

REV.	DATE	SIGNATURE	REMARKS
Z	01/27/2018	B- SAYAHI	AS BUILT
01	12/25/2017	B- SAYAHI	CHANGE TITLE DRAWING

AS BUILT

 REFERENCE DWG. NO. :
 9906XAA000.04

PROJECT TITLE:
 Dust Suppression by Dry Fog
 DIRECT REDUCE PLANT

CONT. & PROJ. NO: 002

DRAWING TITLE:
 PUMP STATION




Behine Faraz-e-Kian
 Eng. Co.

DESIGNED	NAME	SIGNATURE	DATE	SCALE	SIZE	CLIENT DRAWING NO.	SHEET	REV.
DRAWN	BFK Co.			1:1	A3	1M06MEU21002004	Z	05
CHECKED	B-Sayahi							
APPROVED	B-Sadri							

CONT.D ON. 005

Item	Qty	Description	Standard	Material	mass	total mass
32	10	CUPPLING 1 1/2" S.W.	PN150	C.S.	0.00	0.000
31	6	BALL VALVE 1"		BRASS	0.00	0.000
30	4	pipe 1"l=1200	sch40	C.S	0.00	0.000
29	4	plug 1"		C.S	0.00	0.000
28	8	Cupling 1" threaded		C.S	0.00	0.000
27	8	u-bolt M8	for pipe 1"		0.00	0.000
26	22	lechler nozzle		brass	0.00	0.000
25	8	male stud 1/2"		C.S	0.00	0.000
24	8	male/female reducer	1"to 1/2"	C.S	0.00	0.000
23	8	male stud 1"	C.S		0.00	0.000
22	4	Tee 1" threaded	PN150	C.S	0.00	0.000
21	1	PIPE Ø 1"	36m	SCH40	0.00	0.000
20	1	SEAMLESS PIPE 2"SCH40	l=24m	C.S	0.00	0.000
19	1	SIMLESS PIPE 1 1/2"SCH40	l=100m	C.S	0.00	0.000
18	20	L60x6 / 300			0.00	0.000
17	24	U-BOLT M10(PIPE 1 1/2")	-	St37-2	0.00	0.000
16	14	S.W - ELBOW 1 1/2"	SCH40		0.00	0.000
15	1	SUPPOTR TANK			0.00	0.000
14	8	S.W - ELBOW 2"	SCH40		0.00	0.000
13	16	S.W. FLANG 1 1/2"			0.00	0.000
12	2	FLEXIABLE PIPE 1"	L=2m		0.00	0.000
11	10	BALL VALVE 1 1/2"			0.00	0.000
10	1	FLOW SWITCH 1 1/2"			0.00	0.000
9	1	BALL VALVE 2"			0.00	0.000
8	1	HYDRA DS FILTER		SS	0.00	0.000
7	2	ELECTRICAL VALVE 1 1/2"	PARKER		0.00	0.000
6	1	CHECK VALVE 1 1/2"			0.00	0.000
5	1	RUBBER CHUCK 2"			0.00	0.000
4	1	BUTTERFLY VALVE 2"		PN 150	0.00	0.000
3	1	ELECTRICAL MOTOR PUMP (DAB PUMPS LTD.)		kvc 75/50	23.00	23.000
2	1	STORAGE TANK(1000LITR)		PU	0.00	0.000
1	1	ELECTRICAL PANEL			0.00	0.000

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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 (CO₂) 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	pressure drop	
						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



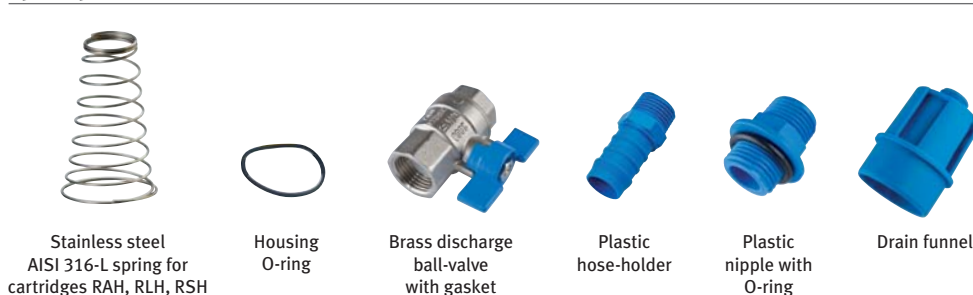
accessories included



variants



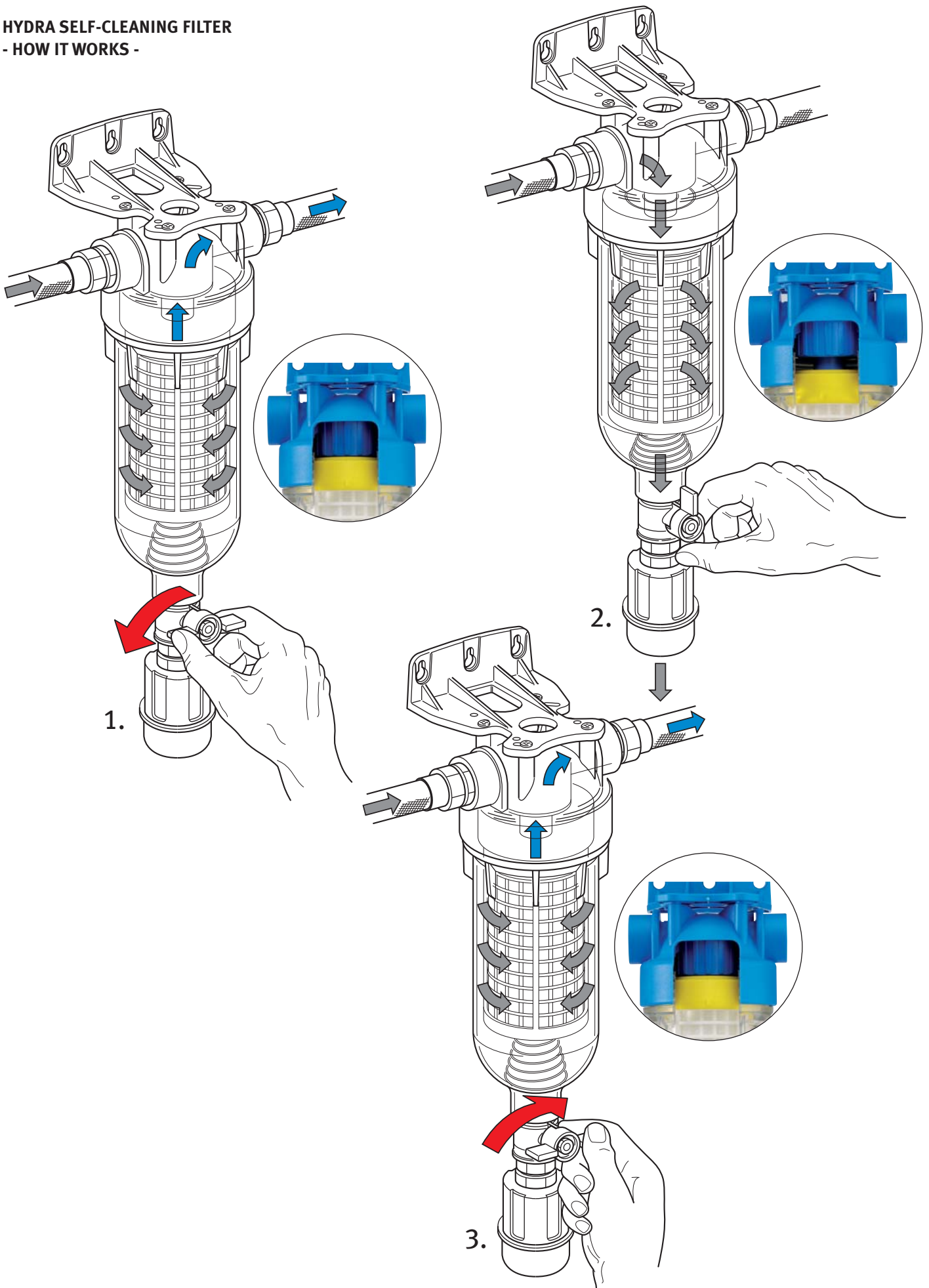
spare parts



variant available on minimum quantity



HYDRA SELF-CLEANING FILTER
- HOW IT WORKS -



R04-02/11. Subject to change without notice

