

## HIGH-PRECISION GRINDING AND CONTROL VISE



**A Very High Precision Grinding Vice for Accurate Grinding Jobs. Tool steel, through-hardened, fully precision-ground.**

A high-precision grinding and control vise is a specialized tool used in machining and manufacturing processes, particularly in precision grinding operations. The primary purpose of such a vise is to securely hold workpieces during grinding or other machining operations with a high degree of accuracy and repeatability.

- Vice manufactured from hardened and ground steel.
- Base manufactured from steel grade cast iron.
- Swivels on 2 levels, 360° horizontal,  $\pm 45^\circ$  vertical
- Scale for precise minute readout
- Screw for upward and downward swing
- For grinding, boring, milling, eroding

CAT.NO.	JAW WIDTH		JAW OPENING		JAW DEPTH		TOTAL LENGTH
	INCH	MM	INCH	MM	INCH	MM	MM
GSV-5178	2.3/4	70	3.1/4	82	1.1/4	32	175

## How to Use

Using a high-precision grinding and control vise involves several steps to ensure accurate and efficient results. Here's a general guide on how to use such a vise:

### 1. Setup:

- Ensure that the work surface and the vise are clean and free of debris.
- Mount the vise securely on the grinding machine or workbench. Make sure it is stable and properly aligned.

### 2. Selection of Workpiece:

- Choose the workpiece you want to grind. Ensure that it is of the appropriate material and size for your grinding requirements.

### 3. Inserting the Workpiece:

- Open the vise jaws wide enough to accommodate the workpiece.
- Place the workpiece into the vise jaws, ensuring that it is positioned securely and centered for uniform grinding.

### 4. Securing the Workpiece:

- Close the vise jaws firmly to secure the workpiece in place. Ensure that it is tightly held to prevent any movement during the grinding process.

### 5. Precision Adjustment:

- Many high-precision vises come with fine adjustment features. Use these adjustments to finely tune the position of the workpiece for precise grinding.
- Check and adjust the vise to achieve the desired angles and dimensions for your grinding task.

### 6. Grinding Process:

- Turn on the grinding machine and carefully bring the grinding wheel into contact with the workpiece.
- Follow the appropriate grinding procedures and safety guidelines for the specific material and type of grinding you are performing.
- Monitor the grinding process to ensure that the workpiece is being ground evenly and accurately.

### 7. Quality Control:

- Periodically check the workpiece dimensions and quality during the grinding process. Make any necessary adjustments to the vise or grinding machine if needed.

### 8. Coolant (if applicable):

- If your grinding process requires coolant, ensure that it is applied correctly to prevent overheating and maintain the quality of the grinding wheel.

### 9. Completion and Inspection:

- Once the grinding process is complete, inspect the finished workpiece for the desired dimensions and surface finish.
- If adjustments are needed, use the vise controls to make fine-tuning corrections.

### 10. Cleaning and Maintenance:

- After use, clean the vise and the work area. Remove any debris or grinding residues.
- Regularly inspect and maintain the vise to ensure its continued precision and functionality.

Always refer to the specific user manual provided by the manufacturer of the high-precision grinding and control vise, as different models may have unique features and operating instructions. Additionally, follow safety guidelines and use personal protective equipment when operating grinding

machinery.



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