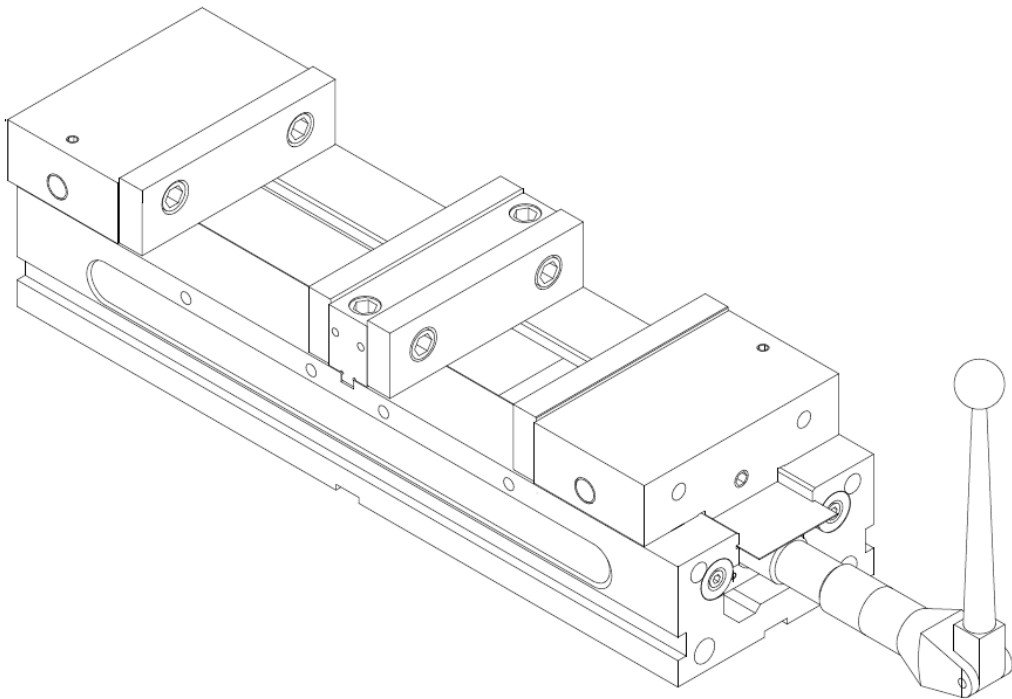




# OPERATION MANUAL

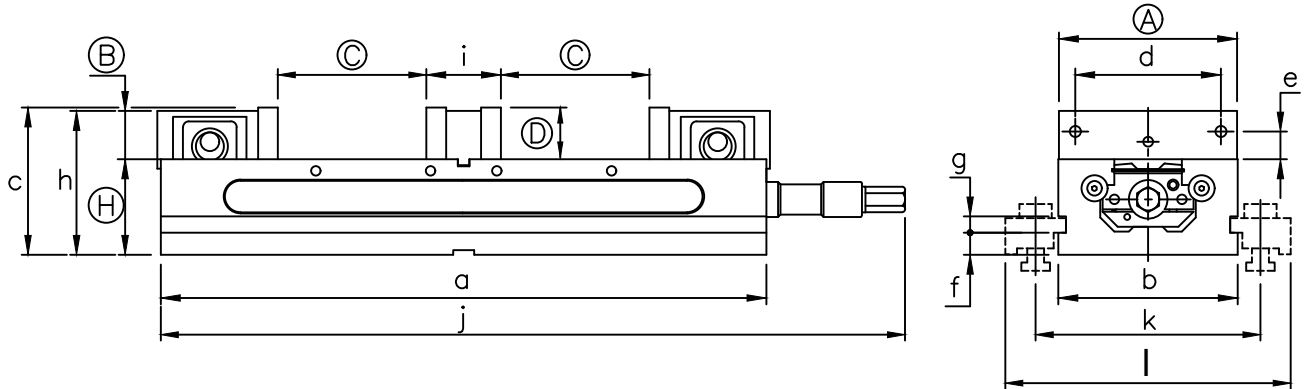
## DOUBLE STATION VISE



|                            |     |
|----------------------------|-----|
| Drawing and dimension----- | 1   |
| Operation details-----     | 2-3 |
| Maintenance-----           | 4-5 |
| Exploded view-----         | 6   |
| Inspection record-----     | 7   |



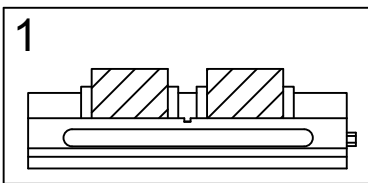
# DRAWING AND DIMENSION



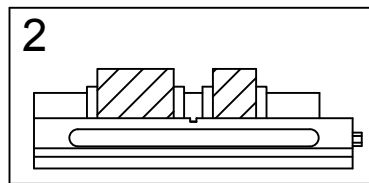
unit: kg/mm  
lb/in

| Model     | (A)  | (B)  | (C)  | (D)  | a     | b    | c      | d     | e    | f    | g    | h      | (H)   | i    | j     | k    | l    | weight |
|-----------|------|------|------|------|-------|------|--------|-------|------|------|------|--------|-------|------|-------|------|------|--------|
| 3-224-004 | 102  | 33   | 90   | 38   | 405   | 104  | 101.5  | 63.5  | 17.5 | 13   | 31   | 96.5   | 63.5  | 55   | 459   | 143  | 195  | 20     |
|           | 4.05 | 1.29 | 3.54 | 1.49 | 15.9  | 4.09 | 3.99   | 2.5   | 0.68 | 0.51 | 1.22 | 3.79   | 2.5   | 1.85 | 16.9  | 5.62 | 7.67 | 44     |
| 3-224-006 | 152  | 41.5 | 125  | 44.5 | 520   | 154  | 127.05 | 98.42 | 23.8 | 18   | 16   | 124.05 | 82.55 | 66   | 536   | 193  | 245  | 48     |
|           | 5.98 | 1.6  | 4.9  | 1.75 | 20.47 | 6    | 4.98   | 3.87  | 0.94 | 0.7  | 0.63 | 4.86   | 3.25  | 2.52 | 25.15 | 7.59 | 9.64 | 105.6  |

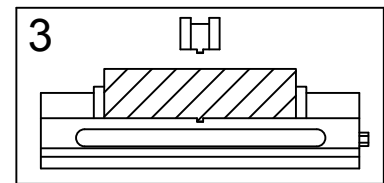
## CLAMPING EXAMPLES OF DIFFERENT APPLICATIONS



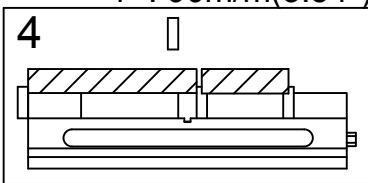
▲clamping 2 pcs of same size of workpieces  
Max. Capacity: 125m/m(4.9")  
4" : 90m/m(3.54")



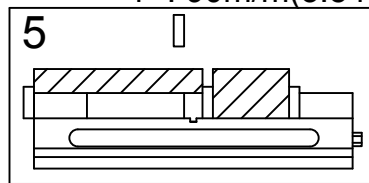
▲clamping 2 pcs of different size of workpieces  
Max. Capacity: 125m/m(4.9")  
4" : 90m/m(3.54")



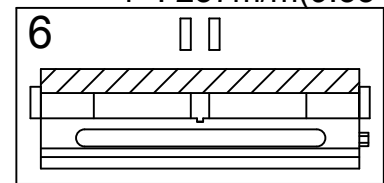
▲large workpieces is able to be clamped after moving fixed jaw  
Max. Capacity: 313m/m(12.3")  
4" : 237m/m(9.33")



▲stepped jaw plate for thin workpieces  
Max. capacity :275m/m(10.8")  
4" : 210m/m(8.27")



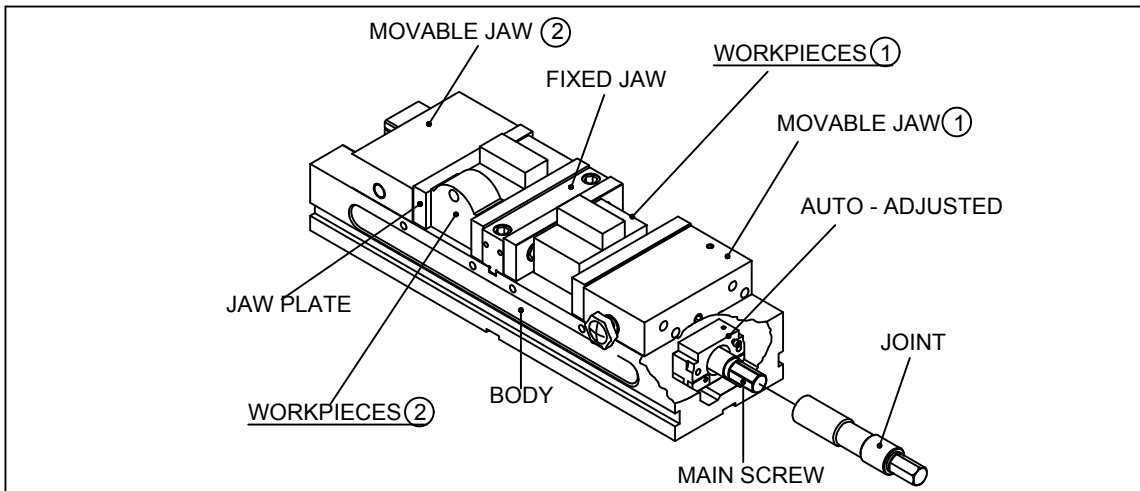
▲clamping 2 pcs different workpieces both in size and shape  
Max. Capacity: 275m/m(10.8")  
4" : 210m/m(8.27")



▲large thin workpieces is able to be clamped after removing jaw plate on fixed jaw  
Max. Capacity: 520m/m(20.5")  
4" : 405m/m(15.94")

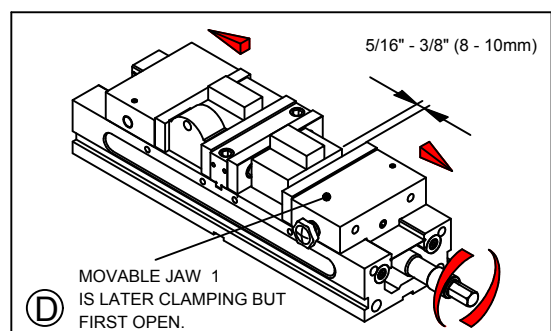
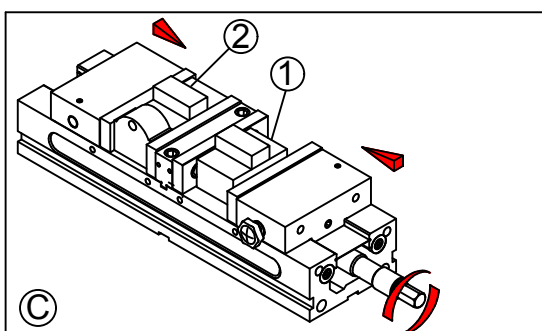
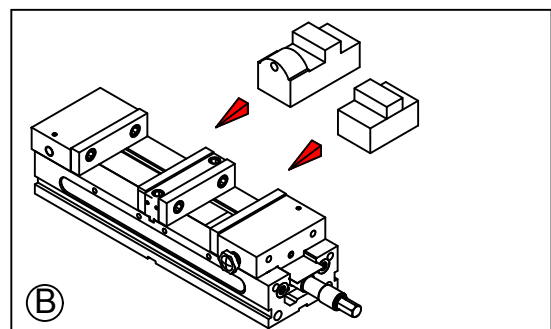
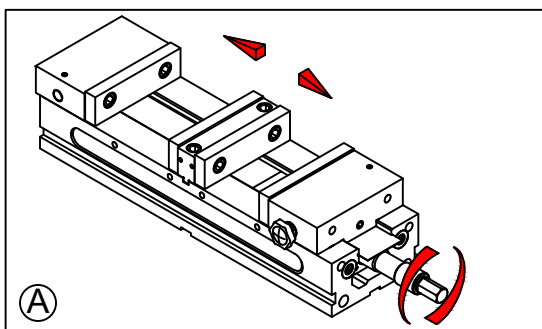
# 1. FEATURE:

3-224-006 bears two movable jaws located end of two sides, and a fixed jaw in the middle of the vise. Under this design, the vise can clamp two different dimension workpieces. Although there is a little tolerance on workpiece itself, the vise design has supplemental device on the workpiece.



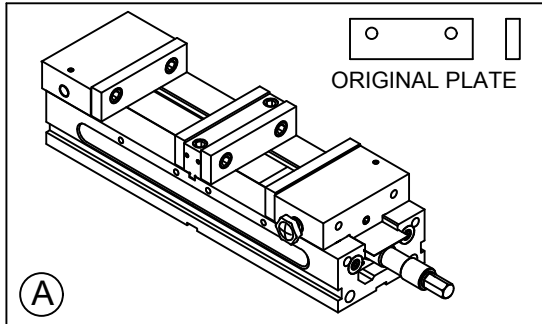
# 2. OPERATION PROCEDURE:

- Ⓐ To turn the main screw. The movable jaw ② will be moved to the end; Then open ① movable jaw. You will feel a little bit tighten. ( This is normal situation.) more force is required. After that, the opening distance more than workpieces.
- Ⓑ To locate the workpieces on vise respectively.
- Ⓒ To turn main screw, No.2 workpiece clamped first, then turn main screw continuously to tighten No.1 workpiece.
- Ⓓ After workpieces machined, release the main screw, and movable jaw ① will be removing first, then movable jaw ② moved later. For your reference. Movable jaw ① is always opening distance within 5/16~3/8" (8~10mm).
- Ⓔ After workpieces replaced, go back to Ⓒ for repeating machining, without any resetting the vise.

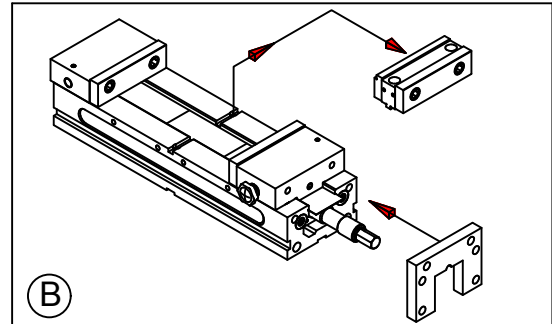


### 3. CLAMPING RANGE

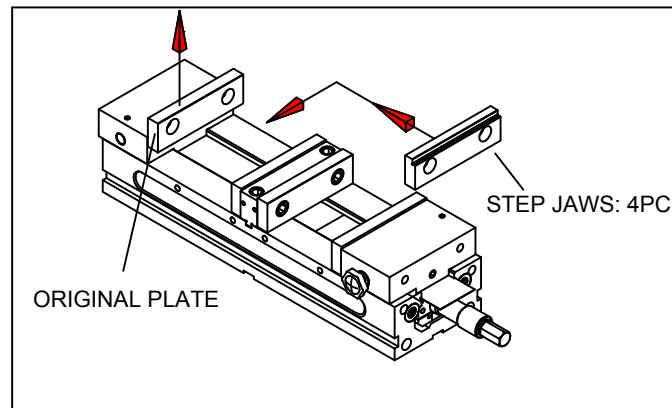
Ⓐ To use the current vise opening when the workpiece dimension is under 0-125mm(6") 0-90mm(4")



Ⓑ To take out the fixed jaw and insert a movable plate (tighten 6 pcs of screws) when the workpiece dimension is under 125-313mm(4.98"~12.3") 90-237mm(3.54"~9.33")

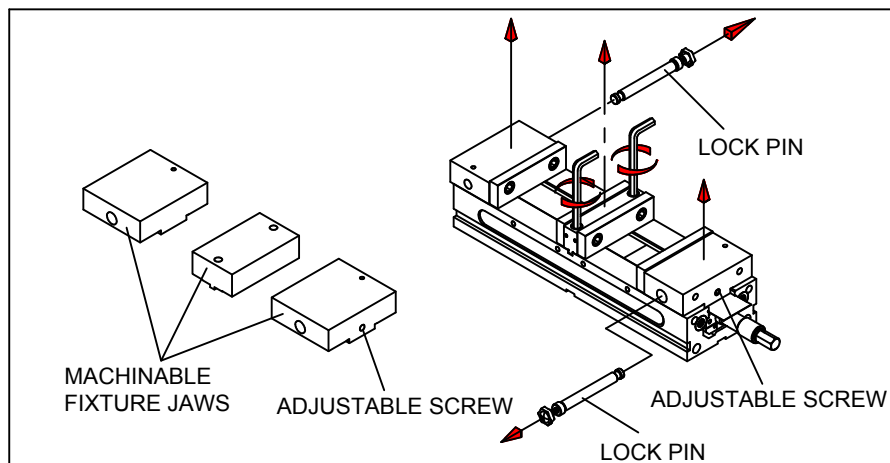


### 4. L STEP JAWS OPENING INTERCHANGE



### 5. INTERCHANGE AND OPERATION MANUAL ON MACHINABLE FIXTURE JAWS REPLACEMENT

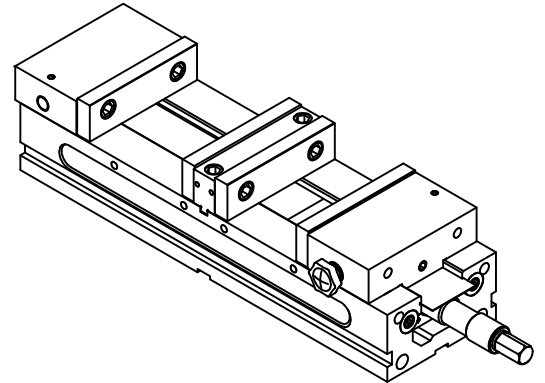
To loose the fixed jaw screw. release the adjustable screw on the movable jaw by one to two circle, pull out a lock pin located in the middle of movable jaw, then you may change it. As soft jaws are interchangeable, the different and ill-reulation workpieces can be clamped.



# NEW DESIGN & UNIQUE CONSTRUCTION

## DOUBLE CLAMP SEAT:

- ▲ One handle can simultaneously operate two movable jaws and clamps 2 pieces of workpiece of same size or different size or one large workpiece. This model can increase efficiency and productivity of CNC machine.
- ▲ The LOCKWELL<sup>®</sup> ANTI - LIFT mechanism (U.S.A patent no.516027) movable jaws provide alignment to workpiece without jaw lift.
- ▲ There are 6 kinds of clamping ways to meet workpieces of different shapes and sizes.
- ▲ The whole body is precisely grounded and height tolerance is within  $\pm 0.025\text{m/m}(\pm 0.001\text{'})$ , therefore several vises can be line up for production.

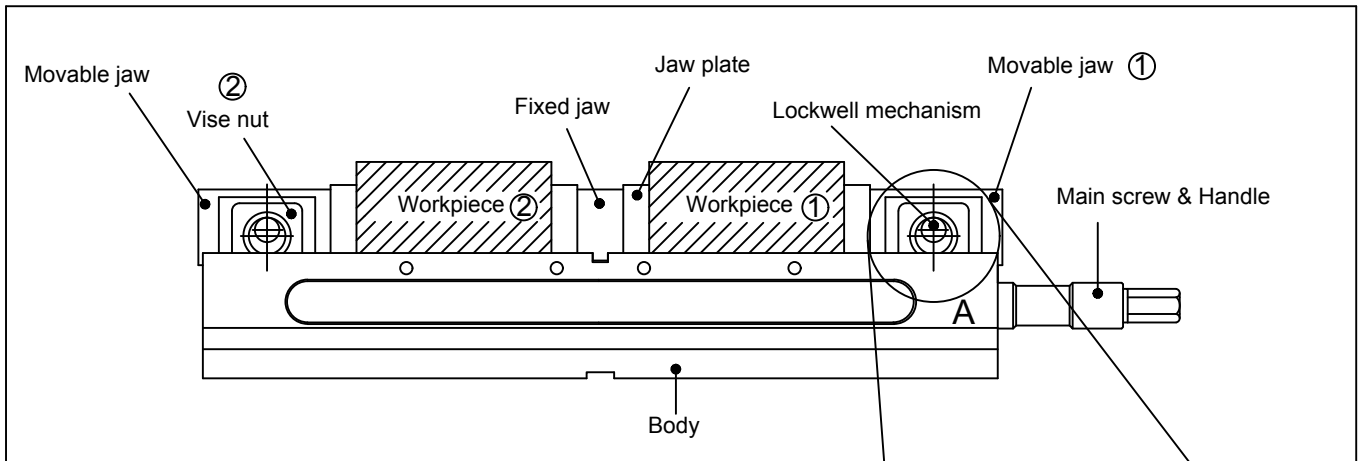


## HIGH & EXCELLENT RIGIDITY.

- ▲ The vises is made of FCD. 80000 psi(55kg/cm<sup>2</sup>). Ductile iron and the slide ways are hardened to HRC45°. The rigid construction prevents the base from distortion.
- ▲ Precision made to high accuracy standard. Details please refer to the inspection specification.

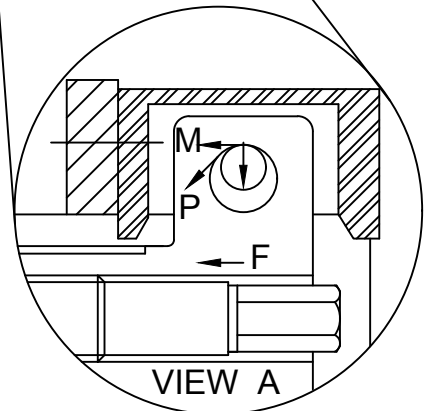
## FEATURE:

### LOCKWELL<sup>®</sup> ANTI - LIFT MECHANISM



**LOCKWELL<sup>®</sup> ANTI - LIFT MECHANISM**  
(U.S.A patent no.516027)

- ▲ Clamping force equalization and ANTI - LIFT mechanism features virtually eliminate the deflection of fixed center jaw and movable jaw lift.
- ▲ Clamping range for clamping 2 pieces of workpieces simultaneously is 125mm(4") each or 275mm(10.8") for one large workpiece.
- ▲ Double clamp seat: (U.S.A patent no.516027)



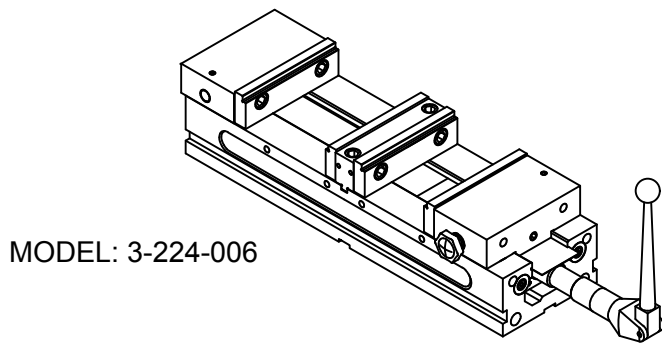
# DOUBLE CLAMP VISE WITH MACHINABLE FIXTURE JAWS

Keeping Up With Technology and Creating High Quality Styles

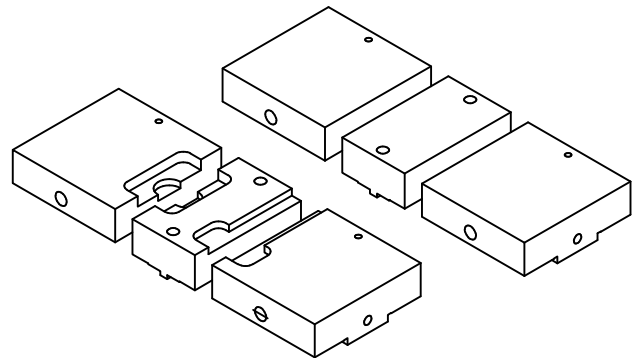
## ▲ MACHINABLE FIXTURE JAWS

This is a new workholding concept. When you open it your requirements are going to be satisfied. Just machine the surface of the flexible soft jaws based on yours needs. It is not only quick, also very economical.

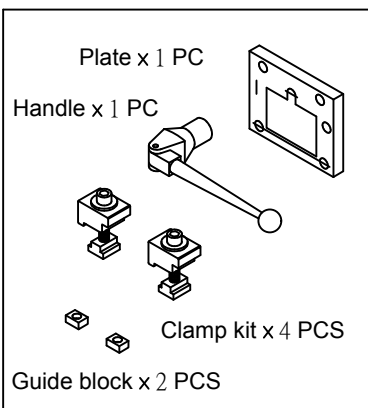
SOFT JAWS FOR 3-224-006



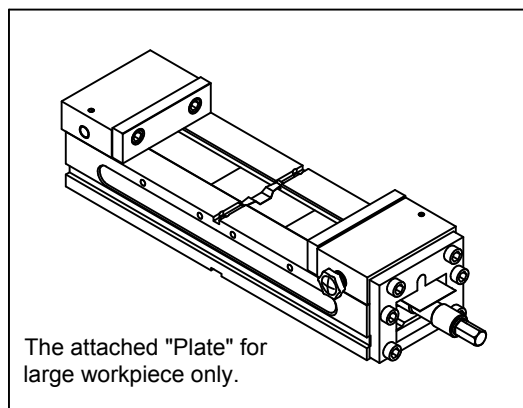
MODEL: 3-224-006



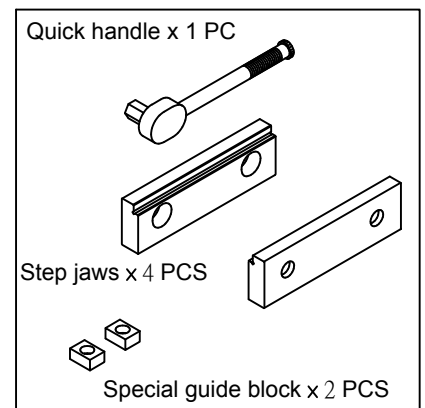
### STANDARD ACCESSORIES



### USAGE OF "PLATE"



### OPTIONAL ACCESSORIES



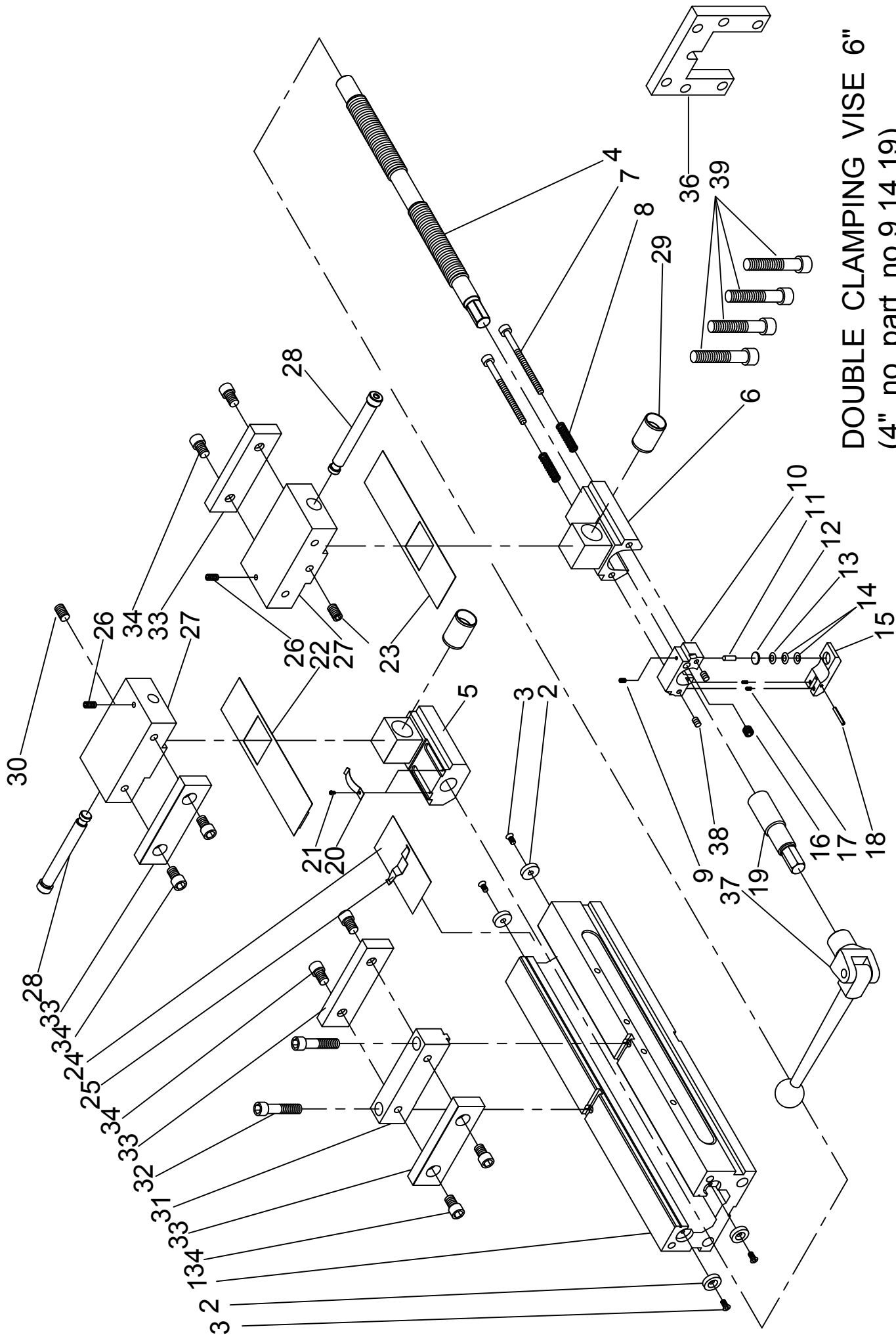
## INSPECTION SPECIFICATION:

|   |  |   |
|---|--|---|
| 1 |  | Parallelism: running face to bottom of bed.<br>Guaranteed: 0.012mm (0.0005")    |
| 2 |  | Squareness: between running face to jaw plate.<br>Guaranteed: 0.015mm (0.0006") |
| 3 |  | Squareness: both sides to fixed jaw plate.<br>Guaranteed: 0.02mm (0.0008")      |

\*No.3 Only applies to 3-224-006 - in HV version

Inspection per 100mm(4.00")

|   |  |   |
|---|--|---|
| 4 |  | Parallelism: keyways on bottom of bed to jaw plate.<br>Guaranteed: 0.02mm (0.0008")   |
| 5 |  | Squareness: keyways on bottom of bed to jaw<br>Guaranteed: 0.02mm (0.0008")           |
| 6 |  | Parallelism: running face of the test block to bottom<br>Guaranteed: 0.02mm (0.0008") |



DOUBLE CLAMPING VISE 6"  
 (4" no part no.9,14,19)

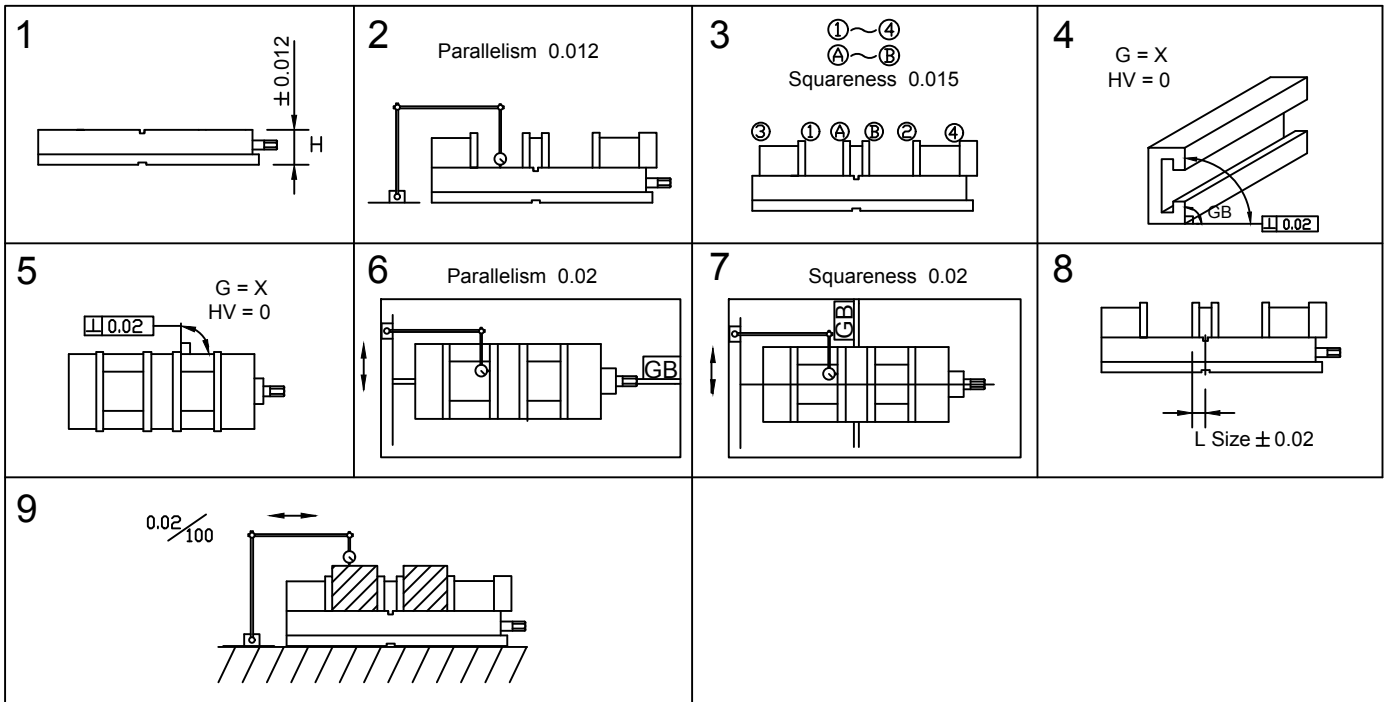


# DOUBLE CLAMPING VISE INSPECTION RECORD

Model: \_\_\_\_\_ Mfg, No. \_\_\_\_\_

Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

**ACCURACY:**



| NO | Inspection Items  | Per 4" | Guarantee              | Finding |
|----|---|--------|------------------------|---------|
| 1  | "H" tolerance: running face to bottom within                    |        | ±0.0005"<br>±(0.012mm) |         |
| 2  | Parallelism: running face to bottom of bed                      |        | 0.0005"<br>(0.012mm)   |         |
| 3  | Squareness: between running face and jaw plate                  |        | 0.0006"<br>(0.015mm)   |         |
| 4  | Squareness: both sides to running face                          |        | 0.0008"<br>(0.02mm)    |         |
| 5  | Squareness: both sides to fixed jaw plate                       |        | 0.0008"<br>(0.02mm)    |         |
| 6  | Parallelism: keyways on bottom of bed to jaw plate              |        | 0.0008"<br>(0.02mm)    |         |
| 7  | Squareness: keyways on bottom of bed to jaw plate               |        | 0.0008"<br>(0.02mm)    |         |
| 8  | "L" tolerance: keyways on bottom of bed to jaw plate within     |        | ±0.0008"<br>±(0.02mm)  |         |
| 9  | 1. Parallelism: running face of the test block to bottom of bed |        | 0.0008"<br>(0.02mm)    |         |
|    | 2. Jaw opening  |        | 4"<br>(102mm)          |         |

\* NO. 4 & 5 3-224-006 - HV TYPE HAVE FINDING