

Self Centering Vise User Manual



1. General

- Keep the lead screw clean and clear of debris and chips. Use a nylon or soft wire brush to clean chips and debris off the lead screw
- Do NOT over torque. Observe max torque marked on vise body
- Do NOT use impact guns or other power tools to operate vise
- Do NOT strike handle or vise with a mallet or hammer.
- When machining soft jaws, clamp on a small spacer block or shim with desired operating torque. This will stabilize the jaws during the modification process
- Keep lead screw well lubricated with anti-seize. Use Loctite LB C5-A or equivalent

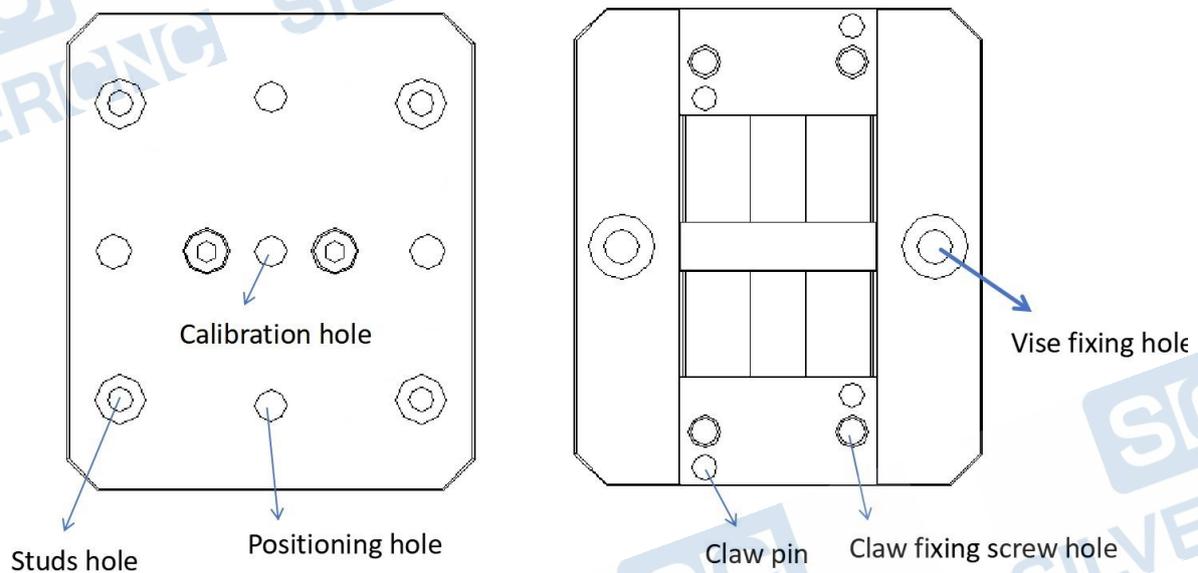
2. Description



3. Vise Installation And Positioning

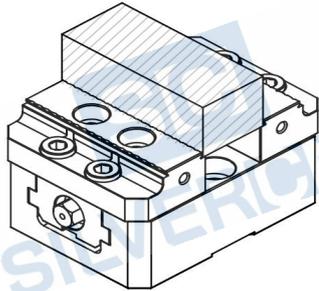
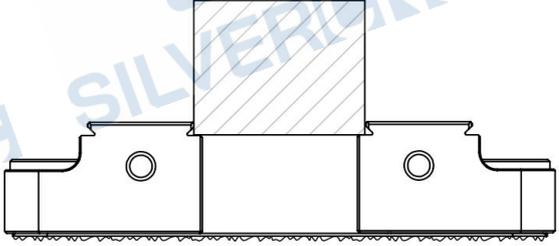
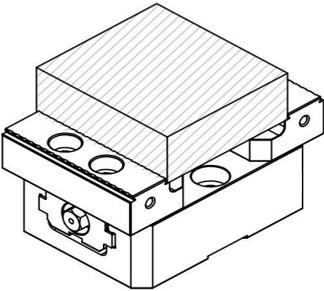
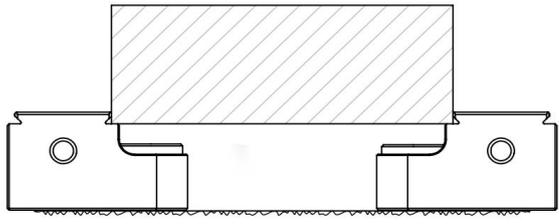
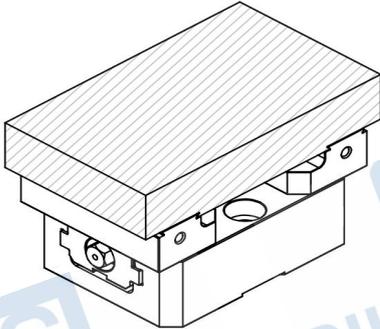
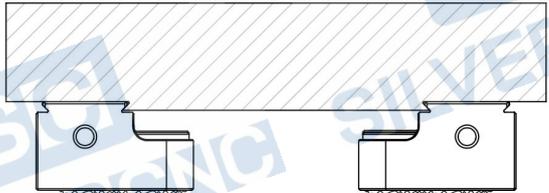
There are two common ways of use:

- It can be directly installed on the machine tool worktable. The back of the body has positioning holes, center calibration holes and fixing screw holes, which can easily calibrate the vise vertical and horizontal.
- The vise has 4 studs holes with a spacing of 52/96mm, which can be used with the zero point base late to achieve rapid interchangeability between machine tools and improve production efficiency quickly.



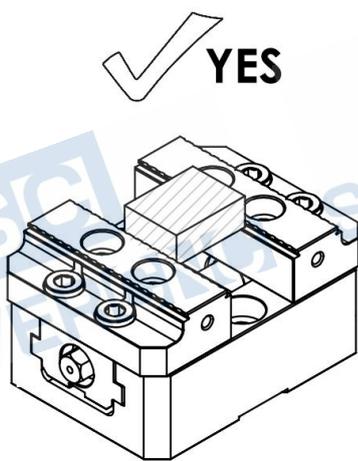
4. Parts Clamping Ways

- Different sizes of parts have different clamping ways.
- Positive installation, reverse, and dovetail installation are available.
- Claws can be quickly disassembled and replaced, making it easy to grip materials of different hardness.

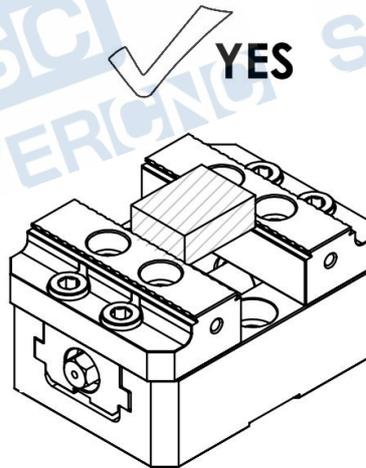
<p>Claw clamp (Clamp normal parts)</p>		
<p>Anti claw clamping (Clamp larger parts)</p>		
<p>Dovetail clamping (Gripping large and heavy cutting parts)</p>		

5. Part Loading In Jaws

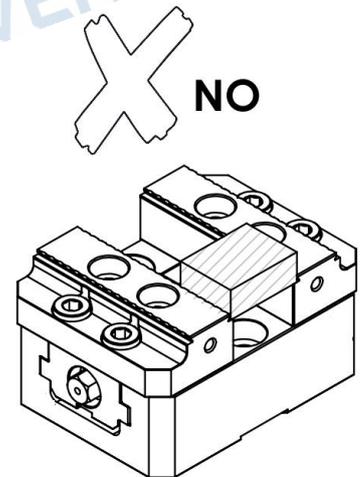
Proper part placement is critical to prevent unbalanced loading of the vise jaws. Excessive unbalanced loading of the jaws can adversely affect accuracy, clamp load and the lifespan of the vise. For best practice, place part for symmetric engagement of the grippers about the center line of the vise. If a part is needing to be clamped on only one side of the vise, use a dummy block of the same width to achieve symmetric gripper engagement.



Intermediate clamping



Symmetric clamping

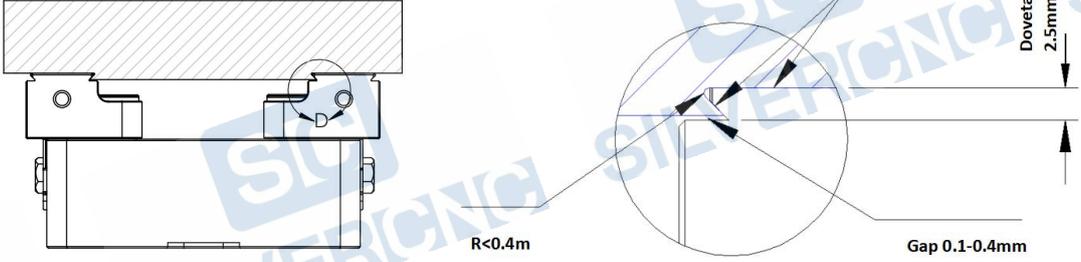
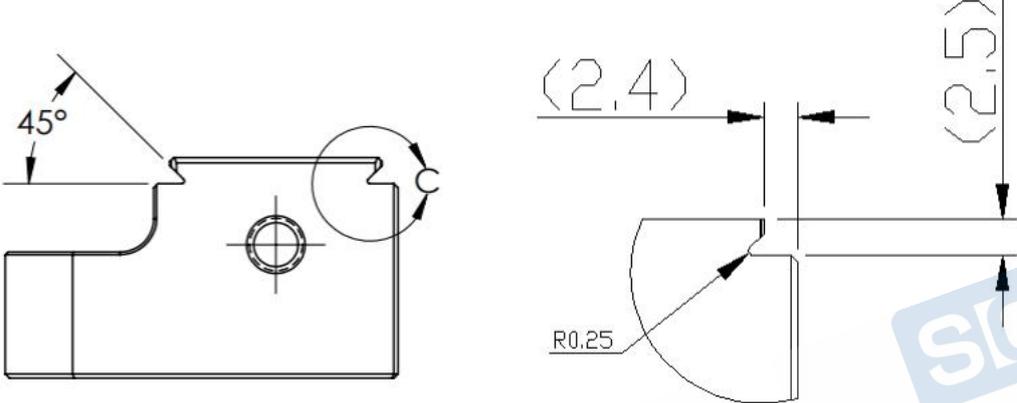
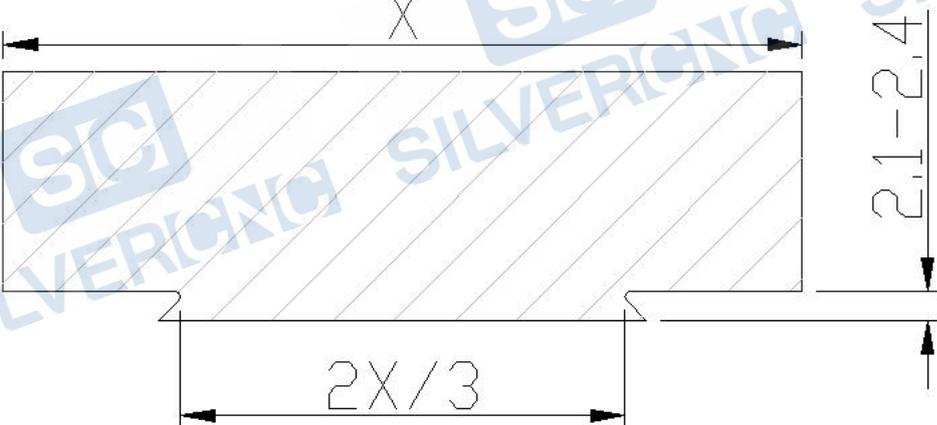


Unilateral clamping

Max clamping forces

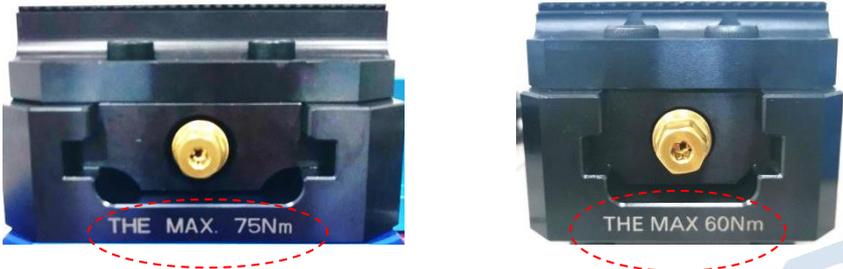
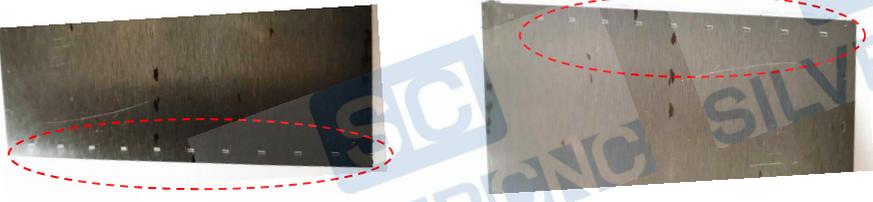
Vise clamping forces (all sizes)	Max clamping forces:
	75100: 60N.m/14KN
	75150: 60N.m/14KN
	125128: 75N.m/20KN
	130155: 75N.m/20KN
	130250: 75N.m/20KN
	150250: 100N.m/26KN

6. Requirements for dovetail clamping

<p>Dovetail clamping</p>	 <p>Technical drawing showing a cross-section of a dovetail clamping assembly. It includes a hatched upper part and a lower part with a dovetail joint. A circular detail view shows the contact surface and the gap between the parts. Labels include: "Contact surface", "Dovetail height 2.5mm", "Gap 0.1-0.4mm", and "R<0.4m".</p>
<p>Dovetail detail</p>	 <p>Technical drawing showing a detail of the dovetail joint. It includes a 45° chamfered edge, a circular detail view of the joint, and a cross-section of the dovetail. Labels include: "45°", "R0.25", and dimensions in parentheses: "(2.4)" and "(2.5)".</p>
<p>Clamped parts</p>	 <p>Technical drawing showing the dimensions of the clamped parts. It includes a hatched rectangular part and a lower part with a dovetail joint. Labels include: "X" for the length of the hatched part, "2.1-2.4" for the height of the hatched part, and "2X/3" for the length of the lower part.</p>

7. Use torque wrench

1. Adjust the torque wrench to the appropriate torque

<p>Adjust the torque of the wrench</p>		
<p>The vise body has the maximum torque value</p>		
<p>Clear tooth marks indicate clamping</p>		

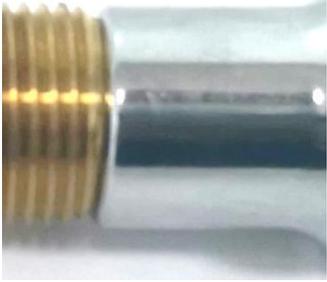
Note:

Clamp some soft materials such as copper, aluminum, and plastic, with a recommended torque range of 20N.m to 40N.m;

Clamp hard materials such as iron, steel, titanium alloys, etc., with a recommended torque range of 35N.m to 70N.m

The torque cannot exceed the maximum allowable range of the vise!

2. Use the wrench sleeve correctly

<p>The size of the sleeve should right match</p>	
<p>The sleeve must be installed to the end</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>X NO</p> </div> <div style="text-align: center;">  <p>✓ YES</p> </div> </div>
<p>Be sure to hold the sleeve with your hand when loading</p>	<div style="display: flex; justify-content: space-around;">   </div>

8. Common anomalies

Symptom	Cause	Action
Can't clamp tightly	Foreign objects enter the U-shaped groove of the vise	Clean foreign objects inside the vise
	The screw is severely worn	Replace the screw
Jaw teeth fracture	Excessive torque	check the tooth marks and adjust the torque
	There is no gap between pads and Dovetail contact surface	Ensure there is a 0.1-0.4 mm gap
Screw breakage	Excessive torque	Replace the screw

9. Maintenance and Storage

If a vise is to be unused for an extended amount of time, please follow these storage guidelines:

- Clean off all chips, debris and fluids (coolant)
- Lubricate all internal components with grease
- Spray or coat all external surfaces with rust preventative
- Store in dry/climate controlled environment
- Re-use original packaging if available

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