

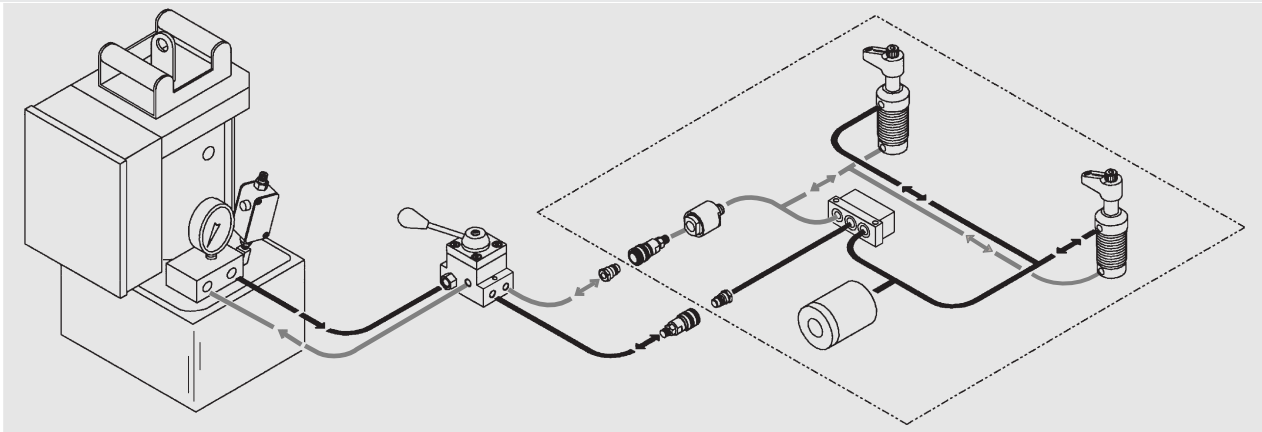
PILOT OPERATED CHECK VALVE

Max. Capacity: 3,000 PSI (for 100856); 5,000 PSI (for 100858 & 100915)
Ratio 3:1

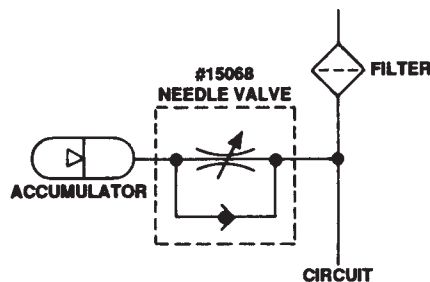
This valve is primarily used in double-acting manual pallet valve applications. The replaceable filter elements protect the check valve and your other system components from contamination. No disassembly of circuit plumbing is required to service the filters or the check valve cartridge. An additional Hytec filter #100857 is recommended for protection of the return side of double-acting clamping circuits.

INSTALLATION

In the diagram below, a pair of double-acting swing clamps are operated by a double-acting pallet valve system. Pallet coupling systems allow the hydraulic power source to be completely disconnected from the fixture while maintaining full clamping pressure. Pallet mounted components shown here include a pilot operated check valve, filter (for double-acting systems only), accumulator, clamps and hydraulic couplers. The check valve closes to maintain pressure on the swing clamps while the accumulator compensates for temperature changes and minor leakage.



Note: Severe pressure/flow surges can cause the filter elements to fatigue and release contaminant downstream. Rapid discharging of accumulators can cause these pressure/flow surges. Some accumulators contain restrictors which can reduce the surges. In unrestricted accumulators, install a "meter-out" needle valve (Hytec #15068) on the accumulator's outlet and adjust the flow so it takes about 1/2 second to fully release. Contact Hytec for additional suggestions and products to optimize your circuit.



Note: Shaded areas reflect last revision(s) made to this form.

**RECOMMENDED
VALVE FOR CIRCUITS CONTAINING ACCUMULATORS**

Sheet No. 1 of 2

Rev. 2 Date: 4 Dec. 1998

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!**

SERVICE INTERVAL

These valves are assembled with filters designed to remove contaminant 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.

REPLACEMENT OF FILTERS

(Refer to Parts List #101272 for valve model 100856 & 100915 or Parts List #101296 for valve model 100858)

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

1. Leave all valve plumbing intact, and remove the six screws from the valve mounting block.
2. Separate the check valve block from the mounting block. Use care not to loose the support discs that may tend to stay in the mounting block portion of the ports marked "IN" and "OUT". Retain those support discs for reassembly.
3. Remove and discard the o-rings and filter elements from ports "IN" and "OUT" (an o-ring pick may be needed). Also remove but retain the support discs found after the removal of the filter elements.
4. Remove and discard the o-ring, retaining ring, and filter disc from the "PILOT" port.
5. 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.**
6. 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.
7. Reassemble the check valve block to the mounting block with the six screws.

MANIFOLD MOUNTING

The mounting block portion of the pilot-operated check valve assembly may be removed to allow manifold mounting. The valve block, valve and filter assembly may now be mounted on a flat surface of at least 3.405" by 1.510" with appropriate ports (see Figure 1 and clearance for the check valve (see Figure 2).

1. Remove the mounting block from the check valve block.
2. Carefully remove the two perforated support disks from the mounting block.
3. Install the two perforated support disks into the counterbores machined into the inlet and outlet ports of your mating hole pattern.
4. Install the check valve block using the cap screws removed in step 1, being careful not to dislodge the filter disks or o-ring seals. Torque the screws to 30/35 ft. lbs.

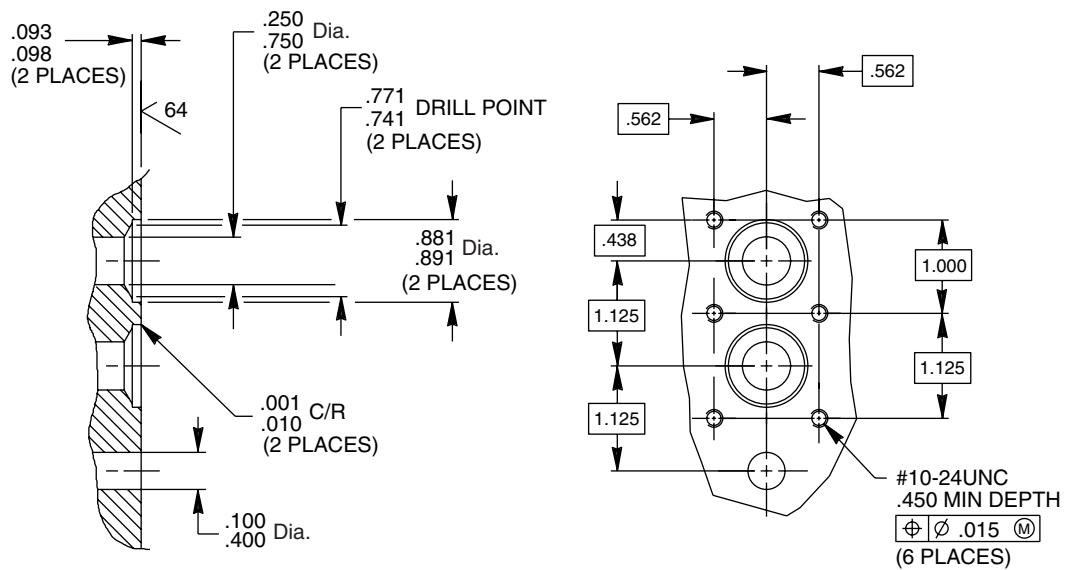


FIGURE 1 - MATING HOLE PATTERN

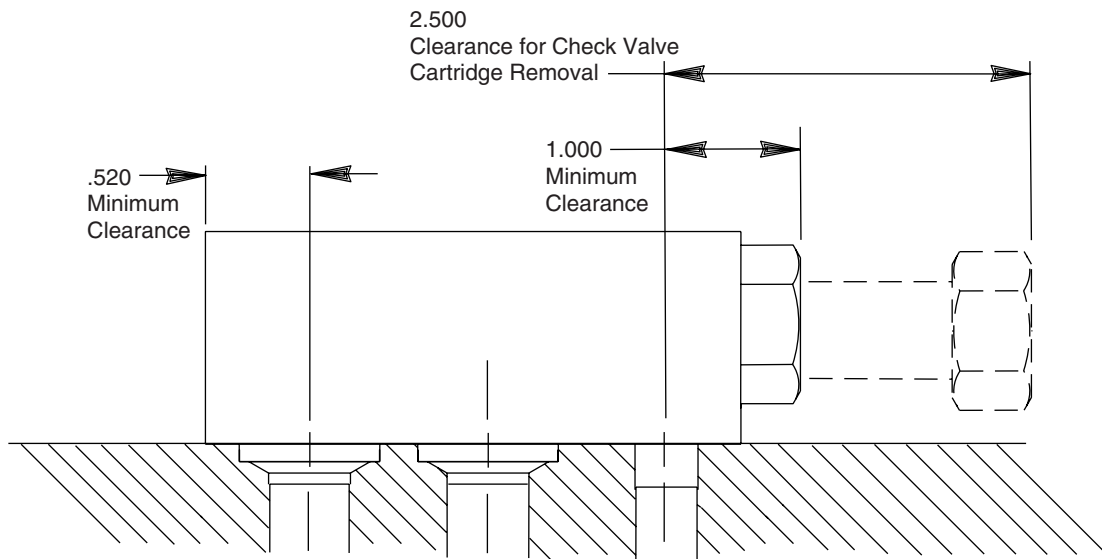


FIGURE 2 - CLEARANCE FOR CHECK VALVE