

General instructions:

The UDI Galileo is designed and manufactured to meet the highest standards of quality and workmanship. The Galileo is compact and has a low volume with a minimum use of rinsing water. Continuous service is possible by placing multiple parallel filter elements. The diagonally grooved discs provide a deep filtration effect. The filters are delivered with the filter discs of your choice.

Function:

Raw water flows through the inlet manifold and then flows through the back flush valves to the S.K. filter elements. The coarser dirt is caught on the outside of the discs. Through the filter element, the filtered water flows to the outlet manifold.

Self-cleaning process:

When the flush controller (optional) detects a pressure differential of 0.5 bar over the inlet and outlet or a pre-set interval passes, the self-cleaning process will start.

The filter elements are flushed one by one by changing the status of the backflush valves (Bermad 350 series) from filtration mode to backflush mode. Clean water is taken in from the outlet manifold or the external flushing source and then sprayed tangentially at the discs through the nozzles in the S.K. spine. The differential pressure makes the discs packet open up and the rotating discs are being cleaned. The rinsing water is drained through the drain manifold. After 10 - 20 seconds the backflush valve goes back into filtration mode, causing the discs packet to close and the filtration to resume. After cleaning the filter discs, the cleaning of the next filter element will start with an interval of 5 - 10 seconds. This prevents two backflush valves being opened at the same time.

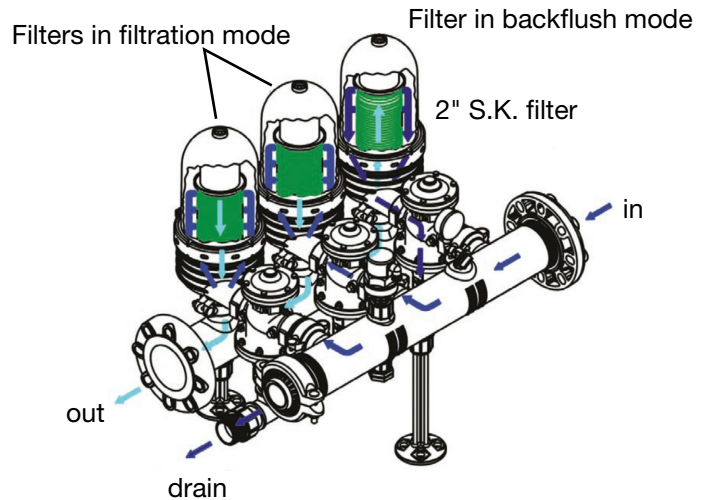
Boxer filters with duo elements are cleaned simultaneously.

Externally flushed filters are provided with 2 backflush valves per filter in order to select the feeder source for clean water during flushing.

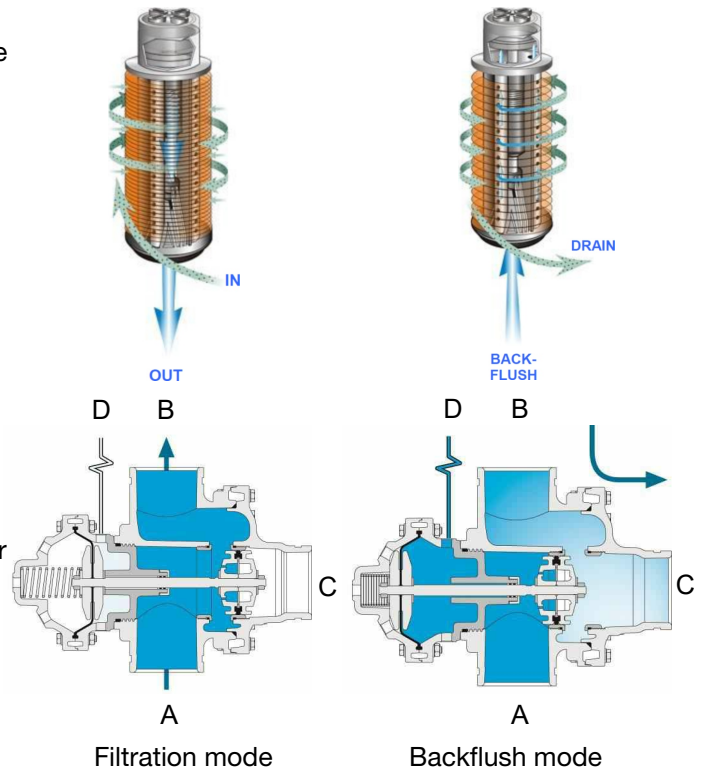
Notes:

By regularly checking the inlet and outlet pressure and monitoring flushing you will become familiar with the automatic filter.

This way one can optimise the proper flushing frequency. Take into account seasonal influences and possible accumulation of dirt on the discs. The pressure loss caused by dirt should not exceed 0.5 bar.



Galileo	2 - 8 filters
Galileo Ext.	1 - 8 filters
Galileo Boxer	3 - 8 duofilters
Galileo Boxer Ext.	3 - 8 duofilters



- a) Raw water intake
- b) To filterelement
- c) Drain water outlet



Subject to modifications. No liability accepted for errors or misprints

Flushing pressure:

The minimum flushing pressure is 2.8 bar up to 5 bar depending on the fineness of the filter discs and type of fouling. Fine filter discs and viscous dirt require a higher flushing pressure.

A pressure sustaining valve must be installed downstream of the Galileo if the flushing pressure is too low.

With a single filter element, the Galileo compact, or the non-flushing filters cannot supply enough water, or a uniform continuous service capacity is desired, a filter with external source must be used.

Installation:

Mount the filter at a location easy to reach for maintenance. The filter is preferably be mounted level with free drainage.

When the pump pressure is not adequately under control, a pressure release valve must be installed. Place if necessary valve(s) for servicing.

Maintenance:

Check the filter for function every 2-3 weeks, check differential pressure and leakages. If a component is defective replace it immediately. Apply annually a layer of non-aggressive grease on the rubber components. The disc packet must be cleaned by hand once a year or more frequently if this proves to be necessary. Close the upstream of the filter.

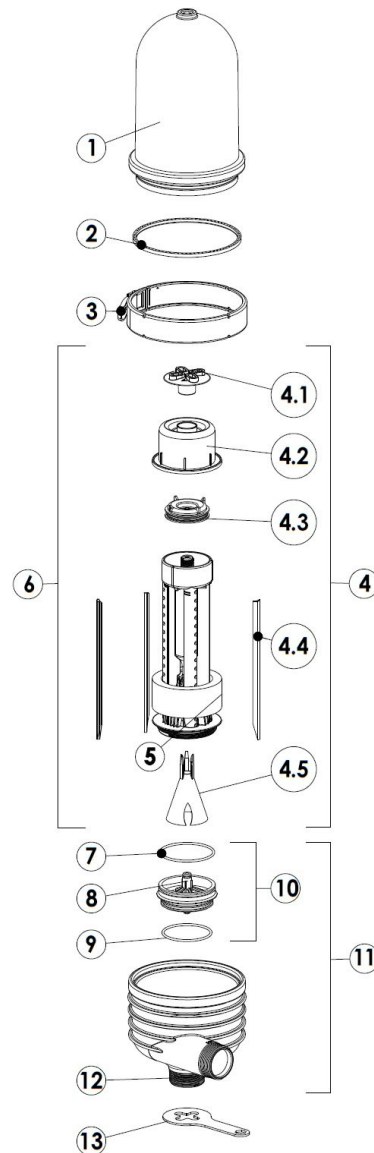
Do not open the filter when it is operating or is pressurized. Open a valve to release pressure . Remove the filter cap(s) (1) by loosening the clamp (3). Turn the wing nut (4.1) on the element with the wrench included in the shipment (13) and remove the press-on cap (4.2). Remove the discs (5), keep them together as a packet with a cord and spray them clean with a powerful water jet. When this is not enough, the disc packet can be submerged in a diluted solution of hydrochloric acid or sodium hydroxide for 4 hours. Then rinse them off with water. To decelerate growth of algae, plankton, etc. one can submerge the rings in a 5% diluted solution of chlorine bleach. All O-rings and other rubber elements must be greased regularly with silicon grease for optimal functioning of the filter. Place the discs back on the spine (4), making sure the correct number of rings are placed. The packet length is important, and must be 235-240mmn. The level of the disc packet on the spine can be marked as follows: the cap should be placed on the empty spine and marked. The packet height is the marked length + 10mm. Mount the press-on

cap and turn the wing nut to hand-tight. Place the filter cap with gasket (2)(with grooves aimed downward) and lock the clamp. Be aware of your fingers.

Notes:

Each filter comes with a manual which includes the installation, operating, and maintenance instructions.

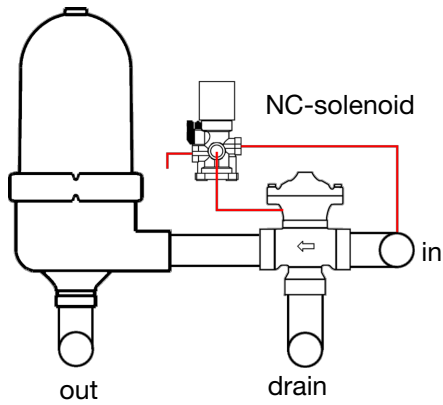
In view of on-going improvements, we reserve the right to change specifications at any time without prior notice.



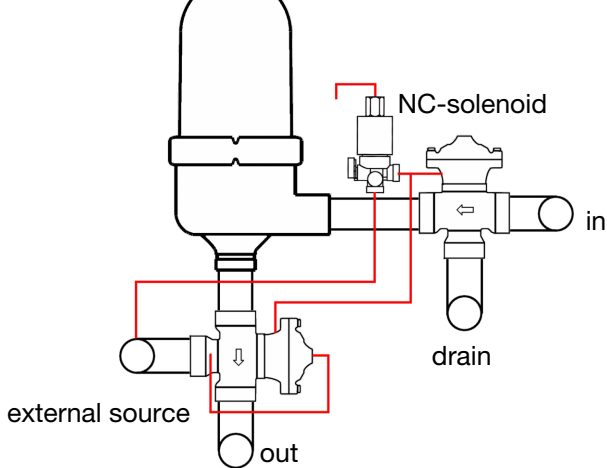
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Control scheme:

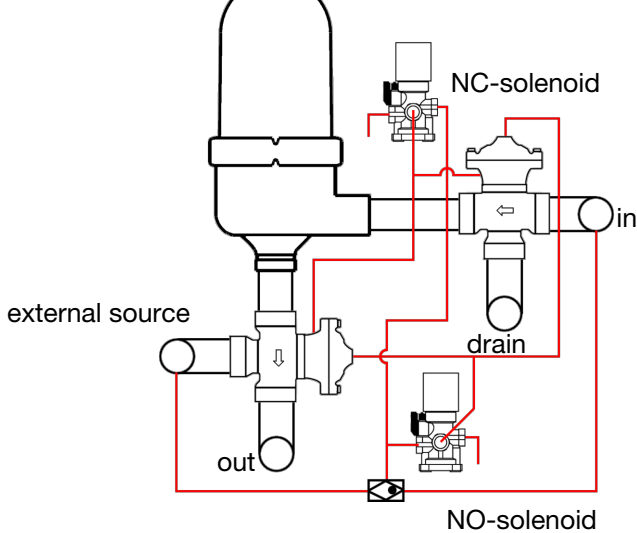
Galileo / Galileo Boxer



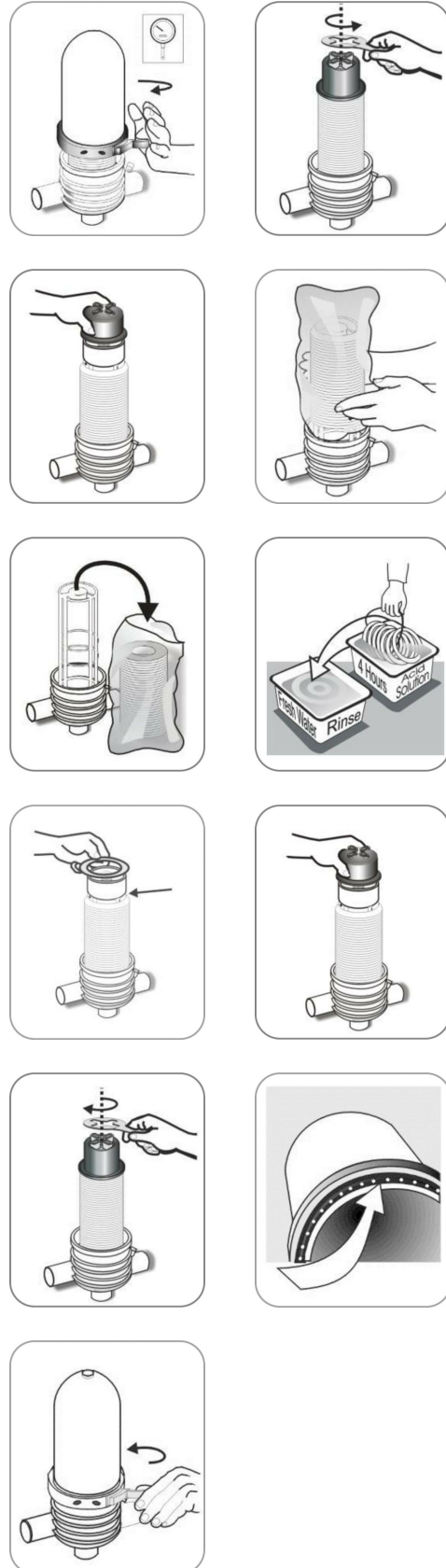
Galileo Ext



Galileo Boxer Ext.



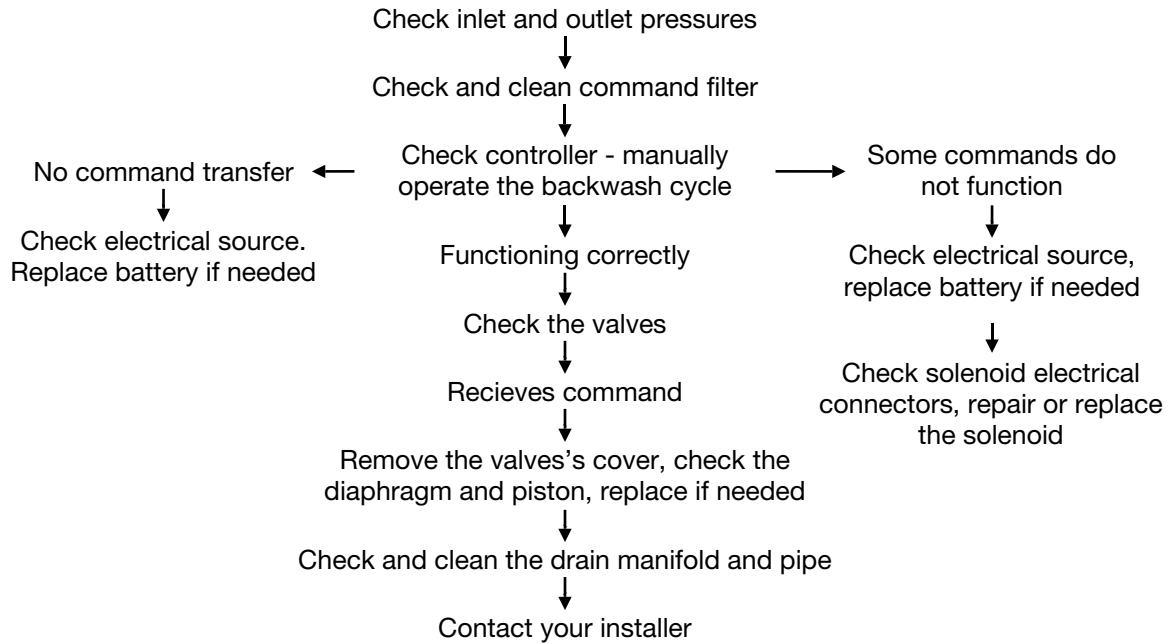
Cleaning the discs:



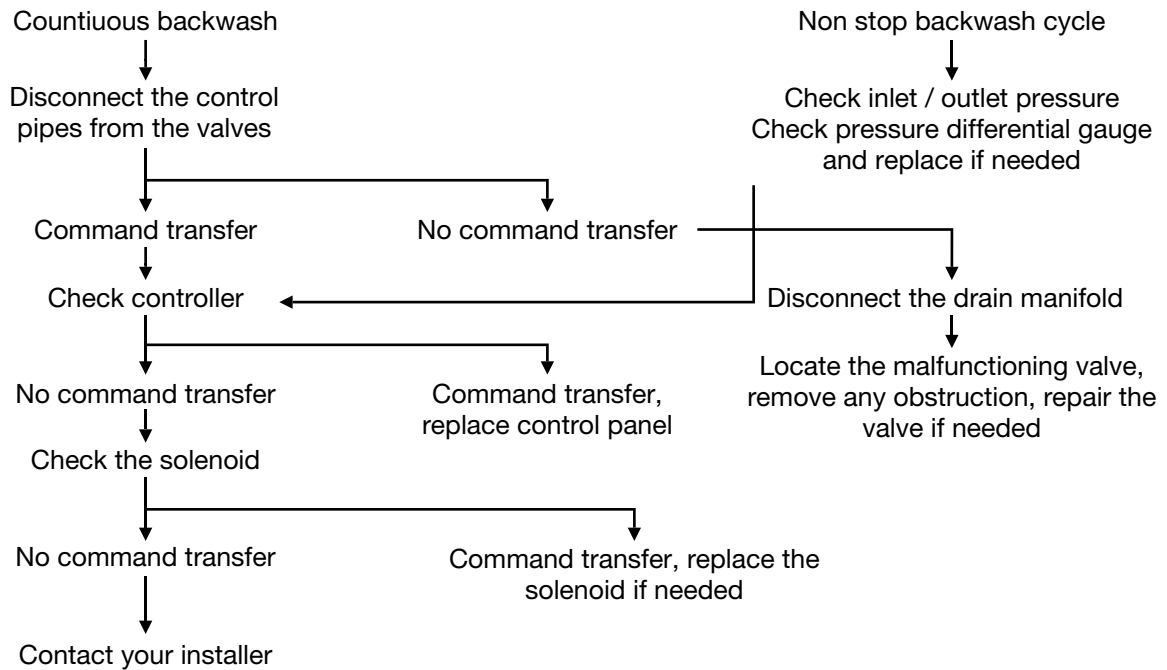
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Trouble shooting Galileo:

No backwash operation



Continous or non-stop backwashing



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Manual

Galileo Series - Guideline Capacity



Guideline capacity Galileo:

Number of filter elements		1	2	3	4	5	6
	water quality	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h
400-100 microns	good	20 (a b)	40	60	80	100	120
	fair	15 (a b)	30	45	60	75	90
	contaminated	10 (a b)	20 (a)	30	40	50	60
	bad	8 (a b)	16 (a)	24	32	40	48
55 microns	good	10 (a b)	20 (a)	30	40	50	60
	fair	8 (a b)	16 (b)	24	32	40	48
	contaminated	6 (a b)	12 (b)	18	24	30	36
	bad	4 (a b)	8 (b)	12 (a)	16	20	24
20 microns	good	5 (a b)	10 (b)	15 (a)	20	25	30
	fair	4 (a b)	8 (b)	12 (b)	16	20	24
	contaminated	3 (a b)	6 (b)	9 (b)	12 (b)	15	18
	bad	2 (a b)	4 (b)	6 (b)	8 (b)	10 (a)	12 (a)
LCE							
400-130 microns	good	15 (a b)	30	45	60	75	90
	fair	11 (a b)	23	34	45	56	68
	contaminated	8 (a b)	15 (b)	23	30	38	45
	bad	6 (a b)	12 (b)	18	24	30	36
100 microns	good	12 (a b)	24	36	48	60	72
	fair	9 (a b)	18 (b)	27	36	45	54
	contaminated	6 (a b)	14 (b)	18	24	30	36
	bad	5 (a b)	10 (b)	14 (b)	19	24	29

- a.) During flushing, complete interruption of service.
- b.) External flushing with filtered water required. (Galileo Ext.).

The capacity is indicated in the range from bad to good water. The capacity during flushing is lower than during service.

The required flushing pressure depends on the situation and applied micronage. For a low service pressure, 'energy-saving', external flushing with raised pressure is required. The service pressure is then minimal and results in perfect cleaning with minor loss of drain water.

Please consult your installer with respect to your specific situation.



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Guideline capacity Galileo Boxer:

Number of duo filter elements		3	4	5	6	7	8
	water quality	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h	m ³ /h
400-100 microns	good	120	160	200	240	280	320
	fair	90	120	150	180	210	240
	contaminated	60	80	100	120	140	160
	bad	48	64	80	96	112	128
55 microns	good	60	80	100	120	140	160
	fair	48	64	80	96	112	128
	contaminated	36 (b)	48	60	72	84	96
	bad	24 (b c)	32 (c)	40	48	56	64
20 microns	good	30 (b c)	40	50	60	70	80
	fair	24 (b c)	32 (c)	40	48	56	64
	contaminated	18 (b c)	24 (b c)	30 (c)	36 (c)	42	48
	bad	12 (b c)	16 (b c)	20 (b c)	24 (a c)	28 (c)	32 (c)
LCE							
400-130 microns	good	90	120	150	180	210	240
	fair	68	90	113	136	159	181
	contaminated	45	60	75	90	105	120
	bad	36 (b)	48	60	72	84	96
100 microns	good	72	96	120	144	168	192
	fair	54	72	90	108	126	144
	contaminated	36 (b)	48	60	72	84	96
	bad	29 (b c)	39	48	58	68	77

- a.) During flushing, complete interruption of service.
- b.) External flushing with filtered water required. (Galileo Boxer Ext.).
- c.) For this situation the standard Galileo is advised.

The capacity is indicated in the range from bad to good water. The capacity during flushing is lower than during service.

The required flushing pressure depends on the situation and applied micronage. For a low service pressure, 'energy-saving', external flushing with raised pressure is required. The service pressure is then minimal and results in perfect cleaning with minor loss of drain water.

Please consult your installer with respect to your specific situation.