



PRE-FABRICATED STEEL PUMP STATION / LIFT STATION SPECIFICATIONS

Pollution Control Systems, Inc. (PCS) is pleased to provide the following equipment specifications for your consideration.

One (1) prefabricated carbon steel packaged pump station and related equipment constructed in accordance with the plans and specifications stated herein. The pump station will be Model _____.

A. General Specifications

Pump Station Diameter:	_____ ft.
Pump Station Height:	_____ ft.
Valve Box Size (if included):	_____ ft. x _____ ft.
Overall Length/Width/Height:	_____ ft. x _____ ft. x _____ ft.
Shipping Weight: (approximate)	_____ #

B. Materials of Construction

The pump station will be fabricated of 1/4" structural grade ASTM designation A-36 steel plates joined by arc welding with fillets of adequate section for the joint involved. All walls will be continuous and watertight and will be supported by structural reinforcing members where required. Connections will conform to the requirements of the American Welding Society's Code and will develop the full strength of the member.

All piping included inside the station will be Schedule 40 steel pipe except as may be noted on other sections of the specifications or called for on the plans.

C. Surface Preparation and Coating

All vessel surfaces to be painted will be properly prepared in a workmanlike manner to obtain a smooth, clean and dry surface. All rust, dust, and mill scale, as well as other extraneous matter, will be removed from the interior surfaces by means of near white sandblast SSPC-SP10. All external surfaces will be commercial sandblasted to SSPC-SP6. All interior and exterior vessel surfaces will be painted with 8-10 mils total dry film thickness (TDFT) of a coal tar epoxy type coating.

D. Basin Cover

A steel cover shall be provided for each installation. Each cover will have a hinged access opening properly sized for pump installation and removal. The access opening shall have a minimum of two hinges and a lock hasp. The cover shall be constructed of non-skid, tread-plate steel with a minimum thickness of 1/4" and shall be coated with bake-on epoxy paint. A vent pipe will also be provided with the cover.

E. Pumps – Lift Station Can be Supplied with Pump Options as Shown

Submersible Pumps (Option #1)

A duplex set of submersible pumps will be provided. Each pump will be of the solids handling type capable of passing 2" solids. The pumps will have a capacity of _____ gpm @ _____ feet TDH. The pump motors will be _____ hp, rated for _____ volts, _____ phase, and _____ cycle. The pumps will be supplied with lift out chains

Grinder Pumps (Option #2)

A duplex set of submersible grinder pumps will be provided. The pumps will be designed to reduce sewage to a finely ground slurry. The pump will have a capacity of _____ gpm @ _____ feet TDH. The pump motors will be _____ hp, rated for _____ volts, _____ phase, and _____ cycle. Pumps will be supplied with lift out chains.

F. Lift Out Rail System

A guide rail system will be provided for each pump. The system will consist of a cast base unit, a pump adapter assembly, upper guide rail bracket and galvanized guide rails. On deeper units, an intermediate support is necessary to stabilize the rail system.

G. Lifting Hoist (Optional)

A lifting hoist will be supplied to ease pump removal from the basin. The hoist will be a Model _____ manufactured by _____ or approved equal. The hoist assembly will include an embedded socket for hoist placement in the top of the concrete cover.

H. Piping

The station discharge piping will be schedule 40 steel and will terminate with a 125 # flanged tee. Each pump discharge line will have a check valve and a gate valve. The common discharge pipe will exit the station through a grout ring that is packed with grout. The common discharge pipe and grout will be supplied and installed by the contractor.

I. Central Control Panel

A central control system installed within a weatherproof enclosure will be provided. The fiberglass enclosure will be NEMA 4X rated and mounted on top of the station lid. The panel will contain a magnetic starter or contactor and an H-O-A selector switch for each pump. It will alternate the pumps on successive cycles and turn on the second pump if the first pump fails or if the inflow exceeds the capacity of one pump. Properly sized circuit breakers or fuses will protect all pumps and controls. All pump and level control wiring will pass through the top of the wet well and into the bottom of the control panel.

J. Junction Box

When the control panel is remotely located from the station, a weatherproof junction box will be provided near the top of the station to accept the equipment control cables. A conduit connection will be provided for connection to the top of the lift station for connection to the panel. If the panel is located off the top of the lift station, a conduit coupling will be provided in the side near the top of the lift station.

K. Level Controls

Three (3) float switches will be suspended from a bracket mounted inside the station. These float switches will be suspended at proper depths to control the "OFF", "ON", and "Both Pumps ON" levels.

(Optional) A fourth float switch for "Emergency High Water Alarm" can be provided. A red flashing warning light will be mounted in the control panel to indicate a high water condition.

L. Exterior Valve Box (Optional)

An exterior valve box will be provided containing a gate valve and a 125 # check valve for each pump. These valves and fittings will be factory installed in the valve box and mate to the pump discharge pipes that will extend through the station wall. This valve box may be either welded to the station in the factory or bolted to the station in the field by the contractor. Finally, the contractor will grout around the discharge pipes using a good expanding grout. The valve box will include a hinged cover with provisions for padlocking.

M. Cathodic Protection

For cathodic protection, __, __ pound magnesium anode packages will be supplied for burying, adjacent to the sides of the station and securely connected thereto by heavy copper wire in good electrical contact with the connector lugs on the steel vessel.

N. Guarantee

PCS will guarantee for one (1) year from the scheduled ship date that the vessel and all component equipment will be free from defective materials and workmanship. PCS will furnish replacement parts for any component considered in the opinion of PCS to be defective, whether of his or other manufacturer during the guarantee period.