

AW

AIR VISE

WORKHOLDING

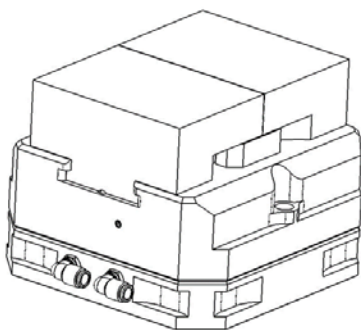


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SAFETY, WARNINGS AND HAZARDS

Observe all **SAFETY** warnings, signs, placards, notices and manuals, before, during, and after operating equipment. Failure to read operation manual could result in serious injury or destruction of machinery.



BEWARE of moving components. This unit is comprised of jaws that slide back and forth. Keep hands and fingers clear of moving parts.

Use **CAUTION** when working on or near equipment. Always keep clear of pinch points, and secure loose clothing. **Avoid Crush**



GENERAL SAFETY: Never play on or around machines. Always make sure equipment is locked out and turned off when working on, maintaining, and cleaning. Check all hoses for degradation, leaks, cuts or abrasion prior to start up. Replace if noticed. Eye and hearing protection are strongly suggested.

INTRODUCTION

Finally, a vise as fast and versatile as modern machining.

Welcome to the cutting edge of vise technology. We know you won't be disappointed with the speed and agility this vise will bring to your operations. The ability to swap jaws in mere seconds will give you an unmatched capability to pivot to market demands, while the push button or electronic open/close feature will shave minutes off your cycle times and give you the consistency you demand.

Thank you for trusting our product to create yours.

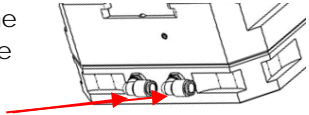
OUR MISSION

Here at AVW, we are determined to employ the most efficient processes we can conceive. Few things limit modern machining like changing jaws on your vise. Air Vise was forged from a desire to both simplify and streamline these inefficiencies in today's machining practices.

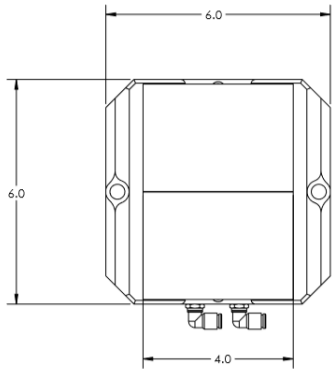
We are the customer. We know the need, we know the job, and we know the cost. Our business is to develop a relationship with you, to share what helps us succeed in this industry.

SETUP OF YOUR AIR VISE

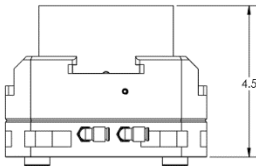
Your new Air Vise will come ready for installation of the pneumatic fittings. Install the 90° elbow fitting until tight.



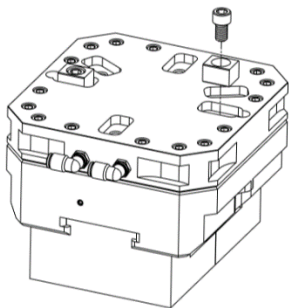
The Air Vise will need to be mounted to a clean, flat surface. Ensure that you have removed all chips and fragments from past work and use a solvent to wipe down the surface you intend on mounting the vise to.



Using a fine sided stone, check the table for dents or burrs.



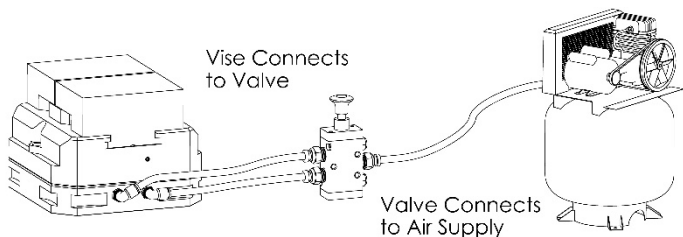
Once you're sure you've got a smooth, clean surface, you're ready to mount the vise.



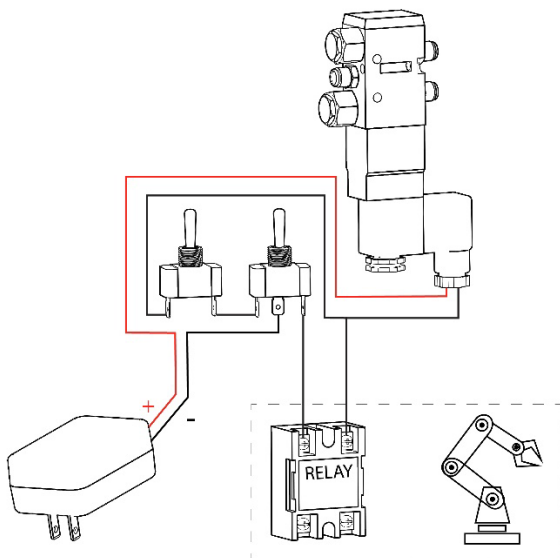
The included T-Slot nuts and vise keys will assist you in ensuring accurate alignment and security on the table. Install the vise keys to your desired configuration and align the vise with the table. Fit the T-Slot nuts into the table slots, align with

the mounting holes on the vise and tighten to your chosen specification.

If you purchased a pneumatic kit for your vise, please reference the following schematic. Air can be supplied from your machine or an outside source of your choosing. The electric solenoid and push-button valve configure in the same manner.



The switch box provides you the capability to operate the vise in a manual mode. Ensure it is set in your desired configuration.



With the regulator supplied with shop or machine air, set the pressure to the desired clamping force. See the "Clamping Force" section for rates.

OPERATING YOUR VISE

ELECTRICAL

With your vise and kit now set up and connected, you can begin to actuate the jaws.

Ensure you have air provided to the Air Vise and via a regulator and set the PSI to the desired clamping force rate.

The switch box contains two switches. The switch labeled "Control" will toggle between manual or automatic mode. In the manual setting, you will have control of the vise through the second switch labeled "OPEN/CLOSE". In automatic setting, the vise will be operated through your robotic integration.

MECHANICAL

With your vise and kit now set up and connected, you can begin to actuate the jaws.

Ensure you have air provided to the Air Vise via a regulator from the source and set the PSI to the desired clamping force rate.

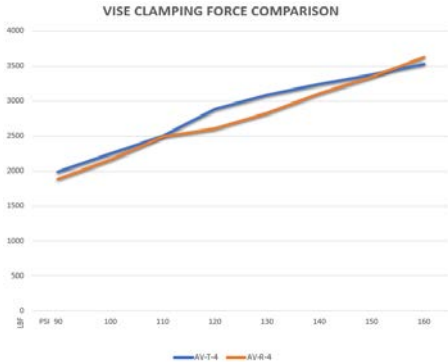
Utilizing the included Push-Pull valve, depress the button and the jaws will close, pull up on the button to open the jaws.

Should you need to change your jaws to run a different workpiece, place the valve and vise to

the open position and slide your jaws to the rear to remove them. Install your new jaws in the reverse manner and you're ready to go.

CLAMPING FORCE

The below charts show the clamping force at different air pressures. *These forces are subject to change with various influences from utilized air supply.



WARRANTY

Air Vise and Workholding will guarantee Air Vise & Workholding manufactured products to be free from material defects and workmanship flaws spanning one year from the original invoice date.

Within that period Air Vise & Workholding will repair or replace defective parts with new parts at no cost to you.

Kit components and other products not manufactured by Air Vise & Workholding will be warranted for a period of 30-days after purchase by Air Vise & Workholding. Following the 30-day period, the manufacturer's warranty (if any) will assume repair and replacement responsibility.

Air Vise & Workholding is not responsible for damaged or defective materials due to negligence, misuse, or incorrect installation of the vise.

PARTS LIST

AV-T-4 BASE	2001	1/4" TUBE X 1/8" NPT ELBOW FITTING	2108
AV-T-4 BODY	2004	1/4" TUBE X 1/4" NPT STRAIGHT FITTING	2124
AV-T-4 PISTON	2003	1/4" TUBE X 1/8" NPT STRAIGHT FITTING	2109
AV-T-4 JAW	2005	5/16 X 1/4 BALL NOSE SPRING PLUNGER	2110
JAW HOOK	2002	5/2 24V DC SOLENOID	2200
AV-R-4 BASE	2010	24V DC POWER SUPPLY	2203
AV-R-4 BODY	2011	PUSH-PULL AIR VALVE	2201
AV-R-4 PISTON	2012	VALVE MUFFLER 1/8 NPT	2121
AV-R-4 JAW	2013	REGULATOR ASSEMBLY	2202
9/16 TSLLOT NUT	2100	POLYETHYLENE TUBING	2015
9/16 VISE KEY	2101	1/8-27 NPT PLUG	2123
5/8 VISE KEY	2102	1/4" X 1 1/2" STEEL PIN	2111
1/4-20 X 1.25" SOCKET HEAD CAP SCREW	2103	5/16-18 X .500" SOCKET HEAD CAP SCREW	2122
3/8-24 X 1.00" SOCKET HEAD CAP SCREW	2104	10-32 X 3/16" SOCKET HEAD SET SCREW	2104
3/8-24 X 1.25" SOCKET HEAD CAP SCREW	2105	O-RING KIT	2118
3/8-16 X 3.00" SOCKET HEAD CAP SCREW	2106		
1/4-20 X .500" SOCKET HEAD CAP SCREW	2117		

EXPLODED VIEW

