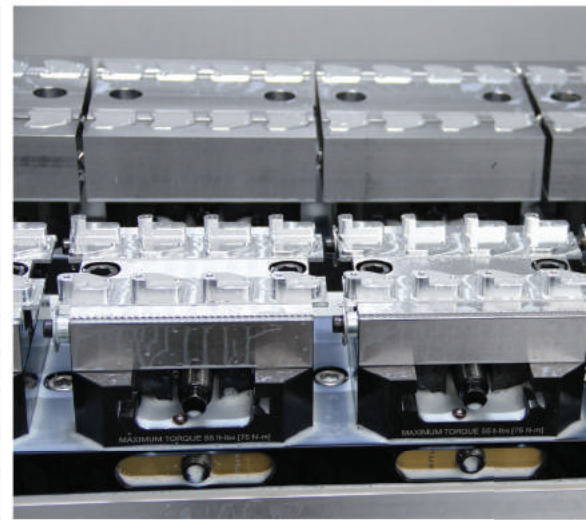
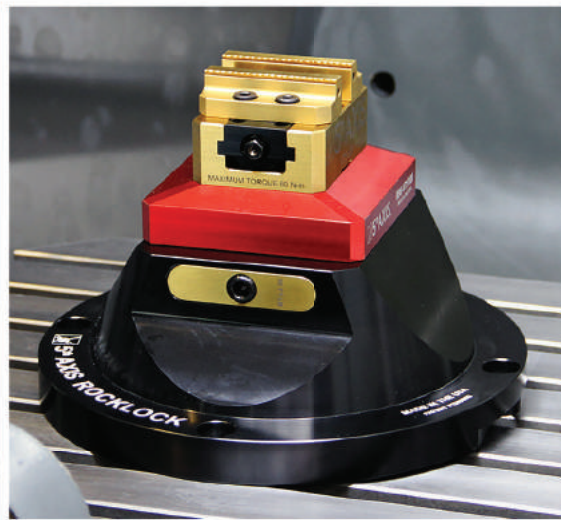
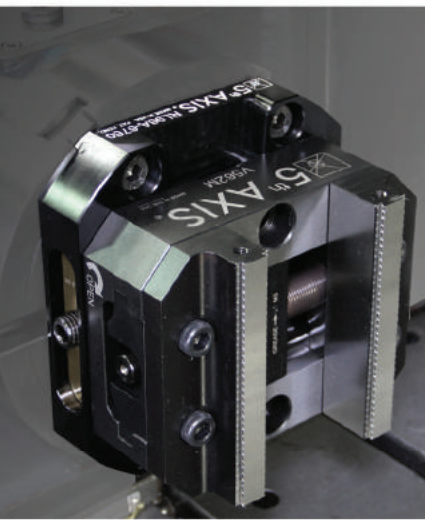


# 5<sup>th</sup> AXIS<sup>®</sup>



## Workholding Evolved

2018

# ROCKLOCK<sup>™</sup>

**METRIC**

MADE IN  
**USA** 

# ROCKLOCK™

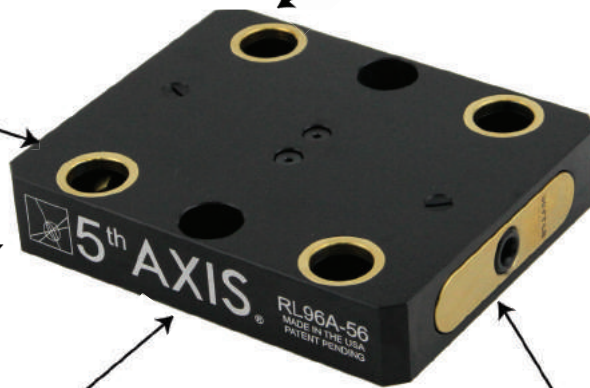
Quick Change System

All 5th Axis RockLock™ fixtures utilize industry standard 96mm pull stud spacing ensuring compatibility with Jergens, Lang, and other systems

Available in steel or aluminum







All models feature TiN coated hardened steel bushings and locks

Precise repeatability less than 8 microns



Robust single actuation screw

The 5th Axis RockLock™ system can be integrated into all risers, pyramids, tombstones or virtually any of your fixturing needs. Its endless applications are limited only by one's imagination.

 96mm pull stud spacing	 Steel locating features
 < 8 microns repeatability	 Single actuation
 Fits all machine makes and models	 Easy mounting to machine

**Medium or Large Vise**

**Top Tooling with Adapter**

Vise



Top tooling



Threaded pull studs



Base or Riser w/ 96mm pull stud spacing



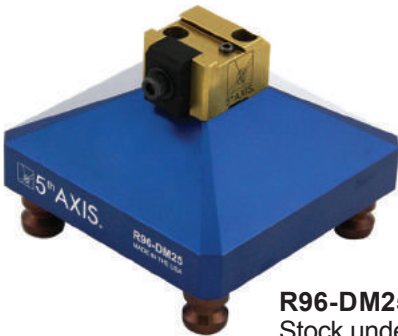
Locating boss for centering accuracy



**R96-DM12**  
Stock under 25mm



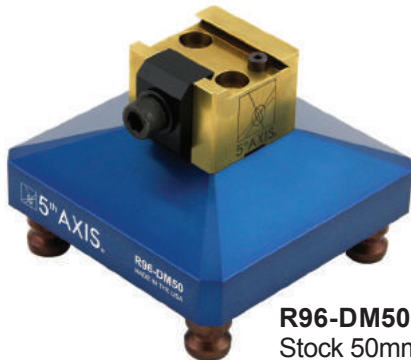
**R96-CER40**  
Round stock up to 25mm



**R96-DM25**  
Stock under 75mm



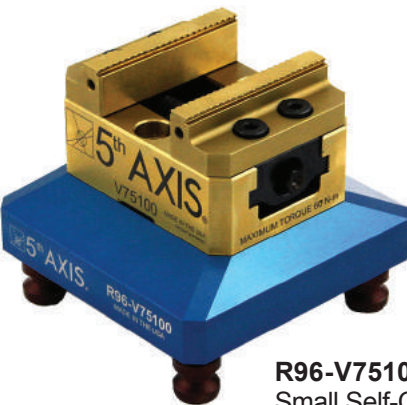
**V552M / V562M**  
Medium Self-Centering Vise  
see page 18 for more information  
(Pull Studs sold separately)



**R96-DM50**  
Stock 50mm and above



**DV56 / DV510**  
Double Station Vises



**R96-V75100**  
Small Self-Centering Vise



**V6105M**  
Large Self-Centering Vise

Top tooling is available for the complete line of 5th Axis products and compatible with many 96mm systems - see page 9 for more information.





RL96-56



RL96-679010



RL96-6760



RL96A-38



RL96A-411



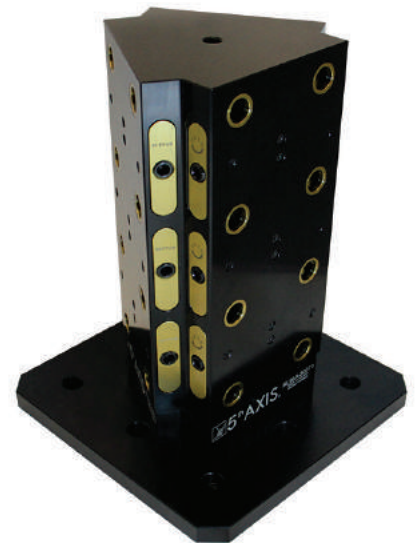
RL96A-4816



RL96A-3613



RL96A-90DEG

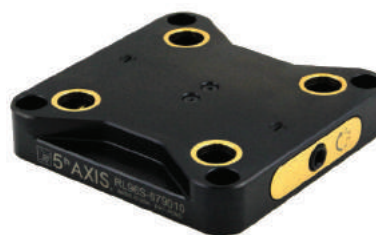


RL96A-3003

For more RockLock™ Quick Change options see pages 5 - 8.



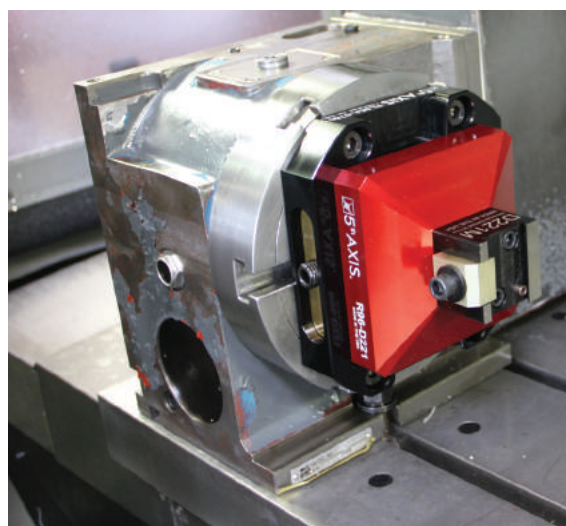
**RL96S-56** Steel, 100mm bolt spacing  
**RL96A-56** Aluminum, 100mm bolt spacing



**RL96S-679010** Steel, 90° bolt pattern  
**RL96A-679010** Aluminum, 90° bolt pattern



**RL96S-6760** Steel, 60° bolt pattern  
**RL96A-6760** Aluminum, 60° bolt pattern



Technical Data	Size	Mounting	Material
RL96S-56	156mm x 126mm x 30mm	2x M12 bolts @ 100mm	Steel
RL96A-56	156mm x 126mm x 30mm	2x M12 bolts @ 100mm	Aluminum
RL96S-6760	156mm x 174mm x 30mm	4x M12 bolts @ 60° on Ø 170mm	Steel
RL96A-6760	156mm x 174mm x 30mm	4x M12 bolts @ 60° on Ø 170mm	Aluminum
RL96S-679010	156mm x 156mm x 30mm	4x M10 bolts @ 90° on Ø 184mm	Steel
RL96A-679010	156mm x 156mm x 30mm	4x M10 bolts @ 90° on Ø 184mm	Aluminum

\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)



**RL96A-38** Aluminum, 90° and 60° bolt pattern  
Integrated Ø 202mm x 75mm height



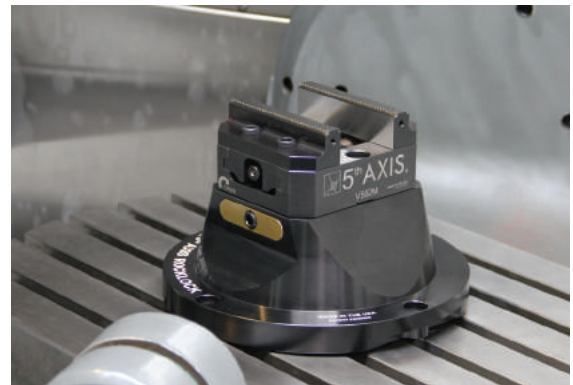
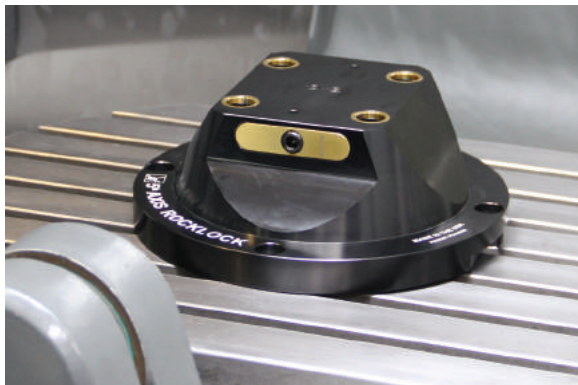
**RL96A-4816**  
Integrated multi-position riser (single / double)  
100mm height



**RL96A-411** Aluminum, 90° bolt pattern  
Integrated Ø 276mm x 100mm height



**RL96A-3915**  
2 Piece multi-position riser (single / double)  
80mm height



Technical Data	Size	Mounting	Material
RL96A-38	Ø 202mm x 75mm height	4x M12 bolts @ 90° on Ø 178mm or 3x M12 bolts @ 120° on Ø 178mm	Aluminum
RL96A-411	Ø 276mm x 100mm height	4x M12 bolts @ 90° on Ø 252mm	Aluminum
RL96A-4816	400mm x 200mm x 100mm	4x M16 bolts @ 126mm x 360mm Rectangle or 4x M12 bolts @ 160mm x 320mm Rectangle	Aluminum
RL96A-3915	381mm x 230mm x 80mm	4x M16 bolts @ 200mm Square	Aluminum

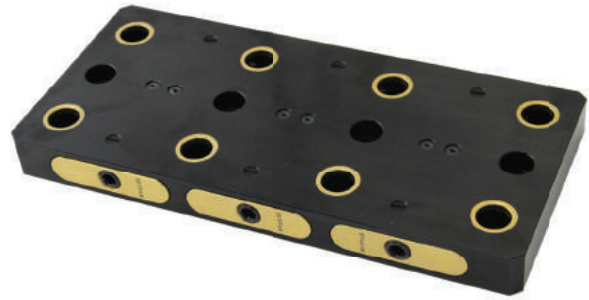
\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)





**RL96A-3613S1** Aluminum, multi-position plate (single / double)

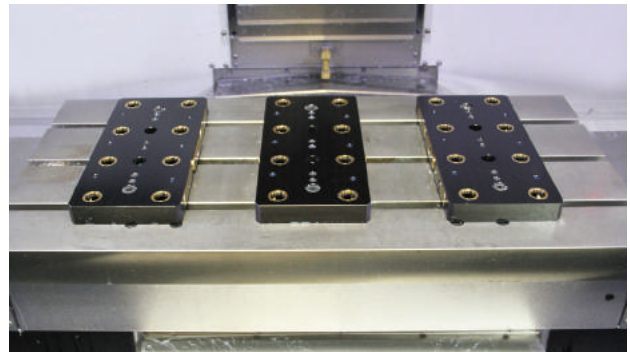
- Custom multi-position plates available
- Call or email the factory for sizes and different configurations.



**RL96A-3613S2** Aluminum, multi-position plate (single / double)



**RL96A-90DEG** Aluminum, 90° right angle plate



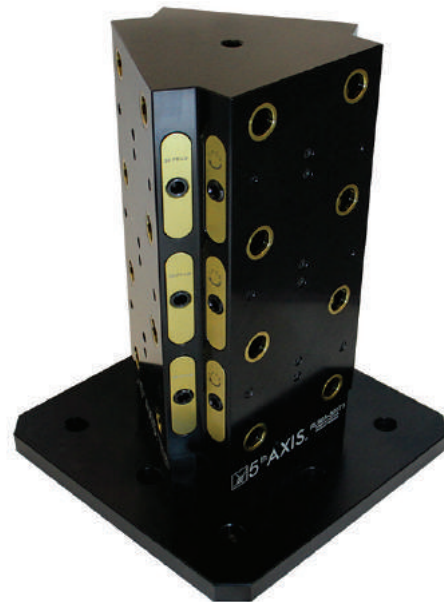
Technical Data	Size	Mounting	Material
RL96A-90DEG	156mm x 149mm x 200mm	RockLock 96mm pull studs or 2x M12 bolts @ 100mm	Aluminum
RL96A-3613S1	156mm x 338mm x 30mm	2x M12 bolts @ 48mm from center 2x M12 bolts @ 125mm from center	Aluminum
RL96A-3613S2	156mm x 338mm x 30mm	4x M12 bolts equally spaced @ 80mm	Aluminum

\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)



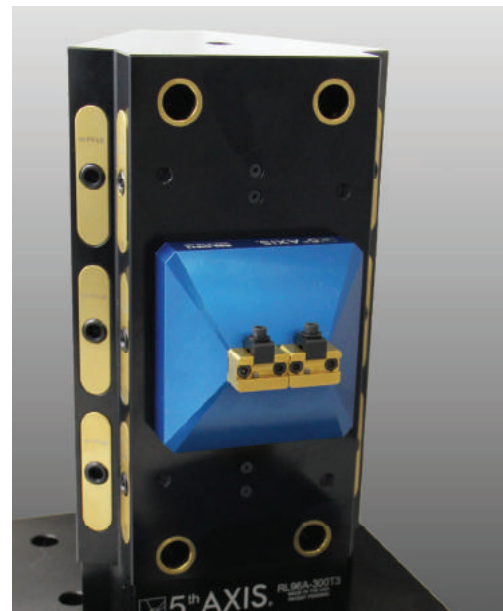
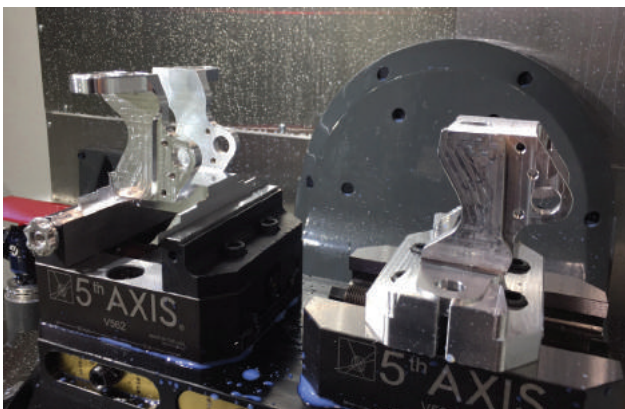


**RL96A-3002 / RL96S-3002**  
Tombstone, 2 sided,  
300mm base\*, 400mm height  
Cast iron or aluminum construction  
Hardened steel bushings and locks



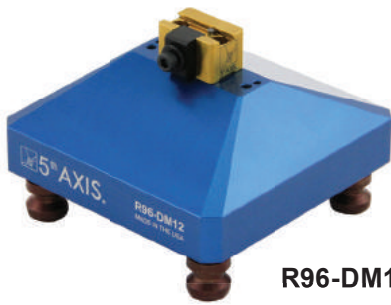
**RL96A-3003 / RL96S-3003**  
Tombstone, 3 sided,  
300mm base\*, 400mm height  
Cast iron or aluminum construction  
Hardened steel bushings and locks

\*The RockLock™ system can be easily integrated into other tombstone sizes and configurations. Email us a copy of your table drawing and the configuration you are looking for.

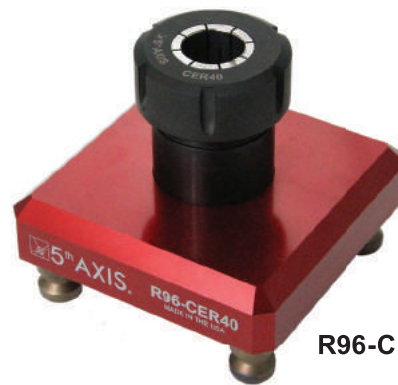


Technical Data	Footprint	Mounting	Material
RL96A-3002	300mm x 300mm	Machine Specific	Aluminum
RL96S-3002	300mm x 300mm	Machine Specific	Cast Iron
RL96A-3003	300mm x 300mm	Machine Specific	Aluminum
RL96S-3003	300mm x 300mm	Machine Specific	Cast Iron

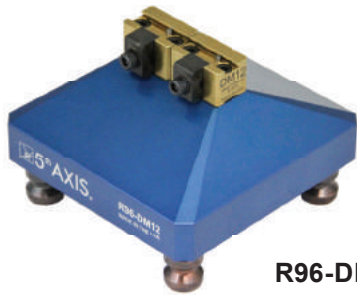
\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)



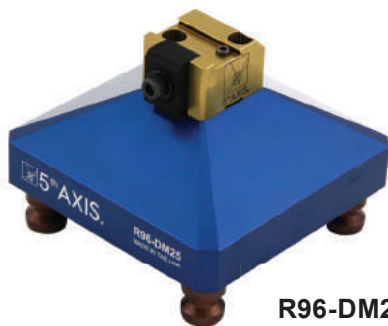
**R96-DM12**



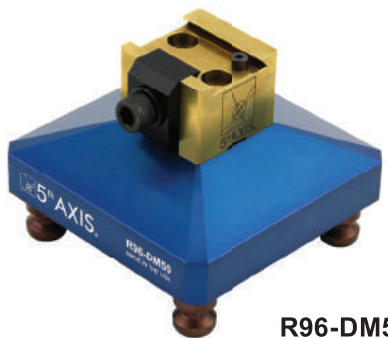
**R96-CER40**



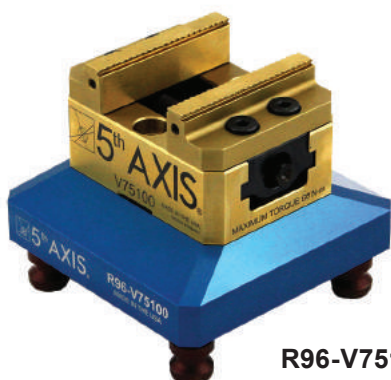
**R96-DM12X2**



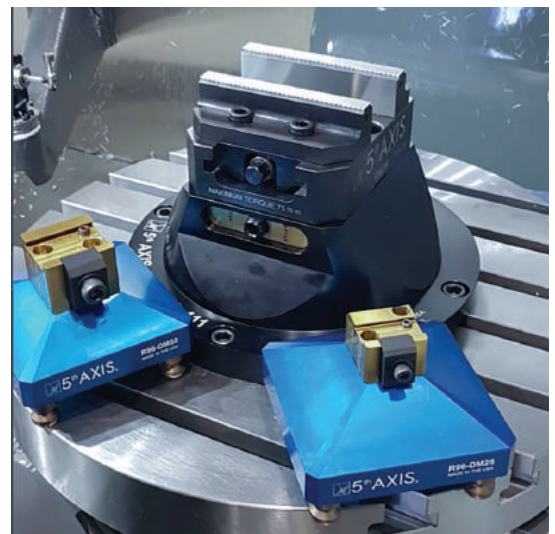
**R96-DM25**



**R96-DM50**



**R96-V75100**



Technical Data	*Overall Height	Mounted Fixture
R96-DM12	67.4mm	DM12 - see page 22
R96-DM12X2	67.4mm	DM12 - see page 22
R96-DM25	75.4mm	DM25 - see page 22
R96-DM50	76.4mm	DM50 - see page 22
R96-CER40	81.3mm	CER40 - see page 22
R96-V75100	87.9mm	V75100 - see page 18

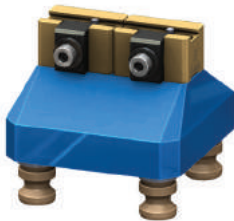
\*Height is measured from bottom of base to the top surface of mounted fixture.  
 \* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)

New in 2018! The **ROCKLOCK™** 52mm system

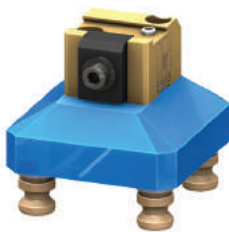
The 52mm RockLock™ system is now available. If you need a smaller footprint quick change solution, the 52mm RockLock™ system is the answer. Additional quick change plate configurations will be available throughout the year.



**R52-DM12**



**R52-DM12X2**



**R52-DM25**



**R52-DM50**



**RL52A-44**  
**RL52S-44**



**V75100 75mm x 100mm**  
**Pull studs sold separately**



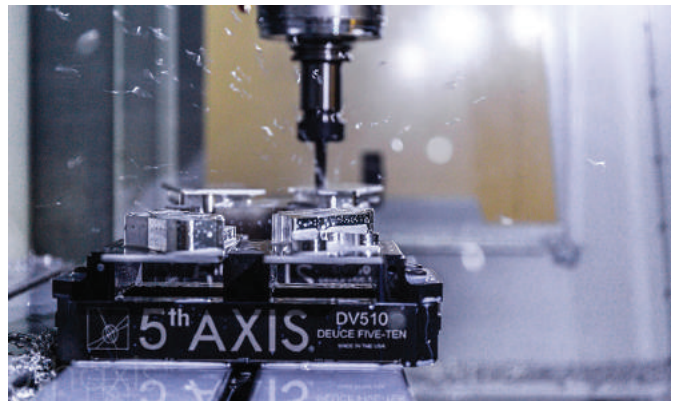
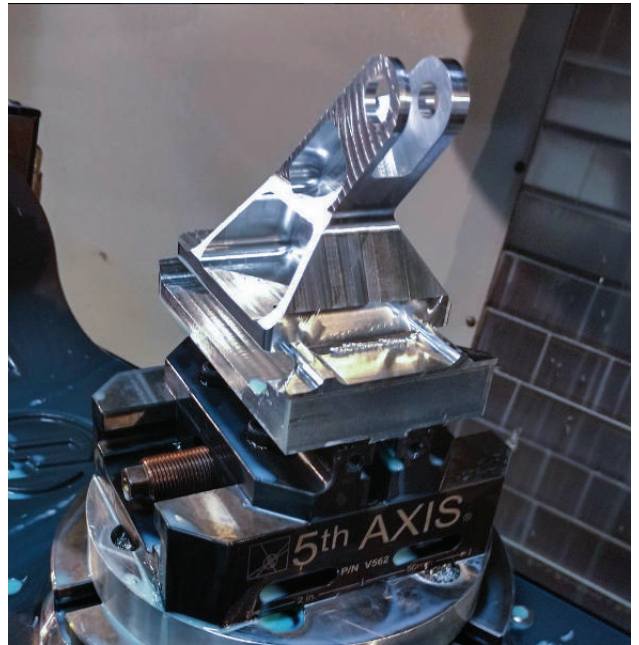
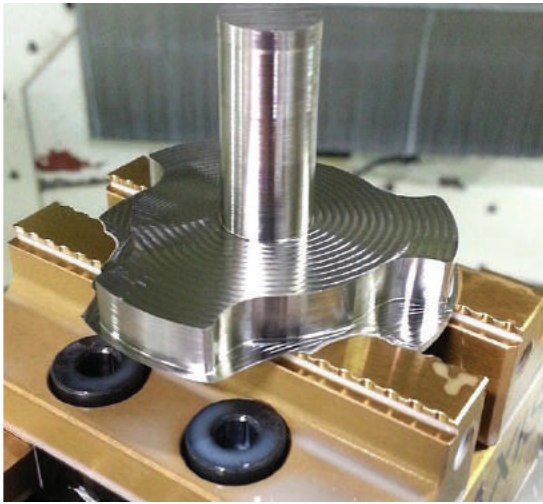
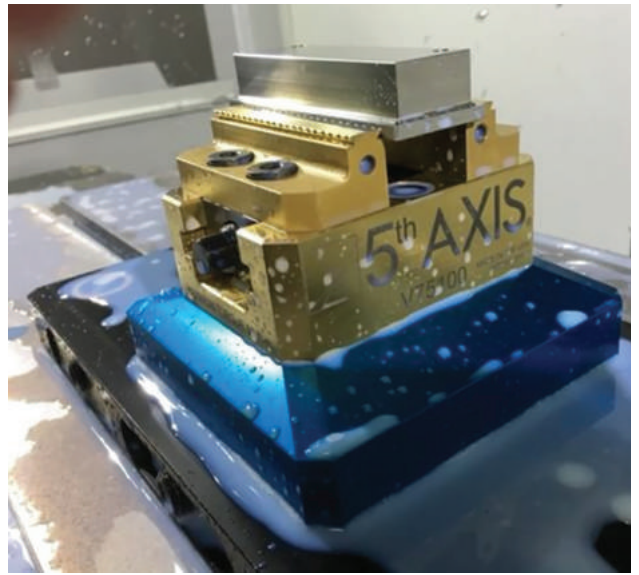
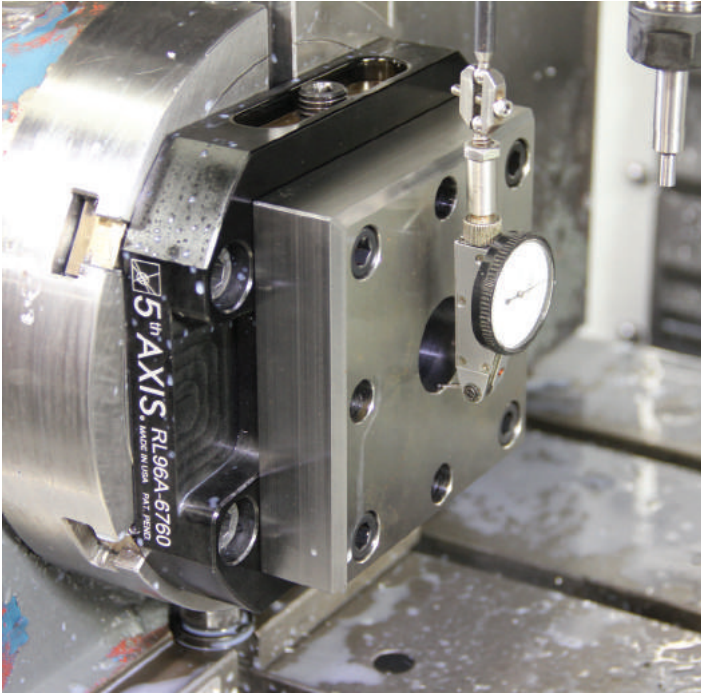
**PS16F**  
**Pull Studs**

Technical Data	*Overall Height	Mounted Fixture
R52-DM12	51mm	DM12 - see page 22
R52-DM12X2	51mm	DM12 - see page 22
R52-DM25	55mm	DM25 - see page 22
R52-DM50	63mm	DM50 - see page 22

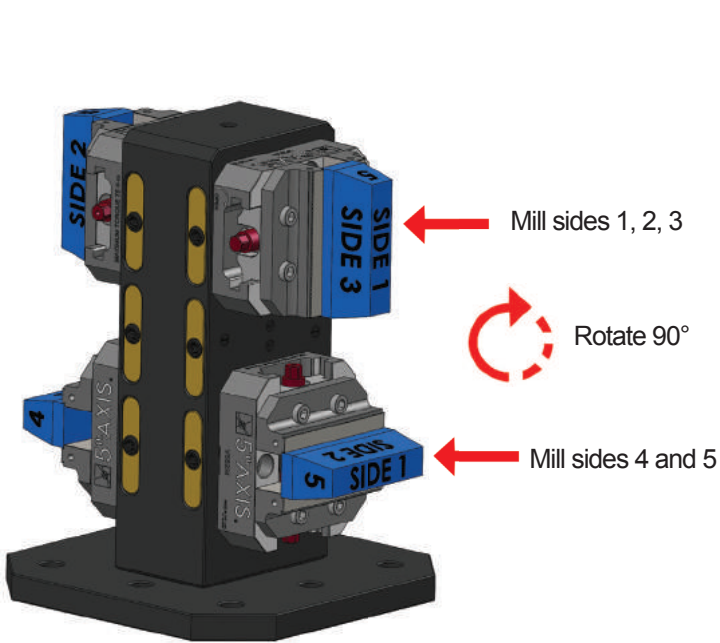
Technical Data	Size	Mounting	Material
RL52A-44	103.5mm x 103.5mm x 25mm	82mm Square	Aluminum
RL52S-44	103.5mm x 103.5mm x 25mm	82mm Square	Steel

\* Height is measured from bottom of base to the top surface of mounted fixture.  
\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)

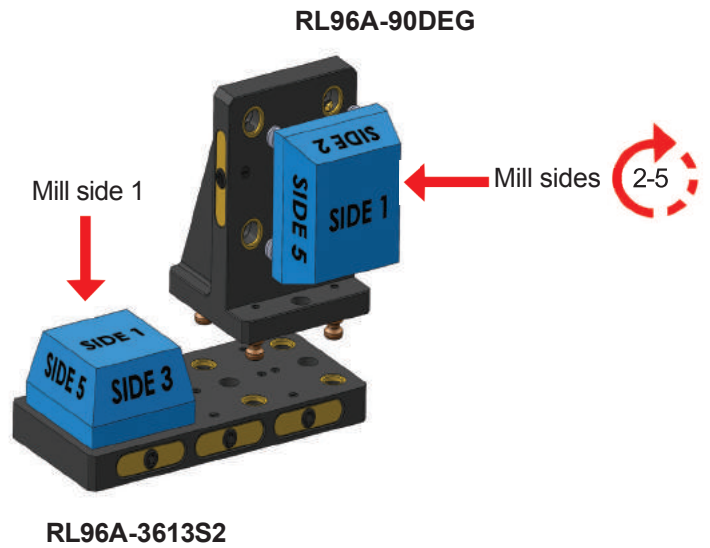




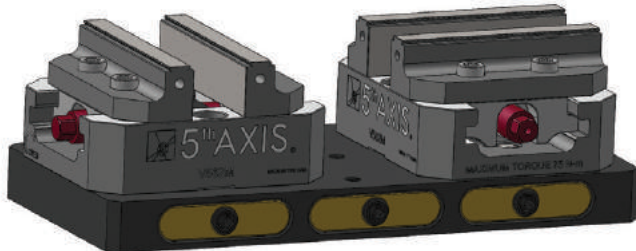




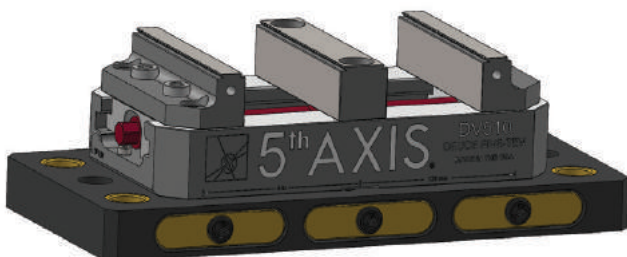
**RL96A-3002**  
Tombstone, 2 sided, 300mm  
Cast iron or aluminum construction  
Hardened steel bushings and locks



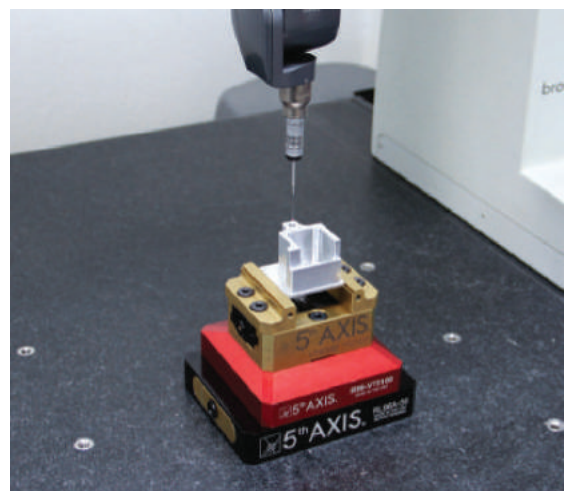
In process inspection on CMM



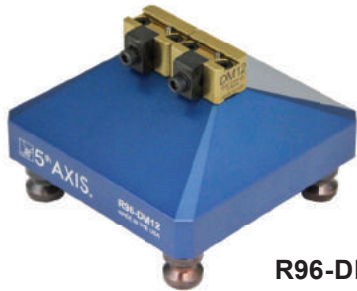
Multi-Position Plates for vertical / horizontal machines 2 to 5 position plates available



Span multiple positions for a large part or a vise



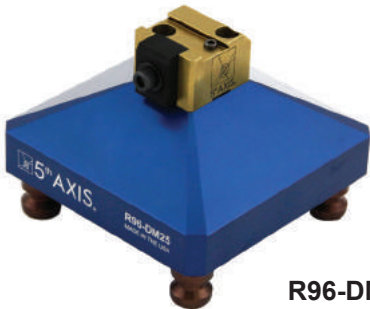
Ultimate Tooling Package Includes: V562M with PS20F pull studs, R96-DM12X2, R96-DM25, R96-DM50, R96-CER40, R96-V75100, RL96-MP master pallet, mounting hardware, dovetail cutter with inserts



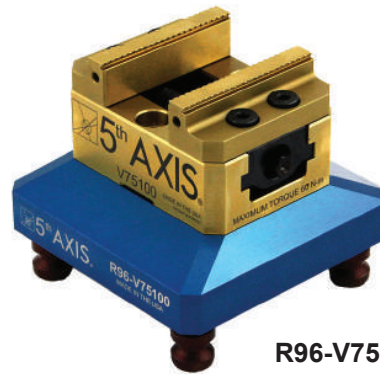
R96-DM12X2



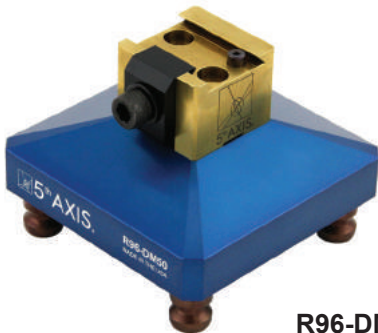
R96-CER40



R96-DM25



R96-V75100



R96-DM50



V562M



Mounting Hardware

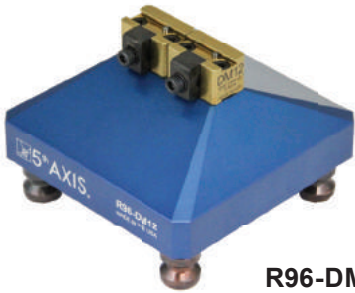


RL96-MP

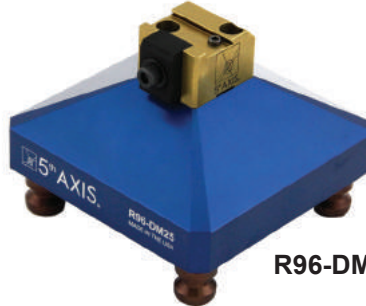


Dovetail Cutter

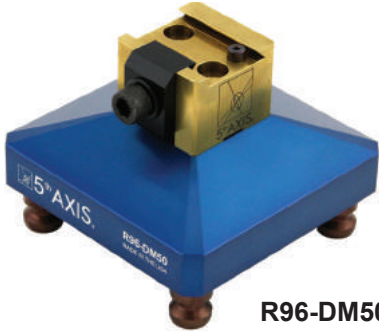
Premium Dovetail Package Includes: R96-DM12X2, R96-DM25, R96-DM50, R96-CER40, RL96-MP master pallet, mounting hardware, dovetail cutter with inserts



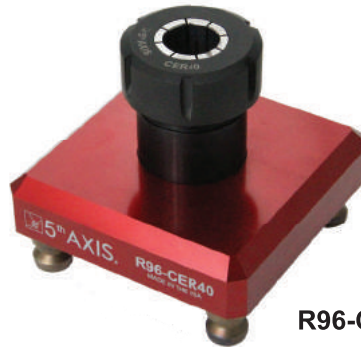
R96-DM12X2



R96-DM25



R96-DM50



R96-CER40



Mounting Hardware



RL96-MP

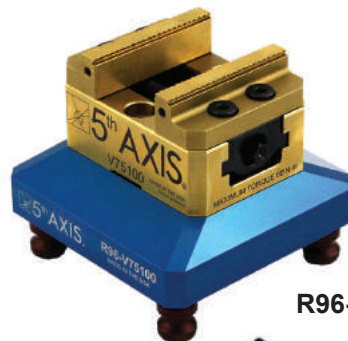


Dovetail Cutter

Premium Vise Package Includes: V562M with PS20F pull studs, R96-V75100, RL96-MP master pallet, mounting hardware, dovetail cutter with inserts



V562M



R96-V75100



Mounting Hardware



RL96-MP



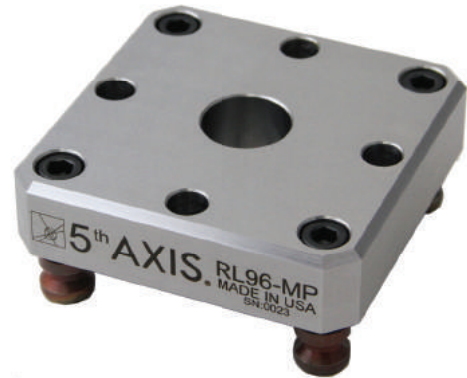
Dovetail Cutter



## How to locate RockLock™ products:

**RL96-MP Steel, Master Pallet**  
For alignment of radial and axial position

- Precision bore to indicate center
- Precision sides to indicate rotation



**RL96-MP  
Master Pallet**

## Centering Spud / Locating Kits

Our locating kits make setups a breeze. The kits include socket head cap screws, t-nuts and a stainless steel locating boss. Metric and Inch kits are both available.

Machine make and model required when ordering to ensure correct fitment.

### Kits are available for all makes and models:

DMG/Mori	GF Machines	Hurco
Haas	Hermle	Hardinge
Mazak	Grob	Nikken
Okuma	Fanuc	Koma
Matsuura	Yasda	Doosan
Makino	OKK	Datron
Feeler	Kitmura	YCM

Call us to find the correct kit for your machine.

\*Custom kits are available if your make or model is not in our standard offering.





**RL96-KD688**  
 Kurt Vise Adapter  
 222.25mm x 338mm x 19.8mm  
 193.68mm Bolt Spacing



**R96-Blank**  
 Machinable RockLock™ Blank



**PS20F**  
 Pull stud, hardened steel  
 Available individually or bulk packs of 20 or 48



**PS20F-4PY**  
 Set of 3 standard pull studs with 1 modified pull stud & Poka Yoke

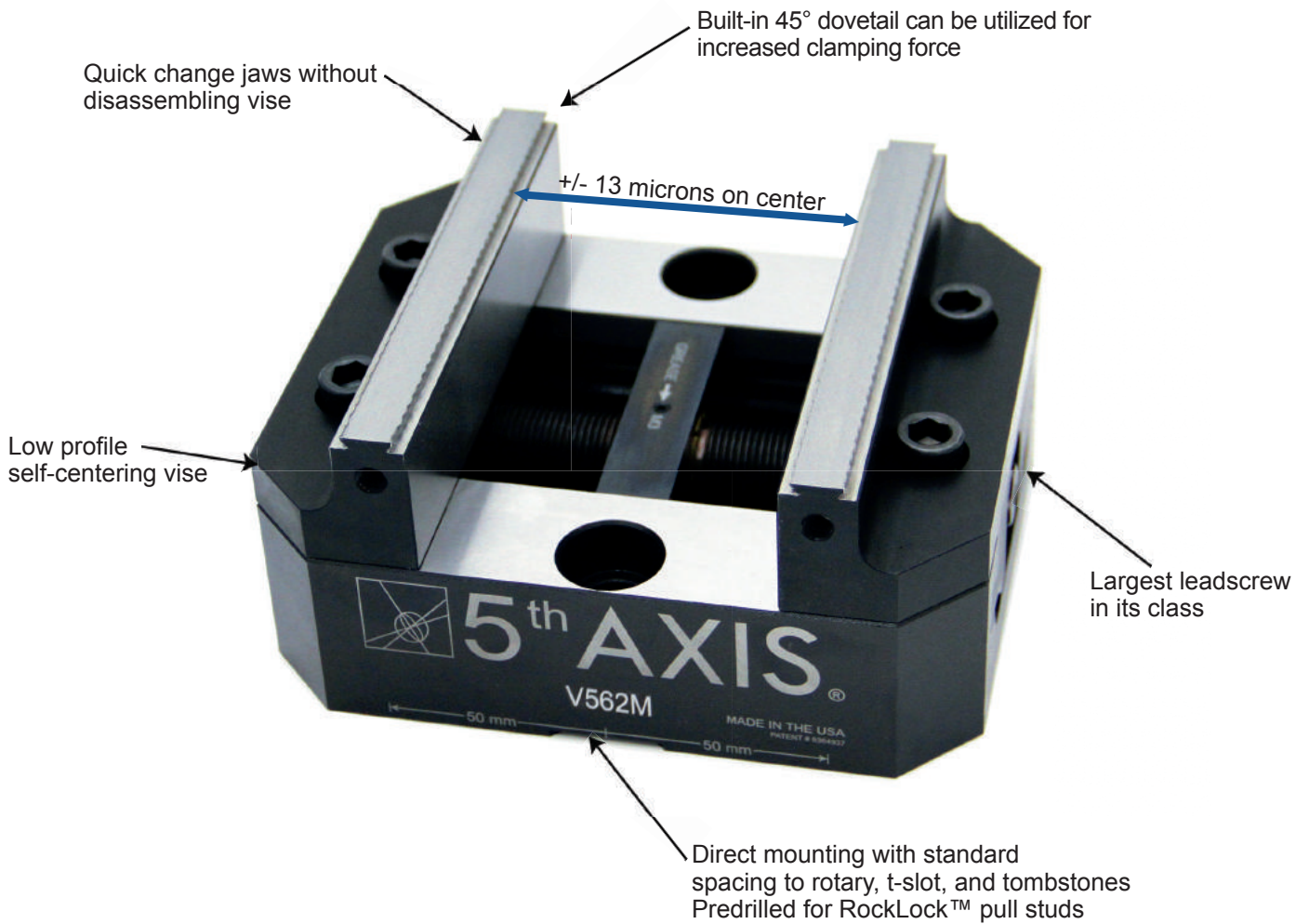


**PS20F-PY**  
 Single modified pull stud with Poka Yoke



# Self-Centering Vises

METRIC VISE



Predrilled for pull studs



Hardened steel



+/- 13 microns on center



Large leadscrew



Jaws are easy to remove



Easy mounting to machine

# 5th Axis Self-Centering Metric Vises



**V75100 75mm x 100mm**



**V552M 125mm x 125mm**



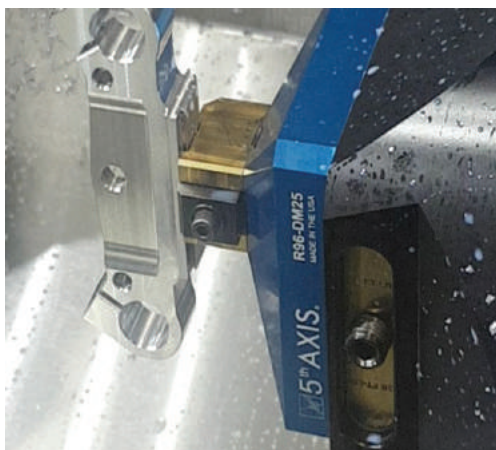
**V6105M 150mm x 250mm**



**V562M 125mm x 150mm**

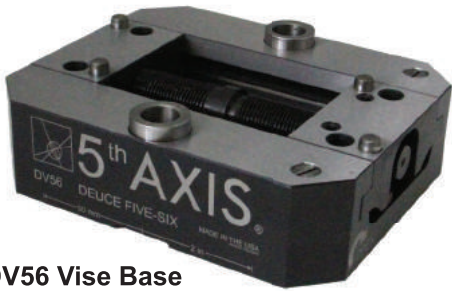
Technical Data	Size	Jaw Width	Clamping Range	Clamping Force	Torque Vise Assembly
V75100	75mm x 100mm x 56.13mm	75mm	0-100mm	13.50 kN @ 61.01 Nm	61.01 Nm
V552M	125.73mm x 127mm x 73.66mm	125.73mm	0-127mm	16.01 kN @ 61.01 Nm	74.57 Nm
V562M	125.73mm x 152.4mm x 73.66mm	125.73mm	0-152.4mm	16.01 kN @ 61.01 Nm	74.57 Nm
V6105M	149.86mm x 254mm x 93.98mm	149.86mm	0-254mm	16.01 kN @ 61.01 Nm	101.69 Nm

\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)





# Double Station Vises DV56 & DV510



DV56 Vise Base



DV510 Vise Base

Technical Data	Size	Jaw Width	Clamping Range	Clamping Force	Torque Vise Assembly
DV56	125.73mm x 152.4mm x 41.3mm	125.73mm	0-139.7mm	16.01 kN @ 61.01 Nm	74.57 Nm
DV510	125.73mm x 254mm x 41.3mm	125.73mm	0-241.3mm	16.01 kN @ 61.01 Nm	74.57 Nm

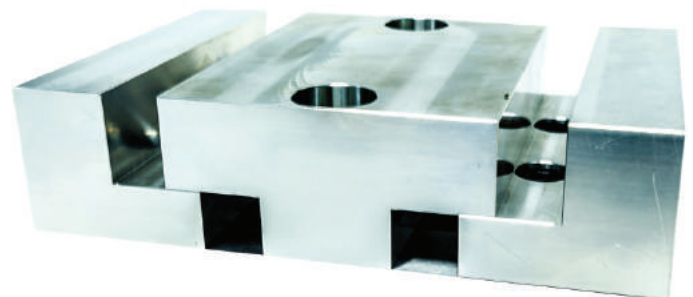


**Double Station Hard Jaw Set**  
**DV56-3R** with 25.4mm Center Jaw  
 compatible with DV56 & DV510  
 Jaw height 31.75mm



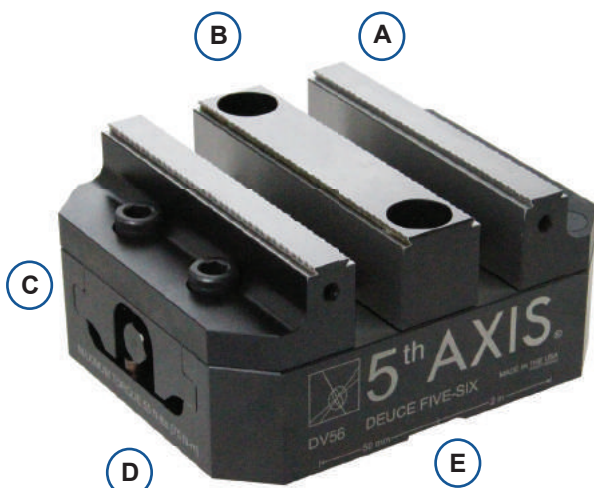
**DV510-3R** with 50.8mm Center Jaw  
 compatible with DV510  
 Jaw height 31.75mm

\*Jaw sets are sold separately from base



**Double Station Machinable Jaw Set**  
**DV56-MJ** Compatible with DV56  
**DV510-MJ** Compatible with DV510  
 Machinable jaw height 47.625mm

\*Jaw sets are sold separately from base



Compatible with RockLock™ System

- (A) Quick change jaws without disassembling vise
- (B) Remove center jaw for easy conversion from double station to fixed jaw single station
- (C) Heat-treated steel construction
- (D) Low profile design (maximize work envelope)
- (E) Standard bolt spacing (2x M12 bolts @ 100mm)

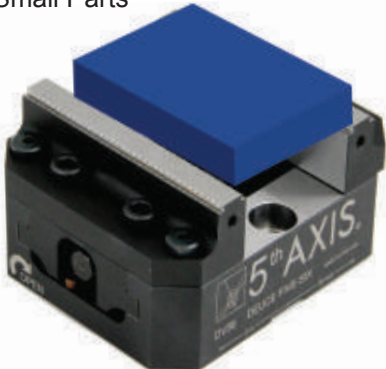


# Double Station Vises

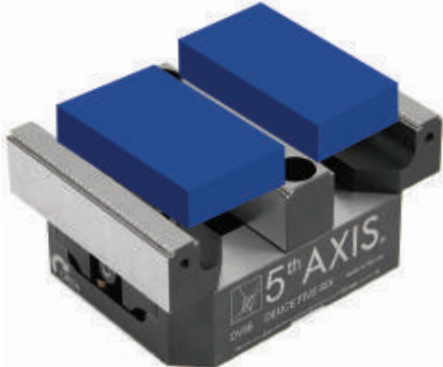
## DV56



2 Small Parts



1 Large Part (up to 139.7mm with jaws reversed & fixed)

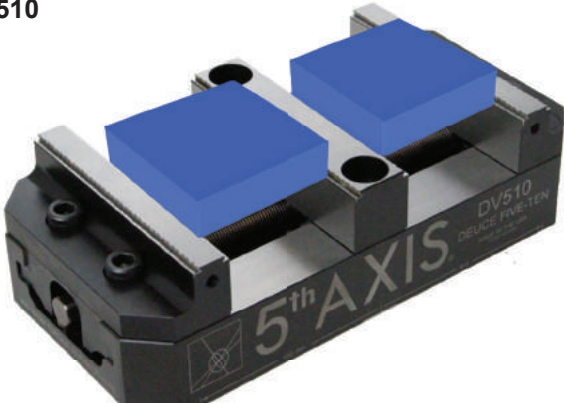


2 Medium Parts (up to 57mm with jaws reversed)

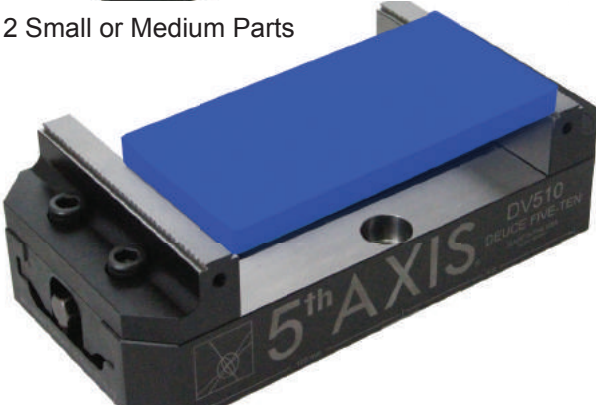


Soft Jaws

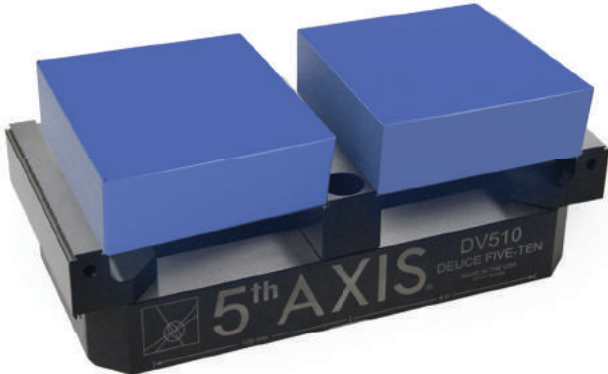
## DV510



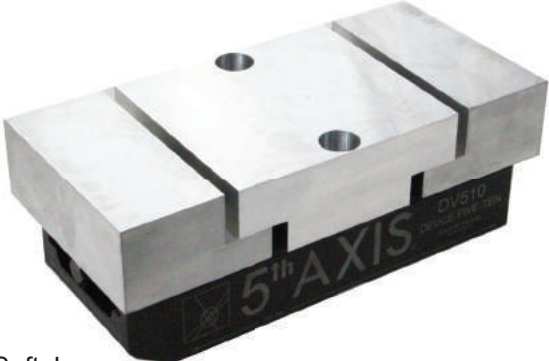
2 Small or Medium Parts



1 Large Part (up to 241.3mm with jaws reversed & fixed)



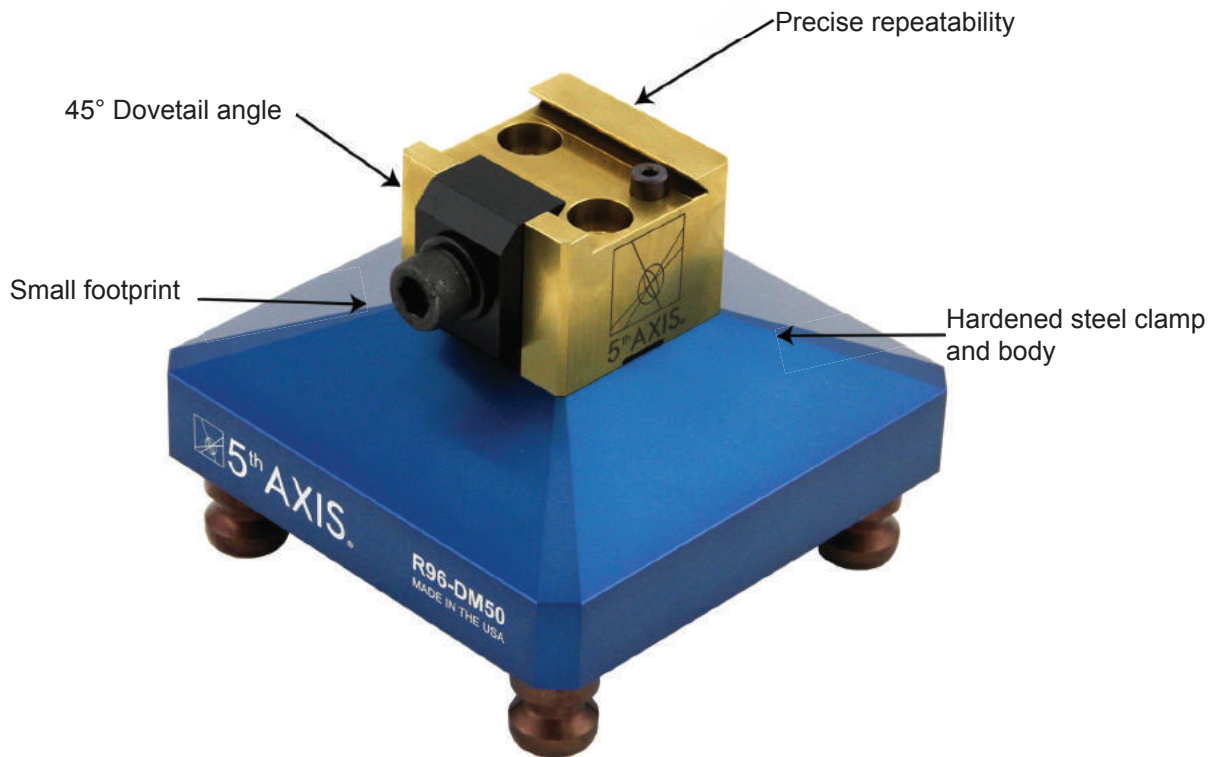
2 Medium Parts (up to 108mm with DV56-3R) (up to 95mm with DV510-3R)



Soft Jaws

DOUBLE VISE

# Dovetail Fixtures



Small footprint



Steel construction



Removable locating pins



Single actuation



Unsurpassed clamping force



Easy mounting to machine



**DM12**  
Stock under 25mm



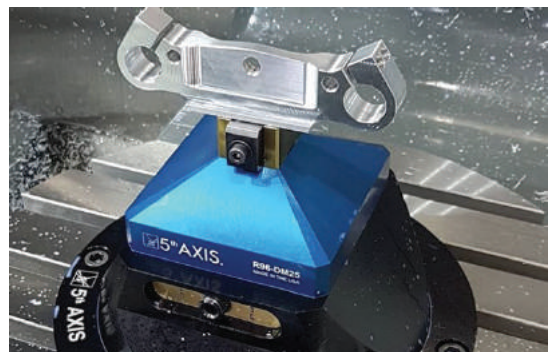
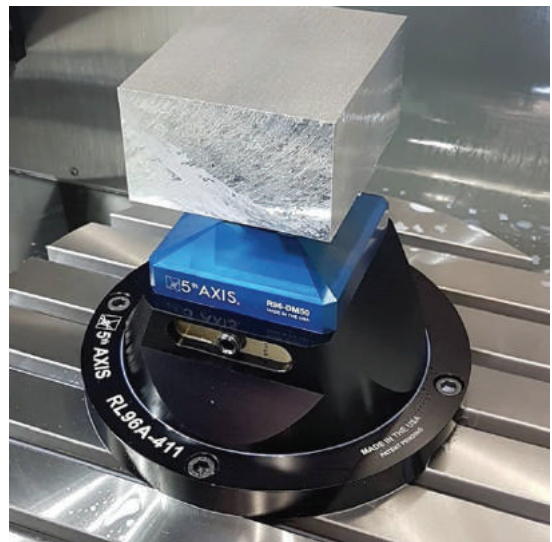
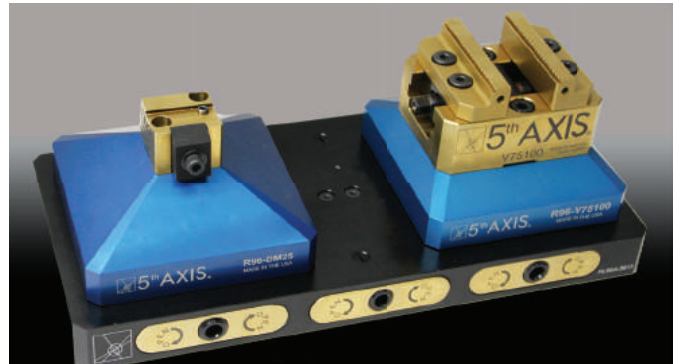
**DM25**  
Stock under 75mm



**DM50**  
Stock 50mm and above



**CER40**  
Fits standard ER40 collets for round stock up to 25mm



Technical Data	Overall Width	Overall Height	Min Stock Size	Dovetail Depth
DM12	32mm	19mm	12mm	2.54mm
DM25	37mm	27mm	25mm	2.54mm
DM50	50mm	38mm	50mm	5.08mm

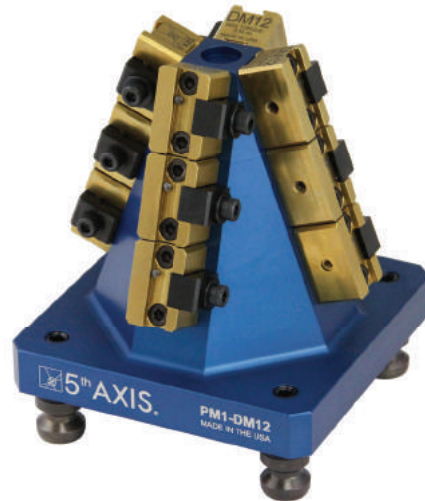
\* CAD models available for download at [www.5thaxis.com](http://www.5thaxis.com)



## For Stock Under 25mm

This 4-sided pyramid utilizes twelve DM12 dovetail fixtures. The orientation of the fixtures on the pyramid ensures optimal tool clearance for multiple parts.

- The modular design allows for fixtures to be added or removed depending on the length of the workpiece
- This provides maximum amount of flexibility
- Machine up to 12 parts on this compact unit
- RockLock™ Mounting



**PM1-DM12**  
Includes 12ea DM12

## Maximize Pallet Efficiency

This compact pyramid utilizes four DM25 dovetail fixtures.

- The small footprint ensures no space is wasted allowing simultaneous machining of four parts
- Run more parts per cycle and minimize pallet and tool changes
- This versatile fixture can be mounted on trunnions, pallets and machine tables etc
- RockLock™ Mounting



**PM2-DM25**  
Includes 4ea DM25



## Vises available for the following palletized systems:

- Erowa
- System 3R
- Matsuura

\*See website or call for additional makes and models.



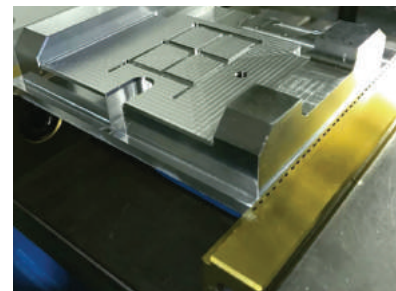
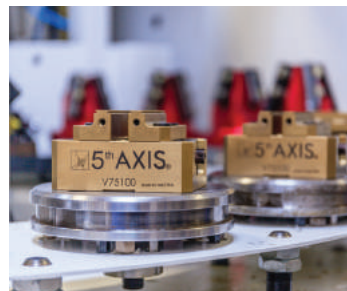
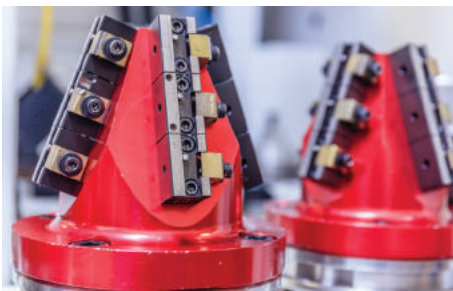
3 Sided Vise Pyramid with (3) RL96A-56

← Ø380mm →

**PY30RL96-56** 30° angle  
For use with 120° tilt

**PY20RL96-56** 20° angle  
For use with 110° tilt

- Pyramids are compatible with 96mm RockLock™ top tooling
- Top tooling can be mounted in vertical or horizontal orientation
- Machine make and model required when ordering to ensure correct fitment





## Machinable 6061 Aluminum Jaws

---

**Metric:**

**VAJ75** 75mm x 45mm x 25mm Compatible with V75100

**VAJ52M** 125mm x 50mm x 34mm Compatible with V562M / V552M

**VAJ610M** 151mm x 78mm x 47mm Compatible with V6105M



## Machinable 1018 Steel Jaws

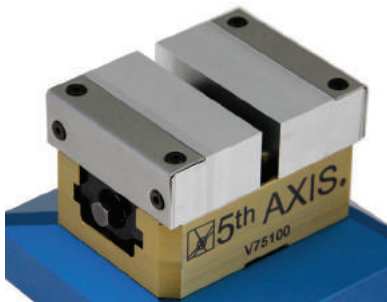
---

**Metric:**

**VSJ75** 75mm x 45mm x 25mm Compatible with V75100

**VSJ52M** 125mm x 50mm x 34mm Compatible with V562M / V552M

**VSJ610M** 151mm x 78mm x 47mm Compatible with V6105M



## Coming soon . . . Anti-lift jaws

---



## Dovetail Cutters

---

**DC1750-M**

45° Indexable Dovetail Cutter, 25mm shank

**DC1750-M60**

60° Indexable Dovetail Cutter, 25mm shank

\*Compatible with Raptor and other 60° dovetail systems

**DC1750-B**

Inserts for Dovetail Cutter

\*Compatible with all 5th Axis dovetail cutters



## DJ6 Gripper Jaws

The **DJ6** gripper jaws with built-in 45° dovetails are the perfect accessory for your 6" machine vise. Jaws are heat treated and precision ground for superior repeatability and longevity.

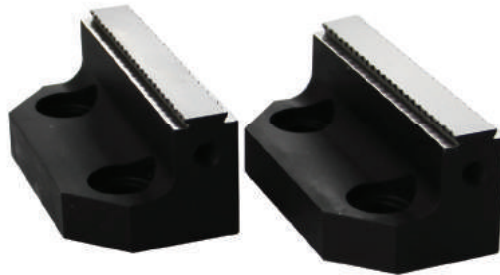
- Fits standard 6" Kurt vise
- 25mm step depth
- 45° built-in dovetail
- 55 HRC and TiN coated



## Narrow Jaws

Our 76.2mm Narrow Jaws are perfect when requiring a little bit more clearance than the standard 125.73mm jaws.

**NT5-M**-Compatible with V552M & V562M



## Thumb Screws

Thumb screws are included with every vise. Fits standard 3/8" drives.

Replacement thumb screws:

**TS10** - Used on V75100

**TS13** - Used on DV56, DV510, V552M, & V562M

**TS17** - Used on V6105M



## Threaded Locating Pins

Locating pins are included with every vise.

Replacement locating pins:

**LP6** - 6mm OD

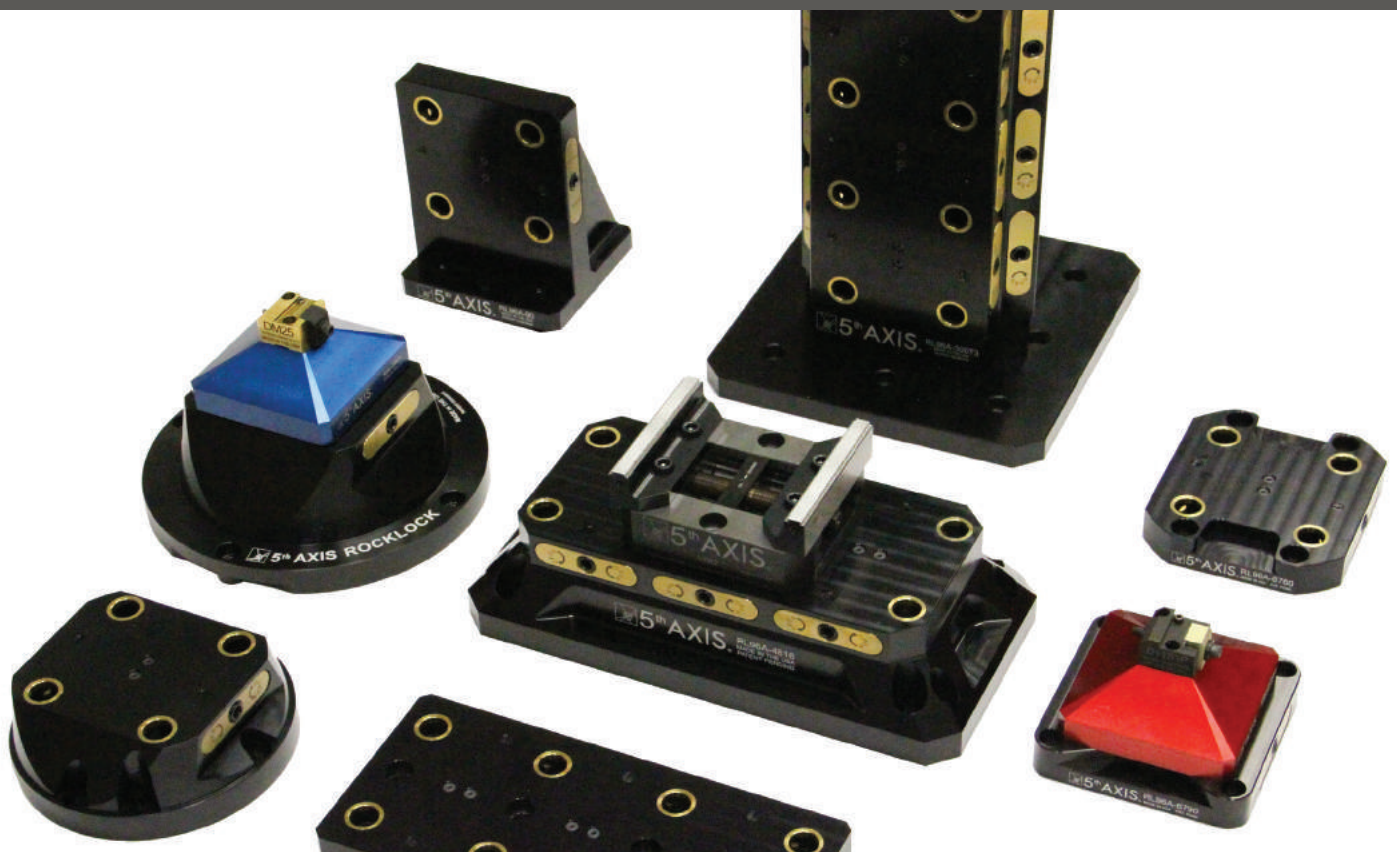
**LP8** - 8mm OD

**LP10** - 10mm OD





# 5<sup>th</sup> AXIS<sup>®</sup>



**ROCKLOCK<sup>™</sup>**



**Made in USA**

7140 Engineer Rd.  
San Diego, CA 92111  
p: 858-505-0432  
f: 858-505-9344



e: [workholding@5thaxis.com](mailto:workholding@5thaxis.com)  
[www.5thaxis.com](http://www.5thaxis.com)