

VALVING-DEVALVING MACHINE

MODELS 520-001, 520-002, 520-009

INSTRUCTIONAL MANUAL

Designed for inserting and removing compressed gas cylinder valves from industrial gas cylinders. Features a smooth hydraulic operation with torque control setting and adjustable valve wrench.

Please read this entire manual prior to operation



Model No.	Motor Size (HP)	Electrical Specifications (*)
520-001	2	115V-1Phase-60Hz
520-002	2	230/460V-3Phase-60Hz
520-009	5	230/460V-3Phase-60Hz

(*) 50Hz electrical is offered for those countries that require

Important: Before beginning setup:

- Make sure that your floor can safely handle a minimum weight of 2000 Lbs (valving machine weighs 1300Lbs)
- A ceiling height of 12' (144") is required
- Proper electrical is in place
- 60 psi @ 6CFM is available
- 20 Gallons of hydraulic fluid is available

Set Up of Equipment

- Check for any visible damage that may of occurred during shipping. If there is any visible damage, please contact the delivery company to file a damage claim - be sure to keep all packaging material for inspection.
- Unpack valving machine from wooden shipping pallet
- Using a forklift or crane - carefully maneuver the machine to it's upright position
- When the machine is in the proper location, secure the base plate to the floor at the supplied 4 holes in the base plate.
- Fill the hydraulic reservoir with hydraulic fluid until the sight gauge shows 1/2 full. The hydraulic fluid should be a viscosity of 238 SUS or 46 ISO grade.
- At the back of the machine is a black hose marked "Air Supply". Hook up your pre-regulated 60 psi of air to this hose.
- The electrical cord is provided with a male plug, due to the many different styles of plugs available you may need to change to fit your electrical outlet. The electrical can be hard wired if desired.

Your Model: _____

Serial No. _____



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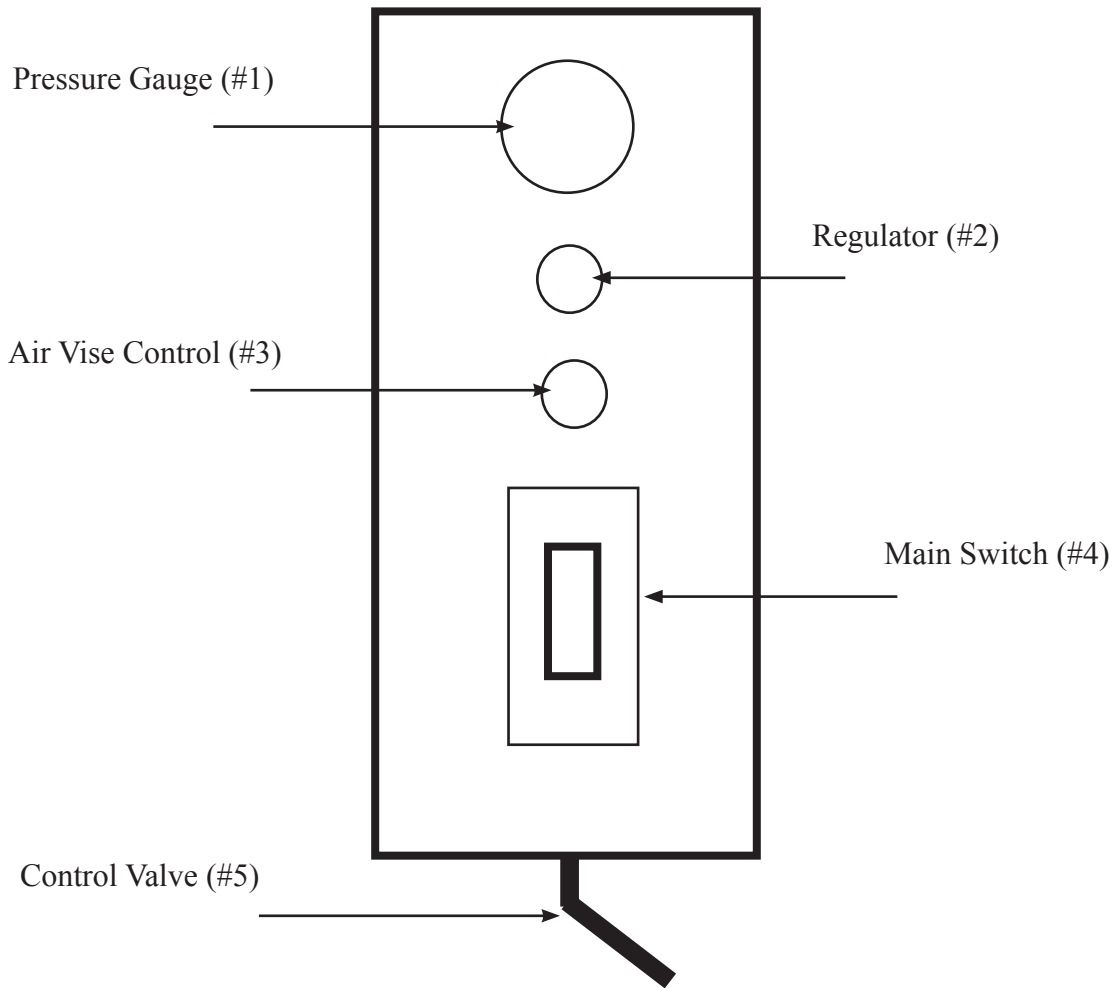
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Basic Operation

Inside Control Box



- (1) **Pressure Gauge** - Monitors the adjusted pressure applied to the valve being tightened.
- (2) **Regulator** - This is to adjust the force applied to the valve being tightened only.
- (3) **Air Vise Control** - to open and close the vise move this valve from the center position to close and back to center position to open.
- (4) **Main Switch** - To start and stop the electric motor, which powers the hydraulic power unit.
- (5) **Control Valve** - Lifting 'up' or pushing 'down' on this handle will control the direction the Wrench turns.



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Basic Operation

STEP# 1 Open the belt assembly from in front of the vise

STEP# 2 Place a cylinder that you wish to work on in the vise. Make sure that the cylinder neck is above the top of the vise(you may have to use the shelf, supplied, to do this). Also, make sure that the cylinder is placed firmly against the back of the vise.

STEP# 3 Close the vise and secure the locking pins, supplied, which hold the belt in place.

STEP# 4 Move the #3 valve to close the vise.

WARNING: Make sure that all foreign objects and body parts (fingers) are clear of the area between the cylinder and vise belt

STEP# 5 Pull the wrench down and lock it onto the cylinder valve with the tap of a hammer. **NOTE** make sure that the wrench is not up against the back side of the valve. It may make it easier to align the wrench to the flats of the valve if you start the power unit and push up or down on the control valve.

STEP# 6 Start the power unit, switch#4

STEP# 7 Move the control valve handle either up or down depending on whether you're installing or removing the valve. If you're removing the valve the pressure gauge on the control panel will not work. This is due to the fact that the hydraulic fluid bypasses the adjustable regulator. If your installing a valve then we suggest that you first install the valve by hand until it is tight. Back off the adjustable regulator all the way. Move the control valve handle into the correct position to tighten the valve. Turn the regulator adjusting knob clockwise until the valve just starts to turn. (*note the pressure gauge reading*) now that you've adjusted the inward force applied to the valve you can continue with all similar valves and they will all be installed with approximately the same force. Repeat this procedure for other type valves.

Note About Torque Setting:

There is no set correlation between psi and torque on the valving machine. The pressure gauge is simply an indicator that can be used to determine how tightly a valve is inserted. (ie; you cannot reliably determine what psi value equals to torque value without first "calibrating" your machine with a known torque value.) It is recommended that when you first use this machine, use a know torque value on a valve and cylinder assembly. Assemble valving machine wrench to valve. Start the machine and slowly adjust the regulator and observe when the wrench starts to move the valve. At that point the pressure reading equals the known torque value and that psi value can now be used as a baseline for other torque values.

Anyone that inserts valves into compressed gas cylinders, should have the CGA Pamphlet P-38 for further discussion and information on torque values.



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