

# 1U Series

## CARTRIDGE FILTER HOUSINGS

High Pressure 316 Stainless Steel Filters for Liquid and Gas Applications

### INTRODUCTION

The 1U series (formerly Nowata) cartridge filter housings are available in 1, 2, 3 or 4 cartridge length models. All models have a 2000 psi working pressure. These filters are ideal for many high pressure, low volume applications. The 1U series is best suited for filter applications requiring low cost, durable, easily operated, corrosion resistant filters.

These filters are specifically used by the petroleum production industry in secondary recovery water flood applications requiring the corrosion resistance of 316 stainless steel. A filter is normally placed at each individual input well, just ahead of the flow meter.

The cast 316 stainless steel head mounts directly in the flow line. The filter may be mounted in any position. The fluid or gas enters one side of the head and is channeled to the area around the filter cartridge. The fluid or gas passes through the depth type cartridge into the center tube and out the side of the head. The direction of flow, from dirty inlet to clean outlet, is indicated by an arrow cast in the filter head. The body is connected to the head by a two bolt, grooved coupling and sealed with a double lip gasket.

Standard 1U series models are made of corrosion resistant 316 stainless steel bodies. For less corrosive filter applications, the 1UP series models have epoxy lined, carbon steel bodies. Each model is equipped with a 1/4" internal pipe thread drain in the bottom of the body.

### FEATURES

- Available in 1, 2, 3 or 4 cartridge length models
- 2000 psi working pressure
- Cast 316 stainless steel head
- 316 stainless steel or epoxy lined carbon steel body
- 316 stainless steel internals
- Grooved closure
- Buna gasket
- Gas or fluid filtration
- Water flow rates to 24 gpm
- 1" Internal pipe thread inlet/outlet connections
- 1/4" Internal pipe thread drain is standard
- Optional 1/4" internal pipe thread differential pressure ports



## STANDARD CONSTRUCTION 1U AND 1UP HOUSINGS

### 1U Series

The 316 stainless steel cast head has 1 inch, in-line, internal pipe thread inlet and outlet connections. The tubular body is made of 316 stainless steel. The head and body are connected by a two bolt, grooved coupling and a Buna gasket. The internal fittings, center tube and retainer are made of 316 stainless steel so that all surfaces in contact with the fluid or gas are stainless steel.

### 1UP Series

The 1UP Series has all of the same construction features as the 1U series except that the tubular body is epoxy lined, carbon steel. The less expensive 1UP series filter with an epoxy lined, carbon steel body should be used only when the corrosion rate of the carbon steel will not greatly shorten the life of the housing. 1UP models are normally used for salt water and mildly corrosive fluids.

## OPTIONAL CONSTRUCTION FEATURES

### Differential Pressure Connections

Two 1/4" internal pipe thread connections in the head are available on special order. They can be used for two gauges or a DP indicator to monitor cartridge performance.

### Gasket Material

Buna gasket is provided as standard. Viton and EPDM gaskets are also available by special order.

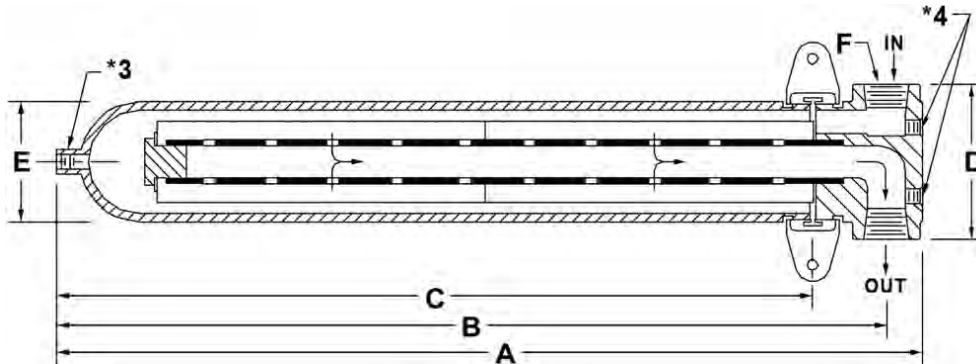
### Internal Materials

Standard internals are made of 316 stainless steel. Optional brass or plated carbon steel internals are available on special order.

### Non-Code Construction

The 1U series is not available with ASME Code Stamp due to the use of the grooved coupling closure system. See the 1UY series datasheet for ASME code construction.

## DIMENSIONAL INFORMATION



Model	No. of Cartridges	Weight (lbs)	A	B	C <sup>(1)</sup>	D	E <sup>(2)</sup>	Inlet/Outlet F
1U1N 1UP1N	1	19	16	15	11½	4¼	3½	1" FNPT
1U2N 1UP2N	2	27	26	25	21½	4¼	3½	1" FNPT
1U3N 1UP3N	3	35	36	35	31½	4¼	3½	1" FNPT
1U4N 1UP4N	4	43	46	45	41½	4¼	3½	1" FNPT

Dimensions in inches except where noted. Due to our continuing program of product improvement, specifications are for reference only and subject to change without notice. Dimensions are approximate values and not intended for piping specifications.

**NOTES:** (1) Additional clearance required to remove housing body  
 (2) Body Diameter  
 (\*3) 1/4 Inch FNPT Drain  
 (\*4) 1/4 Inch FNPT DP ports