

What is Filter Housing?

This is a case that will go around filter cartridges, filter baskets, or filter bags. They come in varying configurations and designs.

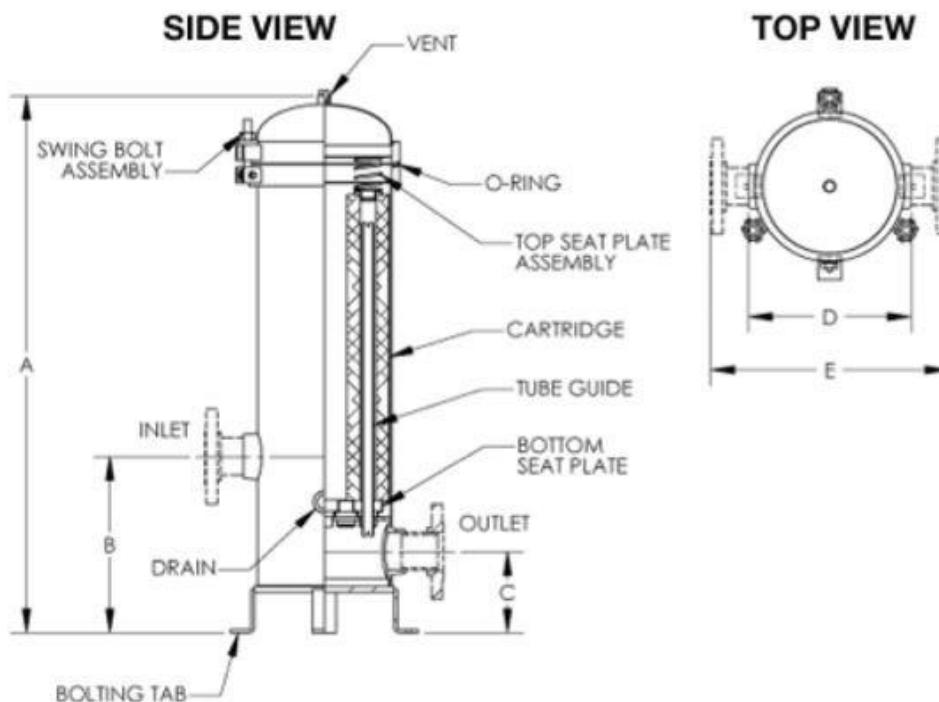
What Factors Determine Design of Filter Housing?

The design will depend on:

- Operating temperature
- Flow rate
- Filtration rating
- Price
- Service time
- Total suspended solids [TSS]
- Operating pressure
- Type of operation



What Are the Components of Filter Housing?



Liquid Cartridge Filter Housing – Flow Configurations

Liquid Cartridge Filter housings come in a choice of flow patterns. In many situations, a certain flow configuration will be required in order to accommodate process piping. There is a bit more to housing configurations than the location of process equipment and consequent placement of piping, however. There is also a relationship between structure and function.

The purpose of filtration and type of process will often place constraints on the housing configuration. For example, a sanitary water system would probably not have a “staggered T” filter housing because this flow configuration would tend to have a stagnation zone at the bottom of the housing. Instead, an “inline T” or “L flow” pattern (in the side, out the bottom) would commonly be used so that the outlet can be placed at the lowest part of the filter vessel.

There is a relationship between pressure drop, price and flow pattern as well. For example, a well-designed “inline T” flow pattern housing could have a significantly lower pressure drop than a staggered T flow housing, but could cost more. An inline filter housing (in the top, out the bottom, for example) would often have a lower pressure drop compared to one of the other flow patterns, and can sometimes be more economical to manufacture, however, this type of housing can make filter change- out more difficult.

