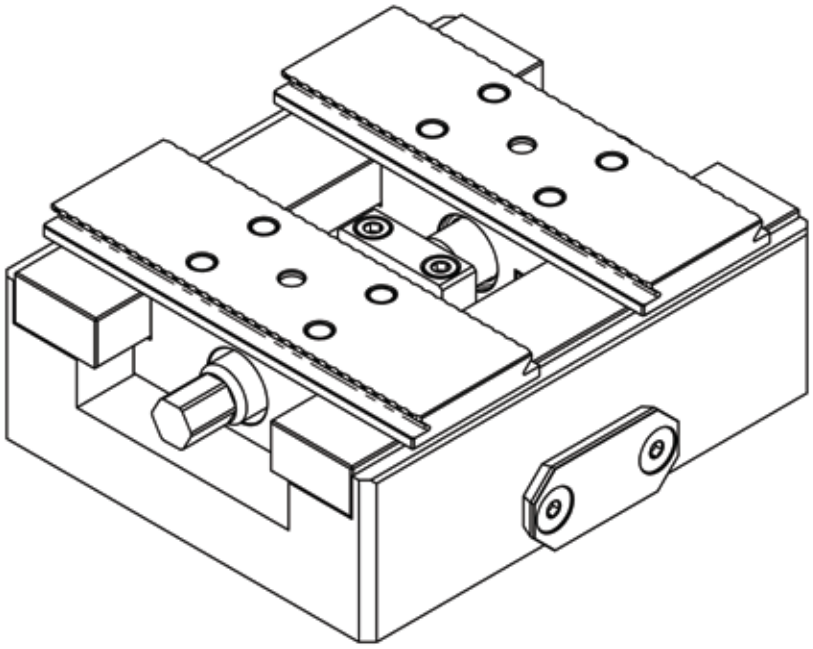
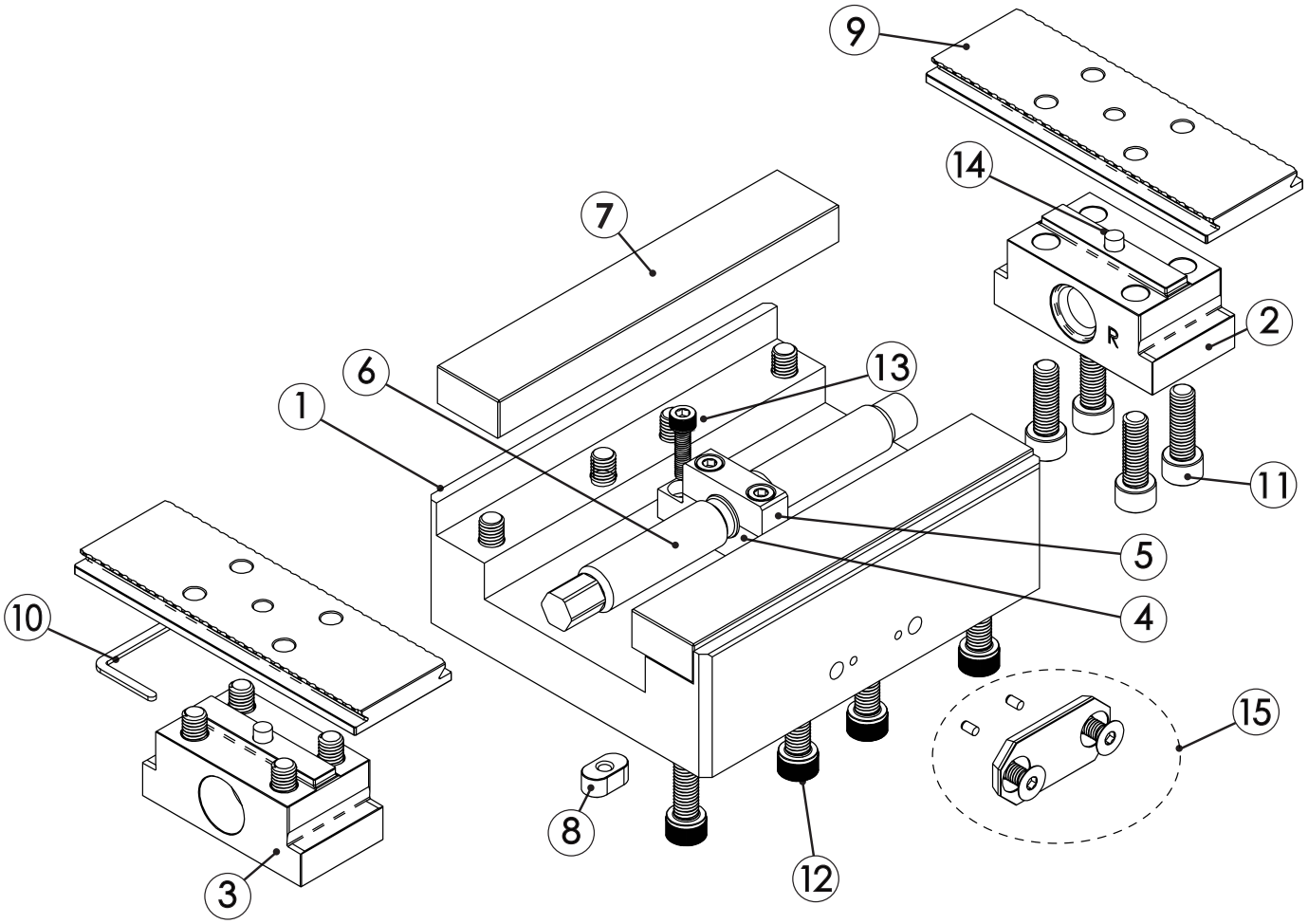
5th AXIS®

VA56 VISE OWNER'S MANUAL



.375" Min 3" Max	.250" Min 2.75" Max	2.75" Min 5.25" Max	96MM Pull Stud Spacing	Self-Centering

BILL OF MATERIAL			
ITEM NO.	**PART NUMBER**	**DESCRIPTION**	**QTY.**
1	VA56-1	BASE	1
2	VA56-2R	TRUCK, RIGHT	1
3	VA56-2L	TRUCK, LEFT	1
4	VA56-3B	BLOCK, BOTTOM	1
5	VA56-3T	BLOCK, TOP	1
6	VA56-4	SCREW, VA6", 16MM	1
7	VA56-6	WAY GUIDE BLOCK	2
8	VA56-8	NUT	2
9	VA56-9	LOW PROFILE STACKABLE JAW BASE	2
10	VA56-10	WIPER SEAL	4
11	M8X025.SHCS	SOCKET HEAD CAP SCREW M8X1.25X25MM	8
12	M8X35MM.SHCS	SOCKET HEAD CAP SCREW M8X1.25X35MM	8
13	M5X20MM.SHCS	SOCKET HEAD CAP SCREW M5X.8X20MM	4
14	M6X10.DP	DOWEL PIN M6X10MM	2
15	AS-C96	AUTOMATION SOLUTIONS, CLEAT, 96MM	1
16	PS20F	96MM ROCKLOCK PULL STUD (NOT SHOWN)	4



MAINTENANCE AND USE

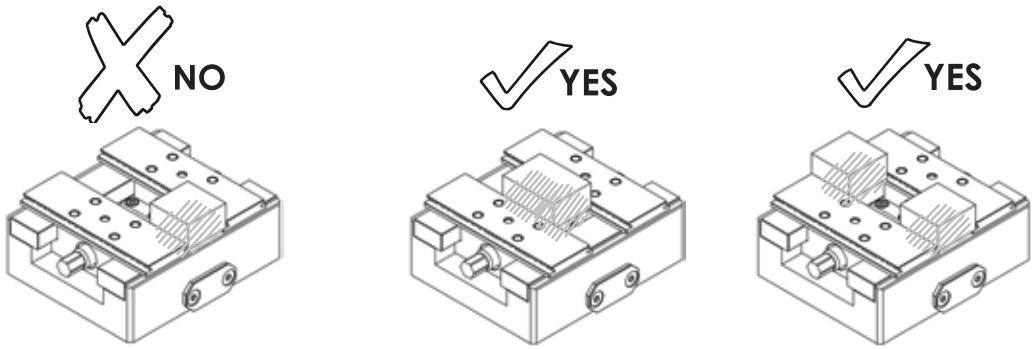
- Clean leadscrew with soft brush
- Use copper based anti-sieze on leadscrew (Loctite P/N: LB8008C5-A)
- Do not let chips build up during use
- Do not torque vise past 60 Nm [45 Ft LBS]
- Do not side load vise (see illustration below)
- Clamping Force at max torque - 22.2 kN [5000 lbf]
- Weight: 4.09 Kg [9.02 lbs]

Torque Values

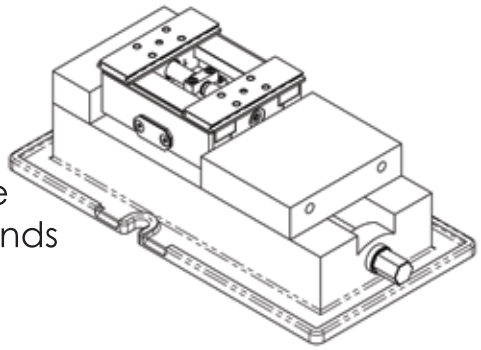
- Lead Screw with Base Assembly: 60 Nm [45 Ft LBS] Max
- Lead Screw with Gripper Jaw: 45 Nm [35 Ft LBS] Max

Special Notes

- Failure to follow these instructions will cause self centering accuracy and/or repeatability to fail and may cause damage to the vise

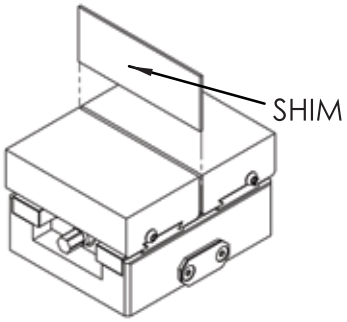


Re-Centering the VA56 Lite Vise



- Loosen Bottom Block M5 Bolts x2. (Item 13 on BOM)
- Lightly Clamp on Lite Vise as shown
- Back out the trucks (Items 2 and 3) using either 12mm socket or 8mm hex key to firmly seat trucks against face
- Tighten Bottom Block M5 Bolts x2. Torque to 75 inch pounds (8.5Nm)
- Verify jaw center by camping on a gauge block and zeroing a height gauge to the outside of the vise body. Touch off on the lower step of the jaw. The vise should center to within .003”

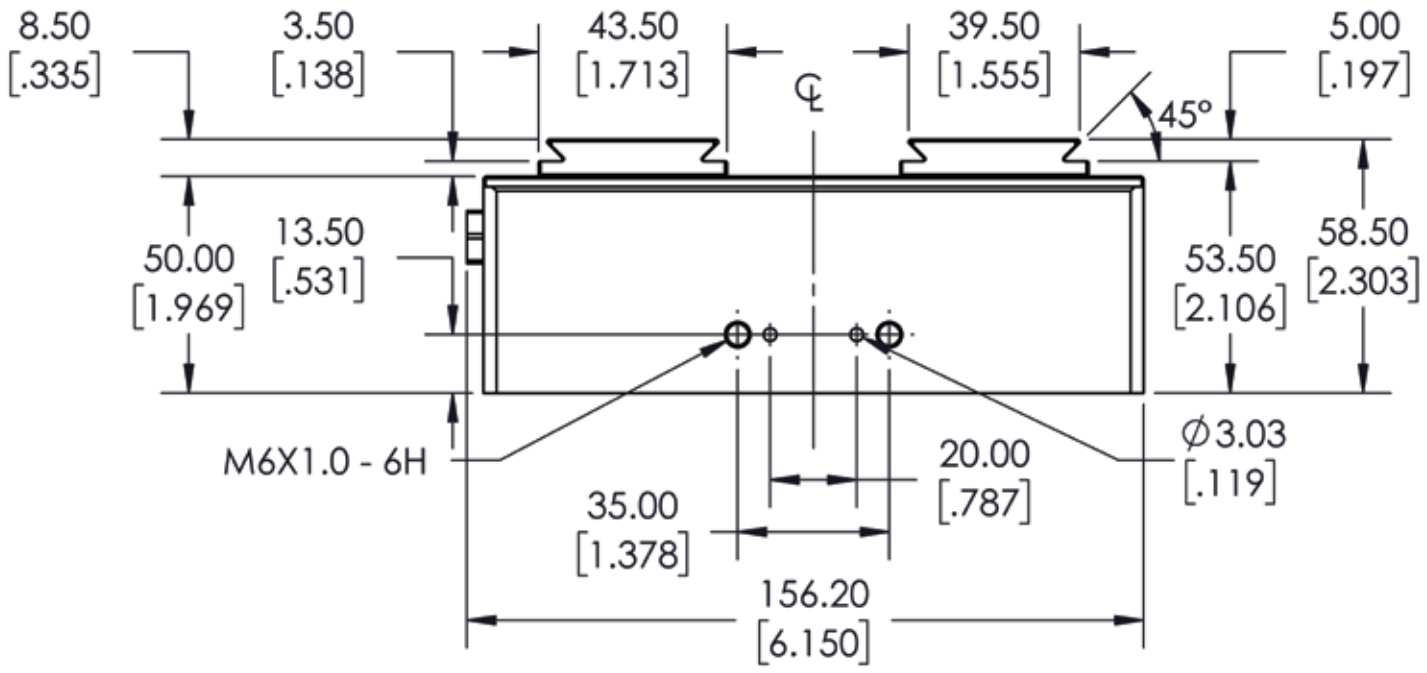
To Machine Profiles into Soft Jaws:

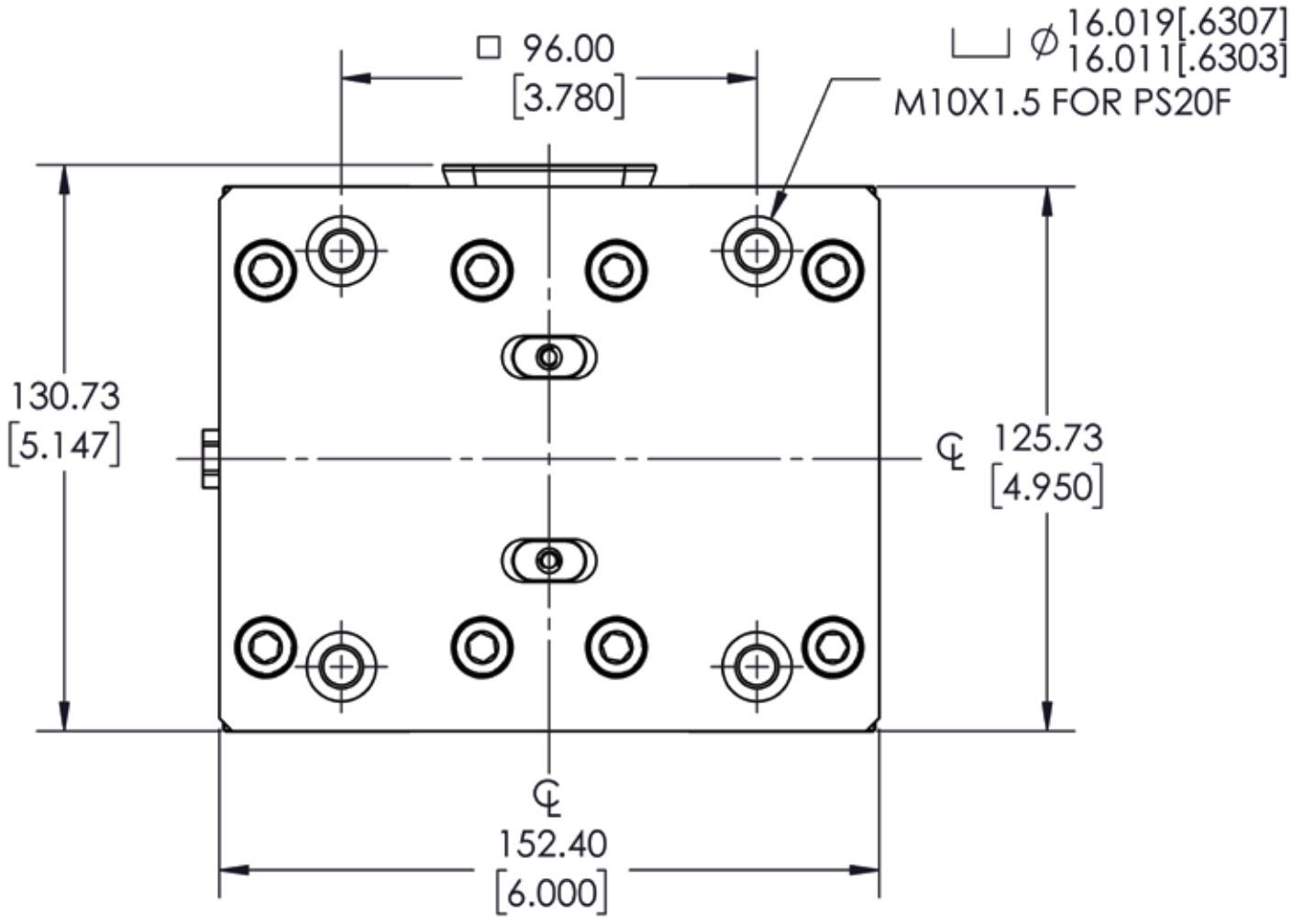


- Insert an appropriately sized shim between the jaws
- Torque to operating torque value
- Machine profile of part
- Remove shim and place the part in vise
- Torque to same value as previous

Following these steps will ensure the highest accuracy and will compensate for any jaw deflection in the vise.

DIMENSIONS

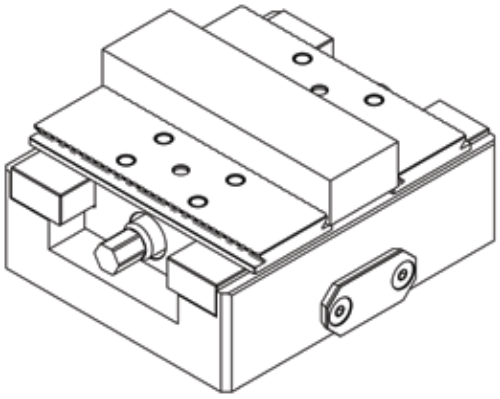

8.50
[.335]
3.50
[.138]
43.50
[1.713]
39.50
[1.555]
5.00
[.197]
45°
50.00
[1.969]
13.50
[.531]
53.50
[2.106]
58.50
[2.303]
M6X1.0 - 6H
Ø3.03
[.119]
20.00
[.787]
35.00
[1.378]
156.20
[6.150]

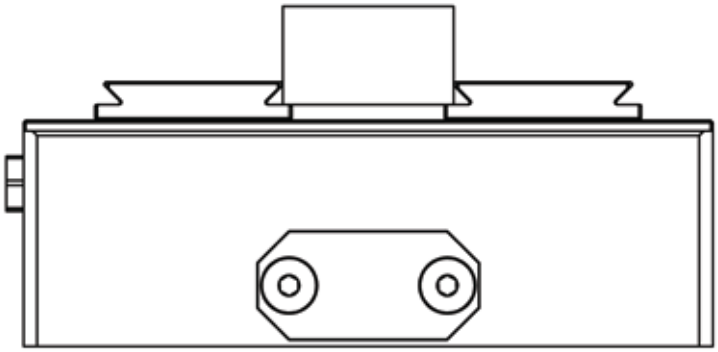

96.00
[3.780]
Ø16.019[.6307]
16.011[.6303]
M10X1.5 FOR PS20F
130.73
[5.147]
125.73
[4.950]
152.40
[6.000]

CONFIGURATIONS

Use Serrations For:

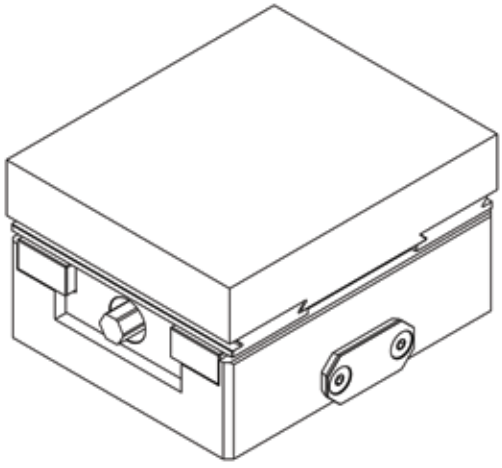
- Softer Materials (Aluminum and soft steels)
- Less Aggressive Machining

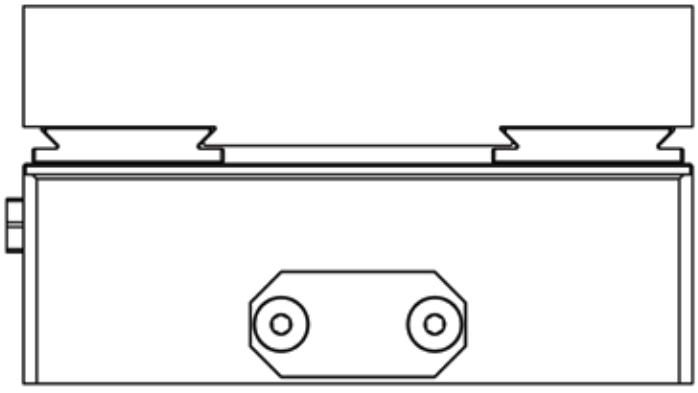




Use Dovetail for:

- Harder Materials
- Heavier Machining
- Parts Larger than the Vise

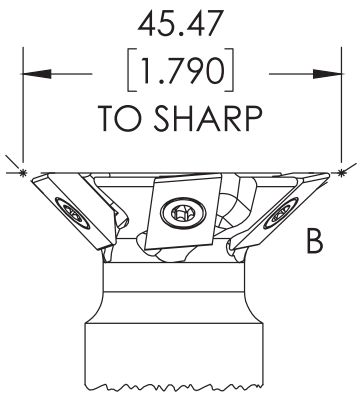


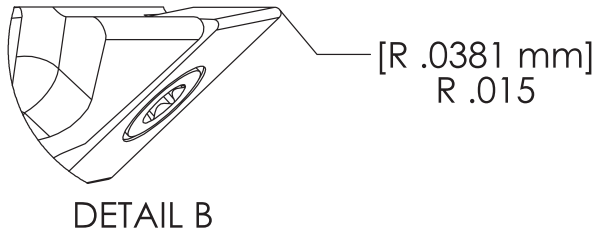


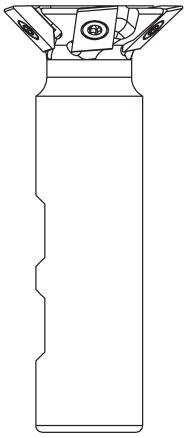
(See next page for dovetail stock prep)

DOVETAIL STOCK PREP

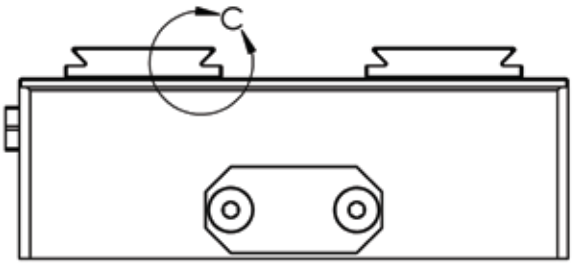
DOVETAIL CUTTER

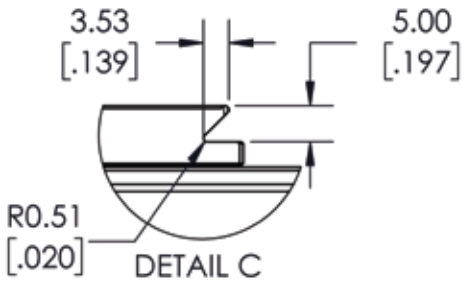


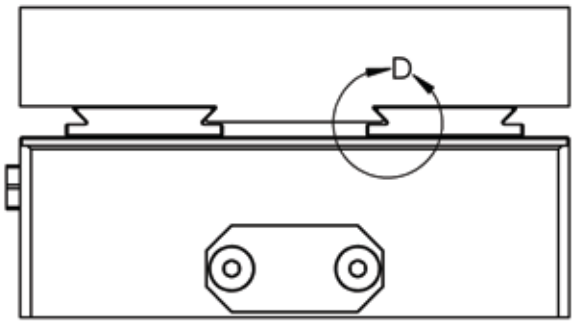


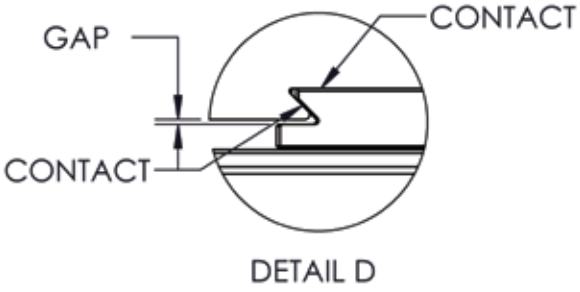


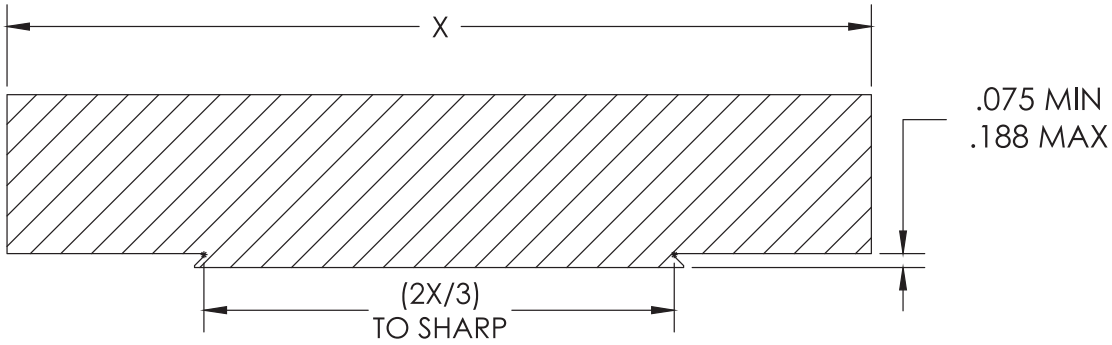
Base Assembly Low Profile Jaws
Steel Grade: Stainless
Hardness: HRC 42-47



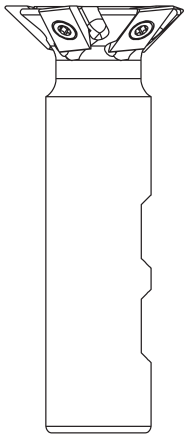




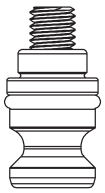




ACCESSORIES



- Shank Diameter (in) 1" (P/N: DC1750-45)
- Shank Diameter (mm) 25mm (P/N: DC1750-M)
- Insert Part Number: DC1750-B
- 45 Degrees
- Material H13 Tool Steel
- 5 Flute Cutter
- Cutting Diameter: 45.5mm [1.79in]



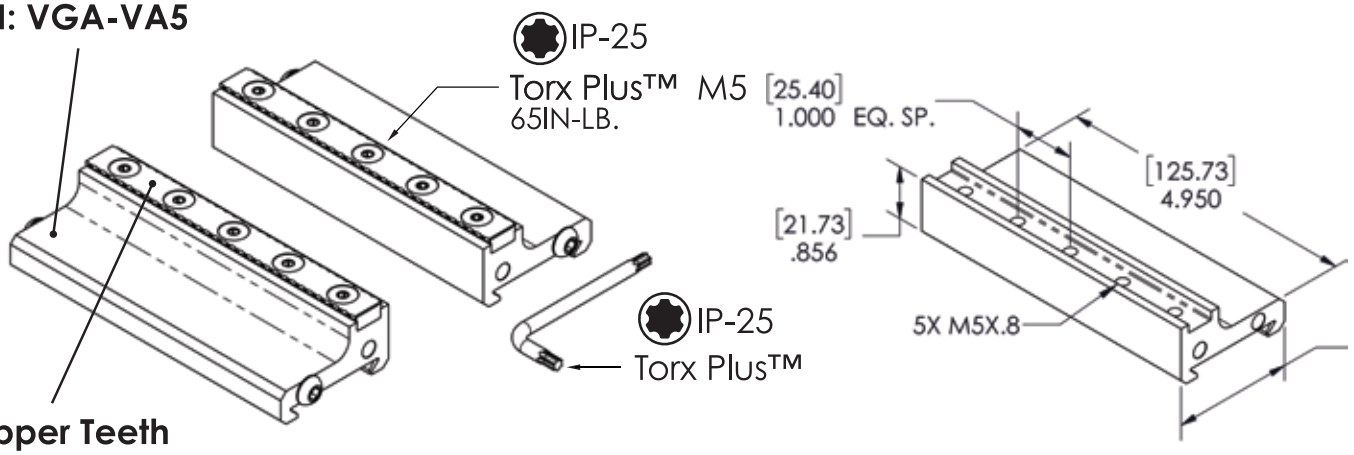
96mm Pull Studs
P/N: PS20F

- For 52mm Rocklock
- Hardened S7 Tool Steel
- M8 Threads

Installing Pull Studs

- Secure threaded stud finger tightly
- Only Grease precision surfaces
- Torque to 10 Ft-lbs via bottom hex head

Aluminum High-Rise Gripper Jaws
P/N: VGA-VA5

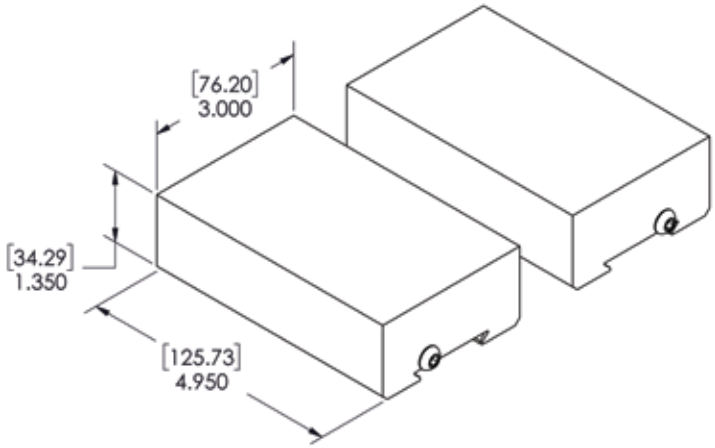


Gripper Teeth
P/N: VA56-7K

**Gripper Teeth are available for purchase as an accessory*

Aluminum Soft Jaws
P/N: VAJ-VA5

- 6061-T6 Aluminum
- Compatible with VA56 Vise



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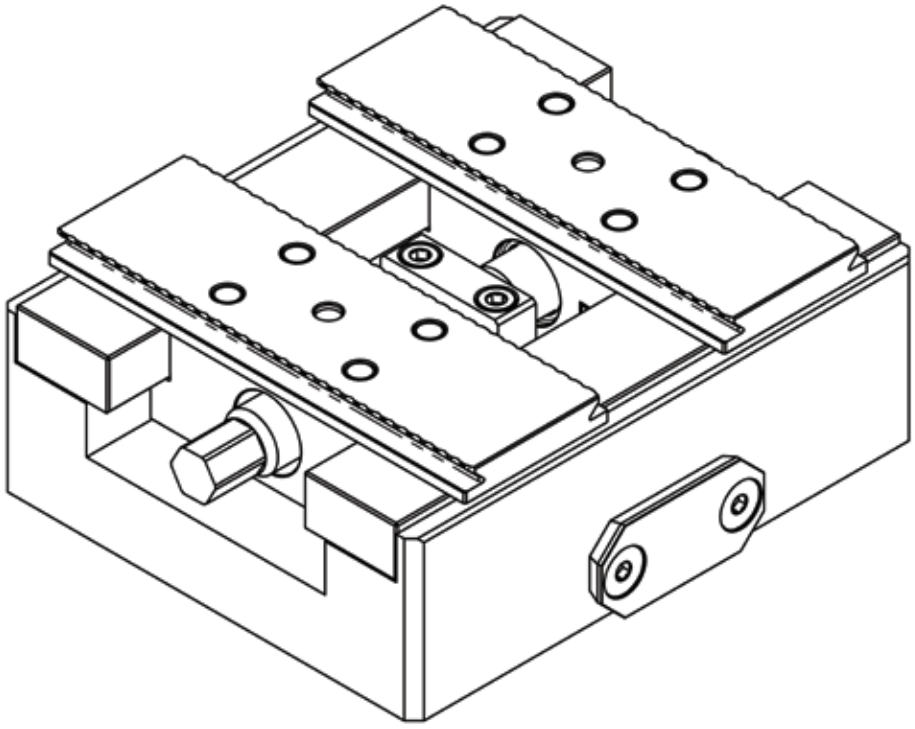
VA56 OWNER'S MANUAL



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