

# HYDRA

HYDRA is a full range of self-cleaning filters with innovative solutions for the efficiency of self-cleaning operation, thanks to a newly designed back-wash system in counter-current which grants the highest particle removal from the filter cartridge. The cleaning operation with back-wash is simply operated by the opening of the discharge valve at the filter bottom, the resulting pressure-drop pushes the specially designed cartridge downward the housing bottom and reverses the water flow from the outer to the inner side of the cartridge, washing away the sediments trapped onto the outer surface of the cartridge. Sediments are then discharged from the bottom valve, which is provided with a drain funnel designed to prevent contamination by back-flow in compliance with the European Standard UNI EN 1717/2002.

HYDRA self-cleaning filters are available in 3 main versions:

- **HYDRA:** manually operated self-cleaning filters, also available as **HYDRA M** models with 2 manometers.
- **HYDRA K:** manually operated self-cleaning filters with brass head, also available as **HYDRA K M** models with 2 manometers.
- **HYDRA HOT:** manually operated self-cleaning filters applicable for hot water filtration.

HYDRA and HYDRA K are available in 3 models with exclusive filter cartridges:

- **RAH** models with stainless steel net cartridge, filtration at 90 micron.
- **RLH** models with plastic net cartridge, filtration at 90 micron.
- **RSH** models with pleated plastic net cartridge, filtration at 50 micron.

HYDRA cartridges are provided with brand new grey flat gaskets with antimicrobial protection, performed by silver based antimicrobial agent included in the gasket plastic matrix.

HYDRA and HYDRA K can be used with KIT AUTO and work as a fully automatic self-cleaning filter with back-wash.

HYDRA are available with female IN/OUT configurations at 1/2", 3/4" and 1", with BSP or NPT threads, with or without brass inserts, and with male IN/OUT configurations at 1/2", 3/4" and 1" with BSP threads. Flow rate ranges from 3000 to 10000 l/h.

HYDRA HOT are available with RAH stainless steel net cartridge, filtration at 90 micron, Female IN/OUT connections at 1/2", 3/4", 1" with plastic BSP threads, or with NPT plastic threads at 3/4" and 1". Flow rate ranges from 3000 to 6000 l/h.

HYDRA are manufactured with the finest and most advanced materials under constant focus on innovative processing technologies and ceaseless modernization to ensure the absolute quality of our products, certified under the most stringent certification procedures and standards: ACS (France), ANSI/NSF (USA), EAC (Russia).

All HYDRA are provided complete with a full set of accessories: wall bracket, opening spanner, discharge hose-holder, drain funnel and a complete discharge valve kit.

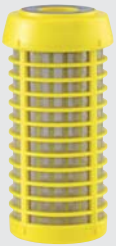


# HYDRA SELF-CLEANING FILTERS

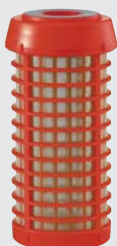
Housings HYDRA fit to **EXCLUSIVE HYDRA FILTER CARTRIDGES**.



**SX** cartridges with antimicrobial flat seal.



**RAH**  
stainless steel  
net cartridge,  
filtration at  
90 micron.  
CODE RA5000020



**RAH HOT**  
stainless steel  
net cartridge,  
filtration at  
90 micron.  
CODE RA5080020



**RLH**  
plastic net  
cartridge,  
filtration at  
90 micron.  
CODE RA5000010



**RSH**  
pleated plastic  
net cartridge,  
filtration at  
50 micron.  
CODE RA5000040



All cartridges  
are provided  
with dedicated  
**stainless steel  
AISI 316  
cartridge spring.**  
CODE RE7120040

## CERTIFICATIONS



A range of housings is **tested and certified by WQA against NSF/ANSI Standards 42 and 61 for material safety and structural integrity requirements only.** In compliance with drinking water regulations, USA.



The products are tested and certified under the most stringent procedures worldwide, in **compliance with DM 25 (Italy), EAC (Russia) and with the sanitary certification ACS (France).**

## SYMBOLS LEGEND



For domestic use



For technical and industrial use



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.

## ACCESSORIES ON DEMAND



brass hose-holder  
CODE RE7120026



3/4" / 1" brass nipples with o-ring (pair)  
CODE RB7404001 / CODE RB7404002



-KIT AUTO- CODE RE7120024  
automatic discharge kit (see pages 160-161)



-LUBRIKIT- single-dose lubricant for housing o-ring  
CODE RE9020650

## ACCESSORIES INCLUDED



-X- spanner



-S- wall bracket  
(for HYDRA and HYDRA HOT)



-K DP- wall bracket (for HYDRA K DP) CODE RB7400021

## DISCHARGE KIT



brass discharge ball-valve  
with gasket



plastic hose-holder



plastic nipple with o-ring

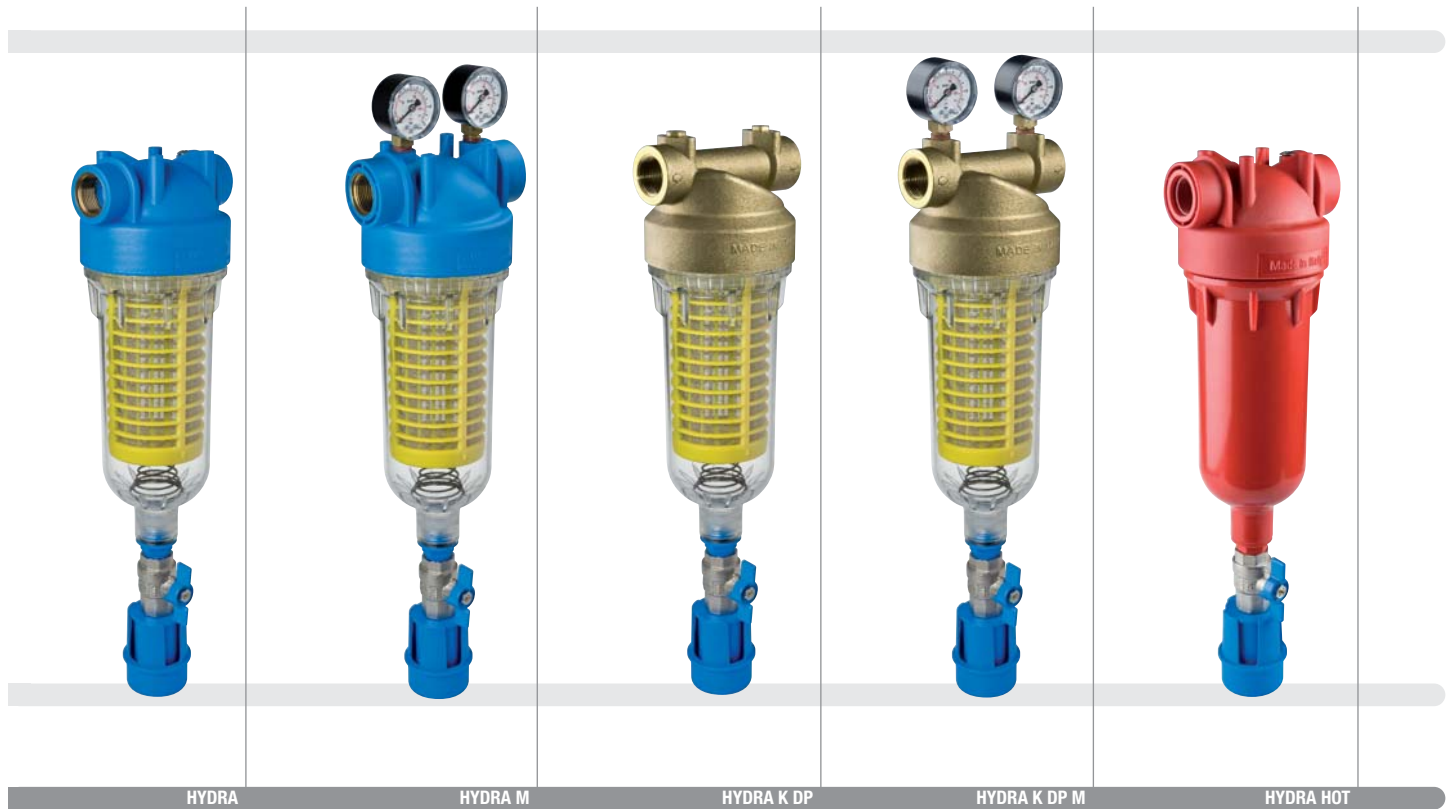


plastic nipple with o-ring  
for -HOT- model



drain funnel

In compliance with the European Standard UNI EN 1717/2002: designed to prevent back-flow contamination by making all elements downstream the discharge vent to atmosphere (protection unit symbol: DC)



HYDRA

FILTER MODEL

3/4

IN / OUT

1/2"

3/4"

1"

1"1/4

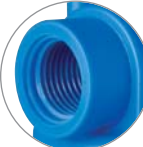
1"1/2

OT

THREADS TYPE



NPT IN - PLASTIC NPT \*\*



MP - PLASTIC BSP \*



RLH 90 mcr

FILTER CARTRIDGE

RLH 90 mcr



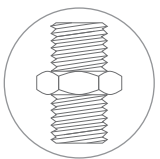
RAH HOT 90 mcr



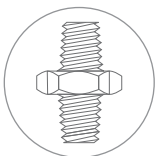
RAH 90 mcr



RSH 50 mcr



\* BSP  
parallel (cylindrical)  
ISO 228



\*\* NPT  
tapered (conical)  
ANSI/ASME B1.20.1



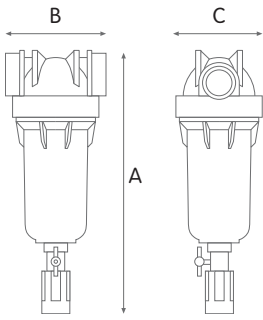
# HYDRA

## WORKING CONDITIONS

Max working pressure \_\_\_\_\_ 8 bar (116 psi)  
 Min working pressure \_\_\_\_\_ 1,8 bar (26 psi)  
 Max working temperature \_\_\_\_\_ 45°C (113°F)  
 Min working temperature \_\_\_\_\_ 4°C (39,2°F)

## SPECIFICATIONS

Non-toxic materials, suitable for drinking water.  
 Head: reinforced polypropylene.  
 Bowl: PET.  
 O-ring: EPDM.  
 Breather-valve: body stainless steel, o-ring EPDM.  
 IN/OUT brass threads: CW 614 N brass.  
 Discharge ball-valve: CW 617 N brass nickel plated.  
 Discharge plastic nipple: reinforced polypropylene.  
 Drain funnel: reinforced polypropylene.



**DRAIN FUNNEL**  
 Back-flow preventing device  
 UNI EN 1717-11/2002

## HYDRA RLH single-stage self-cleaning filters

### HOUSINGS WITH BRASS BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000010	HYDRA 1/2" RLH 90 mcr	90	1/2"	BRASS-BSP	3500	390	120	107
RA6000011	HYDRA 3/4" RLH 90 mcr	90	3/4"	BRASS-BSP	5000	390	120	107
RA6000012	HYDRA 1" RLH 90 mcr	90	1"	BRASS-BSP	6000	390	120	107
RA6000022	HYDRA 1"1/4 RLH 90 mcr	90	1"1/4	BRASS-BSP	8000	415	120	107
RA6000023	HYDRA 1"1/2 RLH 90 mcr	90	1"1/2	BRASS-BSP	10000	415	120	107



### HOUSINGS WITH PLASTIC BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000028	HYDRA 1/2" RLH 90 mcr IN	90	1/2"	PLASTIC-BSP	3500	390	120	107
RA6000029	HYDRA 3/4" RLH 90 mcr IN	90	3/4"	PLASTIC-BSP	5000	390	120	107
RA6000030	HYDRA 1" RLH 90 mcr IN	90	1"	PLASTIC-BSP	6000	390	120	107



### HOUSINGS WITH PLASTIC NPT THREADS

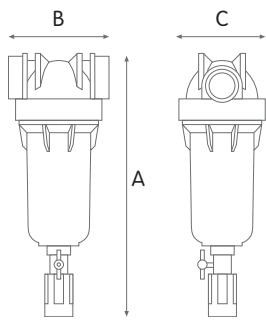
CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000033	HYDRA 3/4" RLH 90 mcr NPT IN	90	3/4"	PLASTIC-NPT	5000	390	120	107
RA6000034	HYDRA 1" RLH 90 mcr NPT IN	90	1"	PLASTIC-NPT	6000	390	120	107



**[new]**

### HOUSINGS WITH BRASS BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000060	HYDRA 1/2" MP RLH 90 mcr	90	1/2"	BRASS-BSP	3500	390	155	107
RA6000061	HYDRA 3/4" MP RLH 90 mcr	90	3/4"	BRASS-BSP	5000	390	155	107
RA6000062	HYDRA 1" MP RLH 90 mcr	90	1"	BRASS-BSP	6000	390	155	107



**WORKING CONDITIONS**

Max working pressure \_\_\_\_\_ 8 bar (116 psi)  
 Min working pressure \_\_\_\_\_ 1,8 bar (26 psi)  
 Max working temperature \_\_\_\_\_ 45°C (113°F)  
 Min working temperature \_\_\_\_\_ 4°C (39,2°F)



**DRAIN FUNNEL**  
 Back-flow preventing device  
 UNI EN 1717-11/2002

**SPECIFICATIONS**

Non-toxic materials, suitable for drinking water.  
 Head: reinforced polypropylene.  
 Bowl: PET.  
 O-ring: EPDM.  
 Breather-valve: body stainless steel, o-ring EPDM.  
 IN/OUT brass threads: CW 614 N brass.  
 Discharge ball-valve: CW 617 N brass nickel plated.  
 Discharge plastic nipple: reinforced polypropylene.  
 Drain funnel: reinforced polypropylene.

**HYDRA RAH single-stage self-cleaning filters**

**HOUSINGS WITH BRASS BSP THREADS**

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000013	HYDRA 1/2" RAH 90 mcr	90	1/2"	BRASS-BSP	3500	390	120	107
RA6000014	HYDRA 3/4" RAH 90 mcr	90	3/4"	BRASS-BSP	5000	390	120	107
RA6000015	HYDRA 1" RAH 90 mcr	90	1"	BRASS-BSP	6000	390	120	107
RA6000024	HYDRA 1"1/4 RAH 90 mcr	90	1"1/4	BRASS-BSP	8000	415	120	107
RA6000025	HYDRA 1"1/2 RAH 90 mcr	90	1"1/2	BRASS-BSP	10000	415	120	107

**HOUSINGS WITH PLASTIC BSP THREADS**

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000035	HYDRA 1/2" RAH 90 mcr IN	90	1/2"	PLASTIC-BSP	3500	390	120	107
RA6000036	HYDRA 3/4" RAH 90 mcr IN	90	3/4"	PLASTIC-BSP	5000	390	120	107
RA6000037	HYDRA 1" RAH 90 mcr IN	90	1"	PLASTIC-BSP	6000	390	120	107

**HOUSINGS WITH PLASTIC NPT THREADS**

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000040	HYDRA 3/4" RAH 90 mcr NPT IN	90	3/4"	PLASTIC-NPT	5000	390	120	107
RA6000041	HYDRA 1" RAH 90 mcr NPT IN	90	1"	PLASTIC-NPT	6000	390	120	107

**HOUSINGS WITH BRASS BSP THREADS**

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000070	HYDRA 1/2" MP RAH 90 mcr	90	1/2"	BRASS-BSP	3500	390	155	107
RA6000071	HYDRA 3/4" MP RAH 90 mcr	90	3/4"	BRASS-BSP	5000	390	155	107
RA6000072	HYDRA 1" MP RAH 90 mcr	90	1"	BRASS-BSP	6000	390	155	107



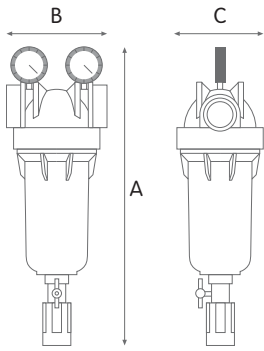
# HYDRA M

## WORKING CONDITIONS

Max working pressure \_\_\_\_\_ 8 bar (116 psi)  
 Min working pressure \_\_\_\_\_ 1,8 bar (26 psi)  
 Max working temperature \_\_\_\_\_ 45°C (113°F)  
 Min working temperature \_\_\_\_\_ 4°C (39,2°F)

## SPECIFICATIONS

Non-toxic materials, suitable for drinking water.  
 Head: reinforced polypropylene.  
 Bowl: PET.  
 O-ring: EPDM.  
 IN/OUT brass threads: CW 614 N brass.  
 Manometers: radial type, pressure range 0-12 bar, 0-170 psi.  
 Discharge ball-valve: CW 617 N brass nickel plated.  
 Discharge plastic nipple: reinforced polypropylene.  
 Drain funnel: reinforced polypropylene.



**DRAIN FUNNEL**  
 Back-flow preventing device  
 UNI EN 1717-11/2002

## HYDRA RLH single-stage self-cleaning filters with 2 manometers

### HOUSINGS WITH BRASS BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000110	HYDRA M 1/2" RLH 90 mcr	90	1/2"	BRASS-BSP	3500	445	120	107
RA6000111	HYDRA M 3/4" RLH 90 mcr	90	3/4"	BRASS-BSP	5000	445	120	107
RA6000112	HYDRA M 1" RLH 90 mcr	90	1"	BRASS-BSP	6000	445	120	107
RA6000113	HYDRA M 1 1/4" RLH 90 mcr	90	1 1/4"	BRASS-BSP	8000	460	120	107
RA6000114	HYDRA M 1 1/2" RLH 90 mcr	90	1 1/2"	BRASS-BSP	10000	460	120	107



### HOUSINGS WITH PLASTIC BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000125	HYDRA M 1/2" RLH 90 mcr IN	90	1/2"	PLASTIC-BSP	3500	445	120	107
RA6000126	HYDRA M 3/4" RLH 90 mcr IN	90	3/4"	PLASTIC-BSP	5000	445	120	107
RA6000127	HYDRA M 1" RLH 90 mcr IN	90	1"	PLASTIC-BSP	6000	445	120	107



### HOUSINGS WITH PLASTIC NPT THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000130	HYDRA M 3/4" RLH 90 mcr NPT IN	90	3/4"	PLASTIC-NPT	5000	445	120	107
RA6000133	HYDRA M 1" RLH 90 mcr NPT IN	90	1"	PLASTIC-NPT	6000	445	120	107



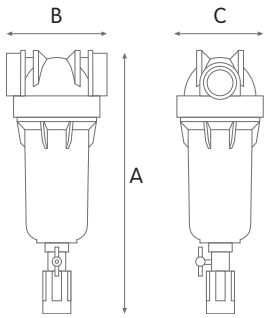
# HYDRA HOT

## WORKING CONDITIONS

Max working pressure \_\_\_\_\_ 8 bar (116 psi)  
 Min working pressure \_\_\_\_\_ 1,8 bar (26 psi)  
 Max working temperature \_\_\_\_\_ 80°C (176°F)  
 Min working temperature \_\_\_\_\_ 4°C (39,2°F)

## SPECIFICATIONS

Non-toxic materials.  
 Head: reinforced nylon.  
 Bowl: reinforced nylon.  
 O-ring: EPDM.  
 Breather-valve: body stainless steel, o-ring EPDM.  
 Discharge ball-valve: CW 617 N brass nickel plated.  
 Discharge plastic nipple: reinforced polypropylene.  
 Drain funnel: reinforced polypropylene.



**DRAIN FUNNEL**  
 Back-flow  
 preventing device  
 UNI EN 1717-11/2002

## HYDRA HOT single-stage self-cleaning filters

### HOUSINGS WITH PLASTIC BSP THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000001	HYDRA HOT 1/2" RAH 90 mcr IN	90	1/2"	PLASTIC-BSP	3500	390	120	107
RA6000002	HYDRA HOT 3/4" RAH 90 mcr IN	90	3/4"	PLASTIC-BSP	5000	390	120	107
RA6000003	HYDRA HOT 1" RAH 90 mcr IN	90	1"	PLASTIC-BSP	6000	390	120	107

### HOUSINGS WITH PLASTIC NPT THREADS

CODE	MODEL	NOMINAL FILTRATION MICRON	IN/OUT	THREADS	FLOW RATE l/h	DIMENSIONS mm		
						A	B	C
RA6000005	HYDRA HOT 3/4" RAH 90 mcr NPT IN	90	3/4"	PLASTIC-NPT	5000	390	120	107
RA6000006	HYDRA HOT 1" RAH 90 mcr NPT IN	90	1"	PLASTIC-NPT	6000	390	120	107

