Installation and Operation of MC-1 and GC-1 Series Pumps

All MC-1 and GC-1 Series pumps are designed to operate in one direction: with the pump shaft pointing toward the observer, the MC-1 pump operates in a counterclockwise direction, and the GC-1 operates in a clockwise direction.

All MC-1 and GC-1 Series pumps are equipped with a built-in by-pass valve. Unlike the valves in other Smith models, these particular ones only relieve internally. The GC-1 internal bypass valve is of a permanently set design, and normally opens at 100 PSID. The MC-1 standard internal valve is adjustable, up to 125 PSID. The valve adjustment screw is protected by a cap on the gear end cover.

Both styles can be modified for differential pressures as high as 150 PSID. The pumps must be provided with an external bypass valve which discharges back to the vapor space connection on the supply tank. Proper pump bypass is important and should not be ignored. Our recommendations should be followed as closely as possible. Never operate these pumps without an external bypass valve.

Separate Y-type in-line strainers are required for both models. A 40-Mesh reinforced screen element is recommended in most cases. In continuous service an 80-Mesh screen may be required (see sheet "AL-40" for additional information).

Periodic inspection of the Y-strainer is required, and thorough cleaning may be necessary. This is important! Be sure to carefully follow all manufacturers' instructions in a safe manner.

Periodic inspection of all pump working parts should be an automatic feature of any maintenance program. If significant wear is found with any working part such as the gear set, bushings, idler gear shafts, bypass valve parts, or mechanical shaft seal assembly, these parts should be immediately replaced. If in doubt, contact the factory for advice.

MC-1 and GC-1 Series pumps are designed to discharge rated capacities at 3600 RPM motor speed. Slower drive speeds will proportionately decrease rated outputs. See appropriate catalog, and sheet "AL-100" for listing of rated capacities and drive speeds.

Inlet and outlet pipe should be 3/4-inch for both model types. Smaller than recommended pipe size will cause premature wear of most working parts.

If product leakage is detected, the pump should immediately be taken out of service and repaired or replaced.

DO NOT OPERATE ANY PUMP WITH A LEAKING SEAL!

SMITH PUMPS

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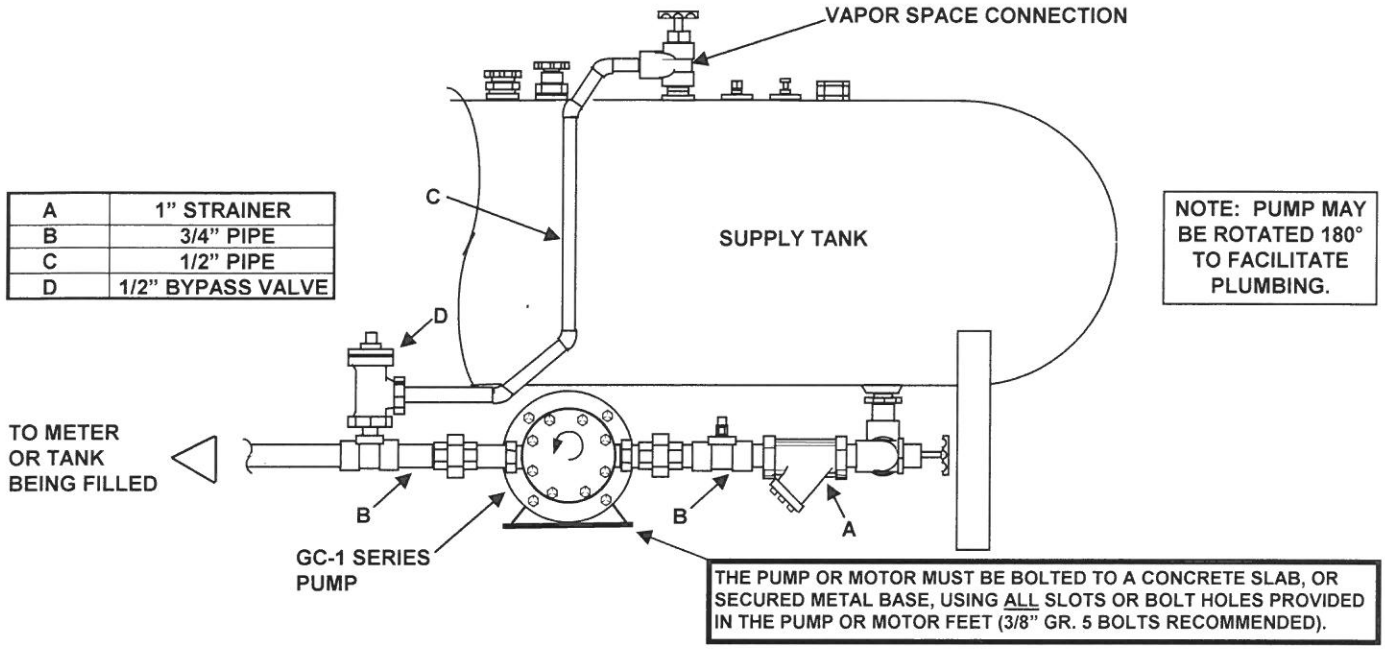
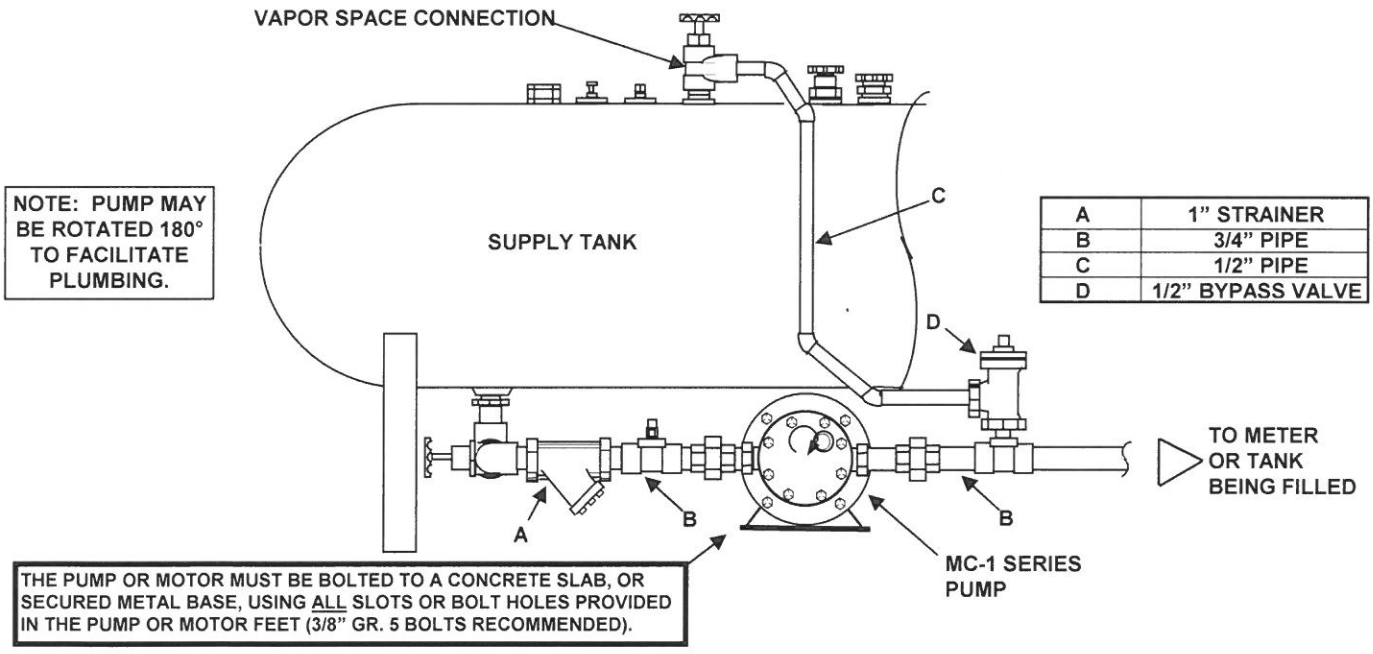
Installation and Operation of GC-1 and MC-1 Series Pumps

GENERAL GC-1 INSTALLATION USING EXTERNAL BYPASS VALVE AND STRAINER



GENERAL MC-1 INSTALLATION USING EXTERNAL BYPASS VALVE AND STRAINER



These diagrams are intended to show general piping and installation configurations only. For more specific information consult with the other equipment manufacturers, follow all applicable safety codes and regulations, and read other literature available from Smith Precision including but not limited to the following: "AL-17A", "AL-3", and "AL-1". Contact the factory for dimension drawings or assembly views (specify model). Consult "NFPA-58".

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