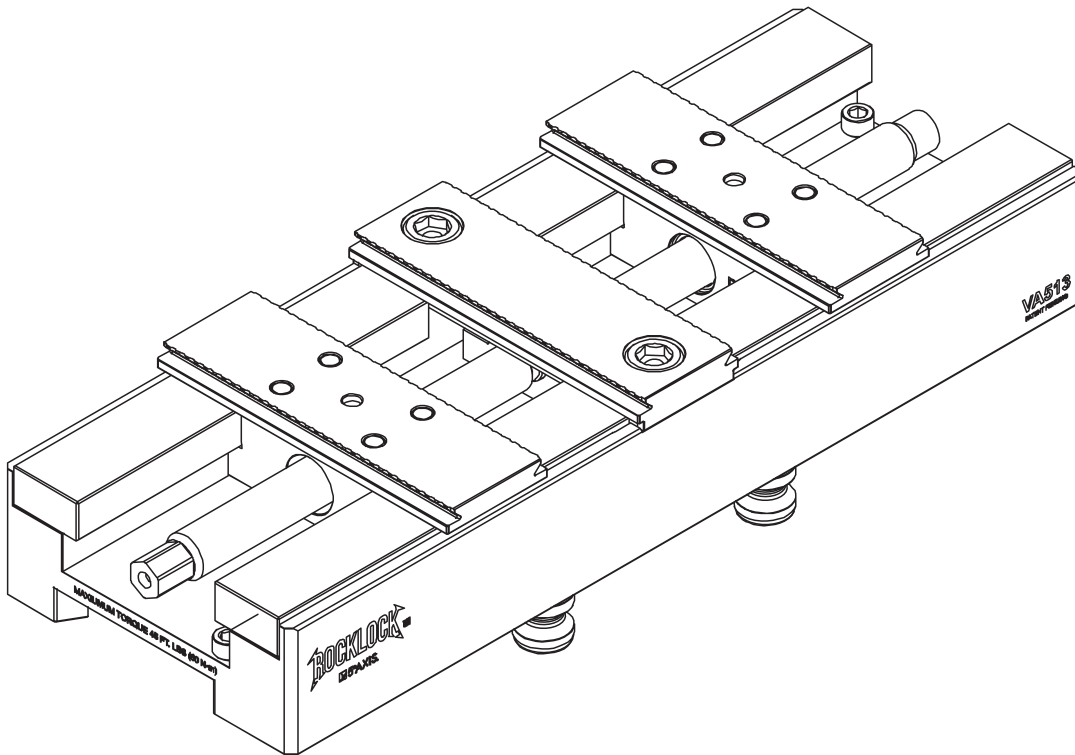


# 5<sup>th</sup> AXIS<sup>®</sup>

## VA513 VISE OWNER'S MANUAL



.375" Min  
9.65" Max



.188" Min  
4" Max



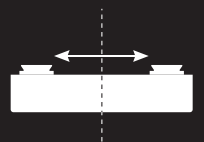
.375" Min



12" Max

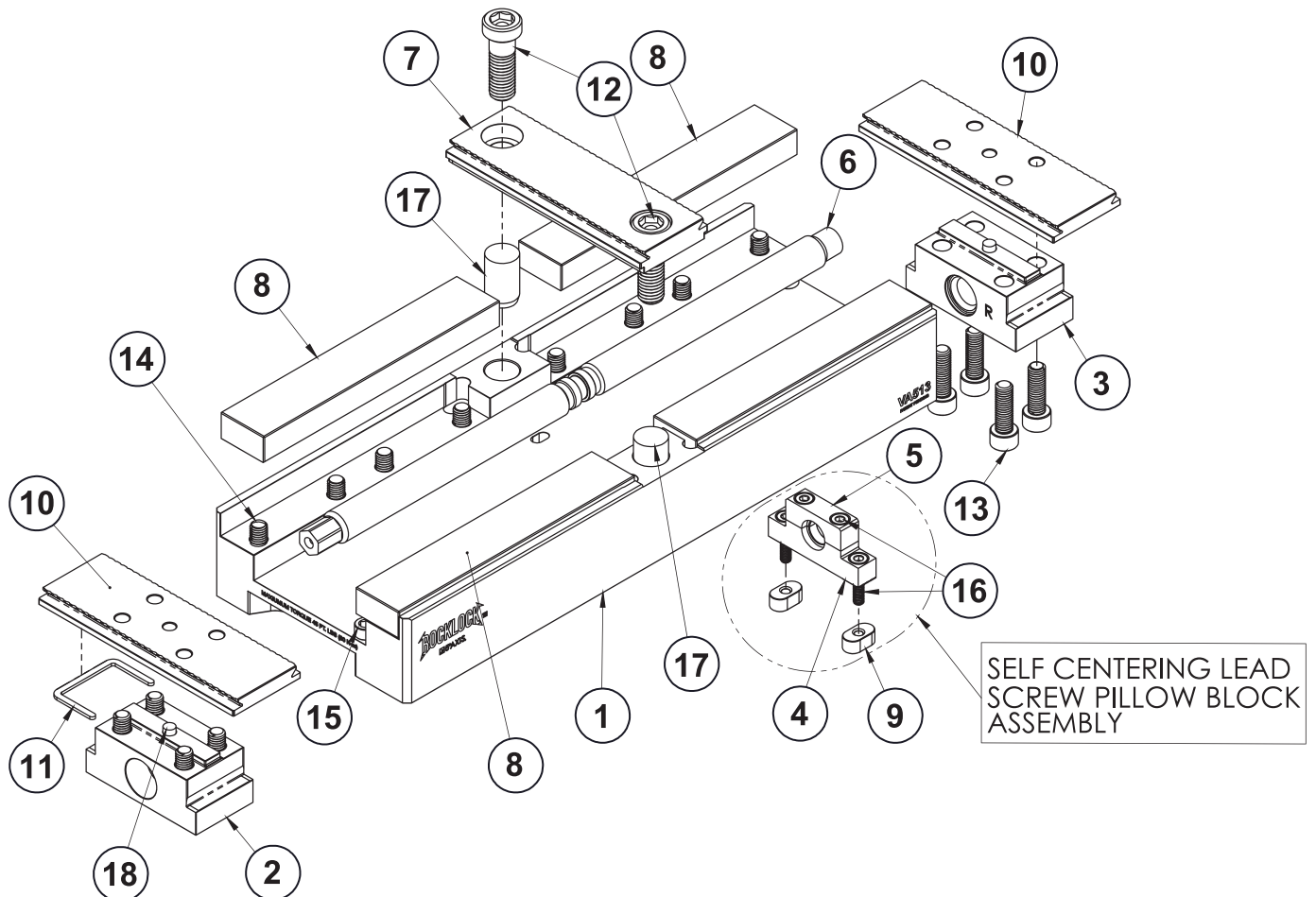


96MM Pull Stud  
Spacing



Self-Centering

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	VA513-1	BASE, 5X13	1
2	VA56-2L	TRUCK, LEFT	1
3	VA56-2R	TRUCK, RIGHT	1
4	VA56-3B	BLOCK, BOTTOM	1
5	VA56-3T	BLOCK, TOP	1
6	VA513-4	SCREW, VA13", 16MM	1
7	VA513-5	LOW PROFILE STACKABLE CENTER BASE	1
8	VA56-6	LOCATING BLOCK	4
9	VA56-8	NUT	2
10	VA56-9	LOW PROFILE STACKABLE JAW BASE	2
11	VA56-10	WIPER SEAL	4
12	M12X35MM.LHSCS	LOW HEAD SOCKET CAP SCREW, M12X1.75X35MM	2
13	M8X025.SHCS	SOCKET HEAD CAP SCREW M8X1.25X25MM	8
14	M8X35MM.SHCS	SOCKET HEAD CAP SCREW M8X1.25X35MM	16
15	M6X6MM.SHCS	SOCKET HEAD CAP SCREW, M6X1X6MM	2
16	M5X20MM.SHCS	SOCKET HEAD CAP SCREW M5X.8X20MM	4
17	M16X30MM.DP	DOWEL PIN, M16X30MM	2
18	M6X10.DP	DOWEL PIN M6X10MM	2
19	PS20F	96MM ROCKLOCK PULL STUD (NOT SHOWN)	4



# MAINTENANCE AND USE

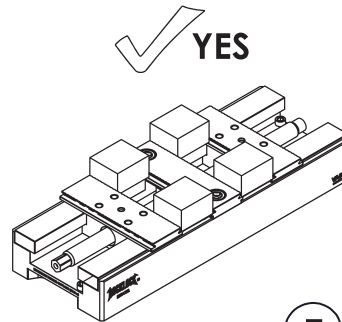
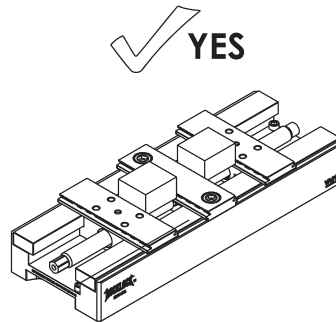
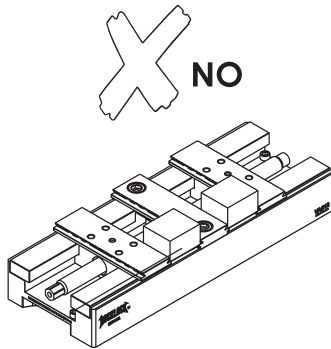
- Clean leadscrew with soft brush
- Use copper based anti-seize on leadscrew (Loctite P/N: LB8008C5-A)
- Do not let chips build up during use
- Do not torque vise past 60 Nm [45 Ft LBS]
- Do not side load vise (see illustration below)
- Clamping Force at max torque - 22.2 kN [5000 lbf]
- Weight: 7.26 Kg [16 lbs]

## Torque Values

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



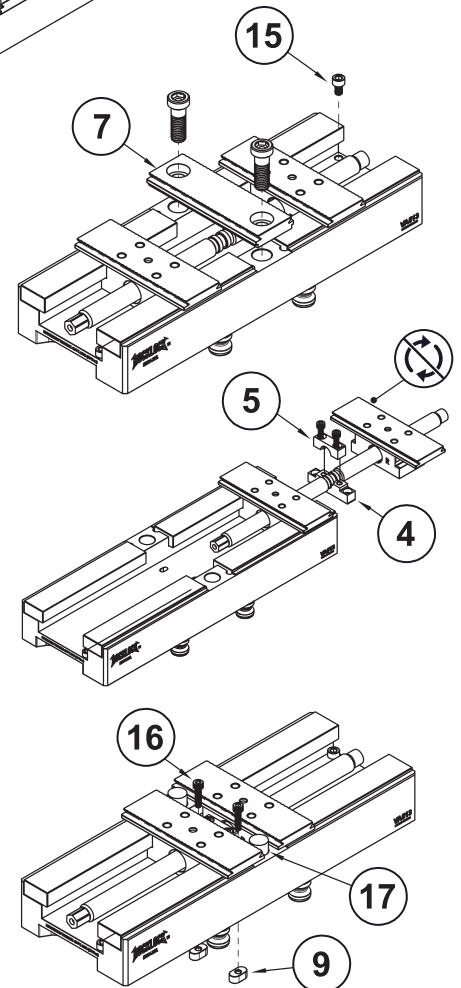
## To Convert double station to self centering

- Unbolt and remove center jaw (7)
- Remove M6 stops from vise base (15)
- Slide truck and jaw assembly partially out of base \*
- Secure top and bottom center block to lead screw using 2x included M5 bolts (4) (5) (13) (16)

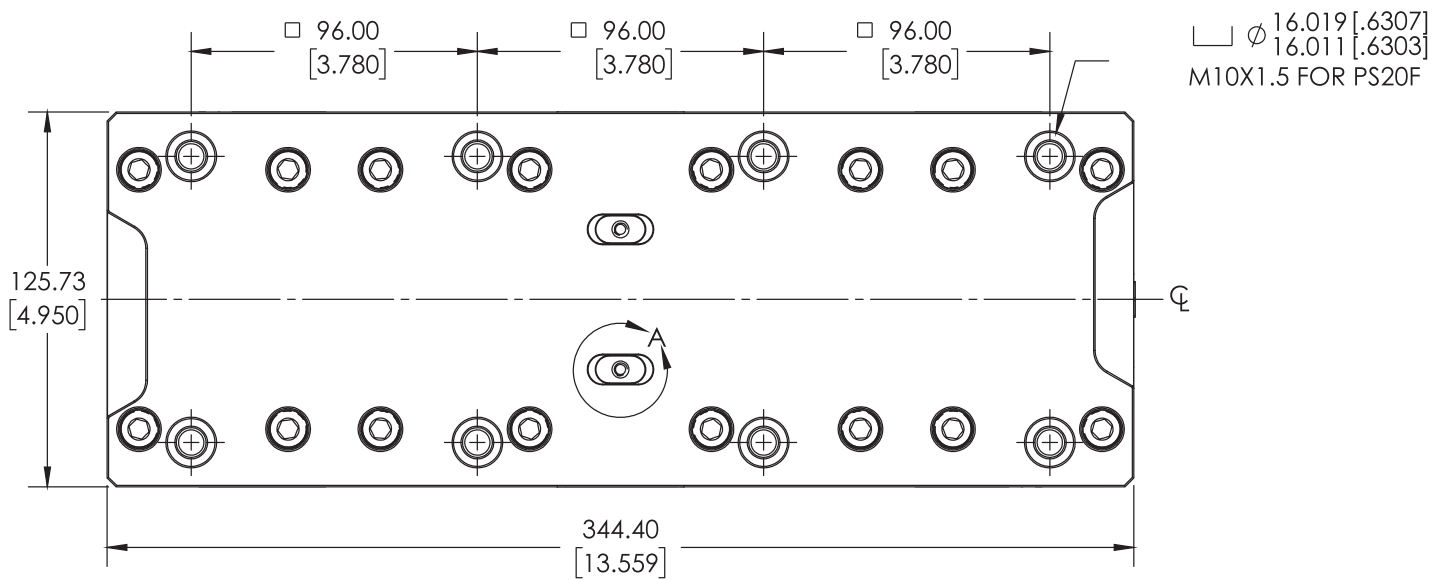
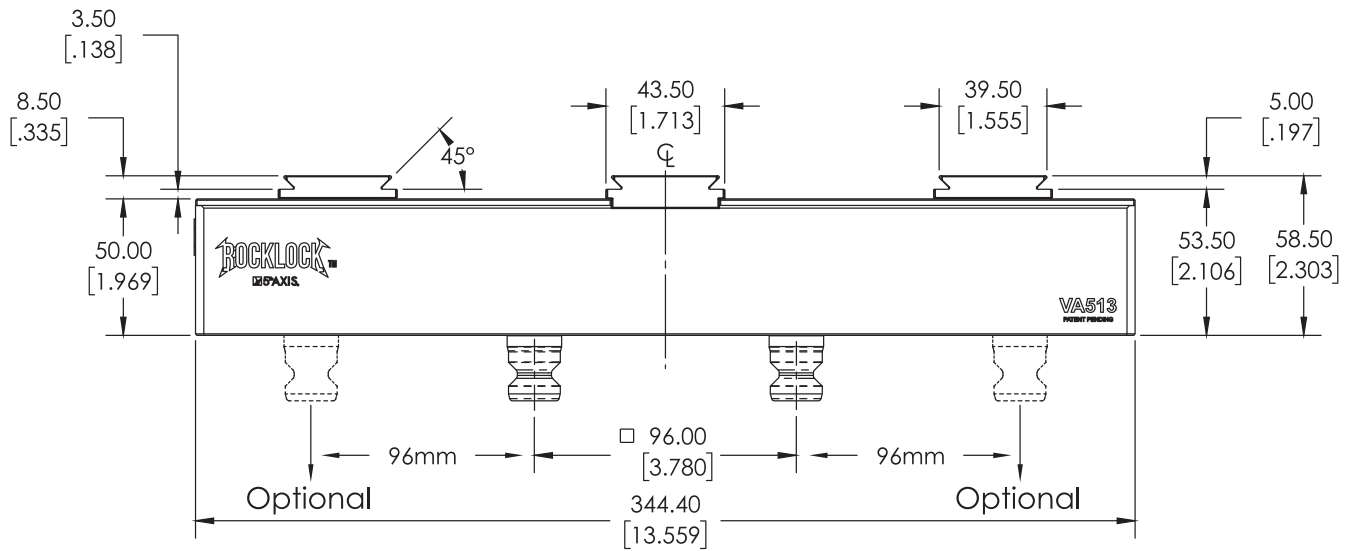
- \* DO NOT allow the truck/jaw assembly to rotate about the lead screw. This can cause the assembly to become out of time

## Re-Centering the VA513 Lite Vise

- Slide assembly back onto vise and clamp onto 2x Ø16mm alignment dowel pins, do not rotate trucks keep threads (15)
- Secure center block using remaining 2x M5 bolts and nuts. Torque all M5 to 75 in.lbs. (16)
- Your Lite vise is now re-centered. \*
- \* If your vise does not have clearance between the nut and adjustment slot, see Detail A, and your vise does not close on center, contact customer support.



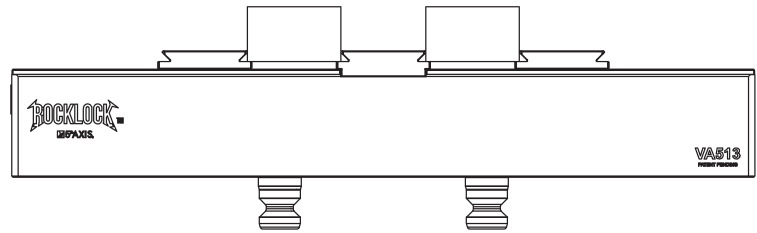
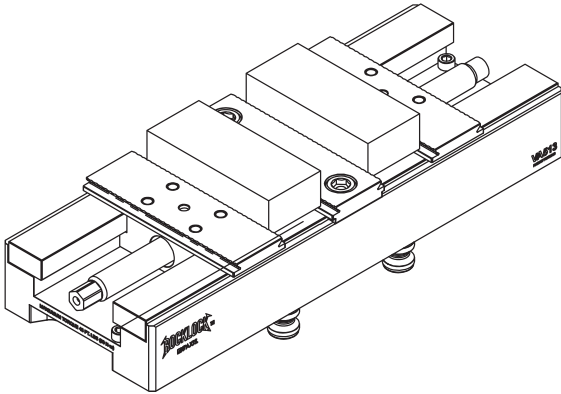
# DIMENSIONS



# CONFIGURATIONS

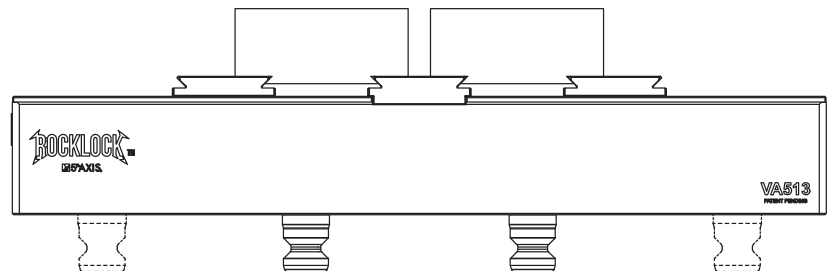
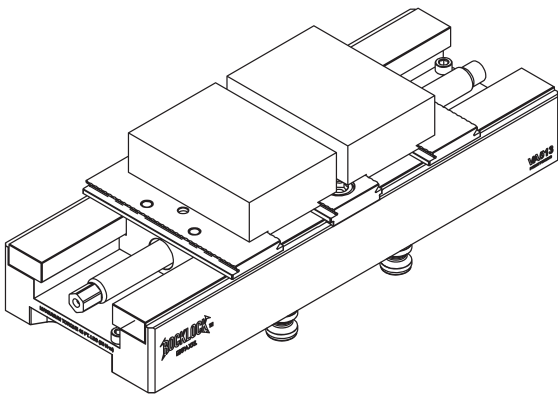
## Use Serrations For:

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



## Use Dovetail for:

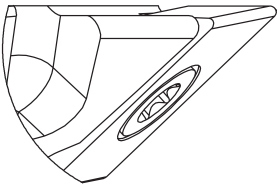
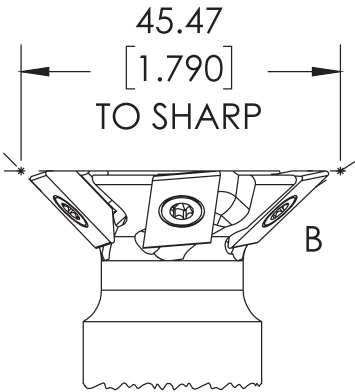
- Harder Materials
- Heavier Machining
- Parts Larger than the Vise
- Maybe used with upto 8 PS20F Pull Studs



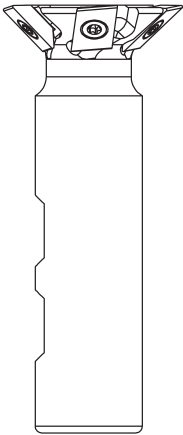
(See next page for dovetail stock prep)

# DOVETAIL STOCK PREP

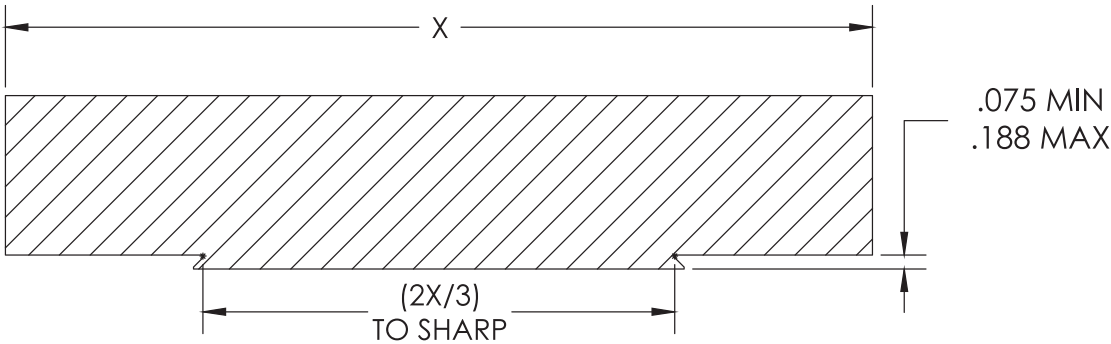
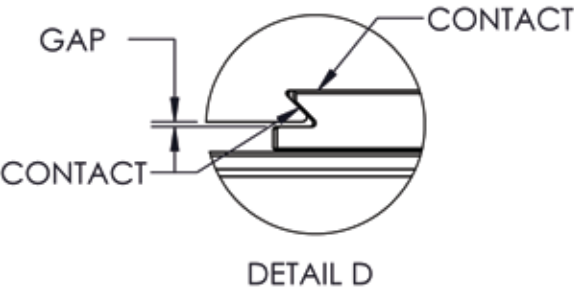
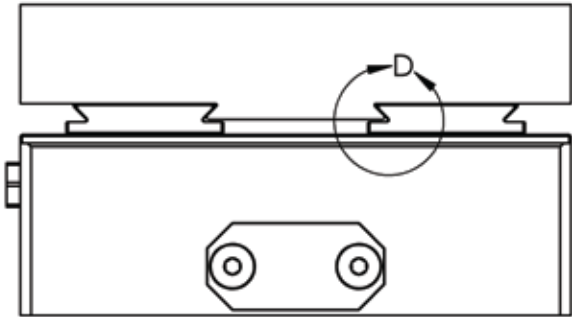
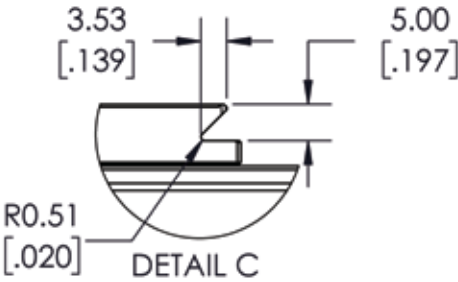
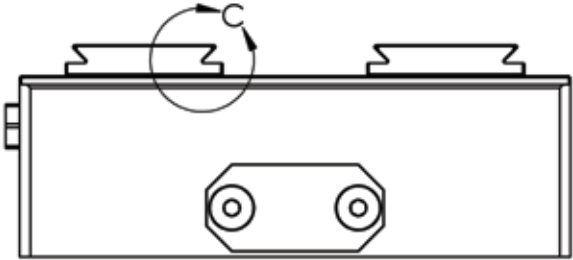
## DOVETAIL CUTTER



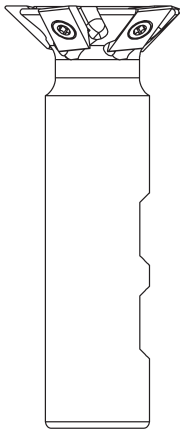
[R .0381 mm]  
R .015



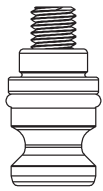
Base Assembly Low Profile Jaws  
Steel Grade: Stainless  
Hardness: HRC 42-47



# 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]



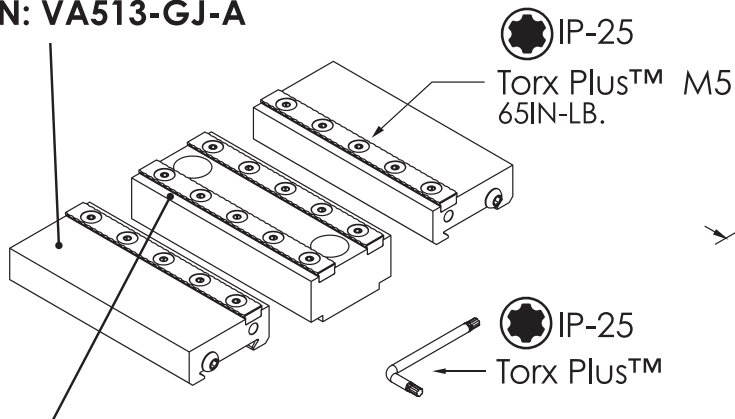
## 96mm Pull Studs P/N: PS20F

- 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 Gripper Jaws P/N: VA513-GJ-A

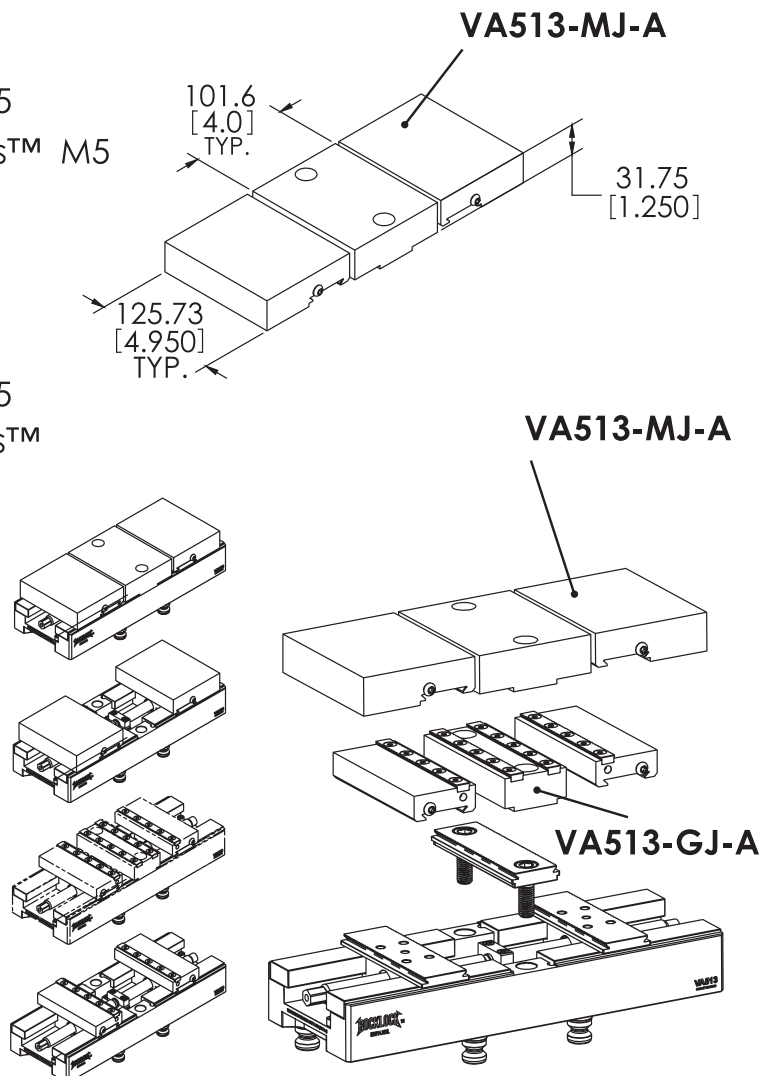


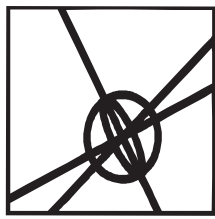
## Gripper Teeth P/N: VA56-7K

\*Gripper Teeth are available for purchase as an accessory  
\*2 grippers per kit

## Aluminum Soft Jaws P/N: VA513-MJ-A

- 6061-T6 Aluminum
- Compatible with VA513





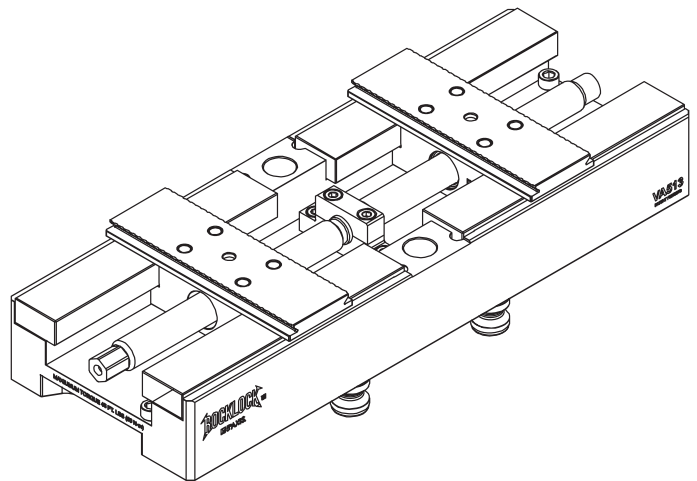
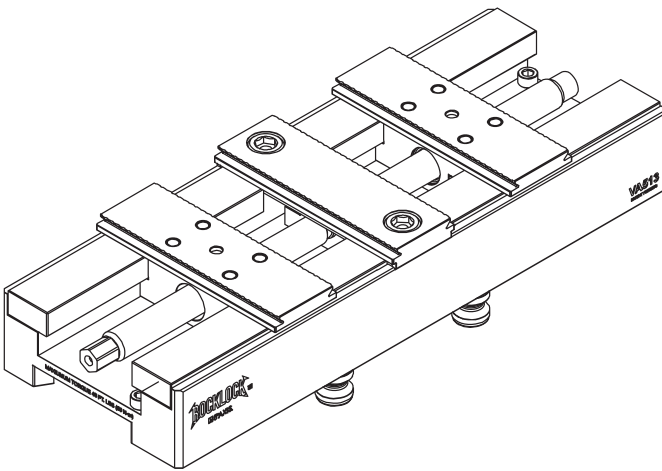
# 5<sup>th</sup> AXIS<sup>®</sup>

## VA513 OWNER'S MANUAL

**Dual Station**



**Self Centering**



**AVAILABLE FOR DOWNLOAD AT:  
5THAXIS.COM**

PHONE: 858-505-0432

REVA  
APPROVED  
03/29/24