Typical Specification Corix Pressure Filters

TANKS

The tank(s) shall be welded steel construction with support legs, conforming to ASME Code. Designed for 100 psi working pressure and tested to 150 psi.

There shall be adequate side height to allow 50% bed expansion during backwash. It shall have provision for media loading through an 11” x 15” manhole in the top head.

The tank shall have threaded or flanged inlet and outlet connections and a 1” threaded connection for an Air Release Valve located at the top of the tank.

There shall be a 2” media cleanout port and one or two 4” x 6” handholes located near the bottom of the side sheet.

The upper influent supply shall have a baffle plate or be directed to evenly distribute the flow over the media bed.

The lower collector shall be a reinforced steel distributor plate welded around complete circumference with horizontally discharging Stainless Steel nozzles spaced on 8” centers.

The interior of the tank shall be lined with coal tar or zinc epoxy suitable for potable water. The exterior of the tank shall be primed and painted with epoxy enamel.

MEDIA

Model AG - Dual media for turbidity and suspended matter removal.

Model AC - Activated carbon for taste and odor removal, de-chlorination and organic removal.

Model MG - Manganese greensand for iron, hydrogen sulphide and manganese removal.

Resins and brine systems are supplied for water softening.

CONTROL

Filters are supplied with a manual or automatic control systems:

Automatic Control System

Includes: Control Panel, Five Butterfly Valves with Electric/Pneumatic control for service, backwash and rapid rinse. The backwash valve is equipped with an adjustable flow limiting control.

Manual Control System

Includes: Five Manual Valves arranged to allow the operator to backwash, fast rinse and provide service from the unit.

Corix Pressure Filters

In the filtration process, large particulate matter is captured by coarser, lighter media near the top of the filter bed. Smaller particles continue down to the successive lower media levels, where the spaces between these finer media capture the particles down to 10 microns.

This multi-media filter allows a pressure drop build up across each media section, thereby utilizing the full bed depth for filtration of all particle sizes.

The Corix filter operation is fully automatic and requires no separate source of backwash water. The filter will backwash when a preset (usually 10 – 12 psi) differential pressure drop is sensed across the filter inlet to outlet. Backwash may also be initiated by setting the built-in time clock. On a duplex or triplex system, an interlock allows continued filter operation beyond the backwash initiation signal, if another filter is in backwash. When a backwashing filter comes into service, the dirty filter will automatically backwash. Incidentally, the same interlock feature is supplied on softeners for regeneration sequencing.

Upon backwash, raw, unfiltered water is directed upward through the filter at approximately 15 USGPM/FT² for 10 minutes, expanding the media. This also scourrs and separates the dirt particles which exist in the backwash water to drain. The backwash is automatically maintained at a fixed factory set flow rate, regardless of influent water pressures which may range from 20 to 100 PSIG. The filter media is contained in the tank by having a properly engineered freeboard height.