

Automatic Water Filter Bernoulli Type



The Experts in Filtration and Oily Water Separation

VTE-Filter SL | Carrer de la Tecnologia 17 | 08840 Viladecans | Spain | www.vte.com

VTE Filter AWF-B



VTE Bernoulli Filter

VTE Bernoulli Filter is designed for automatic continuous filtration of raw water, cooling water and process water in the pressurized systems. VTE Bernoulli Filter removes suspended debris and particles from natural water sources such as sea water, river water and lake water. It is the ideal solution for the coarse water filtration ranging from 150µm to 2000µm. VTE Bernoulli Filter works in Bernoulli Effect Principle and it cleans the filter screen with high velocity surface cross flow and the back-flushing flow. It has very low inlet pressure requirement down to 0,3bar and features higher particle removal efficiency and simple and reliable operation.



Pneumatic Bernoulli Filter

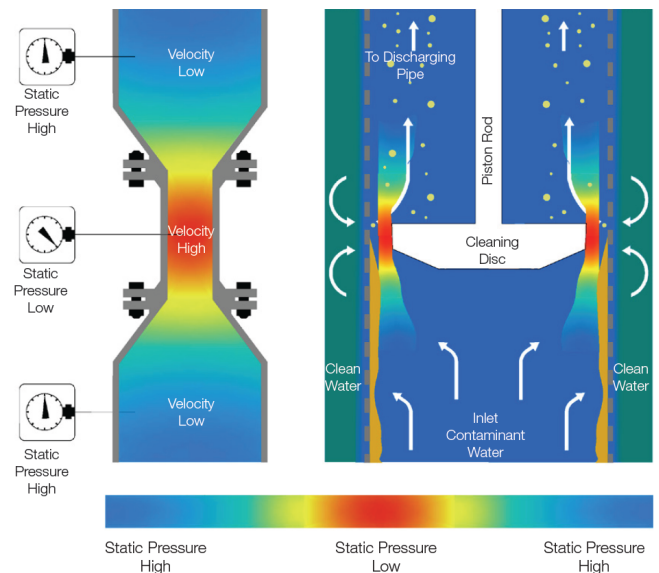


Motor Driven Bernoulli Filter

The Bernoulli Cleaning Principle

The filter screen of AF Bernoulli Filter is back-flushed by the cleaning disc inside. In a pneumatic bernoulli filter, the cleaning disc is mounted on the piston rod and is driven by the pneumatic cylinder, while in a motor driven bernoulli filter the cleaning disc with a nut is mounted on two guiding rods and is driven by a bidirectional rotating thread shaft. When the cleaning action triggered, the disc moves into the filter screen and the water passes through the gap between the disc and the filter screen inner surface. Flow velocity is accelerated when the water passes the gap, while the static pressure

How Does Bernoulli Effect Happen in the Filter?



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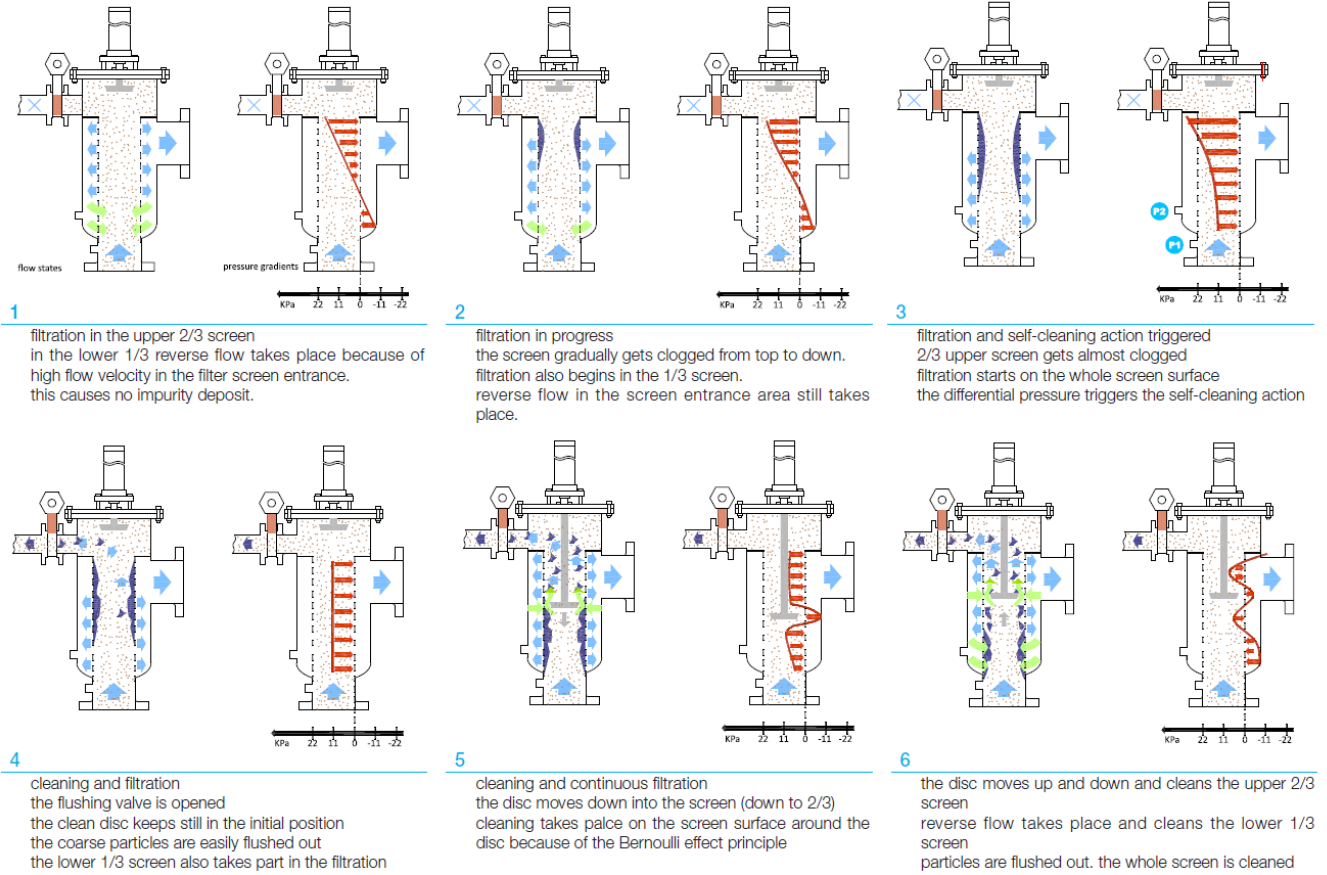
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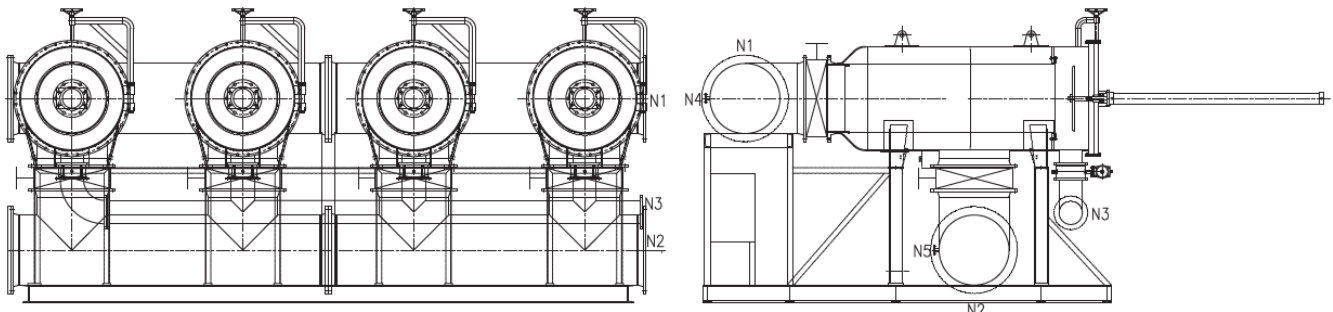


The Complete Working Stages of Bernoulli Filter



Parallel Bernoulli Filter Installation Layout

AF Series Bernoulli Filter Skid, 20000m³/h, 3 Operation 1 Standby

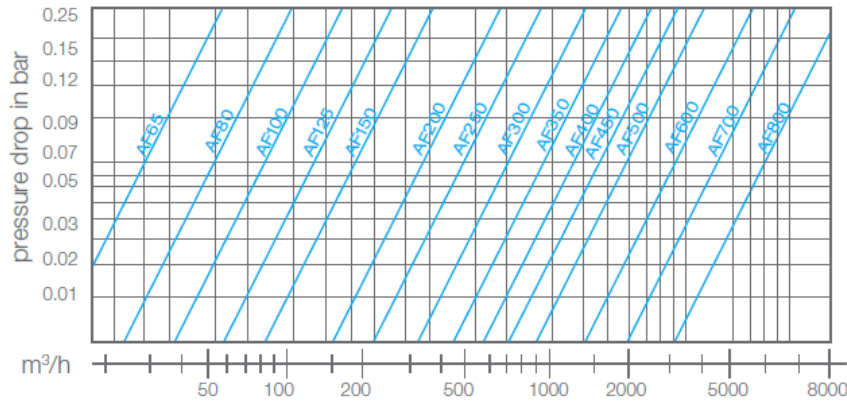


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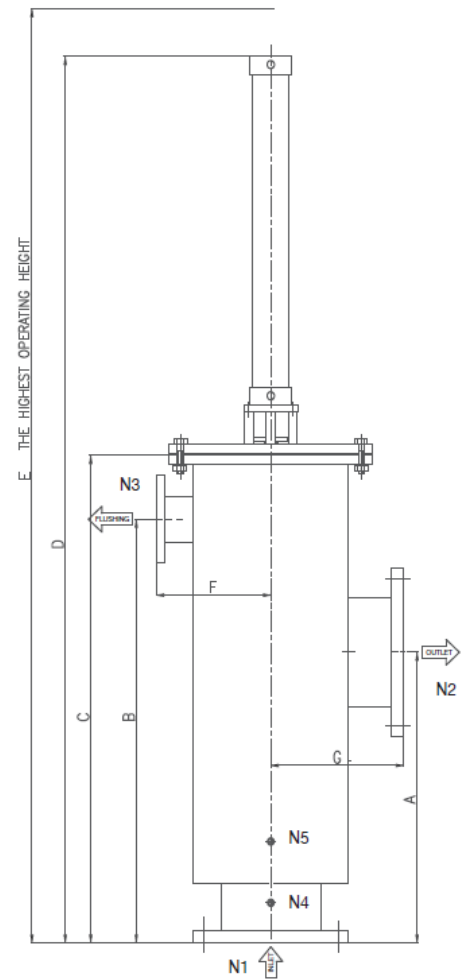


Flowrate and Pressure Drop Chart



Bernoulli Filter Housing Dimension

| MODEL | N1/N2 DN | N3 DN | A mm | B mm | C mm | D mm | E mm | F mm | G mm |
|-------|-------------|----------|---------|---------|---------|---------|---------|---------|---------|
| AF65 | 65 | 25 | 265 | 365 | 430 | 785 | 885 | 126 | 146 |
| AF100 | 100 | 40 | 325 | 480 | 555 | 1155 | 1255 | 210 | 210 |
| AF125 | 125 | 40 | 365 | 525 | 600 | 1216 | 1316 | 210 | 210 |
| AF150 | 150 | 40 | 485 | 680 | 775 | 1535 | 1635 | 245 | 236 |
| AF200 | 200 | 50 | 695 | 965 | 1075 | 2040 | 2140 | 310 | 340 |
| AF250 | 250 | 100 | 730 | 1060 | 1225 | 2220 | 2350 | 315 | 365 |
| AF300 | 300 | 100 | 905 | 1245 | 1415 | 2605 | 2735 | 375 | 390 |
| AF350 | 350 | 100 | 1060 | 1480 | 1665 | 2945 | 3075 | 435 | 465 |
| AF400 | 400 | 100 | 1110 | 1540 | 1730 | 3235 | 3365 | 465 | 480 |
| AF450 | 450 | 100 | 1230 | 1780 | 1930 | 3650 | 3510 | 490 | 510 |
| AF500 | 500 | 150 | 1400 | 1990 | 2200 | 3970 | 4100 | 530 | 560 |
| AF600 | 600 | 200 | 1800 | 2370 | 2590 | 4705 | 4835 | 575 | 605 |
| AF700 | 700 | 200 | 1885 | 2505 | 2725 | 5035 | 5355 | 705 | 755 |
| AF800 | 800 | 200 | 2135 | 2855 | 3125 | 5735 | 6055 | 755 | 805 |



Bernoulli Filter Specifications

| | | | |
|----------------------------|--|-------------------------|---------------------|
| Bernoulli Filter Types | AFP/AFE/AFM/AFK | Compressed Air Supply | 0.6Mpa, Clean & Dry |
| Control Panel | Based on Siemens Controller | Working Pressure (Min.) | 30Kpa / 0.3Bar |
| Control Mode | D.P. and Time Mode | Filtration Rating | 150-2000µm |
| D.P. Instrument | Differential Pressure Transmitter | Design Pressure | 0.6/1.0/1.6/2.5 Mpa |
| Filter Screen Material | 304/316L/duplex 2205/Super Duplex 2507 | Design Temperature | 80 °C |
| Housing Material | 304/316L/duplex 2205/CS/GRP | Flowrate Range | 30-6500 m³/h |
| Flushing Valve | Pneumatic / Electrical Butterfly Valve | Cleaning Pressure Drop | 11~16Kpa |
| Power Supply | 110V/220V/380V/440V AC | Inlet and Outlet Size | DN65-DN800 |
| Largest Removable Particle | 8mm | Piston Rod Material | 316L |
| Housing Seal | NBR | Piston Rod Seal | PU |