

AZUD HELIX AUTOMATIC

AZUD HELIX AUTOMATIC SERIE 4DCL DLP

In-line Self Cleaning Equipment with disc filtering elements and 3" valves.

High density polyethylene manifolds. Easy to install. Maximum resistance and durability. Max. flow: 624 m³/h (2748 gpm).



Modular configurations according to preferences and space availability. Ready to connect and operate thanks to AZUD FBC Control Unit, that allows complete automation of the equipment for different power supplies: 110-120; 220-240 V AC 50/60 Hz; 12 V DC.

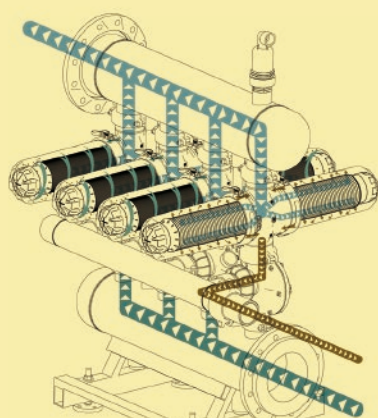
ADVANTAGES

- ✓ **Disc filtration. Maximum safety.**
Its careful design and manufacture guarantee an extended lifespan, resistance and high filtration quality.
- ✓ **AZUD HELIX device.**
Patented clogging retardant device. Performance optimization, minimum frequency and intensity of the maintenance labours.
- ✓ **Self-cleaning filtering element.**
Maximum water saving and efficiency in backwashing phase. Large filtration area. Filtration degrees 100, 130, 200 and 400 micron.



TECHNOLOGY

AZUD HELIX AUTOMATIC backwashes one station at a time. Remaining elements continue filtering.



FILTRATION PHASE: The Helix generates a centrifugal helical effect upon entry into the filter, this moves the particles away from the discs.

The water then passes efficiently through the depth of the uniquely designed discs.

BACKFLUSHING PHASE: The clean water from the auxiliary filter is introduced from the reverse direction through the filtering element. This decompresses the stack of discs, allowing the discs to separate and backwash efficiently. The solids are expelled from the discs and evacuated through the backwash manifold. The filtration process then restarts with the compression of the discs.

The backwash is controlled by two valves and a controller, which integrate the filtration equipment.

- ✓ **Modularity, versatility and compatibility.**
The modular system allows for a wide range of configurations with the minimal number of components.
- ✓ **Maximum ease of transportation and installation.**
Equipped with self-supporting structure for easy transport. Includes levelling device.
- ✓ **Manufactured in plastic materials.**
- ✓ **Low maintenance.**
No tools required. Maximum wear resistance of high quality moving parts.
- ✓ **Water and energy savings.**

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FILTRATION Maximum flow per filter
 AZUD HELIX AUTOMATIC filter filtering surface 3240 cm² / 502 in²

	micron mesh	400 40	200 75	130 120	100 150
GOOD	m ³ /h gpm	56 246	54 238	52 229	48 211
AVERAGE	m ³ /h gpm	52 229	50 220	48 211	44 194
POOR	m ³ /h gpm	48 211	46 202	44 194	40 176
VERY POOR	m ³ /h gpm	44 194	42 185	40 176	36 158

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BACKFLUSHING PHASE	Disc Technology	
	MG	WS
Minimum backflushing pressure per filter 4"	1.5 bar	1.3 bar
	22 psi	19 psi
Minimum backflushing flow per filter 4"	5 l/s	4 l/s
	79 gpm	64 gpm

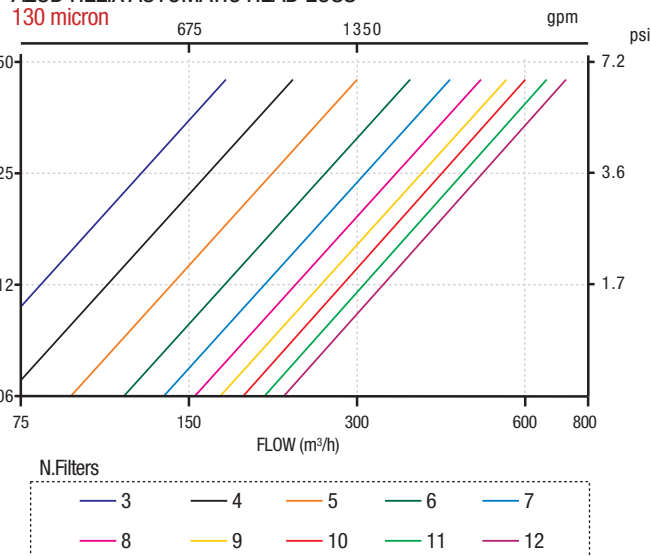
HOW TO CHOOSE AZUD HELIX AUTOMATIC EQUIPMENTS

1. Determine the required filtration grade (micron).
2. Establish the quality of the water.
3. Calculate according to the following equation, the numbers of filters required with the selected SERIES.

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

NOTE : The flow rate given by the filter conditions determines the frequency of the backwashing.

AZUD HELIX AUTOMATIC HEAD LOSS



MATERIALS OF CONSTRUCTION

Housing	Polyamide reinforced with fiberglass
Filtering element	MG discs - Polypropylene WS discs - High density polyethylene
Sealing element	NBR
Backflushing valve	Reinforced technical plastic
Manifolds	High density polyethylene

4<pH<11 • Maximum pressure 6 bar / 87 psi • Maximum temperature 60 °C / 140 °F
 Models also available in PN10.

Model	Specifications				Dimensions (mm)															
	N. Filters	Manifold	Filtering Surface (cm ²)	Filtering Surface (in ²)	F	E	D	L	R	T	S	H	F	E	D	L	R	T	S	H
4DCL3/6FX	4" x 3	6"-150	9720	1506	888	35	277	11	930	37	1060	42	605	24	300	12	1188	47	1705	67
4DCL4/6FX	4" x 4	6"-150	12960	2008	888	35	277	11	1145	45	1305	51	605	24	300	12	1188	47	1705	67
4DCL4/8FX	4" x 4	8"-200	12960	2008	928	37	277	11	1195	47	1300	51	645	25	320	13	1248	49	1785	70
4DCL5/6FX	4" x 5	6"-150	16200	2511	888	35	277	11	1420	56	1580	62	605	24	300	12	1188	47	1705	67
4DCL5/8FX	4" x 5	8"-200	16200	2511	928	37	277	11	1470	58	1580	62	645	25	320	13	1248	49	1785	70
4DCL6/8FX	4" x 6	8"-200	19440	3013	928	37	277	11	1745	69	1855	73	645	25	320	13	1248	49	1785	70
4DCL6/10FX	4" x 6	10"-273	19440	3013	978	39	277	11	1779	70	1870	74	700	28	350	14	1328	52	1890	74
4DCL7/8FX	4" x 7	8"-200	22680	3515	928	37	277	11	2259	89	2343	92	645	25	320	13	1248	49	1785	70
4DCL7/10FX	4" x 7	10"-273	22680	3515	978	39	277	11	2259	89	2346	92	700	28	350	14	1328	52	1890	74
4DCL8/8FX	4" x 8	8"-200	25920	4017	928	37	277	11	2474	97	2558	101	645	25	320	13	1248	49	1785	70
4DCL8/10FX	4" x 8	10"-273	25920	4017	978	39	277	11	2474	97	2561	101	700	28	350	14	1328	52	1890	74
4DCL9/10FX	4" x 9	10"-273	29160	4519	978	39	277	11	2749	108	2833	112	700	28	350	14	1328	52	1890	74
4DCL9/12FX	4" x 9	12"-323.9	29160	4519	1043	41	277	11	2749	108	2837	112	773	30	390	15	1433	56	2030	80
4DCL10/10FX	4" x 10	10"-273	32400	5022	978	39	277	11	3024	119	3108	122	700	28	350	14	1328	52	1890	74
4DCL10/12FX	4" x 10	12"-323.9	32400	5022	1043	41	277	11	3024	119	3112	123	773	30	390	15	1433	56	2025	80
4DCL11/12FX	4" x 11	12"-323.9	35640	5524	1043	41	277	11	3299	130	3387	133	773	30	390	15	1433	56	2025	80
4DCL12/12FX	4" x 12	12"-323.9	38880	6026	1043	41	277	11	3574	141	3662	144	773	30	390	15	1433	56	2025	80

W=1200 mm (47 in)

4" drainage manifold - Grooved connection.
 Dimensions of the models with flange connection.
 Other configurations in www.azud.com

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