNC Collet Chuck takes just a few seconds. A unique hook and groove design for securing collets is used instead of traditional threads.

Wide Gripping Range

Royal Quick-GripTM Collets have a 0.062° gripping range (+/- 0.031°), enabling them to accommodate undersized and oversized bar stock. This range is even larger for the QG-100 $- 0.080^{\circ}$.

High Accuracy

Royal Quick-Grip[™] CNC Collet Chucks are very accurate – runout on the closing angle is guaranteed to be within 0.0002" TIR.

Low-Profile

Royal Quick-Grip™ CNC Collet Chucks have smaller nose diameters than other quickchange collet chucks for superior tool clearance.

Collet Compatibility

Royal Quick-Grip[™] Collet Chucks can sometimes utilize other brands of quick-change collets. Call Royal to verify.

Heavy-Duty Construction

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

Two-Chucks In One

The Royal Quick-Grip™ Pull-to-a-Stop CNC Collet Chuck includes a removable stop for precise, consistent workpiece positioning. The pullback action of the collet draws the workpiece securely against the stop, eliminating any chance of z-axis part movement and enabling very aggressive cutting.

When thru-hole capacity is required for bar feeding applications, simply remove the stop and the chuck will function as a normal pullback-style collet chuck.

Easy Installation

Royal Quick-Grip[™] Collet Chucks include all mounting hardware, mounting wrenches, and a custom-machined drawtube connector to ensure hassle-free installation.

Specials

If you have a special application that goes beyond the scope of our standard line, we will be happy to design and build a custom system to meet your needs. Please contact a Royal applications engineer to discuss your requirements.



ROYAL QUICK-GRIP™ PULL-TO-A-STOP CNC COLLET CHUCKS

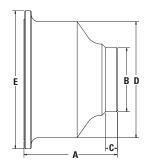




- ✓ Same great features as our Accu-Length[™] Quick-Grip[™] models, except that the collet is not fixed it moves axially upon opening and closing.
- Adjustable stop guarantees precise, consistent z-axis part positioning and enables very aggressive cutting.
- ✓ Ideal for high-volume, robot-load applications in which the part needs to locate against a shoulder and air-sensing / position confirmation is required.
- Also a great choice for any CNC lathe equipped with a servo-driven bar feeder – simply remove the included stop for full thru-capacity.
- In-stock for same-day shipping.



Chuck includes removable standard stop.





Royal Quick-Grip™ Pull-to-a-Stop CNC Collet Chucks

SPINDLE	COLLET	MAX C	APACITY	A OVERALL	B Nose	C Nose	D Body	E Flange	CHUCK Weight	MAX Drawbar	MAX CLAMPING	MAX	PART	
TYPE	TYPE	BAR	SLUG ³	LENGTH	DIAMETER	LENGTH	DIAMETER	DIAMETER	(lbs.)	FORCE (lbs.)	FORCE (lbs.)	RPM	NUMBER	PRICE ¹
A2-5	QG-42	1.66	2.62	5.10	3.54	0.62	6.00	6.70	21	7,865	17,980	6,000	46010	\$5,140
A2-6	QG-42	1.66	2.62	5.50	3.54	0.62	6.25	7.45	25	7,865	17,980	6,000	46012	5,140
A2-5	QG-52	2.03	2.57	5.25	3.63	0.62	6.19	6.95	21	7,865	17,980	6,000	46028	5,140
A2-6	QG-52	2.03	2.57	5.65	3.63	0.67	6.19	7.25	22	7,865	17,980	6,000	46030	5,140
A2-5	QG-65	2.66	3.40	5.50	4.37	0.80	6.70	7.62	28	10,115	23,600	6,000	46014	5,870
A2-6	QG-65	2.66	3.40	6.00	4.37	0.80	6.70	7.62	29	10,115	23,600	6,000	46016	5,870
A2-6	QG-65	2.66	3.40	7.00 ²	4.37	0.80	6.70	7.62	35	10,115	23,600	6,000	46017	5,870
A2-8	QG-65	2.66	3.40	6.40	4.37	0.80	7.95	9.45	45	10,115	23,600	6,000	46018	5,870
A2-6	QG-80	3.28	4.00	6.00	4.96	0.80	8.00	8.75	44	11,240	25,850	5,000	46020	6,440
A2-8	QG-80	3.28	4.00	6.40	4.96	0.80	8.00	9.45	47	11,240	25,850	5,000	46022	6,440
A2-6	QG-100	4.03	5.15	7.08	6.30	0.80	9.40	9.40	88	14,610	33,720	5,000	46023	7,980
A2-8	QG-100	4.03	5.15	7.33	6.30	0.80	9.40	10.75	95	14,610	33,720	5,000	46024	7,980
A2-11	QG-100	4.03	5.15	7.58	6.30	0.80	9.40	12.50	102	14,610	33,720	5,000	46026	8,660

¹ Includes drawtube connector. Collets and installation tool sold separately.

 $^{^{\}rm 3}$ Slug capacity requires counterboring of collets. See page 54 details.



 $^{^{\}rm 2}$ Extended-length – for use on machines where z-axis turret travel is limited.



ROYAL QUICK-GRIP™ PULLBACK CNC COLLET CHUCKS

Extremely Fast Collet Changes

Changing collets on a Royal Quick-Grip™

CNC Collet Chuck takes just a few seconds.

A unique hook and groove design for securing

collets is used instead of traditional threads.

Bolt & Go™

Our exclusive Bolt & Go™ mounting feature is standard on all Royal Quick-Grip™ Collet Chuck models. Bolt & Go™ enables chucks to be mounted very quickly and ensures maximum accuracy and rigidity. See page 22 for additional information.

Completely Sealed

Lubricated for life, these chucks incorporate multiple O-ring seals to keep contaminants out and prevent chip pack-up on bore-thru applications.

High RPM

All Royal Quick-Grip™ Collet Chucks are balanced by design for high-speed operation, and can often be run at higher speeds than conventional 3-jaw chucks because they are less affected by centrifugal force.

Coolant Slinger

All bodies incorporate an oversized flange to protect the machine tool spindle bearings from coolant penetration.

Specials

If you have a special application that goes beyond the scope of our standard line, we will be happy to design and build a custom system to meet your needs. Please contact a Royal applications engineer to discuss your requirements.

Heavy-Duty Construction

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

Wide Gripping Range

Royal Quick-GripTM Collets have a 0.062" gripping range (+/- 0.031"), enabling them to accommodate undersized and oversized bar stock. This range is even larger for the 0G-100-0.080".

High Accuracy

Royal Quick-Grip™ CNC Collet Chucks are very accurate – runout on the closing angle is guaranteed to be within 0.0002" TIR.

Low-Profile

Royal Quick-Grip™ CNC Collet Chucks have smaller nose diameters than other quick-change collet chucks for superior tool clearance.



Collet Compatibility

Royal Quick-Grip[™] Collet Chucks can sometimes utilize other brands of quick-change collets. Call Royal to verify.

Easy Installation

Royal Quick-Grip™ Collet Chucks include all mounting hardware, mounting wrenches, and a custom-machined drawtube connector to ensure hassle-free installation.

Shortest Length

Royal Quick-Grip™ CNC Collet Chucks are among the shortest chucks available, providing maximum work envelope utilization. This is especially important for smaller machines with limited z-axis travel.

 $\label{eq:Note-Collets} \textbf{Note} - \textbf{Collets} \ \textbf{and} \ \textbf{installation} \ \textbf{tool} \ \textbf{sold} \ \textbf{separately}$

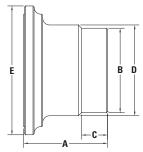


ROYAL QUICK-GRIP™ PULLBACK CNC COLLET CHUCKS





- Traditional pullback design collet is pulled into chuck to close, pushed out to open.
- ✓ No collet stop capability, therefore this chuck style is typically used only on jobs where holding precise axial position is not critical.
- ✓ Includes many of the same features of our QG Accu-Length™ models, including:
 - 10-second collet changes
 - 0.0002" TIR accuracy on closing angle
 - Wide 0.062" collet range (0.080" for QG-100)
 - Compact dimensions for superior clearance
- ✓ In-stock for same-day shipping.





Royal Quick-Grip™ Pullback CNC Collet Chucks

SPINDLE	COLLET	MAX CA	APACITY	A OVERALL	B NOSE	C Nose	D BODY	E Flange	CHUCK WEIGHT	MAX Drawbar	MAX CLAMPING	MAX	PART	
TYPE	TYPE	BAR	SLUG ²	LENGTH	DIAMETER	LENGTH	DIAMETER	DIAMETER	(lbs.)	FORCE (lbs.)	FORCE (lbs.)	RPM	NUMBER	PRICE ¹
A2-5	QG-42	1.66	2.62	4.45	4.11	3.50	5.25	6.45	11	7,865	17,980	6,000	44020	\$3,360
A2-6	QG-42	1.66	2.62	4.35	4.11	1.50	4.38	7.45	13	7,865	17,980	6,000	44022	3,360
A2-5	QG-65	2.66	3.40	4.30	4.88	1.50	6.45	6.45	19	10,115	23,600	6,000	44028	3,590
A2-6	QG-65	2.66	3.40	4.85	4.88	1.50	5.25	7.45	17	10,115	23,600	6,000	44030	3,590
A2-8	QG-65	2.66	3.40	5.00	4.88	1.50	5.72	9.45	25	10,115	23,600	6,000	44032	4,390
A2-6	QG-80	3.28	4.00	4.85	5.47	1.25	5.68	7.45	25	11,240	25,850	5,000	44034	4,490
A2-8	QG-80	3.28	4.00	5.00	5.47	1.25	5.72	9.45	25	11,240	25,850	5,000	44036	4,490

¹ Includes drawtube connector. Collets and installation tool sold separately.

² Slug capacity requires counterboring of collets. See page 54 details.



Check out the Royal Quick-Grip™ CNC Collet Chuck Video at www.colletchucks.com





ROYAL QUICK-GRIP™ POWER-BLOCK™ COLLET FIXTURES

Hydraulic or Pneumatic Actuation

Extremely Fast Collet Changes

Changing collets on a Royal Quick-Grip™
Power-Block™ takes just a few seconds.
A unique hook and groove design for securing collets is used instead of traditional threads.

Tool Clearance Optimized

Slim nose diameter offers better tool clearance compared to vises and other prismatic workholding devices.

Extreme Grip Force

The gripping segments of Royal Quick-Grip™ collets always remain parallel to the workpiece over their full length, ensuring grip force is evenly distributed. This is a significant advantage for thin-walled parts that are susceptible to crushing.

Completely Sealed

Lubricated for life, these fixtures

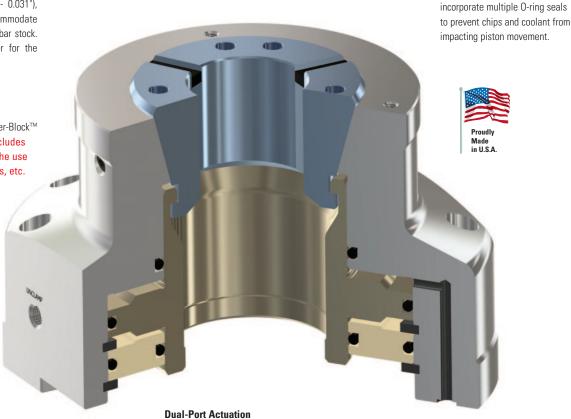
Wide Gripping Range

Royal Quick-GripTM Collets have a 0.062" gripping range (+/- 0.031"), enabling them to accommodate undersized and oversized bar stock. This range is even larger for the 0G-100-0.080".

Flexible

The face of the Royal Power-Block™ is precision-ground and includes tapped holes, enabling the use of custom stops, locators, etc.

Great for 5th-Axis Applications!



Heavy-Duty Construction

Body and piston are hardened to Rc 61-63 for maximum rigidity and durability.

Low Maintenance

Oversized evacuation slots on all four sides enable chips to be easily flushed clear on bore-thru applications.

Precision Mounting

Internal bore and external O.D. are both precision-ground, offering flexibility while ensuring accurate, repeatable mounting to plates, tombstones, etc.

All units are equipped with ports on both

the side and bottom surface of the fixture,

offering actuation flexibility for both

fixed and rotary table applications.

Custom Collet Profiles

One of the greatest advantages of this workholding system is in Royal's ability to supply custom collet profiles for odd-shaped second-op gripping. See examples on page 55.



Note - Collets and installation tool sold separately



ROYAL QUICK-GRIP™ POWER-BLOCK™ COLLET FIXTURES

Hydraulic or Pneumatic Actuation

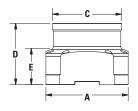


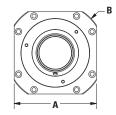






When paired with a custom-profile Ω uick-GripTM collet, the Royal Power-BlockTM can help you optimize your workholding for parts that aren't well-suited to traditional vises or prismatic fixtures. See page 55 for examples.





- Royal Power-Block™ Collet Fixtures bring the full functionality of our Quick-Grip™ CNC Collet Chucks to your vertical and horizontal machining centers.
- □ These fixtures incorporate many of the same great features as our Quick-GripTM CNC Collet Chucks, including ten-second collet changes and the use of parallel-grip collets with a full 0.062" clamping range (0.080" for QG-100).
- A great alternative to traditional vises and fixtures especially for long, thin parts, or those with asymmetrical external features.
- □ Units are designed to be actuated via hydraulic pressure, and may also be actuated pneumatically for lighter-duty applications (contact Royal for details).
- Engineered for use in both stationary and rotary-table applications. **Caution not** for use on lathes or grinders above 60 rpm!
- ☐ Heavy-duty all steel construction with a large double-acting piston for high clamping force.
- Configured with both side and bottom ports for plumbing flexibility.
- Multiple units can be plumbed in series for single-source actuation.
- Mounting face is precision-ground for perpendicularity to centerline.
- Ideal for high-production vertical and horizontal milling applications.
- □ For use with Royal Quick-Grip[™] collets and installation tools (pages 38-56).

Power-Block™ Grip Force Specifications*

MODEL	MAX INPUT Hydraulic Pressure (psi.)	MAX AXIAL FORCE (lbs.)	MAX CLAMPING FORCE (lbs.)
QG-32	1450	5,620	15,735
QG-42	580	7,865	17,980
QG-52	580	7,865	17,980
QG-65	580	10,115	23,600
QG-80	580	11,240	25,850
QG-100	580	14,610	33,720

^{*}Contact Royal for pneumatic actuation specifications.

Royal Quick-Grip™ Power-Block™ Collet Fixtures

MODEL	CAPA (ROUND)	ACITY (SQUARE)	A (SQUARE)	B (OUTER DIA.)	С	D	E	FIXTURE Weight (lbs.)	PART Number	PRICE*
QG-32	1.29	0.91	3.15	4.17	2.95	3.74	2.09	6	43958	\$3,065
QG-42	1.66	1.16	6.06	6.89	4.13	4.72	3.56	25	43960	3,655
QG-52	2.00	1.37	6.06	6.89	4.13	4.72	3.56	25	43962	3,655
QG-65	2.66	1.78	6.85	8.27	4.92	5.12	3.36	33	43964	3,940
QG-80	3.28	2.03	7.34	8.46	6.30	5.12	3.00	38	43954	4,430
QG-100	4.03	2.78	9.02	10.63	8.46	5.51	3.38	66	43956	6,090

^{*}Collets and installation tool sold separately.





ROYAL POWER-BLOCK™ QG-32 FIXTURE

High Density Workholding for Machining Centers

- Royal Power-Block[™] Collet Fixtures bring the full functionality of our Quick-Grip[™] CNC Collet Chucks to your vertical and horizontal machining centers – Now available in compact QG-32 sizing.
- Actuated by either air or hydraulics.
- Booster cylinder available for extra clamping force.
- Compact footprint enables close ganging for multi-part applications in condensed spaces.



DESCRIPTION	PART NUMBER	PRICE*
QG-32 Hydraulic Power-Block™ Collet Fixture	43958	\$3,065
Booster Cylinder for QG-32 Hydraulic Power-Blok™	43980	3,025
Baseplate for QG-32 Hydraulic Power-Block™	43978	1,415



ROYAL QUICK-GRIP™ POWER-BLOCK™ RISERS

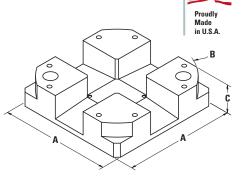


- Enhancing chip evacuation for thru-hole machining applications.
- □ Surface ground within 0.0002" parallelism.
- 20mm wide keyway on bottom surface provides secure engagement with machining center tables and rotary tables.
- □ Risers also available for Royal Key-Operated Power-Block™ Fixtures. Please contact one of our applications engineers for information.
- In stock for same-day shipping.

Royal Power-Block™ Risers

FITS HYDRAULIC Power-block™ Model	A	В	С	PART Number	PRICE*
QG-42	6.06	6.89	1.75	43970	\$1,535
QG-52	6.06	6.89	1.75	43970	1,535
QG-65	6.85	8.27	1.75	43972	1,570
QG-80	7.34	8.46	1.75	43974	1,670
QG-100	9.02	10.63	1.75	43976	1,975

^{*}Riser only. Order Power-Block™ and collets separately.





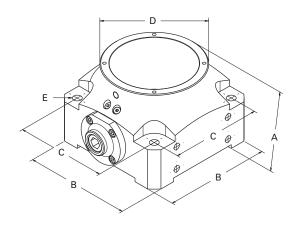
ROYAL QUICK-GRIP™ POWER-BLOCK™ KEY-OPERATED COLLET FIXTURES





- Unit is mechanically actuated via an included hex key.
- Can be used in both stationary and rotary table applications. Caution not for use on lathes or grinders above 5 rpm!
- Many of the same great features as our Quick-GripTM CNC Collet Chucks, including ten-second collet changes and parallel-grip collets with a full 0.062" clamping range (0.080" for QG-100).
- Pullback design with an internally threaded back plate enables the use of a stop rod.
- □ Fixture face is precision ground and includes tapped holes, enabling the use of custom stops, locators, etc.
- Bottom and all four sides are ground for both vertical and horizontal mounting.
- Ideal for high production 4th and 5th-axis applications.
- □ For use with Royal Quick-Grip[™] collets and installation tools (pages 38-56).

Great for Job Shops!





Royal Quick-Grip™ Power-Block™ Key-Operated Collet Fixtures

	CAPACITY							MAX Tightening	MAX Clamping		
MODEL	ROUND	SQUARE	Α	В	C	D	E	TORQUE (ftlbs.)	FORCE (lbs.)	PART NUMBER	PRICE*
QG-42	1.66"	1.16"	3.94	5.12	3.94	3.94	0.43	42	5,125	43900	\$4,175
QG-52	2.03"	1.41"	3.94	5.12	3.94	3.94	0.43	42	5,125	43902	4,175
QG-65	2.66"	1.78"	3.94	5.91	4.72	4.72	0.43	42	6,430	43904	4,415
QG-80	3.28"	2.03"	4.33	6.50	5.31	5.31	0.51	57	7,420	43908	6,090
QG-100	4.03"	2.78"	4.33	7.87	6.69	6.50	0.51	57	9,375	43912	6,565

^{*}Collets and installation tool sold separately





ROYAL CUSTOM POWER-BLOCK™ WORKHOLDING

The Royal Power-Block™ offers unique production-enhancing opportunities for:

- 5th-Axis Applications
- Horizontal Machining Centers
- Multi-Station Rotary-Transfer Applications

Here is a sampling of how some of our customers have greatly improved productivity with Royal Power-Blocks™.

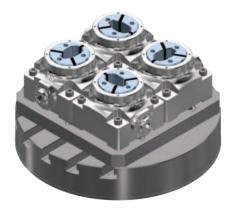


Application: Double-sided shaft-end machining on a horizontal machining center.

Capacity: 16 parts at one time.

Unique Features:

- □ 32 custom Small-Body Accu-LengthTM Collet Fixtures mounted to a custom internally ported T-column.
- Gripping force supplied by internal die springs in each fixture.
- Pneumatically unclamped via a single intake port.
- ☐ This arrangement allows for all parts to be loaded and clamped off-line, so when the column travels into the machining center no air or hydraulic lines need to remain attached.

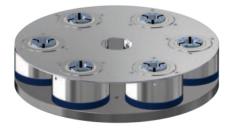


Application: "Tapered Oval" shaped part in a 5th-axis machining center.

Capacity: Four parts at one time.

Unique Features:

- □ Four standard Key-Operated Power-Blocks[™] mounted to the machine tool rotary table via a custom adapter plate.
- □ Four hardened and ground collets custom-machined according to the exact part profile.
- □ Customer experienced an increase in throughput of 236% over the multi-station vise that was previously being used.



Application: Six-station rotary-transfer machine.

Capacity: Five parts in process at one time. Sixth station used for load/unload.

Unique Features:

- □ Six custom Small-Body Accu-Length™ Hydraulic Power-Block™ Fixtures mounted to a custom plate.
- □ Six custom counter-bored collets for precise z-axis positioning.
- Custom chip-shield.
- □ Clamp/unclamp provided via a centrally located indexing hydraulic manifold (not shown).



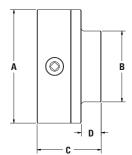
ROYAL KEY-OPERATED QUICK-GRIP™ COLLET CHUCK FOR MANUAL LATHES







- Now you can enjoy the same great features of the Royal Quick-Grip™ CNC Collet Chuck on your manual engine lathes, including ten-second collet changes and parallel-grip collets with a full 0.062" clamping range.
- □ No hydraulic actuator needed chuck is operated with a traditional square-drive chuck key (included) via a side-access screw.
- In addition to manual lathe applications, this chuck can also be utilized on indexers, rotary tables, etc.
- By eliminating the drawtube and offering a full 2-5/8" thru capacity (compared to 1-1/16" of a 5C collet closer), users can make much better use of their lathe's spindle capacity.
- Very accurate 0.0005" TIR guaranteed!
- Balanced to 4,000 rpm.
- □ Superior gripping force up to 16,860 lbs.
- Order backplate separately. Other backplate styles available as custom order.
- For use with Royal QG-65 collets and installation tools (pages 38-56).
- Note this product is specifically designed for use on manual equipment not equipped with a hydraulic actuator. For CNC lathes, better performance will be achieved through the use of Royal CNC Collet Chucks.



Royal Key-Operated Quick-Grip™ Collet Chuck for Manual Lathes*

MODEL	CAPACITY	A	В	С	D	MAX TIGHTENING TORQUE (ftlbs.)	MAX CLAMPING FORCE (lbs.)	PART Number	PRICE	
QG-65	2.66	7.87	4.92	4.45	1.38	118	16,860	43920	\$6,545	

^{*}Order backplate, collets, and installation tool separately.

Backplates for Key-Operated QG Collet Chuck

MODEL	PLATE Diameter	PLATE THICKNESS	PART Number	PRICE
A2-5	7.87	1.10	43930	\$1,270
A2-6	7.87	1.18	43932	1,390
D1-5	7.87	1.60	43934	1,610
D1-6	7.87	1.85	43936	1,950

- Hardened and precision ground.
- Backplates accept Royal Quick-GripTM stops featured on page 38.





ROYAL QUICK-GRIP™ CNC COLLET CHUCK ACCESSORIES

Royal Quick-Grip™ Collet Installation Tools

- Easy to use tools enable collets to be changed in seconds.
- Simply insert the steel pins into the collet face holes and squeeze the trigger to collapse the collet.
- Available in both manual and pneumatic versions.
 Note pneumatic changing tools require an air supply line.



Royal Quick-Grip™ Collet Installation Tools

FITS CHUCK MODEL	TYPE	PART NUMBER	PRICE
QG-32	Manual	44195	\$653
QG-42	Manual	44097	653
QG-42	Pneumatic	44371	1,650
QG-52	Manual	44095	653
QG-52	Pneumatic	44359	1,495
QG-65	Manual	44098	653
QG-65	Pneumatic	44372	1,650
QG-80	Manual	44099	678
QG-80	Pneumatic	44373	2,815
QG-100	Pneumatic	44374	2,815

Royal Quick-Grip™ Standard and Extra-Depth Stops

- A stop is used for accurate z-axis positioning of short workpieces within a collet.
- Rod length is easily adjusted according to workpiece parameters.
- Royal's easy-to-install stop assemblies locate against a shoulder within the chuck body and are held rigidly in-place with radiallylocated screws.





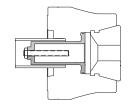
Royal Quick-Grip $^{\mathsf{TM}}$ Standard Stops

FITS	MAX THR	OAT DEPTH*		
CHUCK Model	ACCU-LENGTH CHUCK MODELS	PULL-TO-A-STOP CHUCK MODELS	PART Number	PRICE
QG-32	2.10	N/A	44090	\$227
QG-42	2.03	2.89	44080	227
QG-52	2.17	3.04	44818	227
QG-65	2.47	3.33	44081	257
QG-80	2.46	3.33	44084	293
QG-100	2.71	3.65	44816	332

^{*} Measured from collet face.

- Royal Quick-Grip™ Extra-Depth Stops have a greater throat depth than the standard stops, enabling longer parts to be swallowed while minimizing protrusion beyond the collet face.
- □ For use with Royal Accu-Length™ and Pull-to-a-Stop Quick-Grip™ CNC Collet Chuck Models.





Royal Quick-Grip™ Extra-Depth Stops

FITS CHUCK Model	MAX THR ACCU-LENGTH CHUCK MODELS	OAT DEPTH* PULL-TO-A-STOP CHUCK MODELS	MAX Part Diameter	MIN Drawtube I.D.	PART NUMBER	PRICE
QG-32	5.00	N/A	0.88	1.29	44800	\$400
QG-42	5.00	5.86	1.25	1.66	44802	400
QG-52	5.00	5.87	1.38	1.78	44803	400
QG-65	6.00	6.86	1.25	1.66	44804	452
QG-65	6.00	6.86	2.25	2.73	44806	452
QG-80	5.95	6.82	2.00	2.48	44808	545
QG-80	5.95	6.82	2.75	3.23	44810	545
QG-100	6.00	6.94	2.75	3.23	44812	659
QG-100	6.00	6.94	3.50	3.91	44814	659

^{*} Measured from collet face.



ROYAL QUICK-GRIP™ CNC COLLET CHUCK ACCESSORIES



Royal Quick-Grip™ Ejectors

- □ Ejectors are used in sub-spindle applications with Royal Quick-GripTM Accu-LengthTM CNC Collet Chucks to push finished workpieces into the part catcher upon completion.
- A hardened plunger rod and a bronze bushing work together to provide smooth, consistent operation.
- Design enables tip to be changed without removing ejector assembly from the chuck.
- Available in standard and compact models:
 - Standard Model for parts ranging in size from 0.81" to 4.00" dia.
 - Compact Model for parts ranging in size from 0.18" to 1.50" dia.
- Easily customizable as workpiece configurations require.
- Pneumatic versions also available upon request.

For an alternative solution to an ejector, check out the Royal Grippex Coolant-Actuated Bar Puller. The Grippex, when fitted with special jaws, can be used to pull finished parts from a sub-spindle, eliminating the need for an ejector and freeing up the spindle bore to swallow longer parts.





Royal Quick-Grip™ Ejectors

FITS ACCU-LENGTH™ CHUCK MODEL	EJECTOR Style	PART DIAMETER RANGE	PART Number	PRICE
QG-32	Compact	0.18-1.25	44033	\$1,035
QG-42	Compact	0.18-1.25	44043	1,035
QG-42	Standard	0.81-1.63	44040	1,195
QG-52	Compact	0.18-1.25	44037	1,035
QG-52	Standard	0.81-2.03	44035	1,195
QG-65	Compact	0.18-1.25	44044	1,050
QG-65	Standard	0.81-2.63	44041	1,215
QG-80	Compact	0.18-1.25	44045	1,075
QG-80	Standard	0.81-3.25	44042	1,230
QG-100	Compact	0.50-1.50	44047	1,095
QG-100	Standard	1.50-4.00	44046	1,255

Royal Hardened and Ground Adapter Plates





- Adapter plates offer the flexibility to mount collet chucks and 3-jaw chucks to a wider range of spindles:
 - Mount a larger chuck on a smaller spindle for increased capacity.
 - Mount a smaller chuck on a larger spindle for increased tool clearance and higher speeds.
- All Royal adapter plates are hardened to Rc 61-63.
- ☐ High accuracy 0.0002" TIR guaranteed.
- Metric screws included for mounting plate to spindle.
- □ Drive button included on all plates except 44012 and 44013.

Royal Hardened and Ground Adapter Plates

SPINDLE Mount	CHUCK Mount	PLATE DIAMETER	PLATE THICKNESS	THRU-HOLE DIA.	SPINDLE Mounting Bolts	CHUCK MOUNT THREADS	PART NUMBER	PRICE
A2-5	A2-6	6.68	1.00	2.63	M-10	M-12	44000	\$1,855
A2-6	A2-6	6.68	1.25	3.56	M-12	M-12	44012	1,655
A2-6	A2-8	8.68	1.00	3.75	M-12	M-16	44004	2,150
A2-8	A2-6	8.25	1.75	3.44	M-16	M-12	44010	2,150
A2-8	A2-8	8.69	2.00	4.76	M-16	M-16	44013	2,260
A2-11	A2-8	11.00	2.00	4.76	M-20	M-16	44014	2,725
110MM	A2-5	5.31	0.75	2.00	M-10	M-10	44006	1,615
140MM	A2-6	6.68	1.00	3.00	M-10	M-12	44008	1,920

Other configurations available. Contact a Royal Products applications engineer at 1-800-645-4174 with your requirements.





Full Range of Inch and Metric Sizes Available from Stock



These Extremely Advanced Collets Will Revolutionize Your Workholding

- □ Industry-leading 0.062" Gripping Range (0.080" for QG-100) greater than other quick-change collets on the market and more than 12X that of traditional spring collets (see page 20).
- Royal Quick-Grip Collets are precision-ground to nominal size, with a gripping range of +/- 0.31" to handle undersized/oversized stock (+/- 0.40" for QG-100).
 - **Example** a $\frac{1}{2}$ " QG-65 collet is ground to 0.500" dia., and can hold any part ranging in size from 0.469" 0.531" dia.
- □ Ultra-Precision Accuracy 0.0002" TIR or better guaranteed on round-bores (see page 20). Total system accuracy (chuck + collet) guaranteed to 0.0004" or better.
- □ All Royal Quick-GripTM Collets are designed for minimal projection beyond the chuck face (≤ 0.020") for optimum rigidity and machine work-zone utilization.
- All models have a smooth gripping surface, but round-bores are also available from stock in a double-serrated version for very aggressive first-op machining.

- Vulcanized rubber between the hardened steel collet segments provides outstanding protection against coolant and chip penetration, and Royal's advanced vulcanization process carries a lifetime guarantee against failure.
- □ Collets can be counter-bored for increased capacity (see page 54).
- S-type master collets available for QG-65 and QG-80 chuck models
 see page 56.
- □ Royal Quick-GripTM Collets are compatible with some other brands of quick-change chucks, but note that the QG-80 and QG-100 models have a six-slot design (for increased gripping torque) that requires the use of a Royal installation tool. Call us to verify compatibility.
- Custom sizes and shapes available as quick-ship specials. Collet segments can also be carbide-coated for extremely harsh applications. Contact one of our applications engineers at 1-800-645-4174 to discuss your requirements.

Royal Ultra-Precision Quick-Grip™ Collet Specifications

				ROUND	HEX	SQUARE			
COLLET Model	COLLET RANGE	NUMBER OF SLOTS	MAXIMUM Thru Capacity	MAXIMUM Capacity when Counter-Bored**	MAXIMUM Thru Capacity	MAXIMUM Thru Capacity	EMERGENCY COLLETS AVAILABLE	CUSTOM SIZES AND SHAPES AVAILABLE	CARBIDE COATING AVAILABLE
QG-32	0.062	3	1.28	1.80	1.09	0.91	Υ	Υ	Υ
QG-42	0.062	3	1.66	2.62	1.40	1.15	Υ	Υ	Υ
QG-52	0.062	3	2.03	2.57	1.78	1.41	Υ	Υ	Υ
QG-65	0.062	3	2.66	3.40	2.28	1.78	Υ	Υ	Υ
QG-80	0.062	6*	3.28	4.00	2.78	2.03	Υ	Υ	Υ
QG-100	0.080	6*	4.03	5.15	3.28	2.78	Υ	Υ	Υ

^{*} The unique six-slot design of the Royal QG-80 and QG-100 Quick-Grip™ collets provides increased workpiece contact over the entire gripping range for superior gripping torque over other brands.

^{**} Counter-boring collets is a special operation and it is important to note that the maximum counter-bore diameter varies with depth. For more information, please see page 54 or contact Royal.





Why Do Top Manufacturers Insist on Royal Quick-Grip™ Collets?

Industry-Leading 0.062" Gripping Range (0.080" for QG-100) Covers More Diameters with Fewer Collets

Ultra-Precision Accuracy – 0.0002" TIR or Better

Vulcanization
Guaranteed for Life

Parallel-Grip Maintains Full-Length Part Engagement

Exceptional Grip-Force Enables
Very Aggressive Cutting

Exclusive Royal Risk-Free Performance Guarantee

Fast Delivery on Custom Shapes and Sizes - See Page 55

Special Slot Relief Grinding Eliminates "Collet Popping" and Minimizes Chuck Wear

Order Today – Have it Tomorrow







Round-Serrated



Hex



Square



Emergency

Thousands of Round, Hex, Square and Emergency Collets IN-STOCK for SAME-DAY SHIPPING!





QG-32



QG-32 CAPACITY				
Bar Diameter	1.28" (32.5mm)			
Slug Diameter	* 1.80" (45.7mm)			

- * See page 54 for details.
- ☐ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- □ Industry-leading 0.062" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/-0.031".
- Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- Can be counter-bored for increased part capacity up to 1.80" see page 54 for details.
- Quick-ship specials available for custom shapes.







Round Metric



Hex



Square



Emergency

Royal QG-32 Round Collets (Inch) - \$331 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number
3/16"	0.157-0.219	45300	N/A
7/32"	0.188-0.250	45301	N/A
1/4"	0.219-0.281	45302	N/A
9/32"	0.250-0.312	45303	N/A
5/16"	0.282-0.344	45304	Call
11/32"	0.313-0.375	45305	Call
3/8"	0.344-0.406	45306	Call
13/32"	0.375-0.437	45307	Call
7/16"	0.407-0.469	45308	Call
15/32"	0.438-0.500	45309	Call
1/2"	0.469-0.531	45310	Call
17/32"	0.500-0.562	45311	Call

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number
9/16"	0.532-0.594	45312	Call
19/32"	0.563-0.625	45313	Call
5/8"	0.594-0.656	45314	Call
21/32"	0.625-0.687	45315	Call
11/16"	0.657-0.719	45316	Call
23/32"	0.688-0.750	45317	Call
3/4"	0.719-0.781	45318	Call
25/32"	0.750-0.812	45319	Call
13/16"	0.782-0.844	45320	Call
27/32"	0.813-0.875	45321	Call
7/8"	0.844-0.906	45322	Call
29/32"	0.875-0.937	45323	Call

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part Number	SERRATED Part number
15/16"	0.907-0.969	45324	Call
31/32"	0.938-1.000	45325	Call
1"	0.969-1.031	45326	Call
1 1/32"	1.000-1.062	45327	Call
11/16"	1.032-1.094	45328	Call
13/32"	1.063-1.125	45329	Call
11/8"	1.094-1.156	45330	Call
15/32"	1.125-1.187	45331	Call
13/16"	1.157-1.219	45332	Call
17/32"	1.188-1.250	45333	Call
11/4"	1.219-1.281	45334	Call

QG-32



Royal QG-32 Round Collets (Metric) – \$331 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
4mm	3.25-4.75	63300	N/A
5mm	4.25-5.75	63301	N/A
6mm	5.25-6.75	63302	N/A
7mm	6.25-7.75	63303	N/A
8mm	7.25-8.75	63304	N/A
9mm	8.25-9.75	63305	Call
10mm	9.25-10.75	63306	Call
11mm	10.25-11.75	63307	Call
12mm	11.25-12.75	63308	Call
13mm	12.25-13.75	63309	Call

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
14mm	13.25-14.75	63310	Call
15mm	14.25-15.75	63311	Call
16mm	15.25-16.75	63312	Call
17mm	16.25-17.75	63313	Call
18mm	17.25-18.75	63314	Call
19mm	18.25-19.75	63315	Call
20mm	19.25-20.75	63316	Call
21mm	20.25-21.75	63317	Call
22mm	21.25-22.75	63318	Call
23mm	22.25-23.75	63319	Call

NOMINAL SIZE	RANGE (mm)	SMOOTH Part Number	SERRATED Part number
24mm	23.25-24.75	63320	Call
25mm	24.25-25.75	63321	Call
26mm	25.25-26.75	63322	Call
27mm	26.25-27.75	63323	Call
28mm	27.25-28.75	63324	Call
29mm	28.25-29.75	63325	Call
30mm	29.25-30.75	63326	Call
31mm	30.25-31.75	63327	Call
32mm	31.25-32.75	63328	Call

Royal QG-32 Hex Collets - \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	45370
5/16"	0.282-0.344	45371
3/8"	0.344-0.406	45372
7/16"	0.407-0.469	45373
1/2	0.469-0.531	45374

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
9/16"	0.532-0.594	45375
5/8"	0.594-0.656	45376
11/16"	0.657-0.719	45377
3/4"	0.719-0.781	45378
13/16"	0.782-0.844	45379

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
7/8"	0.844-0.906	45380
15/16"	0.907-0.969	45381
1"	0.969-1.031	45382
11/16"	1.032-1.094	45383

Royal QG-32 Square Collets – \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	45390
3/8"	0.344-0.406	45391

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/2"	0.469-0.531	45392
5/8"	0.594-0.656	45393

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/4"	0.719-0.781	45394
7/8"	0.844-0.906	45395

Royal QG-32 Emergency Collets - \$388 Each - See Page 54



Check out the Royal Quick-Grip™ CNC Collet Chuck Video at www.colletchucks.com



QG-42



QG-42 CAPACITY			
Bar Diameter	1.66" (42.8mm)		
Slug Diameter*	2.62" (66.5mm)		

^{*} See page 54 for details.

- ☐ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- Smooth and serrated versions for round-bore models (all others smooth only).
- □ Industry-leading 0.062" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/- 0.031".
- Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- Can be counter-bored for increased part capacity up to 2.62" see page 54 for details.
- Quick-ship specials available for custom shapes.
- Can utilize manual and pneumatic changing tools.







Round Metric



Serrated



Hex



Square



Emergency

Royal QG-42 Round Collets (Inch) – \$331 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number
3/16"	0.157-0.219	44101	N/A
7/32"	0.188-0.250	44102	N/A
1/4"	0.219-0.281	44103	N/A
9/32"	0.250-0.312	44104	N/A
5/16"	0.282-0.344	44105	N/A
11/32"	0.313-0.375	44106	44155
3/8"	0.344-0.406	44107	44156
13/32"	0.375-0.437	44108	44157
7/16"	0.407-0.469	44109	44158
15/32"	0.438-0.500	44110	44159
1/2"	0.469-0.531	44111	44160
17/32"	0.500-0.562	44112	44161
9/16"	0.532-0.594	44113	44162
19/32"	0.563-0.625	44114	44163
5/8"	0.594-0.656	44115	44164
21/32"	0.625-0.687	44116	44165

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number
11/16"	0.657-0.719	44117	44166
23/32"	0.688-0.750	44118	44167
3/4"	0.719-0.781	44119	44168
25/32"	0.750-0.812	44120	44169
13/16"	0.782-0.844	44121	44170
27/32"	0.813-0.875	44122	44171
7/8"	0.844-0.906	44123	44172
29/32"	0.875-0.937	44124	44173
15/16"	0.907-0.969	44125	44174
31/32"	0.938-1.000	44126	44175
1"	0.969-1.031	44127	44176
11/32"	1.000-1.062	44128	Call
11/16"	1.032-1.094	44129	44177
13/32"	1.063-1.125	44130	Call
11/8"	1.094-1.156	44131	44178
15/32"	1.125-1.187	44132	Call

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part Number	SERRATED PART NUMBER
13/16"	1.157-1.219	44133	44179
17/32"	1.188-1.250	44134	Call
11/4"	1.219-1.281	44135	44180
19/32"	1.250-1.312	44136	Call
15/16"	1.282-1.344	44137	44181
111/32"	1.313-1.375	44138	Call
13/8"	1.344-1.406	44139	44182
113/32"	1.375-1.437	44140	Call
17/16"	1.407-1.469	44141	44183
115/32"	1.438-1.500	44142	Call
11/2"	1.469-1.531	44143	44184
117/32"	1.500-1.562	44144	Call
19/16"	1.532-1.594	44145	44185
119/32"	1.563-1.625	44146	Call
15/8"	1.594-1.656	44147	44186



Royal QG-42 Round Collets (Metric) – \$331 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part number
4mm	3.25-4.75	62100	N/A
5mm	4.25-5.75	62102	N/A
6mm	5.25-6.75	62104	N/A
7mm	6.25-7.75	62106	N/A
8mm	7.25-8.75	62108	N/A
9mm	8.25-9.75	62110	62200
10mm	9.25-10.75	62112	62201
11mm	10.25-11.75	62114	62202
12mm	11.25-12.75	62116	62203
13mm	12.25-13.75	62118	62204
14mm	13.25-14.75	62120	62205
15mm	14.25-15.75	62122	62206
16mm	15.25-16.75	62124	62207

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
17mm	16.25-17.75	62126	62208
18mm	17.25-18.75	62128	62209
19mm	18.25-19.75	62130	62210
20mm	19.25-20.75	62132	62211
21mm	20.25-21.75	62134	62212
22mm	21.25-22.75	62136	62213
23mm	22.25-23.75	62138	62214
24mm	23.25-24.75	62140	62215
25mm	24.25-25.75	62142	62216
26mm	25.25-26.75	62144	62217
27mm	26.25-27.75	62146	62218
28mm	27.25-28.75	62148	62219
29mm	28.25-29.75	62150	62220

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
30mm	29.25-30.75	62152	62221
31mm	30.25-31.75	62154	62222
32mm	31.25-32.75	62156	62223
33mm	32.25-33.75	62158	62224
34mm	33.25-34.75	62160	62225
35mm	34.25-35.75	62162	62226
36mm	35.25-36.75	62164	62227
37mm	36.25-37.75	62166	62228
38mm	37.25-38.75	62168	62229
39mm	38.25-39.75	62170	62230
40mm	39.25-40.75	62172	62231
41mm	40.25-41.75	62174	62232
42mm	41.25-42.75	62176	62233

Royal QG-42 Hex Collets – \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	44375
3/8"	0.344-0.406	44377
1/2"	0.469-0.531	44379
5/8"	0.594-0.656	44381

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/4"	0.719-0.781	44383
7/8"	0.844-0.906	44385
1"	0.969-1.031	44387
11/8"	1.094-1.156	44389

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
11/4"	1.219-1.281	44391
13/8"	1.344-1.406	44393

Royal QG-42 Square Collets – \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	44670
3/8"	0.344-0.406	44672
1/2"	0.469-0.531	44674

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
5/8"	0.594-0.656	44676
3/4"	0.719-0.781	44678
7/8"	0.844-0.906	44680

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1"	0.969-1.031	44682
11/8"	1.094-1.156	44684

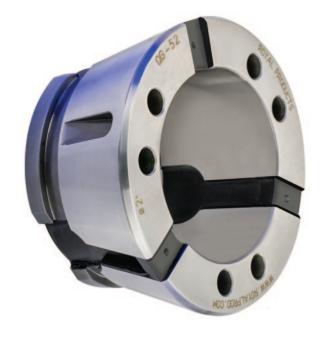
Royal QG-42 Emergency Collets – \$388 Each – See Page 54



Check out the Royal Quick-Grip™ CNC Collet Chuck Video at www.colletchucks.com



QG-52



QG-52 CAPACITY			
Bar Diameter	2.03" (51.6mm)		
Slug Diameter*	2.57" (64.3mm)		

- * See page 54 for details.
- □ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- Smooth and serrated versions for round-bore models (all others smooth only).
- □ Industry-leading 0.062" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/- 0.031".
- Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- □ Can be counter-bored for increased part capacity up to 2.57" see page 54 for details.
- Quick-ship specials available for custom shapes.
- Can utilize manual and pneumatic changing tools.







Round Metric



Serrated



Hex



Square



Emergency

Royal QG-52 Round Collets (Inch) - \$331 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number
3/16"	0.157-0.219	45600	N/A
7/32"	0.188-0.250	45601	N/A
1/4"	0.219-0.281	45602	N/A
9/32"	0.250-0.312	45603	N/A
5/16"	0.282-0.344	45604	N/A
11/32"	0.313-0.375	45605	45665
3/8"	0.344-0.406	45606	45666
13/32"	0.375-0.437	45607	45667
⁷ /16"	0.407-0.469	45608	45668
15/32"	0.438-0.500	45609	45669
1/2"	0.469-0.531	45610	45670
17/32"	0.500-0.562	45611	45671
9/16"	0.532-0.594	45612	45672
19/32"	0.563-0.625	45613	45673
5/8"	0.594-0.656	45614	45674
21/32"	0.625-0.687	45615	45675
11/16"	0.657-0.719	45616	45676
23/32"	0.688-0.750	45617	45677
3/4"	0.719-0.781	45618	45678
25/32"	0.750-0.812	45619	45679

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part Number	SERRATED Part Number
13/16"	0.782-0.844	45620	45680
27/32"	0.813-0.875	45621	45681
7/8"	0.844-0.906	45622	45682
29/32"	0.875-0.937	45623	45683
15/16"	0.907-0.969	45624	45684
31/32"	0.938-1.000	45625	45685
1"	0.969-1.031	45626	45686
1 1/32"	1.000-1.062	45627	N/A
11/16"	1.032-1.094	45628	45687
13/32"	1.063-1.125	45629	N/A
11/8"	1.094-1.156	45630	45688
15/32"	1.125-1.187	45631	N/A
13/16"	1.157-1.219	45632	45689
17/32"	1.188-1.250	45633	N/A
11/4"	1.219-1.281	45634	45690
19/32"	1.250-1.312	45635	N/A
15/16"	1.282-1.344	45636	45691
111/32"	1.313-1.375	45637	N/A
13/8"	1.344-1.406	45638	45692
113/32"	1.375-1.437	45639	N/A

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED PART NUMBER
17/16"	1.407-1.469	45640	45693
115/32"	1.438-1.500	45641	N/A
11/2"	1.469-1.531	45642	45694
117/32"	1.500-1.562	45643	N/A
19/16"	1.532-1.594	45644	45695
119/32"	1.563-1.625	45645	N/A
15/8"	1.594-1.656	45646	45696
1 ²¹ /32"	1.625-1.687	45647	N/A
111/16"	1.657-1.719	45648	45697
123/32"	1.688-1.750	45649	N/A
13/4"	1.719-1.781	45650	45698
125/32"	1.750-1.812	45651	N/A
113/16"	1.782-1.844	45652	45699
127/32"	1.813-1.875	45653	N/A
17/8"	1.844-1.906	45654	45700
129/32"	1.875-1.937	45655	N/A
115/16"	1.907-1.969	45656	45701
131/32"	1.938-2.000	45657	N/A
2"	1.969-2.031	45658	45702



QG-52



Royal QG-52 Round Collets (Metric) – \$331 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
4mm	3.25-4.75	63200	N/A
5mm	4.25-5.75	63201	N/A
6mm	5.25-6.75	63202	N/A
7mm	6.25-7.75	63203	N/A
8mm	7.25-8.75	63204	N/A
9mm	8.25-9.75	63205	63250
10mm	9.25-10.75	63206	63251
11mm	10.25-11.75	63207	63252
12mm	11.25-12.75	63208	63253
13mm	12.25-13.75	63209	63254
14mm	13.25-14.75	63210	63255
15mm	14.25-15.75	63211	63256
16mm	15.25-16.75	63212	63257
17mm	16.25-17.75	63213	63258
18mm	17.25-18.75	63214	63259
19mm	18.25-19.75	63215	63260
20mm	19.25-20.75	63216	63261

NOMINAL SIZE	RANGE (mm)	SMOOTH Part Number	SERRATED Part Number
21mm	20.25-21.75	63217	63262
22mm	21.25-22.75	63218	63263
23mm	22.25-23.75	63219	63264
24mm	23.25-24.75	63220	63265
25mm	24.25-25.75	63221	63266
26mm	25.25-26.75	63222	63267
27mm	26.25-27.75	63223	63268
28mm	27.25-28.75	63224	63269
29mm	28.25-29.75	63225	63270
30mm	29.25-30.75	63226	63271
31mm	30.25-31.75	63227	63272
32mm	31.25-32.75	63228	63273
33mm	32.25-33.75	63229	63274
34mm	33.25-34.75	63230	63275
35mm	34.25-35.75	63231	63276
36mm	35.25-36.75	63232	63277
37mm	36.25-37.75	63233	63278

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
38mm	37.25-38.75	63234	63279
39mm	38.25-39.75	63235	63280
40mm	39.25-40.75	63236	63281
41mm	40.25-41.75	63237	63282
42mm	41.25-42.75	63238	63283
43mm	42.25-43.75	63239	63284
44mm	43.25-44.75	63240	63285
45mm	44.25-45.75	63241	63286
46mm	45.25-46.75	63242	63287
47mm	46.25-47.75	63243	63288
48mm	47.25-48.75	63244	63289
49mm	48.25-49.75	63245	63290
50mm	49.25-50.75	63246	63291
51mm	50.25-51.75	63247	63292
52mm	51.25-52.75	63248	63293

Royal QG-52 Hex Collets – \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	45710
5/16"	0.282-0.344	45711
3/8"	0.344-0.406	45712
7/16"	0.407-0.469	45713
1/2"	0.469-0.531	45714
9/16"	0.532-0.594	45715
5/8"	0.594-0.656	45716
11/16"	0.657-0.719	45717
3/4"	0.719-0.781	45718

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
13/16"	0.782-0.844	45719
7/8"	0.844-0.906	45720
15/16"	0.907-0.969	45721
1"	0.969-1.031	45722
11/16"	1.032-1.094	45723
11/8"	1.094-1.156	45724
13/16"	1.156-1.219	45725
11/4"	1.219-1.281	45726
15/16"	1.281-1.344	45727

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
13/8"	1.344-1.406	45728
17/16"	1.406-1.469	45729
11/2"	1.469-1.531	45730
19/16"	1.531-1.594	45731
15/8"	1.594-1.656	45732
111/16"	1.656-1.719	45733
13/4"	1.719–1.781	45734

Royal QG-52 Square Collets – \$494 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1/4"	0.219-0.281	45740
3/8"	0.344-0.406	45742
1/2"	0.469-0.531	45744
5/8"	0.594-0.656	45746

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/4"	0.719-0.781	45748
7/8"	0.844-0.906	45750
1"	0.969-1.031	45752
11/8"	1.094-1.156	45754

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
11/4"	1.219-1.281	45756
13/8"	1.344-1.406	45758

Royal QG-52 Emergency Collets – \$388 Each – See Page 54



Check out the Royal Quick-Grip™ CNC Collet Chuck Video at www.colletchucks.com

QG-65



QG-65 CAPACITY			
Bar Diameter	2.66" (65.8mm)		
Slug Diameter*	3.40" (86.4mm)		

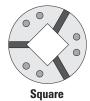
- * See page 54 for details.
- ☐ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- □ Industry-leading 0.062" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/- 0.031".
- □ Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- □ Can be counter-bored for increased part capacity up to 3.40" see page 54 for details.
- Quick-ship specials available for custom shapes.
- Can utilize manual and pneumatic changing tools.













Royal QG-65 Round Collets (Inch) - \$388 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number
3/16"	0.157-0.219	44201	N/A
7/32"	0.188-0.250	44202	N/A
1/4"	0.219-0.281	44203	N/A
9/32"	0.250-0.312	44204	N/A
5/16"	0.282-0.344	44205	N/A
11/32"	0.313-0.375	44206	44306
3/8"	0.344-0.406	44207	44307
13/32"	0.375-0.437	44208	44308
7/16"	0.407-0.469	44209	44309
15/32"	0.438-0.500	44210	44310
1/2"	0.469-0.531	44211	44311
17/32"	0.500-0.562	44212	44312
9/16"	0.532-0.594	44213	44313
19/32"	0.563-0.625	44214	44314
5/8"	0.594-0.656	44215	44315
21/32"	0.625-0.687	44216	44316
11/16"	0.657-0.719	44217	44317
23/32"	0.688-0.750	44218	44318
3/4"	0.719-0.781	44219	44319
25/32"	0.750-0.812	44220	44320
13/16"	0.782-0.844	44221	44321
27/32"	0.813-0.875	44222	44322
7/8"	0.844-0.906	44223	44323
29/32"	0.875-0.937	44224	44324
15/16"	0.907-0.969	44225	44325
31/32"	0.938-1.000	44226	44326
1"	0.969-1.031	44227	44327

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part Number	SERRATED PART NUMBER
11/32"	1.000-1.062	44228	Call
11/16"	1.032-1.094	44229	44328
13/32"	1.063-1.125	44230	Call
11/8"	1.094-1.156	44231	44329
15/32"	1.125-1.187	44232	Call
13/16"	1.157-1.219	44233	44330
17/32"	1.188-1.250	44234	Call
11/4"	1.219-1.281	44235	44331
19/32"	1.250-1.312	44236	Call
15/16"	1.282-1.344	44237	44332
111/32"	1.313-1.375	44238	Call
13/8"	1.344-1.406	44239	44333
1 13/32"	1.375-1.437	44240	Call
17/16"	1.407-1.469	44241	44334
1 15/32"	1.438-1.500	44242	Call
11/2"	1.469-1.531	44243	44335
117/32"	1.500-1.562	44244	Call
19/16"	1.532-1.594	44245	44336
119/32"	1.563-1.625	44246	Call
15/8"	1.594-1.656	44247	44337
121/32"	1.625-1.687	44248	Call
1 11/16"	1.657-1.719	44249	44338
123/32"	1.688-1.750	44250	Call
13/4"	1.719-1.781	44251	44339
125/32"	1.750-1.812	44252	Call
113/16"	1.782-1.844	44253	44340
1 ²⁷ /32"	1.813-1.875	44254	Call

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number
17/8"	1.844-1.906	44255	44341
129/32"	1.875-1.937	44256	Call
1 15/16"	1.907-1.969	44257	44342
131/32"	1.938-2.000	44279	Call
2"	1.969-2.031	44258	44343
21/32"	2.000-2.062	44259	Call
21/16"	2.032-2.094	44260	44344
23/32"	2.063-2.125	44261	Call
21/8"	2.094-2.156	44262	44345
25/32"	2.125-2.187	44263	Call
23/16"	2.157-2.219	44264	44346
27/32"	2.188-2.250	44265	Call
21/4"	2.219-2.281	44266	44347
29/32"	2.250-2.312	44267	Call
25/16"	2.282-2.344	44268	44348
211/32"	2.313-2.375	44269	Call
23/8"	2.344-2.406	44270	44349
213/32"	2.375-2.437	44271	Call
27/16"	2.407-2.469	44272	44350
215/32"	2.438-2.500	44273	Call
21/2"	2.469-2.531	44274	44351
217/32"	2.500-2.562	44275	Call
29/16"	2.532-2.594	44276	44352
219/32"	2.563-2.625	44277	N/A
25/8"	2.594-2.656	44278	N/A

QG-65



Royal QG-65 Round Collets (Metric) - \$388 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
4mm	3.25-4.75	62300	N/A
5mm	4.25-5.75	62302	N/A
6mm	5.25-6.75	62304	N/A
7mm	6.25-7.75	62306	N/A
8mm	7.25-8.75	62308	N/A
9mm	8.25-9.75	62310	62500
10mm	9.25-10.75	62312	62501
11mm	10.25-11.75	62314	62502
12mm	11.25-12.75	62316	62503
13mm	12.25-13.75	62318	62504
14mm	13.25-14.75	62320	62505
15mm	14.25-15.75	62322	62506
16mm	15.25-16.75	62324	62507
17mm	16.25-17.75	62326	62508
18mm	17.25-18.75	62328	62509
19mm	18.25-19.75	62330	62510
20mm	19.25-20.75	62332	62511
21mm	20.25-21.75	62334	62512
22mm	21.25-22.75	62336	62513
23mm	22.25-23.75	62338	62514
24mm	23.25-24.75	62340	62515

NOMINAL SIZE	RANGE (mm)	SMOOTH Part Number	SERRATED PART NUMBER
25mm	24.25-25.75	62342	62516
26mm	25.25-26.75	62344	62517
27mm	26.25-27.75	62346	62518
28mm	27.25-28.75	62348	62519
29mm	28.25-29.75	62350	62520
30mm	29.25-30.75	62352	62521
31mm	30.25-31.75	62354	62522
32mm	31.25-32.75	62356	62523
33mm	32.25-33.75	62358	62524
34mm	33.25-34.75	62360	62525
35mm	34.25-35.75	62362	62526
36mm	35.25-36.75	62364	62527
37mm	36.25-37.75	62366	62528
38mm	37.25-38.75	62368	62529
39mm	38.25-39.75	62370	62530
40mm	39.25-40.75	62372	62531
41mm	40.25-41.75	62374	62532
42mm	41.25-42.75	62376	62533
43mm	42.25-43.75	62378	62534
44mm	43.25-44.75	62380	62535
45mm	44.25-45.75	62382	62536

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED PART NUMBER
46mm	45.25-46.75	62384	62537
47mm	46.25-47.75	62386	62538
48mm	47.25-48.75	62388	62539
49mm	48.25-49.75	62390	62540
50mm	49.25-50.75	62392	62541
51mm	50.25-51.75	62394	62542
52mm	51.25-52.75	62396	62543
53mm	52.25-53.75	62398	62544
54mm	53.25-54.75	62400	62545
55mm	54.25-55.75	62402	62546
56mm	55.25-56.75	62404	62547
57mm	56.25-57.75	62406	62548
58mm	57.25-58.75	62408	62549
59mm	58.25-59.75	62410	62550
60mm	59.25-60.75	62412	N/A
61mm	60.25-61.75	62414	N/A
62mm	61.25-62.75	62416	N/A
63mm	62.25-63.75	62418	N/A
64mm	63.25-64.75	62420	N/A
65mm	64.25-65.75	62422	N/A

Royal QG-65 Hex Collets – \$622 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
5/16"	0.282-0.344	44700
3/8"	0.344-0.406	44701
7/16"	0.407-0.469	44702
1/2"	0.469-0.531	44703
9/16"	0.532-0.594	44704
5/8"	0.594-0.656	44705
11/16"	0.657-0.719	44706
3/4"	0.719-0.781	44707
13/16"	0.782-0.844	44708
7/8"	0.844-0.906	44709
¹⁵ / ₁₆ "	0.907-0.969	44710

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1"	0.969-1.031	44711
11/16"	1.032-1.094	44712
11/8"	1.094-1.156	44713
13/16"	1.156-1.219	44714
11/4"	1.219-1.281	44715
15/16"	1.281-1.344	44716
13/8"	1.344-1.406	44717
17/16"	1.406-1.469	44718
11/2"	1.469-1.531	44719
19/16"	1.531-1.594	44720
15/8"	1.594-1.656	44721

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
111/16"	1.656-1.719	44722
13/4"	1.719-1.781	44723
113/16"	1.781-1.844	44724
17/8"	1.844-1.906	44725
115/16"	1.906-1.969	44726
2"	1.969-2.031	44727
21/16"	2.031-2.094	44728
21/8"	2.094-2.156	44729
23/16"	2.156-2.219	44730
21/4"	2.219-2.281	44731

Royal QG-65 Square Collets – \$622 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/8"	0.344-0.406	44787
1/2"	0.469-0.531	44734
5/8"	0.594-0.656	44788
3/4"	0.719-0.781	44735

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
7/8"	0.844-0.906	44789
1"	0.969-1.031	44736
11/8"	1.094-1.156	44790
11/4"	1.219-1.281	44737

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
13/8"	1.344-1.406	44791
11/2"	1.469-1.531	44738
15/8"	1.594-1.656	44792
13/4"	1.719-1.781	44739

Royal QG-65 Emergency Collets – \$436 Each – See Page 54





QG-80 CAPACITY			
Bar Diameter	3.28" (80.8mm)		
Slug Diameter*	4.00" (101.6mm)		

^{*} See page 54 for details.

- ☐ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- Industry-leading 0.062" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/- 0.031".
- Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- □ Six-segment design further increases gripping torque.
- Can be counter-bored for increased part capacity up to 4.00" see page 54 for details.
- □ Can utilize manual and pneumatic changing tools.



Round Inch



Round Metric



Serrated



Hex



Square



Emergency

Royal QG-80 Round Collets* (Inch) - \$599 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number	NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number	NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part number
1/4"	0.219-0.281	44403	N/A	15/16"	1.282-1.344	44437	44537	23/8"	2.344-2.406	44471	44571
5/16"	0.282-0.344	44405	N/A	13/8"	1.344-1.406	44439	44539	27/16"	2.407-2.469	44473	44573
3/8"	0.344-0.406	44407	N/A	17/16"	1.407-1.469	44441	44541	21/2"	2.469-2.531	44475	44575
7/16"	0.407-0.469	44409	44509	11/2"	1.469-1.531	44443	44543	29/16"	2.532-2.594	44477	44577
1/2"	0.469-0.531	44411	44511	19/16"	1.532-1.594	44445	44545	25/8"	2.594-2.656	44479	44579
9/16"	0.532-0.594	44413	44513	15/8"	1.594-1.656	44447	44547	211/16"	2.657-2.719	44481	44581
5/8"	0.594-0.656	44415	44515	1 11/16"	1.657-1.719	44449	44549	23/4"	2.719-2.781	44483	44583
11/16"	0.657-0.719	44417	44517	13/4"	1.719-1.781	44451	44551	213/16"	2.782-2.844	44485	44585
3/4"	0.719-0.781	44419	44519	1 13/16"	1.782-1.844	44453	44553	27/8"	2.844-2.906	44487	44587
13/16"	0.782-0.844	44421	44521	17/8"	1.844-1.906	44455	44555	215/16"	2.907-2.969	44489	44589
7/8"	0.844-0.906	44423	44523	1 15/16"	1.907-1.969	44457	44557	3"	2.969-3.031	44491	44591
¹⁵ / ₁₆ "	0.907-0.969	44425	44525	2"	1.969-2.031	44459	44559	31/16"	3.032-3.094	44493	N/A
1"	0.969-1.031	44427	44527	21/16"	2.032-2.094	44461	44561	31/8"	3.094-3.156	44495	N/A
11/16"	1.032-1.094	44429	44529	21/8"	2.094-2.156	44463	44563	33/16"	3.157-3.219	44497	N/A
11/8"	1.094-1.156	44431	44531	23/16"	2.157-2.219	44465	44565	31/4"	3.219-3.281	44499	N/A
13/16"	1.157-1.219	44433	44533	21/4"	2.219-2.281	44467	44567				
11/4"	1.219-1.281	44435	44535	25/16"	2.282-2.344	44469	44569				

^{*}Royal QG-80 collets have six segments instead of three for increased gripping torque.





Royal QG-80 Round Collets* (Metric) – \$599 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number	NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number	NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
7mm	6.25-7.75	62600	N/A	32mm	31.25-32.75	62650	62821	57mm	56.25-57.75	62700	62846
8mm	7.25-8.75	62602	N/A	33mm	32.25-33.75	62652	62822	58mm	57.25-58.75	62702	62847
9mm	8.25-9.75	62604	N/A	34mm	33.25-34.75	62654	62823	59mm	58.25-59.75	62704	62848
10mm	9.25-10.75	62606	N/A	35mm	34.25-35.75	62656	62824	60mm	59.25-60.75	62706	62849
11mm	10.25-11.75	62608	62800	36mm	35.25-36.75	62658	62825	61mm	60.25-61.75	62708	62850
12mm	11.25-12.75	62610	62801	37mm	36.25-37.75	62660	62826	62mm	61.25-62.75	62710	62851
13mm	12.25-13.75	62612	62802	38mm	37.25-38.75	62662	62827	63mm	62.25-63.75	62712	62852
14mm	13.25-14.75	62614	62803	39mm	38.25-39.75	62664	62828	64mm	63.25-64.75	62714	62853
15mm	14.25-15.75	62616	62804	40mm	39.25-40.75	62666	62829	65mm	64.25-65.75	62716	62854
16mm	15.25-16.75	62618	62805	41mm	40.25-41.75	62668	62830	66mm	65.25-66.75	62718	62855
17mm	16.25-17.75	62620	62806	42mm	41.25-42.75	62670	62831	67mm	66.25-67.75	62720	62856
18mm	17.25-18.75	62622	62807	43mm	42.35-43.75	62672	62832	68mm	67.25-68.75	62722	62857
19mm	18.25-19.75	62624	62808	44mm	43.25-44.75	62674	62833	69mm	68.25-69.75	62724	62858
20mm	19.25-20.75	62626	62809	45mm	44.25-45.75	62676	62834	70mm	69.25-70.75	62726	62859
21mm	20.25-21.75	62628	62810	46mm	45.25-46.75	62678	62835	71mm	70.25-71.75	62728	62860
22mm	21.25-22.75	62630	62811	47mm	46.25-47.75	62680	62836	72mm	71.25-72.75	62730	62861
23mm	22.25-23.75	62632	62812	48mm	47.25-48.75	62682	62837	73mm	72.25-73.75	62732	62862
24mm	23.25-24.75	62634	62813	49mm	48.25-49.75	62684	62838	74mm	73.25-74.75	62734	62863
25mm	24.25-25.75	62636	62814	50mm	49.25-50.75	62686	62839	75mm	74.25-75.75	62736	62864
26mm	25.25-26.75	62638	62815	51mm	50.25-51.75	62688	62840	76mm	75.25-76.75	62738	62865
27mm	26.25-27.75	62640	62816	52mm	51.25-52.75	62690	62841	77mm	76.25-77.75	62740	62866
28mm	27.25-28.75	62642	62817	53mm	52.25-53.75	62692	62842	78mm	77.25-78.75	62742	N/A
29mm	28.25-29.75	62644	62818	54mm	53.25-54.75	62694	62843	79mm	78.25-79.75	62744	N/A
30mm	29.25-30.75	62646	62819	55mm	54.25-55.75	62696	62844	80mm	79.25-80.75	62746	N/A
31mm	30.25-31.75	62648	62820	56mm	55.25-56.75	62698	62845				

^{*}Royal QG-80 collets have six segments instead of three for increased gripping torque.

Royal QG-80 Hex Collets* – \$925 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBE
3/8"	0.344-0.406	44778	13/16"	1.156-1.219	44752	2"	1.969-2.031	44765
⁷ /16"	0.407-0.469	44740	11/4"	1.219-1.281	44753	21/16"	2.031-2.094	44766
1/2"	0.469-0.531	44741	1 ⁵ / ₁₆ "	1.281-1.344	44754	21/8"	2.094-2.156	44767
9/16"	0.532-0.594	44742	13/8"	1.344-1.406	44755	23/16"	2.156-2.219	44768
5/8"	0.594-0.656	44743	17/16"	1.406-1.469	44756	21/4"	2.219-2.281	44769
11/16"	0.657-0.719	44744	11/2"	1.469-1.531	44757	25/16"	2.281-2.344	44770
3/4"	0.719-0.781	44745	19/16"	1.531-1.594	44758	23/8	2.344-2.406	44771
¹³ / ₁₆ "	0.782-0.844	44746	15/8"	1.594-1.656	44759	27/16"	2.406-2.469	44772
7/8"	0.844-0.906	44747	1 11/16"	1.656-1.719	44760	21/2"	2.469-2.531	44773
¹⁵ / ₁₆ "	0.907-0.969	44748	13/4"	1.719-1.781	44761	29/16"	2.531-2.594	44774
1"	0.969-1.031	44749	1 13/16"	1.781-1.844	44762	25/8"	2.594-2.656	44775
11/16"	1.032-1.094	44750	17/8"	1.844-1.906	44763	211/16"	2.656-2.719	44776
11/8"	1.094-1.156	44751	1 15/16"	1.906-1.969	44764	23/4"	2.719-2.781	44777

^{*}Royal QG-80 collets have six segments instead of three for increased gripping torque.

Royal QG-80 Square Collets* - \$925 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/8"	0.344-0.406	44793	1"	0.969-1.031	44782
1/2"	0.469-0.531	44780	11/8"	1.094-1.156	44796
5/8"	0.594-0.656	44794	11/4"	1.219-1.281	44783
3/4"	0.719-0.781	44781	13/8"	1.344-1.406	44797
7/8"	0.844-0.906	44795	11/2"	1.469-1.531	44784

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
15/8"	1.594-1.656	44798
13/4"	1.719-1.781	44785
17/8"	1.844-1.906	44799
2"	1.969-2.031	44786

Royal QG-80 Emergency Collets – \$658 Each – See Page 54



^{*}Royal QG-80 collets have six segments instead of three for increased gripping torque.





QG-100	CAPACITY
Bar Diameter	4.03" (100.8mm)
Slug Diameter*	5.15" (130.8mm)

- * See page 54 for details.
- ☐ Huge inventory of Round, Hex, Square, and Emergency styles always in stock, ready for same-day shipping.
- Smooth and serrated versions for round-bore models (all others smooth only).
- Industry-leading 0.080" gripping range covers a wide range of part diameters. Collets are ground to nominal size and have a range of +/- 0.040".
- Parallel-grip ensures full-length part contact for maximum grip force, rigidity, and accuracy.
- □ Six-segment design further increases gripping torque.
- □ Can be counter-bored for increased part capacity up to 5.15" see page 54 for details.
- Quick-ship specials available for custom shapes.
- Utilizes pneumatic changing tool.



Round Inch



Round Metric



Serrated



Hex



Square



Emergency

Royal QG-100 Round Collets* (Inch) - \$895 Each

NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number	NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number	NOMINAL SIZE	RANGE (INCHES)	SMOOTH Part number	SERRATED Part Number
5/8"	0.585-0.665	45012	N/A	1 13/16"	1.773-1.853	45031	45206	3"	2.960-3.040	45050	45225
11/16"	0.648-0.728	45013	N/A	17/8"	1.835-1.915	45032	45207	31/16"	3.023-3.103	45051	45226
3/4"	0.710-0.790	45014	N/A	1 15/16"	1.898-1.978	45033	45208	31/8"	3.085-3.165	45052	45227
13/16"	0.773-0.853	45015	N/A	2"	1.960-2.040	45034	45209	33/16"	3.148-3.228	45053	45228
7/8"	0.835-0.915	45016	N/A	21/16"	2.023-2.103	45035	45210	31/4"	3.210-3.290	45054	45229
15/16"	0.898-0.978	45017	N/A	21/8"	2.085-2.165	45036	45211	35/16"	3.273-3.353	45055	45230
1"	0.960-1.040	45018	N/A	23/16"	2.148-2.228	45037	45212	33/8"	3.335-3.415	45056	45231
1 1/16"	1.023-1.103	45019	N/A	21/4"	2.210-2.290	45038	45213	37/16"	3.398-3.478	45057	45232
11/8"	1.085-1.165	45020	N/A	25/16"	2.273-2.353	45039	45214	31/2"	3.460-3.540	45058	45233
13/16"	1.148-1.228	45021	N/A	23/8"	2.335-2.415	45040	45215	39/16"	3.523-3.603	45059	45234
11/4"	1.210-1.290	45022	N/A	27/16"	2.398-2.478	45041	45216	35/8"	3.585-3.665	45060	45235
15/16"	1.273-1.353	45023	N/A	21/2"	2.460-2.540	45042	45217	311/16"	3.648-3.728	45061	45236
13/8"	1.335-1.415	45024	N/A	29/16"	2.523-2.603	45043	45218	33/4"	3.710-3.790	45062	45237
17/16"	1.398-1.478	45025	N/A	25/8"	2.585-2.665	45044	45219	313/16"	3.773-3.853	45063	N/A
11/2"	1.460-1.540	45026	45201	211/16"	2.648-2.728	45045	45220	37/8"	3.835-3.915	45064	N/A
19/16"	1.523-1.603	45027	45202	23/4"	2.710-2.790	45046	45221	315/16"	3.898-3.978	45065	N/A
15/8"	1.585-1.665	45028	45203	213/16"	2.773-2.853	45047	45222	4"	3.960-4.040	45066	N/A
1 11/16"	1.648-1.728	45029	45204	27/8"	2.835-2.915	45048	45223				
13/4"	1.710-1.790	45030	45205	215/16"	2.898-2.978	45049	45224				

^{*}Royal QG-100 collets have six segments instead of three for increased gripping torque.





Royal QG-100 Round Collets* (Metric) – \$895 Each

NOMINAL SIZE	RANGE (mm)	SMOOTH Part Number	SERRATED Part number	NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part number	NOMINAL SIZE	RANGE (mm)	SMOOTH Part number	SERRATED Part Number
16mm	15.0-17.0	62900	N/A	45mm	44.0-46.0	62958	63107	74mm	73.0-75.0	63016	63136
17mm	16.0-18.0	62902	N/A	46mm	45.0-47.0	62960	63108	75mm	74.0-76.0	63018	63137
18mm	17.0-19.0	62904	N/A	47mm	46.0-48.0	62962	63109	76mm	75.0-77.0	63020	63138
19mm	18.0-20.0	62906	N/A	48mm	47.0-49.0	62964	63110	77mm	76.0-78.0	63022	63139
20mm	19.0-21.0	62908	N/A	49mm	48.0-50.0	62966	63111	78mm	77.0-79.0	63024	63140
21mm	20.0-22.0	62910	N/A	50mm	49.0-51.0	62968	63112	79mm	78.0-80.0	63026	63141
22mm	21.0-23.0	62912	N/A	51mm	50.0-52.0	62970	63113	80mm	79.0-81.0	63028	63142
23mm	22.0-24.0	62914	N/A	52mm	51.0-53.0	62972	63114	81mm	80.0-82.0	63030	63143
24mm	23.0-25.0	62916	N/A	53mm	52.0-54.0	62974	63115	82mm	81.0-83.0	63032	63144
25mm	24.0-26.0	62918	N/A	54mm	53.0-55.0	62976	63116	83mm	82.0-84.0	63034	63145
26mm	25.0-27.0	62920	N/A	55mm	54.0-56.0	62978	63117	84mm	83.0-85.0	63036	63146
27mm	26.0-28.0	62922	N/A	56mm	55.0-57.0	62980	63118	85mm	84.0-86.0	63038	63147
28mm	27.0-29.0	62924	N/A	57mm	56.0-58.0	62982	63119	86mm	85.0-87.0	63040	63148
29mm	28.0-30.0	62926	N/A	58mm	57.0-59.0	62984	63120	87mm	86.0-88.0	63042	63149
30mm	29.0-31.0	62928	N/A	59mm	58.0-60.0	62986	63121	88mm	87.0-89.0	63044	63150
31mm	30.0-32.0	62930	N/A	60mm	59.0-61.0	62988	63122	89mm	88.0-90.0	63046	63151
32mm	31.0-33.0	62932	N/A	61mm	60.0-62.0	62990	63123	90mm	89.0-91.0	63048	63152
33mm	32.0-34.0	62934	N/A	62mm	61.0-63.0	62992	63124	91mm	90.0-92.0	63050	63153
34mm	33.0-35.0	62936	N/A	63mm	62.0-64.0	62994	63125	92mm	91.0-93.0	63052	63154
35mm	34.0-36.0	62938	N/A	64mm	63.0-65.0	62996	63126	93mm	92.0-94.0	63054	63155
36mm	35.0-37.0	62940	N/A	65mm	64.0-66.0	62998	63127	94mm	93.0-95.0	63056	63156
37mm	36.0-38.0	62942	N/A	66mm	65.0-67.0	63000	63128	95mm	94.0-96.0	63058	63157
38mm	37.0-39.0	62944	63100	67mm	66.0-68.0	63002	63129	96mm	95.0-97.0	63060	63158
39mm	38.0-40.0	62946	63101	68mm	67.0-69.0	63004	63130	97mm	96.0-98.0	63062	63159
40mm	39.0-41.0	62948	63102	69mm	68.0-70.0	63006	63131	98mm	97.0-99.0	63064	63160
41mm	40.0-42.0	62950	63103	70mm	69.0-71.0	63008	63132	99mm	98.0-100.0	63066	63161
42mm	41.0-43.0	62952	63104	71mm	70.0-72.0	63010	63133	100mm	99.0-101.00	63068	63162
43mm	42.0-44.0	62954	63105	72mm	71.0-73.0	63012	63134				
44mm	43.0-45.0	62956	63106	73mm	72.0-74.0	63014	63135				

^{*}Royal QG-100 collets have six segments instead of three for increased gripping torque.

Royal QG-100 Hex Collets* – \$1,245 Each

NOMINAL SIZ	ZE RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
3/4"	0.710-0.790	44904	15/8"	1.585-1.665	44918	21/2"	2.460-2.540	44932
7/8"	0.835-0.915	44906	13/4"	1.710-1.790	44920	25/8"	2.585-2.665	44934
1"	0.960-1.040	44908	17/8"	1.835-1.915	44922	23/4"	2.710-2.790	44936
11/8"	1.085-1.165	44910	2"	1.960-2.040	44924	27/8"	2.835-2.915	44938
11/4"	1.210-1.290	44912	21/8"	2.085-2.165	44926	3"	2.960-3.040	44940
13/8"	1.335-1.415	44914	21/4"	2.210-2.290	44928	31//8	3.085-3.165	44942
11/2"	1.460-1.540	44916	23/8"	2.335-2.415	44930	31/4"	3.210-3.290	44944

^{*}Royal QG-100 collets have six segments instead of three for increased gripping torque.

Royal QG-100 Square Collets* – \$1,245 Each

NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER	NOMINAL SIZE	RANGE (INCHES)	PART NUMBER
1"	0.960-1.040	44950	15/8"	1.585-1.665	44960	21/4"	2.210-2.290	44970
11/8"	1.085-1.165	44952	13/4"	1.710-1.790	44962	23/8"	2.335-2.415	44972
11/4"	1.210-1.290	44954	17/8"	1.835-1.915	44964	21/2"	2.460-2.540	44974
13/8"	1.335-1.415	44956	2"	1.960-2.040	44966	25/8"	2.585-2.665	44976
11/2"	1.460-1.540	44958	21/8"	2.085-2.165	44968	23/4"	2.710-2.790	44978

^{*}Royal QG-100 collets have six segments instead of three for increased gripping torque.

Royal QG-100 Emergency Collets* - \$1,085 Each - See Page 54



ROYAL QUICK-GRIP™ EMERGENCY COLLETS



- □ Semi-hard Quick-GripTM emergency collets are designed to be machined in-place by the user to accommodate special sizes, shapes, steps, etc.
- Available in assorted pilot hole sizes to minimize machining time.
- Collets can be counter-bored beyond standard capacity, eliminating the need for a three-jaw chuck on many jobs. The chart below provides some basic counter-bore guidelines, but many other diameter/depth combinations are possible. Please contact Royal for additional information.
- Boring fixture holds collet segments firmly in-place and puts collet under slight compression to ensure accuracy and roundness during machining.
 Order fixture separately.

Royal Quick-Grip™ Emergency Collets

FITS CHUCK Model	PILOT HOLE SIZE	PART NUMBER	PRICE
QG-32	5mm (0.20")	44397	\$388
0G-42	5mm (0.20")	44187	388
QG-42	15mm (0.59")	44188	388
QG-52	8mm (0.31")	44395	388
QQ-32	15mm (0.59")	44396	388
	8mm (0.31")	44353	436
QG-65	20mm (0.79")	44354	436
	30mm (1.18")	44355	436
	8mm (0.31")	44360	658
QG-80	20mm (0.79")	44361	658
	40mm (1.57")	44362	658
	30mm (1.18")	44367	1,085
QG-100	45mm (1.77")	44368	1,085
	65mm (2.56")	44369	1,085

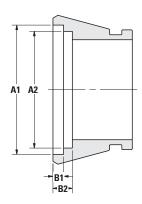


Royal Boring Fixtures

COLLET MODEL	PART NUMBER	PRICE	
QG-32	44399	\$233	
QG-42	44082	233	
QG-52	44094	233	
QG-65	44083	326	
QG-80	44088	537	
QG-100	44089	645	

Royal Quick-Grip™ Collet Counter-Bore Guidelines





- □ The parameters shown represent a sampling of counter-bore possibilities. Other diameter/depth combinations are possible. Please contact Royal with your specific requirements.
- ☐ For precise z-axis positioning, best practice is to use a Royal stop.
- Users can counter-bore their own emergency collets, or order to size as hardened and ground specials.
- □ For a better understanding of counter-bore collets and their use, please contact one of our applications engineers at 1-800-645-4174.

COLLET MODEL	A1	B1	A2	B2
QG-32	1.81	0.22	1.38	0.88
QG-42	2.62	0.28	2.53	0.39
QG-52	2.57	0.28	2.49	0.50
QG-65	3.40	0.28	3.07	0.51
QG-80	4.00	0.28	3.66	0.51
QG-100	5.15	0.28	4.61	0.79

ROYAL CUSTOM QUICK-GRIP™ COLLETS



In addition to the thousands of standard Quick-Grip™ Collets we stock for same-day shipping, Royal also offers extensive design and manufacturing services for custom collets to suit unique workpiece shapes. The two main applications for custom collets are:

- Second-op turning where the gripping surface is not cylindrical.
- Milling applications where a Royal Power-Block™ Collet Fixture provides a superior workholding solution over conventional vises and prismatic fixtures.

Shown below are a few examples to highlight some of our capabilities. Please give one of our applications engineers a call today to discuss how custom Quick-Grip™ Collets can help optimize your manufacturing processes.



Have a Question? Give One of Our Engineers a Call at 1-800-645-4174





ROYAL QUICK-GRIP™ S-TYPE MASTER COLLETS

Occasionally, customers express interest in using S-type collet pads to grip their parts. Although this outdated technology is typically not the best choice for most workholding applications, S-type collet pads can be utilized with Royal Quick-Grip™ CNC Collet Chucks via our Quick-Grip™ S-Type Master Collets. These master collets are available for Royal QG-65 and QG-80 chuck models, and are capable of accepting S-20, S-26, and S-30 collet pads.

- □ It is important to note that the master collet must be installed in the chuck prior to pad installation, thereby mitigating the system's quick-change advantage.
- □ Royal QG-80 master collets contain four segments instead of our traditional six, requiring the use of a special four-segment changing tool (sold separately below). The model 65 utilizes the same installation tool as our standard QG-65 collets.
- Due to the stacking of tolerances and complex geometry, the use of S-type collet pads will result in a significant reduction in accuracy. Most S-pad manufacturers will not guarantee their pads to run better than 0.001" − 0.0025" TIR. By contrast, Royal hardened and ground Quick-Grip™ collets are quaranteed accurate to 0.0002" TIR.
- □ The use of S-type pads reduces overall Quick-Grip™ chucking capacity. See chart below.



Royal Quick-Grip™ S-Type Master Collets

CHUCK Model	S-TYPE PAD Model	MAXIMUM PAD Capacity*	MASTER COLLET Part number	PRICE**
QG-65	S-20	2.00	44196	\$732
QG-80	S-26	2.63	44197	1,055
QG-80	S-30	3.00	44198	1,055

^{*}Please note – normal thru-capacity is reduced when using S-type master collets and pads.

^{**}S-type pads not included with master collet. Order pads separately through your local tooling supplier.



Royal Collet Installation Tool For Use With Quick-Grip™ S-Type Master Collets

MASTER COLLET Model	NUMBER OF Segments	PART Number	PRICE
QG-65	3	44098	\$653
QG-80	4*	44199*	838

^{*}Please note that the model 80 installation tool is not the same as the one offered for our regular QG-80 collets because our hardened and ground QG-80 collets have six segments while the QG-80 master collet has four segments.



ROYAL QG-100 TO QG-65 ADAPTER

Use Smaller Diameter QG-65 Quick-Grip™ Collets in a QG-100 Collet Chuck!

- □ Brings added versatility to your Royal QG-100 Collet Chucks by enabling QG-65 Collets to be used on small diameter jobs
- □ Hold parts as small as 3/16th diameter in a QG-100 system.
- □ Minimal loss of accuracy 0.0008" TIR or better on bore of QG-65 collet when using adapter.

DESCRIPTION	PART NUMBER	PRICE
QG-100 to QG-65 Adapter	44190	\$2,467





QG-65 collet sold separately

