

Cartridge Filter Housings Nowata 1SY / 1UY / 1HY Series

Carbon Steel, 316 Stainless Steel, or Hastelloy Construction
High Pressure Filters (1440 or 3000 PSI) for Liquid and Gas Applications

1. Introduction

The 1SY, 1UY and 1HY cartridge filter housings are available in 1, 2, 3 or 4 cartridge length models. These high pressure housings feature three materials of construction: The carbon steel 1SY model, the 316 stainless steel 1UY model, and the Hastelloy C276 1HY model. All models are available in either 1440 or 3000 psi. The 3000 psi model has lifting handles located on the body. These housings hold Double Open End (DOE) cartridge elements which are mounted on a rigid support post with a threaded end seal. The standard filter cartridge dimensions are 2-1/2" outside diameter by 1" inside diameter.

Single cartridge housing models (1C) hold either a 9-3/4" or a 10" cartridge element. The 9-3/4" or 10" length DOE cartridge elements can stack together on the support post of the (2C), (3C) and (4C) housing models. A single, 19-1/2" or 20" long cartridge can be utilized in the (2C) model. Likewise, a single 29-1/4" or 30" length cartridge can be installed in the (3C) model, or 3 single lengths can be used. The (4C) model holds 4 single lengths or one 40" long cartridge.

The filter head has inline, 1" FNPT, Inlet and Outlet connections. The tubular body is flange mounted to the head. The body of the filter is connected to the head by 4 bolts and sealed with an o-ring. Each model has a 1/4" FNPT, drain. The head mounts directly in the flow line. The filter may be mounted in any position. The fluid or gas passes through the cartridge media where particles of contaminant are removed and trapped. The clean fluid or gas then flows into the rigid cartridge support post and out of the housing.

Features:

- 1SY carbon steel, 1UY 316 stainless steel, or 1HY Hastelloy C276 construction
- Available in 1, 2, 3 or 4 cartridge length models
- 1440 or 3000 psi working pressure
- Multiple o-ring materials available (Buna is standard)
- For fluid filtration, gas filtration and gas/liquid coalescing
- 1" internal pipe thread inlet/outlet connections
- 1/4" internal pipe thread drain is standard
- Optional 1/4" internal pipe thread differential pressure ports
- Built to ASME code standards (optional U stamp available)



2. Standard Construction

1SY Carbon Steel Construction: The 1SY model head and body are made of carbon steel. The filter has, as standard, a brass internal cartridge support and retainer. Brass internals are used for water and mildly corrosive filter applications. For use in glycol filtration, order

the no cost option of plated carbon steel internals. 316 stainless steel internals are also available. The housing seal is a Buna o-ring. All cartridge models are available in either 1440 or 3000 psi working pressures.

1UY 316 Stainless Steel Construction: The 1UY model head and body are made of 316 stainless steel for use in corrosive applications. This filter unit has a 316 stainless steel internal cartridge sup-

port and retainer. The housing seal is a Buna o-ring. 316 stainless steel bolting is available on special order. All the models are available in either 1440 or 3000 psi working pressures.

1HY Hastelloy C276 Construction: The 1HY model head and body are made of Hastelloy C276 for use in highly corrosive applications. The filter has Hastelloy C276 internal cartridge support and retainer.

The housing seal is a Buna o-ring. Four heat treated carbon steel bolts attach the body to the head. All models are rated for either 1440 or 3000 psi working pressure.

3. Optional Construction Features

- 1" FNPT, internal pipe thread, 1" flanged or 1" socket weld connections.
- Viton, Ethylene Propylene and Fluorocarbon Encapsulated Viton seals.
- Vent or differential taps.
- Reverse flow gas coalescing version for lube oil separation.

Code Stamp: All housing models are designed in accordance with Section VIII, Division 1 of the pressure vessel code of the American Society of Mechanical Engineers. When required, each unit can be stamped with the ASME code U symbol denoting fabrication and testing performed by these specific procedures.

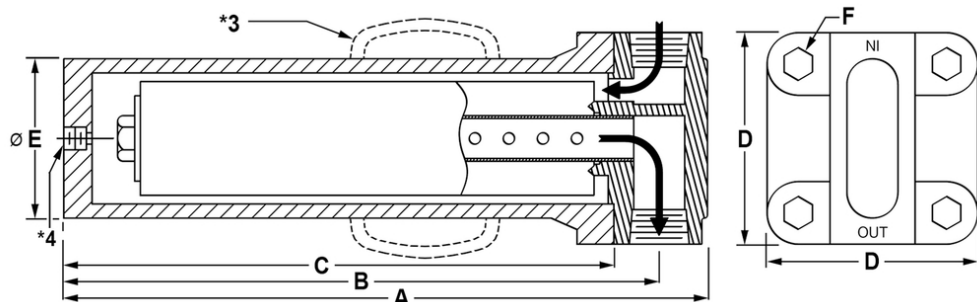
4. Dimensional Information

Models	Cartridge Length Models	Max Pressure (psi)	Shipping Weight (lbs)	A Overall Length	B Length to Piping	C (1) Body Length	D Head Size	E Ø Body Diameter	F (2) Bolt Size (4 each)
1SY1 / 1UY1 / 1HY1 1SY2 / 1UY2 / 1HY2 1SY3 / 1UY3 / 1HY3 1SY4 / 1UY4 / 1HY4	1C 2C 3C 4C	1440	27 36 45 54	14-1/2 24-1/2 34-1/2 44-1/2	13 23 33 43	12 22 32 42	4-5/8	3-1/2	5/8
1SY1 / 1UY1 / 1HY1 1SY2 / 1UY2 / 1HY2 1SY3 / 1UY3 / 1HY3 1SY4 / 1UY4 / 1HY4	1C 2C 3C 4C	3000	85 110 135 160	16 26 36 46	14-1/4 24-1/4 34-1/4 44-1/4	13 23 33 43	6-3/8	4-1/2	1

Dimensions shown in inches unless otherwise stated. Specifications are for reference only and subject to change without notice.

NOTES:

- (1) Additional clearance required to remove housing body.
- (2) Closure bolt diameter.
- (*3) Handles Provided on the 3000 psi model only.
- (*4) 1/4 inch FNPT drain.



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