In both the standard horizontal and vertical configurations, the inlet pipe is located between the filter element tubesheet and housing lid. The larger the vessel diameter, the longer the distance to reach in and remove the elements from the vessel. In a centerpipe vessel the housing lid is closer to the filter tubesheet. When the lid is opened the filters are easily accessible for installation and removal. Centerpipe vessels are larger in diameter, and more costly.

- Designed to the ASME, section VIII, division 1 code
- Maximum differential pressure across tubesheet: 75 psid (5.17 bar) maximum
- Standard housing gasket: spiral wound 304 stainless steel mineral fiber
- Carbon steel exterior surfaces: sandblasted and coated with an inorganic zinc
- Vent and drains: 1 inch FNPT
- Corrosion allowance: 1/8 inch

Housing Ratings

Vessel Material	Tubesheet and Hold Down Plate Material of Construction	Pressure Rating in Psig/Bar g at 140°F / 60°C
Carbon steel	304 stainless steel	275 psig (18.95 bar)
304 stainless steel	304 stainless steel	259 psig (17.85 bar)
304L stainless steel	304L stainless steel	216 psig (14.89 bar)
316 stainless steel	316 stainless steel	261 psig (17.99 bar)
316L stainless steel	316L stainless steel	216 psig (14.89 bar)

Filter Installation and Filter Seal Mechanism

To install a filter element, remove the element hold down plate by lifting it off the locating pins. Lubricate the O-ring on the open-end of the filter with a compatible fluid, and slide the closed end of the filter into the perforated cage, which is welded to the tubesheet. Seat the elements in place by pressing down on the open-end of the filter until the element is snug in the tubesheet. This provides a seal between the filter and housing via the filter O-ring. The open-end cap must be below the tubesheet surface. After installing all the filter cartridges, reinstall and secure the element hold down plate by guiding it over the locating pins on the tubesheet. The purpose of the hold down plate is to prevent the elements from becoming dislodged in the event of reverse flow.

A filter element tool is provided with each housing to aid with the installation and removal of the filter cartridges. This tool eliminates the need for an operator to reach within the filter vessel to either remove or install filters.

Figure 1: Ultipleat High Flow Horizontal Housings (Aqueous Housing Pressure Drop - PSID)