



## Feature

IRRILINE Automatic IRVBE/IRCVBE filters; are electronically controlled capable of fully automatic backwash filters. For this process, instead of extra energy the pumping of water will be enough. However, detection of pollution and for the initiation of back-washing, the panel must be fed with a suitable electric installation. By the help of pressure which is occurred after the speed that water gets from the pump, filter cleans itself. So it is provided the self-cleaning of the filter. Filtration process continues while this backwash mechanism is working. Dirty water which occurs in this process automatically discharged during backwash.

Considering these aspects VBE series, and the version of stainless steel body CVBE series fully automatic filters, are more agile and efficient according to manually backwash and semi-automatic backwash systems. In addition, minimizes user time and loss of water.

In sample view of the CVBE filter in Picture-1 is used stainless steel body.

## General Characteristics

Body Material	ST-37(S235JR) / AISI316L
Sieve Material Internal Kit	AISI304L
Maximum Working Pressure	12 bar;150Psi
Minimum Working Pressure	2,5 bar / 38Psi
Maximum Working Temperature	60°C / 140°F
Back Washing Time	Timing Setup
Control System	Electronic
Filtration Filtering Sensitivity	20-500 μ (micron)
Paint Coating Material	Electrostatic polyester powder paint
Flow Range	25-100 m <sup>3</sup> /h

## Working Principle

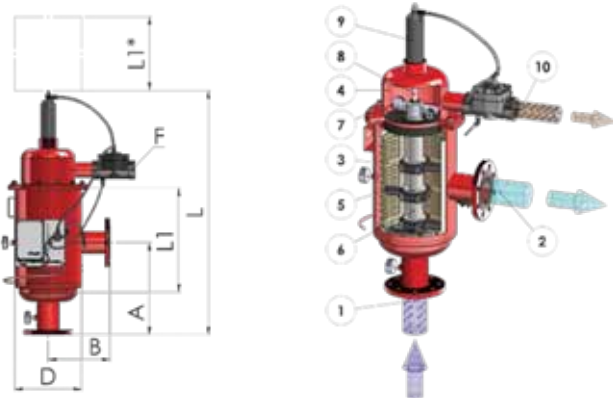
A Filter section according to Picture; 1- Dirty water inlet, 2-Clean water outlet, 3- Backwash dirty water outlet drainage, 4-Sieve internal kit (multi-layer), 5-Collector kit (backwash water vacuuming channel ), 6-Turbine chamber, 7-Piston part.

Water enters the filter and passes through the part where multi-layer filter, after passes coarse sieve. Water continues to flow from fine filter to exit, creates a layer of pollution inner surface of the filter and this pollution creates pressure difference at inlet and outlet of the filter. Backwash begins when this pressure difference comes at a predetermined level.

A specified pressure difference is reached, the backwash control unit opens discharge valve. Atmospheric pressure in discharge pipe creates a strong backwash. This flow returns cleaning collector through hydraulic turbine and drainage pipe after vacuuming the pollution in the inner surface of filter by creating a vacuum effect at nozzles.

Pressure decrease consist in turbine part and piston drainage provides a linear motion to cleaning collector. This rotation and linear motion provides absorption of pollution layer in the inner surface of filter by nozzles. When process is completed, cleaning collector automatically makes a second backwash and returns to its original position, so washing process is completed. During backwash filtering process continues.

For efficiently work of system, during backwash process inlet pressure must not be less than 2,5 bar .



## Technical Specifications

Prod. Code	Inlet/Outlet		L	L1	A	B	D	F	Flush Flow	Max. Flow	Filt. Area	Weight	Strok	Nozzle	Elek
	inch	DN													
IRVBE102	2		838	298	325				12	40	1317	37	90	2	2
IRVBE102S	2	50	938	398	375				18	50	1976	40	90	3	3
IRVBE1025	2½	65	938	398	375			1,5	18	60	1317	41	90	3	3
IRVBE103F	3		838	298	325				12	65	1317	42	90	2	2
IRVBE103	3	80	938	398	375				18	70	1976	43	90	3	3
IRVBE103S	3		1038	498	425	250	10		24	100	2634	47	90	4	4
IRVBE103S	4		938	398	375				18	110	1976	48	90	3	3
IRVBE104F	4	100	1038	498	425				24	120	2634	49	90	4	4
IRVBE104	4		1438	698	525				18	140	3951	59	190	3	6
IRVBE104S	5	125	1438	698	525			2	18	150	5268	61	190	3	6
IRVBE104S	5		1638	898	625				24	160	5268	78	190	4	8
IRVBE105	6	150	1638	898	625				24	180	5268	80	190	4	8

# IRHBE Model

## Feature

IRILINE Automatic IRHBE/CHBE filters; are electronically controlled capable of fully automatic backwash filters. For this process, instead of extra energy the pumping of water will be enough. However, detection of pollution and for the initiation of back-washing, the panel must be fed with a suitable electric installation. By the help of pressure which is occurred after the speed that water gets from the pump, filter cleans itself. So it is provided the self-cleaning of the filter. Filtration process continues while this backwash mechanism is working. Dirty water which occurs in this process automatically discharged during backwash.

Considering these aspects IRHBE series, and the version of stainless steel body IRCHBE serie fully automatic filters, are more agile and efficient according to manually backwash and semi-automatic backwash systems. In addition, minimizes user time and loss of water.

Picture-2 is an example of electronically controlled fully automatic filter's stainless steel body version.



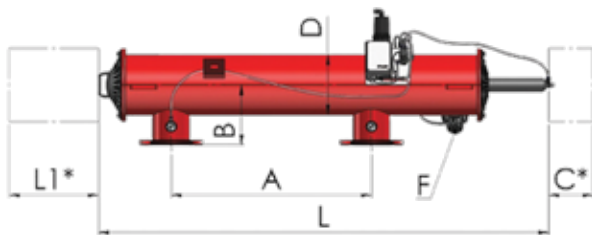
## Working Principle

Water enters the filter (1) and passes through the part where multi-layer filter, after passes coarse sieve (3). Water continues to flow from fine filter to exit (2), creates a layer of pollution inner surface of the filter and this pollution creates pressure difference at inlet and outlet of the filter. Backwash begins when this pressure difference comes at a predetermined level. A specified pressure difference is reached, the backwash control unit opens discharge valve (9). Atmospheric pressure in discharge pipe creates a strong backwash. This flow returns cleaning collector through cleaning collector (7), hydraulic turbine (8) and drainage pipe after vacuuming the pollution in the inner surface of filter by creating a vacuum effect at nozzles (6).

Pressure decrease which occurs at hydraulic turbine (5) and drainage of the piston (10), provides a linear motion to the cleaning collector.

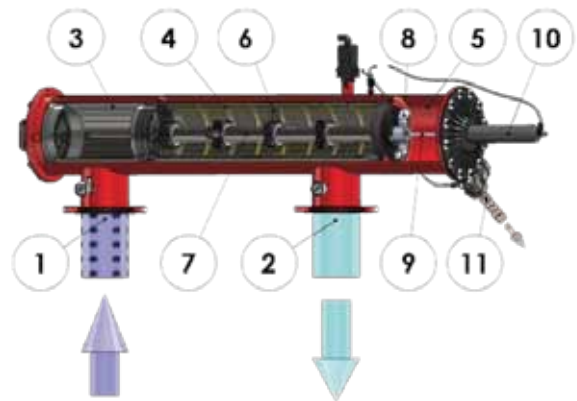
This rotation and linear motion provides absorption of pollution layer in the inner surface of filter by nozzles. When process is completed, cleaning collector automatically makes a second backwash and returns to its original position, so washing process is completed. During backwash filtering process continues.

For efficiently works of system, during backwash process inlet pressure must not be less than 2.5 bar (38psi).



## General Characteristics

Body Material	ST-37(S235JR) / AISI316L
Sieve Material Internal Kit	AISI304L
Maximum Working Pressure	12 bar
Minimum Working Pressure	2,5 bar
Maximum Working Temperature	60 °C
Back Washing Time	Timing Setup
Control System	Electronic
Filtration Filtering Sensitivity	20-500 μ (micron)
Paint Coating Material	Electrostatic polyester powder paint
Flow Range	120-380 m <sup>3</sup> /h



## Technical Specifications

Prod. Code	Inlet/Outlet		L	L1	A	B	C	D	F	Flush Flow	Max.Debi	Filt. Area	Weight	Strok	Nozzle	Elek
	inch	DN														
IRHBE104	4	100	1513	800	500	270	400	10	2	12	120	2634	47	190	2	4
IRHBE104S			1713	1000	600					18	140	3951	52		3	6
IRHBE105	5	125	2023	1310	900	300	15	3	18	150	5268	54	4	8		
IRHBE105S									24	160		87	4	8		
IRHBE106	6	150	2415	1702	1100	300	15	3	24	180	7902	91	4	8		
IRHBE126S									36	220		117	6	12		
IRHBE128	8	200	2615	1902	1500	300	15	3	36	300	9219	121	6	12		
IRHBE128S									42	340		140	7	14		
IRHBE1210	10	250							42	440		150	7	14		



## Feature

The filter body is St-37 or stainless-steel optionally. The filtering in pressured lines has high performance during the back washing. Extensive Filtering Surface. Easy-to assembly and filter components, not required to change 100% back washing performance. Working opportunity, not required additional energy. The minimum head and water loss.

## Working Principle

Water, entered from input collector, passes to multistory screen filter inside the water (3). It is protected with a rough material with screen over of multiplex screen. The thin filter goes to output collector side (2). Particles, collected on multiplex screen, constitute a pollution layer over of the filter and a pressure difference in the outside collector. This pressure difference open a back flushing unit washing discharge valve (9) and a powerful back flushing flow consists from discharge pipet o atmosphere (10). This flow cleans the particle layer, collected on filter by creating a vacuum from holes over of nozzle (5).

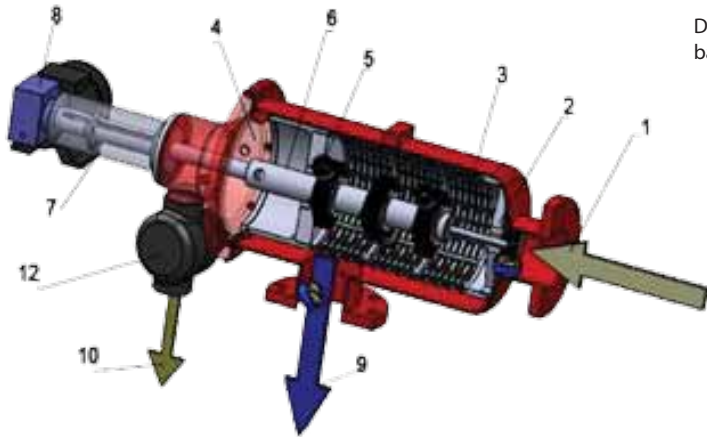
The dirty water, absorbed on multiplex filter, creates a volution by passing from water cleaning nozzle pipe (6) and hydraulic turbine (7). The pressure loss, consisted of turbine container (4) and plunger drainage (9) constitutes an axial movement. The spiral headway, constituted by this axial and volution together, obtains the absorbing whole filter surface by vacuum nozzles.

When this process is done, the cleaning collector makes a second back flushing with warns with its warning switches and turns its first position. Transaction is completed.

During the back washing, the filtration process contiunes and after the backwashing process, the filter stands by until next pressure difference signal.

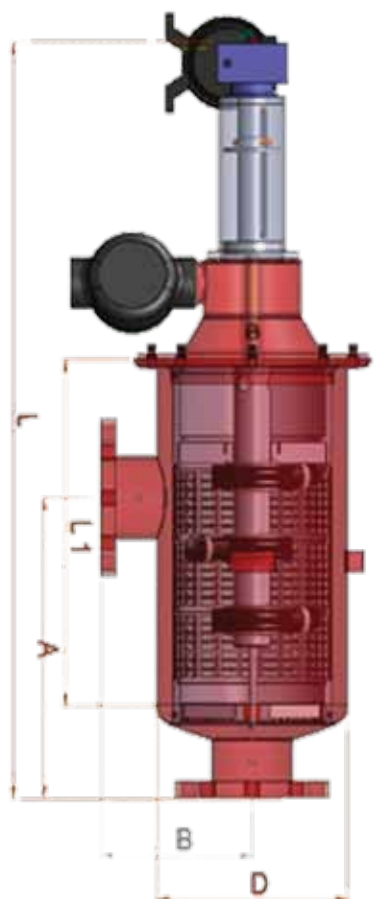
## General Characteristics

The Body Material	St-37 – AISI 316L
The Screen Material	AISI 304L – CAGEPRGF
The Maximum Working Pressure	10 bar
The Minimum Output Pressure	1 bar
The Maximum Working Temperature	60o
The Back Washing Time	Timing and Pressure Setup
Control System	The Electronic Controlled Reduced Motor
Filtration Sensitivity	20 – 400 micron
The Paint Material	Epoxi poliester



## Technical Specifications

Prod. Code	Inlet/Outlet		A	B	L1	L	D	Flush Flow	Filt. Surface	Weight
	inch	DN	mm	mm	mm	mm	inch	m3/h	cm2	kg
IRVRF 102	2"	50	375	267	440	932	10"	40	1316	24
IRVRF1025	2 ½"	65	375	267	440	932	10"	50	1316	24
IRVRF103	3"	80	375	267	440	932	10"	55	1316	24
IRVRF103S	3"	80	425	267	540	1032	10"	70	1974	28
IRVRF104	4"	100	425	267	540	1032	10"	100	1974	28
IRVRF104S	4"	100	475	267	640	1132	10"	120	2632	32
IRVRF105	5"	125	575	267	840	1332	10"	140	3948	36
IRVRF106	6"	150	575	267	840	1332	10"	160	3948	41



# IRRF Model

## Feature

The filter body is St-37 or stainless-steel optionality  
 The filtering is in pressured lines  
 High performance during the back washing  
 Extensive Filtering Surface  
 Easy-to assembly and fitler components, not required to change  
 100% back washing performance  
 Working opportunity, not required additional energy  
 The minimum head and water loss

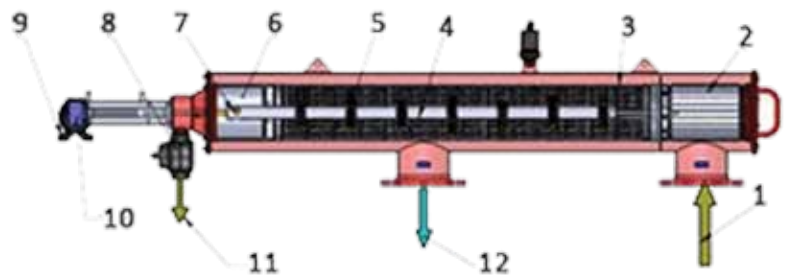
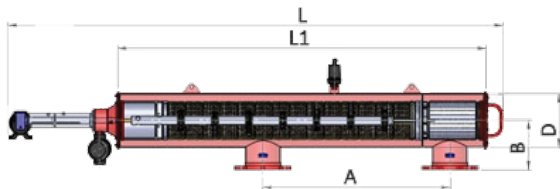
## Working Principle

Water, entered from input collector, puts partucles, contained by itself, in rough screen (3) passes top art which include multiplex filter (4). It is protected with a rough material with screen over of multiplex screen. The thin filter goes to output collector side (2). Particles, collected on multiplex screen, constitute a pollution layer over of the filter and a pressure difference in the outside collector. This pressure difference open a back flushing unit washing decharge valve (9) in the value, designed previously (12) and a powerful back flushing flow consists from decharge pipeto atmosphere (10). This flow cleans the particle layer, collected on filter by creating a vacuum from holes over of nozzle (6).

The dirty water, absorbed on multiplex filter, creates a volution by passing from water cleaning nozzle pipe (7) and hydraulic turbine (8). The pressure loss, consisted of turbine container (5) and plunger drainage (9) constitutes an axial movement. The spiral headway, constituted by this axial and volution together, obtains the absorbing whole filter surface by vacuum nozzles.

When this process is done, the cleaning collector makes a second back flushing with warns with its warning switches and turns its first position. Transaction is completed.

During the back washing, the filtration process contiunes and after the back washing process, the filter stands by until next pressure difference signal.



## General Characteristics

The Body Material	St-37 – AISI 316L
The Screen Material	AISI 304L – CAGEPRGF
The Maximum Working Pressure	10 bar
The Minimum Output Pressure	1 bar
The Maximum Working Temperature	60o
The Back Washing Time	Timing and Pressure Setup
Control System	The Electronic Controlled Reduced Motor
Filtration Sensitivity	20 – 400 micron
The Paint Material	Epoxi poliester

## Technical Specifications

Prod. Code	Inlet/Outlet		A	L	L1	B	D	Flow Rate	Filt. Surface	Weight
	inch	DN								
IRRF104	4	100	500	1907	1040	287	10	120	2634	91
IRRF104S	4	100	600	2107	1240	287	10	140	3951	107
IRRF105	5	125	600	2107	1240	287	10	150	3951	109
IRRF105S	5	125	900	2307	1550	287	10	160	5268	142
IRRF106	6	150	900	2307	1550	287	10	180	5268	146
IRRF126S	6	150	1100	2707	1942	312	12	220	7902	162
IRRF128	8	200	1100	2707	1942	312	12	320	7902	165
IRRF1210	10	250	1100	2707	1942	312	12	380	7902	178

