



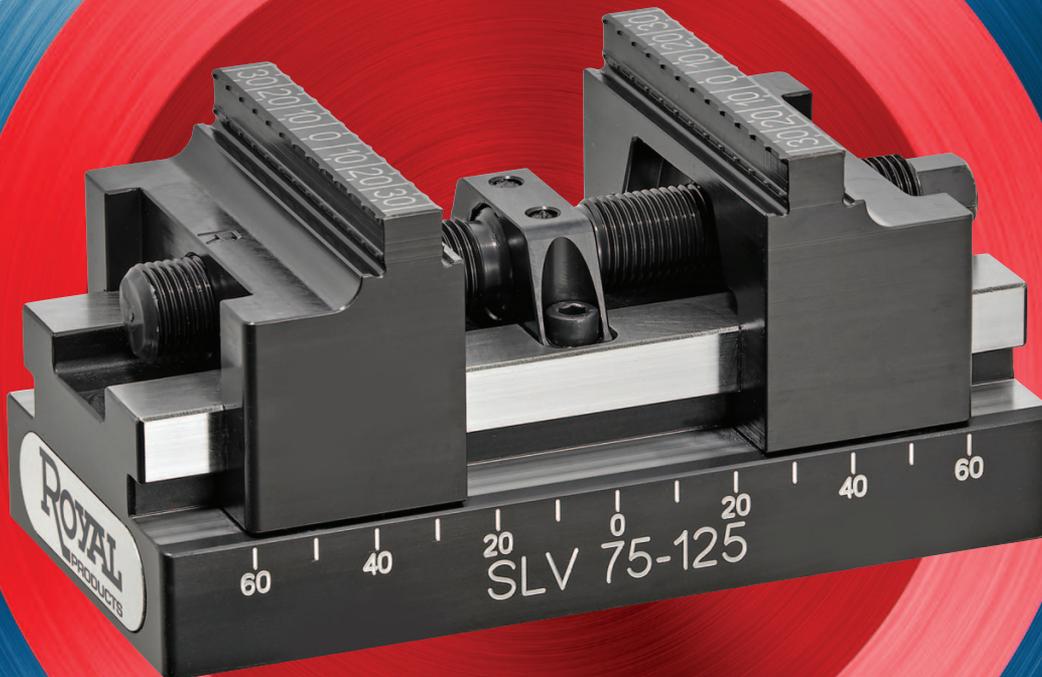
# WORKHOLDING FOR MACHINING CENTERS

SLV™ SELF CENTERING VISES –  
JAW LIFT/FLEX ELIMINATED!

BROAD RANGE OF ZERO-POINT SYSTEMS:

- HEAVY DUTY Z-LOCK™
- 52 AND 96MM MANUAL RECEIVERS
- POWERED RECEIVER FOR AUTOMATED LOADING

**NEW**



**ROYAL**  
PRODUCTS  
Optimize everything.



# 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.

### 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

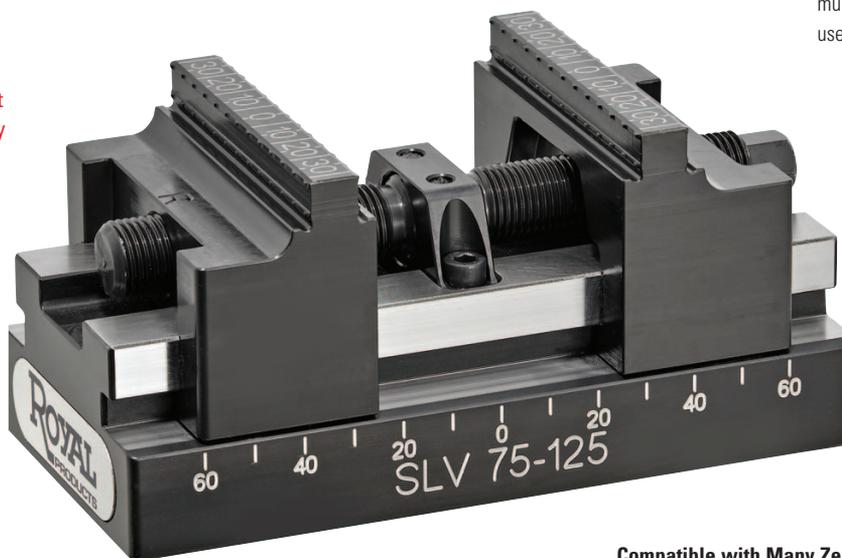
Shallow throat depth allows for easy and complete chip blow-off.

### Same-Day Shipping

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

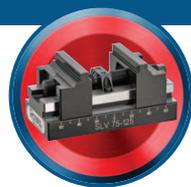
### Compatible with Many Zero-Point Receivers

The Royal SLV™ is also configured to accept the mounting studs of many 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 – Try a Royal SLV™ on Your Toughest Application RISK-FREE!**

# ROYAL SLV™ SELF-CENTERING VISES



## Extreme Clamping Force!

✓ **Jaw Lift  
Eliminated!**

✓ **Jaw Flex  
Eliminated!**

✓ **Cutting Dovetails  
Eliminated!**

How...?

**A Smart, Rugged,  
Common-Sense  
Design!**



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

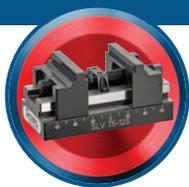
**Extremely Rigid Box Way**  
construction virtually  
eliminates jaw lift/flex.

## Incredible 25X Part-Length to Gripping-Depth Ratio with No Part Prep!



Check out the video at [www.royalproducts.com](http://www.royalproducts.com)

**Are Your Current Vises Holding You Back? Try a Royal SLV™ on the Toughest  
Applications in Your Shop Completely **RISK-FREE** – Order Today!**



# ROYAL SLV™ SELF-CENTERING VISES

## Extreme Clamping Force

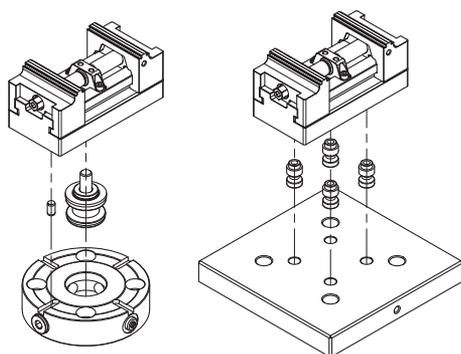


- ❑ All Royal SLV™ Vise includes a set of Standard-Grip Reversible Jaws.
- ❑ Additional off-the-shelf jaw models available:
  - Double-Grip – these jaws have a second row of serrations for extreme applications.
  - Combo – serrated on one side, smooth on the other, making them a great choice for both OP-10 and OP-20.
  - Slim-Grip – provide extra clearance for narrow parts.
  - Aluminum Top Jaws – easily machined for holding parts with non-parallel opposing surfaces.
- ❑ All Royal SLV™ jaw models **in stock for same-day shipping**.

## Universal Zero-Point Receiver Compatibility

Royal SLV™ Vises are **compatible with many zero-point quick-change receivers** (even other brands).

- Heavy-Duty Z-Lock™ with single stud configuration
- 52mm four-stud configurations (Royal and others)
- 96mm four-stud configurations (Royal and others)



## Zero-Point Mounting Compatibility

SLV™ VISE MODEL	ROYAL Z-LOCK™ (M12X1.75 STUD)	52 MM SQUARE PATTERN (M8X1.25 STUDS)	96 MM SQUARE PATTERN (M10X1.5 STUDS)
SLV 54-70	X	X	X
SLV 75-125	✓	✓	X
SLV 75-150	✓	✓	X
SLV 125-180	✓	✓	✓
SLV 125-230	✓	✓	✓

## Multi-Vise Pyramids Optimize 5-Axis Production

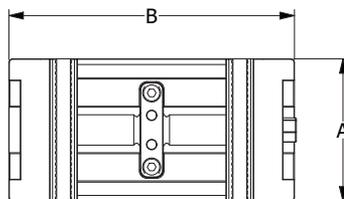


- ❑ With Royal Multi-Vise Pyramids, you can take advantage of 5-axis flexibility and **increase throughput by machining several parts in a single setup**.
- ❑ Available for SLV™ 54 and 75 vises.
- ❑ Each pyramid includes three vises equipped with standard jaws. **Note** – model 66051 can accept three additional vises (sold separately) providing a total of six workholding stations.
- ❑ Manufactured from aircraft-grade aluminum to accommodate 5-axis weight restrictions.
- ❑ All pyramids include removable lifting ring for installation ease.
- ❑ Larger models (75-125) is **offered in two geometries to accommodate 5-axis tilt angle capabilities**.

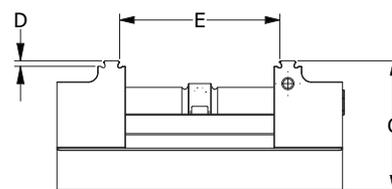
# ROYAL SLV™ SELF-CENTERING VISES



## Vise Models For All Applications



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	0.24-1.85	29	2,250	2	66000	\$1,220
SLV 75-125	2.95	4.92	2.68	0.11	0.24-4.01	52	3,600	8	66002	1,470
SLV 75-150	2.95	5.91	2.68	0.11	0.24-5.00	52	3,600	9	66004	1,520
SLV 125-180	4.92	7.09	3.62	0.11	0.24-6.06	73	5,850	26	66008	2,725
SLV 125-230	4.92	9.06	3.62	0.11	0.24-8.03	73	5,850	31	66010	2,925

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

\*\* Price includes one set of standard jaws and wrenches.

Additional dimensional information available at [royalproducts.com](http://royalproducts.com)

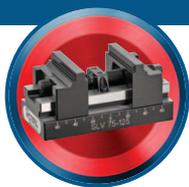


66051

### Royal SLV™ Multi-Visc Pyramids

FOR VISE MODEL	ANGLE	PYRAMID DIAMETER	COMBINED WEIGHT OF PYRAMID AND THREE VISES (lbs.)	PART NUMBER	PRICE*
SLV 54-70	125°	8.4	20	66051	\$9,525
SLV 75-125	110°	14.2	44	66052	8,270
SLV 75-125	123.5°	13.7	42	66053	8,270

\* 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	<b>\$637</b>
SLV 75	2.95	0.11	66022	<b>744</b>
SLV 125	4.92	0.11	66024	<b>1,295</b>

### 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	<b>\$912</b>
SLV 125	4.92	0.35	66028	<b>1,595</b>

### 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	<b>\$895</b>
SLV 125	4.92	0.11/0.42	66036	<b>1,420</b>

### 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	<b>\$808</b>

### 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	<b>\$780</b>
SLV 125	4.92	N/A	66042	<b>1,365</b>

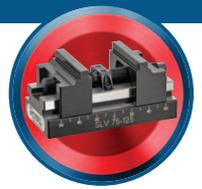
### Royal SLV™ Machinable Aluminum Top Jaw Set

Use with Base Jaws



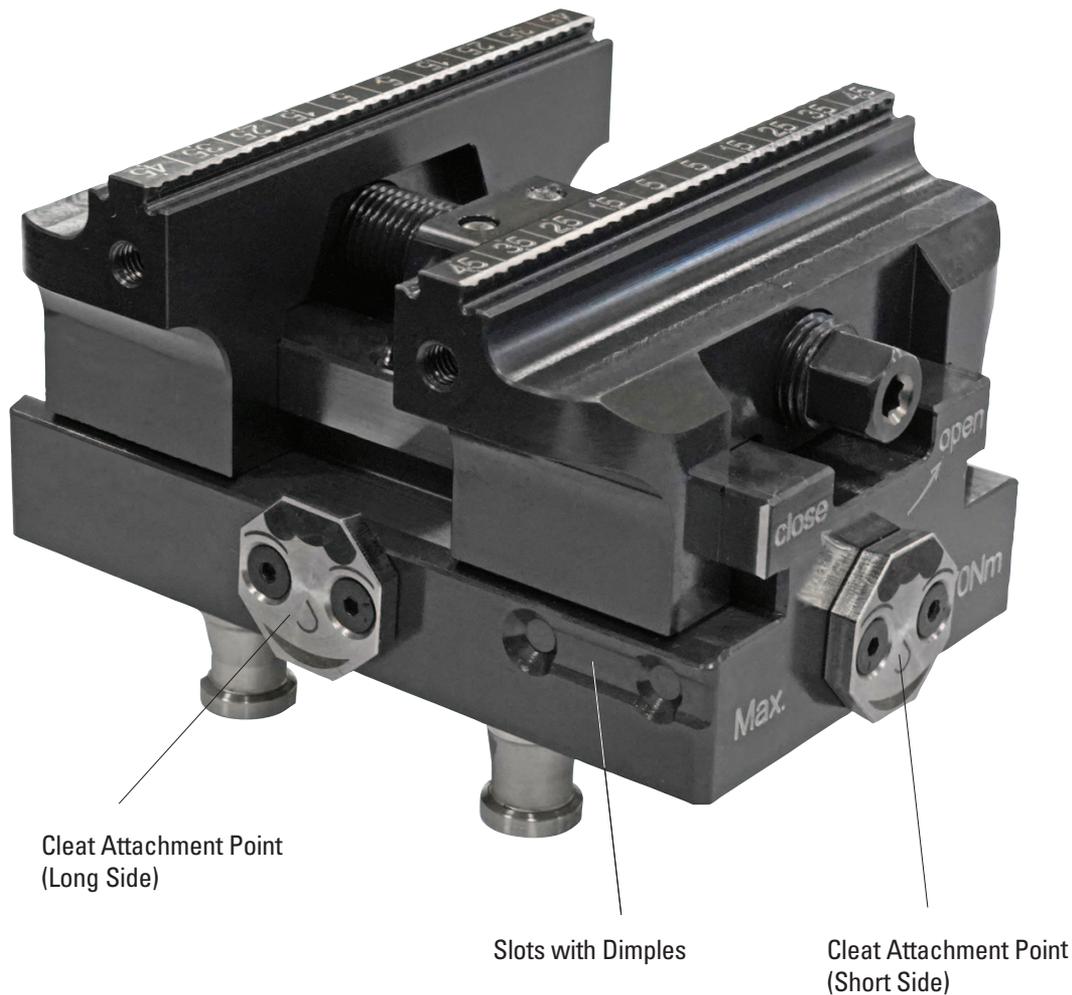
FITS VISE MODEL	CLAMPING WIDTH	CLAMPING DEPTH	PART NUMBER	PRICE/SET
SLV 75	2.95	0.9	66044	<b>\$196</b>
SLV 125	4.92	1.0	66046	<b>281</b>

# ROYAL SLV™ SELF-CENTERING AUTOMATION VISES



**NEW**

- Royal brings unprecedented part clamping to robotic load/unload applications with the new **SLV™ Automation Vise**.
- Same great design features as our standard SLV™ Self Centering Vises, but with the following additional automation elements:
  - Ability to mount a gripping cleat on either the short or long side of the vise body – **provides flexibility and increases staging density** for multi-vise automation systems.
  - Slots with dimples provide an alternative fixed datum for robot/cobot gripper engagement.
  - Body is 77mm wide and uses standard 75mm jaws for robot gripper clearance (**Note** – custom “wide-grip” jaws shown).



**Coming Soon – Visit [royalproducts.com](http://royalproducts.com) for Updates**



# ROYAL SLV™ KEY-OPERATED 52 AND 96MM ZERO-POINT RECEIVERS

**NEW**



- Royal SLV™ Key-Operated Zero-Point Receivers provide an accurate, rigid, quick-change interface for our broad range of SLV™ Self-Centering Vises.
- Royal SLV™ Receivers are **100% steel construction**, hardened and ground for repeatability and durability.
- Easily mounted to vertical machining center tables, 4 and 5-axis rotary tables, tombstones, etc.
- Available in both 52mm and 96mm stud patterns for broad market compatibility (**Note** – must use Royal SLV™ studs with these receivers).
- Proprietary locking mechanism prevents loosening during machining for operator **safety, tighter part tolerances, and better surface finishes.**
- All receivers and studs in-stock for same-day shipping.

## Royal SLV™ Key-Operated Zero-Point Receivers

DESCRIPTION	WIDTH (in.)	LENGTH (in.)	HEIGHT (in.)	STUD PATTERN	PART NUMBER	PRICE*
SLV™ 52mm Key-Operated Receiver for Single Vise	4.02	4.02	1.06	52mm	66062	<b>\$1,095</b>
SLV™ 96mm Key-Operated Receiver for Single Vise	6.50	6.50	1.06	96mm	66066	<b>1,495</b>

\*Order studs separately.

## Studs for Royal SLV™ Receivers



DESCRIPTION	THREAD SIZE	PART NUMBER	PRICE
Studs (set of 4) for 52mm SLV™ Receivers	M8	66060	<b>\$129</b>
Studs (set of 4) for 96mm SLV™ Receivers	M10	66061	<b>149</b>

**All Receivers and Studs In-Stock for Same-Day Shipping**

# ROYAL SLV™ ZERO-POINT AUTOMATION RECEIVER



- Royal's new SLV™ Zero-Point Automation Receiver is the perfect complement to the SLV™ Automation Vise.
- Designed for robot/cobot loading to **maximize unmanned production on your CNC machining centers.**
- Easily adaptable to 3, 4, and 5-axis applications.
- Spring-close/air-open design – no hydraulics needed.
- Pneumatic “PLUS” feature directs air to the clamp side of the piston and provides 5X additional clamping force for superior performance during aggressive chip removal.
- Receiver height is **optimized for 5-axis machining**, making risers unnecessary for most applications.
- Can be used with any workholding device that incorporates a standard 52mm stud pattern.



## **An Unbeatable Production Combination!**

The Royal SLV™ Automation Receiver paired with the Royal SLV™ Automation Vise!

**Coming Soon – Visit [royalproducts.com](http://royalproducts.com) for Updates**



# 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 11,240 lbs. (50kN) of clamping force. The hardened locking screw contains a large, sturdy engagement surface for failsafe operation.

### Massive Locating Surface

Up to 50% greater surface area for superior stability and vibration damping.

### No "Machinist's Touch" Required When Changing Top Plates

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

# 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!



Royal Z-Lock™



## 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

## Receiver Specifications

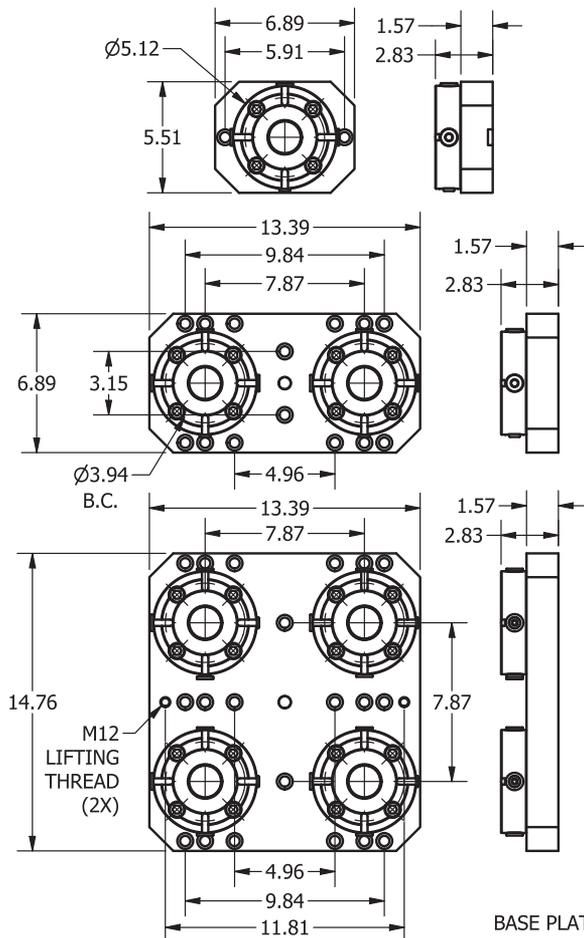
Clamping Force	11,240 lbs.
X-Axis Repeatability	0.0001" or better
Y-Axis Repeatability	0.0001" or better
Z-Axis Repeatability	0.00005" or better
Receiver Height	1.25"
Receiver Diameter	5.12"
Receiver Weight	5.6 lbs.

## Top Plate Stud Parameters

Single	1x Positioning Stud
Dual	1x Positioning Stud
	1x Orienting Stud
Quad	1x Positioning Stud
	1x Orienting Stud
	2x Clamping Studs

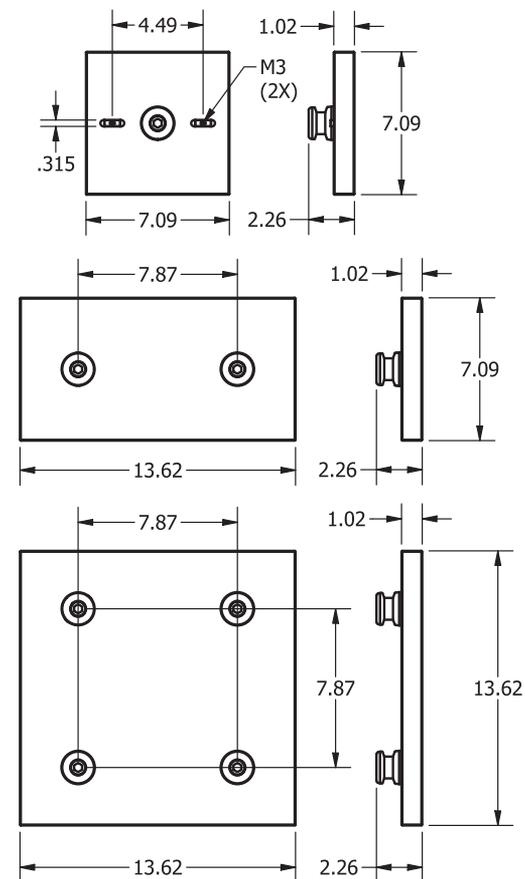


### RECEIVERS - BASE PLATES



BASE PLATE HARDWARE - M12 X 1.75 SHCS

### TOP PLATES



**Important** – all dimensions for reference only. If you plan to machine your own mating components, please contact Royal for precise dimensions/tolerances.



# ROYAL Z-LOCK™ QUICK-CHANGE WORKHOLDING SYSTEM



## 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	<b>\$1,705</b>
Z-Lock™ Dual (two receivers mounted to baseplate)	65002	<b>2,935</b>
Z-Lock™ Quad (four receivers mounted to baseplate)	65004	<b>5,645</b>
Z-Lock™ Top Plate Single (includes one positioning stud and two keys)	65021	<b>554</b>
Z-Lock™ Top Plate Dual (includes one positioning stud and one orienting stud)	65022	<b>878</b>
Z-Lock™ Top Plate Quad (includes one positioning stud, one orienting stud, and two clamping studs)	65024	<b>1,695</b>
Z-Lock™ Receiver Only (no baseplate)	65000	<b>903</b>

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	<b>\$160</b>
Orienting Stud	65031	<b>160</b>
Clamping Stud	65032	<b>160</b>
Receiver Bore Cover (protects receiver bore from chips when Z-Lock™ is not in use)	65033	<b>112</b>
Base Plate Reducer Bushing M12-M10 (for machines with narrow T-slots)	65035	<b>24</b>
Anti-Rotation Keys (included with Single Top Plate, not needed for Dual or Quad)	65034	<b>43</b>
Replacement Locking Screw	65036	<b>66</b>

## Additional Machining Center Workholding Solutions from Royal



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