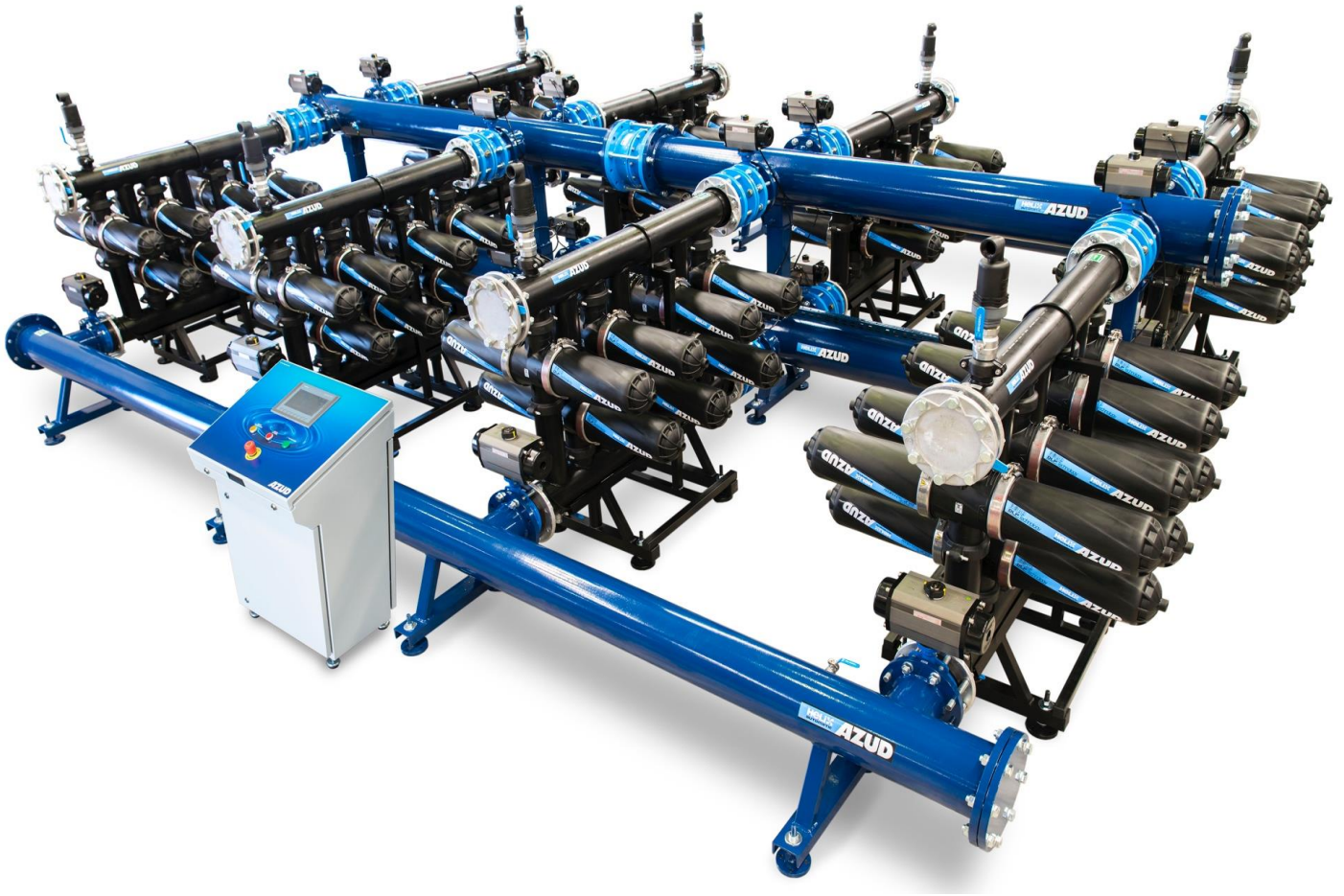


AZUD



Technical Catalogue

ENGLISH

AZUD HELIX AUTOMATIC FT



GENERAL TECHNICAL DATA

AUTOMATIC SELF-CLEANING DISC FILTER
MOC - MATERIALS OF CONSTRUCTION
FILTRATION PHASE
BACKWASH PHASE
WORKING CONDITIONS
COMPETITIVE ADVANTAGES
AZUD FILTRATION SYSTEM SIZING
AZUD HELIX AUTOMATIC RANGE
AZUD CONTROL UNITS
APPLICATIONS

FT200 SERIES FILTRATION EQUIPMENT

AZUD HELIX AUTOMATIC FT200 DLP
AZUD HELIX AUTOMATIC FT200 AA DLP
AZUD HELIX AUTOMATIC FT200 AW DLP
AZUD HELIX AUTOMATIC FT200 AW AA DLP

FT4DCL SERIES FILTRATION EQUIPMENT

AZUD HELIX AUTOMATIC FT4DCL DLP
AZUD HELIX AUTOMATIC FT4DCL AW DLP

AUTOMATIC AND MANUAL FILTERS

AZUD MODULAR 100
AZUD SPIRAL CLEAN
AZUD HELIX SYSTEM FT
AZUD HELIX AUTOMATIC FT DLP

AUTOMATIC SELF-CLEANING DISC FILTER

AZUD HELIX AUTOMATIC FT is the range of AUTOMATIC SELF-CLEANING WATER FILTRATION EQUIPMENT using AZUD DISC FILTERS, for industrial, municipal and residential applications. Each filtration equipment is integrated by:

AZUD DF-DISC DLP FILTER ELEMENTS

A group of devices that filtrates the water and enables the self-cleaning of the filtration media with low water and energy consumption:

- Monoblock SUPPORT AND FUNCTIONAL FRAME with 4 nozzles columns.
- MG or WS DISCS STACK located on the monoblock support, becomes the FILTRATION MEDIA.
- Patented centrifugal anti-clogging deflector AZUD HELIX SYSTEM.
- Plastic dual-plate CHECK VALVE to manage the flow of filtered water and flushing water.
- HYDRAULIC PISTON with spring that compress the discs stack during the filtration phase, and allows the disc stack decompression during the backwash phase.



The filtration element is housed inside a BASE AND LID with a tool-less opening system thanks to the safety clamp.

The AZUD HELIX AUTOMATIC FT filter is made of high-tech thermoplastic materials that guarantee its durability and reliability facing different water qualities and installation requirements.

Filtration degrees (micron)*

MG Discs	WS Discs
400	-
200	-
130	130
100	100
-	50
-	20
-	10
-	5

*Available AZUD discs with different filtration degrees.

Connection Ø	Filtration area per filter	Filtration volume per filter
2"	1620 cm ² (251 in ²)	2430 cm ³ (148 in ³)
3"	3240 cm ² (502 in ²)	4860 cm ³ (297 in ³)

BACKWASH VALVES

Enable the autonomous and independent backwash of each filter, to guarantee the continuous filtered water supply.

INLET, OUTLET AND DRAINAGE MANIFOLDS

Made of HDPE, with DIN/ANSI flange, grooved or PVC (to glue) connections, guarantee robustness, durability and maximum resistance to chemicals and to saline corrosion.

MOC - MATERIALS OF CONSTRUCTION

	DLP AA DLP	AW DLP AW AA	SW DLP SW AA	CL DLP	DW DLP
MG / WS Discs	PP / HDPE	PP / HDPE	PP / HDPE	PP / HDPE	PP / HDPE
Filtration element support frame	rPP	rPP	rPP	rPP	rPP
Spring	SS 302	SUPERDUPLEX	SUPERDUPLEX	SS 302	SS 302
Housing and lid	rPA	rPA	rPA	rPP	rPA-fg
Safety clamp	SS 304	SS 316L	SS 316L	SS 304	SS 316L
Backwash valve (body)	rPA	rPA	rPP	rPP	rPP
Backwash valve (internals)	SS 304	SS 316L	PP	PP	PP
Sealing o-rings	NBR	NBR	NBR	NBR	NBR

HDPE: High Density Polyethylene / PP: Polypropylene / rPP: reinforced PP / rPA: reinforced Polyamide / rPA-fg: rPA-Food Grade / NBR: Nitrile Rubber.

FILTRATION PHASE

During filtration, water flows from the inlet manifold to the filter inside, passing through the anti-clogging deflector AZUD HELIX SYSTEM. This device generates a centrifugal helical effect that throws the heavy particles to the internal wall of the lid and away from the discs stack. This AZUD patent avoids the quick clogging of the filter, minimizing the backwash frequency.

The discs stack is compressed on the support frame thanks to a pre-loaded spring. Therefore, the water can overpass the discs stack only through the existing channels between the discs.

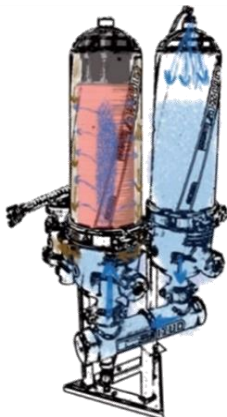
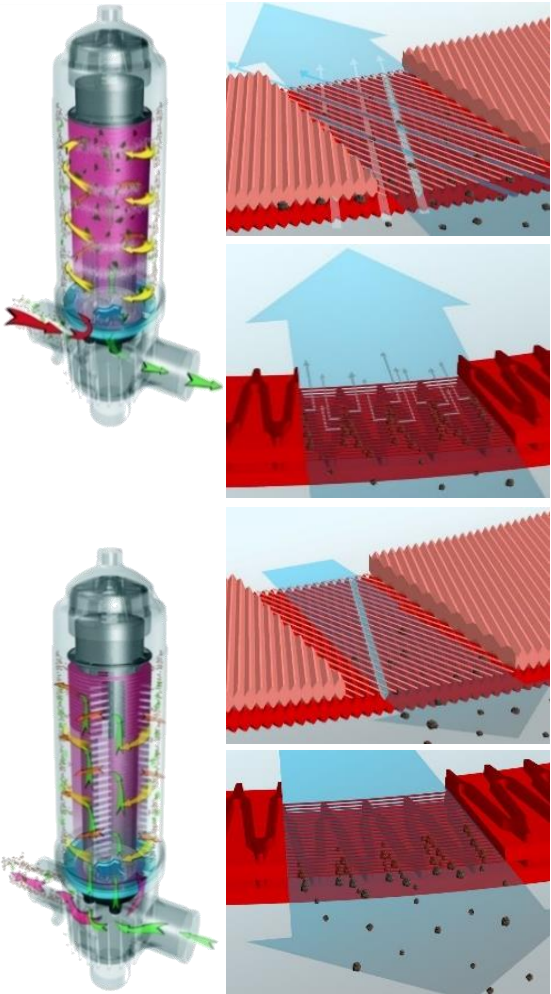
Water flows OUT-IN through the discs stack towards the outlet manifold, while particles bigger than the filtration degree are trapped in the discs.

BACKWASH PHASE

Automatic backwashing can be activated by differential pressure, by time trigger or by an external electrical signal.

The backwash valve of each filter can reverse the flow direction, allowing the filtered pressurized water to flow IN-OUT through the discs. The discs stack is decompressed and the high-speed flushing water through the spray nozzles create a tangential cleaning effect, flushing out the trapped particles.

The filtration equipment is cleaned sequentially, so while each filter is backwashed, the rest of the filters composing the filtration equipment are supplying filtered water.



Air Assisted Backwash (AA)

Exclusive AZUD system for applications with high loads of organic or filamentous suspended solids.

A mix of water-air flowing at high speed backwashes each filter element, providing a more energetic and effective cleaning. Water savings 80% higher than conventional equipment.

WORKING CONDITIONS

	Standard DLP	Air Assisted Backwash (AA)	High Pressure (HP)
Maximum working pressure:	10 bar (145 psi)	10 bar* (145 psi)	16 bar (232 psi)
Max. pressure recommended:	8 bar (116 psi)	6 bar* (87 psi)	14 bar (203 psi)
Minimum working pressure:	0.8 bar (11.6 psi)	0.8 bar (11.6 psi)	0.8 bar (11.6 psi)
Minimum backwash pressure:	1.5 bar (22 psi)	Compressed air pressure at 4.5	1.5 bar (22 psi)
Minimum backwash flow:	2.5 lps (2" - 3") 5.0 lps (4")	10 l of water per each 2" filter	2.5 lps (3")
Backwash time:	15 - 25 seconds 20 - 30 seconds	flushing	15 - 25 seconds
pH:	4 - 11 CL series: 2 - 11		
T [°] :	≤ 60 °C (140 °F)		
Electrical supply:	110 / 220 V AC (50 / 60 Hz)		

*The air pressure should be higher than the water pressure and it is recommended that the air pressure doesn't exceed the 6 bar.

COMPETITIVE ADVANTAGES

AZUD DISC



2 DISC TYPES depending on each application requirements:

AZUD MG disc: grooved filtration channels on both sides of the disc.

> In-depth filtration, trapping along the disc channel even smaller particles than the filtration degree.

AZUD WS disc: different geometry and functionality on both sides of the disc.

> Surface filtration, with a large volume of particles retention thanks to the multiple intersection crosses between channels.

Larger disc diameter

Increased filtration area

Larger grooved channel

Better in-depth filtration

Increased particles retention capacity

"Slim design" disc

More discs per filtration element

MG disc: increased passageways density

WS disc: more intersection crosses

More filtration channels per disc



AZUD FILTRATION ELEMENT

Larger diameter of the AZUD disc and higher discs stack

INCREASED FILTRATION AREA

Larger filtration area and larger grooved channel of AZUD disc

INCREASED FILTRATION VOLUME

More discs and more filtration channels per disc

INCREASED PARTICLES RETENTION CAPACITY per cm²



Patented centrifugal anti-clogging deflector AZUD HELIX SYSTEM



Less backwash frequency
Water and energy savings

Higher flushing nozzles density with multiple impact points

Better backwash efficiency

Individual filtration element with its own base and lid

No possibility of fouling between filters during the self-cleaning phase

DLP low pressure technology

Lower operation pressure
Energy saving



Safety clamp

Safe operation
Tool-less opening system



DLP Technology
Low Pressure Backflush
Baja Presión de Limpieza

AZUD DISCS FILTRATION EQUIPMENT



Modularity

Wide range of flow rates and configurations using a minimum number of components



Wide filtration range

Standard filtration degrees from 5 to 400 micron



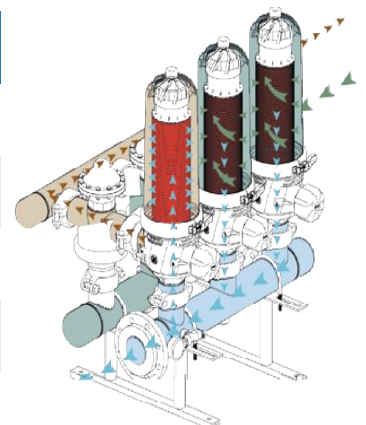
Different water qualities

Different materials and components meeting application requirements



Non-stop filtration

Sequential self-cleaning to guarantee the filtered water supply



AZUD FILTRATION SYSTEM SIZING

A FILTRATION SYSTEM SIZING depends on:

- RAW WATER QUALITY, different water qualities depending on the RAW WATER SOURCE, the suspended solid particles concentration (TSS and turbidity), the particle type and the particle size.
- Selected FILTRATION DEGREE.
- INLET/OUTLET MANIFOLD DIAMETER; the same filtration equipment has different options regarding the inlet/outlet manifold diameter, depending on the expected floe rate, the installation requirements or future filtration system extensions. The maximum water velocity in the manifold is a limiting parameter to be considered in a filtration equipment selection.
- Filter equipment HEAD LOSS as per the size and type of the auxiliary elements (manifolds, flanges and valves).
- APPLICATION REQUIREMENTS AND CONFIGURATION.
- HYDRAULIC INTERACTION of the filtration system with the existing installation.

QUICK SELECTION GUIDE

In order to define an APPROXIMATE SELECTION CRITERIA, it is considered just the RAW WATER SOURCE, providing a referential TSS value. The MAXIMUM FLOW RATE is given per FILTRATION ELEMENT depending on the available FILTRATION DEGREES range.

Quality	Raw water source	Filtration degree micron	TSS ppm	Flow rate per filter element (1620 cm ²)	
				m ³ /h	gpm
GOOD	> Municipal water supply	200 - 400	0 - 75	26 - 28	114 - 123
	> Closed loop water recirculation system				
	> Sea water taken from a beach well	100 - 130	0 - 50	24 - 26	106 - 114
	> Pre-treated water with multimedia filter or membrane technology	50	0 - 25	13 - 14	57 - 62
	> Deep water coming from a steady aquifer through a casing well, without suspended solids nor scaling salts	5 - 10 - 20	0 - 15	4 - 8	22 - 35
AVERAGE	> Open loop water recirculation system, with cold climates or good quality environmental	200 - 400	75 - 125	24 - 26	106 - 114
	> Clear and stable quality surface water (lakes and ponds, slow flowing rivers and canals)	100 - 130	50 - 75	22 - 24	97 - 106
	> Sea water taken far away from the coastline	50	25 - 50	12 - 13	53 - 57
	> Reclaimed wastewater after tertiary treatment				
	> Industrial process water with low load of suspended solids	5 - 10 - 20	15 - 25	3 - 7	18 - 31
POOR	> Open loop water recirculation system, with hot climates or bad quality environmental	200 - 400	125 - 175	22 - 24	97 - 106
	> Bad quality surface water (lakes and ponds, rivers and canals) with increased biological growth and no chemical treatment	100 - 130	75 - 100	20 - 22	88 - 97
	> Well water from a poor quality aquifer	50	50 - 75	11 - 12	48 - 53
	> Sea water taken directly at the coastline				
	> Industrial process water with high load of suspended solids	5 - 10 - 20	25 - 50	3 - 6	13 - 26
VERY POOR	> Surface water (lakes and ponds, rivers and canals) affected by floods and storm water with soil erosion	200 - 400	175 - 250	21 - 22	92 - 97
	> Well water from a collapsed well or with high concentration of scaling salts	100 - 130	100 - 150	18 - 20	79 - 88
	> Sea water taken near to rivers, harbours or industrial parks	50	75 - 100	10 - 11	44 - 48
	> Industrial process water with high load of suspended solids or sticky particles or fibres				
		5 - 10 - 20	50 - 75	2 - 5	9 - 22

Check with AZUD Engineering Department in order to select the AZUD FILTRATION SYSTEM that best meets your application requirements.

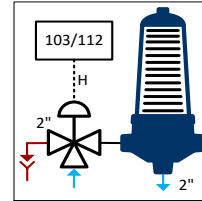
AZUD HELIX AUTOMATIC RANGE

FRESH AND LOW SALINITY WATER Filtration equipment (TDS < 6000 ppm)

FT200

DLP

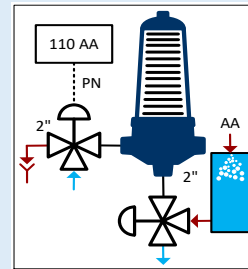
- Equipment with 1 - 12 Filters Ø 2" (rPA)
- 1 x 2"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Hydraulic command (H)
- Control unit: FBC 103/112
- Q max. **130 micron**: 24 - 288 m³/h (106 - 1268 gpm)
- Q max. **50 micron**: 14 - 168 m³/h (62 - 740 gpm)



FT200

AA DLP

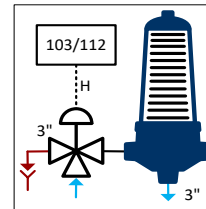
- Equipment with 1 - 10 Filters Ø 2" (rPA) - Air Assisted Backwash
- 2 x 2"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Pneumatic command (PN)
- Control unit: FBC 101/110 AA
- Q max. **130 micron**: 21 - 210 m³/h (92 - 925 gpm)
- Q max. **50 micron**: 14 - 140 m³/h (62 - 616 gpm)



*FT300

DLP

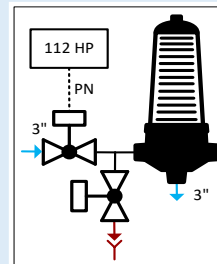
- Equipment with 2 - 8 Filters Ø 3" (rPA)
- 1 x 3"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Hydraulic command (H)
- Control unit: FBC 103/112
- Q max. **130 micron**: 52 - 208 m³/h (229 - 916 gpm)



*FT300

HP DLP

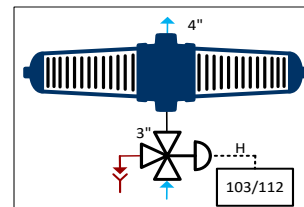
- Equipment with 2 - 8 Filters Ø 3" (Carbon steel) - P max: 16 bar
- 2 x 3"- Butterfly 2-way backwash valve (metal - SS 316L plate)
- Pneumatic command (PN)
- Control unit: FBC 112 HP
- Q max. **130 micron**: 52 - 208 m³/h (229 - 916 gpm)
- Q max. **50 micron**: 28 - 112 m³/h (123 - 493 gpm)



FT4DCL

DLP

- Equipment with 3 - 12 Double Filters Ø 4" (rPA)
- 1 x 3"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Hydraulic command (H)
- Control unit: FBC 103/112
- Q max. **130 micron**: 156 - 624 m³/h (687 - 2748 gpm)
- Q max. **50 micron**: 84 - 336 m³/h (370 - 1480 gpm)

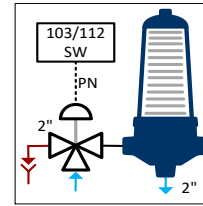


* Series not included in the catalogue. Please check with our Technical Department.

HIGH SALINITY WATER Filtration equipment (TDS: 6000 - 35000 ppm)

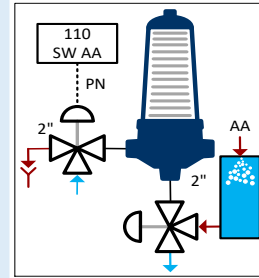
**FT200 AW DLP

- Equipment with 1 - 12 Filters Ø 2" (rPA)
 - 1 x 2"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
 - Pneumatic command (PN)
 - Control unit: FBC 103/112 SW
- Q max. **130 micron**: 24 - 288 m³/h (106 - 1268 gpm)
Q max. **50 micron**: 14 - 168 m³/h (62 - 740 gpm)



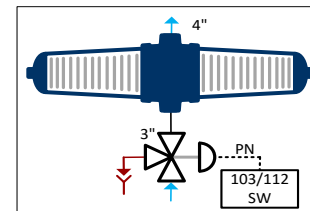
**FT200 AW AA DLP

- Equipment with 1 - 10 Filters Ø 2" (rPA) - Air Assisted Backwash
 - 2 x 2"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
 - Pneumatic command (PN)
 - Control unit: FBC 101/110 SW AA
- Q max. **130 micron**: 21 - 210 m³/h (92 - 925 gpm)
Q max. **50 micron**: 14 - 140 m³/h (62 - 616 gpm)



**FT4DCL AW DLP

- Equipment with 3 - 12 Double Filters Ø 4" (rPA)
 - 1 x 3"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
 - Pneumatic command (PN)
 - Control unit: FBC 103/112 SW
- Q max. **130 micron**: 156 - 624 m³/h (687 - 2748 gpm)
Q max. **50 micron**: 84 - 336 m³/h (370 - 1480 gpm)

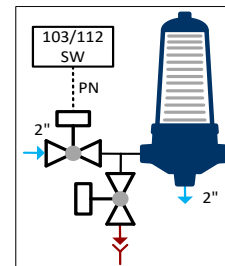


** The saline corrosion resistance of Stainless Steel depends not only on TDS value, but on concentration of chlorides and oxygen presence as well.

SEA WATER Filtration equipment (TDS: 35000 - 55000 ppm)

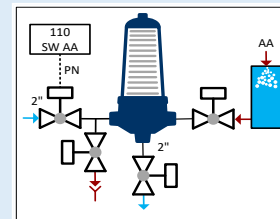
*700 SW DLP

- Equipment with 2 - 8 Filters Ø 2" (rPA).
 - 2 x 2"- Butterfly 2-way backwash valve (rPP - PP plate)
 - Pneumatic command (PN)
 - Control unit: FBC 103/112 SW
- Q max. **130 micron**: 52 - 208 m³/h (229 - 916 gpm)
Q max. **50 micron**: 28 - 112 m³/h (123 - 493 gpm)



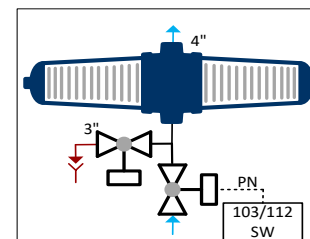
*700 SW AA DLP

- Equipment with 1 - 10 Filters Ø 2" (rPA) - Air Assisted Backwash
 - 4 x 2"- Butterfly 2-way backwash valve (rPP - PP plate)
 - Pneumatic command (PN)
 - Control unit: FBC 101/110 SW AA
- Q max. **130 micron**: 26 - 260 m³/h (114 - 1145 gpm)
Q max. **50 micron**: 14 - 140 m³/h (62 - 620 gpm)



*800 SW DLP

- Equipment with 3 - 12 Double Filters Ø 4" (rPA)
 - 2 x 3"- Butterfly 2-way backwash valve (rPP - PP plate)
 - Pneumatic command (PN)
 - Control unit: FBC 103/112 SW
- Q max. **130 micron**: 156 - 624 m³/h (687 - 2748 gpm)
Q max. **50 micron**: 84 - 336 m³/h (370 - 1480 gpm)



* Series not included in the catalogue. Please check with our Technical Department.

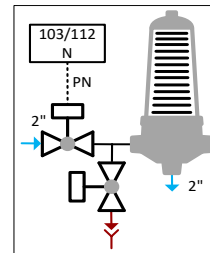
CHLORINATED WATER Filtration equipment

***700**
CL DLP

- Equipment with 2 - 8 Filters Ø 2" (rPP) - Chlorine resistant
- 2 x 2"- Butterfly 2-way backwash valve (rPP - PP plate)
- Pneumatic command (PN)
- Control unit: FBC 103/112 N

Q max. **130 micron:** 52 - 208 m³/h (229 - 916 gpm)

Q max. **50 micron:** 28 - 112 m³/h (123 - 493 gpm)

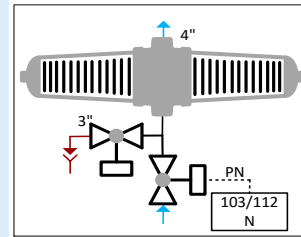


***800**
CL DLP

- Equipment with 3 - 12 Double Filters Ø 4" (rPP) - Chlorine resistant
- 2 x 3"- Butterfly 2-way backwash valve (rPP - PP plate)
- Pneumatic command (PN)
- Control unit: FBC 103/112 N

Q max. **130 micron:** 156 - 624 m³/h (687 - 2748 gpm)

Q max. **50 micron:** 84 - 336 m³/h (370 - 1480 gpm)



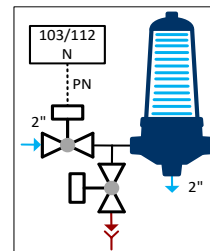
DRINKING WATER Filtration equipment

***700**
DW DLP

- Equipment with 2 - 8 Filters Ø 2" (rPA-fg) - Food grade
- 2 x 2"- Butterfly 2-way backwash valve (rPP - PP plate)
- Pneumatic command (PN)
- Control unit: FBC 103/112 N

Q max. **130 micron:** 52 - 208 m³/h (229 - 916 gpm)

Q max. **50 micron:** 28 - 112 m³/h (123 - 493 gpm)

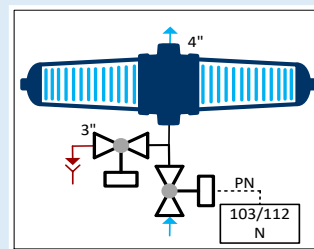


***800**
DW DLP

- Equipment with 3 - 12 Double Filters Ø 4" (rPA-fg) - Food grade
- 2 x 3"- Butterfly 2-way backwash valve (rPP - PP plate)
- Pneumatic command (PN)
- Control unit: FBC 103/112 N

Q max. **130 micron:** 156 - 624 m³/h (687 - 2748 gpm)

Q max. **50 micron:** 84 - 336 m³/h (370 - 1480 gpm)



* Series not included in the catalogue. Please check with our Technical Department.

HIGH FLOW Filtration Systems

4DC DLP - System for fresh and low salinity water (TDS < 6000 ppm)

4DC SW DLP - System for high salinity water and sea water (TDS: 6000 - 55000 ppm)

• **MODULES with 5-12 double filters Ø 4" (rPA)**

Q max. per module (130 micron): 260 - 624 m³/h (1145 - 2748 gpm)

Q max. per module (50 micron): 140 - 336 m³/h (616 - 1480 gpm)

> BACKWASH VALVES per module

Diameter and technical features to be selected depending on application requirements.

> Pneumatic command (PN)

• **FILTRATION SYSTEM with 4-12 MODULES**

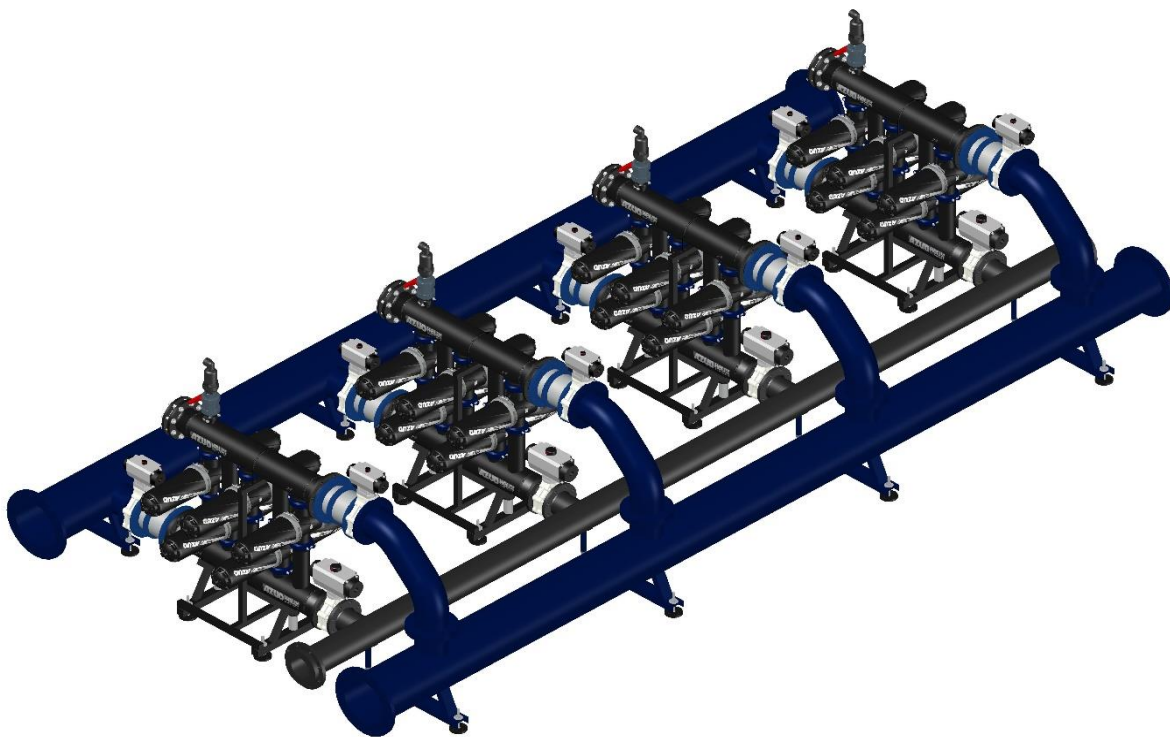
Q max. per system with modules of 12 double filters 4" (130 micron): 2496 - 7488 m³/h (10991 - 32972 gpm)

Q max. per system with modules of 12 double filters 4" (50 micron): 1344 - 4032 m³/h (5918 - 17754 gpm)

• **External backwash source option**

• **Vertical installation for reduced footprint**

• **Automation with Control Unit FBC or with PLC/HMI**



** Series not included in the catalogue. Please check with our Technical Department.*

AZUD CONTROL UNITS

The AZUD control unit is a compact system that includes all the required devices needed for the detection, activation and command of the backwash cycle of discs filtration equipment AZUD HELIX AUTOMATIC FT.

Its robust design, Plug&Play installation and easy operation, ensures the total autonomy of the filtration equipment, to guarantee the continuous filtered water supply.

The AZUD control unit includes the following devices:

- PROGRAMMER that allows the user to configure the number of filtration stations and the self-cleaning cycle of each filtration station. The self-cleaning of the filtration equipment can be activated either by differential pressure, by time trigger or by an external electrical signal.
- DISPLAY, to show the filtration equipment status and the information about the self-cleaning of every filtration station.
- PROTECTION HOUSING IP65, including the auxiliary components (transformer, relay, fuse and terminal connections).
- DIFFERENTIAL PRESSURE GAUGE, with visual indicator and electrical switch for the backwash activation.
- SOLENOIDS, for the hydraulic/pneumatic command of the backwash valves.



AZUD has available two Control Unit types with different characteristics depending on each application requirements:

	AZUD FBC Standard Control Unit	AZUD LOGIC - HMI Control Unit
Programmer type	Controller	PLC
Screen	Monocolour display	Colour touch HMI
Protection housing	Plastic box IP65 with a window located on a polypropylene panel	Closed metallic cabinet IP 65
Safety elements	Fuses / Capacitor (VDR)	Thermal overload / Differential protection / Emergency press button / General switch
Languages	Two languages; English/Spanish or French/German	Configurable multi-language
Warnings and Alarms	Optional	Included
Communication	Voltage free contact	Modbus Ethernet IP
Instrumentation	Digital switch	Analog sensor
Control voltage	24 V AC	24 V DC
User levels	Open	Password protected
Operational parameter data	Visual reading	Historical parameter database

AZUD FBC Standard Control Units

Control Units for fresh and low salinity water (TDS < 6000 ppm)

AZUD FBC 103/112

Controller:	Self-cleaning is activated by differential pressure, by time trigger or by an external electrical signal
DP switch:	0.1 - 1.0 bar - Visual indicator
Voltage:	110 / 220 V (50 / 60 Hz)
Solenoids:	3-way type NC. Hydraulic command
Languages:	English/Spanish & French/German
Valid for:	FT200 DLP, FT300 DLP, FT4DCL DLP



AZUD FBC 101/110 AA

Controller:	Self-cleaning is activated by differential pressure, by time trigger or by an external electrical signal
AA command:	Control of compressed air injection into the auxiliary tank
DP switch:	0.1 - 1.0 bar - Visual indicator
Voltage:	110 / 220 V (50 / 60 Hz)
Solenoids:	4-way type. Pneumatic command (6 bar pressure regulator)
Languages:	English/Spanish & French/German
Valid for:	FT200 AA



Control Units for high salinity water and sea water (TDS: 6000 - 55000 ppm)

AZUD FBC 103/112 SW

Controller:	Self-cleaning is activated by differential pressure, by time trigger or by an external electrical signal
DP switch:	0.2 - 2.1 bar
Pr. Gauge:	0 - 10 bar- Membrane fluid separator
Voltage:	110 / 220 V (50 / 60 Hz)
Solenoids:	4-way type. Pneumatic command (6 bar pressure regulator)
Languages:	English/Spanish & French/German
Valid for:	FT200 AW DLP, FT4DCL AW DLP, FT700 SW DLP, FT800 SW DLP



AZUD FBC 101/110 SW AA

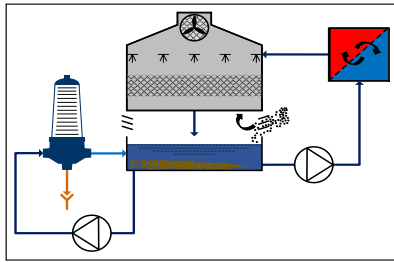
Controller:	Self-cleaning is activated by differential pressure, by time trigger or by an external electrical signal
AA command:	Control of compressed air injection into the auxiliary tank
DP switch:	0.2 - 2.1 bar
Pr. Gauge:	0 - 10 bar- Membrane fluid separator
Voltage:	110 / 220 V (50 / 60 Hz)
Solenoids:	4-way type. Pneumatic command (6 bar pressure regulator)
Languages:	English/Spanish & French/German
Valid for:	FT200 AW AA, FT700 SW AA



APPLICATIONS

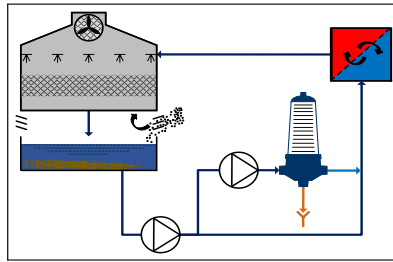
COOLING TOWERS

Basin cleaning



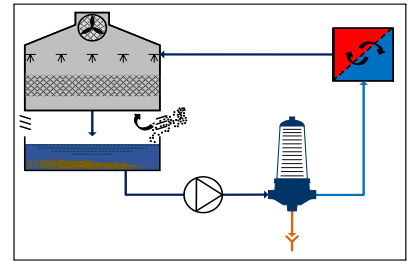
- ✓ 50 - 100 micron
- ✓ DLP / AA DLP

Side stream



- ✓ 50 - 100 micron
- ✓ DLP / AA DLP

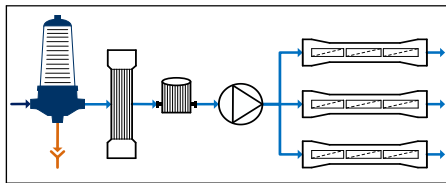
Full flow



- ✓ 100 - 200 micron
- ✓ DLP / AA DLP

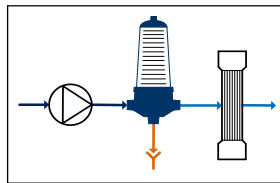
UF / RO MEMBRANES PROTECTION

Sea water desalination



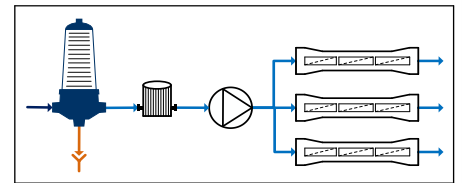
- ✓ OUT/IN UF → 100 - 200 micron
- ✓ IN/OUT UF → 50 - 130 micron
- ✓ AW-SW DLP / AW-SW AA DLP

Ultrafiltration



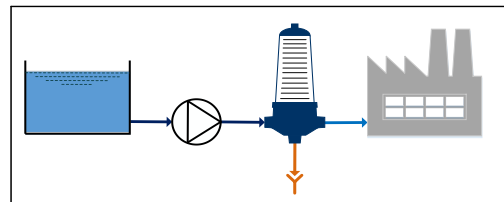
- ✓ OUT/IN UF → 100 - 200 micron
- ✓ IN/OUT UF → 50 - 130 micron
- ✓ DLP / AA DLP

Reverse Osmosis



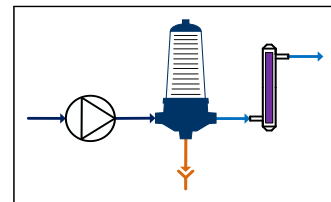
- ✓ 5 - 20 micron
- ✓ AW-SW DLP

INDUSTRIAL MAKE UP WATER FILTRATION



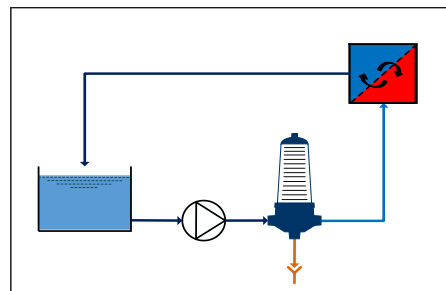
- ✓ 50 - 200 micron
- ✓ DLP / AA DLP

UV LAMP PROTECTION



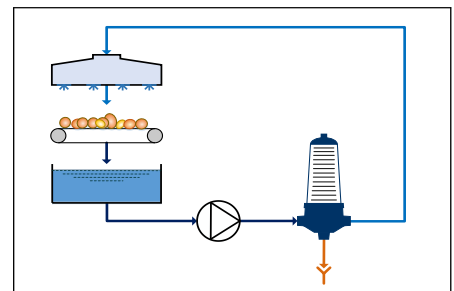
- ✓ 20 - 50 micron
- ✓ DLP / AA DLP

HEAT EXCHANGER PROTECTION



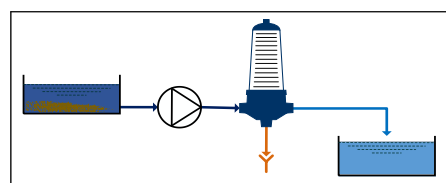
- ✓ 100 - 200 micron
- ✓ AA DLP

SPRAY NOZZLES PROTECTION



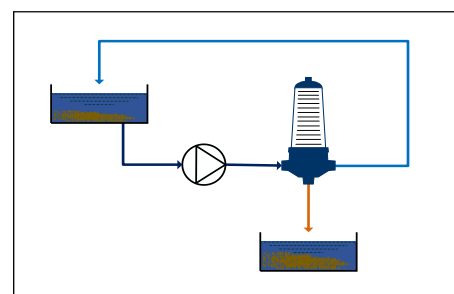
- ✓ Ø 0.5 mm → 50 - 100 micron
- ✓ Ø 1.0 mm → 130 - 200 micron
- ✓ DLP / AA DLP

PARTICLES REMOVAL FILTRATION



- ✓ 50 - 200 micron
- ✓ DLP / AA DLP

PARTICLES RECOVERY FILTRATION



- ✓ 50 - 200 micron
- ✓ AA DLP



AZUD HELIX AUTOMATIC FT204 / 4 FX DLP 130 micron

① ② ③ ④

Filtration equipment for FRESH AND LOW SALINITY WATER (TDS < 6000 ppm)

Equipment with 1 - 12 Filters Ø 2" (rPA)

- 1 x 2" - Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Hydraulic command (H)
- Inlet/Outlet HDPE manifolds: Ø 2"-10" (50-250 mm) - Flange/Grooved
- Drainage HDPE manifold: Ø 3" (90 mm) - Grooved/PVC (Glue)

Filtration degrees (micron)

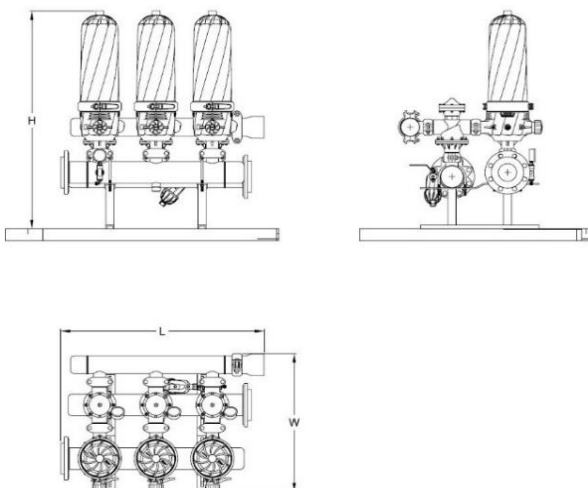
2 filters: 400, 200, 130, 100
3-4 filters: 400, 200, 130, 100, 50, 20
1 & 5-12 filters: 400, 200, 130, 100, 50, 20, 10, 5

④

Maximum working pressure: 10 bar (145 psi)
Minimum working pressure: 0.8 bar (11.6 psi)
Minimum backwash pressure: 1.5 bar (22 psi)
Minimum backwash flow: 2.5 lps (2" - 3")
Backwash time: 15 - 25 seconds
Electrical supply: 110 / 220 V AC (50 / 60 Hz)

Filtration area	Filter type	229	AZUD HELIX AUTOMATIC			Max. FLOW RATE		216
			FT200 DLP			130 micron*	50 micron	
		① Model	② Ø I/O Manifold	③ Inlet/Outlet connections	m³/h (gpm)	m³/h (gpm)	Control unit	
1620 cm²	1x2"	FT201	2" (50 mm)	Grooved BSP (VX) / Thread NPT (NX)		24 (106)	14 (62)	FBC 103/1
3240 cm²	2x2"	FT202	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)		48 (211)	-	FBC 103/2
4860 cm²	3x2"	FT203	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)		50 (220)	42 (185)	FBC 103/3
			4" (110 mm)	Brida DIN (FX)-ANSI (FA) / Ranurada (VX)		72 (317)		
6480 cm²	4x2"	FT204	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)		80 (352)	56 (247)	FBC 112/4
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		96 (423)		
8100 cm²	5x2"	FT205	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)		80 (352)	70 (308)	FBC 112/5
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		120 (528)		
9720 cm²	6x2"	FT206	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		144 (634)	84 (370)	FBC 112/6
11340 cm²	7x2"	FT207	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		160 (705)	98 (432)	FBC 112/7
12960 cm²	8x2"	FT208	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		160 (705)	112 (493)	FBC 112/8
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		192 (845)		
14580 cm²	9x2"	FT209	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		160 (705)	126 (555)	FBC 112/9
			8" (200 mm)	Brida DIN/ANSI (FX) / Ranurada (VX)		216 (951)		
16200 cm²	10x2"	FT210	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		160 (705)	140 (616)	FBC 112/10
			8" (200 mm)	Brida DIN/ANSI (FX) / Ranurada (VX)		240 (1057)		
17820 cm²	11x2"	FT211	8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		240 (1057)	154 (678)	FBC 112/11
			10" (250 mm)	DIN (FX) / ANSI (FA) Flange		264 (1162)		
19440 cm²	12x2"	FT212	8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)		240 (1057)	168 (740)	FBC 112/12
			10" (250 mm)	DIN (FX) / ANSI (FA) Flange		288 (1268)		

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT201	842 x 247 x 1483	1
FT202	745 x 700 x 1085	1
FT203	990 x 700 x 1105	1
FT204	1220 x 700 x 1155	1
FT205	1560 x 700 x 1155	1
FT206	1835 x 700 x 1155	1
FT207	2110 x 700 x 1155	1
FT208	2410 x 780 x 1200	1
FT209	2685 x 780 x 1200	1
FT210	3005 x 780 x 1200	2
FT211	3310 x 885 x 1250	2
FT212	3585 x 885 x 1250	2



AZUD HELIX AUTOMATIC FT203 / 4 FX AA 130 micron

① ② ③ ④

Filtration equipment for FRESH AND LOW SALINITY WATER (TDS < 6000 ppm)

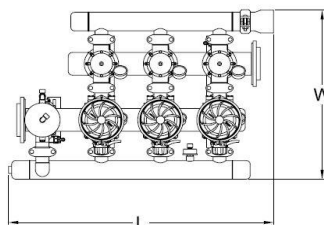
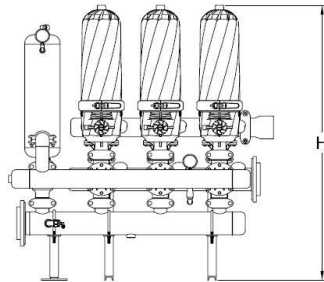
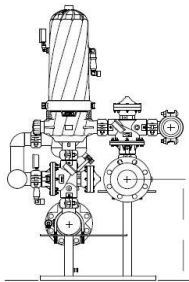
- Equipment with 1 - 10 Filters Ø 2" (rPA) - Air Assisted Backwash
- 2 x 2"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft)
- Pneumatic command (PN)
- Inlet/Outlet HDPE manifolds: Ø 2"-8" (50-250 mm) - Flange/Grooved
- Drainage HDPE manifold: Ø 3" (90 mm) - Grooved/PVC (Glue)

Filtration degrees (micron)	1-10 filters: 400, 200, 130, 100, 50, 20, 10, 5	④
Maximum working pressure:	10 bar* (145 psi)	
Minimum working pressure:	0.8 bar (11.6 psi)	
Minimum backwash pressure:	Compressed air pressure at 4.5 bar	
Minimum backwash flow:	10 l of water per each 2" filter flushing	
Electrical supply:	110 / 220 V AC (50 / 60 Hz)	

The air pressure should be higher than the water pressure and it is recommended that the air pressure doesn't exceed the 6 bar.

Filtration area	Filter type	AZUD HELIX AUTOMATIC FT200 AA DLP			Max. FLOW RATE		Control unit
		① Model	② Ø I/O Manifold	③ Inlet/Outlet connections	130 micron* m³/h (gpm)	50 micron m³/h (gpm)	
1620 cm²	1x2"	FT201 AA	2" (50 mm)	Grooved (VX)	21 (92)	14 (62)	FBC 101 AA
3240 cm²	2x2"	FT202 AA	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	42 (185)	28 (123)	FBC 110/2 AA
4860 cm²	3x2"	FT203 AA	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	50 (220)	42 (185)	FBC 110/3 AA
			4" (110 mm)	Brida DIN (FX)-ANSI (FA) / Ranurada (VX)	63 (277)		
6480 cm²	4x2"	FT204 AA	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	56 (247)	FBC 110/4 AA
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	84 (370)		
8100 cm²	5x2"	FT205 AA	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	70 (308)	FBC 110/5 AA
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	105 (462)		
9720 cm²	6x2"	FT206 AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	126 (555)	84 (370)	FBC 110/6 AA
11340 cm²	7x2"	FT207 AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	147 (647)	98 (432)	FBC 110/7 AA
12960 cm²	8x2"	FT208 AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	112 (493)	FBC 110/8 AA
			8" (200 mm)	Brida DIN/ANSI (FX) / Ranurada (VX)	168 (740)		
14580 cm²	9x2"	FT209 AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	126 (555)	FBC 110/9 AA
			8" (200 mm)	Brida DIN/ANSI (FX) / Ranurada (VX)	189 (832)		
16200 cm²	10x2"	FT210 AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	140 (616)	FBC 110/10 AA
			8" (200 mm)	Brida DIN/ANSI (FX) / Ranurada (VX)	210 (925)		

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT201 AA	605 x 475 x 1065	1
FT202 AA	990 x 820 x 1310	1
FT203 AA	1220 x 820 x 1330	1
FT204 AA	1560 x 820 x 1380	1
FT205 AA	1835 x 820 x 1380	1
FT206 AA	2110 x 820 x 1380	1
FT207 AA	2385 x 820 x 1380	1
FT208 AA	2660 x 820 x 1420	1
FT209 AA	2980 x 820 x 1420	2
FT210 AA	3255 x 820 x 1420	2



AZUD HELIX AUTOMATIC FT204 / 4 FX AW DLP 130 micron

① ② ③ ④

Filtration equipment for HIGH SALINITY WATER (TDS: 6000 - 35000 ppm)

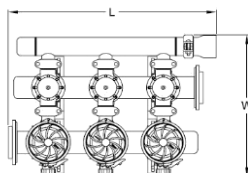
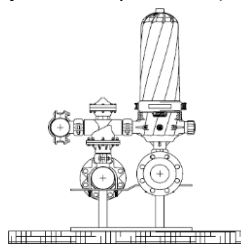
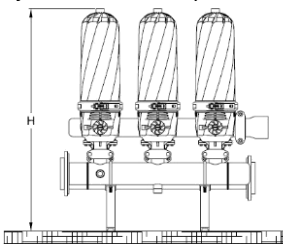
- Equipment with 1 - 12 Filters Ø 2" (rPA)
- 1 x 2"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
- Pneumatic command (PN)
- Inlet/Outlet HDPE manifolds: Ø 2"-10" (50-250 mm) - Flange/Grooved
- Drainage HDPE manifold: Ø 3" (90 mm) - Grooved/PVC (Glue)

Filtration degrees (micron)	2 filters: 400, 200, 130, 100	④
	3-4 filters: 400, 200, 130, 100, 50, 20	
	1 & 5-12 filters: 400, 200, 130, 100, 50, 20, 10, 5	

Maximum working pressure:	10 bar (145 psi)
Minimum working pressure:	0.8 bar (11.6 psi)
Minimum backwash pressure:	1.5 bar (22 psi)
Minimum backwash flow:	2.5 lps (2" - 3")
Backwash time:	15 - 25 seconds
Electrical supply:	110 / 220 V AC (50 / 60 Hz)

Filtration area	Filter type	AZUD HELIX AUTOMATIC FT200 AW DLP			Max. FLOW RATE		317
		230	② Ø I/O Manifold	③ Inlet/Outlet connections	130 micron* m³/h (gpm)	50 micron m³/h (gpm)	
1620 cm²	1x2"	FT201 AW	2" (50 mm)	Grooved BSP (VX) / Thread NPT (NX)	24 (106)	14 (62)	FBC 103/1 SW
3240 cm²	2x2"	FT202 AW	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	48 (211)	-	FBC 103/2 SW
4860 cm²	3x2"	FT203 AW	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	50 (220)	42 (185)	FBC 103/3 SW
			4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	72 (317)		
6480 cm²	4x2"	FT204 AW	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	56 (247)	FBC 112/4 SW
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	96 (423)		
8100 cm²	5x2"	FT205 AW	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	70 (308)	FBC 112/5 SW
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	120 (528)		
9720 cm²	6x2"	FT206 AW	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	144 (634)	84 (370)	FBC 112/6 SW
11340 cm²	7x2"	FT207 AW	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	98 (432)	FBC 112/7 SW
12960 cm²	8x2"	FT208 AW	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	112 (493)	FBC 112/8 SW
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	192 (845)		
14580 cm²	9x2"	FT209 AW	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	126 (555)	FBC 112/9 SW
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	216 (951)		
16200 cm²	10x2"	FT210 AW	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	140 (616)	FBC 112/10 SW
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	240 (1057)		
17820 cm²	11x2"	FT211 AW	8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	240 (1057)	154 (678)	FBC 112/11 SW
			10" (250 mm)	DIN (FX) / ANSI (FA) Flange	264 (1162)		
19440 cm²	12x2"	FT212 AW	8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	240 (1057)	168 (740)	FBC 112/12 SW
			10" (250 mm)	DIN (FX) / ANSI (FA) Flange	288 (1268)		

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT201 AW	842 x 247 x 1483	1
FT202 AW	745 x 700 x 1085	1
FT203 AW	990 x 700 x 1105	1
FT204 AW	1220 x 700 x 1155	1
FT205 AW	1560 x 700 x 1155	1
FT206 AW	1835 x 700 x 1155	1
FT207 AW	2110 x 700 x 1155	1
FT208 AW	2410 x 780 x 1200	1
FT209 AW	2685 x 780 x 1200	1
FT210 AW	3005 x 780 x 1200	2
FT211 AW	3310 x 885 x 1250	2
FT212 AW	3585 x 885 x 1250	2



AZUD HELIX AUTOMATIC FT203 / 4 FX AW AA 130 micron

① ② ③ ④

Filtration equipment for HIGH SALINITY WATER (TDS: 6000 - 35000 ppm)

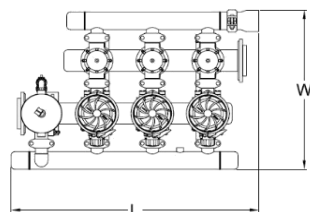
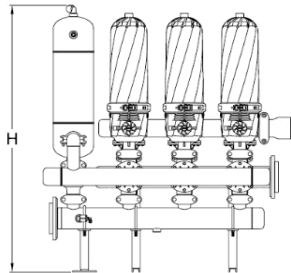
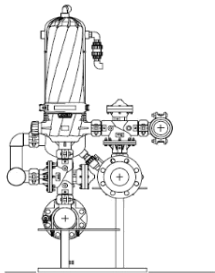
- Equipment with 1 - 10 Filters Ø 2" (rPA) - Air Assisted Backwash
- 2 x 2"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
- Pneumatic command (PN)
- Inlet/Outlet HDPE manifolds: Ø 2"-8" (50-250 mm) - Flange/Grooved
- Drainage HDPE manifold: Ø 3" (90 mm) - Grooved/PVC (Glue)

Filtration degrees (micron)	1-10 filters: 400, 200, 130, 100, 50, 20, 10, 5	④
Maximum working pressure:	10 bar* (145 psi)	
Minimum working pressure:	0.8 bar (11.6 psi)	
Minimum backwash pressure:	Compressed air pressure at 4.5 bar	
Minimum backwash flow:	10 l of water per each 2" filter flushing	
Electrical supply:	110 / 220 V AC (50 / 60 Hz)	

The air pressure should be higher than the water pressure and it is recommended that the air pressure doesn't exceed the 6 bar.

Filtration area	Filter type	AZUD HELIX AUTOMATIC FT200 AW AA DLP			Max. FLOW RATE		217
		① Model	② Ø I/O Manifold	③ Inlet/Outlet connections	130 micron* m³/h (gpm)	50 micron m³/h (gpm)	
1620 cm²	1x2"	FT201 AW AA	2" (50 mm)	Grooved (VX)	21 (92)	14 (62)	FBC 101 SW AA
3240 cm²	2x2"	FT202 AW AA	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	42 (185)	28 (123)	FBC 110/2 SW AA
4860 cm²	3x2"	FT203 AW AA	3" (90 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	50 (220)	42 (185)	FBC 110/3 SW AA
			4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	63 (277)		
6480 cm²	4x2"	FT204 AW AA	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	56 (247)	FBC 110/4 SW AA
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	84 (370)		
8100 cm²	5x2"	FT205 AW AA	4" (110 mm)	DIN (FX)-ANSI (FA) Flange / Grooved (VX)	80 (352)	70 (308)	FBC 110/5 SW AA
			6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	105 (462)		
9720 cm²	6x2"	FT206 AW AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	126 (555)	84 (370)	FBC 110/6 SW AA
11340 cm²	7x2"	FT207 AW AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	147 (647)	98 (432)	FBC 110/7 SW AA
12960 cm²	8x2"	FT208 AW AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	112 (493)	FBC 110/8 SW AA
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	168 (740)		
14580 cm²	9x2"	FT209 AW AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	126 (555)	FBC 110/9 SW AA
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	189 (832)		
16200 cm²	10x2"	FT210 AW AA	6" (160 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	160 (705)	140 (616)	FBC 110/10 SW AA
			8" (200 mm)	DIN/ANSI Flange (FX) / Grooved (VX)	210 (925)		

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT201 AW AA	605 x 475 x 1065	1
FT202 AW AA	990 x 820 x 1310	1
FT203 AW AA	1220 x 820 x 1330	1
FT204 AW AA	1560 x 820 x 1380	1
FT205 AW AA	1835 x 820 x 1380	1
FT206 AW AA	2110 x 820 x 1380	1
FT207 AW AA	2385 x 820 x 1380	1
FT208 AW AA	2660 x 820 x 1420	1
FT209 AW AA	2980 x 820 x 1420	2
FT210 AW AA	3255 x 820 x 1420	2



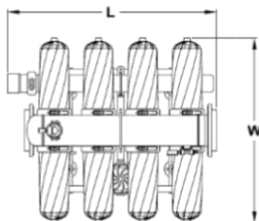
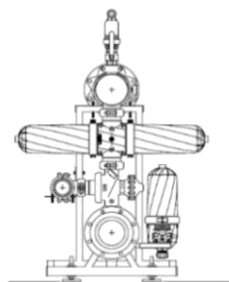
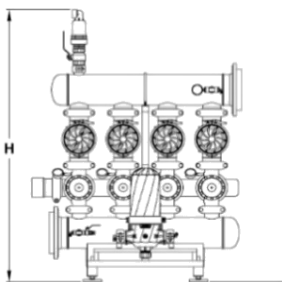
AZUD HELIX AUTOMATIC FT4DCL4 / 6 FX DLP 130 micron

① ② ③ ④

Filtration equipment for FRESH AND LOW SALINITY WATER (TDS < 6000 ppm)	
- Equipment with 3 - 12 Double Filters Ø 4" (rPA) 1 x 3"- Diaphragm 3-way backwash valve (rPA - SS 304 shaft) - Hydraulic command (H) - Inlet/Outlet HDPE manifolds: Ø 6"-12" (160-315 mm) - Flange - Drainage HDPE manifold: Ø 4" (110 mm) - Grooved/PVC (Glue)	
Filtration degrees (micron)	3-4 filters: 400, 200, 130, 100, 50, 20 5-12 filters: 400, 200, 130, 100, 50, 20, 10, 5
Maximum working pressure:	10 bar (145 psi)
Minimum working pressure:	0.8 bar (11.6 psi)
Minimum backwash pressure:	1.5 bar (22 psi)
Minimum backwash flow:	5.0 lps (4")
Backwash time:	20 - 30 seconds
Electrical supply:	110 / 220 V AC (50 / 60 Hz)

Filtration area	Filter type	229			Max. FLOW RATE		216
		① Model	② Ø I/O Manifold	③ Inlet/Outlet connections	130 micron* m³/h (gpm)	50 micron m³/h (gpm)	
9720 cm²	3x4"	FT4DCL3	6" (160 mm)	DIN/ANSI Flange (FX)	156 (687)	84 (370)	FBC 103/3
12960 cm²	4x4"	FT4DCL4	6" (160 mm) 8" (200 mm)	DIN/ANSI Flange (FX) DIN/ANSI Flange (FX)	160 (705) 208 (916)	112 (493)	FBC 112/4
16200 cm²	5x4"	FT4DCL5	6" (160 mm) 8" (200 mm)	DIN/ANSI Flange (FX) DIN/ANSI Flange (FX)	160 (705) 240 (1057)	140 (616)	FBC 112/5
19440 cm²	6x4"	FT4DCL6	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 312 (1374)	168 (740)	FBC 112/6
22680 cm²	7x4"	FT4DCL7	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 364 (1603)	196 (863)	FBC 112/7
25920 cm²	8x4"	FT4DCL8	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 380 (1673)	224 (986)	FBC 112/8
29160 cm²	9x4"	FT4DCL9	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 468 (2061)	252 (1110)	FBC 112/9
32400 cm²	10x4"	FT4DCL10	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 520 (2290)	280 (1233)	FBC 112/10
35640 cm²	11x4"	FT4DCL11	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 572 (2519)	308 (1356)	FBC 112/11
38880 cm²	12x4"	FT4DCL12	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 624 (2748)	336 (1480)	FBC 112/12

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT4DCL3	1040 x 1200 x 1690	1
FT4DCL4	1305 x 1200 x 1770	1
FT4DCL5	1575 x 1200 x 1770	1
FT4DCL6	1870 x 1200 x 1875	1
FT4DCL7	2145 x 1200 x 1875	1
FT4DCL8	2420 x 1200 x 1875	1
FT4DCL9	2700 x 1200 x 2040	1
FT4DCL10	3120 x 1200 x 2010	2
FT4DCL11	3395 x 1200 x 2010	2
FT4DCL12	3670 x 1200 x 2010	2



AZUD HELIX AUTOMATIC FT4DCL4 / 6 FX AW DLP 130 micron

① ② ③ ④

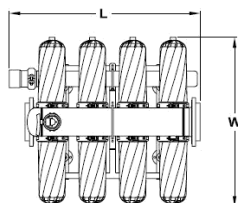
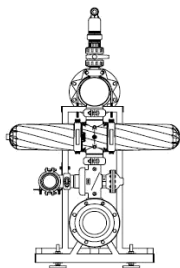
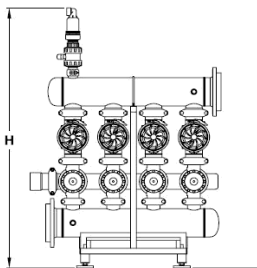
Filtration equipment for HIGH SALINITY WATER (TDS: 6000 - 35000 ppm)

- Equipment with 3 - 12 Double Filters Ø 4" (rPA)
- 1 x 3"- Diaphragm 3-way backwash valve (rPA - SS 316L shaft)
- Pneumatic command (PN)
- Inlet/Outlet HDPE manifolds: Ø 6"-12" (160-315 mm) - Flange
- Drainage HDPE manifold: Ø 4" (110 mm) - Grooved/PVC (Glue)

Filtration degrees (micron)	3-4 filters: 400, 200, 130, 100, 50, 20	④
	5-12 filters: 400, 200, 130, 100, 50, 20, 10, 5	
Maximum working pressure:	10 bar (145 psi)	
Minimum working pressure:	0.8 bar (11.6 psi)	
Minimum backwash pressure:	1.5 bar (22 psi)	
Minimum backwash flow:	5.0 lps (4")	
Backwash time:	20 - 30 seconds	
Electrical supply:	110 / 220 V AC (50 / 60 Hz)	

Filtration area	Filter type	AZUD HELIX AUTOMATIC FT4DCL AW DLP			Max. FLOW RATE		217
		230	② Ø I/O Manifold	③ Inlet/Outlet connections	130 micron*	50 micron	
		① Model			m³/h (gpm)	m³/h (gpm)	Control unit
9720 cm²	3x4"	FT4DCL3 AW	6" (160 mm)	DIN/ANSI Flange (FX)	156 (687)	84 (370)	FBC 103/3 SW
12960 cm²	4x4"	FT4DCL4 AW	6" (160 mm) 8" (200 mm)	DIN/ANSI Flange (FX) DIN/ANSI Flange (FX)	160 (705) 208 (916)	112 (493)	FBC 112/4 SW
16200 cm²	5x4"	FT4DCL5 AW	6" (160 mm) 8" (200 mm)	DIN/ANSI Flange (FX) DIN/ANSI Flange (FX)	160 (705) 240 (1057)	140 (616)	FBC 112/5 SW
19440 cm²	6x4"	FT4DCL6 AW	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 312 (1374)	168 (740)	FBC 112/6 SW
22680 cm²	7x4"	FT4DCL7 AW	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 364 (1603)	196 (863)	FBC 112/7 SW
25920 cm²	8x4"	FT4DCL8 AW	8" (200 mm) 10" (250 mm)	DIN/ANSI Flange (FX) DIN (FX) / ANSI (FA) Flange	240 (1057) 380 (1673)	224 (986)	FBC 112/8 SW
29160 cm²	9x4"	FT4DCL9 AW	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 468 (2061)	252 (1110)	FBC 112/9 SW
32400 cm²	10x4"	FT4DCL10 AW	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 520 (2290)	280 (1233)	FBC 112/10 SW
35640 cm²	11x4"	FT4DCL11 AW	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 572 (2519)	308 (1356)	FBC 112/11 SW
38880 cm²	12x4"	FT4DCL12 AW	10" (250 mm) 12" (315 mm)	DIN (FX) / ANSI (FA) Flange DIN (FX) / ANSI (FA) Flange	380 (1673) 624 (2748)	336 (1480)	FBC 112/12 SW

* Maximum flow rate is limited by the size and type of the auxiliary elements (manifolds, flanges and valves).



Model	Dimensions L x W x H (mm)	N. of packages
FT4DCL3 AW	1040 x 1200 x 1690	1
FT4DCL4 AW	1305 x 1200 x 1770	1
FT4DCL5 AW	1575 x 1200 x 1770	1
FT4DCL6 AW	1870 x 1200 x 1875	1
FT4DCL7 AW	2145 x 1200 x 1875	1
FT4DCL8 AW	2420 x 1200 x 1875	1
FT4DCL9 AW	2700 x 1200 x 2040	1
FT4DCL10 AW	3120 x 1200 x 2010	2
FT4DCL11 AW	3395 x 1200 x 2010	2
FT4DCL12 AW	3670 x 1200 x 2010	2

AZUD MODULAR 100 is the range of discs and screen manual filters for low flow rates (up to 25 m³/h), providing the maximum quality and security filtration with the minimum maintenance.



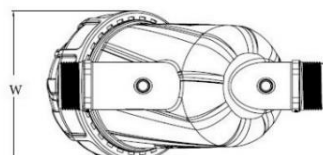
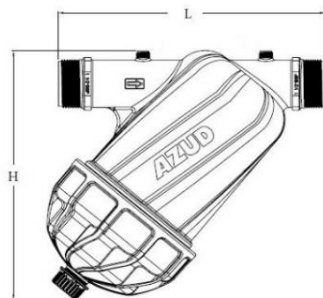
Main features

- > MAXIMUM QUALITY AND SECURITY FILTRATION, with a range of filtration degrees from 100 to 530 micron.
- > INCREASED FILTRATION AREA and INCREASED CAPACITY OF PARTICLES REMOVAL.
- > MODULARITY. Wide range of flow rates, filtration degrees and different configurations using a minimum number of components.
- > LOWER MAINTENANCE AND WATER SAVING. Large filtration area that minimizes the maintenance labours and the water consumption.
- > RESISTANCE. Made of technical thermoplastics, without moving parts susceptible to wear. Excellent resistance to chemicals and to saline corrosion.
- > Threaded CLOSURE SYSTEM for the filter element that allows an easy decompression of the discs stack for cleaning labours, and avoids the accidental loss of discs.
- > SEALING GASKET PLACED INSIDE THE FILTER LID, avoiding its loss or damage during maintenance labours.
- > AUXILIARY CONNECTIONS. Threaded connection to allow rapid evacuation and pressure gauges.
- > EASY INSTALLATION AND MAINTENANCE. The filter element can be easily pulled out for cleaning with no tool needed.

Filtration degrees (micron)	Discs Screen	130 530, 200, 130, 100
-----------------------------	--------------	---------------------------

Filtration area	Ø Connection and body	Max. Flow rate	208 Model	Package	Units/box
		130 micron m ³ /h (gpm)			
180 cm ²	3/4" BSP	5 (22)	AZUD MODULAR 100 3/4" BSP	AR 2V	60 10
180 cm ²	1" BSP	6 (26)	AZUD MODULAR 100 1" BSP	AR 2V	60 10
310 cm ²	1 1/4" BSP	10 (44)	AZUD MODULAR 100 1 1/4" BSP	AR 2V	25 4
310 cm ²	1 1/2" BSP	14 (62)	AZUD MODULAR 100 1 1/2" BSP	AR 2V	25 4
535 cm ²	1 1/2" SUPER BSP	20 (88)	AZUD MODULAR 100 1 1/2" S BSP	AR 2V	13 2
535 cm ²	2" BSP*	25 (110)	AZUD MODULAR 100 2" BSP	AR 2V	13 2

*Base available in NPT thread.



Model	Dimensions
	L x W x H (mm)
AZUD MODULAR 100 3/4" BSP	158 x 82 x 174
AZUD MODULAR 100 1" BSP	158 x 82 x 174
AZUD MODULAR 100 1 1/4" BSP	231 x 115 x 204
AZUD MODULAR 100 1 1/2" BSP	231 x 115 x 204
AZUD MODULAR 100 1 1/2" S BSP	252 x 147 x 244
AZUD MODULAR 100 2" BSP	267 x 147 x 250

AZUD SPIRAL CLEAN is the range of semiautomatic screen filters providing the maximum quality and security filtration. They have an innovative flushing system through a suction scanner, to guarantee an effective cleaning of the screen with no need of disassembling it and with no interruption of the filtered water supply.



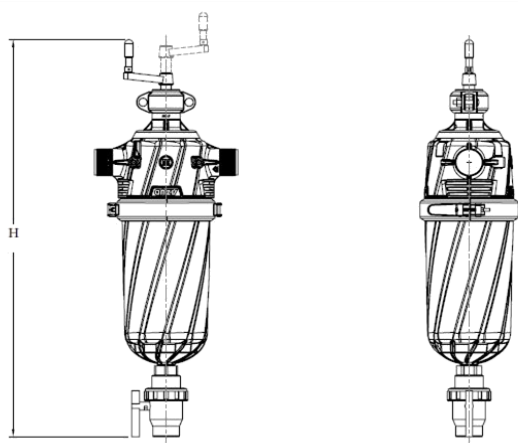
Filtration degrees (micron)	Screen	200, 130, 100
-----------------------------	--------	---------------

Main features

- > MAXIMUM QUALITY AND SECURITY FILTRATION, with a range of filtration degrees from 100 to 200 micron.
- > MODULARITY. Wide range of flow rates, filtration degrees and different configurations using a minimum number of components.
- > WATER SAVING. Large filtration area minimizes the cleaning frequency and so the water consumption.
- > RESISTANCE. Made of technical thermoplastics providing excellent resistance to chemicals and to saline corrosion.
- > EFFECTIVE AND EASY CLEANING. The screen is cleaned thanks to the manual turn of a handle that moves the suction scanner along the internal surface of the screen.
- > NON-STOP SUPPLY OF FILTERED WATER. It is not necessary to disassemble the filter and remove the screen for cleaning.
- > EASY INSTALLATION AND MAINTENANCE. The filter element can be easily pulled out with no tool needed.

Filtration area	Ø Connection and body	Max. Flow rate	209 Model	Connection	Package	Differential Pressure Indicator DPI.
		130 micron m³/h (gpm)				
890 cm²	2"	30 (132)	AZUD SPIRAL CLEAN 2NR AZUD SPIRAL CLEAN 2NW	2NR* 2NW	L	Optional
1190 cm²	2" SUPER	30 (132)	AZUD SPIRAL CLEAN 2SR AZUD SPIRAL CLEAN 2SW	2SR* 2SW	AN	Optional
890 cm²	3" COMPACT	50 (220)	AZUD SPIRAL CLEAN 3CR AZUD SPIRAL CLEAN 3CW	3CR* 3CW	L	Optional
1190 cm²	3"	50 (220)	AZUD SPIRAL CLEAN 3NR AZUD SPIRAL CLEAN 3NW	3NR* 3NW	AN	Optional

*Base available in NPT thread.



Model	Dimensions
	L x W x H (mm)
AZUD SPIRAL CLEAN 2NR	310 x 212 x 875
AZUD SPIRAL CLEAN 2NW	310 x 212 x 875
AZUD SPIRAL CLEAN 2SR	310 x 212 x 1000
AZUD SPIRAL CLEAN 2SW	310 x 212 x 1000
AZUD SPIRAL CLEAN 3CR	336 x 212 x 890
AZUD SPIRAL CLEAN 3CW	336 x 212 x 890
AZUD SPIRAL CLEAN 3NR	336 x 212 x 1015
AZUD SPIRAL CLEAN 3NW	336 x 212 x 1015

AZUD HELIX SYSTEM is the range of MANUAL DISC FILTERS that, thanks to the anti-clogging deflector AZUD HELIX SYSTEM and its higher filtration area, provides the maximum quality and security filtration with the minimum maintenance.



Main features

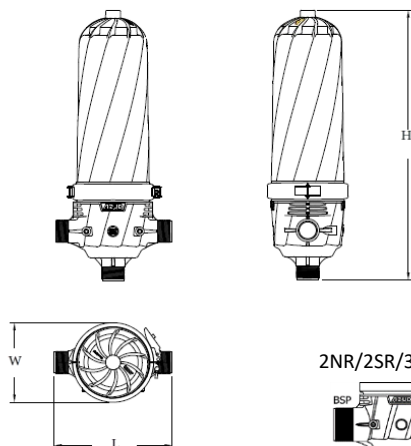


AZUD HELIX SYSTEM. AZUD patented centrifugal deflector that avoids the quick clogging of the filter, minimizing the cleaning frequency.

- > MAXIMUM QUALITY AND SECURITY FILTRATION, with a wide range of filtration degrees from 5 to 400 micron.
- > MODULARITY. Wide range of flow rates, filtration degrees and different configurations with a minimum number of components.
- > INCREASED FILTRATION AREA and INCREASED CAPACITY OF PARTICLES REMOVAL.
- > RESISTANCE. Made of technical thermoplastics providing excellent resistance to chemicals and to saline corrosion.
- > CLOSURE SYSTEM that allows the decompression of the discs stack for cleaning and avoids the accidental loss of discs.
- > EASY INSTALLATION AND MAINTENANCE. The filter element can be easily pulled out for cleaning with no tool needed.

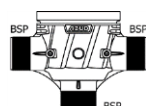
Filtration degrees (micron)	400, 200, 130, 100, 50, 20, 10, 5				
Filtration area	Ø Connection and body	Max. Flow rate	211 Model	Connection	Package
		130 micron m³/h (gpm)			
1198 cm²	2"	30 (132)	AZUD HELIX SYSTEM FT 2NR DISC	2NR*	M
			AZUD HELIX SYSTEM FT 2NV DISC	2NV	
			AZUD HELIX SYSTEM FT 2NW DISC	2NW	
1699 cm²	2" SUPER	30 (132)	AZUD HELIX SYSTEM FT 2SR DISC	2SR*	L
			AZUD HELIX SYSTEM FT 2SV DISC	2SV	
			AZUD HELIX SYSTEM FT 2SW DISC	2SW	
1198 cm²	3" COMPACT	50 (220)	AZUD HELIX SYSTEM FT 3CR DISC	3CR*	M
			AZUD HELIX SYSTEM FT 3CV DISC	3CV	
			AZUD HELIX SYSTEM FT 3CW DISC	3CW	
1699 cm²	3"	50 (220)	AZUD HELIX SYSTEM FT 3NR DISC	3NR*	L
			AZUD HELIX SYSTEM FT 3NV DISC	3NV	
			AZUD HELIX SYSTEM FT 3NW DISC	3NW	
2396 cm²	4"	70 (308)	AZUD HELIX SYSTEM FT 4NL DISC	4NL	AN
			AZUD HELIX SYSTEM FT 4NB DISC	4NB	
3398 cm²	4" SUPER	100 (440)	AZUD HELIX SYSTEM FT 4SL DISC	4SL	AP
			AZUD HELIX SYSTEM FT 4SB DISC	4SB	
3398 cm²	6"	100 (440)	AZUD HELIX SYSTEM FT 6NB DISC	6NB	AP

*Base available in NPT thread.

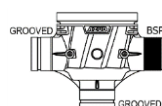


Ø Connection and body	Dimensions
	L x W x H (mm)
2"	310 x 212 x 595
2" SUPER	310 x 212 x 720
3" COMPACT	336 x 212 x 610
3"	336 x 212 x 735
4"	341 x 212 x 950
4" SUPER	341 x 212 x 1200
6"	531 x 212 x 1200

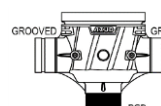
2NR/2SR/3CR/3NR



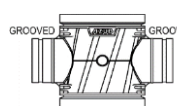
2NV/2SV/3CV/3NV



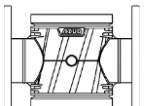
2NW/2SW/3CW/3NW



4NL/4SL



4NB/4SB/6NB



AZUD HELIX AUTOMATIC DLP is the range of AUTOMATIC SELF-CLEANING DISC FILTERS, providing the maximum quality and security filtration with the minimum consumption of water and energy during self-cleaning.



DLP Technology
Low Pressure Backflush
Baja Presión de Limpieza

Main features



AZUD HELIX SYSTEM. AZUD patented centrifugal deflector that avoids the quick clogging of the filter minimizing the cleaning frequency

> MAXIMUM QUALITY AND SECURITY FILTRATION, with a wide range of filtration degrees from 5 to 400 micron.

> FILTER ELEMENT AZUD DF-DISC DLP. A group of devices that filtrates the water and enables the self-cleaning of the filtration media, using the minimum water and energy consumption.

> INCREASED FILTRATION AREA and INCREASED CAPACITY OF PARTICLES REMOVAL.

> MODULARITY. Wide range of flow rates, filtration degrees and different configurations with a minimum number of components.

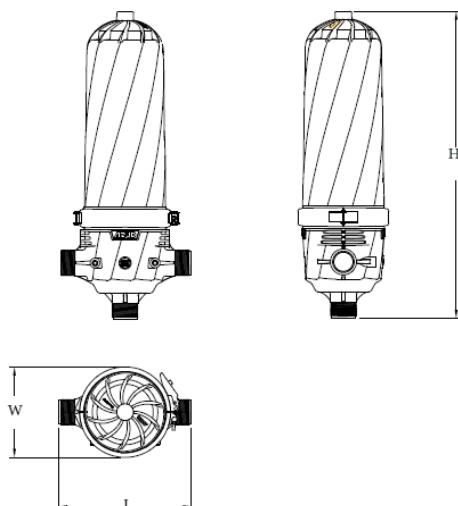
> WATER SAVING. Large filtration area minimizes the cleaning frequency and so the water consumption.

> RESISTANCE. Made of technical thermoplastics providing excellent resistance to chemicals and to saline corrosion.

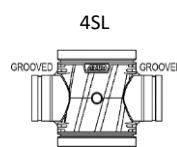
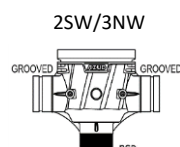
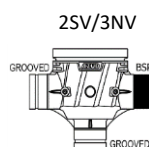
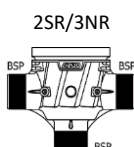
> EASY INSTALLATION AND MAINTENANCE. The filter element can be easily pulled out with no tool needed.

Filtration degrees (micron)	400, 200, 130, 100, 50, 20, 10, 5				
Filtration area	Ø Connection and body	Max. Flow rate	319	Connection	Package
		130 micron m³/h (gpm)			
1620 cm²	2" SUPER	26 (114)	AZUD HELIX AUTOMATIC FT 2SR DISC	2SR*	L
			AZUD HELIX AUTOMATIC FT 2SV DISC	2SV	
			AZUD HELIX AUTOMATIC FT 2SW DISC	2SW	
1620 cm²	3"	26 (114)	AZUD HELIX AUTOMATIC FT 3NR DISC	3NR*	L
			AZUD HELIX AUTOMATIC FT 3NV DISC	3NV	
			AZUD HELIX AUTOMATIC FT 3NW DISC	3NW	
3240 cm²	4" SUPER	52 (229)	AZUD HELIX AUTOMATIC FT 4SL DISC	4SL	L

*Base available in NPT thread.



Ø Connection and body	Dimensions
	L x W x H (mm)
2" SUPER	310 x 212 x 720
3"	335 x 212 x 735
4" SUPER	340 x 212 x 1200



AZUD



SISTEMA AZUD, S.A.
Avda. de las Américas P. 6/6
Polígono Industrial Oeste
30820 Alcantarilla
Murcia - Spain
Apdo. 147
30169 San Ginés
Murcia - Spain
Tel.: +34 968 808 402
Fax.: +34 968 808 302
E-mail.: info@azud.com

