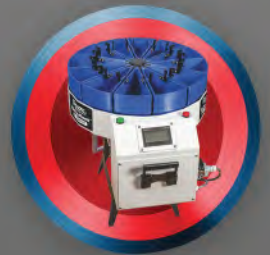
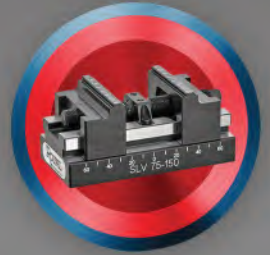


NEW PRODUCTS GUIDE 2024

SIX NEW INNOVATIVE MACHINE TOOL
PERFORMANCE ACCESSORIES FROM ROYAL



MULTI-TASKING CHUCK

NEW



A revolutionary 3-jaw chuck, collet chuck, and I.D. workholding system all-in-one. Handles every job and eliminates the need to change out your lathe workholding.

QG-65 COMBO CHUCK

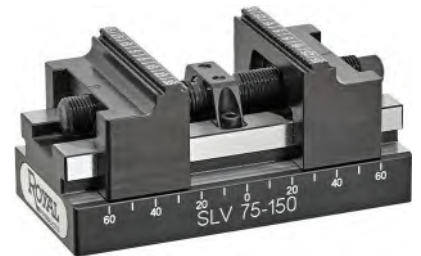
NEW



Switching from O.D. to I.D. gripping is a snap with the Royal Combo Chuck. Perfect for sub-spindles because the Accu-Length™ design guarantees precise part transfer.

SLV™ - STURDY LITTLE VISE

NEW



Tremendous grip force for more aggressive chip removal. Unique box way jaw design and elevated spindle combine to provide extreme rigidity and eliminate jaw lift.

POWER-BLOCK QG-32 FIXTURE

NEW



Actuated either by air or hydraulics. Compact footprint enables close ganging for multi-part applications. Booster piston available for extra clamping force.

QG-100/QG-65 ADAPTER

NEW



Brings added versatility to your Royal QG-100 Collet Chucks by enabling QG-65 collets to be used on small diameter jobs.

ROTA-RACK™ COMPACT

NEW

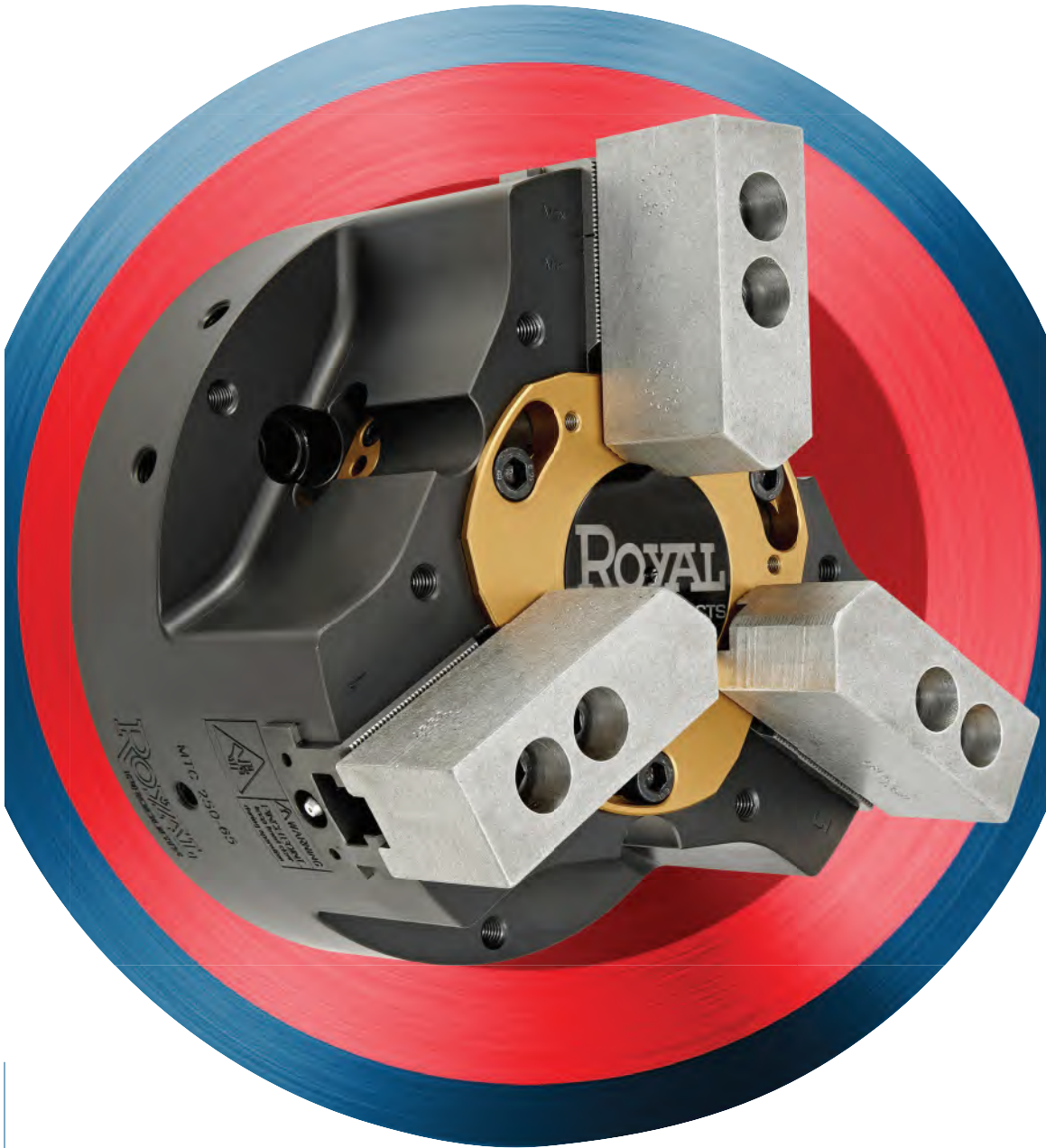


Designed specifically for small parts (Swiss applications). Twelve-bucket design for easy part segregation. Simple programming via the PLC, or index via M-code.



MTC™ MULTI-TASKING CHUCK

A REVOLUTIONARY 3-JAW CHUCK, COLLET CHUCK,
AND I.D. WORKHOLDING SYSTEM ALL-IN-ONE.





ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK

THE ROYAL MTC™ IS A REVOLUTIONARY 3-JAW CHUCK, COLLET CHUCK, AND I.D. WORKHOLDING SYSTEM ALL-IN-ONE

No Need to Ever Change Your Chuck Again

Switching your lathe workholding as jobs demand can be a difficult process and eats up valuable production time. But no longer! With the Royal MTC™ it's a snap to change over between:

NEW

- ✓ 3-Jaw Chuck
- ✓ Quick-Grip™ CNC Collet Chuck
- ✓ I.D. Workholding System
- ✓ And much more...



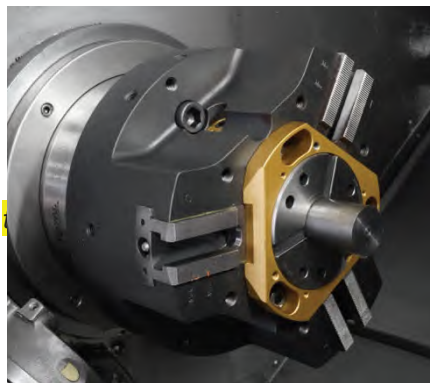
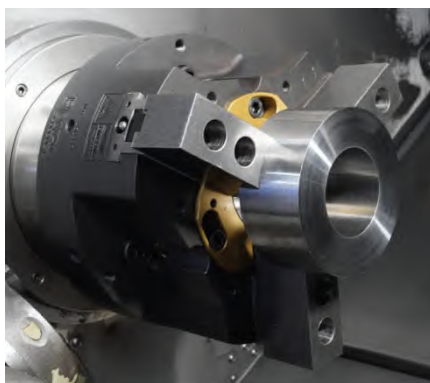
Converting Between Jaw/Collet/I.D. Applications Takes Just Minutes and is Accomplished by **Simply Swapping the Quick-Change Center Hub**. The Chuck Body Never Needs to be Removed from the Lathe Spindle!

ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK



ROYAL MTC™ ADVANTAGES



- The Royal MTC™ Multi-Tasking Chuck is the only chuck you'll ever need for your CNC lathes.
- This is a **true all-in-one workholding device** designed to handle large diameter parts, small diameter parts, and parts suited for I.D. gripping.
- The key to this revolutionary all-in-one design is the quick-change center hubs – there is no need to ever remove the chuck body from the lathe spindle.
- The center hubs are hardened, precision ground, and TiN coated for exceptional accuracy and wear resistance.
- Extreme rigidity is achieved through a **common-sense design** based upon a 3-jaw chuck with collet and I.D. capabilities - not a collet chuck with a heavy jaw-chuck hanging off the front end.
- Faster and much more cost-effective than changing out various chucks or using a "quick-change" adapter plate system that requires a crane and staging cart.
- High accuracy - jaw repeatability is 0.0002" - 0.0003", and collet hub taper is guaranteed to be within 0.0003" TIR.
- All chuck bodies are **relief milled to optimize tool clearance and reduce rotational mass**.
- Available in 8", 10", 12", and 15" sizes
- All Royal MTC™ Multi-Tasking Chucks include the following:
 - A 3-Jaw chuck featuring industry standard 60°x1.5mm base jaws to accept a wide array of top jaws.
 - A Quick-Grip™ center hub hardened and precision ground to accept Royal QG Collets.
 - A thru-hole center hub to accommodate long-parts when using as a jaw chuck.
 - A center cap to block chips from entering the drawtube when using the jaw chuck for slug work.
 - A removeable internal workstop for use with both jaws and collets.
 - A grease gun and tube of chuck grease.
 - A custom-machined drawtube connector for hassle-free installation.
- **Two-jaw chucks, face drivers, Morse Taper adapters, and alternative collet adapters (5C, 3J, etc.) are also available as special order.**
- The center hub for I.D. work is sold separately and is compatible with all Royal I.D. mandrels, stops, and sleeves (see full catalog for details).

**View the Royal MTC™ in action
at royalproducts.com**

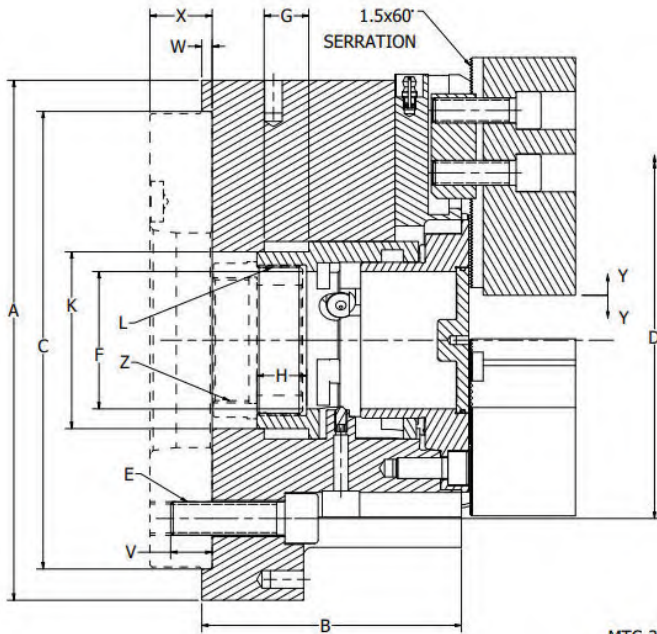




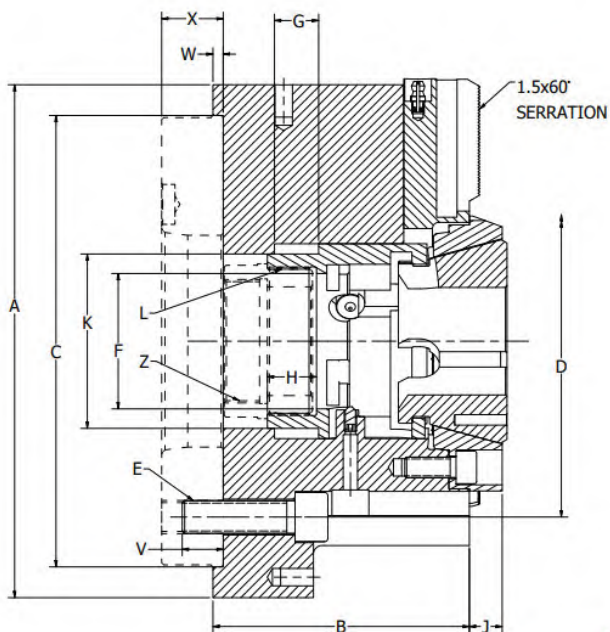
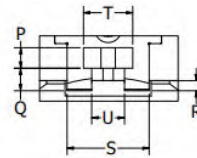
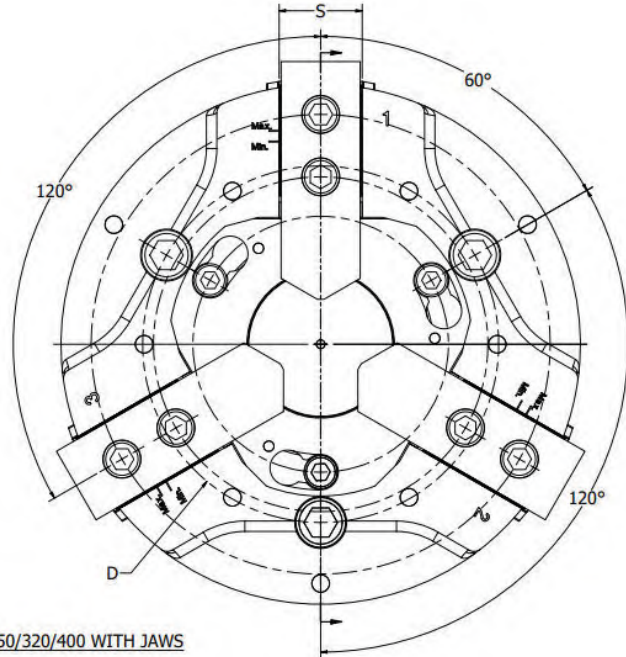
ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK

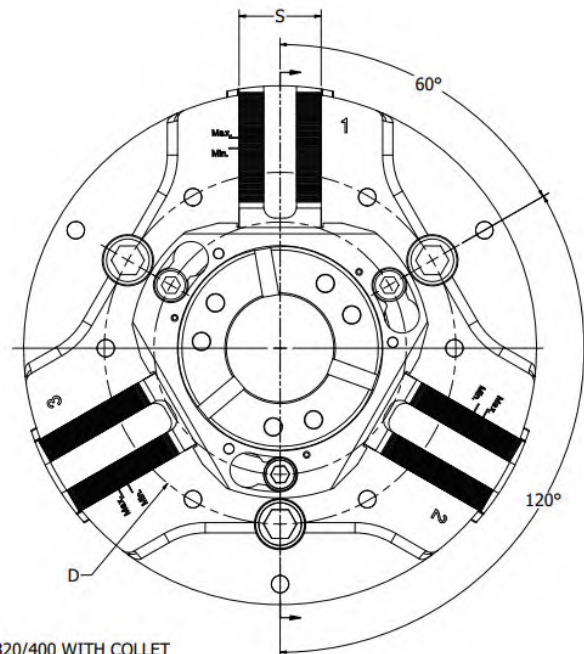
DIMENSIONS



MTC-200/250/320/400 WITH JAWS



MTC-200/250/320/400 WITH COLLET



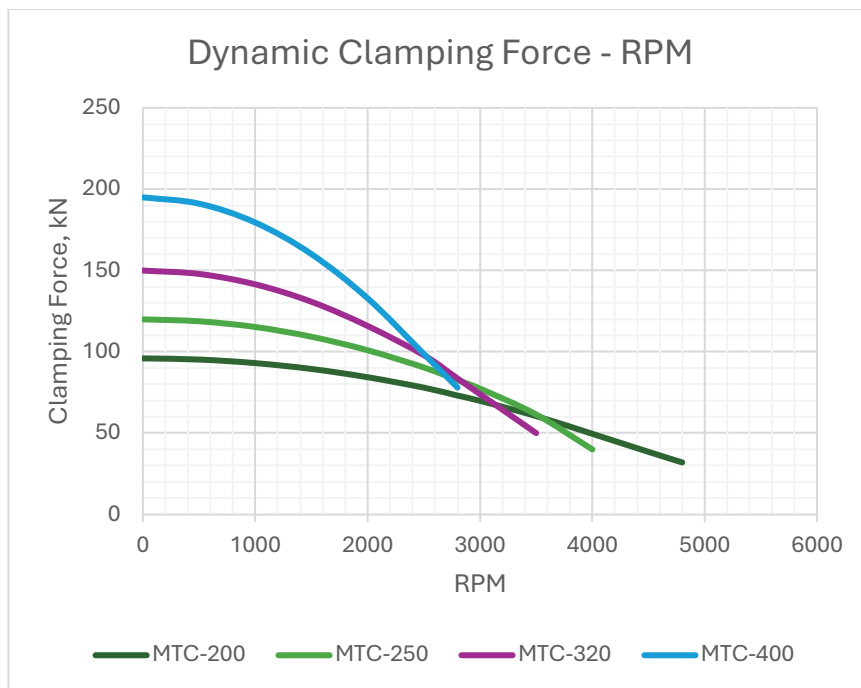
ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK



DIMENSIONS

	MTC-200		MTC-250		MTC-320		MTC-400	
	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric
A	7.87	200	9.84	250	12.60	320	15.75	400
B	4.33	110	4.92	125	5.91	150	6.89	175
C	6.69	170	8.66	220	11.02	280	13.78	350
D	5.25	133.4	6.75	171.4	9.25	235	12.21	310
E	M12		M16		M20		M20	
F	2.09	53	2.60	66	3.19	81	4.09	104
G (optimal)	0.79	20	0.95	24	1.10	28	1.34	34
G (minimum)	0.59	15	0.71	18	0.83	21	1.00	25.5
H	0.91	23	0.95	24	1.10	28	1.50	38
J	0.43	11	0.63	16	0.63	16	0.71	18
K	2.95	75	3.35	85	4.13	105	5.91	150
L	M64x1.5		M72x1.5		M92x2		M130x2	
P	0.39	10	0.39	10	0.47	12	0.59	15
Q	0.43	11	0.43	11	0.47	12	0.51	13
R	0.20	5	0.20	5	0.20	5	0.20	5
S	1.58	40	1.58	40	1.77	45	2.05	52
T	0.95	24	0.95	24	1.19	30.1	1.19	30.1
U	0.63	16	0.63	16	0.83	21	0.83	21
V	0.79	20	0.79	20	1.02	26	0.98	25
W	0.20	5	0.20	5	0.20	5	0.20	5
X	Varies		Varies		Varies		Varies	
Y	+/- 0.08	+/- 2.0	+/- 0.10	+/- 2.5	+/- 0.12	+/- 3.0	+/- 0.14	+/- 3.6
Z	Varies		Varies		Varies		Varies	



Warning: While the static clamping force of all three-jaw chucks is a function of the machine's hydraulic actuator (piston surface area, input pressure, etc.), it is essential to understand that the dynamic clamping force acting on a workpiece is affected by additional factors such as rpm and top jaw weight. This graph represents the maximum dynamic clamping force of all Royal MTC™ chuck models throughout the stated rpm range.

Be sure to understand the relationship between input pressure and drawtube axial force for your machine's specific hydraulic actuator and **ensure that all relevant parameters are sufficient to keep workpieces safely clamped.** If you have any questions or concerns regarding the safe use of this product, please contact a Royal Products applications engineer at 1-800-645-4174 before use.

MTC-200 Top Jaw Weight 4.9 lbs.
MTC-250 Top Jaw Weight 6.2 lbs.
MTC-320 Top Jaw Weight 7.9 lbs.
MTC-400 Top Jaw Weight 10.1 lbs.



ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK

SPECIFICATIONS

Royal MTC™ with Chuck Jaws

	MTC-200		MTC-250		MTC-320		MTC-400	
	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric
Optimal Drawtube Stroke	0.79	20	0.95	24	1.10	28	1.34	34
Clamping Range (Jaw/Diameter) at Optimal Drawtube Stroke	0.16/0.32	4/8	0.20/0.40	5/10	0.24/0.48	6/12	0.28/0.56	7.2/14.4
Minimum Drawtube Stroke	0.59	15	0.71	18	0.83	21	1.00	25.5
Clamping Range (Jaw/Diameter) at Minimum Drawtube Stroke	0.12/0.24	3/6	0.15/0.30	3.75/7.5	0.18/0.35	4.5/9	0.21/0.43	5.4/10.8
Maximum Actuating Force	9,217 (lbs.)	41 (kN)	11,690 (lbs.)	52 (kN)	14,613 (lbs.)	65 (kN)	19,109 (lbs.)	85 (kN)
Clamping Force per Jaw	7,194 (lbs.)	32 (kN)	8,992 (lbs.)	40 (kN)	11,240 (lbs.)	50 (kN)	14,613 (lbs.)	65 (kN)
Total Clamping Force	21,582 (lbs.)	96 (kN)	26,977 (lbs.)	120 (kN)	33,721 (lbs.)	150 (kN)	43,838 (lbs.)	195 (kN)
Maximum RPM	4800		4000		3500		2800	
Weight*	44 (lbs.)	20 (kg)	66 (lbs.)	30 (kg)	132 (lbs.)	60 (kg)	249 (lbs.)	113 (kg)

*Chuck only. Does not include backplate or top jaws.

Royal MTC™ with Collet

	MTC-200		MTC-250		MTC-320		MTC-400	
	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric
QG Collet Model	QG-52		QG-65		QG-80		QG-100	
Minimum Actuating Stroke	0.16	4	0.16	4	0.16	4	0.16	4
Maximum Actuating Force	9,217 (lbs.)	41 (kN)	10,116 (lbs.)	45 (kN)	11,240 (lbs.)	50 (kN)	14,613 (lbs.)	65 (kN)
Clamping Force	21,132 (lbs.)	94 (kN)	23,605 (lbs.)	105 (kN)	25,853 (lbs.)	115 (kN)	33,721 (lbs.)	150 (kN)
Maximum RPM	5500		4600		4000		3200	

Important: Please ensure that your machine's hydraulic actuator meets at least the minimum drawtube stroke requirements as outlined above. Also see warning on the preceding page to ensure that your specific actuator/input pressure achieves adequate dynamic clamping force to eliminate the risk of a workpiece becoming dislodged during use. If you have any questions or concerns regarding the safe use of this product, please contact one of our applications engineers at 1-800-645-4174.

ROYAL MTC™ MULTI-TASKING CHUCK

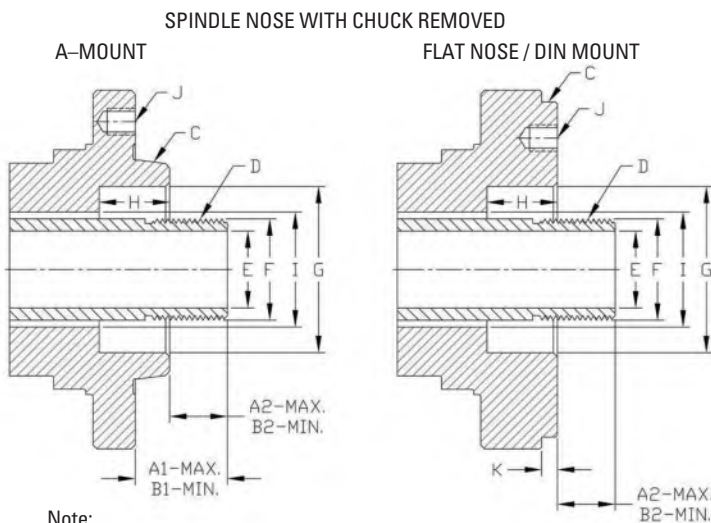
A TRUE ALL-IN-ONE CNC LATHE CHUCK



WHAT TO KNOW BEFORE YOU ORDER

In addition to the safety considerations regarding actuator force and drawtube stroke (highlighted on the previous pages), Royal may also require some specific dimensional information for your lathe to ensure that we supply the correct backplate and drawtube connector.

We maintain an extensive machine tool database populated with thousands of actuator and drawtube specs, but sometimes changes/substitutions are made to the machine that we aren't aware of. **For safety purposes and to ensure a hassle-free installation experience, the information requested below may need to be supplied with your MTC™ order.** If you have any questions, please contact a Royal Products applications engineer at 1-800-645-4174.



Note:
A drawtube sometimes unscrews from the actuator when the 3-jaw chuck is removed. Make sure drawtube is fully screwed in before taking dimensions.

Important – review your machine's tool interference diagram to ensure there are no interference issues with tool eye, parts catcher, guarding, etc.

Machine (make & model) _____
 Machine Serial Number _____
 Existing Chuck (make & Model) _____
 (if applicable)
 Actuator (make & model) _____
 Spindle - Main __ Sub __
 A1 – Max. (tube extended) _____
 B1 – Min. (tube retracted) _____
 A2 – Max. (tube extended) _____
 B2 – Min. (tube retracted) _____
 C-Spindle Type & Size _____
 (i.e. A2-6, 110mm, etc.)
 D-Drawtube Thread _____
 Pitch _____
 Internal or External _____
 Length of Thread _____

E – Drawtube I.D. _____
 F – Drawtube O.D. _____
 G – Counterbore I.D. _____
 H – Counterbore Length _____
 I – Spindle Through Hole Diameter _____
 J – Mounting Hole (DIN & A2-15 Spindles ONLY)
 Thread Size _____
 Quantity _____
 Spacing _____
 Bolt Circle Diameter _____
 K – Pilot Length (DIN Spindles ONLY) _____
 Max. Actuator Pull Force _____



ROYAL MTC™ MULTI-TASKING CHUCK

A TRUE ALL-IN-ONE CNC LATHE CHUCK

EASY SINGLE PART NUMBER ORDERING

The following items are included with every Royal MTC™ Multi-Tasking Chuck:

- ✓ A 3-Jaw chuck featuring industry standard 60°x1.5mm base jaws to accept a wide array of top jaws.
- ✓ A Quick-Grip™ center hub hardened and precision ground to accept Royal Quick-Grip™ Collets.
- ✓ A thru-hole center hub to accommodate long-parts when using as a jaw chuck
- ✓ A center cap to block chips from entering the drawtube when using the jaw chuck for slug work.
- ✓ A removable internal workstop for use with both jaws and collets.
- ✓ A center hub removal tool
- ✓ A grease gun and tube of chuck grease.
- ✓ A hardened and ground backplate to suit your particular lathe's spindle nose (not shown).
- ✓ A custom-machined drawtube connector for hassle-free installation



Royal MTC™ Multi-Tasking Chucks

Chuck Model	Spindle Type	Part Number	Price*
MTC-200	A2-5	51202	\$32,290
MTC-200	A2-6	51204	32,290
MTC-200	140 MM	51206	32,290
MTC-250	A2-6	51208	35,620
MTC-250	A2-8	51210	35,620
MTC-250	140 MM	51212	35,620
MTC-320	A2-8	51214	39,985
MTC-320	A2-11	51216	39,985
MTC-400	A2-8	51217	45,960
MTC-400	A2-11	51218	45,960
MTC-400	A2-15	51220	45,960

*Price includes a hardened and ground backplate up to 3" long. If your machine requires an extended backplate we will advise and quote a special plate.

ADDITIONAL ACCESSORIES

- The center hub for I.D. workholding is designed with a 75mm recess and is compatible with all Royal I.D. mandrels and sleeves (see full catalog for details).
- If you currently use a different brand of I.D. workholding, it may be possible for Royal to supply a custom center hub that would enable its use with the MTC – contact us to discuss.
- **The lifting/installation tool is highly recommended for fast and easy installation.** This device affixes to the chuck body in the same manner as the center hubs do, balancing the chuck's mass and enabling it to be easily threaded onto the machine's drawtube.

Royal MTC™ Accessories

Description	Fits Chuck Model	Part Number	Price
Center Hub for I.D. Workholding*	MTC-200	51230	\$4,270
	MTC-250	51231	4,590
	MTC-320	51232	5,520
	MTC-400	51233	8,540
Lifting/Installation Tool	MTC-200	51225	2,750
	MTC-250	51226	2,890
	MTC-320	51227	3,180
	MTC-400	51228	3,530

*Order mandrels and sleeves separately.



I.D. Center Hub



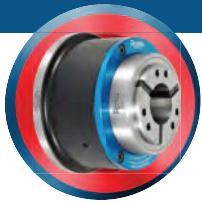
Lifting/Installation Tool



QG-65 COMBO CHUCK

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





ROYAL QG COMBO CHUCK

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

THE BEST OF BOTH WORLDS

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

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

NEW



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

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

ROYAL QG COMBO CHUCK

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



Lightning-Fast Collet Changes

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

Widest Collet Gripping Range

With a gripping range of 0.062" per collet, you don't need to worry if your stock is off-size.

Parallel Workpiece Gripping

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

Heavy-Duty Construction

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

Accu-Length™ Design – A Very Important Royal Advantage

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



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

Extreme Accuracy

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

Bolt and Go™

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

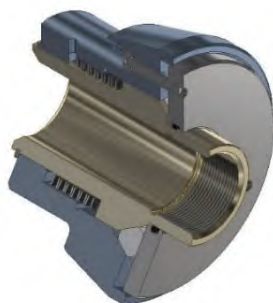
Simple Installation

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

Coolant Slinger

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

HOW IT WORKS



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

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

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

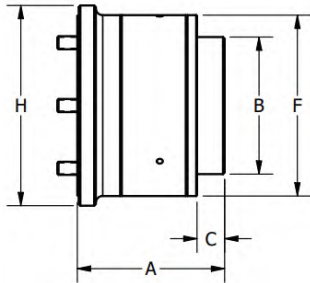
Note- Actuator pressure may need to be adjusted to achieve optimal clamping force.



ROYAL QG COMBO CHUCK

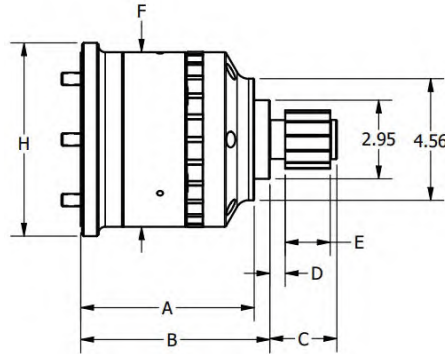
EASILY SWITCH BETWEEN O.D. AND I.D. APPLICATIONS

DIMENSIONS



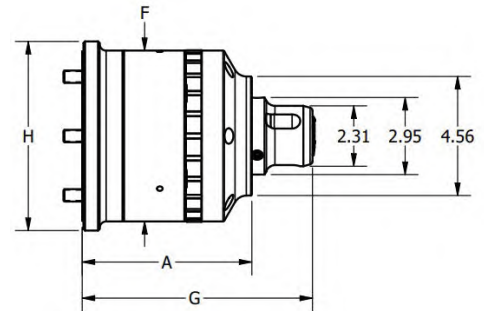
Chuck Only
(O.D. Gripping with QG Collets)

A	5.33
B	4.96
C	1.00
F	6.55
H	7.25



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

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



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

A	6.52
F	6.55
G	8.85
H	7.25

HOW TO ORDER

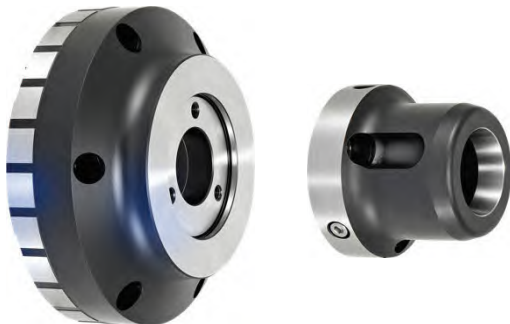
NEW



Royal QG Combo Chucks

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

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



Royal QG Combo Chuck Optional Components

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

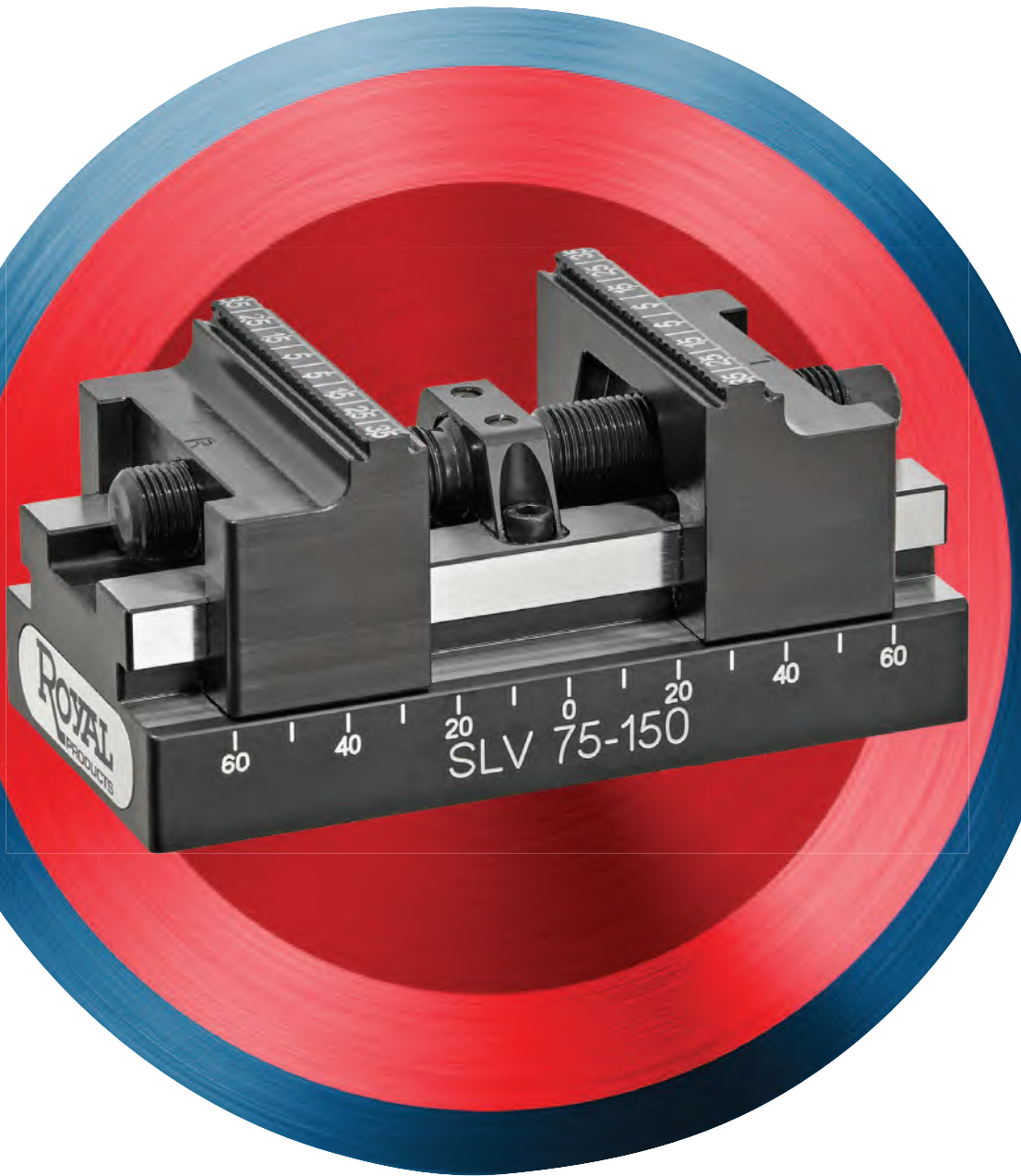
*Order mandrels, sleeves, and expanding rod adapters separately (see full catalog)

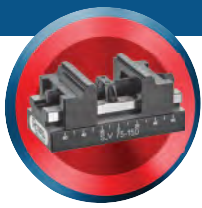


WORKHOLDING FOR MACHINING CENTERS

SLV™ – NEW SELF-CENTERING VISES WITH TREMENDOUS GRIP FORCE AND RIGIDITY

Z-LOCK™ – A ZERO-POINT WORKHOLDING SYSTEM WITHOUT ALL OF THE \$000'S





ROYAL SLV™ SELF CENTERING VISES

SLV™ → Sturdy Little Vise

Superior Design

Outstanding performance over other self-centering vises is achieved through a combination of several unique design elements:

- ✓ Extremely rigid one-piece jaw design is modeled after a CNC box way to minimize deflection through captive, multi-plane contact. Jaw lift is virtually non-existent.
- ✓ The massive drive spindle is elevated to apply the clamping force much closer to the workpiece compared to other vises.
- ✓ The hardened vise body is machined from a proprietary tool steel for maximum strength and rigidity.

Incredible Grip Force

The Royal SLV™ Self-Centering Vise has been optimized to deliver tremendous grip force and rigidity in a very compact package. This is one **Sturdy Little Vise!**

Never Needs Realignment

The central guide bushing is both pinned and bolted to the vise body to maintain perfect alignment and eliminate any need for readjustment.

Multiple Jaw Options

All Royal **Sturdy Little Vises** come equipped with a set of standard-grip jaws. Additional jaw models are available for more specialized applications

Direct Integration with Royal Z-Lock™

The Royal SLV™ is the perfect complement to our Z-Lock™ Zero-Point Workholding System – each SLV™ vise contains a central tapped hole to accept our heavy-duty Z-Lock™ positioning stud.

No More Cutting Dovetails

The Royal SLV™ securely grips workpieces at a depth of as little as 3mm (1/8"), reducing scrap and eliminating the need to cut dovetails or emboss the workpiece contact surface.

Precision Repeatability
0.0006" or better repeatability-guaranteed.

Great for 5-Axis

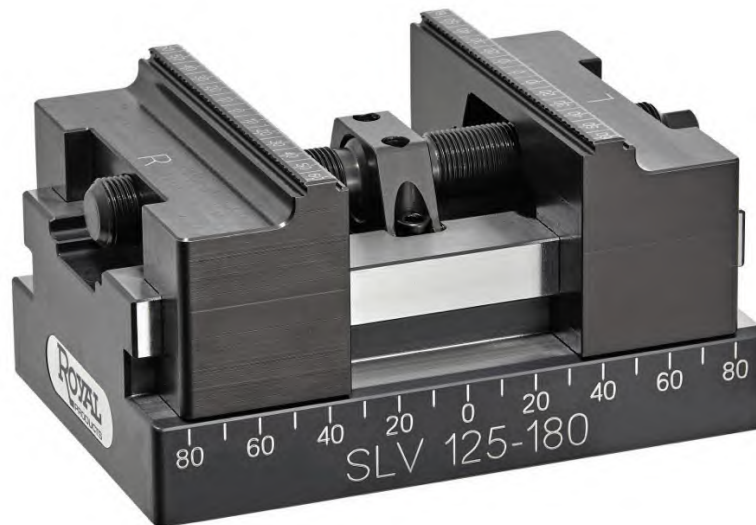
Mounting pyramids available for multi-vise setups – especially useful in five-axis applications.

Reduced Chip Buildup

Shallow throat depth allows for easy and complete chip blow-off.

Same-Day Shipping

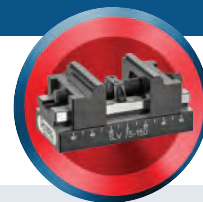
All vises, jaw sets, and pyramids are in stock for same-day shipping.



Compatible with Many Zero-Point Receivers

The Royal SLV™ is also configured to accept the mounting studs of other zero-point systems based on common 52 and 96mm bolt patterns (see compatibility chart).

Never Let Your Workholding be the Limiting Factor in Your Machining Processes – Achieve Super Aggressive Chip Removal with the Royal Sturdy Little Vise!



ROYAL SLV™ SELF CENTERING VISES

EXTREME CLAMPING FORCE



Elevated Drive Spindle
applies tremendous clamping force because it is positioned much closer to the workpiece than other vises

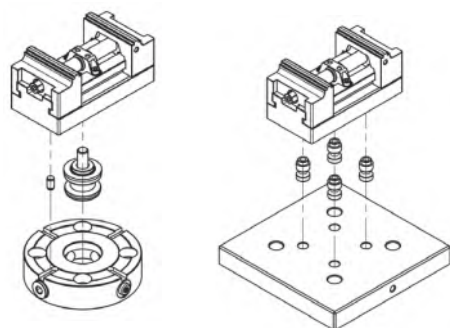
Extremely Rigid Box Way
construction virtually eliminates jaw lift



Multiple Jaw Styles to Handle a Wide Range of Applications

UNIVERSAL ZERO-POINT RECEIVER COMPATIBILITY

- Royal SLV™ Vises have been designed for **compatibility with many popular zero-point quick-change receivers.**
- If you don't already own a zero-point system, it's hard to beat the Royal Z-Lock™ in terms of accuracy, rigidity, and cost. See full catalog for details.
- If you've already standardized on a zero-point system that utilizes 52 or 96mm square mounting patterns, you can still upgrade your vises to the Royal SLV™ and enjoy increased performance, productivity, and profits. Simply screw your studs right into the hardened vise base. See receiver compatibility chart below.



Zero-Point Mounting Compatibility

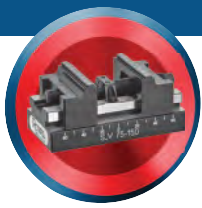
SLV™ Vise Model	Royal Z-Lock™ (M12x1.75 Stud)	52mm Square Pattern (M8x1.25 Studs)	96mm Square Pattern (M10x1.5 Studs)
SLV 54-70	YES*	NO	NO
SLV 75-125	YES	YES	NO
SLV 75-150	YES	YES	NO
SLV 125-180	YES	YES	YES
SLV 125-230	YES	YES	YES

*Special positioning stud required – contact Royal.

MULTI-VISE PYRAMIDS OPTIMIZE 5-AXIS PRODUCTION



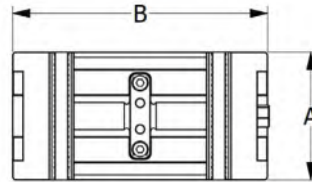
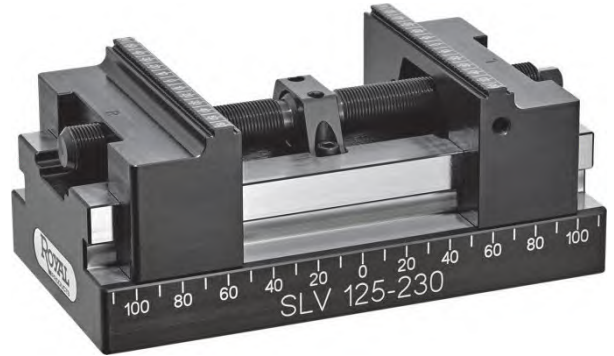
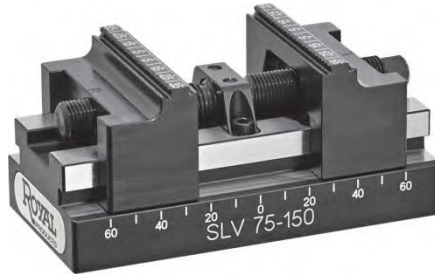
- With Royal Multi-Vise Pyramids, you can take advantage of 5-axis flexibility and **increase throughput by machining several parts in a single setup.**
- Model 66051 is made from aluminum, includes three SLV™ 54-70 vises, and is machined to accept three additional 54-70 vises (sold separately).
- Model 66052 is made from hardened steel and includes three SLV 75-125 vises.
- All vises are supplied with standard jaws.
- Removeable lifting ring supplied for installation ease.



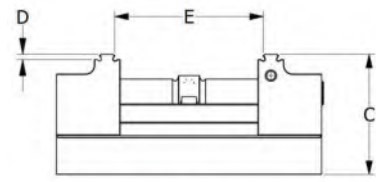
ROYAL SLV™ SELF CENTERING VISES

WISE MODELS FOR ALL APPLICATIONS

NEW



Top View



Side View

Royal SLV™ Self-Centering Vises

SLV™ Vise Model	A Body/Jaw Width	B Body Length	C Height with Standard Jaws	D Clamping Depth with Standard Jaws	E Min/Max Clamping Range	Max Tightening Torque (ft-lbs.)	Max Clamping Force (lbs.)	Weight with Standard Jaws (lbs.)	Part Number	Price**
SLV 54-70	2.13/1.57*	2.76	1.77	0.11	0.24-1.74	29	2,250	2	66000	\$ 1,065
SLV 75-125	2.95	4.92	2.68	0.11	0.24-3.00	52	3,600	8	66002	1,285
SLV 75-150	2.95	5.91	2.68	0.11	0.24-3.98	52	3,600	9	66004	1,330
SLV 125-180	4.92	7.09	3.62	0.11	0.24-4.33	73	5,850	26	66006	2,385
SLV 125-230	4.92	9.06	3.62	0.11	0.24-6.30	73	5,850	31	66008	2,560

*For the model 54, please note that the jaw width is narrower than the body.

** Price includes one set of standard jaws

Royal SLV™ Multi-Vise Pyramids



66051

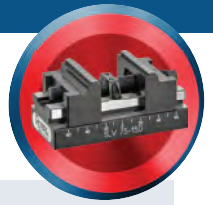


66052

For Vise Model	Pyramid Diameter	Combined Weight of Pyramid and Three Vises (lbs.)	Part Number	Price*
SLV 54-70	8.4	20	66051	\$ 8,340
SLV 75-125	14.7	44	66052	7,240

* Includes pyramid and three vises with standard jaws.

ROYAL SLV™ SELF CENTERING VISES



ROYAL SLV™ JAW SETS

Royal SLV™ Standard-Grip Jaw Set – Included with Each Vise



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 54	1.57	0.11	66020	\$557
SLV 75	2.95	0.11	66022	651
SLV 125	4.92	0.11	66024	1,135

Royal SLV™ Double-Grip Jaw Set – Increased Clamping Depth and a Second Row of Serrations for Very Aggressive Machining



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 75	2.95	0.35	66026	\$798
SLV 125	4.92	0.35	66028	1,395

Royal SLV™ Combo Jaw Set – Both Serrated and Smooth Gripping Surfaces for Roughing and Finishing



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 75	2.95	0.11/0.31	66034	\$783
SLV 125	4.92	0.11/0.42	66036	1,240

Royal SLV™ Slim-Grip Jaw Set – Extra Clearance for Narrow Workpieces



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 75	1.73	0.11	66038	\$707

Royal SLV™ Base Jaw Set – Use with Machinable Top Jaws



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 75	2.95	N/A	66040	\$683
SLV 125	4.92	N/A	66042	1,195

Royal SLV™ Machinable Aluminum Top Jaw Set – Use with Base Jaws



Fits Vise Model	Clamping Width	Clamping Depth	Part Number	Price/Set
SLV 75	2.95	0.9	66044	\$171
SLV 125	4.92	1.0	66046	246



ROYAL Z-LOCK™ QUICK-CHANGE WORKHOLDING SYSTEM

Quick-Change Workholding For All Machining Centers

- ✓ Precision Receiver Mounts to Your Machining Center Table or Five-Axis Rotary Table
- ✓ Mount Workpieces to Top Plates Offline, Keeping Your Spindles in the Cut for Maximum Production
- ✓ Greatly Reduces Setup Times - Top Plates Interchange in Seconds with Precision Repeatability
- ✓ The Royal Z-Lock™ Keeps Your Machining Centers Making Parts – and Profits!



Simple Manual Actuation

A few turns of a hex key and it's locked – no risk of the top plate loosening from vibration, spring wear, or air/hydraulic failure. The Royal Z-Lock™ is also a breeze to implement – no external air or hydraulic lines to install so you'll be running parts more efficiently in no time!

Precision Repeatability

X-axis – 0.0001"

Y-axis – 0.0001"

Z-axis – 0.00005"

Extremely Powerful Clamping Force

Easily achieves up to 11,240lbs. (50kN) of clamping force – far greater than other zero-point systems (even those with a “turbo” feature). The hardened locking screw contains a large, sturdy engagement surface for failsafe operation.

Massive Locating Surface

Up to 50% greater surface area than other brands for superior stability and vibration dampening.

No “Machinist’s Touch” Required When Changing Top Plates

All stud models have been optimized to eliminate binding, making top plate changeovers a breeze.



Simple Manual Actuation – no air or hydraulic lines to mess with. Each receiver uses a single clamping screw that can be fitted to any of the four available locations for easy access.

Designed to overcome the limitations and high-cost of other zero-point systems, the Royal Z-Lock™ is a simple, precise, and affordable quick-change workholding system that offers unmatched clamping strength.

Royal Z-Lock™

An Affordable Quick-Change Workholding System That Makes Sense for All Shops!

ROYAL Z-LOCK™ QUICK-CHANGE WORKHOLDING SYSTEM



How it Works:

The heavy-duty clamping screw of the Royal Z-Lock™ rigidly and precisely engages the matching tapered groove in the stud, providing secure, consistent clamping force. Simple – yet powerful and reliable!



Other systems rely on spring-loaded balls to retain the stud. Over time, springs weaken, reducing the force they can apply to the balls. This can result in vibration and increased risk of the top plate disengaging under heavy machining loads.

Royal Z-Lock™



Other Systems



Easy to Understand, Easy to Use, Easy to Order!



Receiver with Baseplate

- Available from stock in single, dual, and quad configurations.
- Baseplates include multiple bolt-patterns to accommodate most common machining center T-slot spacing.
- Single receivers may be ordered without baseplates for tombstone and angle plate applications.



Top Plates

- Made of machinable aluminum to accommodate vises, collet fixtures, Mitee-Bite® clamps, etc. – the possibilities are limitless.
- All top plates are precision ground and include the appropriate studs pre-mounted and ready to go.
- 1" thick to accommodate milled locating pockets up to 1/4" deep.



Studs

- Three stud types for single, dual, and quad setups.
- Hardened and ground to handle thousands of changeovers.
- Studs are included with all top plates and are also available separately for customers who wish to use their own top plates, fixtures, or even screw them into the workpiece.

*Mitee-Bite is a registered trademark of Mitee-Bite Corporation.

ROYAL Z-LOCK™ QUICK-CHANGE WORKHOLDING SYSTEM



Total Price = \$3,985

Not Sure What to Order? Here's a Popular Setup:

- ✓ 1 pc. Royal Z-Lock™ Dual **Part Number 65002**
(Includes two receivers mounted to baseplate)
 - ✓ 2 pcs. Z-Lock™ Top Plate Dual **Part Number 65022**
(One plate gets loaded offline while the other is working inside your machining center)
- Note:** Studs included with all top plates – no need to order separately.

Royal Z-Lock™ Zero-Point Workholding Systems

DESCRIPTION	PART NUMBER	PRICE
Z-Lock™ Single (one receiver mounted to baseplate)	65001	\$1,445
Z-Lock™ Dual (two receivers mounted to baseplate)	65002	2,495
Z-Lock™ Quad (four receivers mounted to baseplate)	65004	4,795
Z-Lock™ Top Plate Single (includes one positioning stud and two keys)	65021	470
Z-Lock™ Top Plate Dual (includes one positioning stud and one orienting stud)	65022	745
Z-Lock™ Top Plate Quad (includes one positioning stud, one orienting stud, and two clamping studs)	65024	1,445
Z-Lock™ Receiver Only (no baseplate)	65000	765

Note – due to the wide variety of T-slot configurations, baseplate mounting bolts and T-nuts are not included.

Royal Z-Lock™ Accessories and Parts

DESCRIPTION	PART NUMBER	PRICE
Positioning Stud	65030	\$135
Orienting Stud	65031	135
Clamping Stud	65032	135
Receiver Bore Cover (protects receiver bore from chips when Z-Lock™ is not in use)	65033	95
Base Plate Reducer Bushing M12-M10 (for machines with narrow T-slots)	65035	20
Anti-Rotation Keys (included with Single Top Plate, not needed for Dual or Quad)	65034	35
Replacement Locking Screw	65036	55

Additional Machining Center Workholding Solutions from Royal



- ✓ Power-Block™ Collet Fixtures
- ✓ I.D. Workholding Fixtures
- ✓ Custom Collet Profiles
- ✓ Custom Multi-Unit Systems

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	\$2,890
Baseplate for QG-32 Hydraulic Power-Block™	43978	\$1,415
Booster Cylinder for QG-32 Hydraulic Power-Block™	43980	\$3,025

ROYAL QG-100 TO QG-65 ADAPTER

ADDED VERSATILITY FOR QUICK-GRIP™ COLLETS

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

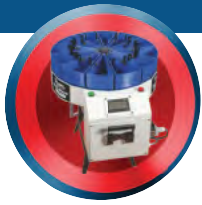
- ✓ Brings added versatility to your Royal QG-100 Collet Chucks by enabling QG-65 Collets to be used on small diameter jobs.
- ✓ Hold parts as small as 3/16th diameter in a QG-100 system.
- ✓ Minimal loss of accuracy – 0.0008" TIR or better on bore of QG-65 collet when using adapter.

Description	Part Number	Price
QG-100 to QG-65 Adapter	44190	\$2,467

NEW



QG-65 Collet Sold Separately



ROYAL ROTA-RACK™ COMPACT

DESIGNED FOR SWISS APPLICATIONS

AUTOMATED PARTS COLLECTION FOR SWISS APPLICATIONS

NEW



The **Royal Rota-Rack™ Compact** delivers hours of unmanned production, batches parts for easy inspection, and protects finished components from damage. **Specifically designed for small parts!**

- ✓ Accommodates machines with part exit heights ranging from 24 to 33 inches.
- ✓ Designed specifically for small parts/Swiss applications.
- ✓ Twelve removeable bins provide part separation/batching.
- ✓ Bins equipped with 4mm dia. drain holes for continuous return of oil/coolant to the machine sump.
- ✓ Provides high volume collection in a compact package:
 - 112 total cubic inches
 - 9.3 cubic inches per bin
- ✓ Simple programming via the integral PLC. Unit can also be easily wired into the machine tool control and indexed via M-code.
- ✓ Operates on 110V power.
- ✓ Removeable chute included (not shown).

Description	Part Number	Price
Rota-Rack™ Compact	51006	\$9,965

In-Stock for Same-Day Shipping!

Dimensions

