



# INSTRUCTIONS MANUAL

**High Precision Modular Vice**  
**SIMPLE AND RELIABLE**



Manufactured by :

**AHIRE MACHINE TOOLS PVT. LTD.**

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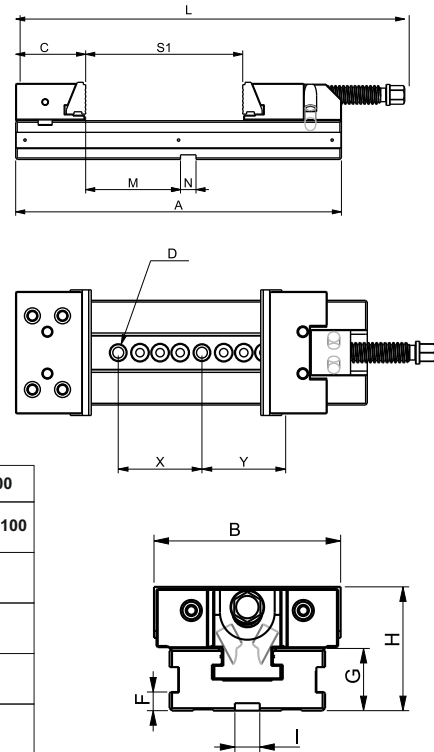
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**QUALITY CREATES TRUST**

## TECHNICAL DATA

Variant	MV 100-100	MV 150-200	MV 150-300	
Dimensions in mm	A	270	420	520
	B	100	150	150
	C	67	90	90
	D	N/A	21	21
	F	11	15	15
	G	35	50	50
	H	65	100	100
	I	20	20	20
	L	306	500	600
	M	63	122	122
	N	20	20	20
	X	N/A	100	100
	Y	N/A	100	100
S1	105	200	300	



Variant	MV 100-100	MV 150-200	MV 150-300
Dimensions (mm)	306 x 100 x 65	500 x 150 x 100	600 x 150 x 100
Clamping Range (mm)	105	200	300
Maximum Clamping Force (kN)	20	30	30
Maximum Torque (Nm)	30	100	100
Weight (Kg)	6.5	34	38

## SAFETY AND PRECAUTIONS

1. Persons using the amt high precision vice must read the operating instructions before commencing any work.
2. Low clamping pressure will be generated on elastic work piece and may cause damage to operator and surrounding.
3. If low clamping pressure is applied, work piece may fall off.
4. Follow all safety instruction as per guidelines of milling machine manufacturer.
5. Manufacturer approved spares to be used for vices.
6. The same regulations apply to all accessories.

## INSTALLATION

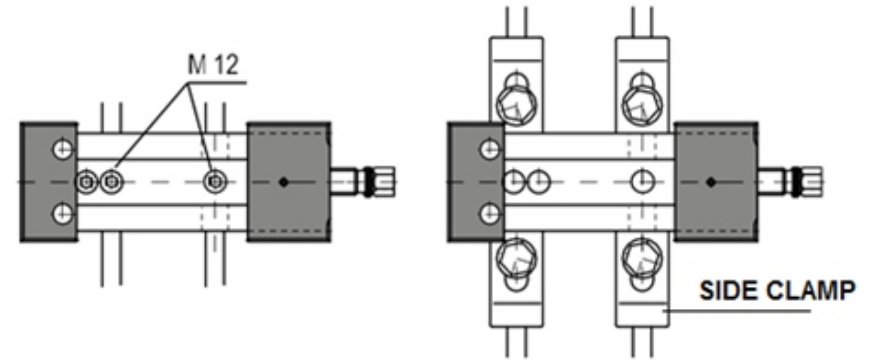


Fig.1

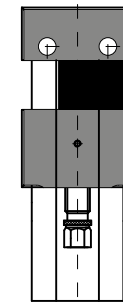
Fig.2

1. Direct fixing through the bottom of the vice.
2. Conventional fixing with side clamps:
3. To get maximum pulldown effect it recommended to place and clamp side clamps nearer to the work piece.

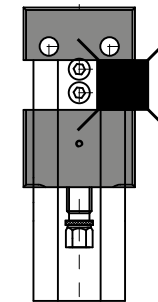
(We recommend the use of 4 side clamps, as the stability of the machine table will improve the accuracy in positioning the workspace)

## CLAMPING POSITION

Clamp the work piece correctly (see diagram)



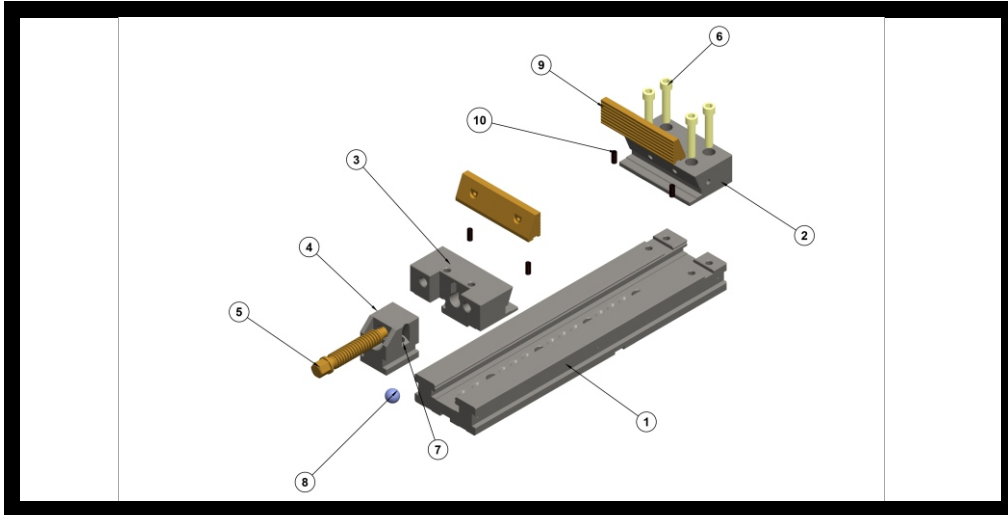
Correct



Inorrect



## OPERATION



- |                   |                        |
|-------------------|------------------------|
| 1.Body            | 6.Allen Bolt           |
| 2.Fix Jaw         | 7.Grub Screw           |
| 3.Movable Jaw     | 8.Bearing Ball         |
| 4.Spindle Housing | 9.Pull Down Jaw        |
| 5.Spindle Screw   | 10. Compression Spring |

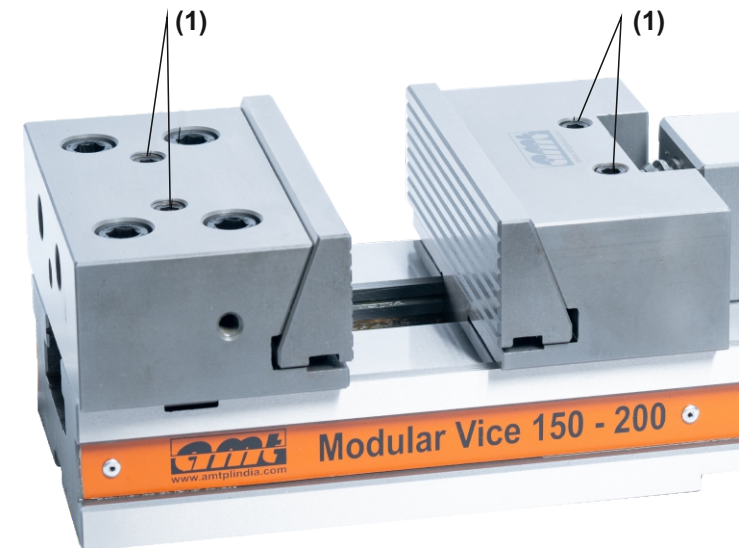
## INSTRUCTION

1. Choose the correct size of vice for the intended work piece and locate it on the table, fixing with side clamps.
2. Release the Spindle Housing (4), by loosening Grub Screw (7).
3. Move Spindle Housing (4) to the correct position considering the size of work piece. (listen to the sound of Bearing Ball (8) locating down in the set hole).
4. Tighten the Grub Screw (7) onto the Bearing Ball (8) which holds the Spindle Housing (4) in position.
5. Place the work piece in position and turn Spindle Screw (5) to move the Movable Jaw (3) for clamping the work piece.

6. Keep the Allen Bolt (A) loose by  $\frac{1}{4}$  turn to get the pull down effect by spring action on Fix jaw and Movable Jaw.



7. Do not lose or Tighten these Grub Screws (1) on fix Jaw and Movable Jaw. These holes are provided for special accessories.



## CLAMPING POWER

	TORQUE	CLAMPING FORCE
Size 100-100	30 Nm	20 kN
Size 150-200	100 Nm	30 kN
Size 150-300	100 Nm	30 kN

To ensure safe fixing of the work piece, & to generate uniform repetitive clamping force we recommend using a torque wrench.



Never exceed the specified torque, because overloading the components \ will reduce their working life substantially.



Never use hammers or extension or screwdriver

## MINTENANCE



In case where compressed air is used, distributed metal chips and coolant spray can the risk of injury.

Clean using a brush, chip extractor or chip removing hook.

After a long period of use, we recommend dismantling the modular vice and giving it a thorough cleaning. In doing so, check the flat point for wear and tear.

After cleaning all the component, oil all the sliding surface.