

RVZ Series

SELF-CLEANING FILTERS
SCRAPER w/ INTERNAL BLADES



MAIN APPLICATIONS:

- FINE CHEMICAL
- PETROCHEMICAL
- OIL & GAS
- POWER GENERATION
- STEEL MILL
- FOOD & BEVERAGE
- PHARMACEUTICAL
- HEALTH & CARE
- WATER TREATMENT
- PAPER MILL
- GENERAL INDUSTRIES

CHARACTERISTICS:

- Body construction materials:
 - 304/L or 316/L stainless steel
 - Carbon steel
 - Internally lined or coated solutions
(other materials as option).
- Internals construction materials:
 - 304/L or 316/L stainless steel
 - Hastelloy
(other materials as option).
- Conform to the codes:
 - ASME Sect. VIII Div. 1
 - EN 13445
(other design code as option).
- Conform to 2014/68/EU PED Directive.
- Conform to 2014/34/EU ATEX Directive.
- Conform to 2006/42/EU Machineries Directive.
- Available with U-Stamp certification.
- Arrangement with single or double flanged body.
- In/out connections up to 6".
- Suitable for liquid Gr. 1 and 2 filtration.
- Suitable for high viscosity liquids filtration.
- Suitable for highly contaminated fluids (up to 1000 ppm).
- Suitable for maintenance free continuous service.
- Fully automatic operation.
- Minimum liquid loss during solids purging.
- Wedge-wire or microperforated plate filter elements.

ASCO FILTRI

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TECHNICAL DATA

CONSTRUCTION MATERIALS

BODY:

- 304/L-SS
 - 316/L-SS
 - Carbon steel
- (other materials available)*

INTERNALS:

- 304-SS
 - 316L-SS
 - Hastelloy
- (other materials available)*

SCRAPING BLADES:

- PTFE
 - 316L-SS
- (other materials available)*

GASKETS

- EPDM
- SILICONE
- VITON
- FEP

IN/OUT

- Up to 6"

FILTRATION RATING

- from 50 to 2000 µm

Operation principle:

The liquid to be treated passes through the filter element from the inside to the outside, the solids are retained on the internal surface of the same and are removed, continuously or intermittently by the PTFE or stainless steel scraper blades.

The cleaning system is installed internally to the filter element and it is rotated by the electric gear motor installed on the filter cover.

The scraper blades are available in different materials, a spring thrust system allows the blades to maintain constant contact with the filter element and thus maximize cleaning efficiency.

The separated solids are collected on the bottom of the filter by gravity, while for the high viscous fluids, when sedimentation is more difficult, the solids are pushed down by the oblique blades positioned on the shaft which act as a screw.

The settling area of the solids can be periodically purged manually or automatically through a special drain valve: the quantity of liquids discharged during purging is extremely limited.

Any maintenance of the filter is simple, fast and does not require the use of special tools: the shaft with the scraper blades can be removed quickly after disconnecting it from the gearmotor, the filter element can be also removed after disconnecting a few hex nuts easy to access.

If the filter element is not damaged, it can be washed chemically and / or mechanically once extracted from the filter without the need to be replaced.

To meet the most different process requirements, the RVZ series filters are equipped with different types of shaft seals according to the specific characteristics of the fluid being treated:

packing seal
single or double standard mechanical seal
mechanical seal with heating liquid
flushed mechanical seal

- packing seal
- single or double standard mechanical seal
- mechanical seal with heating fluid
- flushed mechanical seal

RVZ series filters can be equipped with a heating jacket with steam, hot water or diathermic oils; alternatively, electrical heating system is also available.

RVZ series filters can be supplied with ATEX certification in accordance with the different plant requirements.

Accessories:

RVZ series filters are always equipped with an electric motor with reducer, upon request it is possible to include accessories that allow complete automatic operation:

- Differential pressure switch
- Automatic drain valve
- Electromechanics or PLC control unit
- Others upon request

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Filter element:

The RVZ series filters are equipped with a cylindrical filter element supplied with two different filter media.

- wedge-wire: these filter elements are made by a spiral-wound triangular section metal wire, the distance between two profiles defines the filtration degree.
- micro-perforated sheet: in these filter elements, the holes are produced by electro-erosion, with this technology it is possible to obtain small holes difficult to make with the classic punching, free from burrs and with a very high density of holes therefore with higher void percentage area than traditional perforated sheets.



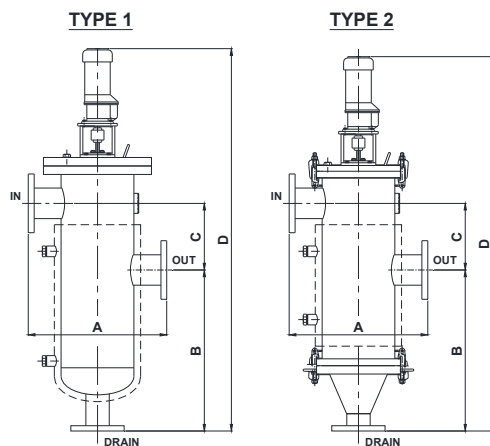
These filter elements guarantee a series of advantages, including:

- collected solids are easily removed during backwashing;
- fully welded construction and therefore free from last in service issues of any bonding resins due to aging or chemical attack;
- high mechanical resistance;
- possibility to periodically perform successful off-line chemical or mechanical washing of the filter element;
- availability of a wide range of filtration ratings and materials.

Dimensions:

Mod.	Dimensions [mm]					Weight [kg]
	A	B	C	D - type 1 / type 2	In/out	
140	340	450	200	1130 / 1100	1.1/2"	70
168	350	450	200	1130 / 1100	2"	80
219	480	550	250	1362 / 1332	3"	100
273	520	604	250	1434 / 1404	4"	120

The dimensions are preliminary and subject to change in accordance with the type of used flanges, the design pressure and the customer's specifications.



Filter with internal HALAR coating.
Basket and cleaning system in Hastelloy.



316L-SS filter.
Basket and cleaning system in 316L-SS.

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Applications:

Food & beverages:

- edible oil
- citric acid
- fruit juices
- proteins
- chocolate
- water

Fuels:

- lube oil
- gasoil
- kerosene
- biodiesel
- fuel oil
- palm oil

Chemicals:

- monomers
- inks
- resins
- glues/adhesives
- gums
- ethanol
- coolants
- waxes

Cosmetics:

- soaps
- creams
- shampoo

Contact us for any further information.

We reserve the right to change the specifications of this specification without notice.

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