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Form No. 102963

Operating Instructions
for:

110050
110051
110052

MANUAL PALLET VALVE

#110050 - Manifold Mount Outlet Port

#110051 - 7/16-20 UNF SAE-4 Outlet Port

#110052 - 1/4 NPT Outlet Port

Max. Capacity: 5,000 PSI

Read and carefully follow the operating instructions before installation and use of this valve. Most problems with new equipment are caused by improper operation or installation.

Note:

- Inspect the valve upon arrival. The carrier, not the manufacturer, is responsible for any damage resulting from shipment.

SAFETY PRECAUTIONS



WARNING: To help prevent personal injury,

- Before operating the pump, all hose connections must be tightened with the proper tools. Do not overtighten. Connections should only be tightened securely and leak-free. Overtightening the connections can cause premature thread failure or high pressure fittings to split at pressures lower than their rated capacities, possibly resulting in personal injury.
- Should a hydraulic hose ever rupture, burst, or need to be disconnected, immediately shift the control valve twice to release all pressure. Never attempt to grasp a leaking pressurized hose with your hands. The force of the escaping hydraulic fluid could cause serious injury.
- Do not subject the hose to potential hazard such as fire, sharp surfaces, heavy impact, or extreme heat or cold. Do not allow the hose to kink, twist, curl or bend so tightly that the oil flow within the hose is blocked or reduced. Periodically inspect the hose for wear, because any of these conditions can damage the hose and result in personal injury.
- Do not use the hose to move attached equipment. Stress can damage the hose and cause personal injury.
- Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses also must not come in contact with corrosive material such as creosote-impregnated objects and some paints. Consult the manufacturer before painting the hose(s). Never paint the couplers! Hose deterioration due to corrosive materials can result in personal injury.
- Do not exceed maximum pressure rating.

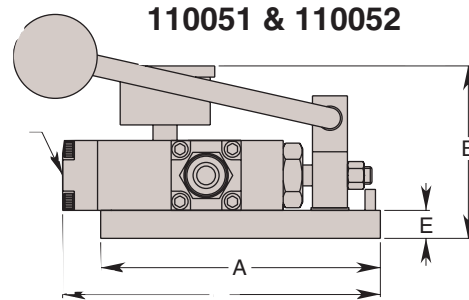
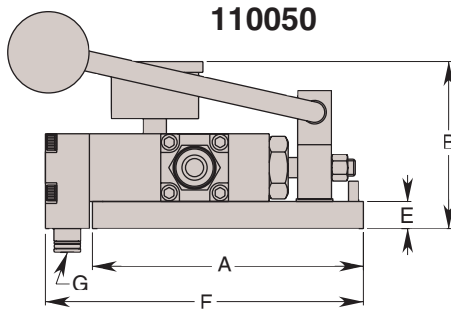
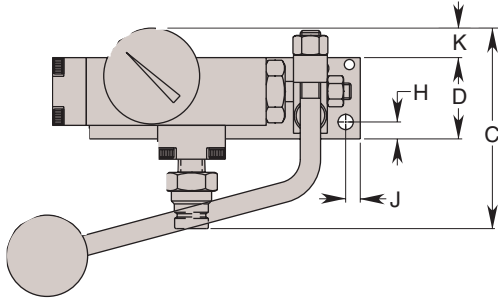
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MOUNTING THE PALLET VALVE

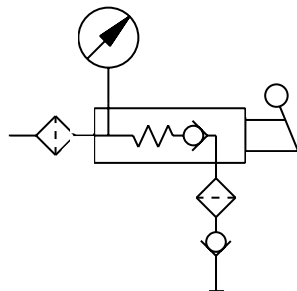
There are two holes for 1/4" diameter bolts. See Figure 1 for dimensions. This valve can be mounted easily in any position, horizontal or vertical.

110050, 110051, & 110052



Cat. No.	Dimensions (In Inches)																
	A	B	C	D	E	F	G Outlet Port	H	J	K	L	M	N	P	R	S	T Dia.
110050						5.868	Manifold Mount						5.191	.564		.485 .505	.500 .503
110051	5.000	3.083	3.700	1.500	.500		⁷ / ₁₆ -20 UNF	.312	.270	.545	2.595	.960			¹ / ₄ -20 UNC		
110052						5.680	¹ / ₄ NPT										

Figure 1



Hydraulic Schematic

CLAMPING AND UNCLAMPING PROCEDURE

- Clamping:
1. Connect hydraulic hose from power source to pallet valve using push-to-connect coupling.
 2. Load work pieces.
 3. Cycle the pump as described in the operating instructions for the pump.
 4. When valve gauge reads clamping pressure and pump pressure has been released, disconnect hydraulic hose.
- Unclamping
1. Connect hydraulic hose with push-to-connect coupling.
 2. Pull handle on valve to open or release oil in fixture.
 3. Remove work pieces.

SERVICE INTERVAL

These valves are assembled with filters on both the inlet and the outlet designed to protect the valve from contaminants so small that they are not visible to the human eye. Do not assume the filters are clean and unrestricted or no contaminants are visible. The filter elements and filter disc should be replaced every 50,000 pressure cycles regardless of visual filter condition.

More frequent replacement may be necessary depending of the overall cleanliness of your system. Remember, contaminant too small to be seen can be collecting in the filters and degrade system performance. The filters should be replaced before system performance changes are evident.

VISUAL INSPECTION OF THE FILTERS

Visual inspection of the filter elements (with intention of not replacing them) can be accomplished by following steps #1 and #2 of the section "Replacement of Filters" below. At this point, the filters can be examined **without** removing them from the check valve block. **IMPORTANT: Attempting to remove these delicate filters will damage them causing replacement a necessity!** Keep in mind that these filters are designed to remove contaminant so small that they are not visible to the human eye. Plan to replace the filters at the service intervals recommended in the following section. **IMPORTANT: Never attempt to clean the filters while still assembled in the valve body or after disassembly!**

REPLACEMENT OF FILTERS

(Refer to Parts List #101943)

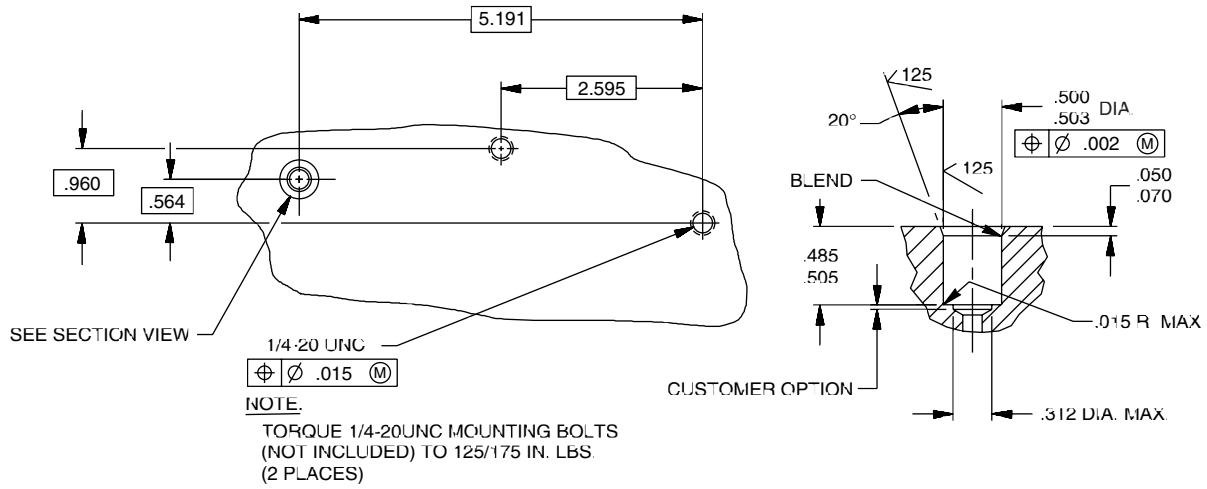
IMPORTANT: Extreme care must be used when disassembling valve to NOT contaminate the body and valve cartridge!

1. Remove all plumbing as necessary, and remove the screws from the filter mounting block.
2. Separate the check filter blocks from the valve body. Use care not to lose the support discs that may tend to stay in the filter block. Retain those support discs for reassembly.
3. Remove and discard the o-rings and filter elements (an o-ring pick may be needed). Also remove but retain the support discs found after the removal of the filter elements.
4. Clean the support discs with a filtered solvent or clean water. **IMPORTANT: Do not attempt to clean the filter elements or the filter disc! Always replace them with new filters.**
5. Reassemble the valve with new o-rings, filter elements, retaining ring, and filter disc. The support discs must be installed with the screen side facing the filter element. Orientation of the new filter elements and filter disc is not critical.
6. Reassemble the filter blocks to the valve.

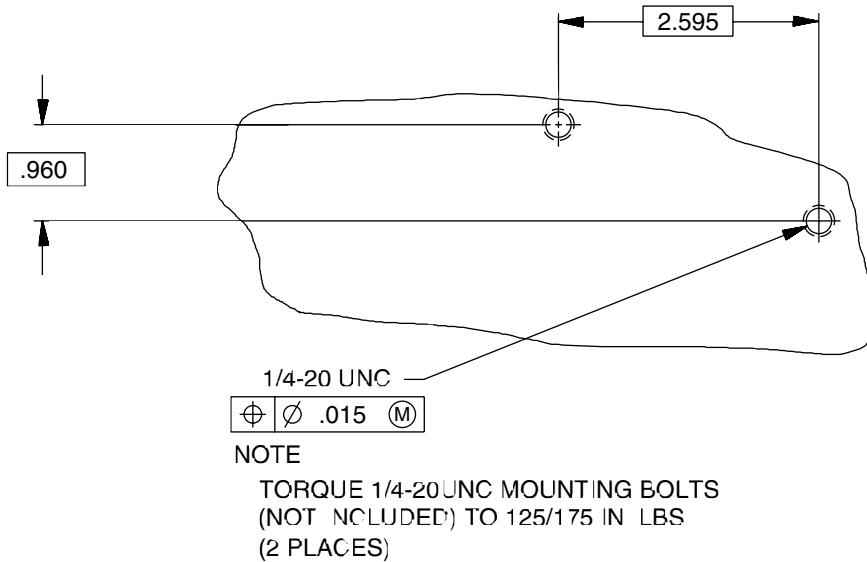
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INSTALLATION DIAGRAM FOR 110050



INSTALLATION DIAGRAM FOR 110051 AND 110052



USE OF AN ACCUMULATOR (not included)

For proper operation of this system, the pallet valve should be used with an accumulator. Power Team suggests using a Hytec accumulator which maintains pressure as the temperature changes or minor leaks occur. See Figure 2 for a typical application using the standard pallet valve and accumulator. See Figure 3 for a typical application using the manifold mount pallet valve and accumulator.

