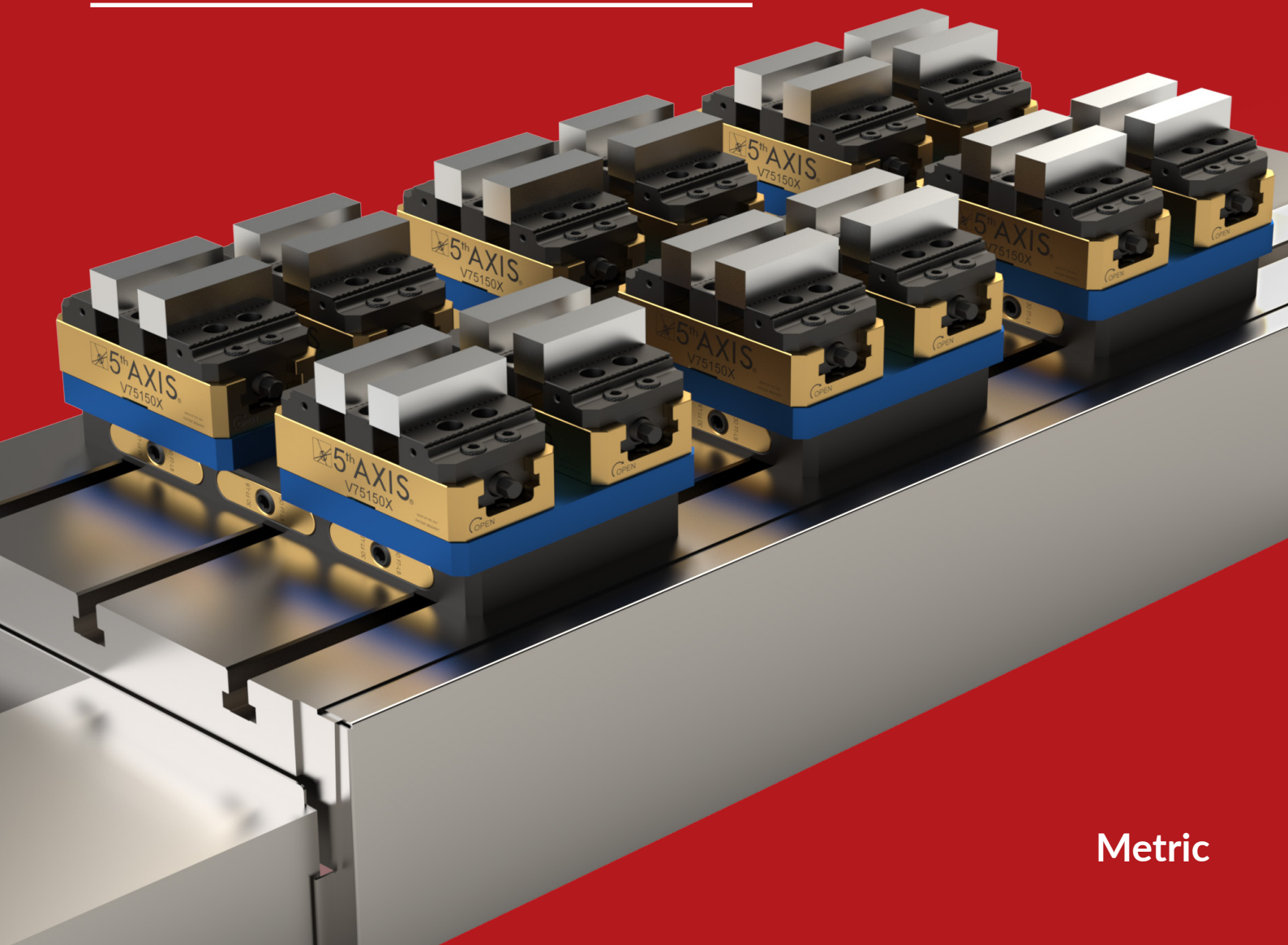


# 5<sup>th</sup> AXIS<sup>®</sup>

Workholding Evolved.

VOLUME **3**

VICES - FIXTURES - QUICK CHANGE SYSTEMS



52mm RockLock

Maximum efficiency with 52mm



52mm RockLock



Reduce Setup and Changeover Time



Simple Modular Design



Solutions Available for 3, 4, & 5 Axis Machines



Repeatability less than .0003"

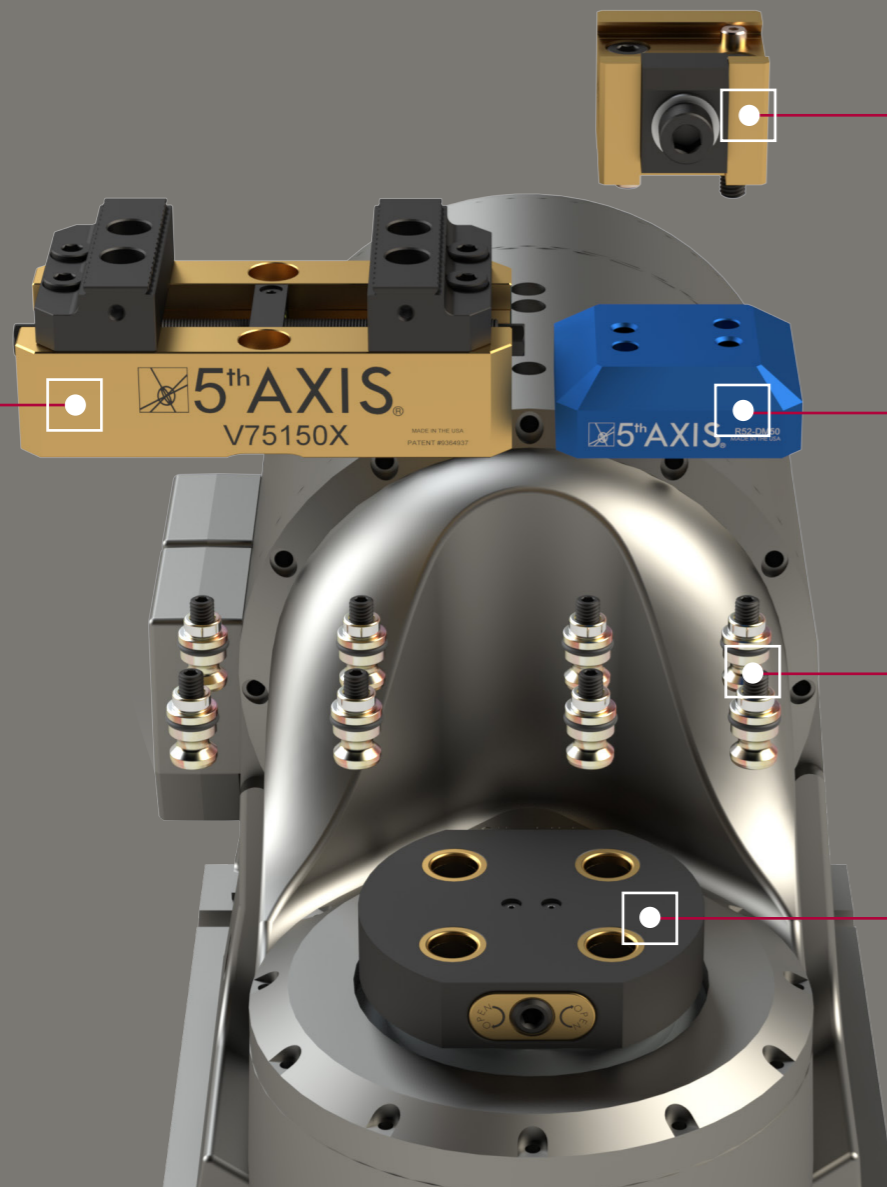


Industry standard 52mm pull stud spacing



Steel or aluminum body construction

Small Vise



Top Tooling Fixture

Adapter

PS16F

Base



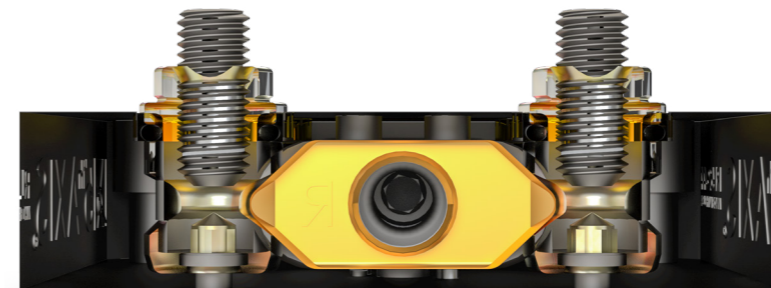
52mm Pull Stud Spacing



Robust Single Actuation Screw






Steel Locating Features



Patented free float design ensures equal force on all 4 pull studs. Compatible with other 52mm 4 pull stud systems. Simply change out the pull studs to ensure that the manufacturer's base plate and pull studs match.

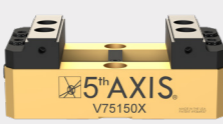
### Double Station Vises

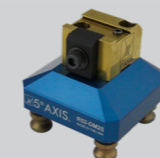


Part Number	DV75150X-J1	DV75150X-J2	DV75150X-J3
			
Fixture Size	75mm x 150mm x 56mm	75mm x 150mm x 64.1mm	75mm x 150mm x 64.1mm
Jaw Width	75mm	75mm	75mm
Jaw Set	Hardened Steel 3 Piece Master Jaw Set Serrated Dovetail	6061 Aluminum Machinable Jaw Set	1018 Steel Machinable Jaw Set
Vise Type	Double Station	Double Station	Double Station
Compatible Pull Studs	4x PS16F (Sold seperately)	4x PS16F (Sold seperately)	4x PS16F (Sold seperately)
Additional Vise Specs	See Page 39	See Page 39	See Page 39

### Metric Dovetail Fixtures

Part Number	R52-DM12	R52-2DM12	R52-P12DM12
			
Size	75mm x 75mm x 51mm	75mm x 75mm x 51mm	125.73mm x 125.73mm x 133.5mm
Fixture	DM12	2x DM12	12x DM12
Stock	12mm and Above	12mm and Above	12mm and Above
Compatible Pull Studs	4x PS16F (Included)	4x PS16F (Included)	4x PS16F (Included)
Additional Fixture Specs	See Page 53	See Page 53	See Page 57

### Self-Centering Vises and Round Bar Fixture

Part Number	V75100X	V75150X	R52-CER40
			
Size	75mm x 100mm x 56mm	75mm x 150mm x 56mm	2.95" x 2.95" x 2.67"
Jaw Width	75mm	75mm	Utilizes Standard ER40 Collet Nut
Fixture	V75100X	V75150X	CER40
Overall Clamping Range	0 - 76.3mm	0 - 128.8mm	Accepts Only ER40 Size Collet
Vise Type	Self-Centering	Self-Centering	Round Bar Fixture
Compatible Pull Studs	4x PS16F (Sold seperately)	4x PS16F (Sold seperately)	4x PS16F (Included)
Additional Vise Specs	See Page 45	See Page 45	See Page 59

Part Number	R52-DM25	R52-P4DM25	R52-DM50
			
Size	75mm x 75mm x 55mm	Ø152.4mm x 64.9mm	75mm x 75mm x 63mm
Fixture	DM25	4x DM25	DM50
Stock	25mm and Above	25mm and Above	50mm and Above
Compatible Pull Studs	4x PS16F (Included)	4x PS16F (Included)	4x PS16F (Included)
Additional Fixture Specs	See Page 53	See Page 58	See Page 53



52mm RockLock

52mm RockLock

**Low Profile Adapters**

Part Number	RL52A-4 RL52S-4	RL52A-4-96 RL52S-4-96	RL52A-4-TRT100
Size	Ø116mm x 25mm	Ø116mm x 25mm	Ø116mm x 25mm
Subcategory	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter
Materials	Aluminum (RL52A-4) or Steel (RL52S-4)	Aluminum (RL52A-4-96) or Steel (RL52S-4-96)	Aluminum (RL52A-4-TRT100)
Mounting	Drill Your Own @ 50mm-100mm*	2x M10 or 3/8" SHCS @ 96mm	HAAS TRT 100
Additional RockLock Specs	See Page 6	See Page 6	See Page 6

**Low Profile Adapters and Integrated Tombstone**

Part Number	RL52A-44 RL52S-44	RL52A-4560 RL52S-4560	RL52A-A96	RL52A-T31
Size	103.5mm x 103.5mm x 25mm	122.0mm x 102.1mm x 25mm	124.0mm x 124.0mm x 25mm	Ø160mm x 167mm
Subcategory	Low Profile Adapter	Low Profile Adapter	96mm to 52mm Adapter	52mm Integrated Tombstone 96mm Base
Materials	Aluminum (RL52A-44) or Steel (RL52S-44)	Aluminum (RL52A-4560) or Steel (RL52S-4560)	Aluminum (RL52A-A96)	Aluminum (RL52A-T31)
Mounting	2x SB1210 (Included) and 2x M12 or 1/2" @ Ø82mm 90°	4x M10 or 3/8" @ Ø116mm 60°	96mm Spacing and Includes 4x PS20F	96mm Spacing and Includes 4x PS20F
Additional RockLock Specs	See Page 7	See Page 7	See Page 8	See Page 8

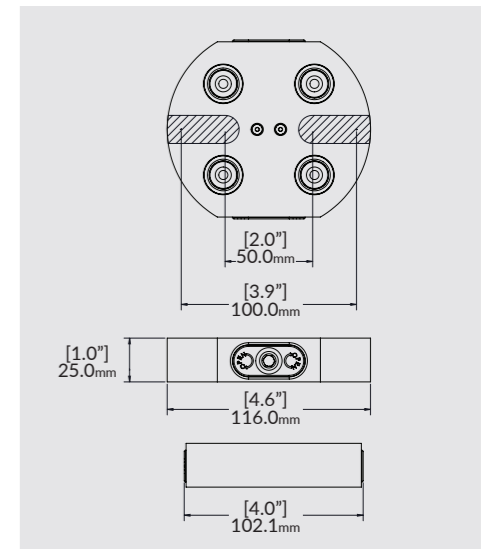
**RL52A-4 / RL52S-4**



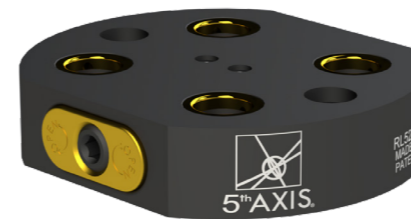
**Size:** Ø116mm x 25mm  
**Bolt Pattern:** Drill Your Own Custom @ 50mm-100mm  
**Material Construction:** Aluminum (RL52A-4) Steel (RL52S-4)

This circular RockLock adapter is built for small and medium sized rotaries and trunnions with 50mm to 100mm bolt circle.

Repeatability of +/- 0.0003".



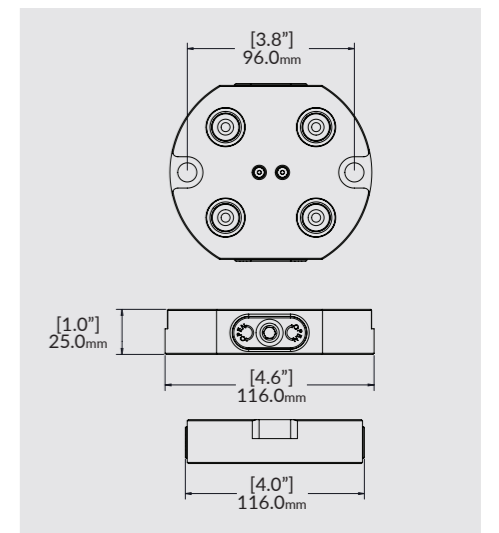
**RL52A-4-96 / RL52S-4-96**



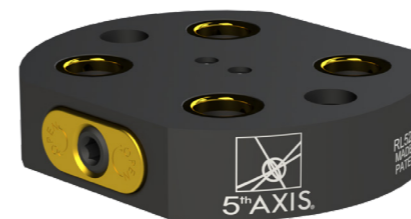
**Size:** Ø116mm x 25mm  
**Bolt Pattern:** 2x M10 or 3/8" SHCS @ 96mm  
**Material Construction:** Aluminum (RL52A-4-96) Steel (RL52S-4-96)

This circular RockLock adapter is built for small and medium sized rotaries and trunnions with 96mm bolt circle.

Repeatability of +/- 0.0003".



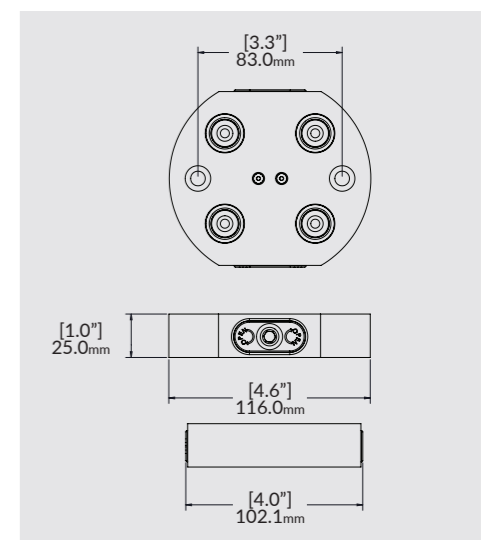
**RL52A-4-TRT100**



**Size:** Ø116mm x 25mm  
**Bolt Pattern:** 2x 5/16" @ 82.98mm  
**Material Construction:** Aluminum (RL52A-4-TRT100)

This circular RockLock adapter is built for the Haas TRT100 trunnion.

Repeatability of +/- 0.0003".





52mm RockLock

**RL52A-44 /  
RL52S-44**

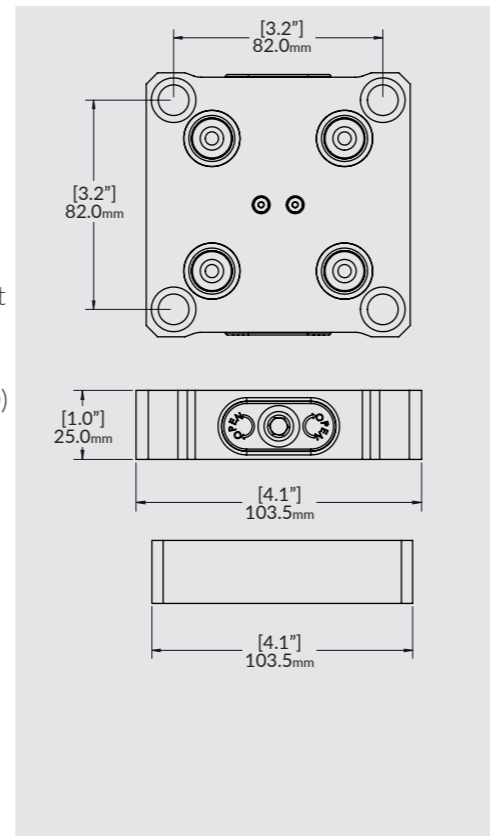


**Size:** 103.5mm x 103.5mm x 25mm  
**Spacing:** 2x SB1210 (Included) and 2x M12 or 1/2" @ Ø82mm 90°.  
 Through hole Ø12.02mm  
**Material Construction:**  
 Aluminum (RL52A-44)  
 Steel (RL52S-44)

This square low profile adapter is built for custom tombstones.

Ships with 2x shoulder bolts (SB1210) for locating.

Repeatability of +/- 0.0003".



**RL52A-4560 /  
RL52S-4560**

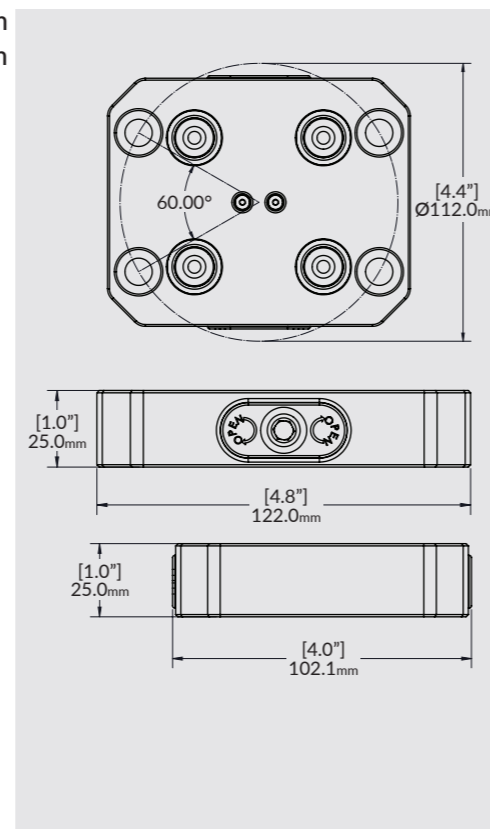


**Size:** 122.0mm x 102.1mm x 25.0mm  
**Spacing:** 4x M10 or 3/8" @ Ø116mm  
**Material Construction:**  
 Aluminum (RL52A-4560)  
 Steel (RL52S-4560)

This rectangular low profile adapter is built for small and medium sized rotaries with 60-degree T-slot spacing.

Ships with 2x rounded T-Slot nuts (14mm x M10) for maximum bolt circle capability.

Repeatability of +/- 0.0003".



**RL52A-A96**



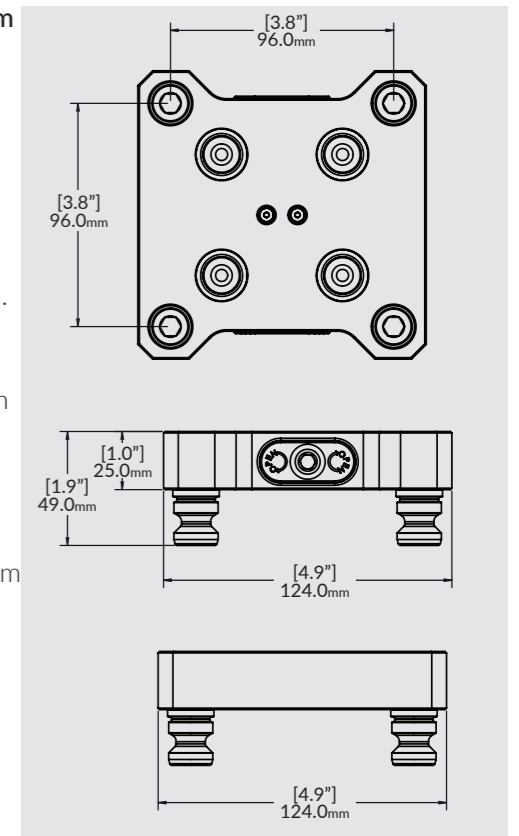
**Size:** 124.0mm x 124.0mm x 25.0mm  
**Bolt Pattern:** 96mm Spacing and Includes 4x PS20F  
**Material Construction:**  
 Aluminum (RL52A-A96)

The RL52A-A96 allows for the quick and easy conversion between the 96mm system and the 52mm system.

96mm spacing on the bottom of the unit and the integrated 52mm system on the top quickly adapts 52mm top tooling to the 96mm risers and adapters.

The unit includes 4x PS20F and 96mm RockLock pattern on the bottom for mounting to any RL96 base.

Repeatability of +/- 0.0003".



**RL52A-T31**



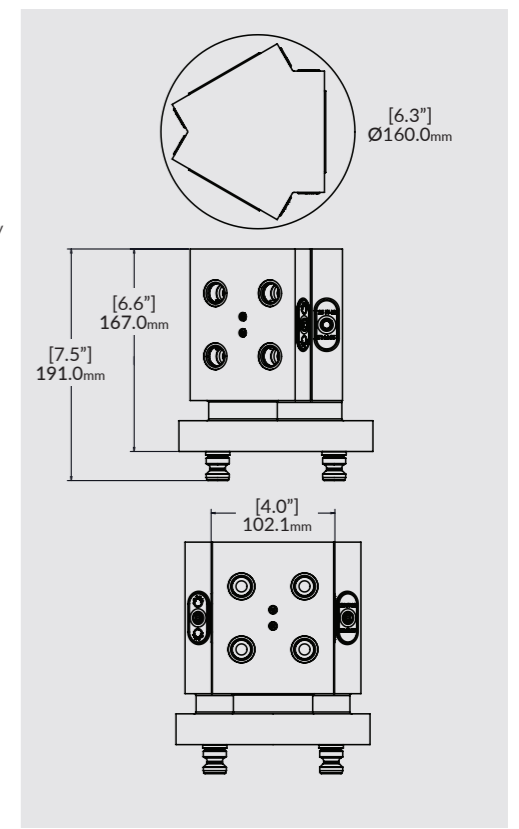
**Size:** Ø160mm X 167.0mm  
**Spacing:** Includes 4x PS20F  
**Material Construction:**  
 Aluminum (RL52A-T31)

This 3-sided integrated RockLock tombstone can be mounted onto any RL96 base.

52mm spacing on the 3 faces of the tombstone. 96mm spacing on the bottom of the tombstone.

4x PS20F are included.

Repeatability of +/- 0.0003".



52mm RockLock



## PS16F

### PULL STUD

**Size:** 52mm Pull Studs

**Material Construction:** S7 Tool Steel

The PS16F is necessary to use any 5th Axis 52mm base. The 52mm spacing on 5th Axis vises and adapters allow for compatibility with other competitive systems.

\*Please note that pull studs must stay with the corresponding company's base plate. If you are using a 5th Axis 52mm RockLock base plate you will need 5th Axis pull studs (PS16F). The spacing and thread allows for the top tooling to be interchangeable between the competitive systems.



## PS16F-PY

### SINGLE PULL STUD WITH POKA-YOKE INSERT

**Size:** 52mm Pull Studs

**Material Construction:** S7 Tool Steel

Poka-yoke is a Japanese term that means "mistake-proofing" or "inadvertent error prevention". The PS16F-PY is a single modified pull stud with aluminum ring. The ring is placed inside one of the locating holes in the RockLock base, allowing for only the single poka-yoke pull stud to fit inside the locating hole with the corresponding ring. This will prevent operators from changing the orientation and misloading a part.



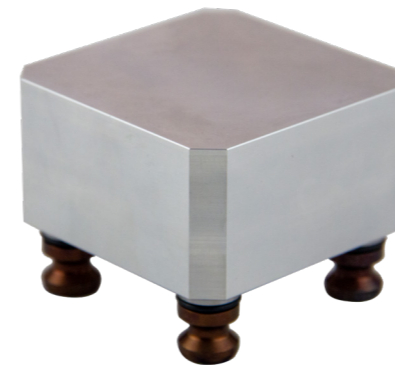
## PS16F-4PY

### PULL STUDS WITH POKA-YOKE INSERT

**Size:** 52mm Pull Studs

**Material Construction:** S7 Tool Steel

3x Standard PS16F Pull Studs and one Poka-Yoke (PS16F-PY).



## R52-BLANK

**Size:** 52mm Pull Studs

**Material Construction:** 6061 Aluminum

Blank 6061 aluminum block with 4x PS16F pull studs included. Quickly build your own fixture / subplate with the R52-Blank.



## R52-HTS

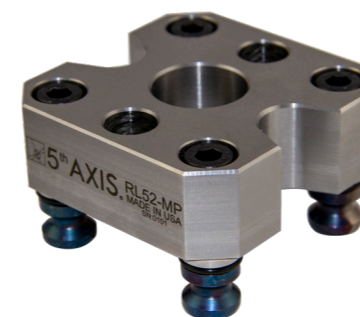
**Size:** 52mm Pull Studs

**Material Construction:** 6061 Aluminum

Quick change adapter for the Renishaw OTS Tool Setter. Accurately remove and relocate the tool probe when its not in use. The part number includes the adapter plate + 4x PS16F pull studs.

\*Requires any 52mm RockLock base unit.

\*\*Tool setter sold separately.



## RL52-MP

**52mm Master Pallet**

**Size:** 52mm Pull Studs

**Material Construction:** 4140 Steel

Mount the RockLock base onto the machine, drop in the master pallet, dial in your setup, and torque your mounting bolts once you have reached the desired location. This is the fastest, most accurate way to set up the RockLock system. Use the bore to find center and the edge to set rotation.

See page 33 for more info.

Maximum efficiency with 96mm

# ROCKLOCK™ QUICK CHANGE SYSTEM



96mm RockLock

Reduce Setup and Changeover Time

Simple Modular Design

Solutions Available for 3, 4, & 5 Axis Machines

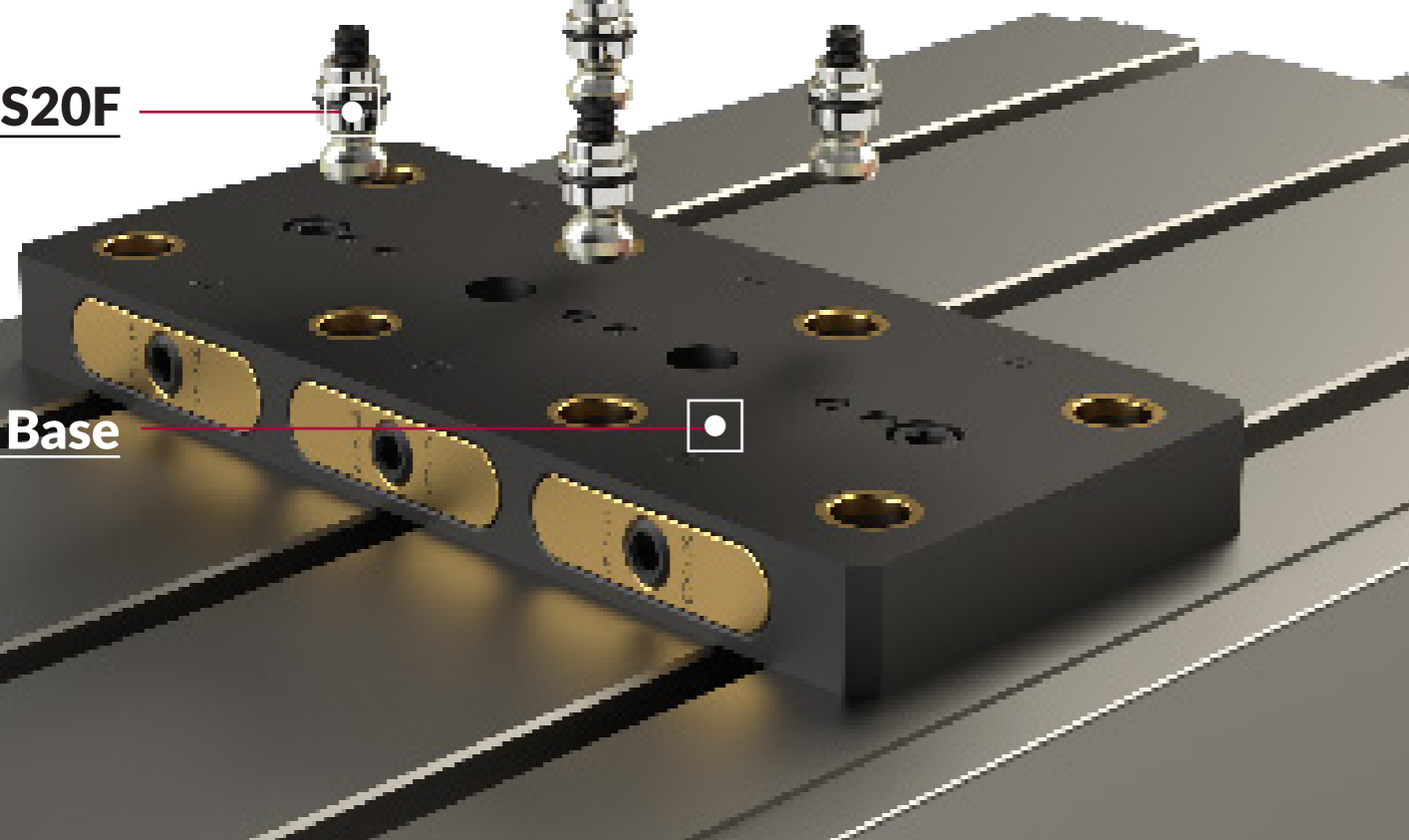
Vise



PS20F



Base



# ROCKLOCK™ QUICK CHANGE SYSTEM

Repeatability less than .0003"

Industry standard 96mm pull stud spacing

Steel or aluminum body construction

96mm RockLock



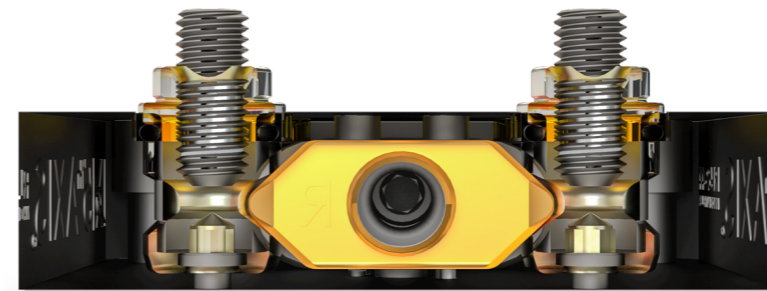
96mm Pull Stud Spacing



Robust Single Actuation Screw



Steel Locating Features



Patented free float design ensures equal force on all 4 pull studs. Compatible with other 96mm 4 pull stud systems. Simply change out the pull studs to ensure that the manufacturer's base plate and pull studs match.



**RockLock 96mm Compatible Self-Centering Vises**

Part Number	V552M	V562M	V510M	V6105M
<b>Size</b>	125.7mm x 127mm x 73.6mm	125.7mm x 152.4mm x 73.6mm	126mm x 152mm x 74mm	150mm x 250mm x 94.1mm
<b>Compatible Pull Studs</b>	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)
<b>Overall Clamping Range</b>	0 - 56.9mm	0 - 153.6mm	0 - 254.8mm	0 - 243.3mm
<b>Additional Vise Specs</b>	See Page 46	See Page 47	See Page 48	See Page 49

96mm RockLock

96mm RockLock

**RockLock 96mm Double Station Vises**

Part Number	R96-DV75150X-J1	R96-2DV75150X-J1	DV56-J1*	DV510-J1*	DV510-J4*
<b>Size</b>	125.73mm x 151.13mm x 87.88mm	150mm x 176.53mm x 78.2mm	125.7mm x 152.4mm x 72.9mm	125.7mm x 258.3mm x 73.4mm	125.7mm x 258.3mm x 73.4mm
<b>Vise</b>	DV75150X-J1	2x DV75150-J1	DV56-J1	DV510-J1	DV510-J4
<b>Jaw Set</b>	Hardened Steel 3 Piece Master Jaw Set	Hardened Steel 3 Piece Master Jaw Set	Hardened Steel 3 Piece Master Jaw Set	Hardened Steel 3 Piece Master Jaw Set with 2 inch center	Hardened Steel 3 Piece Master Jaw Set with 1 inch center
<b>Compatible Pull Studs</b>	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)
<b>Vise Type</b>	Double Station	Double Station	Fixed Jaw / Double Station	Fixed Jaw / Double Station	Fixed Jaw / Double Station
<b>Additional Vise Specs</b>	See Page 39	See Page 39	See Page 40	See Page 41	See Page 41

Part Number	R96-V75100X	R96-2V75100X	R96-V75150X	R96-2V75150X	R96-V75100XT4	R96-V75XT4
<b>Size</b>	125mm x 125.73mm x 87.88mm	150mm x 176.53mm x 78.2mm	125.73mm x 151.13mm x 87.88mm	150mm x 176.53mm x 78.2mm	125.7mm x 125.7mm x 266.7mm	125.7mm x 125.7mm x 199.5mm
<b>Vise</b>	V75100X	2x V75100X	V75150X	2x V75150X	Compatible with V75100X (Vises Sold Separately)	Compatible with V75100X, V75150X, & DV75150X (Vises Sold Separately)
<b>Vise Overall Clamping Range</b>	0 - 76.3mm	N/A	0 - 128.8mm	N/A	N/A	N/A
<b>Compatible Pull Studs</b>	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)
<b>Vise Type</b>	Self-Centering	Self-Centering	Self-Centering	Self-Centering	Self-Centering	Self-Centering or Double Station
<b>Additional Vise Specs</b>	See Page 45	See Page 45	See Page 45	See Page 45	See Page 26	See Page 26

Part Number	R96-DV75150X-J2	R96-2DV75150X-J2	DV56-J2*	DV510-J2*	R96-DV75150X-J3	R96-2DV75150X-J3	DV56-J3*	DV510-J3*
<b>Size</b>	125.73mm x 151.13mm x 87.88mm	150mm x 176.53mm x 78.2mm	125.7mm x 152.4mm x 89mm	125.7mm x 258.3mm x 88.5mm	125.73mm x 151.13mm x 87.88mm	150mm x 176.53mm x 78.2mm	125.7mm x 152.4mm x 89mm	125.7mm x 258.3mm x 88.5mm
<b>Vise</b>	DV75150-J2	2x DV75150-J2	DV56-J2	DV510-J2	DV75150-J3	2x DV75150-J3	DV56-J3	DV510-J3
<b>Jaw Set</b>	6061 Aluminum Soft Jaw Set	6061 Aluminum Soft Jaw Set	6061 Aluminum Soft Jaw Set	6061 Aluminum Soft Jaw Set	1018 Steel Machinable Jaws	1018 Steel Machinable Jaws	1018 Steel Machinable Jaws	1018 Steel Machinable Jaws
<b>Compatible Pull Studs</b>	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Sold seperately)	4x PS20F (Sold seperately)
<b>Vise Type</b>	Double Station	Double Station	Double Station	Double Station	Double Station	Double Station	Double Station	Double Station
<b>Additional Vise Specs</b>	See Page 39	See Page 39	See Page 40	See Page 41	See Page 39	See Page 39	See Page 40	See Page 41

**Dovetail Fixtures**

Part Number	R96-DM12	R96-2DM12	R96-P12DM12	R96-DM25
Size	125.73mm x 125.73mm x 67.4mm	125.73mm x 125.73mm x 67.4mm	125.73mm x 125.73mm x 133.5mm	125.73mm x 125.73mm x 75.4mm
Fixture	DM12	2x DM12	12x DM12	DM25
Stock Width	Under 25mm	Under 25mm	Under 25mm	Under 75mm
Compatible Pull Studs	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)
Additional Fixture Specs	See Page 53	See Page 53	See Page 57	See Page 53

**Dovetail Fixtures**

Part Number	R96-P4DM25	R96-DM50	R96-D362	R96-CER40
Size	Ø152.4mm x 64.9mm	125.73mm x 125.73mm x 76.4mm	4.95" x 4.95" x 2.225"	4.95" x 4.95" x 3.2"
Fixture	4x DM25	DM50	D362	CER40
Stock Width	Under 75mm	50mm and Above	3" and Above	Utilizes Standard ER40 Collet Nut
Compatible Pull Studs	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)	4x PS20F (Included)
Additional Fixture Specs	See Page 58	See Page 53	See Page 55	See Page 59

**Low Profile Bases**

Part Number	RL96A-56 RL96S-56	RL96A-6760 RL96S-6760	RL96A-6790 RL96S-6790	RL96A-67 RL96S-67	RL96S-67M	RL96A-MAM72 RL96S-MAM72	RL96A-DDR RL96S-DDR
Size	158mm x 126mm x 30mm	174mm x 158mm x 30mm	156mm x 158mm x 30mm	158mm x 176mm x 30mm	158mm x 176mm x 30mm	158mm x 126mm x 30mm	150mm x 158mm x 34.5mm
Subcategory	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter	Low Profile Adapter
Materials	Aluminum (RL96A-56) or Steel (RL96S-56)	Aluminum (RL96A-6760) or Steel (RL96S-6760)	Aluminum (RL96A-6790) or Steel (RL96S-6790)	Aluminum (RL96A-67) or Steel (RL96S-67)	Steel (RL96S-67M)	Aluminum (RL96A-MAM72) or Steel (RL96S-MAM72)	Aluminum (RL96A-DDR) or Steel (RL96S-DDR)
Mounting	2x M12 or 1/2" SHCS @ 100mm - 101.6mm (4")	4x M12 or 1/2" @ Ø170.0mm 60°	4x M10 or 5/8" @ Ø184.5mm 90°	4x 1/2" SB @ 6.0" x 4.0"	4x M12 SB @ 150mm x 100mm	Matsuura MAM72	Fanuc DDR
Additional RockLock Specs	See Page 18	See Page 18	See Page 19	See Page 19	See Page 19	See Page 20	See Page 20

**Risers**

Part Number	RL96A-38	RL96A-411	RL96A-3915	RL96A-4816
Size	Ø 201.9mm x 75.0mm	Ø 276mm x 100mm	381mm x 230mm x 80mm	400mm x 200mm x 100mm
Subcategory	Single Position Riser	Single Position Riser	Multi-Position Riser	Multi-Position Riser
Materials	Aluminum (RL96A-38)	Aluminum (RL96A-411)	Aluminum (RL96A-3915)	Aluminum (RL96A-4816)
Mounting	4x 1/2-13 or M12 bolts @ 90° on Ø 178.0mm or 3x 1/2-13 or M12 bolts @ 120° on Ø 178.0mm	4x 1/2-13 or M12 bolts @ 90° on Ø 9.92"	4x 5/8-11 or M16 bolts @ 200mm square	4x @ 320mm x 160mm rectangle (80mm T-slots) or 4x @ 360mm x 126mm rectangle (63mm T-slots)
Additional RockLock Specs	See Page 21	See Page 21	See Page 22	See Page 22

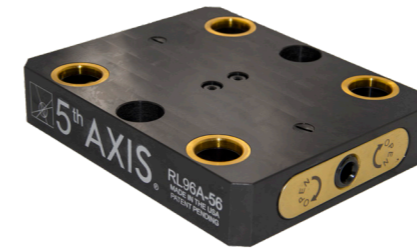
Multi-Position Plates

Part Number	RL96A-3613S1	RL96A-3613S2	RL96A-3613S3
Size	158mm x 338mm x 30mm	158mm x 338mm x 30mm	158mm x 338mm x 30mm
Subcategory	Multi-Position Horizontal Plate	Multi-Position Horizontal Plate	Multi-Position Horizontal Plate
Materials	Aluminum (RL96A-3613S1)	Aluminum (RL96A-3613S2)	Aluminum (RL96A-3613S3)
Mounting	2x M12 or 1/2" SHCS @ 96mm or 250mm	4x M12 or 1/2" SHCS Equally Spaced @ 80mm	4x M12 or 1/2" SHCS Equally Spaced @ 100mm
Additional RockLock Specs	See Page 23	See Page 23	See Page 23

96mm RockLock

96mm RockLock

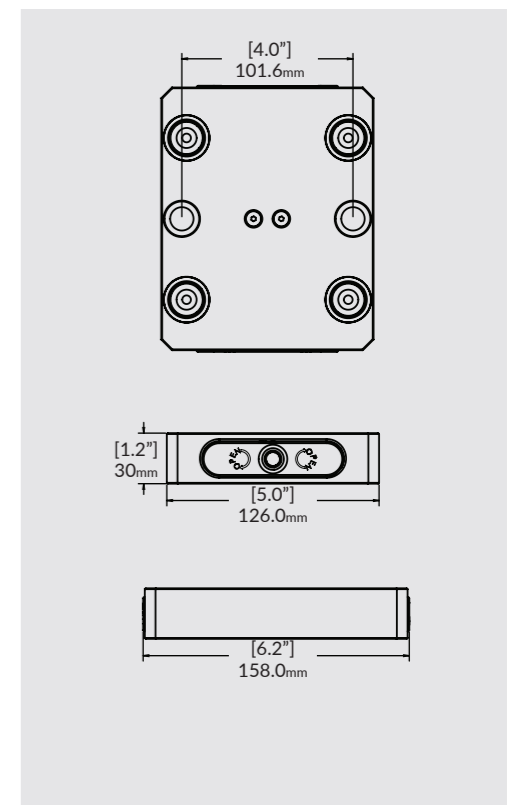
RL96A-56 / RL96S-56



**Size:** 158mm x 126mm x 30mm  
**Spacing:** 2x M12 or 1/2" SHCS @ 100mm - 101.6mm (4")  
**Material Construction:**  
 Aluminum (RL96A-56)  
 Steel (RL96S-56)

The adapter has two enlarged counterbores to allow mounting from 100mm to 101.6mm for M12 or 1/2-13 SHCS for simple mounting to T-slots.

Repeatability of +/- 0.0003".



Tombstones, Right Angle Plate, and Single Position Riser

Part Number	RL96A-3002 RL96S-3002	RL96A-3003 RL96S-3003	RL96A-90DEG	RL96A-356* RL96S-356*
Size	300mm x 300mm x 400mm	300mm x 300mm x 400mm	149.4mm x 158mm x 200mm	158mm x 126mm x 75mm
Subcategory	96mm Integrated Tombstone	96mm Integrated Tombstone	Right Angle Plate	Single Position Riser
Materials	Aluminum (RL96A-3002) or 1018 Steel (RL96S-3002)	Aluminum (RL96A-3003) or 1018 Steel (RL96S-3003)	Aluminum (RL96A-90DEG)	Aluminum (RL96A-356) or Steel (RL96S-356)
Mounting	Machine Specific*	Machine Specific*	4x PS20F (Included) or 2x M12 or 1/2" SHCS @ 100mm - 101.6mm (4")	4x PS20F (Included)
Additional RockLock Specs	See Page 24	See Page 24	See Page 25	See Page 26

RL96A-6760 / RL96S-6760

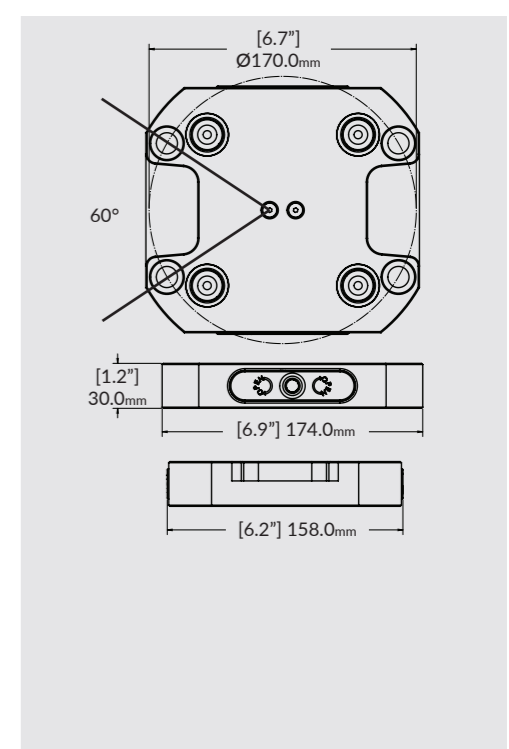


**Size:** 174mm x 158mm x 30mm  
**Spacing:** 4x M12 or 1/2" @ Ø170.0mm 60°  
**Material Construction:**  
 Aluminum (RL96A-6760)  
 Steel (RL96S-6760)

The RL96-6760 series quick change adapter was built for the Haas TR-210 series rotaries, Hurco VMX30 series rotaries, and any other rotary with 60 degree radial T-slots.

A quick turn of the wrench actuates the cam mechanism to lock and release your fixtures and vises for fast changeover.

Repeatability of +/- 0.0003".



\*Submit table drawing upon inquiry.  
 CAD models available for download at [fifthaxis.com/downloads](http://fifthaxis.com/downloads)



### RL96A-6790 / RL96S-6790

96mm RockLock

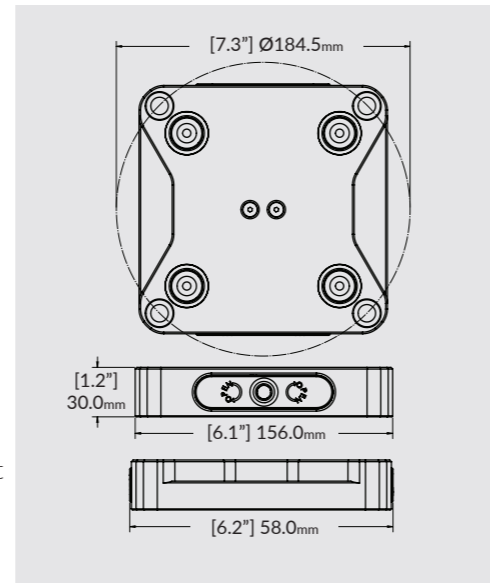


**Size:** 156mm x 158mm x 30mm  
**Spacing:** 4x M10 or 5/8" @ Ø184.5mm  
**Material Construction:**  
 Aluminum (RL96A-6790)  
 Steel (RL96S-6790)

The RL96-6790 quick change adapter was built for any rotary with 90 degree radial T-slots.

A quick turn of the wrench actuates the cam mechanism to lock and release your fixtures and vises for fast changeover.

Repeatability of +/- 0.0003".



### RL96A-67 / RL96S-67

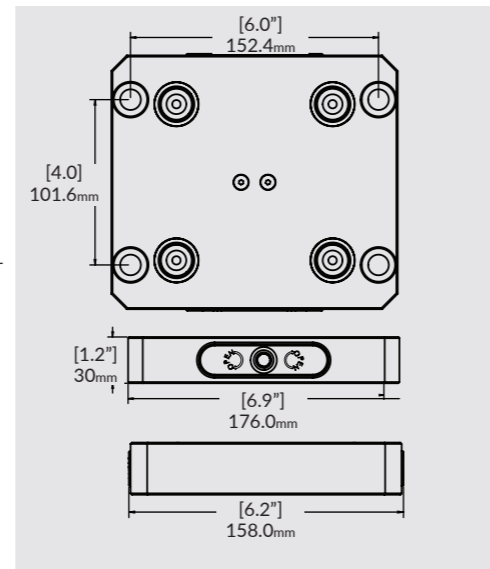


**Size:** 158.0mm x 176.0mm x 30mm  
**Spacing:** 4x 1/2" SB @ 6.0" x 4.0". Through hole Ø0.501"  
**Material Construction:**  
 Aluminum (RL96A-67)  
 Steel (RL96S-67)

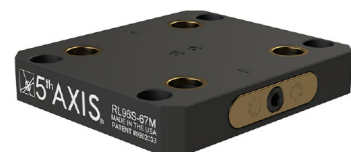
The RL96-67 was built specifically for horizontal machining centers.

Bolt pattern 6.0" x 4.0" allows for easy mounting to most standard tombstone grid pattern spacing.

Repeatability of +/- 0.0003".



### RL96S-67M

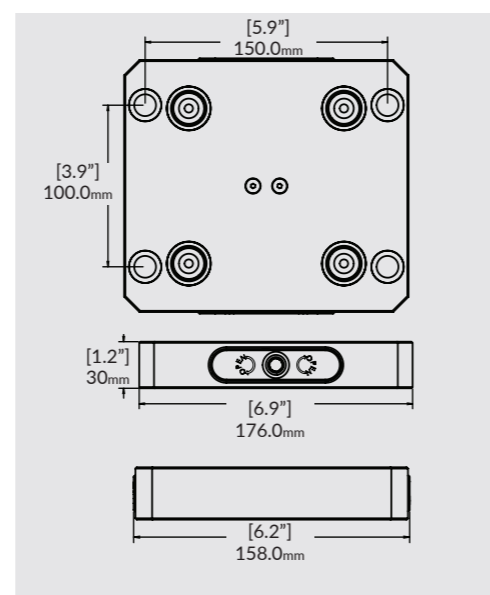


**Size:** 158.0mm x 176.0mm x 30mm  
**Spacing:** 4x M12 @ 150.0mm x 100.0mm. Through hole Ø12.02mm  
**Material Construction:**  
 Steel (RL96S-67)

The RL96-67M was built specifically for tombstones on horizontal machining centers.

Bolt pattern 150mm x 100mm allows for easy mounting to most standard tombstone grid pattern spacing.

Repeatability of +/- 0.0003".



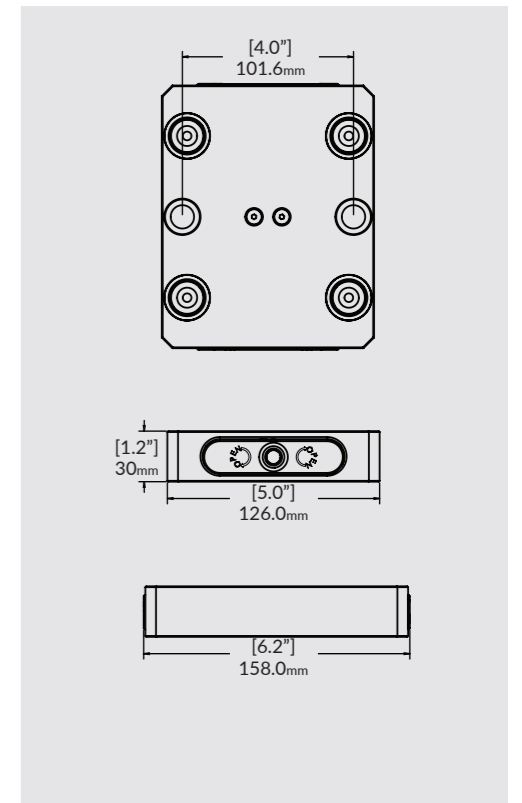
### RL96A-56 / RL96S-56



**Size:** 158mm x 126mm x 30mm  
**Spacing:** 2x M12 or 1/2" SHCS @ 100mm - 101.6mm (4")  
**Material Construction:**  
 Aluminum (RL96A-56)  
 Steel (RL96S-56)

The adapter has two enlarged counter bores to allow mounting from 100mm to 101.6mm for M12 or 1/2-13 SHCS for simple mounting to T-slots.

Repeatability of +/- 0.0003".



### RL96A-6760 / RL96S-6760

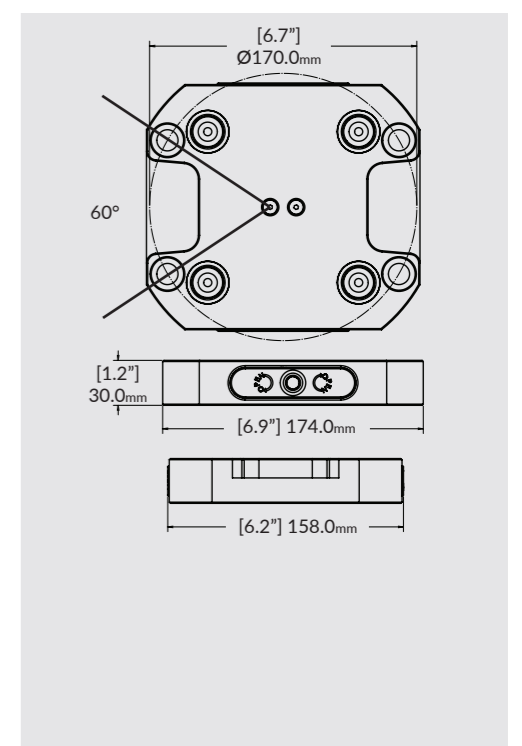


**Size:** 174mm x 158mm x 30mm  
**Spacing:** 4x M12 or 1/2" @ Ø170.0mm 60°  
**Material Construction:**  
 Aluminum (RL96A-6760)  
 Steel (RL96S-6760)

The RL96-6760 series quick change adapter was built for the Haas TR-210 series rotaries, Hurco VMX30 series rotaries, and any other rotary with 60 degree radial T-slots.

A quick turn of the wrench actuates the cam mechanism to lock and release your fixtures and vises for fast changeover.

Repeatability of +/- 0.0003".



96mm RockLock

### RL96A-6790 / RL96S-6790

96mm RockLock

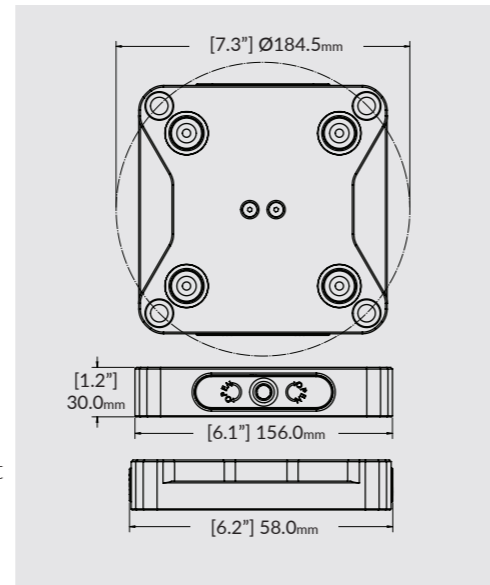


**Size:** 156mm x 158mm x 30mm  
**Spacing:** 4x M10 or 5/8" @ Ø184.5mm  
**Material Construction:**  
 Aluminum (RL96A-6790)  
 Steel (RL96S-6790)

The RL96-6790 quick change adapter was built for any rotary with 90 degree radial T-slots.

A quick turn of the wrench actuates the cam mechanism to lock and release your fixtures and vises for fast changeover.

Repeatability of +/- 0.0003".



### RL96A-67 / RL96S-67

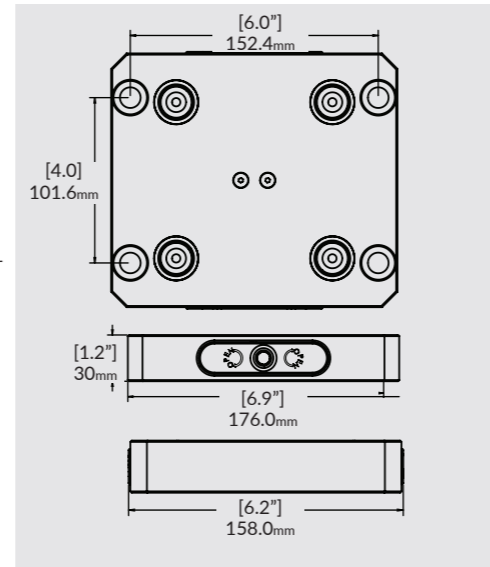


**Size:** 158.0mm x 176.0mm x 30mm  
**Spacing:** 4x 1/2" SB @ 6.0" x 4.0". Through hole Ø0.501"  
**Material Construction:**  
 Aluminum (RL96A-67)  
 Steel (RL96S-67)

The RL96-67 was built specifically for horizontal machining centers.

Bolt pattern 6.0" x 4.0" allows for easy mounting to most standard tombstone grid pattern spacing.

Repeatability of +/- 0.0003".



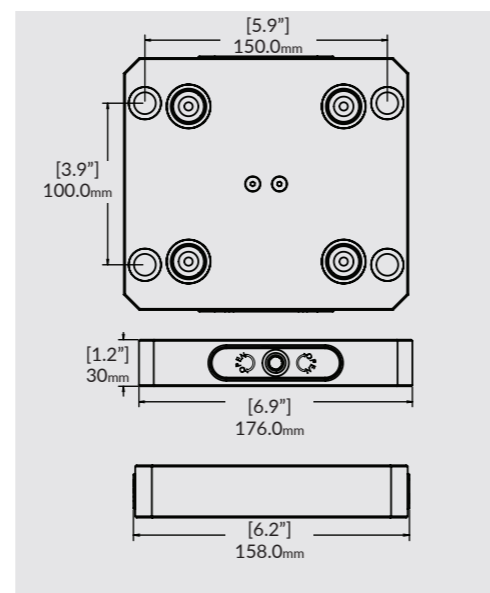
### RL96S-67M



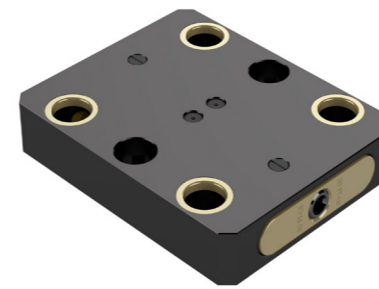
**Size:** 158.0mm x 176.0mm x 30mm  
**Spacing:** 4x M12 @ 150.0mm x 100.0mm. Through hole Ø12.02mm  
**Material Construction:**  
 Steel (RL96S-67)

The RL96-67M was built specifically for tombstones on horizontal machining centers. Bolt pattern 150mm x 100mm allows for easy mounting to most standard tombstone grid pattern spacing.

Repeatability of +/- 0.0003".



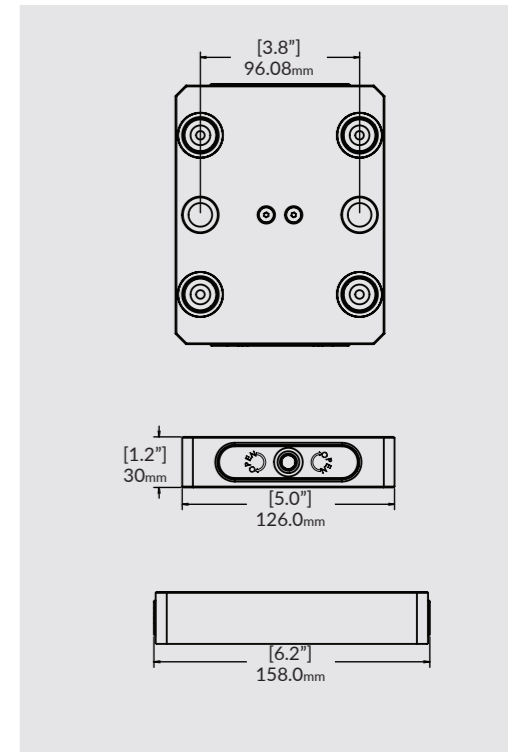
### RL96A-MAM72 / RL96S-MAM72



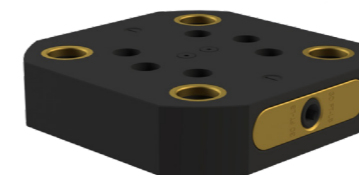
**Size:** 158mm x 126mm x 30mm  
**Spacing:** Specific to MAM72  
**Material Construction:**  
 Aluminum (RL96A-MAM72)  
 Steel (RL96S-MAM72)

The RL96-MAM72 series quick change adapter was built for the standard Matsuura pallet and is compatible with the MAM72-25V, MAM72-35V, Cublex-25, Cublex-35, and MX-330.

Repeatability of +/- 0.0003".



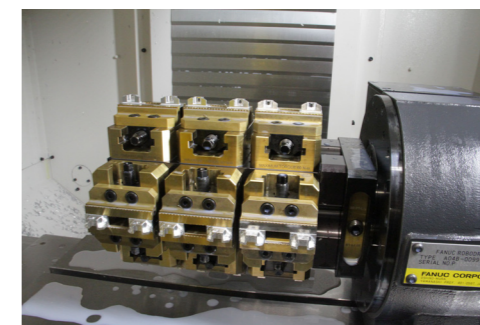
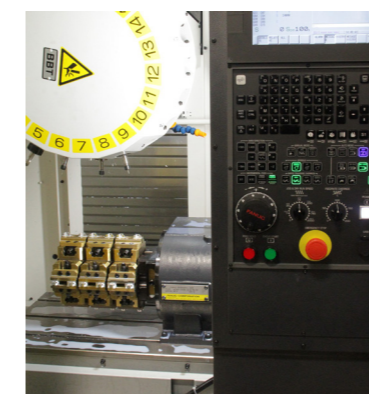
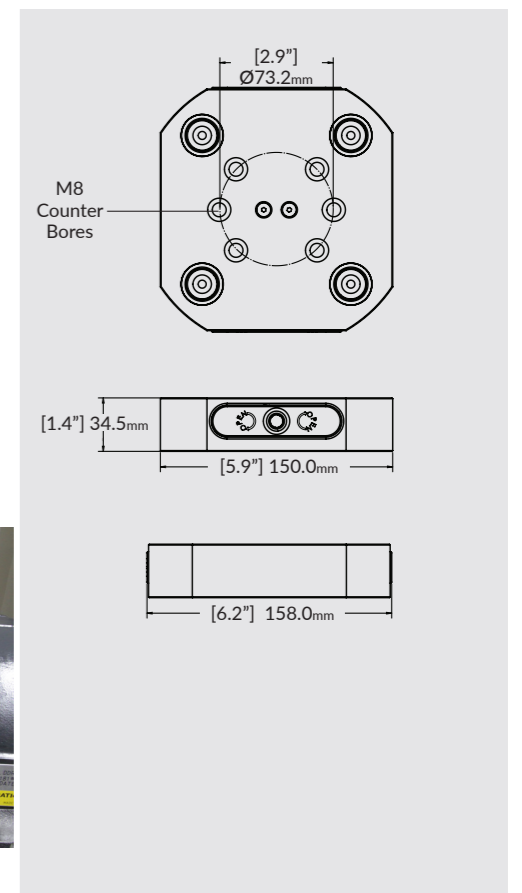
### RL96A-DDR / RL96S-DDR



**Size:** 150mm x 158mm x 34.5mm  
**Spacing:** Specific to DDR  
**Material Construction:**  
 Aluminum (RL96A-DDR)  
 Steel (RL96S-DDR)

The RL96-DDR was built for the Fanuc DDR rotary table.

Repeatability of +/- 0.0003".



96mm RockLock

RL96A-38

**Size:** Ø 201.9mm x 75.0mm  
**Spacing:**  
 4x 1/2-13 or M12 bolts @ 90° on Ø 178mm or  
 3x 1/2-13 or M12 bolts @ 120° on Ø 178mm  
**Material Construction:**  
 Aluminum (RL96A-38)

The RL96A-38 series quick change adapter was built for medium sized rotaries and smaller 5 axis machines (~300 mm range).

With bolt patterns at 60 degrees and 90 degrees this adapter is flexible and fits on a majority of the most popular rotaries and 5 axis tables on the market.

The 3" overall height makes it ideal for those smaller parts that you want to get off the table.

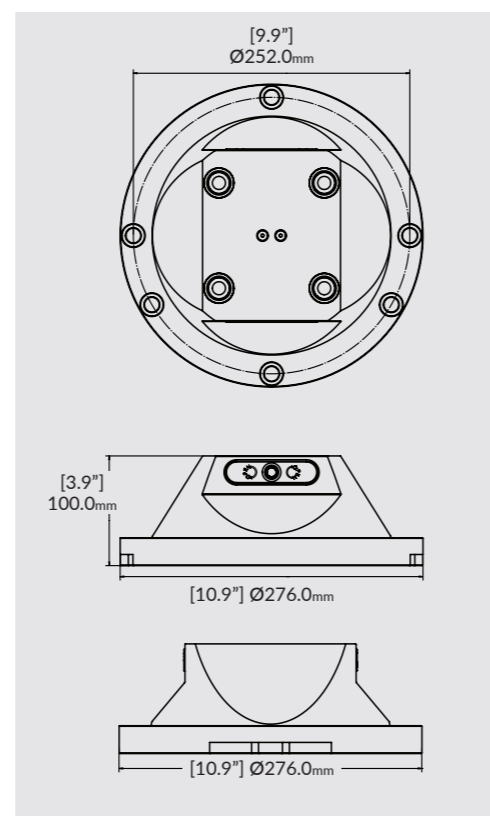
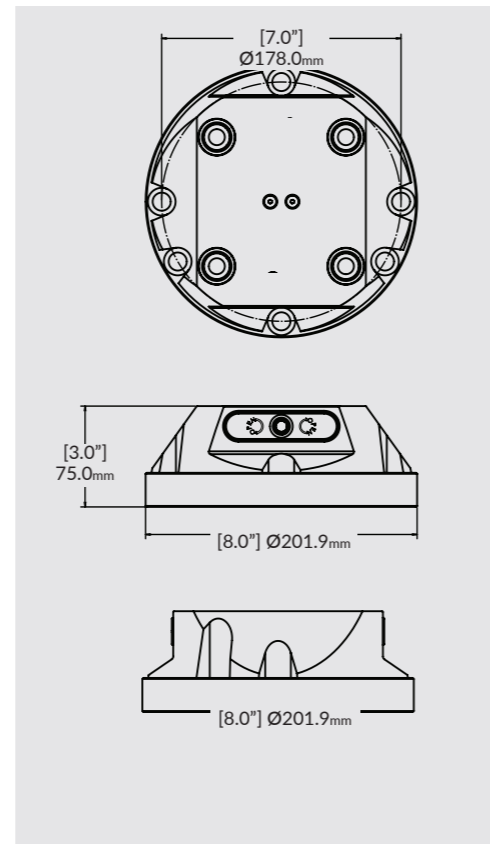
Repeatability of +/- 0.0003".

**Size:** Ø 276mm x 100mm  
**Spacing:**  
 4x 1/2-13 or M12 bolts @ 90° on Ø 252.0mm or  
 3x 1/2-13 or M12 bolts @ 120° on Ø 252mm  
**Material Construction:**  
 Aluminum (RL96A-411)

The RL96A-411 is an integrated RockLock riser built into one of our most popular adapters.

The 11" diameter adapter x 4" overall height is ideal for medium to large 5 axis machines like the DMG Mori DMU50 and DMU60 as well as the Haas UMC-750 and UMC-750SS.

Repeatability of +/- 0.0003".



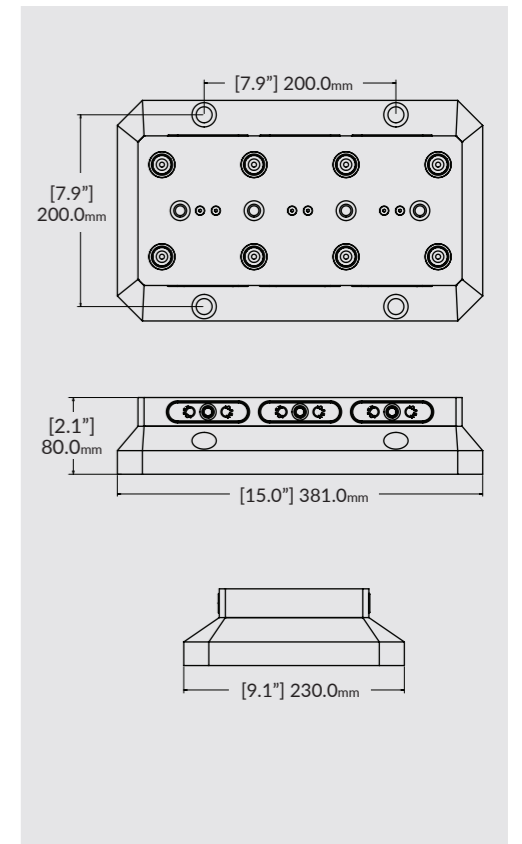
RL96A-3915

**Size:** 381mm x 230mm x 80mm  
**Spacing:** 4x 5/8-11 or M16 bolts @ 200mm square  
**Material Construction:**  
 Aluminum (RL96A-3915)

The RL96A-3915 was built with larger machines in mind (400mm-500mm tables).

Utilize one singular large vise or accommodate two smaller workholding units to maximize machine efficiency and reduce changeover time.

Repeatability of +/- 0.0003".



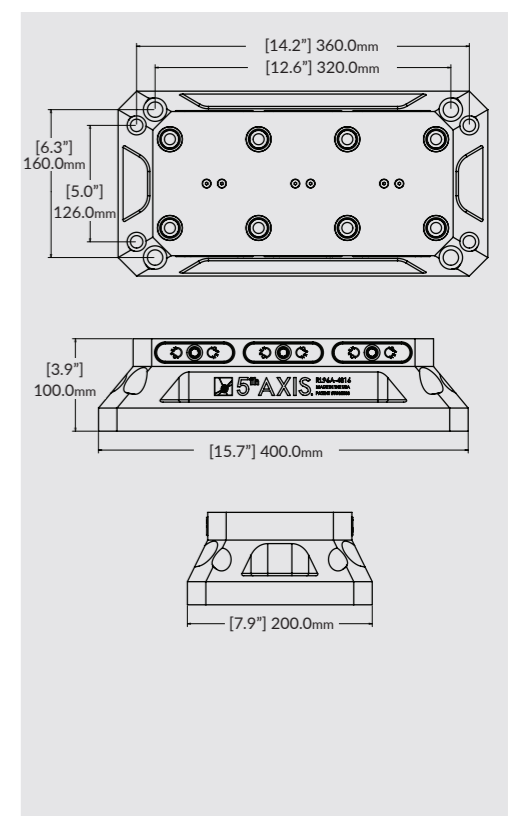
RL96A-4816

**Size:** 200mm x 400mm x 100mm  
**Spacing:**  
 4x @ 320mm x 160mm rectangle (80mm T-slots) or  
 4x @ 360mm x 126mm rectangle (63mm T-slots)  
**Material Construction:**  
 Aluminum (RL96A-4816)

The RL96A-4816 is an integrated multi-position RockLock riser built into one of the largest adapters in the product line.

Utilize one large vise or accommodate two smaller vises with this riser.

Repeatability of +/- 0.0003".



96mm RockLock

96mm RockLock

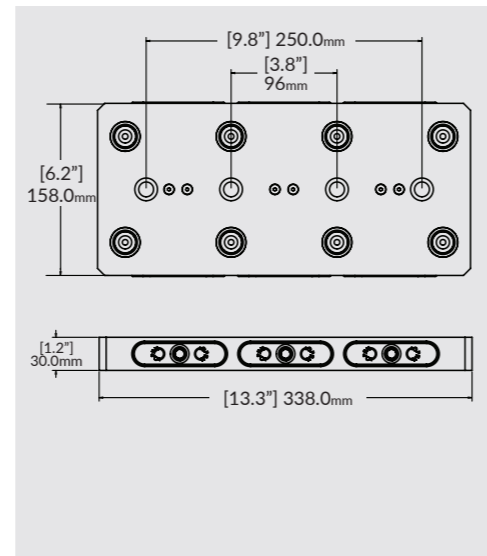


**RL96A-3613S1**

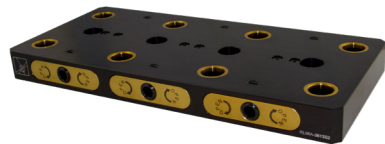


**Size:** 158mm x 338mm x 30mm  
**Spacing:** 2x M12 or 1/2" SHCS @ 96mm or 250mm  
**Material Construction:** Aluminum (RL96A-3613S1)

The RL96A-3613S1 is a multi-position RockLock plate built for maximum efficiency on small to medium vertical mills. The nested RockLock 96mm pattern allows for the operator to utilize one single large vise or two smaller vises. 125mm T-slot spacing for 3-axis mills. Repeatability of +/- 0.0003".

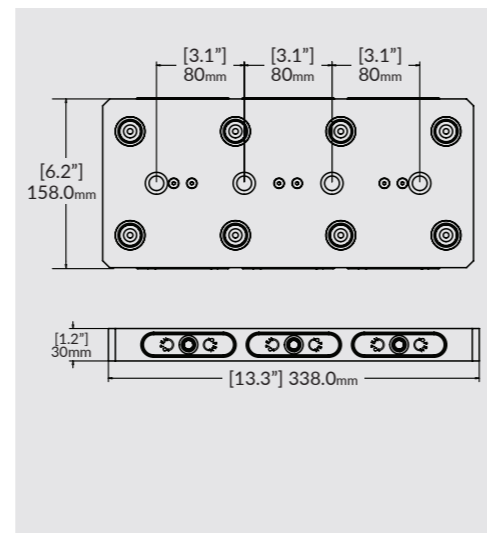


**RL96A-3613S2**



**Size:** 158mm x 338mm x 30mm  
**Spacing:** 4x M12 or 1/2" SHCS Equally Spaced @ 80mm  
**Material Construction:** Aluminum (RL96A-3613S2)

The RL96A-3613S2 is a multi-position RockLock plate built for maximum efficiency on small to medium vertical mills. The nested RockLock 96mm pattern allows for the operator to utilize one single large vise or two smaller vises. 80mm T-slot spacing for 3 axis mills. Repeatability of +/- 0.0003".

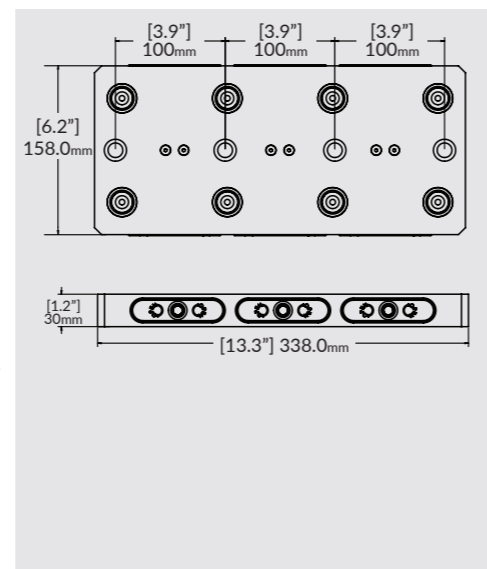


**RL96A-3613S3**



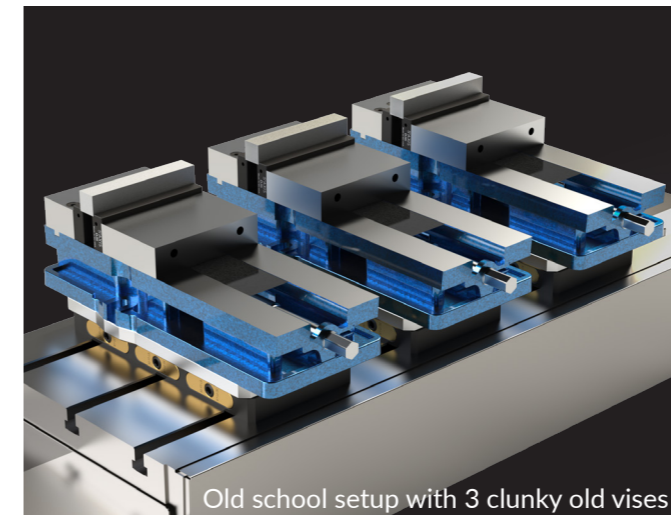
**Size:** 158mm x 338mm x 30mm  
**Spacing:** 4x M12 or 1/2" SHCS Equally Spaced @ 100mm  
**Material Construction:** Aluminum (RL96A-3613S3)

The RL96A-3613S3 is a multi-position RockLock plate built for maximum efficiency on small to medium vertical mills. The nested RockLock 96mm pattern allows for the operator to utilize one single large vise or two smaller vises. 100mm T-slot spacing for 3 axis mills. Repeatability of +/- 0.0003".

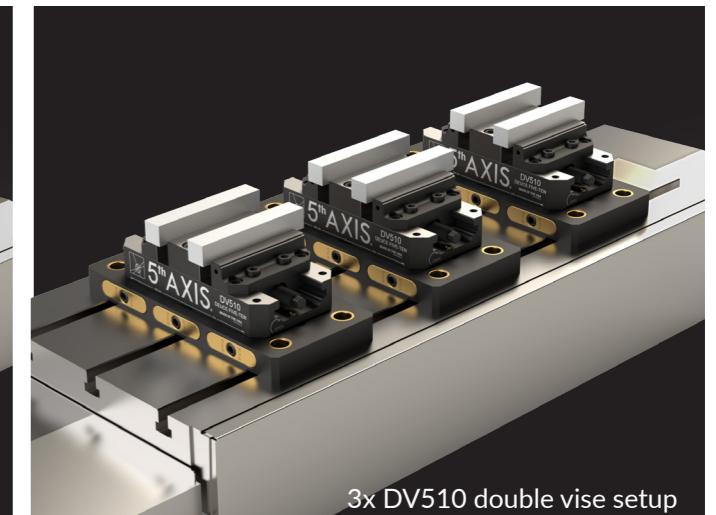


**More Parts Per Cycle = More Profit**  
**Profitability Through Efficiency**

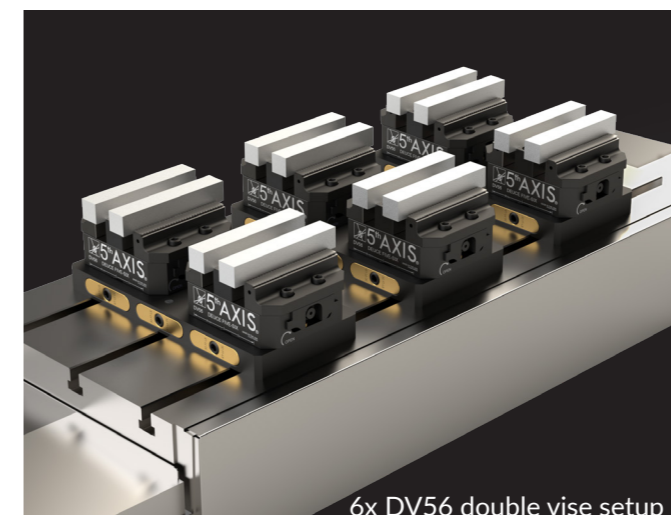
**3 Parts Per Cycle**



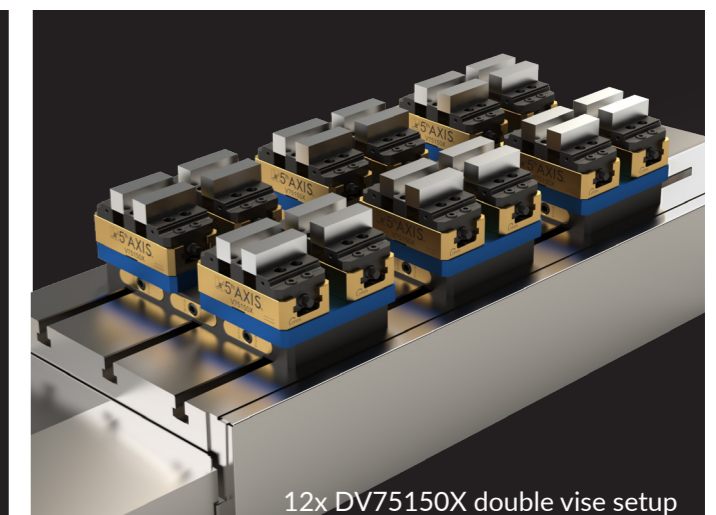
**6 Parts Per Cycle**



**12 Parts Per Cycle**



**24 Parts Per Cycle**



96mm RockLock

96mm RockLock

**RL96A-3002 /  
RL96S-3002**

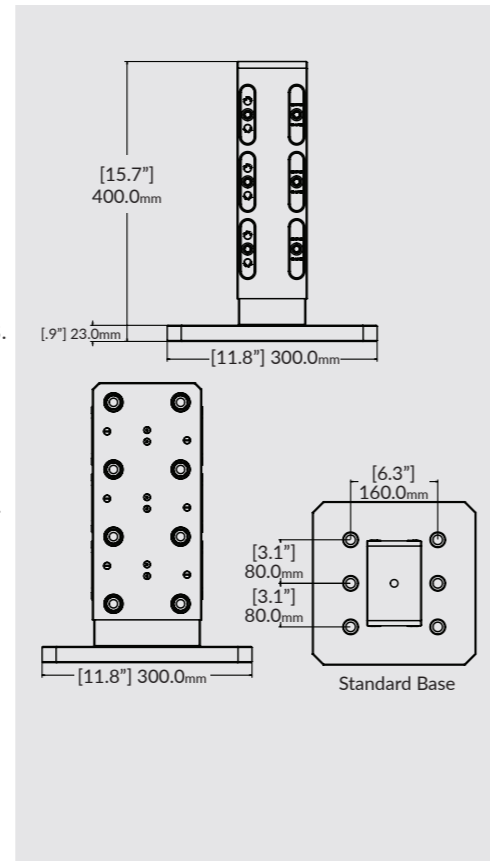
96mm RockLock



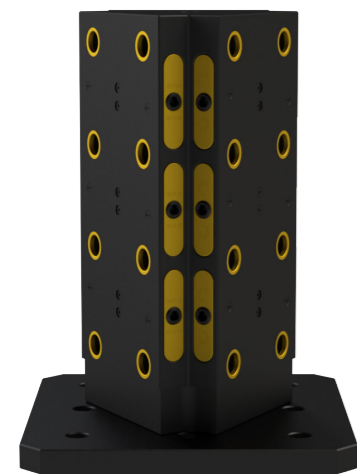
**Size:** 300mm x 300mm x 400mm  
**Spacing:** Custom  
**Material Construction:**  
 Aluminum (RL96A-3002)  
 1018 Steel (RL96S-3002)

This two sided 300mm tombstone integrates the RockLock 96mm quick change system. This tombstone is perfect for mid-sized 5 Axis machines. It is also a perfect fit for 300mm horizontal machining centers offered by Kitamura and Kitagawa. Tombstones can be ordered in aluminum or 1018 steel construction. All units feature hardened steel internals and locating features. All tombstones are built to order, and the base plate is customized to your machine table or pallet specs. 400mm and 500mm base versions are also available. Repeatability of +/- 0.0003".

**Send us your table drawing for custom base.**



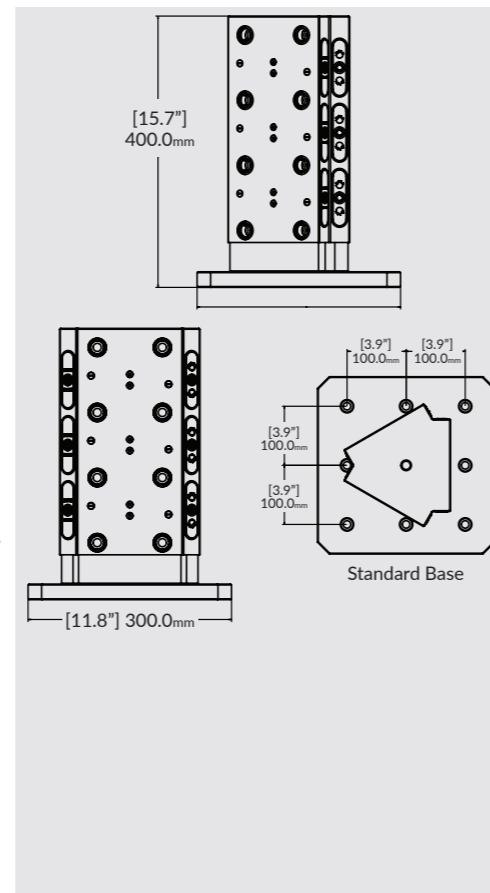
**RL96A-3003 /  
RL96S-3003**



**Size:** 300mm x 300mm x 400mm  
**Spacing:** Custom  
**Material Construction:**  
 Aluminum (RL96A-3003)  
 1018 Steel (RL96S-3003)

This three sided 300mm tombstone integrates the RockLock 96mm quick change system. This tombstone is perfect for mid sized 5 Axis machines. It is also a perfect fit for 300mm horizontal machining centers offered by Kitamura and Kitagawa. Tombstones can be ordered in aluminum or 1018 steel construction. All units feature hardened steel internals and locating features. All tombstones are built to order, and the base plate is customized to your machine table or pallet specs. 400mm and 500mm base versions are also available. Repeatability of +/- 0.0003".

**Send us your table drawing for custom base.**



**RL96A-90DEG**



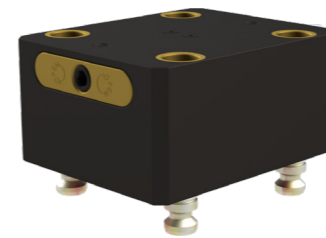
**Size:** 149.4mm x 158mm x 200mm  
**Spacing:** RockLock PS20F or 2x M12 or 1/2" SHCS @ 100mm - 101.6mm (4")  
**Material Construction:**  
 Aluminum (RL96A-90DEG)

The 90° right angle RockLock plate is the perfect low cost solution for multi-side machining. **Machine 5 sides of a part without a 5-axis machine.** The unit features pull studs on the bottom so that it can be mounted onto any 96mm RockLock plate. It also has 2 counter bores for traditional mounting to machine T-slots at 4" or 100mm.

Simply machine your material, unlock the system, rotate the material, lock the system and continue machining.

Includes 4x PS20F.  
 Repeatability of +/- 0.0003".

**RL96A-356 /  
RL96S-356**



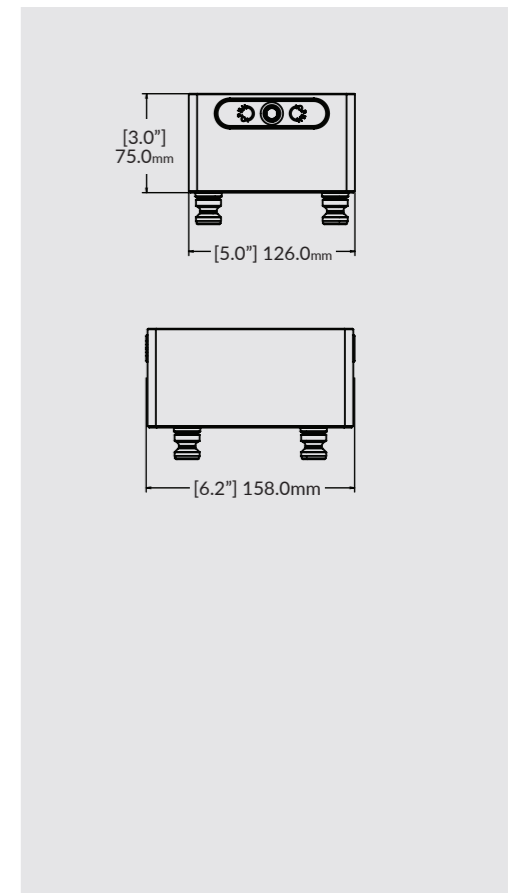
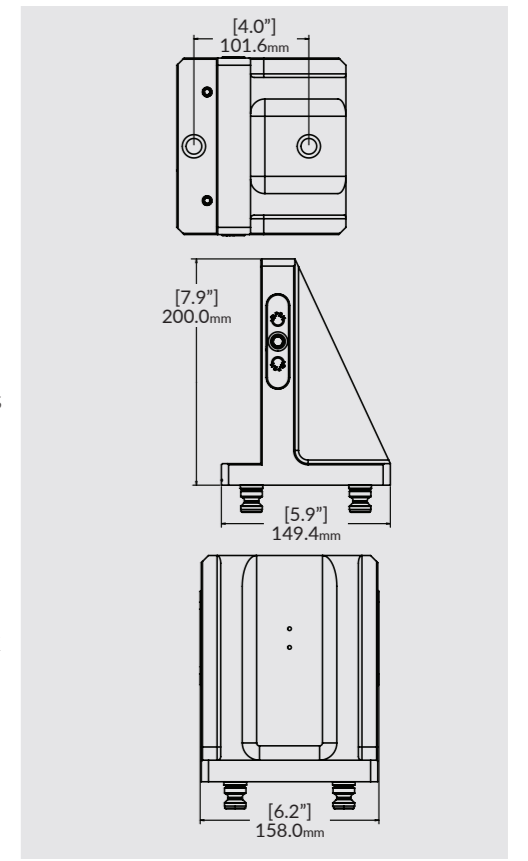
**Size:** 158mm x 126mm x 75mm  
**Spacing:** RockLock PS20F 96mm  
**Material Construction:**  
 Aluminum (RL96A-356)  
 Steel (RL96S-356)

Built to give extra rise from any RockLock bases.

The profile was created as small as possible to reduce any interference.

Includes 4x PS20F.

Repeatability of +/- 0.0003".



96mm RockLock



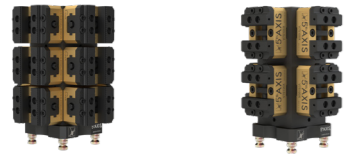
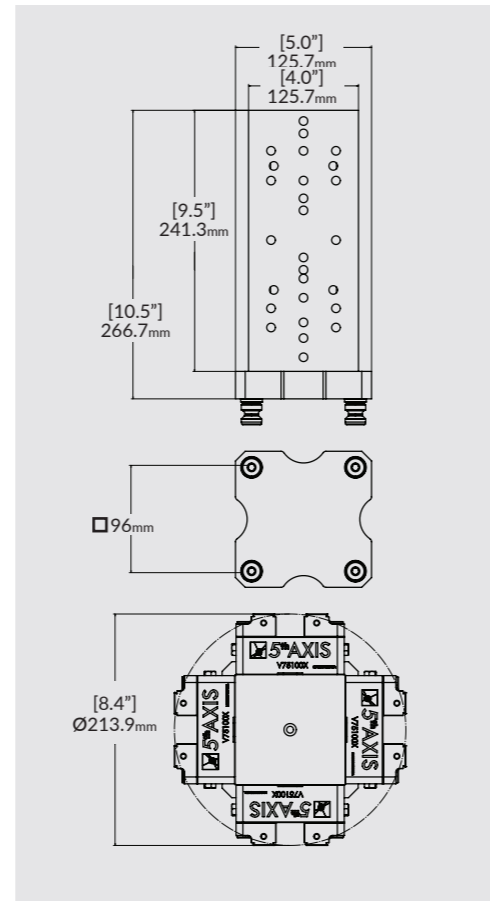
## R96-V75100T4

**Size:** 125.7mm x 125.7mm x 266.7mm

**Mounting:** RockLock PS20F

**Material Construction:**  
Aluminum (RL96A-V75100T4)

The R96-V75100T4 is an ultra compact mini tombstone designed to work with smaller 4 and 5 Axis machines. The goal was to create a 4 sided tombstone to increase productivity while maintaining a compact footprint. The tombstone is built for the V75100X self-centering vise (see page 45). The nested bolt pattern allows for the vises to be mounted vertically or rotated horizontally. The entire tombstone will quick change onto any 96mm RockLock base plates. With a maximum of 12 vises on the tombstone, the machine can run unattended. This minimizes tool changes and frees operators up to run multiple machines. Includes 4x PS20F. Repeatability of +/- 0.0003".



\*Vises sold separately

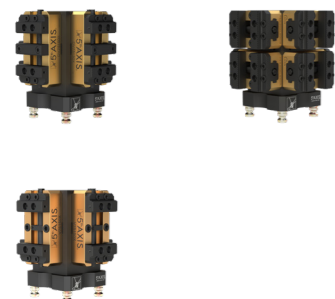
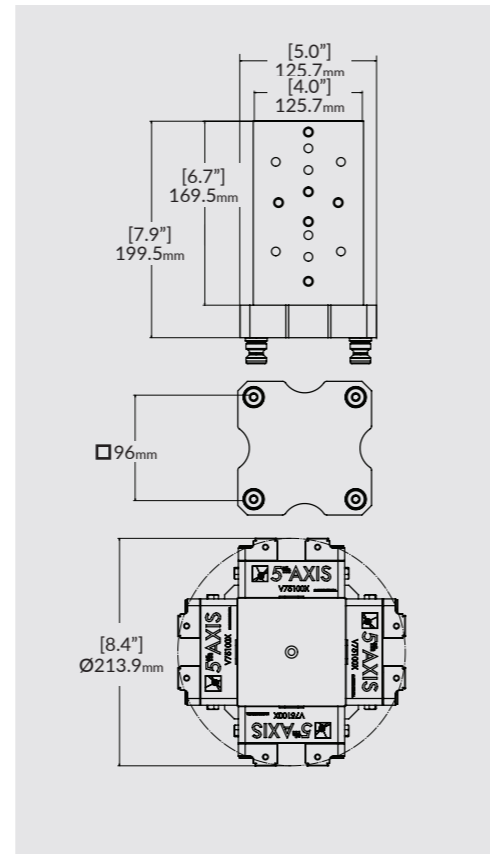
## R96-V75XT4

**Size:** 125.7mm x 125.7mm x 266.7mm

**Mounting:** RockLock PS20F

**Material Construction:**  
Aluminum (RL96A-V75XT4)

The R96-V75XT4 is a mini tombstone designed to work with smaller 4 and 5 Axis machines. The goal was to create a 4 sided tombstone to increase productivity while maintaining a compact footprint. This tombstone can accommodate the following self-centering vises: V75100X and V75150X (see page 45). It will also fit the DV75150X double station vise (see page 39). The entire tombstone will quick change on any 96mm RockLock base plates. With a maximum of 8 vises on the tombstone, the machine can run unattended. This minimizes tool changes and frees operators up to run multiple machines. Includes 4x PS20F.

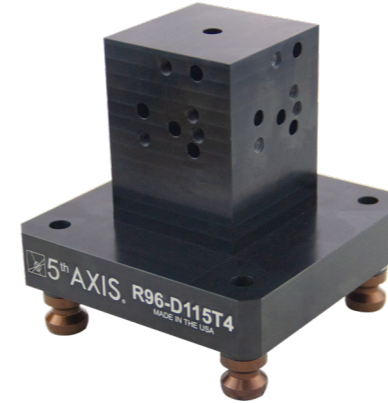


\*Vises sold separately

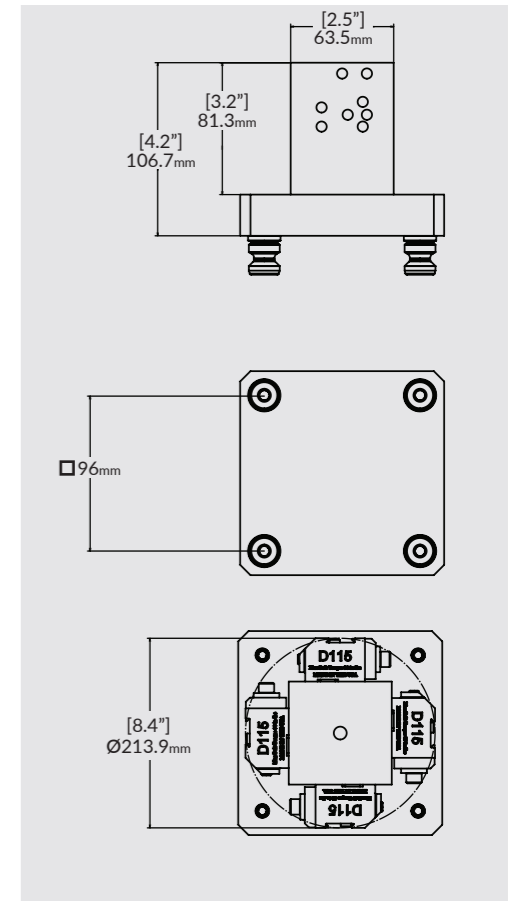
## R96-D115T41

**Size:** 4.95" x 4.95" x 4.2"  
**Spacing:** RockLock PS20F

Built for small or medium rotaries. Able to utilize 4x D115 in order to maximize part density. This tombstone utilizes D115 dovetail fixtures allowing minimal interference. 4x PS20F Pull studs are included.



\*Fixtures sold separately



## 3 Sided Vise Pyramids with 3x RL96A-56

**PY30RL96-56**

30° angle. For use machines with 120° or more tilt.

**PY20RL96-56**

20° angle. For use with 110° or more 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. 3x RL96A-56 are included.







**PS20F**  
PULL STUD

**Size:** 96mm Pull Studs  
**Material Construction:** S7 Tool Steel

The PS20F is required to use any 5th Axis 96mm base. The 96mm spacing allows for compatibility with other systems.

\*Please note that pull studs must stay with the corresponding company's base plate. If you are using a 5th Axis 96mm RockLock base plate you will need 5th Axis pull studs (PS20F). The spacing and thread allows for the top tooling to be interchangeable between the different systems.



**R96-BLANK**

**Size:** 96mm Pull Studs  
**Material Construction:** 6061 Aluminum

Blank 6061 aluminum block with 4x PS20F pull studs included. Quickly build your own fixture or subplate with the R96-Blank.



**PS20F-PY**  
SINGLE PULL STUD WITH POKA-YOKE INSERT

**Size:** 96mm Pull Studs  
**Material Construction:** S7 Tool Steel

Poka-yoke is a Japanese term that means "mistake-proofing". The PS20F-PY is a single modified pull stud with aluminum ring. The ring is placed inside one of the locating holes in the RockLock base, allowing for only the single poka-yoke pull stud to fit inside the locating hole with the corresponding ring. This will prevent operators from changing the orientation and misloading a part.



**RL96-MP**

**Size:** 96mm Pull Studs  
**Material Construction:** Steel

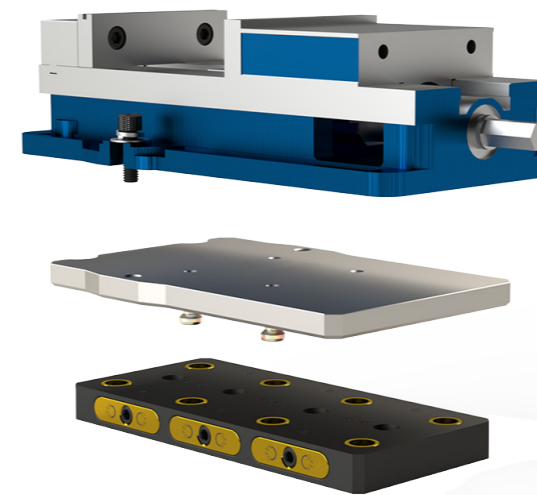
Mount the RockLock base onto the machine, drop in the master pallet, dial in your setup, and torque your mounting bolts once you have reached the desired location. This is the fastest, most accurate way to set up the RockLock system. See page 33 for more info.



**PS20F-4PY**  
PULL STUDS WITH POKA-YOKE INSERT

**Size:** 96mm Pull Studs  
**Material Construction:** S7 Tool Steel

3x Standard PS20F Pull Studs and one Poka-Yoke (PS20F-PY).



**RL96-KD688 / RL96-KDX6\***

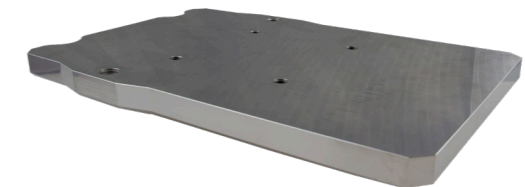
**Size:** RL96-KD688: 13" x 8.25" x .78"  
RL96-KDX6: 13" x 6.92" x .78"

**Material Construction:**  
Aluminum (RL96-KD688)  
Aluminum (RL96-KDX6)

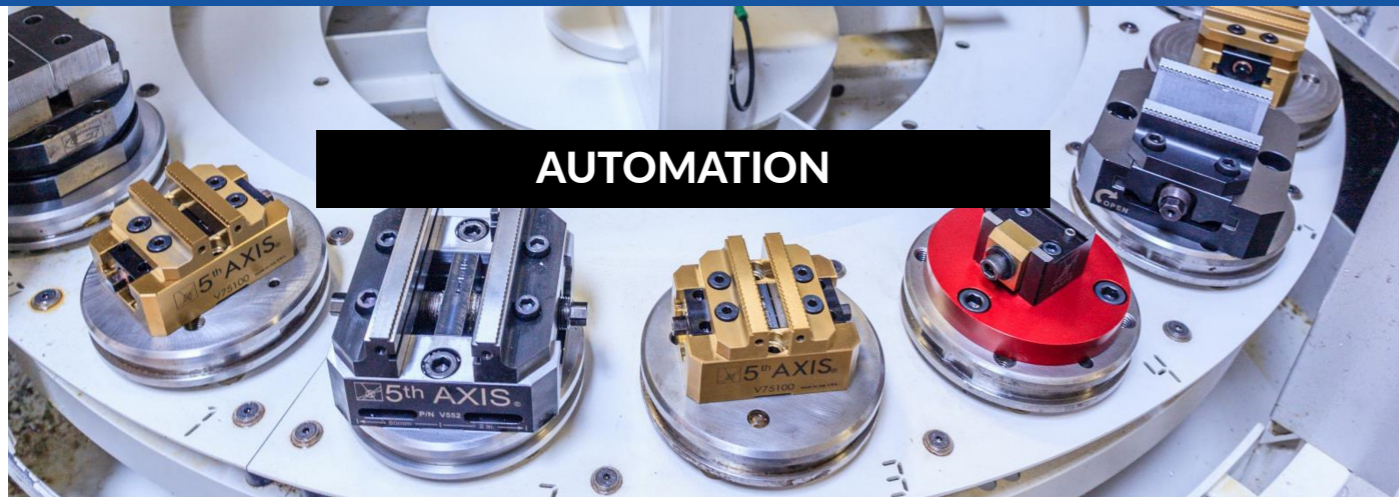
The RL96-KD688 is built to upgrade your Kurt D-series 6" vise to the RockLock quick change system. Never indicate your Kurt vise in again! Simply bolt your Kurt vise onto the adapter and you will be off and running. Part number includes adapter + 4x PS20F pull studs.

The RL96-KDX6 is built for the newer style DX6 crossover vise. Upgrade your new Kurt DX6 to RockLock quick change system from 5th Axis. Part number includes adapter + 4x PS20F pull studs.

\*Vise and RockLock base sold separately





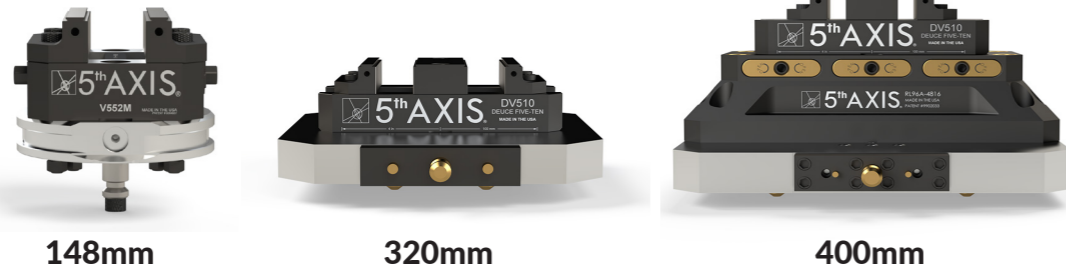


**AUTOMATION**

5th Axis Workholding products are designed to adapt to automated systems increasing throughput. Create profitability through efficiency.

Automation

**EROWA**  
system solutions  
**SOLUTIONS**



148mm

320mm

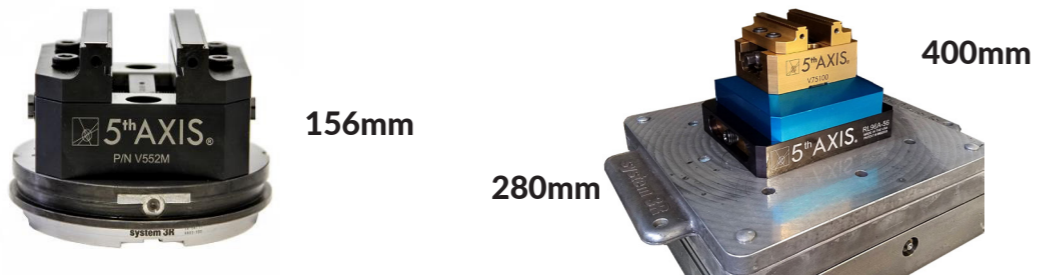
400mm

**EROWA**  
system solutions  
**INTEGRATED**



Integrated EROWA 52mm RockLock Available for 148mm EROWA pallets

**system 3R**  
**SOLUTIONS**



156mm

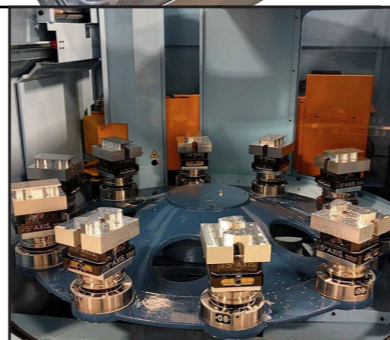
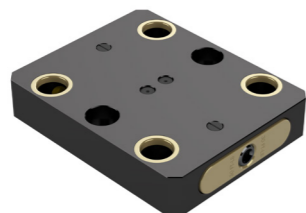
280mm

400mm

**INTEGRATED SOLUTIONS FOR MAATSURA**

**RL96A-MAM72**  
**RL96S-MAM72**

Fits MAM72-25V/CUBLEX-25/CUBLEX-35/MAM7235V/MX-330



**Automation Base**



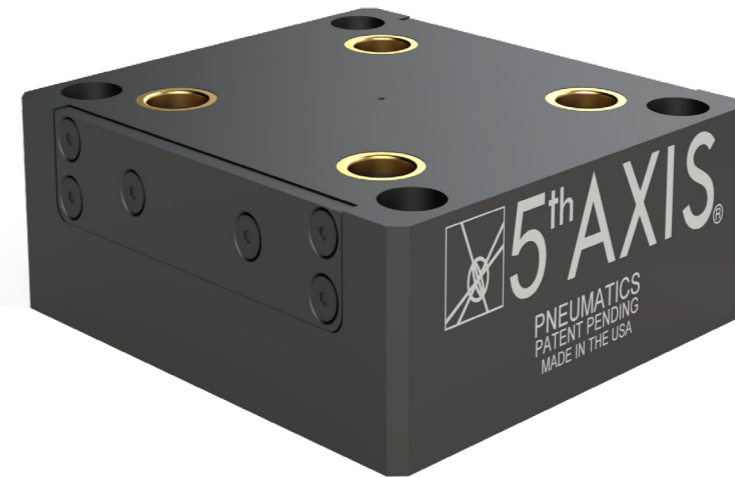
Available in 52mm and 96mm Pull Stud Spacing



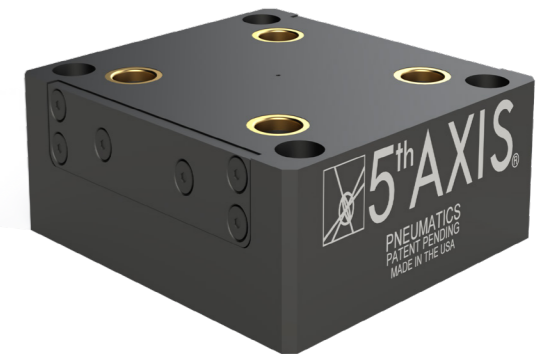
Clamp / Unclamp Confirmation



Steel Locating Features



96mm



52mm

Automation

**FAIL SAFE** Air to open Spring to Close

**AUTOMATION OR MANUAL** Use with robot or manual

**MULTIPLE AIRPORTS** Airports located on the bottom and side of unit



\*Please contact us regarding the details of your automation project and we can help recommend the correct product for your application\*



## Master Alignment Pallet



Available in 96mm and 52mm



Ensures RockLock repeatability less than .0003"



Precision milled and press fit pull studs\*



One Master Pallet for all your RockLock systems

Guarantees accuracy of the RockLock system. The Master Pallets are used to set up 52mm and 96mm RockLock systems.

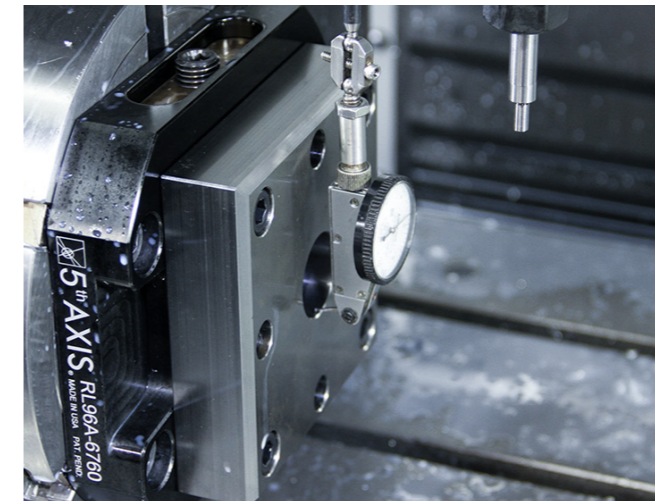
Mount the RockLock base onto the machine, drop in the Master Pallet, dial in your setup, and torque your mounting bolts once you have reached the desired location.

Master Pallet will only be used on the initial setup or if you move the setup from one machine to another. This is the fastest, most accurate way to set up the RockLock system.

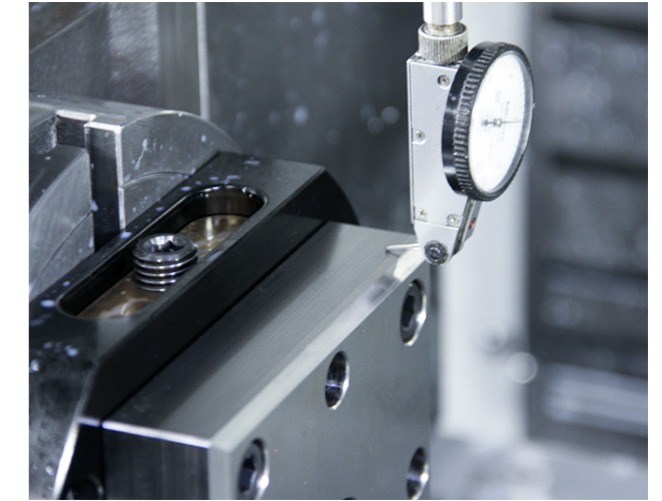
\*Do not remove pull studs.

\*\*Instructional video provided on our website.

\*\*\*CMM report provided with purchase of Master Pallet.



Precision center bore allows for indication of rotation.



Precision milled sides allow for indication of center line.

## Master Pallets

Part Number	RL52-MP	RL96-MP
		
Size	75mm x 75mm x 25.4mm	125.73mm x 125.73mm x 30.48mm
Mounting	RockLock PS16F Pull Studs Included	RockLock PS20F Pull Studs Included
Materials	Steel	Steel

CAD models available for download at [fifthaxis.com/downloads](http://fifthaxis.com/downloads)



Double Station Vises

**BUILT FOR 3-AXIS**



Convert from double station to single position fixed jaw\*

Quickly change jaws / convert to soft jaws

Compact footprint maximizes table space

\*Not a self-centering vise\*

**Quickly Convert From Double To Single Fixed Station\***



**Double Station**  
This configuration utilizes the center portion as the fixed position.



**Independent Movement**  
Each jaw moves independently. This allows for stock of different sizes and ensures proper clamping.



**Reversible Jaw**  
Jaws can quickly and easily be reversed for increased clamping range.



**Removing Center Jaw**  
The center jaw is bolted through the base and held in position with precision bushings.



**Shoulder Bolts Lock Back Jaw**  
The vise base has two precision bores that allow for shoulder bolts to lock the back jaw when switching to a single station.

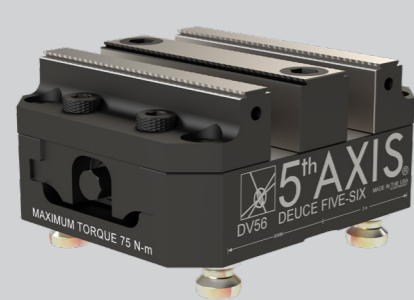


**Fixed Jaw\***  
In this configuration the vise operates like any traditional machine vise.  
\*DV56 and DV510 only

Double Station

Double Station

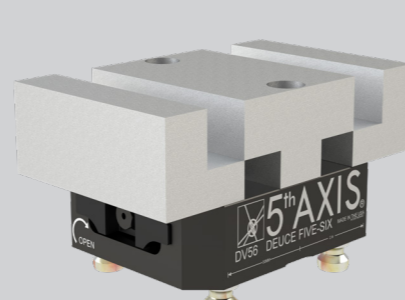
**Maximize Your Table Space**



Double Station

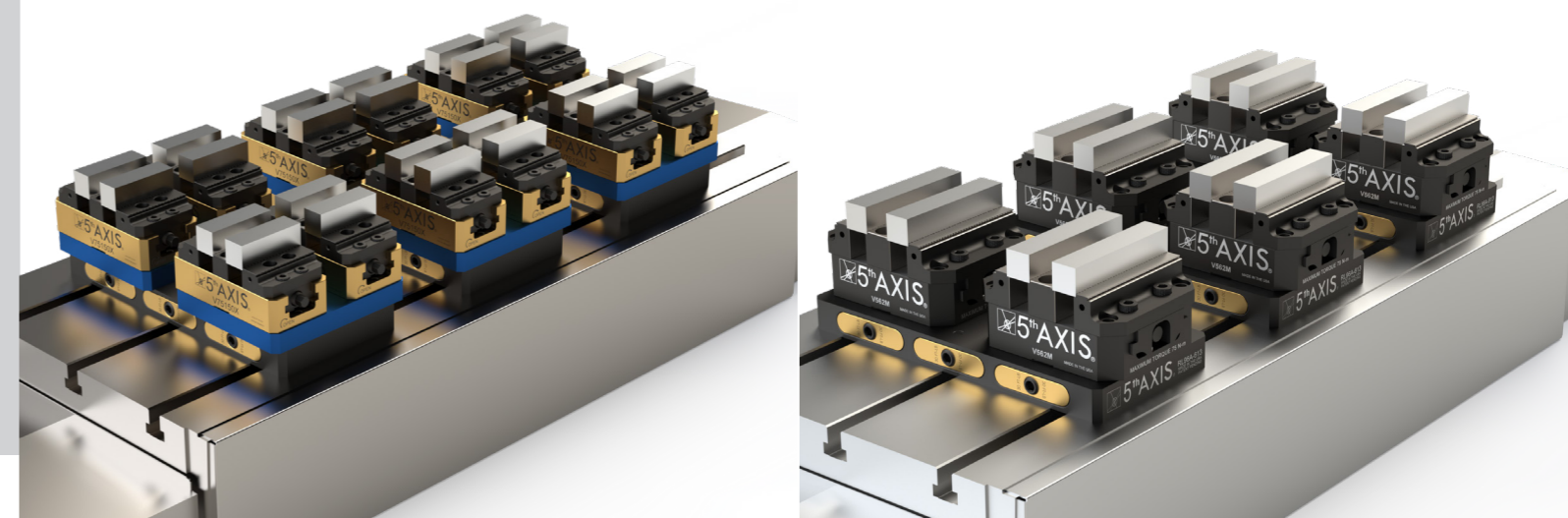


Single Station Fixed Jaw







Machinable Jaws

\*Only applies to DV56 and DV510






\*Only applies to DV56 and DV510




## Master Hard Jaws

Part Number	DV75150X-J1	DV56-J1	DV510-J1	DV510-J4
				
Size	75mm x 150mm x 56mm	125.7mm x 152.4mm x 72.9mm	125.7mm x 258.3mm x 73.4mm	125.7mm x 258.3mm x 73.4mm
Jaw Type	Hardened Steel 3 Piece Master Jaw Set with 2" center Serrated / 45° Dovetail	Hardened Steel 3 Piece Master Jaw Set Serrated / 45° Dovetail	Hardened Steel 3 Piece Master Jaw Set Serrated / 45° Dovetail	Hardened Steel 3 Piece Master Jaw Set with 1" Center Serrated / 45° Dovetail
Jaw Width	75mm	125.7mm	125.7mm	125.7mm
Clamping Force	13.5 kN @ 60 Nm	20.0 kN @ 75 Nm	20.0 kN @ 75 Nm	20.0 kN @ 75 Nm
Max Torque	60 Nm	75 Nm	75 Nm	75 Nm
Forward Clamping Range	0 - 37.02mm	0 - 28.5mm	0 - 79.4mm	0 - 66.7mm
Reverse Clamping Range	17.26mm - 55.02mm	31.0mm - 64.2mm	30.9mm - 115.0mm	30.9mm - 102.3mm
Single Station Forward Clamping Range	N/A	0 - 75.9mm	0 - 177.5mm	0 - 177.5mm
Single Station Reverse Clamping Range	N/A	56.8mm - 147.3mm	56.8mm - 248.7mm	56.8mm - 248.7mm

## Aluminum Jaws

Part Number	DV75150X-J2	DV56-J2	DV510-J2
			
Size	75mm x 150mm x 64.1mm	125.7mm x 152.4mm x 89mm	125.7mm x 258.3mm x 88.5mm
Jaw Type	6061 Aluminum Machinable Jaw Set	6061 Aluminum Machinable Jaw Set	6061 Aluminum Machinable Jaw Set
Jaw Width	75mm	125.7mm	125.7mm
Clamping Force	13.5 kN @ 60 Nm	20.0 kN @ 75 Nm	20.0 kN @ 75 Nm
Max Torque	60 Nm	75 Nm	75 Nm

## Steel Jaws

Part Number	DV75150X-J3	DV56-J3	DV510-J3
			
Size	75mm x 150mm x 64.1mm	125.7mm x 152.4mm x 89mm	125.7mm x 258.3mm x 88.5mm
Jaw Type	1018 Steel Machinable Jaw Set	1018 Steel Machinable Jaw Set	1018 Steel Machinable Jaw Set
Jaw Width	75mm	125.7mm	125.7mm
Clamping Force	13.5 kN @ 60 Nm	20.0 kN @ 75 Nm	20.0 kN @ 75 Nm
Max Torque	60 Nm	75 Nm	75 Nm

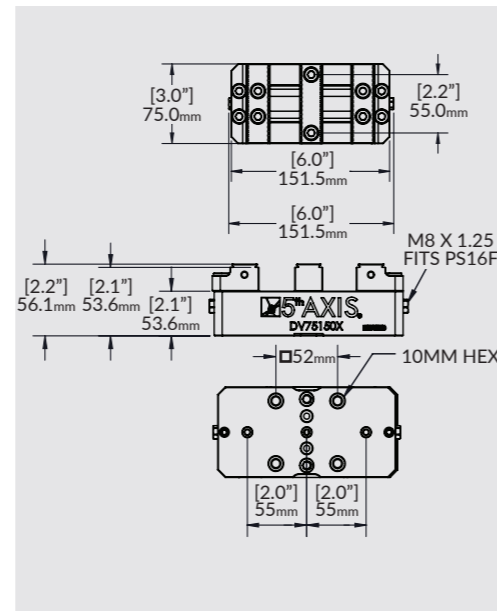


## DV75150X-J1 Master Hard Jaws



**Size:** 75mm x 150mm x 56.1mm  
**Jaw Set Material:** Hardened Steel 3 Piece Master Jaw Set with Serrated / 45° Dovetail  
**Jaw Width:** 75mm  
**Clamping Force:** 13.5 kN @ 60 Nm  
**Max Torque:** 60 Nm  
**Forward Clamping Range:** 0-37.02mm  
**Reverse Clamping Range:** 17.23 - 55.02mm

Double station vise with serrated and dovetail master jaws. Perfect for making parts that are less than 55mm x 75mm.

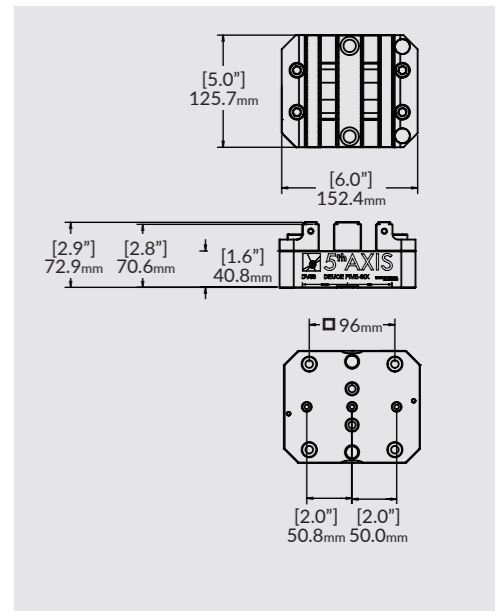


## DV56-J1 Master Hard Jaws

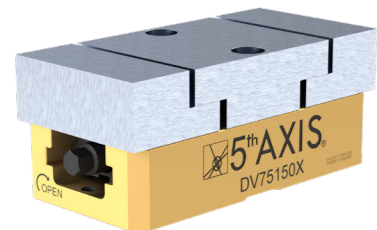


**Size:** 125.7mm x 152.4mm x 72.9mm  
**Jaw Set Material:** Hardened Steel 3 Piece Master Jaw Set with Serrated / 45° Dovetail  
**Jaw Width:** 75mm  
**Max Torque:** 75 Nm  
**Forward Clamping Range:** 0 - 28.5mm  
**Reverse Clamping Range:** 31mm - 64.2mm  
**Fixed Jaw Forward Clamping Range:** 0 - 75.9mm  
**Fixed Jaw Reverse Clamping Range:** 56.8 - 147.3mm

Quickly convert the DV56-J1 from a double station to a fixed single jaw vise. Perfect for parts smaller than 64.2mm x 125.7mm.

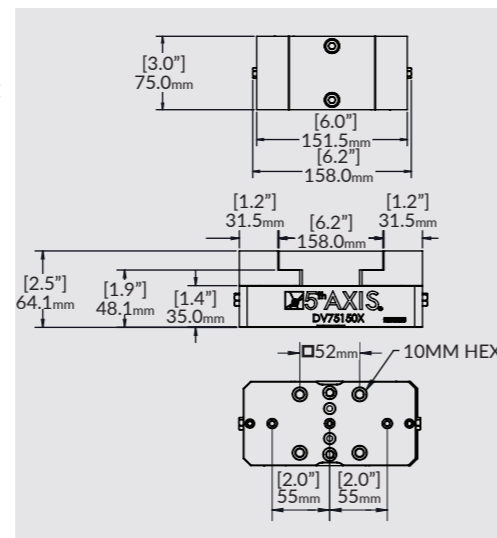


## DV75150X-J2 Aluminum Jaws

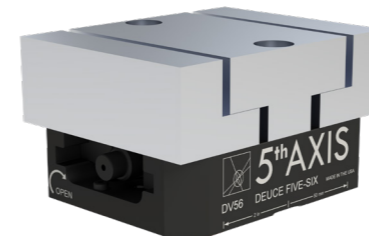


**Size:** 75mm x 150mm x 56.1mm  
**Jaw Set Material:** 6061 Aluminum Machinable Jaw Set  
**Jaw Width:** 75mm  
**Clamping Force:** 13.5 kN @ 60 Nm  
**Max Torque:** 60 Nm

Double station vise with 6061 aluminum machinable jaws. Perfect for secondary operation work.

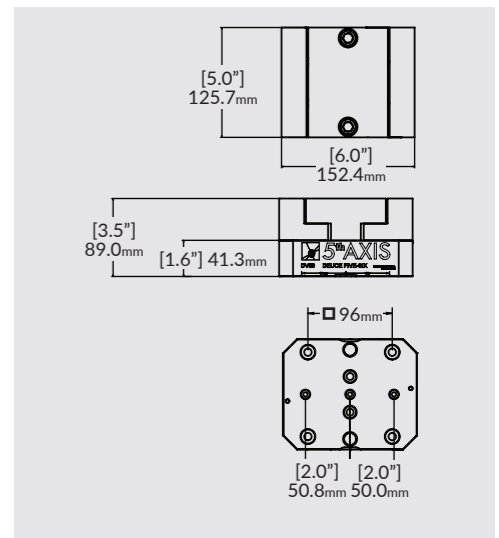


## DV56-J2 Aluminum Jaws

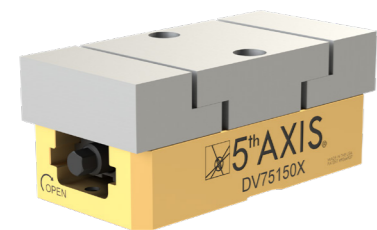


**Size:** 125.7mm x 152.4mm x 89mm  
**Jaw Set Material:** 6061 Aluminum Machinable Jaw Set  
**Jaw Width:** 75mm  
**Max Torque:** 75 Nm

Double station vise with 6061 aluminum machinable jaws. Perfect for secondary operation work.

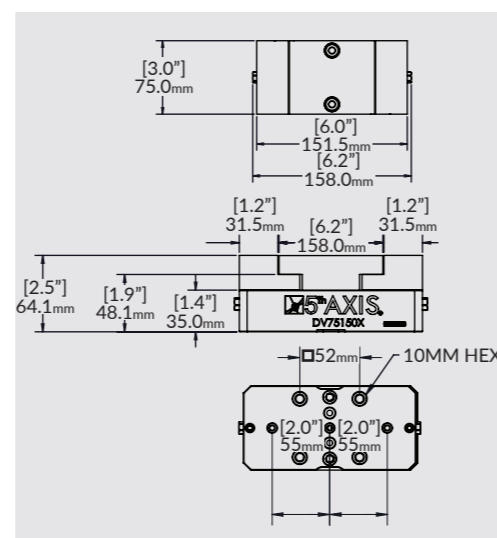


## DV75150X-J3 Steel Jaws

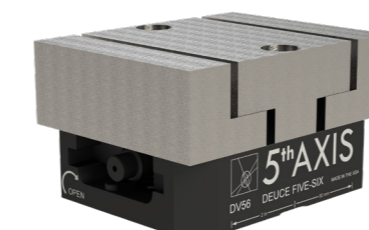


**Size:** 75mm x 150mm x 56.1mm  
**Jaw Set Material:** 1018 Steel Machinable Jaw Set  
**Jaw Width:** 75mm  
**Clamping Force:** 13.5 kN @ 60 Nm  
**Max Torque:** 60 Nm

Double station vise with 1018 steel machinable jaws. Perfect for secondary operation work.

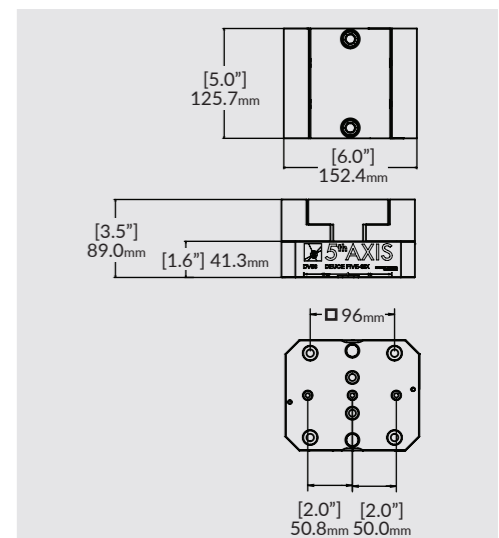


## DV56-J3 Steel Jaws



**Size:** 125.7mm x 152.4mm x 89mm  
**Jaw Set Material:** 1018 Steel Machinable Jaw Set  
**Jaw Width:** 75mm  
**Max Torque:** 75 Nm

Double station vise with 1018 steel machinable jaws. Perfect for secondary operation work.

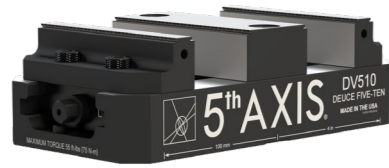


Double Station

Double Station

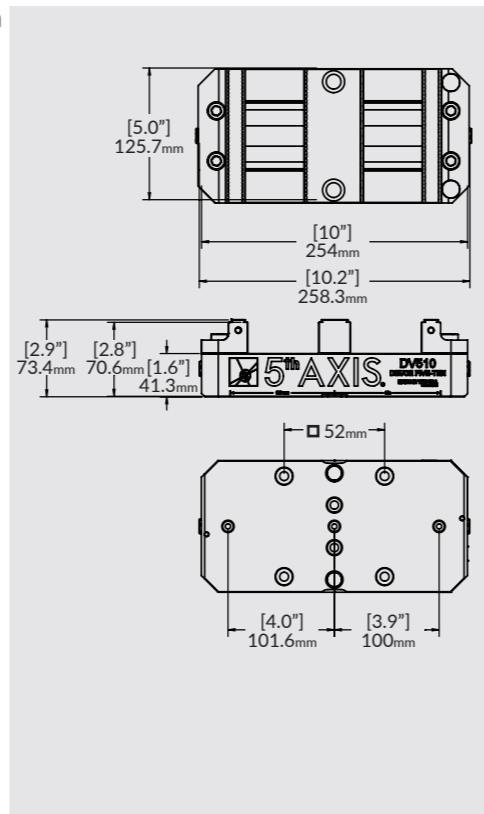


## DV510-J1 Master Hard Jaws



**Size:** 125.7mm x 258.3mm x 73.4mm  
**Jaw Set Material:** Hardened Steel 3 Piece Master Jaw Set with 2" Center and Serrated / 45° Dovetail Jaws  
**Jaw Width:** 125.7mm  
**Max Torque:** 75 Nm  
**Forward Clamping Range:** 0 - 79.4mm  
**Reverse Clamping Range:** 30.9mm - 115mm  
**Fixed Jaw Forward Clamping Range:** 0 - 177.5mm  
**Fixed Jaw Reverse Clamping Range:** 56.8mm - 248.7mm

Double station vise that converts to a fixed jaw vise. 3 piece hard jaw set with a 2" center, serrations, and 45° dovetail master jaw.

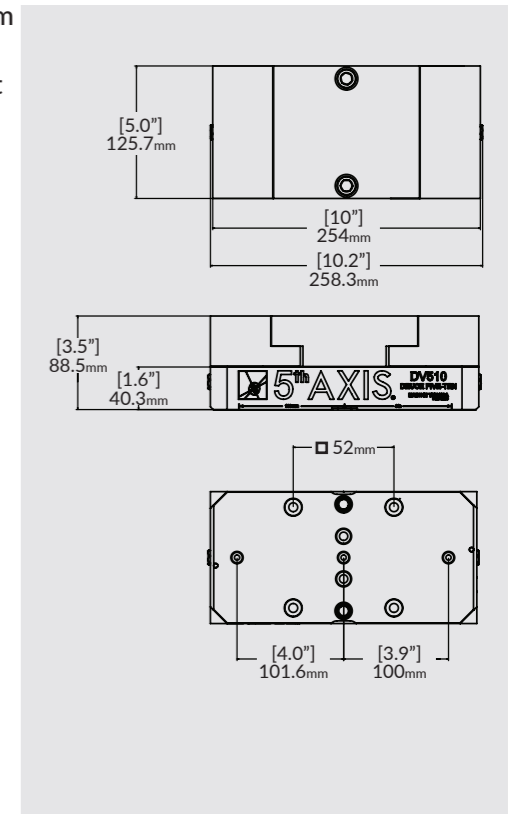


## DV510-J2 Aluminum Jaws

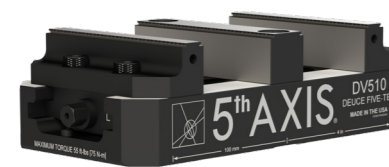


**Size:** 125.7mm x 258.3mm x 88.5mm  
**Jaw Set Material:** 6061 Aluminum Machinable Jaw Set  
**Jaw Width:** 125.7mm  
**Max Torque:** 75 Nm

Double station vise with 6061 aluminum machinable jaws. Perfect for secondary operation work

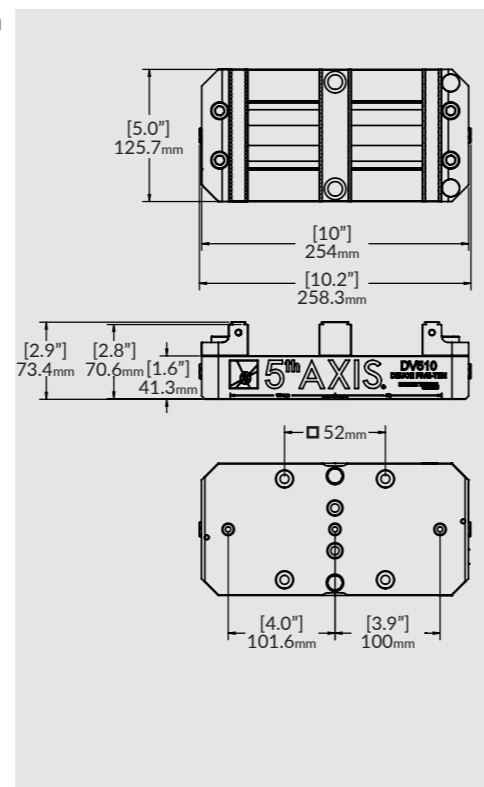


## DV510-J4 Master Hard Jaws



**Size:** 125.7mm x 258.3mm x 73.4mm  
**Jaw Set Material:** Hardened Steel 3 Piece Master Jaw Set with 1" Center and Serrated / 45° Dovetail Jaws  
**Jaw Width:** 125.7mm  
**Max Torque:** 75 Nm  
**Forward Clamping Range:** 0 - 79.4mm  
**Reverse Clamping Range:** 30.9mm - 115mm  
**Fixed Jaw Forward Clamping Range:** 0 - 177.5mm  
**Fixed Jaw Reverse Clamping Range:** 56.8mm - 248.7mm

Double station vise that converts to a fixed jaw vise. 3 piece hard jaw set with a 1" center, serrations, and 45° dovetail master jaw.

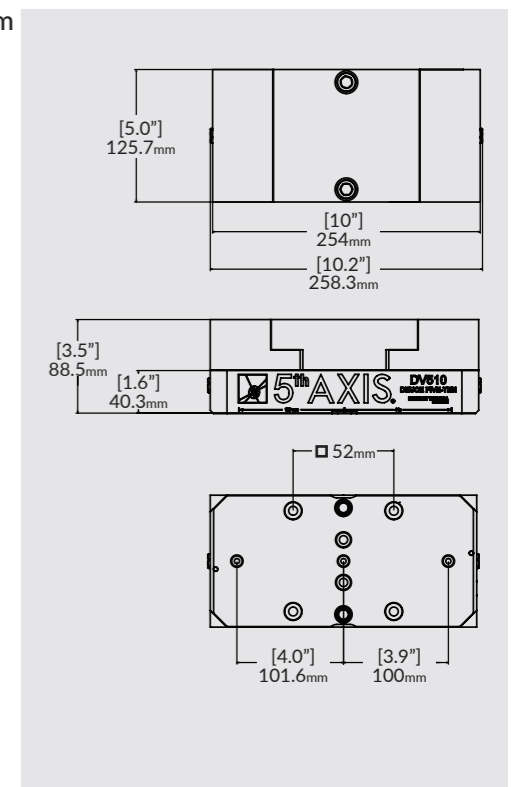


## DV510-J3 Steel Jaws

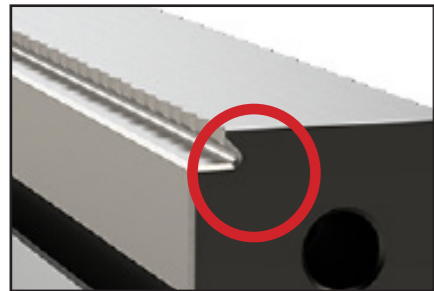


**Size:** 125.7mm x 258.3mm x 88.5mm  
**Jaw Set Material:** 1018 Steel Machinable Jaw Set  
**Jaw Width:** 125.7mm  
**Max Torque:** 75 Nm

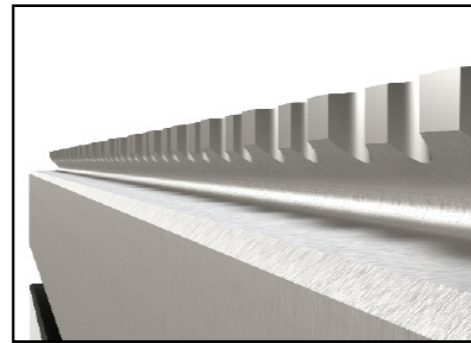
Double station vise with 1018 steel machinable jaws. Perfect for secondary operation work



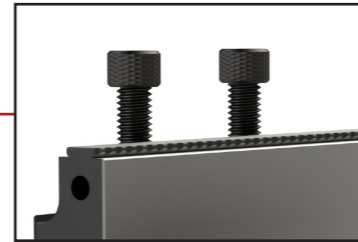
## Self-Centering Vises



Built in 45° dovetail can be utilized for increased clamping force



Serrated gripper teeth for superior bite into soft material



Quick change jaws without disassembling vise



Pre-drilled for pull studs

Hardened steel

+/- 0.0005" on center

Large leadscrew

Jaws are easy to remove

Easy mounting to machine

Part Number	V75100X	V75150X	V552M
			
Size	75mm x 100mm x 56mm	75mm x 150mm x 56mm	125.7mm x 127mm x 73.6mm
Jaw Width	75mm	75mm	125.7mm
Clamping Force	13.5 kN @ 60 Nm	13.5 kN @ 60 Nm	20.0 kN @ 75 Nm
Max Torque	60 Nm	60 Nm	75 Nm
Forward Clamping Range	0 - 40.3mm	0 - 92.8mm	0 - 56.9mm
Reverse Clamping Range	38.5mm - 76.3mm	38.5mm - 128.8mm	77.8mm - 128.3mm

Part Number	V562M	V510M	V6105M
			
Size	125.7mm x 152.4mm x 73.6mm	126mm x 152mm x 74mm	150mm x 250mm x 94.1mm
Jaw Width	125.7mm	126mm	150mm
Clamping Force	20.0 kN @ 75 Nm	20.0 kN @ 75 Nm	26.7 kN @ 100 Nm
Max Torque	75 Nm	75 Nm	100 Nm
Forward Clamping Range	0 - 82.3mm	0 - 183.9mm	0 - 155.4mm
Reverse Clamping Range	77.7mm - 153.6mm	72.6mm - 254.8mm	93.6mm - 243.3mm

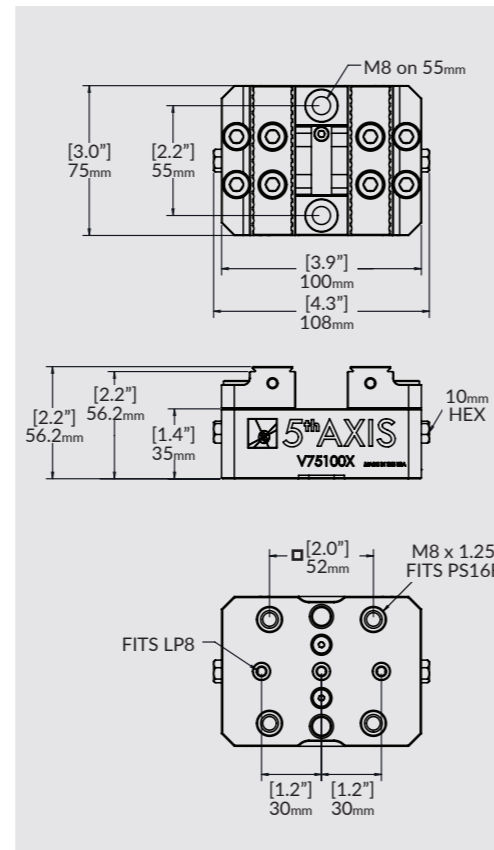
## V75100X Metric



**Size:** 75mm x 100mm x 56mm  
**Jaw Width:** 75mm  
**Forward Jaws Clamping Range:**  
 0 - 40.3mm  
**Reverse Jaws Clamping Range:**  
 38.5mm - 76.3mm  
**Clamping Force:** 13.5 kN @ 60 Nm  
**Torque Vise Assembly:** 60 Nm

The V75100X is the most recent revision of our V75100 vise. Now equipped with 4 bolt jaw mounting to reduce jaw lift providing robust clamping and sharper teeth for a better bite.

This small compact 5 axis vise was created to be used on very small office type mills and micro pallet changers. We took the technology in the V552 and V562 and shrunk it down to create what is now the V75100X.

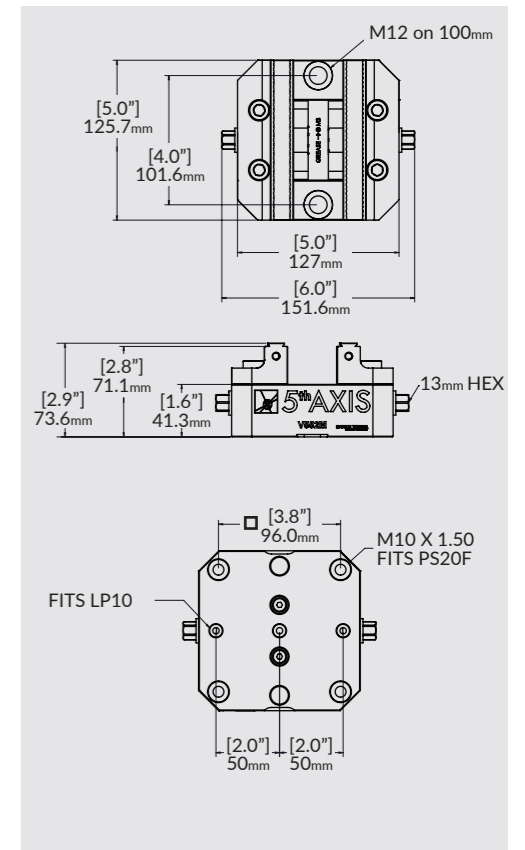


## V552M Metric



**Size:** 125.7mm x 127mm x 73.6mm  
**Jaw Width:** 125.7mm  
**Forward Jaws Clamping Range:**  
 0 - 56.9mm  
**Reverse Jaws Clamping Range:**  
 77.8mm - 128.3mm  
**Clamping Force:** 20.0 kN @ 75 Nm  
**Torque Vise Assembly:** 75 Nm

The V552M is a 125mm x 125mm. It was created with the goal of fitting a self-centering vise on a small pallet for robotic loading cells. It has quickly become a favorite vise for shops utilizing smaller palletized systems as well as smaller rotary tables where clearance is a major concern.

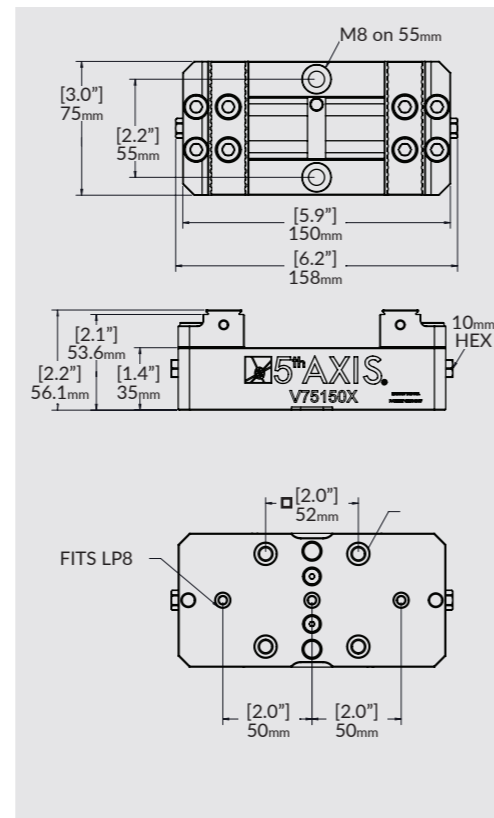


## V75150X Metric



**Size:** 75mm x 150mm x 56mm  
**Jaw Width:** 75mm  
**Forward Jaws Clamping Range:**  
 0 - 92.8mm  
**Reverse Jaws Clamping Range:**  
 38.5mm - 128.8mm  
**Clamping Force:** 13.5 kN @ 60 Nm  
**Torque Vise Assembly:** 60 Nm

The V75150X was created out of customer demand for a small self-centering vise with an increased clamping range over the popular V75100X vise. The base is 50mm longer than the standard V75100X, allowing the max workpiece size to increase from 76mm to 128mm. The V75150X maintains the same 75mm jaw width for maximum tool clearance. The new 4 bolt jaw mounting design reduces jaw lift and the sharper teeth provide a superior bite in raw material.

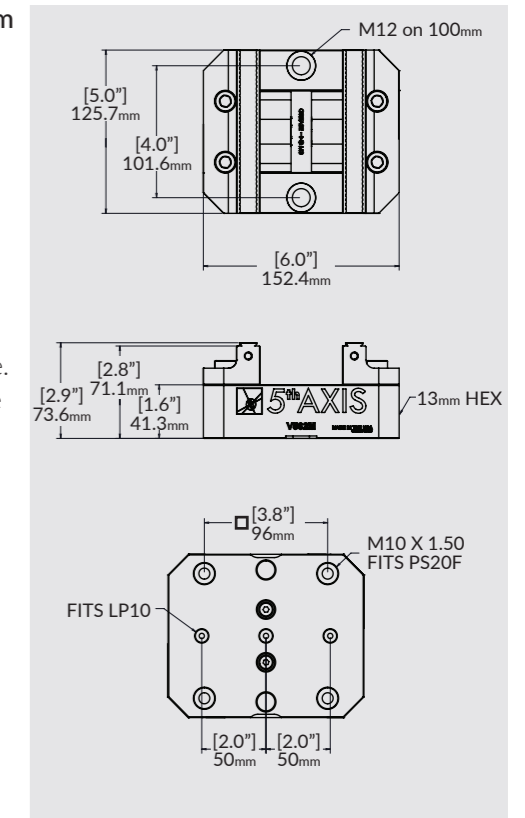


## V562M Metric



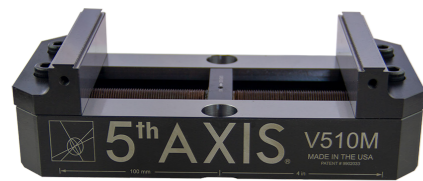
**Size:** 125.7mm x 152.4mm x 73.6mm  
**Jaw Width:** 125.7mm  
**Forward Jaws Clamping Range:**  
 0 - 82.3mm  
**Reverse Jaws Clamping Range:**  
 77.7mm - 153.6mm  
**Clamping Force:** 20.0 kN @ 75 Nm  
**Torque Vise Assembly:** 75 Nm

The V562M is the best selling self-centering vise in our product line. Its compact foot print and low profile design has made it the most popular choice for machine shops across the world. The V562M is built from heat treated 4100 series steel and is precision ground and hard milled to ensure accuracy and repeatability.



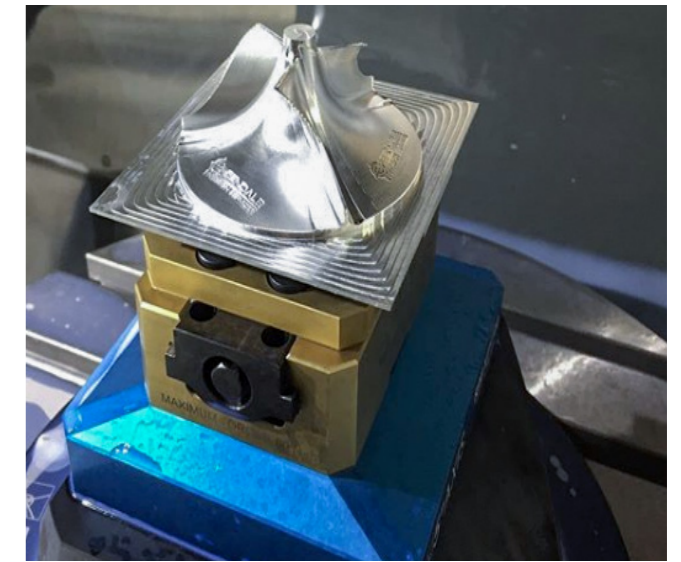
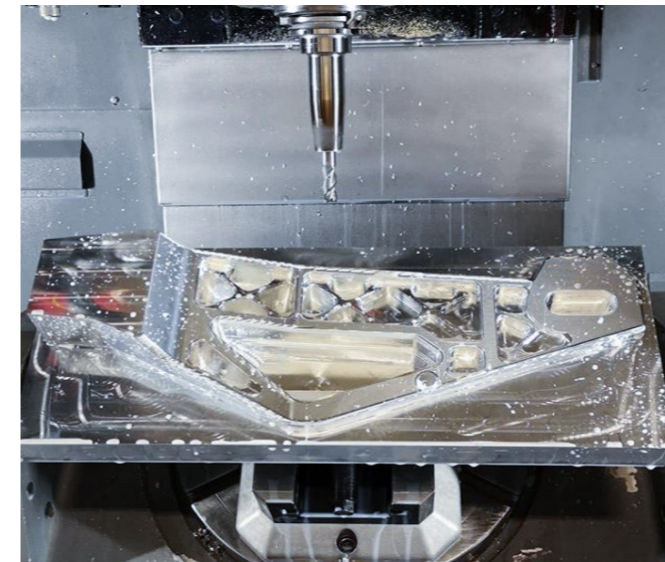
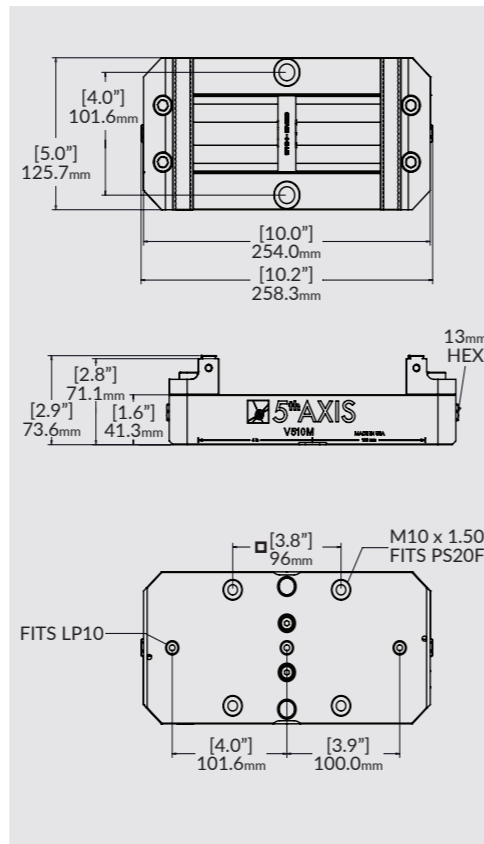


## V510M Metric



**Size:** 126mm x 152.4mm x 73.6mm  
**Jaw Width:** 126mm  
**Forward Jaws Clamping Range:**  
 0 - 183.9mm  
**Reverse Jaws Clamping Range:**  
 72.6mm - 254.8mm  
**Clamping Force:** 20.0 kN @ 100 Nm  
**Torque Vise Assembly:** 100 Nm

The V510M has all of the robust features of the V562M with the added an increased clamping range. With 254mm of clamping range, the V510M is a perfect fit for shops looking for a small footprint vise with a larger clamping range. The V510M is built from hardened and ground 4100 series steel to ensure accuracy and repeatability.



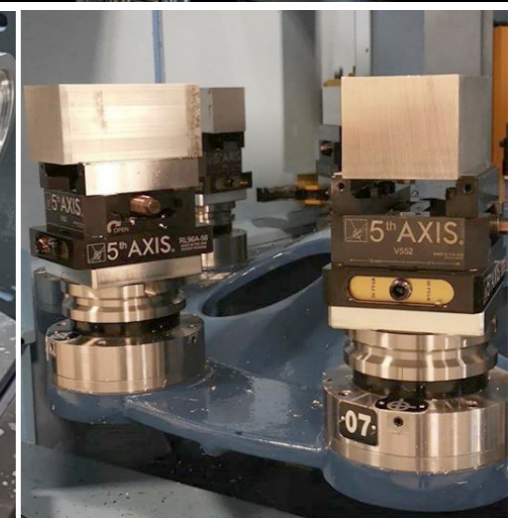
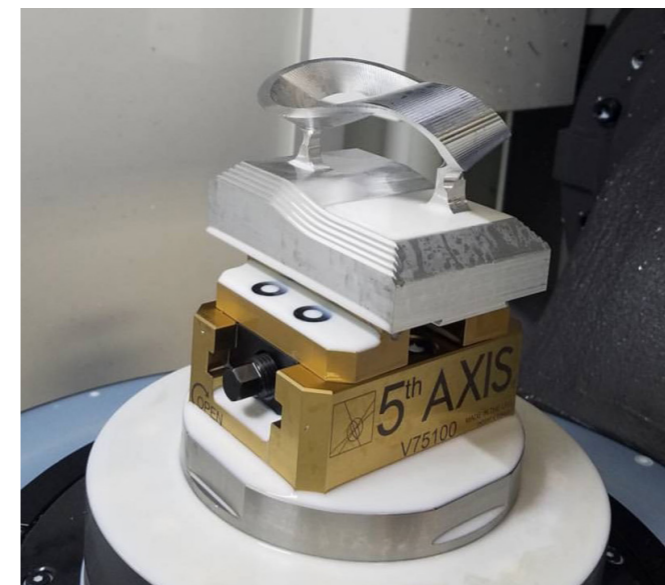
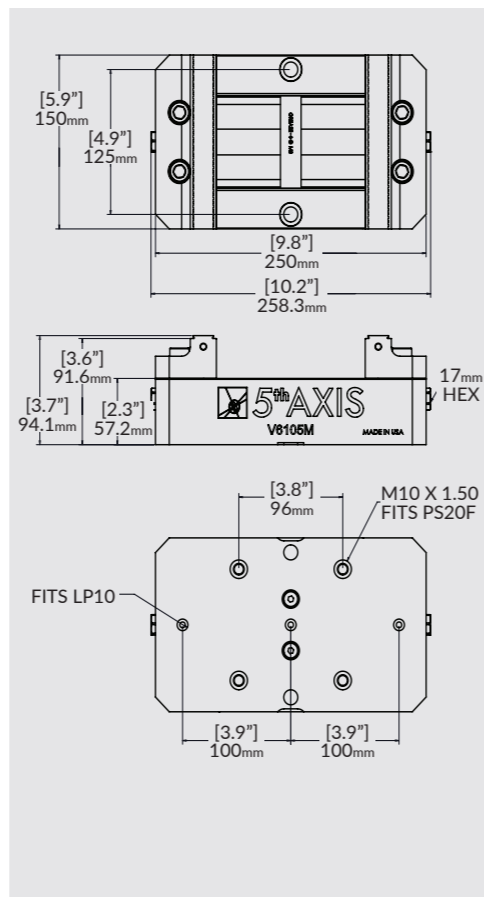
## V6105M Metric



**Size:** 150mm x 250mm x 94.1mm  
**Jaw Width:** 150mm  
**Forward Jaws Clamping Range:**  
 0 - 155.4mm  
**Reverse Jaws Clamping Range:**  
 93.6mm - 243.3mm  
**Clamping Force:** 26.7 kN @ 100 Nm  
**Torque Vise Assembly:** 100 Nm

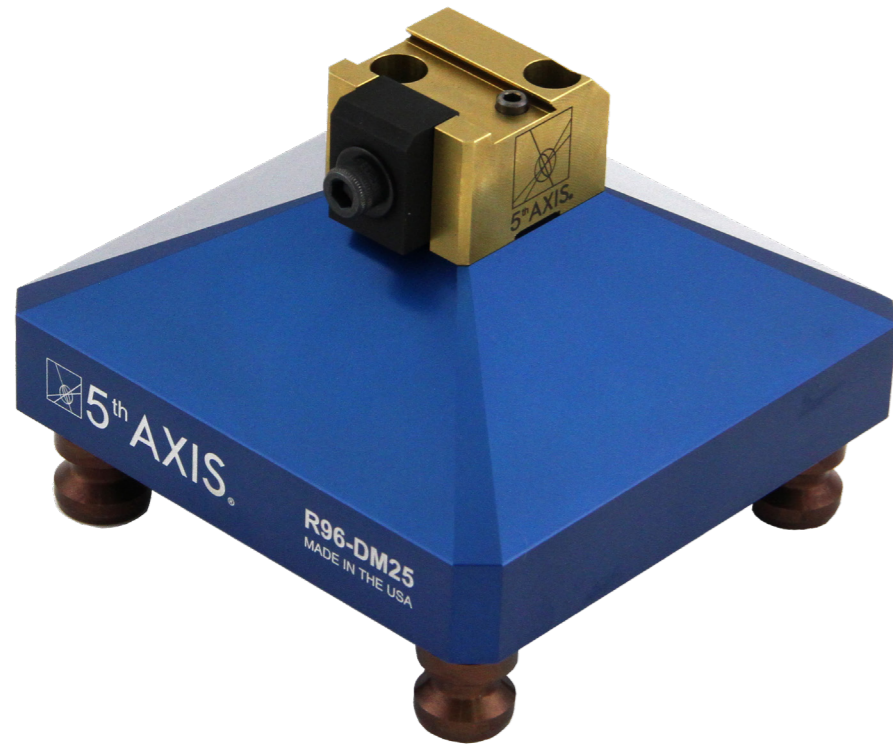
The V6105M is the largest 5 axis self centering vise in our product line. Its compact foot print and low profile design has made it a popular choice for machine shops across the world. The V6105M is built from heat treated 4100 series steel and is precision ground and hard milled to ensure accuracy and repeatability.

The "Master Jaws" on the V6105M self-centering vise are manufactured from hardened 4100 series steel. The jaws feature: 45 degree dovetail, 2.50mm step, and serrated gripper teeth for clamping aluminum and soft steel.









## Dovetail Fixtures



-  45° dovetail for increased clamping force
-  Locating pins for precise repeatability
-  Low profile design
-  Hardened steel clamp and body

### Dovetail Fixtures

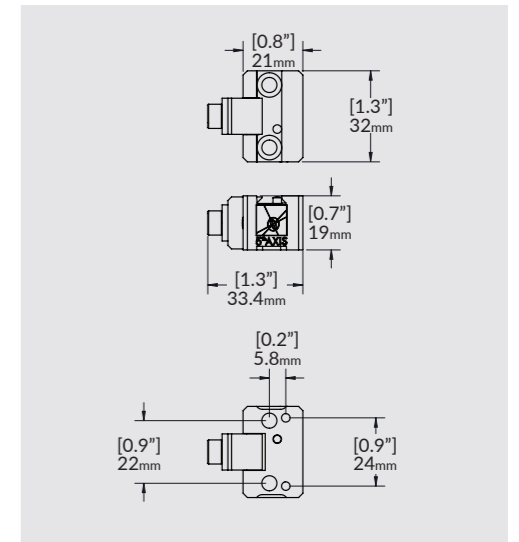
Part Number	DM12	DM25	DM50	D362
				
Size	21mm x 32mm x 19mm	37mm x 41mm x 27mm	50mm x 50mm x 38mm	6" x 3" x 1.3"
Stock Size	12mm - 25mm	25mm - 75mm	50mm and Above	3" and Above
Dovetail Depth	2.54mm	2.54mm	5.08mm	.200"

### DM12 Metric



**Size:** 21mm x 32mm x 19mm  
**Material:** 4100 Series Steel  
**Stock Size:** 12mm - 25mm  
**Dovetail Depth Required:** 2.54mm

The DM12 is the smallest dovetail fixture in the 5th Axis workholding line. The DM12 features a wedge style clamp for superior gripping force and a low profile design that optimizes tool clearance. This micro dovetail fixture is the perfect choice for multi-axis work on smaller parts.

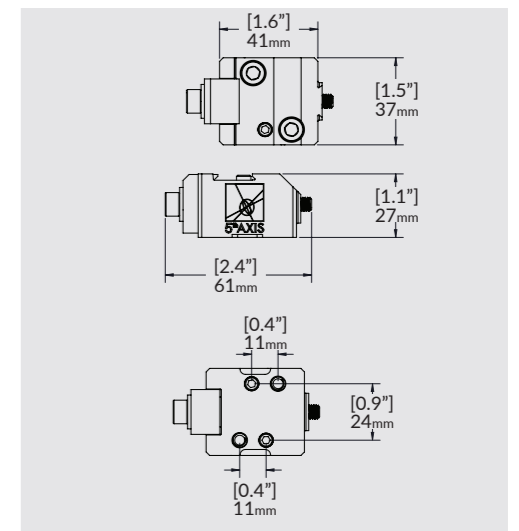


### DM25 Metric



**Size:** 37mm x 41mm x 27mm  
**Material:** 4100 Series Steel  
**Stock Size:** 25mm - 75mm  
**Dovetail Depth Required:** 2.54mm

The DM25 is the most versatile dovetail fixture in the 5th Axis workholding line. It is a simple and robust dovetail fixture built for stock under 75mm. The DM25 features a robust clamp for superior gripping force and a low profile design that optimizes tool clearance. This dovetail fixture is the perfect choice for multi-axis work on small to medium sized parts.

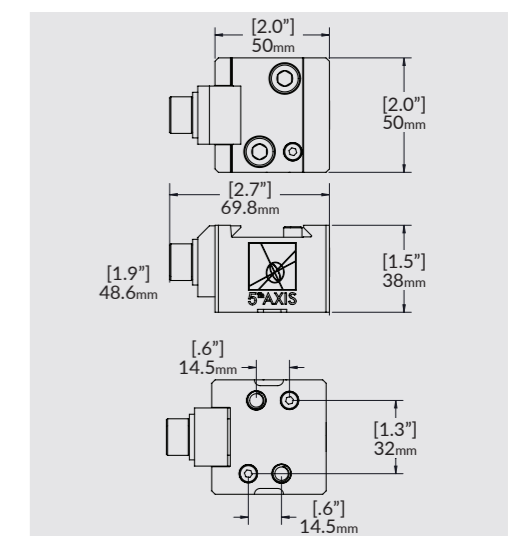


### DM50 Metric



**Size:** 50mm x 50mm x 38mm  
**Material:** 4100 Series Steel  
**Stock Size:** 50mm+  
**Dovetail Depth Required:** 5.08mm

The DM50 is a 50mm x 38mm dovetail fixture in the 5th Axis workholding line. The DM50 is a simple and robust dovetail fixture built for stock 50mm and above, features a wedge style clamp for superior gripping force, and a low profile design that optimizes tool clearance.



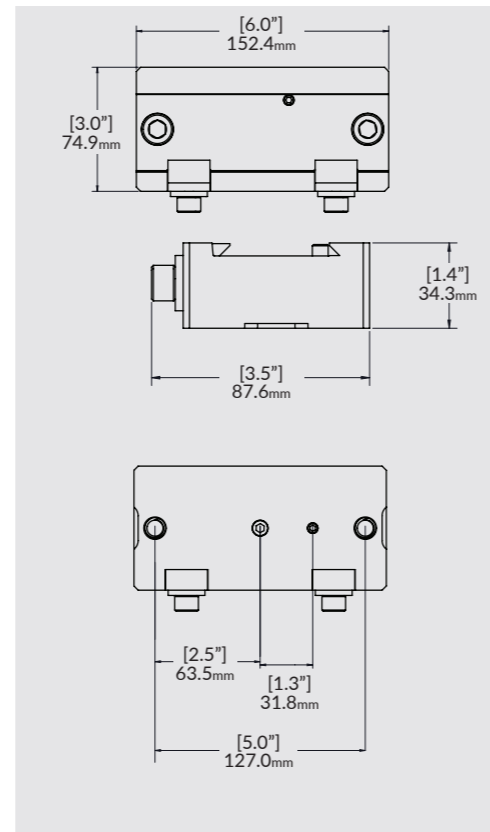
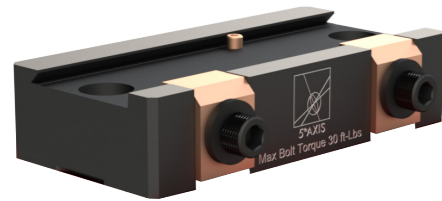


## D362 Inch

**Size:** 6" x 3" x 1.3"  
**Material:** 4100 Series Steel  
**Stock Size:** 3"+  
**Dovetail Depth Required:** 0.150"

The D362 is the largest dovetail fixture in the 5th Axis workholding line. It is built for stock 3" and above. The D362 features two wedge style clamps for superior gripping force and a low profile design that optimizes tool clearance. This dovetail fixture is the perfect choice for multi-axis work on larger workpieces.

The D362 was designed with a modular footprint in mind. This fixture features removable locating pins top and bottom which allow for flexible mounting options. The D362 can be used as a stand alone unit, on a gang plate, or mounted pyramid with multiple other units.

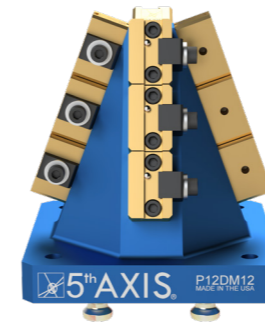


## R52-P12DM12

### Metric

**Spacing:** 125.73mm x 125.73mm x 133.5mm  
**Material Construction:** 6061 Aluminum

Built for our 52mm RockLock Quick Change System, the R52-P12DM12 provides maximum amount of flexibility. This 4-sided pyramid utilizes twelve DM12 dovetail fixtures for stock under 25mm. The orientation of the fixtures on the pyramid ensures optimal tool clearance for multiple parts. Machine up to 12 parts on this compact unit. The modular design allows for fixtures to be added or removed depending on the length of the workpiece.

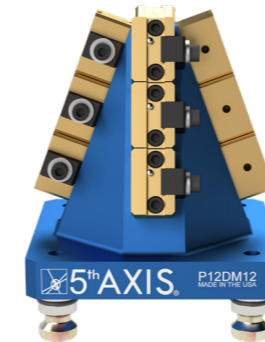


## R96-P12DM12

### Metric

**Spacing:** 125.73mm x 125.73mm x 133.5mm  
**Material Construction:** 6061 Aluminum

Built for our 96mm RockLock Quick Change System, the R96-P12DM12 provides maximum amount of flexibility. This 4-sided pyramid utilizes twelve DM12 dovetail fixtures for stock under 25mm. The orientation of the fixtures on the pyramid ensures optimal tool clearance for multiple parts. Machine up to 12 parts on this compact unit. The modular design allows for fixtures to be added or removed depending on the length of the workpiece.



## R52-P4DM25

### Metric

**Spacing:** Ø152.4mm x 64.9mm  
**Material Construction:** 6061 Aluminum

This compact pyramid utilizes four DM25 dovetail fixtures. The small foot print 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 using our 52mm RockLock Quick Change System.

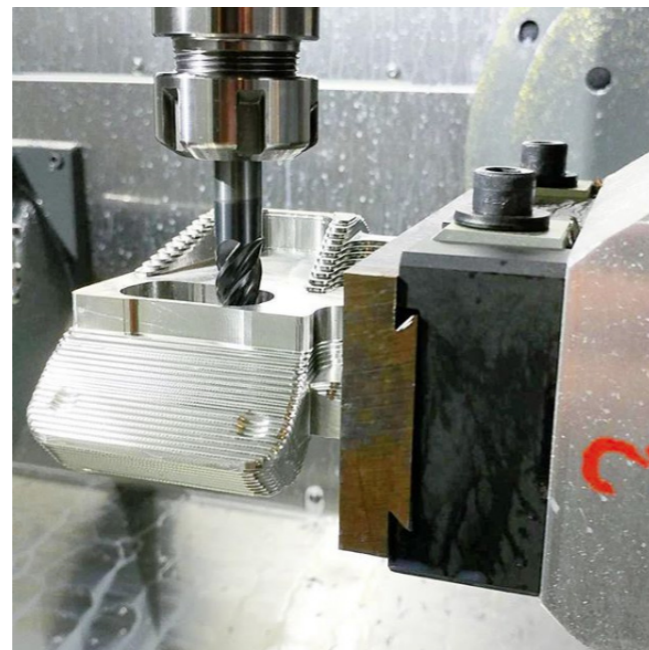
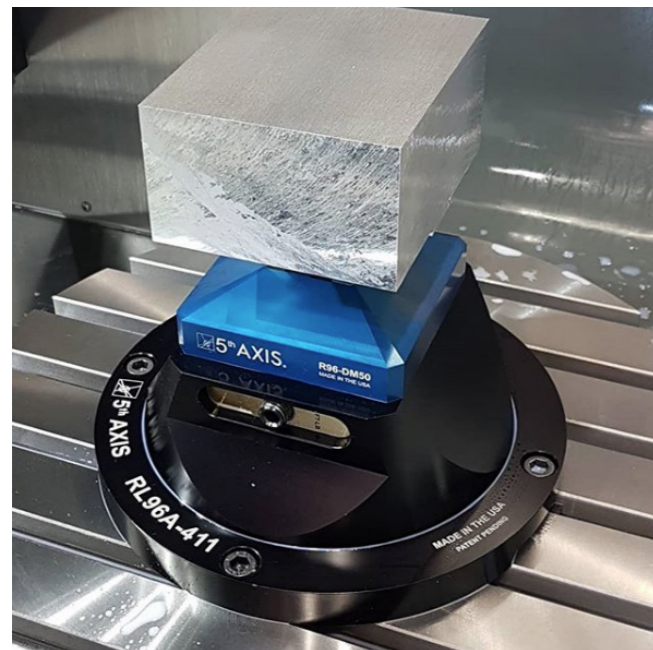


## R96-P4DM25

### Metric

**Spacing:** Ø152.4mm x 64.9mm  
**Material Construction:** 6061 Aluminum

This compact pyramid utilizes four DM25 dovetail fixtures. The small foot print 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 using our 96mm RockLock Quick Change System.



### CER40



The CER40 is a quick and efficient fixture for holding round stock. The collet utilizes your existing set of standard ER40 collets allowing you to clamp different diameters of stock. The body is manufactured from hardened alloy steel to exacting standards.

Part Number	R52-CER40	R96-CER40
		
Size	2.95" x 2.95" x 2.67"	4.95" x 4.95" x 3.2"
Mounting	Includes PS16F	Includes PS20F
Stock Size	ER40 Collet	ER40 Collet

### Dovetail Cutters



**DC1750-45\***  
45° Indexable Dovetail Cutter, 1" shank  
All of our fixtures feature 45° dovetail.

**DC1750-60\***  
60° Indexable Dovetail Cutter, 1" shank  
Compatible with other 60° dovetail systems.

**DC1750-M**  
45° Indexable Dovetail Cutter, 25mm shank  
All of our fixtures feature 45° dovetail.

**DC1750-B**  
Inserts for Dovetail Cutter  
Compatible with all 5th Axis dovetail cutters.



### Thumb Screws

**Replacement Thumbscrews:**  
**TS10** - Used on V75100X, V75150X, DV75150X  
**TS12** - Used on V552, V562  
**TS13** - Used on DV56, DV510, V552M, V562M, and V510M  
**TS17** - Used on V6105M  
**TS58** - Used on V6105

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

### Threaded Locating Pins



**Replacement Locating Pins:**  
**LP6** - 6mm OD  
**LP8** - 8mm OD  
**LP10** - 10mm OD  
**LP250** - 0.250" OD  
**LP375** - 0.375" OD

Locating pins are included with every vise.

\*Inserts sold separately.  
CAD models available for download at [fifthaxis.com/downloads](http://fifthaxis.com/downloads)





### Machinable 6061 Aluminum Jaws

**METRIC**

**VAJ75X** - 75mm x 45mm x 25mm (Compatible with V75100 / V75100X)

**VAJ52M** - 125mm x 50mm x 34mm (Compatible with V552M / V562M / V510M)

**VAJ610M** - 151mm x 78mm x 47mm (Compatible with V6105M)



### Machinable 1018 Steel Jaws

**METRIC**

**VSJ75X** - 75mm x 45mm x 25mm (Compatible with V75100 / V75100X)

**VSJ52M** - 125mm x 50mm x 34mm (Compatible with V552M / V562M / V510M)

**VSJ610M** - 151mm x 78mm x 47mm (Compatible with V6105M)



### DJ6 Gripper Jaws

**DJ6** - Compatible with standard 6" Kurt Vise.

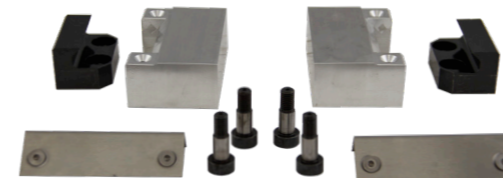
The DJ6 gripper jaws with built-in 45° dovetails are the perfect accessory for your 6" machine vise. Jaws are heat treated and precision ground for superior repeatability and longevity. The jaws are 55 HRC, TiN coated and 25mm step depth.



### Narrow Jaws

**NT5-M** - Compatible with V552M / V562M / V510M

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



### Anti-Lift Jaws

**AL75A** - Anti-Lift Aluminum Machinable Jaws, Starter Set. Includes steel cleats, aluminum machinable jaws, and brackets. (Compatible with V75100, V75100X, V75150X)

**AL75-2A** - Set of 2, Replacement Anti-Lift Machinable Aluminum Jaws. (Compatible with V75100, V75100X, V75150X)

**AL75S** - Anti-Lift Steel Machinable Jaws, Starter Set. Includes steel cleats, steel machinable jaws, and brackets. (Compatible with V75100, V75100X, V75150X)

**AL75-2S** - Set of 2, Replacement Anti-Lift Machinable Jaws, Steel. (Compatible with V75100, V75100X, V75150X)

**AL52MA** - Anti-Lift Aluminum Machinable Jaws, Starter Set. Includes steel cleats, aluminum machinable jaws, and brackets. (Compatible with V552M / V562M / V510M)

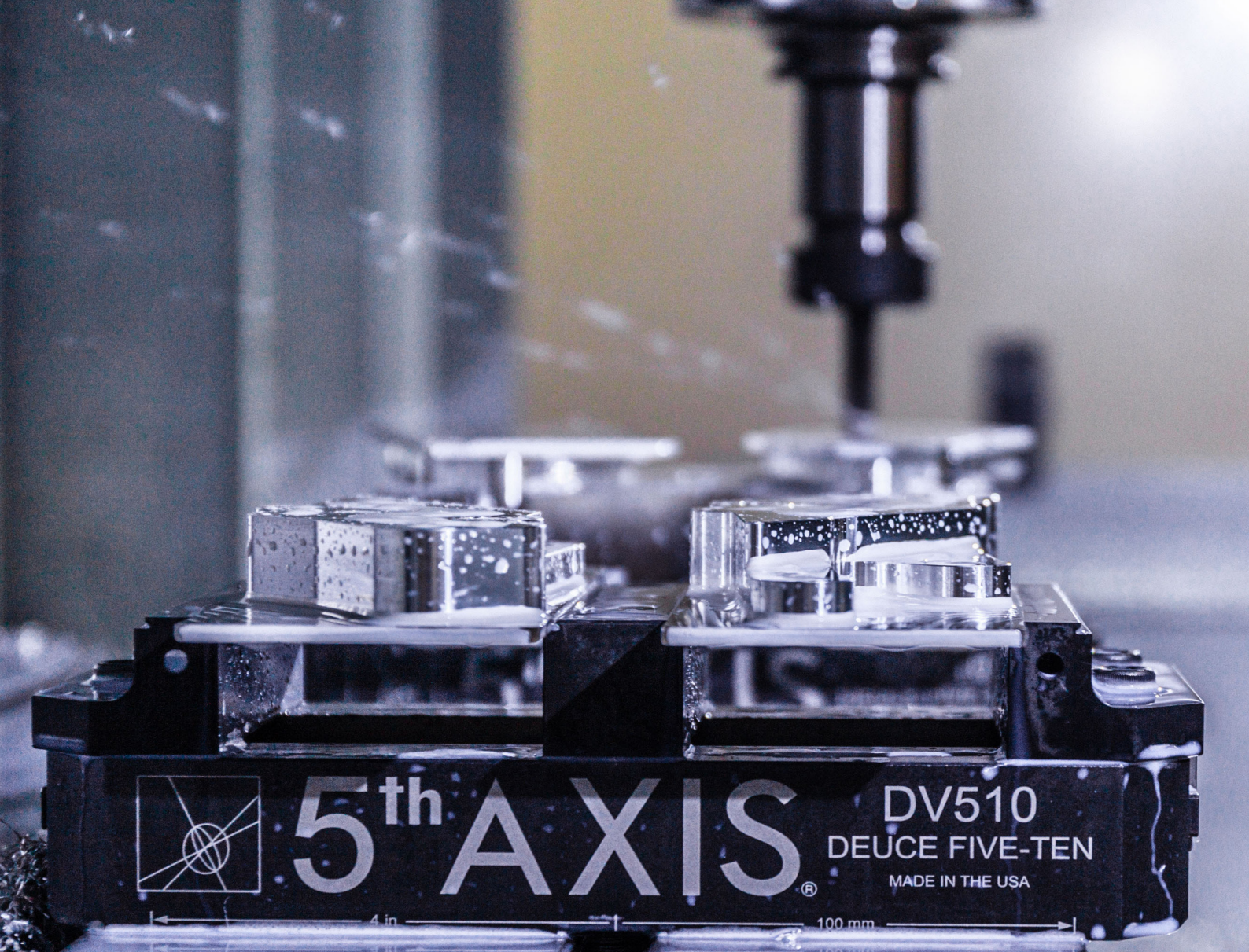
**AL52-2A** - Set of 2, Replacement Anti-Lift Machinable Aluminum Jaws. (Compatible with V552 / V562 / V552M / V562M / V510M)

**AL52MS** - Anti-Lift Steel Machinable Jaws, Starter Set. Includes steel cleats, aluminum machinable jaws, and brackets. (Compatible with V552M / V562M / V510M)

**AL52-2S** - Set of 2, Replacement Anti-Lift Machinable Jaws, Steel. (Compatible with V552 / V562 / V552M / V562M / V510M)

Our Anti-Lift Jaws use a cleat and angled soft jaw to pull the jaw in and down when torque is applied to the lead screw. This design decreases jaw lift and jaw deflection commonly seen in self-centering vises.





**ROCKLOCK™**  
**QUICK CHANGE SYSTEM**



**Made in USA**



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7140 Engineer Rd.  
San Diego, CA 92111  
p: 858-505-0432  
f: 858-505-9344  
e: [workholding@5thaxis.com](mailto:workholding@5thaxis.com)  
[5thaxis.com](http://5thaxis.com)