

# HYDRA

SELF-CLEANING FILTERS  
WITH BACK-WASH



# HYDRA

## Self-cleaning filters with back-wash



**HYDRA self-cleaning filters** have been designed with innovative solutions regarding the efficiency of the system for the self-cleaning of the cartridge, thanks to newly designed back-wash on counter-current which grants the highest particles removal from the cartridge. When the cartridge is to be cleaned, the cleaning operation with back-wash is simply operated by opening the discharge ball valve at the filter bottom. That operation causes a pressure-drop which pushes the cartridge downward the housing bottom and reverses the water flow from the outer to the inner side of the cartridge. It is that counter-current back flow which washes away to the discharge the impurities trapped onto the outer side of the cartridge. The filters perform 90 micron filter rate with stainless steel net cartridge or plastic net cartridge and 50 micron filter rate with pleated plastic net cartridge.

The HYDRA filter features a drain funnel, which is a device designed to protect potable water in water installations against pollution by backflow in accordance with European standard UNI EN 1717 November 2002. This device prevents backflow by making all elements downstream from the solenoid drain valve vent to atmosphere (protection unit symbol: DC).

### SPECIFICATIONS

Non-toxic materials, suitable for drinking water, in compliance with the UE "Directive 98/83/EC".

**Head:** reinforced polypropylene.

**Bowl:** PET.

**O-ring:** EPDM.

**Breather-valve:** body stainless steel, O-ring EPDM.

**IN/OUT threads:** CW 614 N brass inserts.

**RAH cartridge:** stainless steel net AISI 316, frame and end caps polypropylene.

**RLH cartridge:** polyester net, frame and end caps polypropylene.

**RSH cartridge:** polypropylene pleated net, frame and end caps polypropylene.

**Cartridges spring:** stainless steel AISI 316-L.

**Discharge ball-valve:** CW 614 N brass.

**Discharge hose-holder:** nylon.

**Drain funnel:** reinforced polypropylene.

**Plastic nipple:** reinforced polypropylene.

Filter housings made in PET, a highly recyclable plastic, are manufactured with a proprietary procedure saving up to 60% of energy in injection molding compared with standard plastics. That is one of Atlas Filtri commitments to comply with Kyoto Treaty for the reduction of green house gas (CO<sub>2</sub>) emissions in the atmosphere.



HYDRA-RAH



HYDRA-RLH



HYDRA-RSH

# BENEFITS OF HYDRA SELF-CLEANING FILTERS

Free from frequent operation of filter opening and cartridge washing, with all the related operation: water mains turn off - turn on, interruption of the water delivery, water flood when opening the filter, just open and close the discharge valve and get a clean filter in a while.

Perform self-cleaning with back-wash operation and ensure the best removal of particles from the cartridge surface with the counter-current flow, which pushes the particles to the discharge.

Water is delivered even during the self-cleaning operation, with no interruption of the water supply.

model	IN/OUT connections	cartridge type	filtration micron	maximum flow rate l/h @ 3 BAR	pressure drop BAR @ maximum flow rate	A	B
HYDRA 1/2 - RAH 90 mcr	1/2"	stainless steel net	90	3800	0,41	120	390
HYDRA 3/4 - RAH 90 mcr	3/4"	stainless steel net	90	5300	0,41	120	390
HYDRA 1 - RAH 90 mcr	1"	stainless steel net	90	6000	0,41	120	390
HYDRA 1 1/4 - RAH 90 mcr	1" 1/4	stainless steel net	90	8000	0,41	120	415
HYDRA 1 1/2 - RAH 90 mcr	1" 1/2	stainless steel net	90	10000	0,41	120	415
HYDRA 1/2 - RLH 90 mcr	1/2"	polyester net	90	3800	0,44	120	390
HYDRA 3/4 - RLH 90 mcr	3/4"	polyester net	90	5300	0,44	120	390
HYDRA 1 - RLH 90 mcr	1"	polyester net	90	6000	0,44	120	390
HYDRA 1 1/4 - RLH 90 mcr	1" 1/4	polyester net	90	8000	0,44	120	415
HYDRA 1 1/2 - RLH 90 mcr	1" 1/2	polyester net	90	10000	0,44	120	415
HYDRA 1/2 - RSH 50 mcr	1/2"	pleated polypropylene net	50	3800	0,43	120	390
HYDRA 3/4 - RSH 50 mcr	3/4"	pleated polypropylene net	50	5300	0,43	120	390
HYDRA 1 - RSH 50 mcr	1"	pleated polypropylene net	50	6000	0,43	120	390
HYDRA 1 1/4 - RSH 50 mcr	1" 1/4	pleated polypropylene net	50	8000	0,43	120	415
HYDRA 1 1/2 - RSH 50 mcr	1" 1/2	pleated polypropylene net	50	10000	0,43	120	415



**Remark:** maximum flow rate values are experimentally obtained at Atlas Filtri testing laboratory with specific testing devices, using new, clean filters, under the following testing conditions:

- inlet pressure: 3 BAR    - inlet water temperature: 10°C    - room temperature: 20°C    - raw water: potable water from municipal supply

## cartridges assortment



RAH cartridge 90 micron stainless steel net AISI 316



RLH cartridge 90 micron polyester net



RSH cartridge 50 micron pleated polypropylene net

## accessories included



-X- Spanner



-S- wall bracket



wall bracket screws

## variants



Brass hose-holder



M housings with 2 manometers for pressure drop control

## spare parts



Stainless steel AISI 316-L spring for cartridges RAH, RLH, RSH



Housing O-ring



Brass discharge ball-valve with gasket



Plastic hose-holder



Plastic nipple with O-ring



Drain funnel



IN female plastic in/out threads 1/2", 3/4", 1", 1 1/4, 1 1/2

## variant available on minimum quantity

# HYDRA SELF-CLEANING FILTER - HOW IT WORKS -

