# AZUD HELIX AUTOMATIC FT200 AA DLP

SELF-CLEANING DISC FILTRATION EQUIPMENT


## Working conditions

| | |
|---|---|
| **Salinity** | < 6000 mg/l |
| **Max. working pressure** | 10 bar (145 psi) |
| **Min. working pressure** | 0.8 bar (11.6 psi) |
| **Min. air pressure*** | 4.5 bar (65 psi) |
| **Max. air pressure*** | 6 bar (87 psi) |
| **Air flow per duration** | 18 l/s (285 gpm) x 10 s |
| **Backwash volume** | 10 l water per filter (2.6 gal) |
| **pH** | 4 - 11 |
| **Water temperature** | ≤ 60 ºC (140 ºF) |

*Compressed air pressure > Water pressure

## Filtration degrees (micron)

400 | 200 | 130 | 100 | 50 | 20 | 10 | 5

DLP Technology
Low Pressure Backflush

## DESCRIPTION

Self-cleaning disc filtration equipment composed by 1 to 10 filters AZUD HELIX AUTOMATIC Ø2" with discs AZUD MG/WS, which perform an in-depth 3D filtration, installed in-line on Ø2"-Ø8" inlet/outlet manifolds. Includes Ø2" backwash valves 3-way membrane type and the innovative DLP TECHNOLOGY, that enable the sequential low-pressure backwashing of each filter using a mix of filtered water and compressed air stored in an auxiliary tank, while continues the filtered water supply downstream. The patented AZUD HELIX anti-clogging deflector provides a reliable filtration thanks to an effect of centrifugal separation, with less backwash frequency and less water and energy consumption.

Smart, compact and modular plug&play solution, made of technical thermoplastics, increases the shelf life of the installation providing a long-term operation with minimum operational costs and less maintenance downtime.

## APPLICATIONS

- > **Make-up water filtration**
- > **Filtration in tanks, lakes and fonts**
- > **Disinfection system protection**
- > **Particles recovery**
- > **Water reuse**

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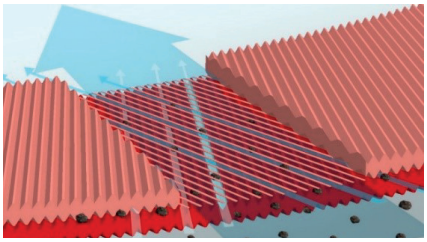
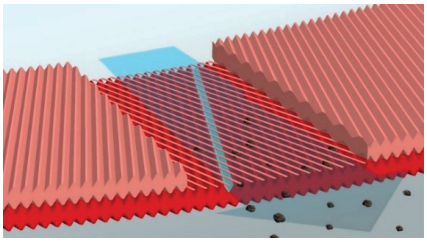
# HELIX AUTOMATIC
# FT200 AA DLP

## HOW DO THEY WORK





### FILTRATION PHASE:

- Water flows from the inlet manifold to the inside of the filter, passing through the anti-clogging deflector AZUD HELIX, which throws the heavy particles away from the disc stack, avoiding the quick clogging of the filter and minimizing the backwash frequency.
- Water flows OUT-IN through the disc stack to the outlet manifold while particles bigger than the filtration degree are trapped in the disc.

### SELF-CLEANING PHASE:

- During the automatic backwash, a water-air mix is made, providing a more energetic and effective cleaning with a 80% water saving.
- The water-air mix flows IN-OUT, decompressing the disc stack. High-speed flushing water flowing through the spray nozzles, creates a tangential cleaning effect that flush out the trapped particles.

Check our YouTube channel for more details

## MODELS

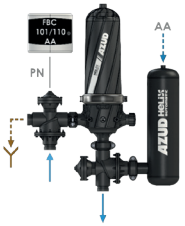
| Filtration area | Model | Q max. 50 µm* m³/h (gpm) | Q max. 130 µm* m³/h (gpm) | Connection | INLET AND OUTLET MANIFOLD | | | AZUD FBC control unit** |
|---|---|---|---|---|---|---|---|---|
| | | | | | DIN 2576 | ANSI B16.5 CLASS 150 | Grooved | |
| **1620 cm²** | **FT201 AA**<br>1 filter Ø2" | 14 (62) | 21 (92) | **Ø2"** | | | • | 101/1 AA |
| **3240 cm²** | **FT202 AA**<br>2 filter Ø2" | 28 (123) | 42 (185) | **Ø3"** | • | • | • | 110/2 AA |
| **4860 cm²** | **FT203 AA**<br>3 filter Ø2" | 42 (185) | 50 (220)<br>63 (277) | **Ø3"**<br>**Ø4"** | • | • | • | 110/3 AA |
| **6480 cm²** | **FT204 AA**<br>4 filter Ø2" | 56 (246) | 80 (352)<br>84 (370) | **Ø4"**<br>**Ø6"** | • | • | • | 110/4 AA |
| **8100 cm²** | **FT205 AA**<br>5 filter Ø2" | 70 (308) | 80 (352)<br>105 (462) | **Ø4"**<br>**Ø6"** | • | • | • | 110/5 AA |
| **9720 cm²** | **FT206 AA**<br>6 filter Ø2" | 84 (370) | 126 (555) | **Ø6"** | • | • | • | 110/6 AA |
| **11340 cm²** | **FT207 AA**<br>7 filter Ø2" | 98 (431) | 147 (647) | **Ø6"** | • | • | • | 110/7 AA |
| **12960 cm²** | **FT208 AA**<br>8 filter Ø2" | 112 (493) | 160 (705)<br>168 (740) | **Ø6"**<br>**Ø8"** | • | • | • | 110/8 AA |
| **14580 cm²** | **FT209 AA**<br>9 filter Ø2" | 126 (555) | 160 (705)<br>189 (832) | **Ø6"**<br>**Ø8"** | • | • | • | 110/9 AA |
| **16200 cm²** | **FT210 AA**<br>10 filter Ø2" | 140 (616) | 160 (705)<br>210 (925) | **Ø6"**<br>**Ø8"** | • | • | • | 110/10 AA |

**DRAINAGE MANIFOLD: Ø3" Grooved/PVC**

*Maximum flowrate is limited by the size and type of the auxiliary elements (manifold, flanges and valves).

**AZUD FBC control unit not included with the equipment.

## MATERIALS OF CONSTRUCTION

| Filters | Backwash valves<br>Inlet/outlet/drainage manifolds | Scheme |
|---|---|---|
| **Filters Ø2"** (1-10 units)<br>• MG/WS disc: PP/HDPE<br>• Support structure: rPP<br>• Base-lid: rPA<br>• Spring: SS 302<br>• Clamp: SS 304<br>• Sealing o-rings: NBR/HDPE | **Valves Ø2"** 3 way-membrane (2 units / filter)<br>• Body: rPA<br>• Axis, seat and spring: SS<br>• Sealing o-rings: NBR<br>• Command: Pneumatic (PN)<br>**Manifolds:** HDPE PE-100 **Flanges:** Aluminum<br>**AA tank:** SS 304 epoxy coated |  |

**PP:** Polypropylene **rPP:** Reinforced polypropylene **SS:** Stainless steel **rPA:** Reinforced polyamide **HDPE:** High density polyethylene **NBR:** Nitrile rubber

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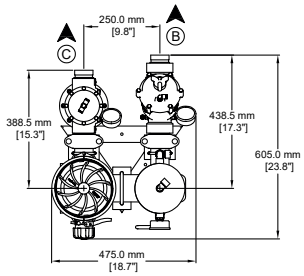
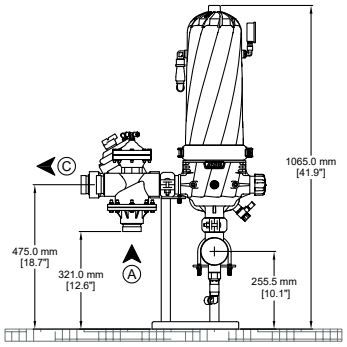
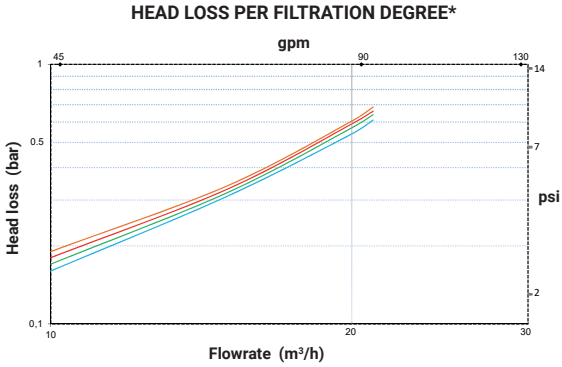
HELIX AUTOMATIC
# FT200 AA DLP

MICRON 100 130 200 400

## FT201 AA DLP

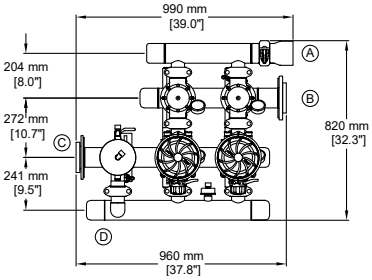


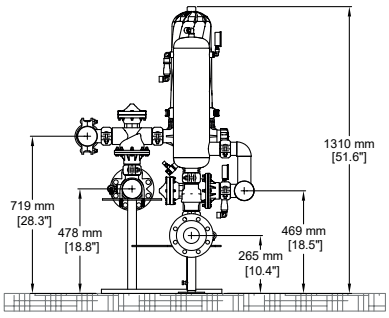



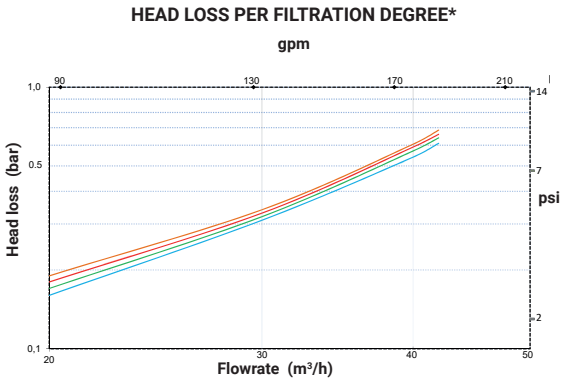




Ⓐ 2" Inlet manifold Ⓑ 2" Outlet manifold Ⓒ 2" Drainage manifold

## FT202 AA DLP

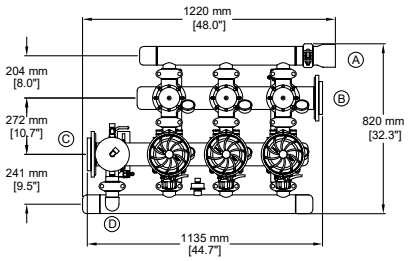


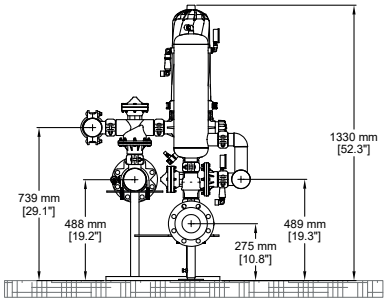



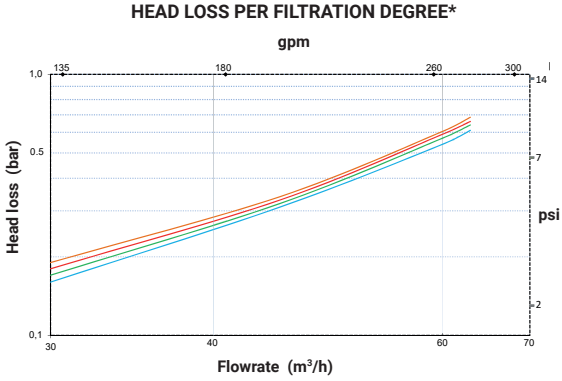




Ⓐ 3" Drainage manifold Ⓑ 3" Inlet manifold Ⓒ 3" Outlet manifold Ⓓ Inlet pressure manifold

## FT203 AA DLP




Ⓐ 3" Drainage manifold Ⓑ 4" Inlet manifold Ⓒ 4" Outlet manifold Ⓓ Inlet pressure manifold

*The backwash frequency depends on the design flowrate. For hydraulic calculation, consider the set-point value for the self-cleaning cycle (usually 0.5 bar/7.25 psi).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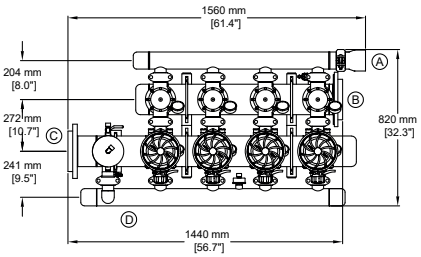
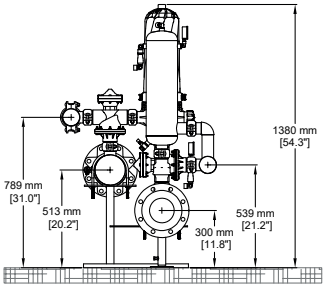
# HELIX AUTOMATIC
# FT200 AA DLP

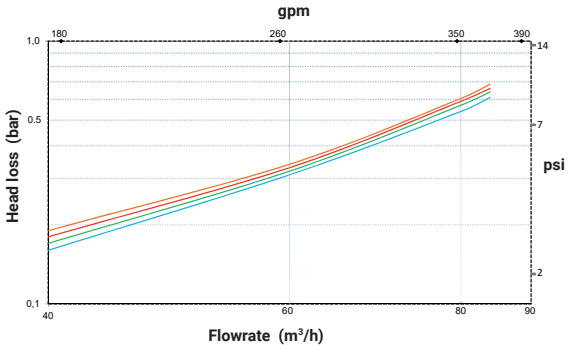
MICRON 100 130 200 400

## FT204 AA DLP



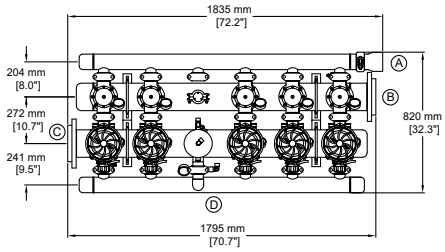



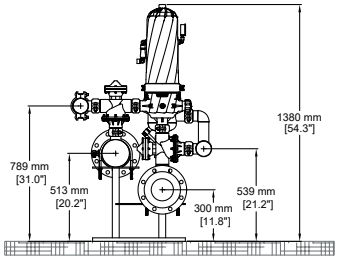

HEAD LOSS PER FILTRATION DEGREE*



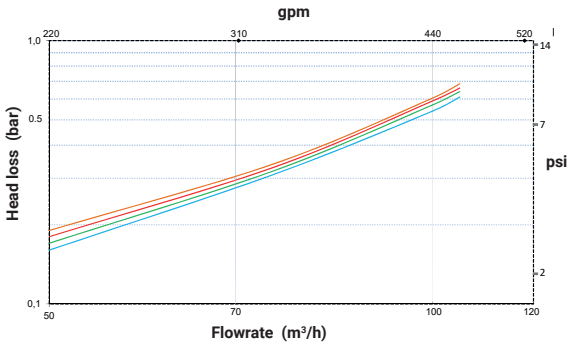

(A) 3" Drainage manifold (B) 6" Inlet manifold (C) 6" Outlet manifold (D) Inlet pressure manifold

## FT205 AA DLP



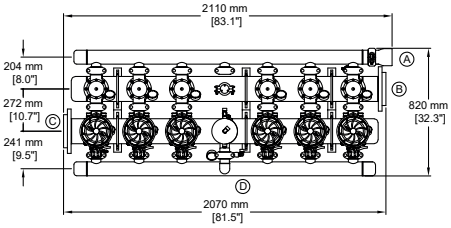



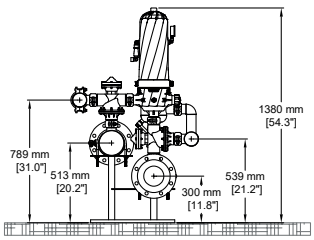

HEAD LOSS PER FILTRATION DEGREE*



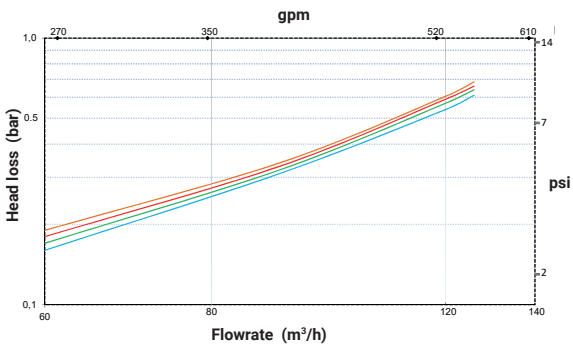

(A) 3" Drainage manifold (B) 6" Inlet manifold (C) 6" Outlet manifold (D) Inlet pressure manifold

## FT206 AA DLP




HEAD LOSS PER FILTRATION DEGREE*




(A) 3" Drainage manifold (B) 6" Inlet manifold (C) 6" Outlet manifold (D) Inlet pressure manifold

*The backwash frequency depends on the design flowrate. For hydraulic calculation, consider the set-point value for the self-cleaning cycle (usually 0.5 bar/7.25 psi).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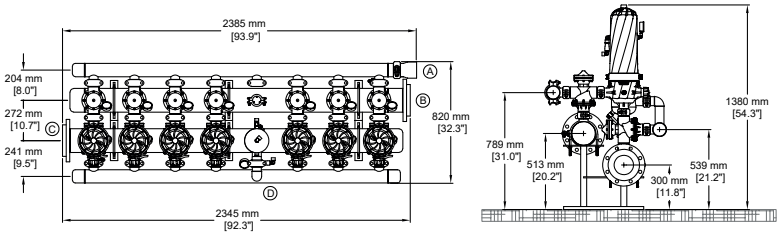
HELIX AUTOMATIC
# FT200 AA DLP

MICRON 100 130 200 400

## FT207 AA DLP

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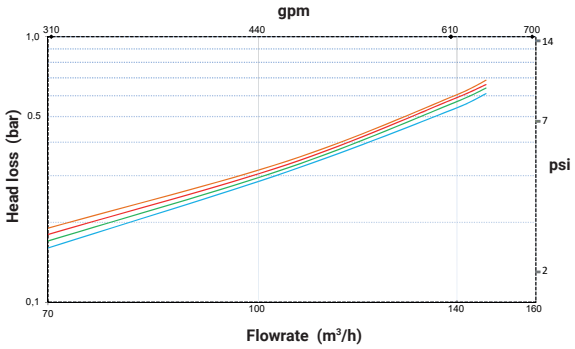
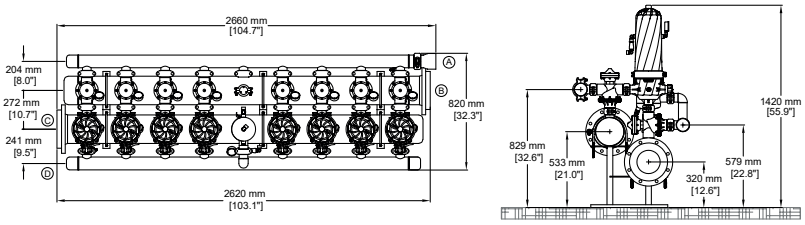



(A) 3" Drainage manifold (B) 6" Inlet manifold (C) 6" Outlet manifold (D) Inlet pressure manifold

## FT208 AA DLP

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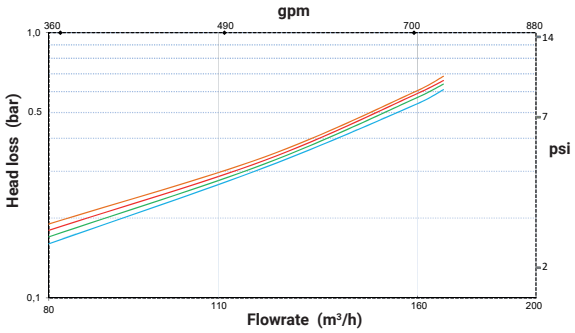


(A) 3" Drainage manifold (B) 8" Inlet manifold (C) 8" Outlet manifold (D) Inlet pressure manifold

*The backwash frequency depends on the design flowrate. For hydraulic calculation, consider the set-point value for the self-cleaning cycle (usually 0.5 bar/7.25 psi).

**ASK FOR OUR EQUIPMENT UP TO 12 FILTERS**

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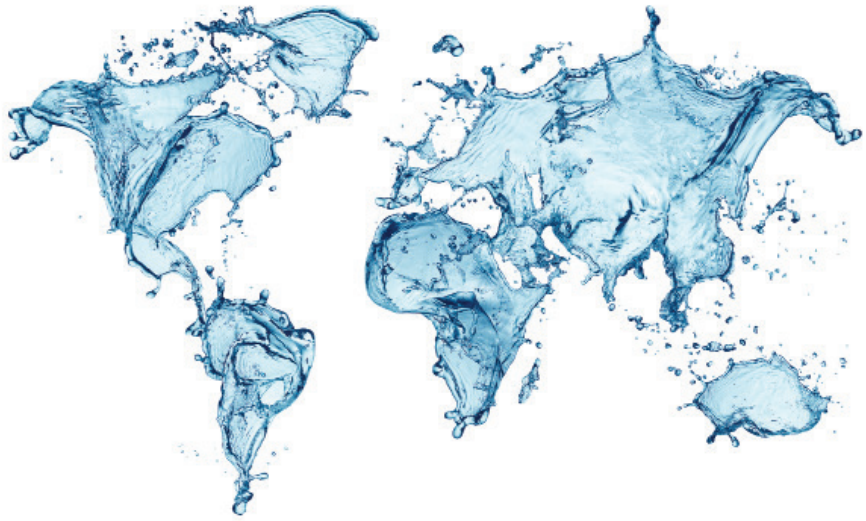


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BRASIL


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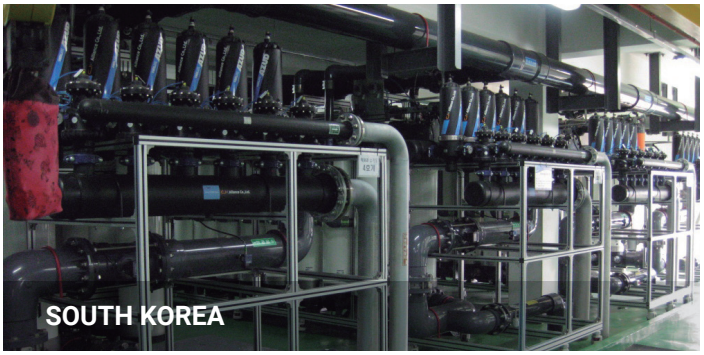
SOUTH KOREA

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