www.azud.com

HELIX AUTOMATIC

AZUD

SERIE 4DCL

In-line self Cleaning Equipments with discs filtering element with 3" valves (SERIE 4DCL).

High Density Polyethylene manifolds. Easy to install. Maximum resistance and durability. Max. Flow: 480 m³/h

Modular configuration according to preferences or space availability. Automation in 12 V or 220 V. There are specific solutions to low and high pressure installations, with sea water and/or saline water. Possibility of backflushing with compressed air.

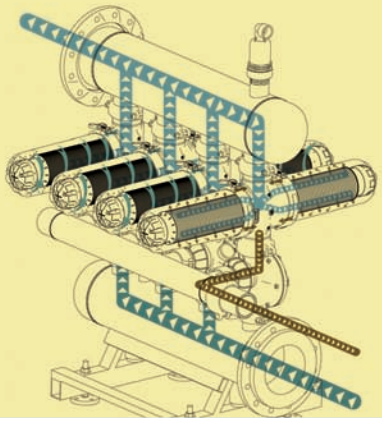
ADVANTAGES

- **Disc Filtration. Maximum safety.** Its studied design and the materials used in its manufacture guarantee a long life and high resistance.
- **AZUD HELIX System.** Optimization of the performance and minimum frequency and intensity of maintenance labours.
- **Self-cleaning filtering element.** Maximum saving of water and efficiency in backflushing. Wide filtering area. AZUD filtration grades go from 5 to 500 micron.

- **Modularity.** Versatility, compatibility. The system permits a wide range of possibilities with a minimal number of components.
- **Maximum facility of transport and installation.** Already assembled equipments.
- **Manufactured in plastic materials.**
- **Low Maintenance.** Without tooling. Maximum resistance, with movable parts not susceptible to wearing due to a continuous operation.
- **Water and energy saving.**

TECHNOLOGY

AZUD HELIX AUTOMATIC backflushes in only one station while the rest of the equipment is in filtration stage, supplying the installation.



FILTRATION STAGE: The helix generates a centrifuge helical effect, which moves away from the discs the particles in the water.

Through the discs is made the in-depth filtration process.

BACKFLUSHING STAGE: The filtered water is introduced in the opposite direction through the filtering element structures, decompressing the stacks of discs and making the backflushing.

The solids expelled from the discs are evacuated by the drainage manifold.

The filtration stage starts again with the compression of the discs.

HELIX AUTOMATIC AZUD

SERIE 4DCL

FILTRATION Maximum flow per filter
AZUD HELIX AUTOMATIC filter filtering surface 2.984 cm²

QUALITY OF WATER	micron mesh	200 75	130 120	100 150	50	20
GOOD	m³/h	72	64	48	34	18
	gpm	314	282	211	154	76
AVERAGE	m³/h	63	59	40	28	14
	gpm	279	261	176	122	62
POOR	m³/h	51	47	36	20	10
	gpm	226	209	158	92	46
VERY POOR	m³/h	32	28	24	14	6
	gpm	139	122	106	62	30

BACKFLUSHING

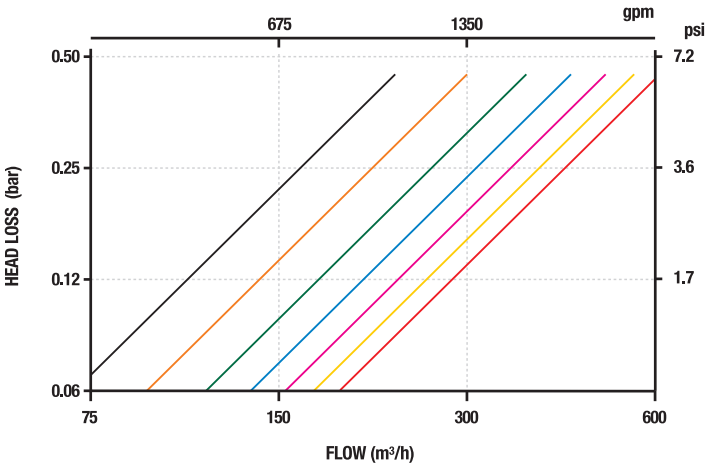
	200 - 130 micron 75-120 mesh	100 micron 150 mesh	50-20 micron
Minimum backflushing pressure per filter 4"	2,8 bar	3,5 bar	4 bar
	40 psi	50 psi	58 psi
Minimum backflushing flow per filter 4"	5 l/s	6,2 l/s	6,6 l/s
	78 gpm	100 gpm	104 gpm

HOW TO CHOOSE AZUD HELIX AUTOMATIC EQUIPMENTS

1. Determine the required filtration grade.
2. Establish the quality of the water.
3. Calculate according to the following equation, the numbers of filters required.

$$\text{Number of filters} = \frac{\text{Flow to filter in the installation}}{\text{Max. Flow per filter}}$$

AZUD HELIX AUTOMATIC HEAD LOSS
130 micron



MATERIAL

Manifolds	High Density Polyethylene
Housing	Polyamide reinforced with fiberglass
Filtering element	PP grooved discs
Sealing element	NBR
Backflushing valve	Plastic

pH>4 • **Maximum pressure** 10 bar / 145 psi • **Maximum temperature** 60ºC / 140 F

AZUD HELIX AUTOMATIC SERIE 4DCL

	Model	Specifications			Dimensions (mm)								
		N. Filters	Manifold	Filtering Surface (cm²)	F	E	D	L	W	R	T	S	H
SERIE 4DCL	4DCL4/8	4" x 4	8"	11.936	928	277	1195	1300	1200	645	320	1248	1735
	4DCL5/8	4" x 5	8"	14.920	928	277	1470	1580	1200	645	320	1248	1735
	4DCL6/10	4" x 6	10"	17.904	978	277	1779	1867	1200	700	350	1328	1840
	4DCL7/10	4" x 7	10"	20.888	978	277	2259	2346	1200	700	350	1328	1840
	4DCL8/10	4" x 8	10"	23.872	978	277	2474	2561	1200	700	350	1328	1840
	4DCL9/12	4" x 9	12"	26.856	1043	277	2749	2837	1200	773	390	1433	1975
	4DCL10/12	4" x 10	12"	29.840	1043	277	3024	3108	1200	773	390	1433	1975

Drainage Manifold included - Grooved connection.
Dimensions of the models with flange connection.
Other configurations in www.azud.com