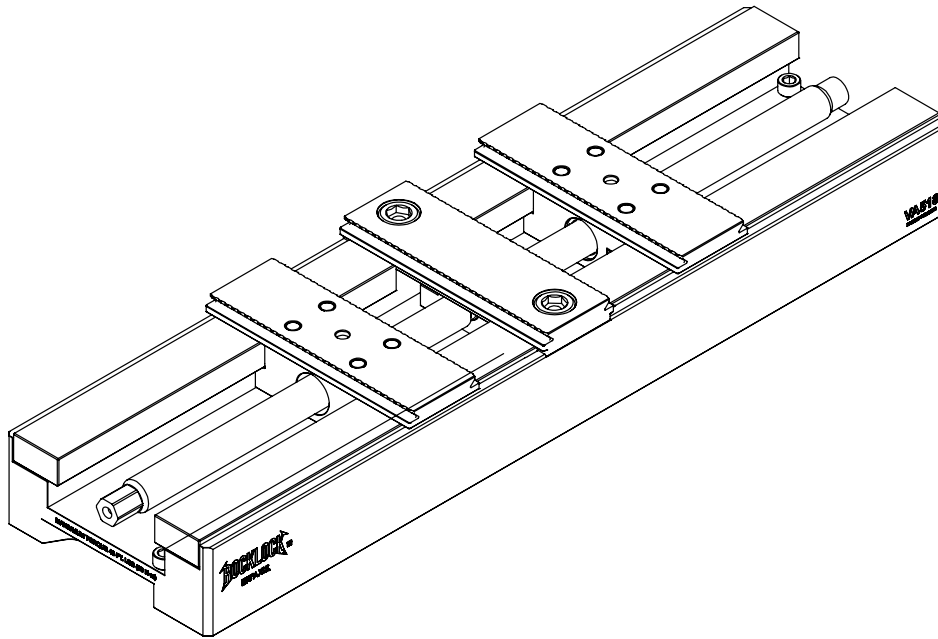


# 5<sup>th</sup> AXIS<sup>®</sup>

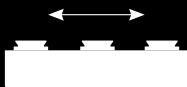
## VA518 VISE OWNER'S MANUAL



SCAN THIS QR CODE FOR  
ELECTRONIC VERSION OF  
OWNER'S MANUAL:



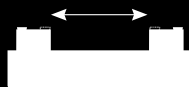
.375" Min  
14.1" Max



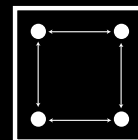
.188" Min  
6.2" Max



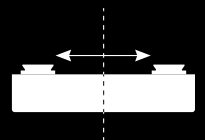
.375" Min



16.4" Max

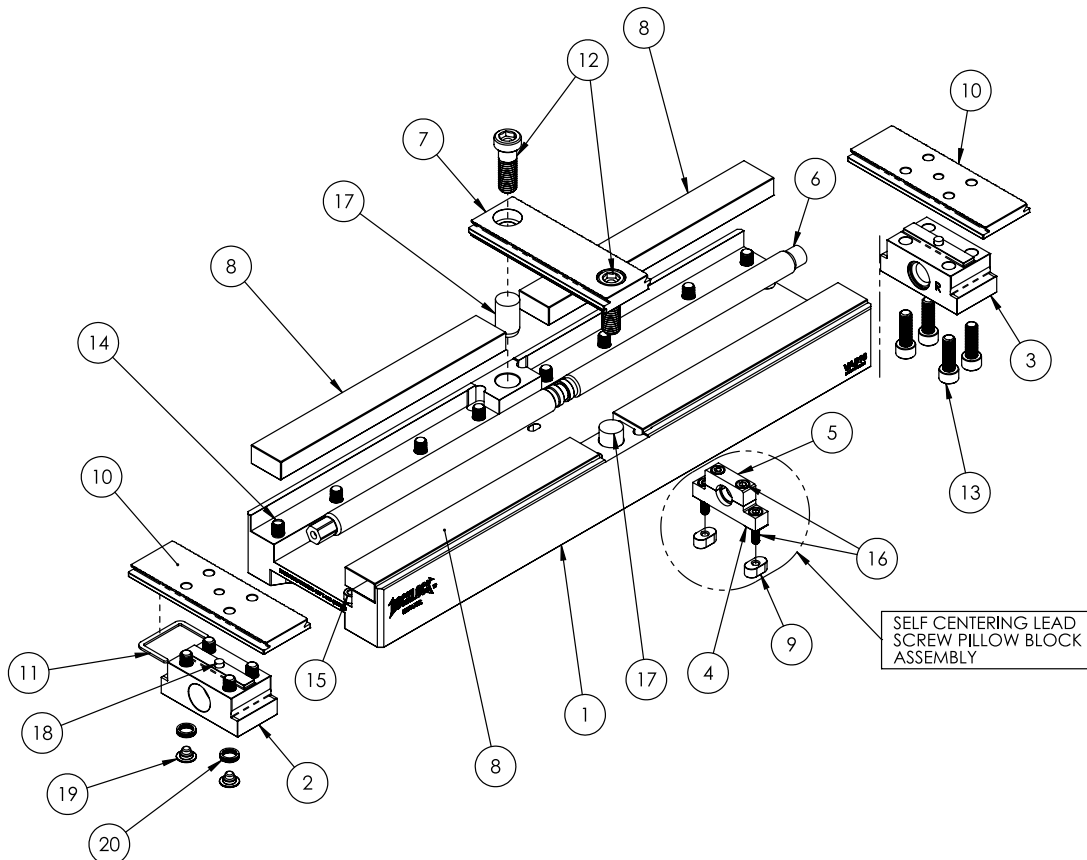


96MM Pull Stud  
Spacing



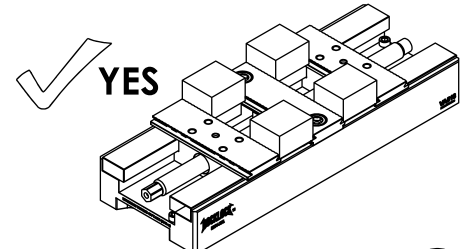
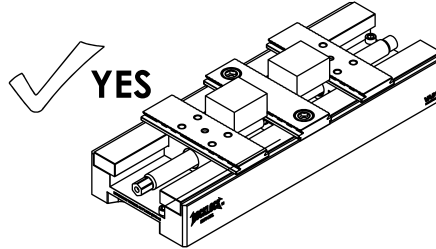
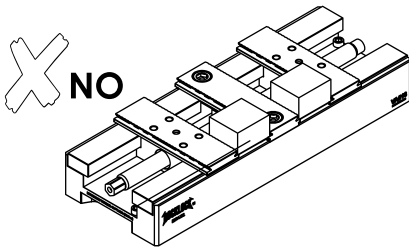
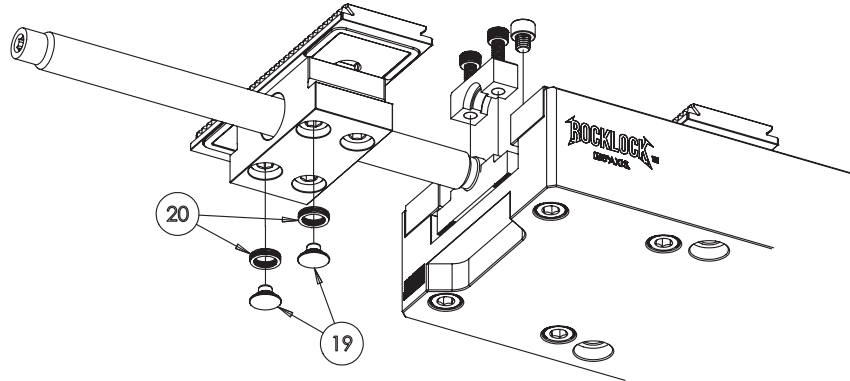
Self-Centering

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	VA518-1	BASE, 5X18	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	VA518-4	SCREW, VA18, 16MM	1
7	VA513-5	LOW PROFILE STACKABLE CENTER BASE	1
8	VA518-6	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, M6X1X10MM	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	HW.0520.FP	PIN, FRICTION, .520 STEPPED, BRASS	2
20	CS050-H2-S17	WAVE SPRING 17-4 C-TO-C W/SHIMS 0.50" OD K=115 LB/IN	2



# MAINTENANCE AND USE

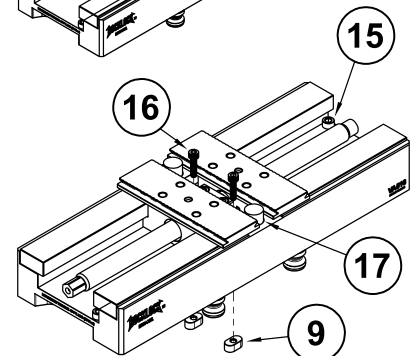
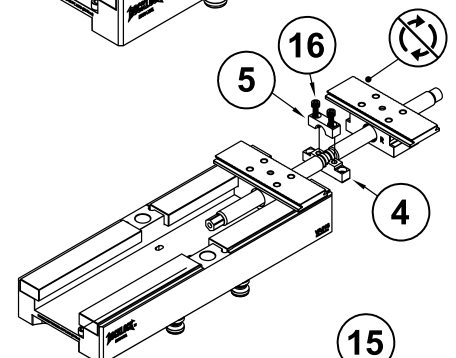
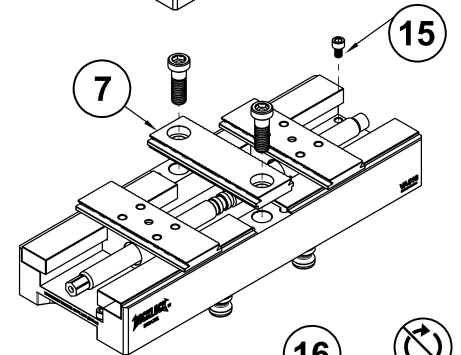
Use caution when sliding truck and jaw assembly out of base, as the Friction and Spring will eject themselves. Upon re-installation of the truck and lead screw assembly, the pins and springs must be assembled as shown, and compressed as the truck is slid into the base



## 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) (16)

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



## Centering the VA518 LiteVise

Slide assembly back onto vise and clamp onto 2x Ø16mm alignment dowel pins, (17) do not rotate trucks (15) Reinstall M6 Stops  
Secure center block using remaining 2x M5 bolts and nuts. Torque all M5 to 75 in.lbs. (9)  
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.

# 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: 11.33 Kg [25 lbs]

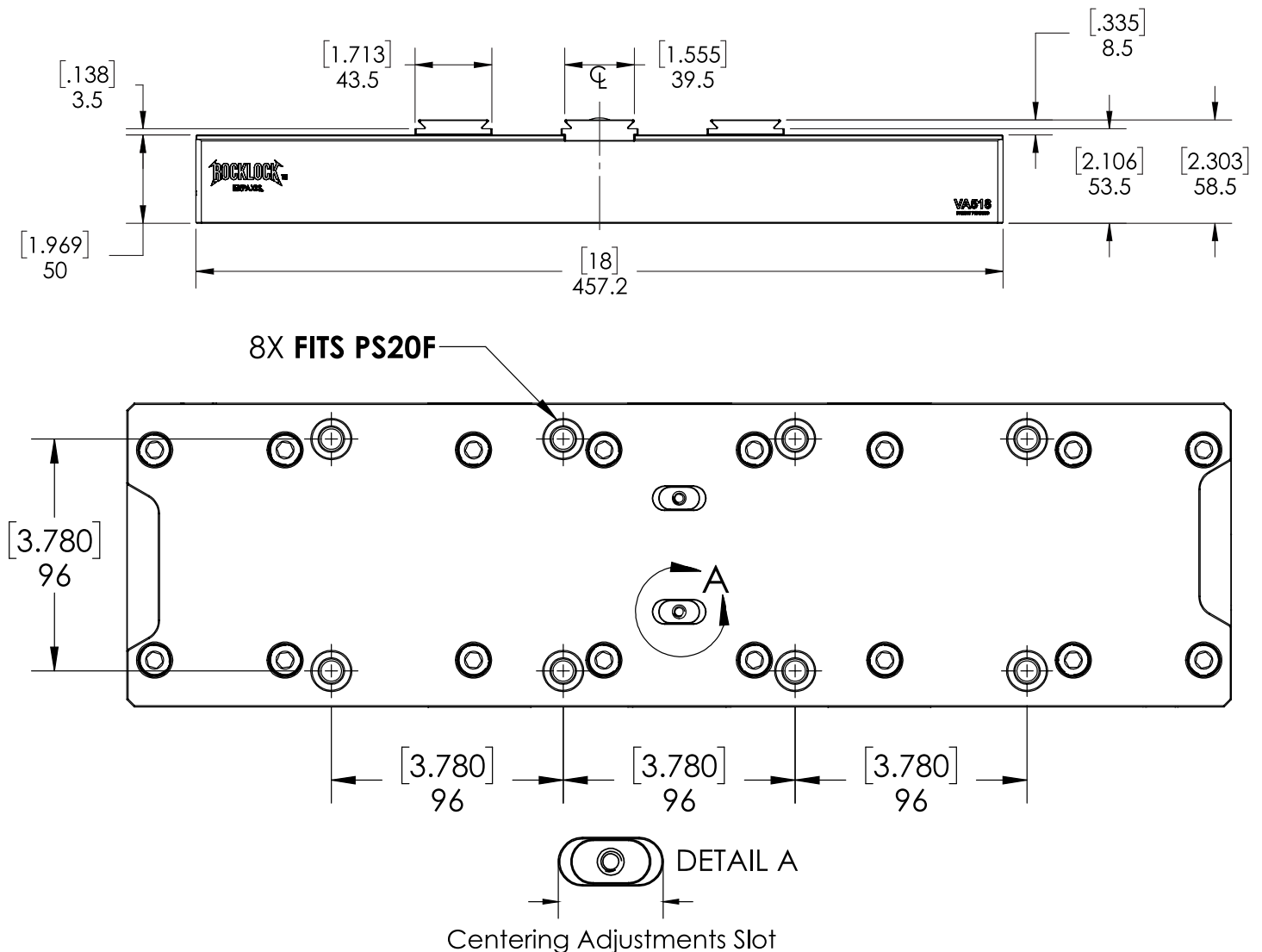
## Torque Values

- Lead Screw with Base Assembly: 60 Nm [45 Ft LBS] Max
- Lead Screw with Gripper Jaw: 60 Nm [45 Ft LBS] Max (13)
- Add actual Bolt Torques for re-assembly (12) (15) (16) (14) If fully disassembled

## Special Notes

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

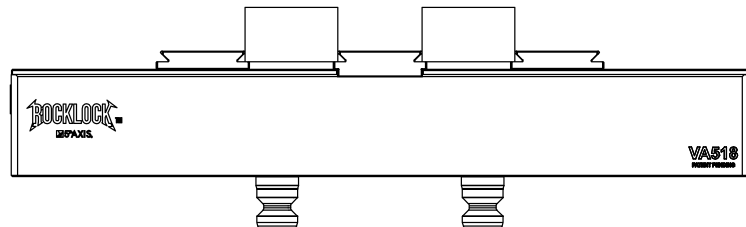
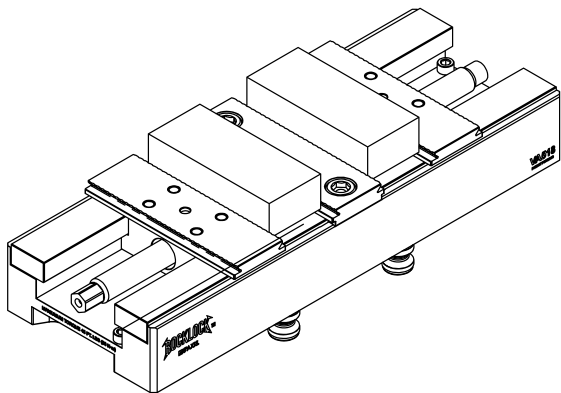
# DIMENSIONS



# CONFIGURATIONS

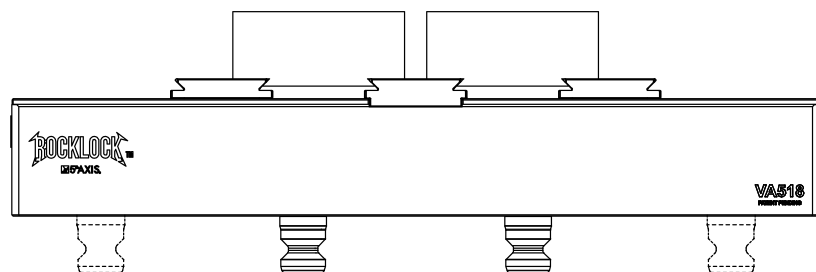
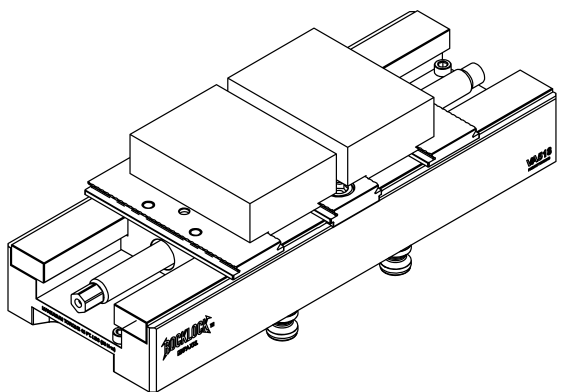
## Use Serrations For:

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



## Use Dovetail for:

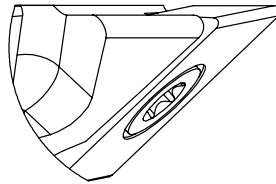
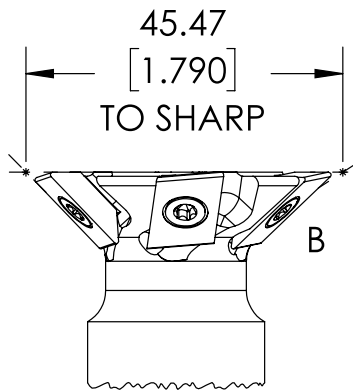
- Harder Materials
- Heavier Machining
- Parts Larger than the Vise
- May be used with up to 8 PS20F Pull Studs



(See next page for dovetail stock prep)

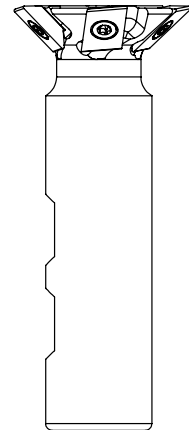
# DOVETAIL STOCK PREP

## DOVETAIL CUTTER

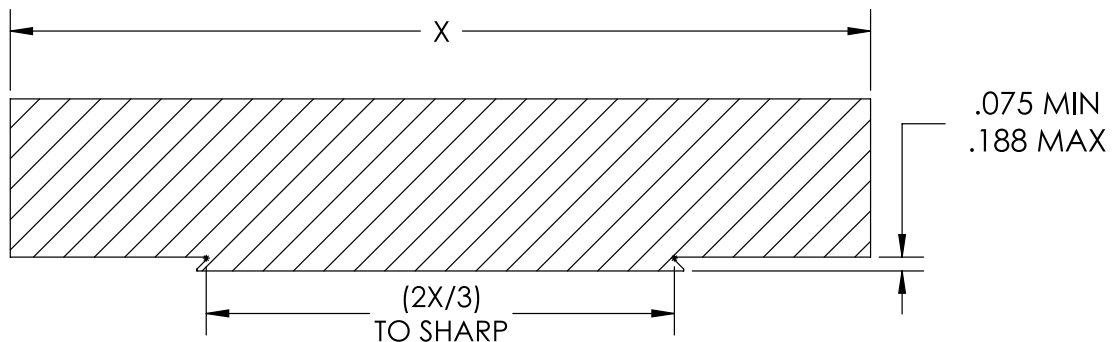
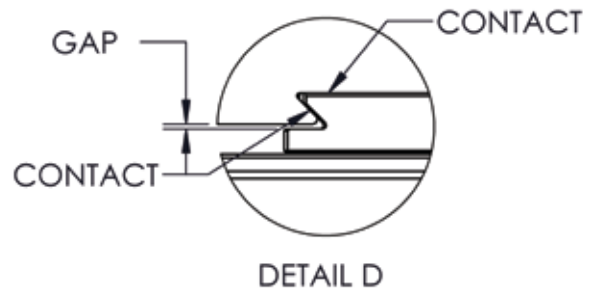
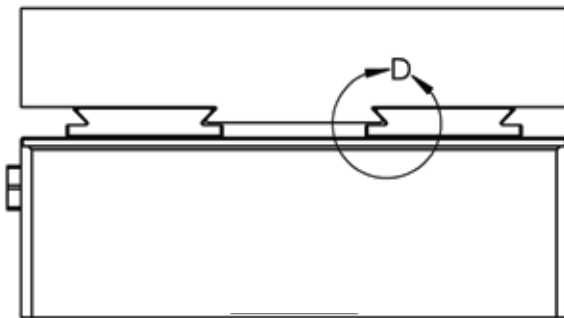
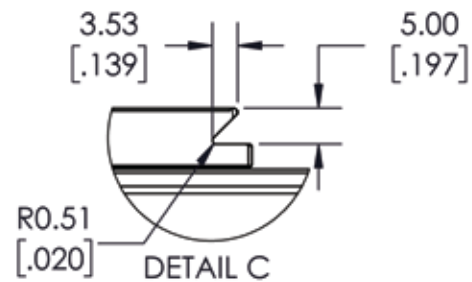
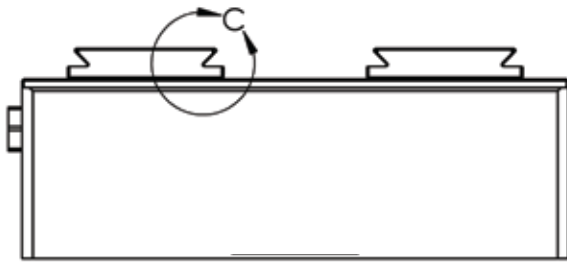


DETAIL B

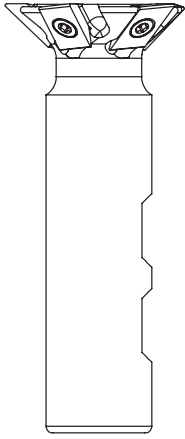
[R .0381 mm]  
R .015



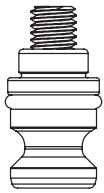
Base Assembly Low Profile Jaws  
Steel Grade: Stainless  
Hardness: HRC 42-47



# 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]



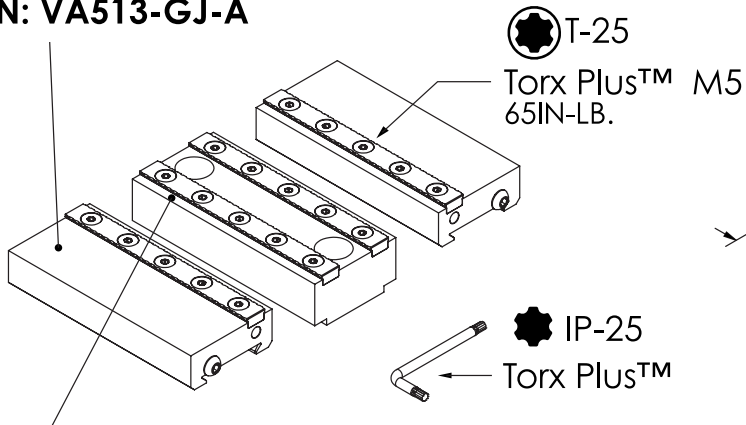
## 96mm Pull Studs P/N: PS20F

- For 96mm Rocklock
- Hardened 8620 Steel
- M10 Threads

## Installing Pull Studs

- Secure threaded stud only finger tight
- Only Grease precision surfaces
- Torque to 15 Ft-lbs via bottom hex head size 6mm

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

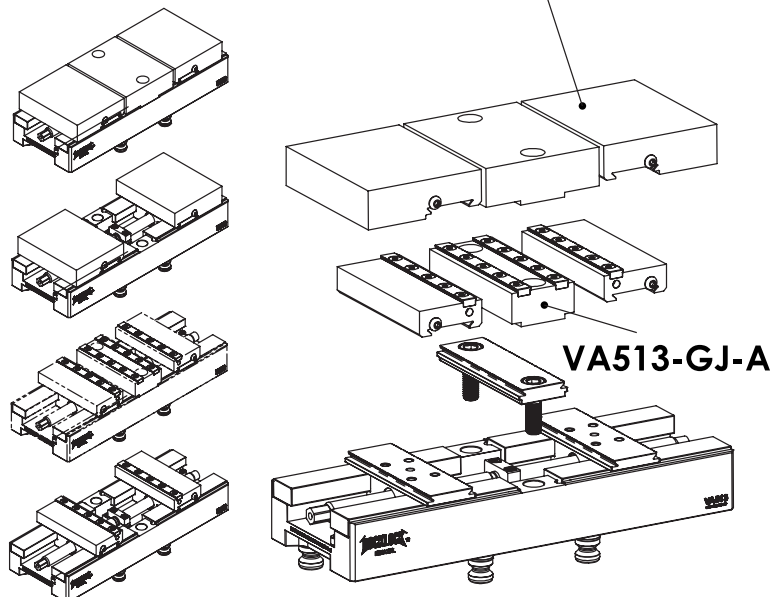


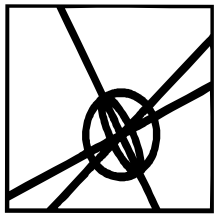
## Gripper Teeth P/N: VGT-VA5

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

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

- 6061-T6 Aluminum
- Compatible with VA518 and VA513





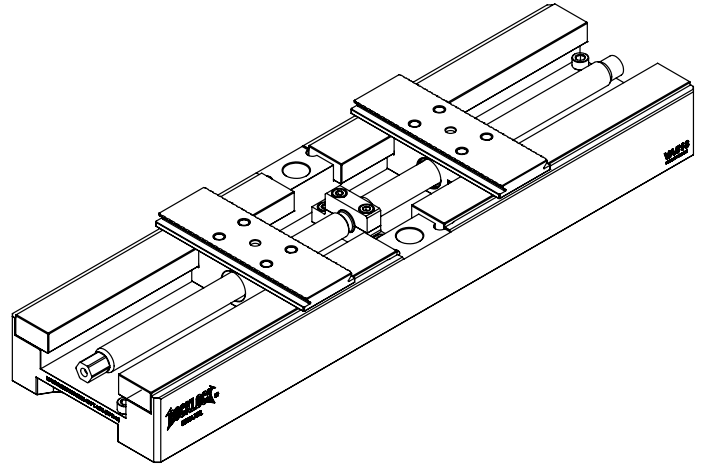
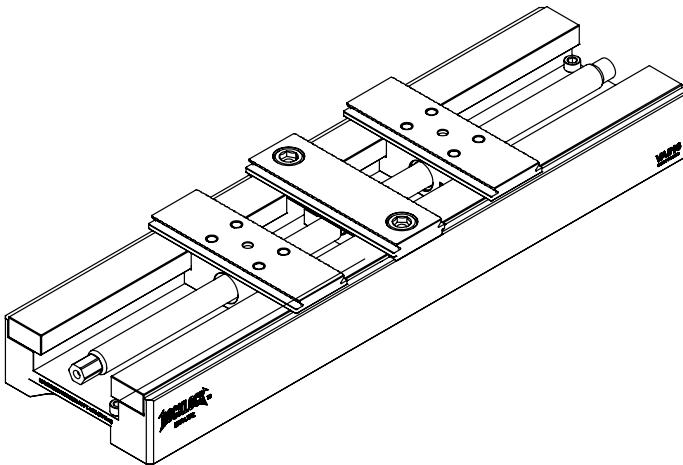
# 5<sup>th</sup> AXIS<sup>®</sup>

## VA518 OWNER'S MANUAL

**Dual Station**



**Self Centering**



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

PHONE: 858-505-0432

REVA  
APPROVED  
11/01/24