

- SPECIFICATIONS and APPLICATION NOTES:**
- MATERIAL: ANODIZED ALUMINUM AND STEEL**
 - MAX PRESSURE 150 PSIG**
 - MAX TORQUE: ADJUSTABLE FROM 5 TO 55 FT-LB**
 - MAX WORKING (CLOSING) TORQUE: 50 FT-LBS (see note in table)**
 - 225 DEGREES ROTATIONAL TRAVEL.** Note that vise opening distance will depend on specific vise. *Most CNC vises will open about .050" with 180 degrees of rotation. This will be affected by vise lead screw pitch and backlash. Most applications should be set to utilize 170-180 degrees of actuator rotational travel.*
 - 1/4" PUSH TO CONNECT AIR LINE FITTINGS INCLUDED (1/8 PIPE)**
 - OPTIONAL VISE OPEN AND VISE CLOSED SENSORS (5-24V M8 3PIN NPN SWITCHES WITH MALE CONNECTOR). WITH VISE OPEN ONLY IS RECOMMENDED CONFIGURATION.**

| COMPATIBILITY | NOTE |
|--------------------|--|
| KURT® D688 | STANDARD |
| KURT DX6® | STANDARD |
| KURT 3600V | STANDARD |
| KURT 3610V | STANDARD |
| KURT HD690 | STANDARD |
| SELECT CHICK VISES | REQUIRES HEX ADAPTER & ANTI-ROTATION BLOCKS |
| OTHER BRANDS | SEND US YOUR VISE BRAND/MODEL & WE'LL VERIFY |

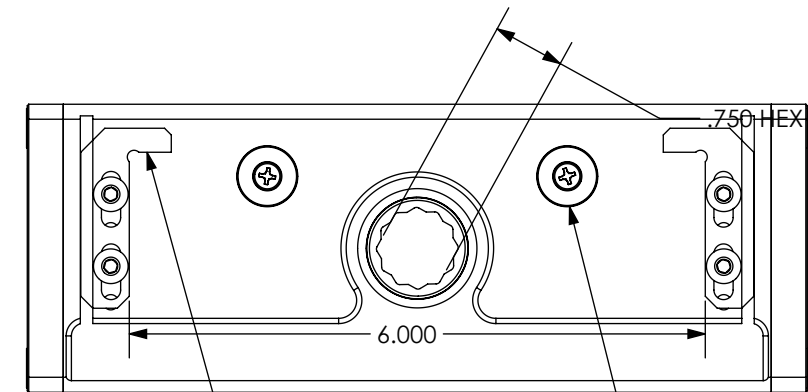
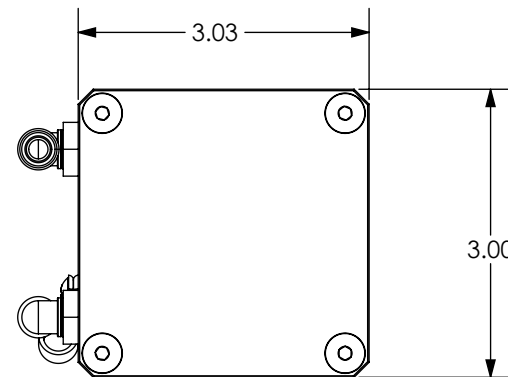
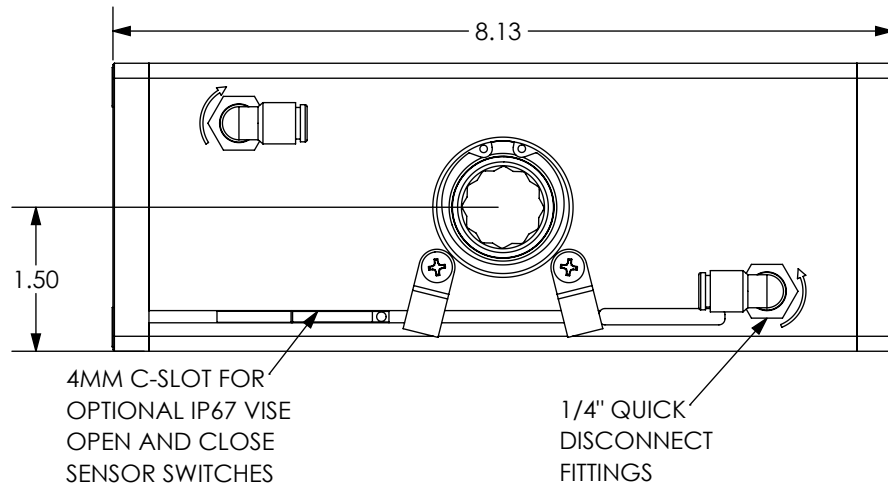
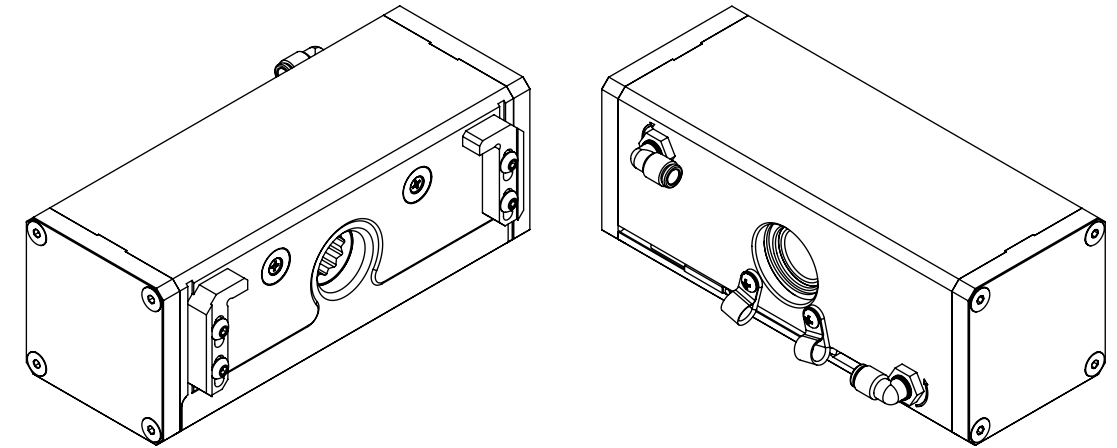
KURT® AND ASSOCIATED VISE MODEL NAMES ARE REGISTERED TRADEMARKS OF THE KURT MFG. COMPANY. RAPID DESIGN SOLUTIONS, LLC IS NOT AFFILIATED WITH THE KURT MFG. COMPANY IN ANY WAY

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rapiddesignsolutions.com/cnc-vise-actuator
425-249-9707

| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------------------|-----------|------------|
| A | RELEASE | 7/25/2019 | T.OJALEHTO |
| B | UPDATED CONTACT AND NOTES | 9/11/2019 | T.OJALEHTO |

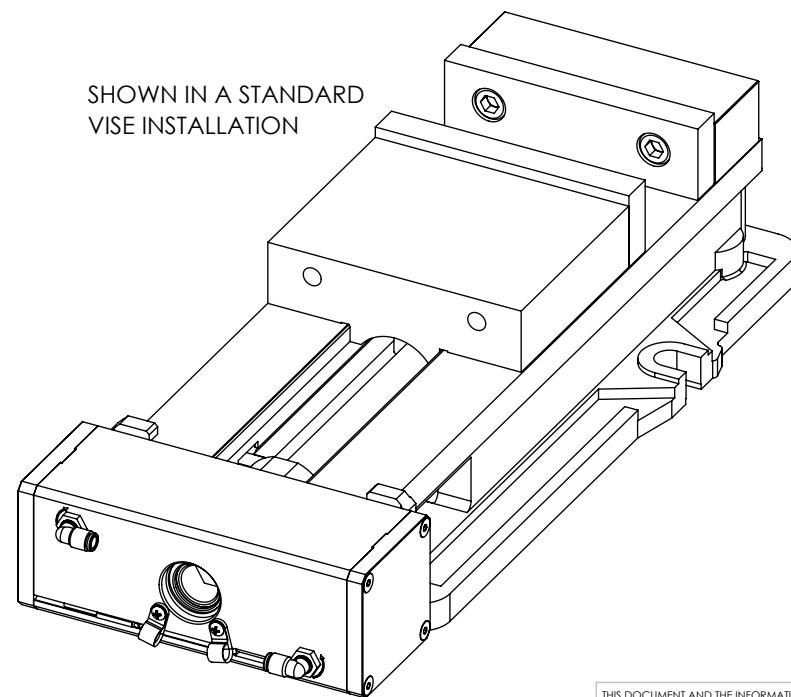
HIGH TORQUE PNEUMATIC VISE ACTUATOR FOR MACHINE TENDING ROBOTIC WORK CELLS!

This high precision vise actuator/closer helps you automate your CNC by allowing a Robot to load and unload the workpiece without a human operator. Operates most precision 6" milling machine vises saving you the high cost of new hydraulic vises and pump systems when you need to quickly automate your existing setups! Order with optional IP67 feedback switches for a closed loop workholding system.



| PRESSURE INPUT VS. TORQUE | | |
|--|-----------------------------|--|
| FOR EACH PSI OF PRESSURE INPUT AN OUTPUT OF APPROXIMATELY .37 FT-LBS OF TORQUE IS GENERATED. TORQUE IS ADJUSTED BY REGULATING INPUT PRESSURE WITH A STANDARD INLINE REGULATOR. | | |
| INPUT PRESSURE PSI [BAR] | OUTPUT TORQUE FT-LB [NM] | APPROX. CLAMPING FORCE W/COMMON 6" MACHINE VISES* LB [kN] |
| 25 [1.7] | 9 [12] | 500-900 [2.2-4] |
| 100 [6.9] | 37 [50] | 2700-3100 [12-13.8] |
| 135 [9.3] | 50 [68] | 3500-4400 [15.5-19.5] |
| **150 [10.3] | 55 [75] | 4000-5000 [18-22.2] |
| **50 FT-LBS (135 PSI) is the max recommended closing torque since some vises require equal or greater torque to open so overhead pressure/torque must be available for this. | | |
| *Approx. force values are provided for general reference only. Actual force will vary depending on the vise type used. | | |

SHOWN IN A STANDARD VISE INSTALLATION



PATENT PENDING

| | | | | |
|------------------------|-------------------|---|---|------------------------|
| DRAWN TROY OJALEHTO | DATE 7/24/2019 | | RAPID DESIGN SOLUTIONS, LLC | |
| CHECKED | DATE | | TITLE HIGH TORQUE CNC VISE ACTUATOR DATASHEET | PART NUMBER RD10070 |
| ENGINEER | DATE | <small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN TOLERANCES ARE: .X = ±.030 .XX = ±.010 .XXX = ±.005 .XXXX = ±.0010 ANGLE = ±1/2° DO NOT SCALE DRAWING</small> | SIZE B | THIRD ANGLE PROJECTION |
| ENGINEER | DATE | | LEGEND: | SCALE |
| COG ENGR | DATE | | ■ CRITICAL DIM. ● TOOLING DIM. ▲ PROCESS DIM. XX DIMENSION ID. | SHEET 1 OF 1 |
| MFG ENGR | DATE | | | |
| TOOLING | DATE | | | |
| QUALITY | DATE | | | |
| RELEASED | DATE | | | |

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