

Wilton C-1

Wilton Pipe & Bench Vise Instruction Manual

Model: C-1 | Brand: Wilton

1. INTRODUCTION

This instruction manual provides essential information for the safe and effective use, setup, maintenance, and troubleshooting of your Wilton Pipe & Bench Vise, Model C-1. This robust vise, proudly made in the USA, is designed for demanding clamping applications, featuring a unique round channel design for durability and smooth operation. It includes main jaws, pipe jaws, and a machined anvil work surface for ultimate versatility.

2. IMPORTANT SAFETY INSTRUCTIONS

- Always wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and sturdy footwear, when operating or maintaining the vise.
- Ensure the vise is securely mounted to a stable workbench or surface before use. Refer to the "Setup" section for proper mounting procedures.
- Do not overtighten the vise jaws. Excessive force can damage the workpiece, the vise, or cause injury.
- Keep hands and fingers clear of moving parts, especially the jaws and spindle, during operation.
- Do not use the vise as an anvil for heavy hammering unless specifically designed for such impact, and always use appropriate striking tools.
- Regularly inspect the vise for any signs of wear, damage, or loose components. Do not operate a damaged vise.
- Keep the work area clean and well-lit. Cluttered or dark areas invite accidents.
- Do not modify the vise in any way. Use only genuine Wilton replacement parts if repairs are necessary.
- Keep children and unauthorized persons away from the work area.
- Be aware of the Proposition 65 warning regarding potential chemical exposure.

3. PRODUCT OVERVIEW AND KEY FEATURES

The Wilton Pipe & Bench Vise (Model C-1) is engineered for superior performance and durability. Below are its primary components and features:



Figure 3.1: Overall view of the Wilton Pipe & Bench Vise, Model C-1.

- **Massive Cast Iron Body:** Virtually indestructible, weighing significantly more than comparable models for enhanced stability and strength.
- **Sealed Construction:** The round channel design fully encloses the spindle and nut assembly, preventing debris ingress and retaining lubrication for a lifetime of smooth operation.
- **Precision Slide Bar:** Eliminates movement in the front jaw, ensuring consistent clamping pressure regardless of the jaw opening.
- **Longer Spindle Nut:** Provides smooth movement and a stronger, straight-line pull for secure clamping.
- **Hardened Steel Replaceable Jaw Inserts:** Machine serrated for a safe and secure grip on various materials under maximum torque.
- **Large Machined Anvil Work Surface:** Designed to withstand heavy impacts for forming and shaping materials.
- **Locking Swivel Base with Double Lockdowns:** Ensures a non-slip hold in any desired position, offering versatile workpiece orientation.
- **Pipe Jaws:** Integrated pipe jaws for securely holding round stock.



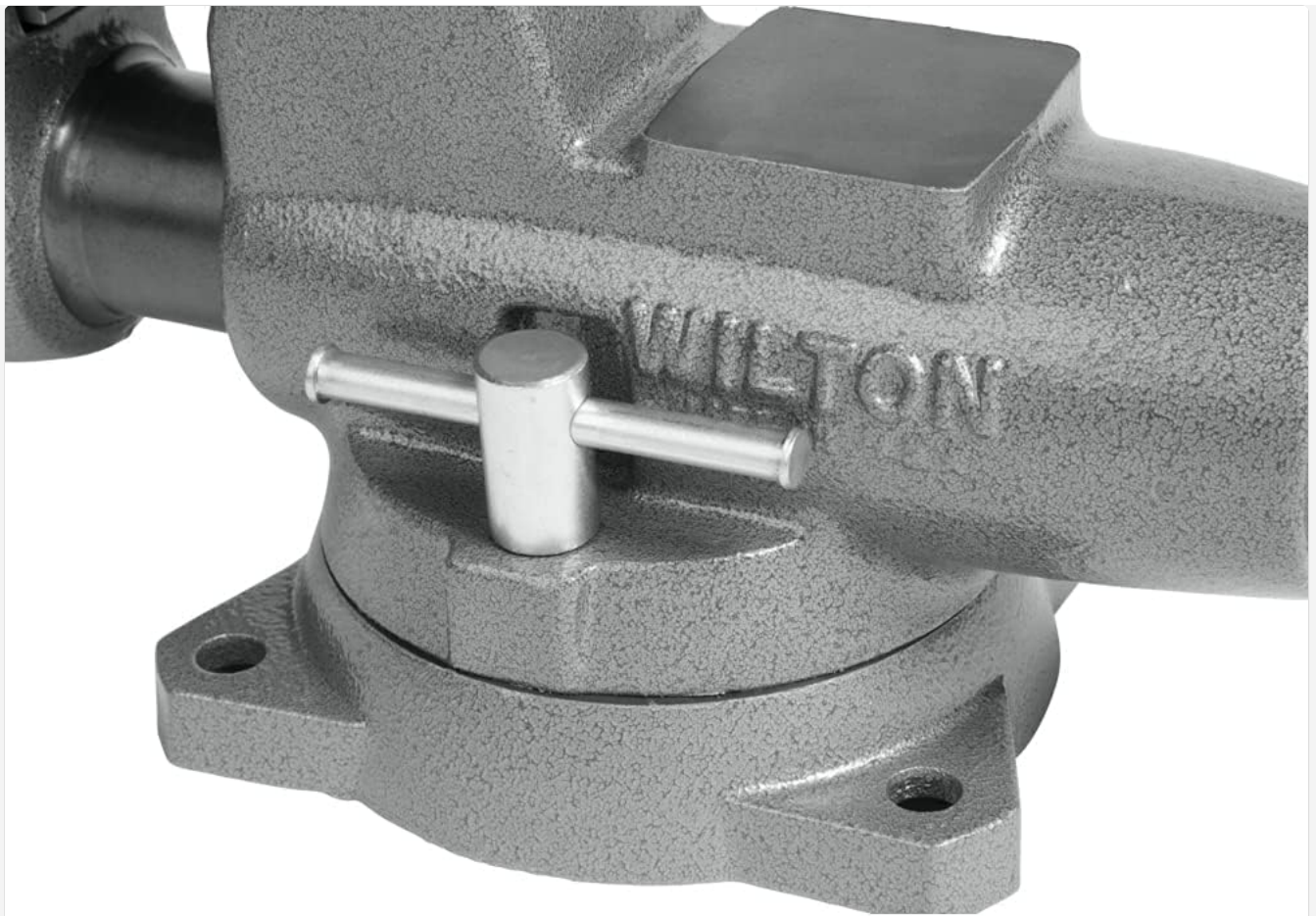
MACHINED ANVIL WORK SURFACE

Figure 3.2: Close-up of the large machined anvil work surface, ideal for hammering and shaping.



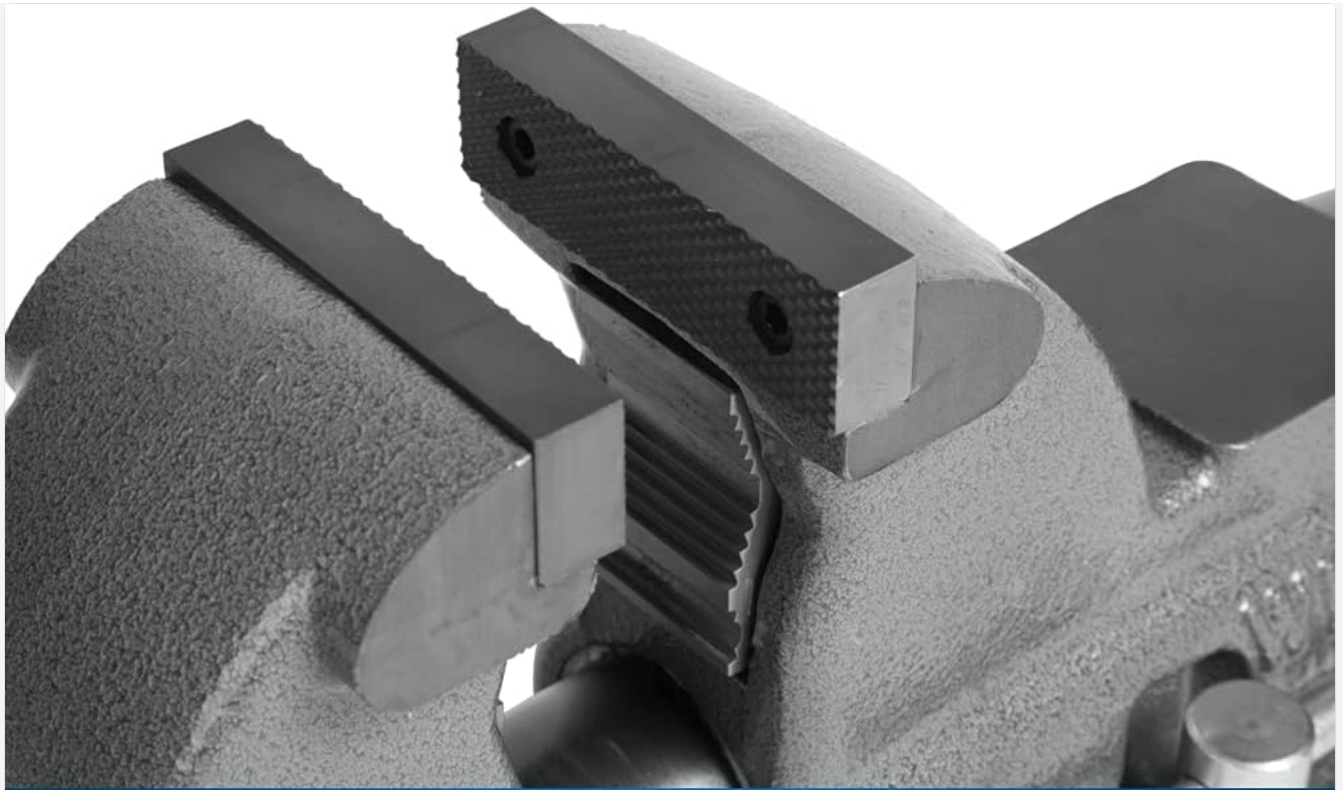
COMPLETELY ENCLOSED SPINDLE ASSEMBLY

Figure 3.3: View of the completely enclosed spindle assembly, protecting internal components from debris.



SWIVEL BASE WITH DUAL LOCKDOWNS

Figure 3.4: The robust swivel base with dual lockdowns for secure positioning.



REPLACEABLE STEEL JAW INSERTS

Figure 3.5: Close-up of the replaceable hardened steel jaw inserts, providing a strong grip.



1/8" TO 3-1/2" PIPE JAW CAPACITY

Figure 3.6: Illustration of the pipe jaw capacity, suitable for holding round materials.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and effective operation of your Wilton Pipe & Bench Vise. Due to its substantial weight (78 lbs), it is recommended to have assistance during installation.

4.1 Mounting the Vise

1. **Choose a Location:** Select a sturdy workbench or surface that can support the weight of the vise and the forces applied during use. The edge of the workbench is typically preferred for maximum versatility.
2. **Mark Mounting Holes:** Position the vise on the desired mounting location. Use the vise's base as a template to accurately mark the positions for drilling holes.
3. **Drill Holes:** Carefully drill holes through your workbench using a drill bit appropriate for the mounting hardware (not included). Ensure the holes are straight and align with the vise's base.
4. **Secure the Vise:** Place the vise over the drilled holes. Insert appropriate bolts, washers, and nuts through the mounting holes. Tighten all fasteners securely. For optimal stability, consider using large washers or a backing plate on the underside of the workbench.
5. **Check Stability:** After mounting, firmly shake the vise to ensure it is stable and does not wobble. Re-tighten fasteners if necessary.

4.2 Initial Inspection

Before first use, inspect the vise for any shipping damage or loose components. Operate the main screw to open and close the jaws, ensuring smooth movement. Check the swivel base lockdowns for proper function.

5. OPERATING INSTRUCTIONS

5.1 Clamping a Workpiece

1. **Open Jaws:** Turn the vise handle counter-clockwise to open the jaws to a width slightly larger than your workpiece.
2. **Position Workpiece:** Place the workpiece firmly between the main jaws. For delicate materials, use jaw pads (not included) to prevent marring. For round stock, utilize the integrated pipe jaws.
3. **Tighten Jaws:** Turn the vise handle clockwise to close the jaws until the workpiece is held securely. Apply only enough force to hold the workpiece firmly without causing damage.
4. **Check Stability:** Gently attempt to move the workpiece to ensure it is properly clamped and will not shift during your task.

5.2 Using the Swivel Base

The swivel base allows you to rotate the vise to different angles for optimal access to your workpiece.

1. **Loosen Lockdowns:** Loosen the two lockdown handles located on the swivel base.
2. **Rotate Vise:** Rotate the vise to the desired angle.
3. **Secure Lockdowns:** Firmly tighten both lockdown handles to secure the vise in its new position. Ensure it is completely stable before applying force to the workpiece.

5.3 Utilizing the Anvil

The large machined anvil surface is designed for light to moderate hammering, shaping, and forming operations. Always ensure the vise is securely mounted and stable when using the anvil.

6. MAINTENANCE

Regular maintenance will ensure the longevity and optimal performance of your Wilton Pipe & Bench Vise.

6.1 Cleaning

- After each use, wipe down the vise to remove any dust, metal shavings, or debris.
- Periodically clean the main screw and slide bar to prevent buildup that could impede smooth operation. Use a stiff brush or compressed air.

6.2 Lubrication

- The sealed construction of the spindle and nut assembly is designed to retain lubrication. However, for external moving parts like the main screw and slide bar, periodic lubrication is recommended.
- Apply a light coat of machine oil or grease to the main screw and slide bar every few months, or more frequently with heavy use.

- Operate the vise jaws through their full range of motion several times after lubrication to distribute the lubricant evenly.

6.3 Jaw Insert Replacement

The hardened steel jaw inserts are replaceable. If they become worn or damaged, they can be removed by unscrewing the retaining bolts and replaced with new genuine Wilton inserts.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Jaws are stiff or difficult to move.	Accumulation of dirt/debris on screw/slide bar; insufficient lubrication.	Clean the main screw and slide bar. Apply lubricant as per Section 6.2.
Workpiece slips in jaws.	Jaws not tightened sufficiently; worn or damaged jaw inserts; incorrect jaw type for workpiece.	Tighten jaws more firmly. Inspect and replace jaw inserts if worn. Ensure correct jaw (main or pipe) is used.
Vise wobbles on workbench.	Loose mounting bolts; unstable workbench.	Check and tighten all mounting bolts. Reinforce workbench if necessary.
Swivel base does not hold position.	Lockdown handles not tightened.	Ensure both swivel base lockdown handles are fully tightened.

8. SPECIFICATIONS

Attribute	Detail
Brand	Wilton
Model Number	C-1
Jaw Width	4-1/2 inches
Max Jaw Opening	6 inches
Throat Depth	4-3/4 inches
Pipe Jaw Capacity	1/8" to 3-1/2"
Material	Cast Iron (100% Ductile Iron for body and base)
Item Weight	78 Pounds

Attribute	Detail
Product Dimensions (L x W x H)	20.4 x 8.7 x 11.1 inches
Color	Gray
Style	Bullet Vise
UPC	731325760422
Part Number	28826

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The Wilton Pipe & Bench Vise (Model C-1) comes with a**Lifetime Warranty**. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.



Figure 9.1: Wilton's Lifetime Warranty ensures long-term reliability.

9.2 Customer Support

For technical assistance, replacement parts, or warranty inquiries, please contact Wilton customer support. You can also visit the official Wilton store for more information and product resources.

Visit the Official Wilton
Store