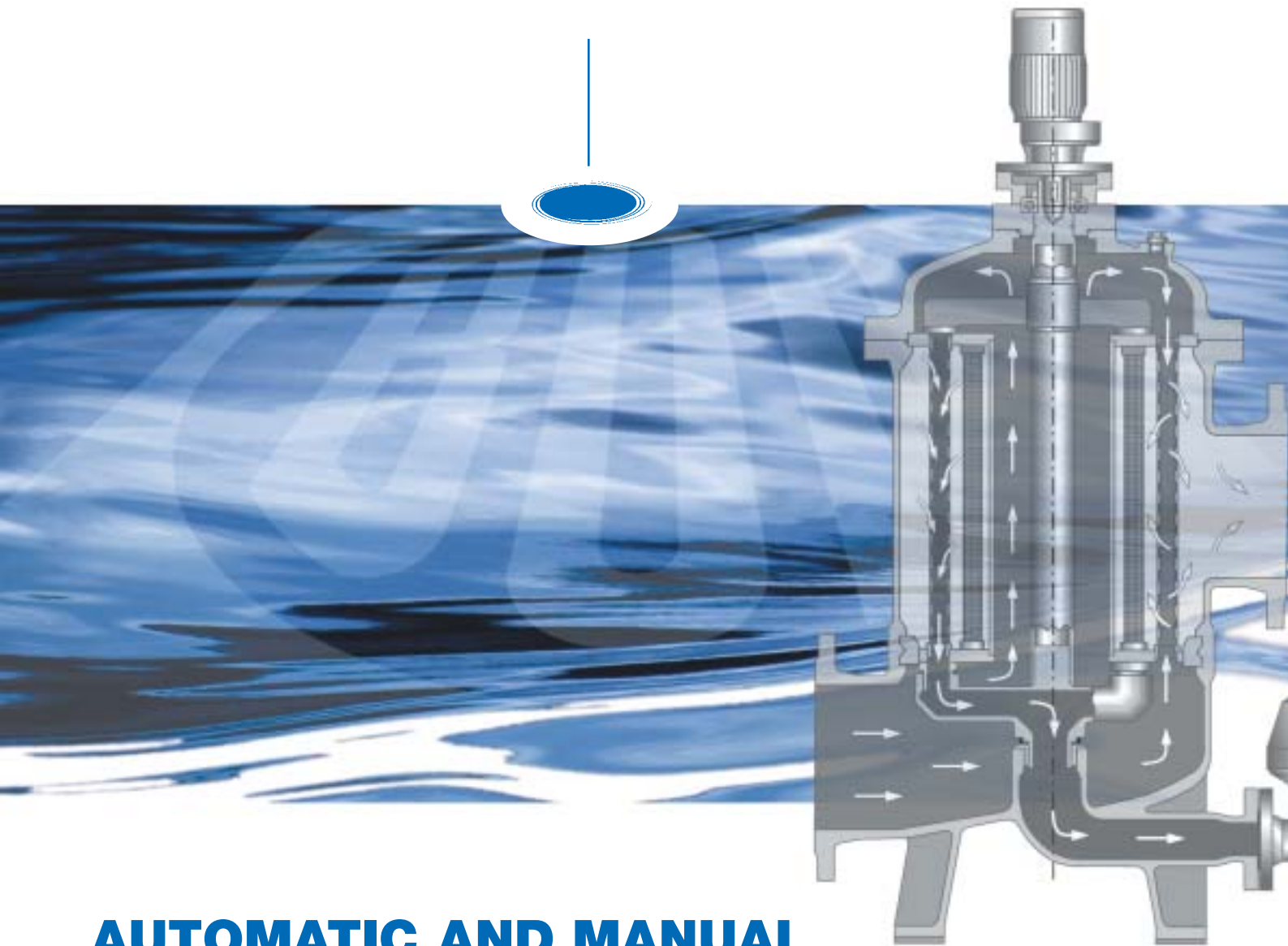




BOLLFILTER
Protection Systems

PRODUCT BROCHURE



AUTOMATIC AND MANUAL
filtration systems



BOLLFILTER UK LIMITED

EFFICIENT, LOW MAINTENANCE filtration systems

The Boll & Kirch Product Range incorporates a comprehensive selection of quality filters and accessories designed and built for efficient performance and long-life reliability with minimal maintenance.

Produced by the leading European manufacturer of automatic filtration systems, with over fifty years experience and extensive investment in research and development, Bollfilter Protection Systems are designed to perform across a wide range of applications.

All products are supported by our dedicated sales team, which has in-depth knowledge of the UK filtration industry and offers a complete service – from design to commissioning.



BOLLFILTER APPLICATIONS

- Water and sewage treatment
- Chemical and petrochemical
- Manufacturing
- Paper
- Power
- Steel
- Automotive
- HVAC
- Process industries

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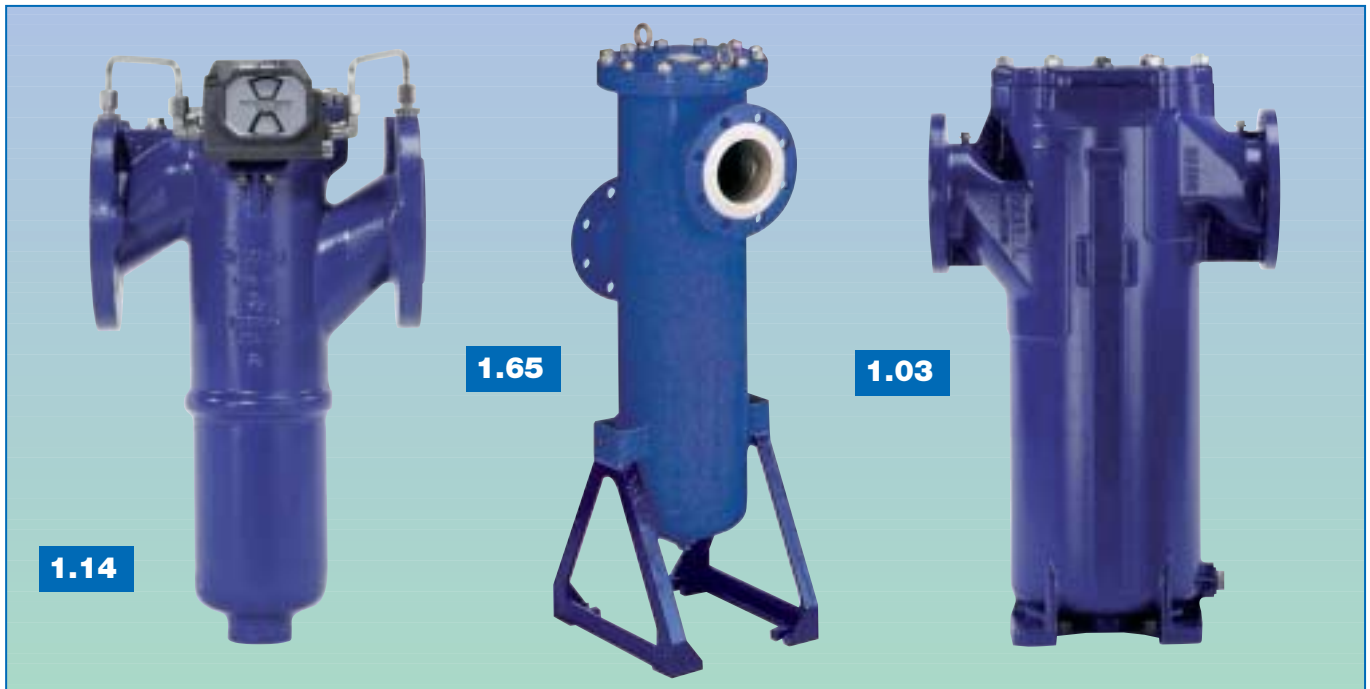
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MANUAL

Simplex

SINGLE FILTERS & STRAINERS



Simplex Filters are designed for use where the flow can be stopped for manual cleaning.

- High filtration areas
- High solids holding
- Large range of filtration levels
- Robust reusable stainless steel elements

TECHNICAL SPECIFICATIONS

BOLLFILTER Simplex Filter Range	
Filter sizes	20mm up to 1000mm N/B.
Flow rates	Flows up to 7000 m ³ /hr.
Filtration levels	10mm down to 5 micron.
Materials of construction	Cast Iron, Ductile Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Design pressure	Up to 100 bar (depending on model).
Design temperature	-10 to 120°C. Higher or lower temperatures available on request.
Filter elements	Basket, Candle, Multi-mantle, Ring, Cartridge (using material such as metallic mesh, wedge wire or fibreglass media).
Typical applications	Suitable for all types of liquids. Filter Membrane, Spray Nozzle, Pump, Meter & Heat Exchanger protection. Pipeline scale removal.
Options include	Differential Pressure Indicator/Switch. DWI approved internals, Automatic Air Release Valves. Magnet elements for metallic particle removal.



Duplex Filters are fitted with an integral changeover valve and are designed for use where the flow cannot be stopped for manual cleaning. By diverting the flow through a second filter chamber, the element can be cleaned without interruption of the flow.

- Impossible to completely shut off flow
- 100% duty and standby
- Easy to operate changeover valve
- High filtration areas and solids holding
- Large range of elements & filtration levels
- Robust reusable stainless steel elements

TECHNICAL SPECIFICATIONS

BOLLFILTER Duplex Filter Range	
Filter sizes	20mm up to 250mm N/B.
Flow rates	Flows up to 700 m ³ /hr.
Filtration levels	6mm down to 1 micron.
Materials of construction	Cast Iron, Ductile Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Design pressure	Up to 40 bar (depending on model).
Design temperature	-10 to 120°C (High temperatures available on request).
Filter elements	Basket, Candle, Multi-mantle, Ring, Cartridge (using material such as metallic mesh, wedge wire or fibreglass media).
Typical applications	Suitable for all types of liquids. Filter Membrane, Spray Nozzle, Pump, Meter & Heat Exchanger protection. Pipeline scale removal.
Options include	Differential Pressure Indicator/Switch. Automatic Air Release Valves, Heating Elements/Jackets. Magnet elements for metallic particle removal.

MANUAL

Duplex

LUBE OIL FILTERS

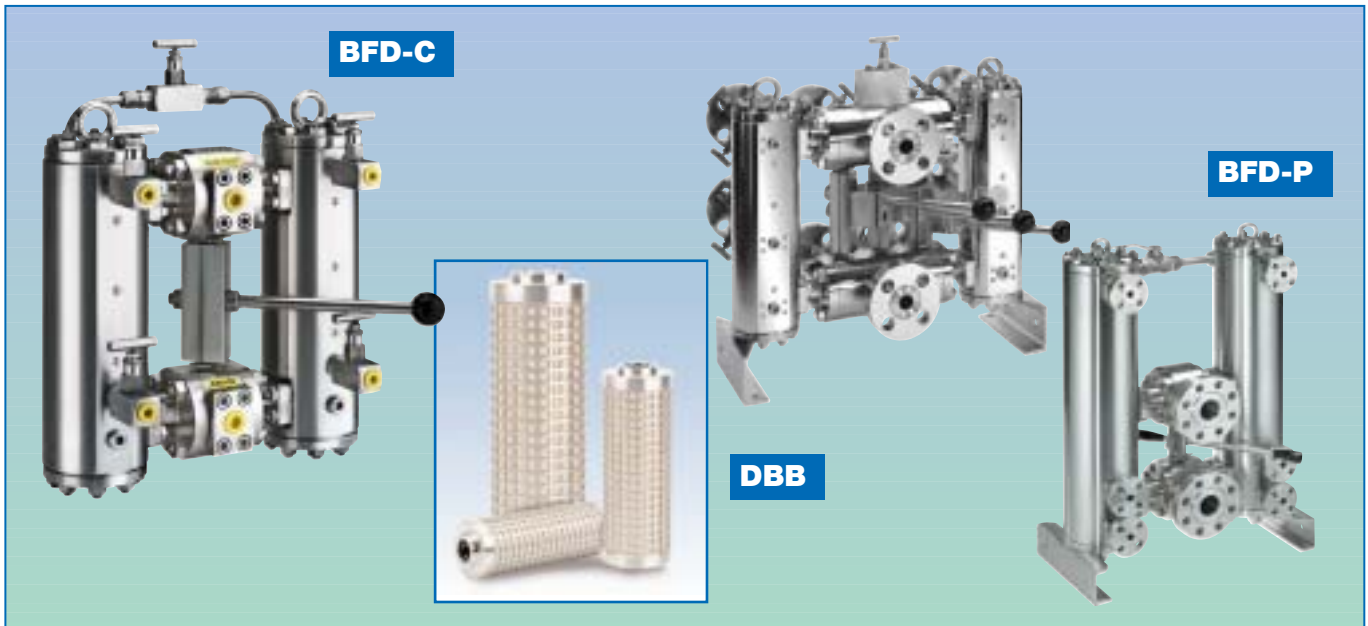


Innovative design with 60 variants.
 Ball valve type Duplex Filters are the result of precision engineering carried out in our modern, well-equipped production facility.
 This range of filters is designed to meet the requirements of API, ASME and PED.

- Impossible to completely shut off flow
- 100% duty and standby
- High filtration areas & solids holding
- Low DP due to valve design and filter media
- Changeover handle position lock available

TECHNICAL SPECIFICATIONS

BOLLFILTER Duplex Lube Filter Range	
Filter sizes	25mm up to 150mm N/B.
Flow rates	Flows up to 160 m ³ /hr.
Filtration levels	Down to 1 micron.
Materials of construction	Ductile Iron, Carbon Steel, Stainless Steel, Duplex & Super Duplex
Internals	Stainless Steel
Design pressure	Up to 40 bar (depending on model).
Design temperature	Up to 120°C (High temperatures available on request).
Filter elements	Fibreglass or Stainless Steel Pleated Elements or Stainless Steel Mesh type Candle Elements.
Typical applications	Lube Oil Filtration for Turbines, Compressors, Diesel Engines.
Options include	Differential Pressure Indicator/Switch. Drip Tray, Safety Covers. Automatic Air Release Valves, Heating Elements/Jackets. Magnet elements for metallic particle removal.



Our state-of-the-art design and machining centres ensure the most exacting standards, with all filters designed and manufactured in-house. We can produce change over valves (DBB valves) and filter vessels for secure operation at very high pressure.

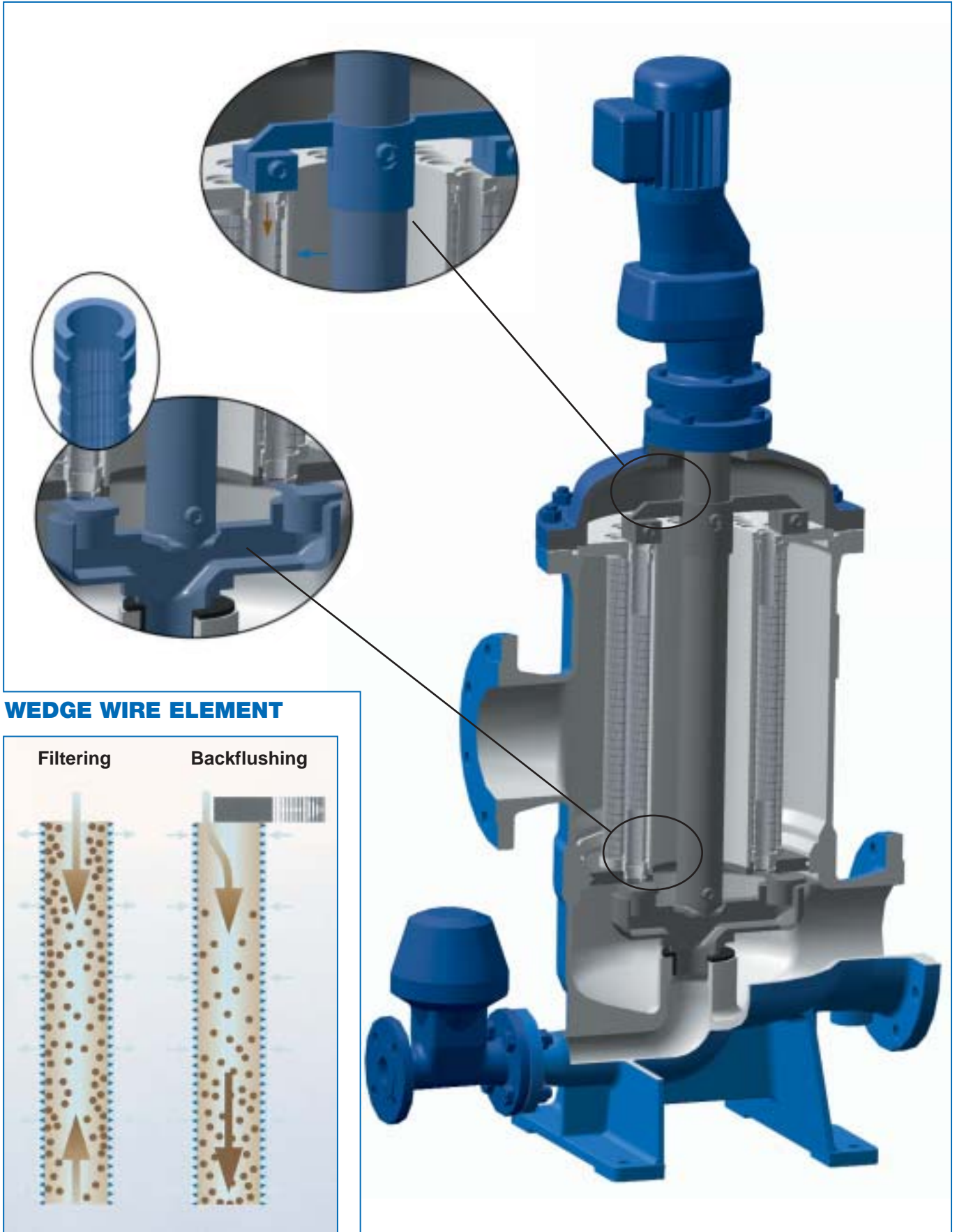
In-house testing facilities guarantee filter integrity and accuracy of the filter element.

- Removal of solids and liquids from gases
- Added security of double block and bleed changeover valve
- Flexible designs to meet custom requirements

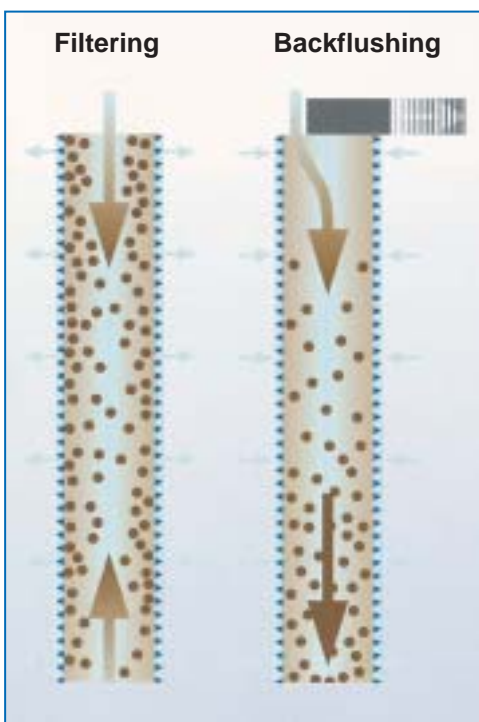
TECHNICAL SPECIFICATIONS

BOLLFILTER Duplex Gas Filter Range	
Filter sizes	1" to 8" N/B.
Flow rates	Flows up to 100,000 Nm ³ /hr.
Filtration levels	Down to 1 micron.
Materials of construction	Carbon Steel, Stainless Steel, Duplex & Super Duplex Stainless Steels.
Internals	Stainless Steel.
Design pressure	420 bar.
Design temperature	-20 to 120°C (Higher or lower temperatures available on request).
Filter elements	Fibreglass & Stainless Steel Particle Filters and Coalescer Elements. Stainless Steel Demisters and Cyclone Elements.
Typical applications	Removal of solids and liquids from gas. Seal Gas, Fuel Gas, Process Gas.
Options include	Double block and bleed changeover valve. Demister Elements and Cyclone Separators.

AUTOMATIC Backflushing Filter GENERAL OPERATION

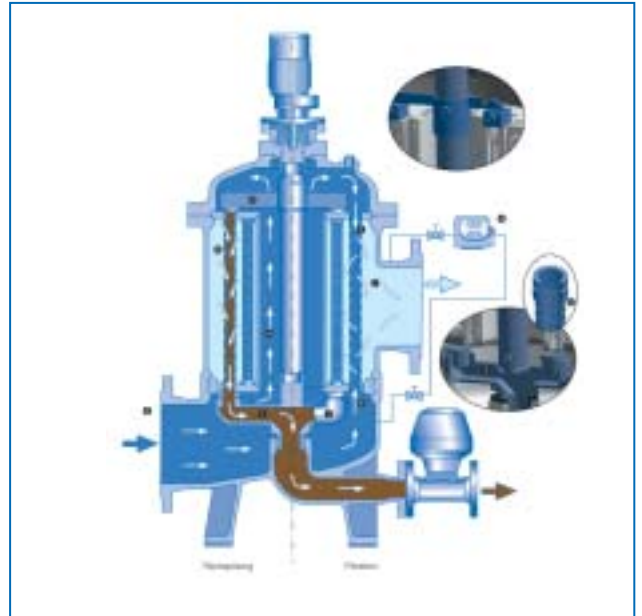


WEDGE WIRE ELEMENT





AUTOMATIC Backflushing Filter TYPE 6.18



- Low maintenance
- Efficient cleaning
- Can handle large solids and cope with high solids loading
- On-stream cleaning in seconds
- Low backflush using process fluid

TECHNICAL SPECIFICATIONS

BOLLFILTER 6.18 Automatic Filter	
Filter sizes	50mm up to 1000mm N/B.
Flow rates	7 m ³ /hr up to 10,000 m ³ /hr.
Filtration levels	6mm down to 25 micron.
Materials of construction	Cast Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Working pressure	2 bar up to 10 bar as standard (higher pressures available).
Design temperature	0 to 80°C (Other temperatures available on request).
Filter elements	Wedge wire Tubes, Mesh Tubes, Round Profile Wire Tubes.
Typical applications	Filter Membrane, Spray Nozzle, Heat Exchanger protection. General pipeline scale removal.
Options include	Differential Pressure Indicator/Switch. DWI approved internals for potable water applications. Control panels to customer specification. Skid mounted pump and control system for low pressures.

AUTOMATIC Low Pressure Backflushing Filter TYPE 6.18 SUC



- Operates at very low working pressures
- Efficient cleaning using sludge pump
- Can handle large solids and cope with high solids loading
- On-stream cleaning in seconds
- Low backflush using process fluid
- Available as packaged, fully assembled plant (as pictured)

TECHNICAL SPECIFICATIONS

BOLLFILTER 6.18 SUC Automatic Filter	
Filter sizes	50mm up to 900mm N/B.
Flow rates	7 m ³ /hr up to 9000 m ³ /hr.
Filtration levels	6mm down to 25 micron.
Materials of construction	Cast Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Working pressure	Minimum 0.2 bar.
Design temperature	0 to 80°C (Other temperatures available on request)
Filter elements	Wedge Wire Tubes, Mesh Tubes, Round Profile Wire Tubes
Typical applications	Filter Membrane, Spray Nozzle, Pump, Heat Exchanger protection. Pipeline scale removal. Water and effluent.
Options include	DWI approved internals for potable water applications. Control panels to customer specification. Manual bypass strainer.



AUTOMATIC

Side Stream Package System

TYPE 6.18 Skid-mounted



- Complete package for easy installation and maintenance
- Operates at very low working pressures
- Efficient cleaning
- Can handle large solids and high solids loading
- On-stream cleaning in seconds
- Low backflush using pressurised fluid
- Ideal for sidestream filtration or cooling towers
- Duty/Standby system available with automatic changeover facility

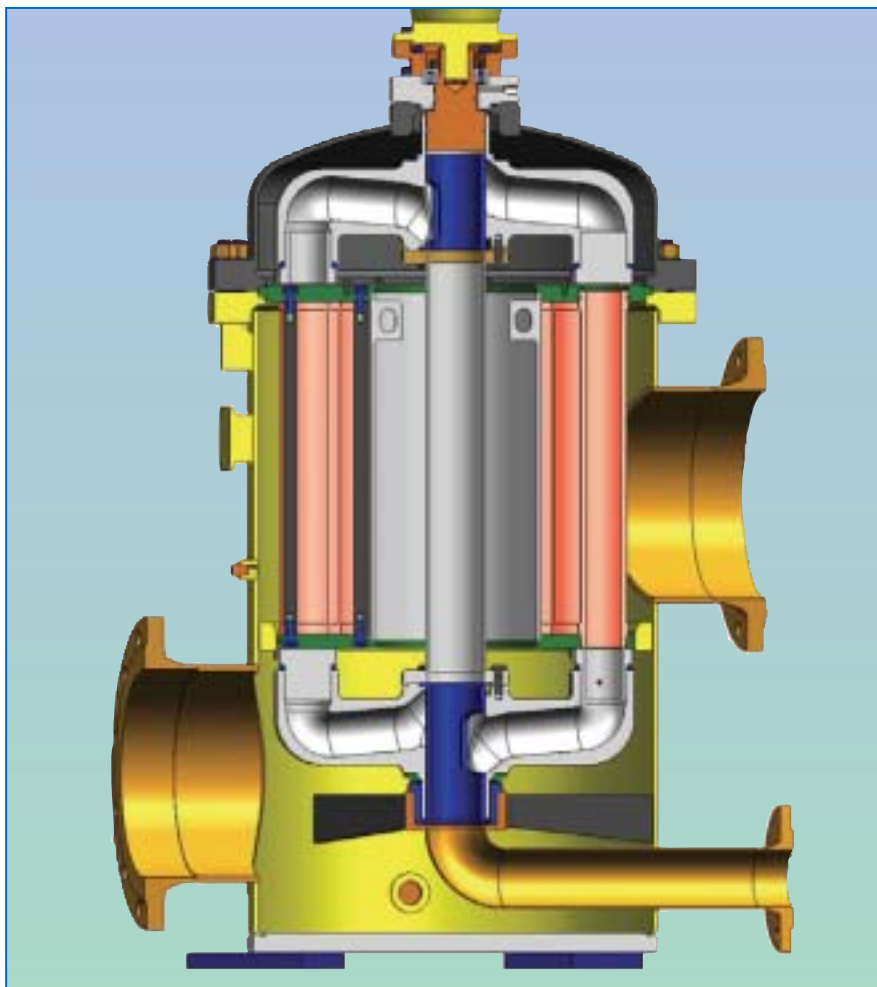
TECHNICAL SPECIFICATIONS

BOLLFILTER 6.18 Skid-mounted Automatic Filter	
Filter sizes	50mm up to 300mm N/B.
Flow rates	7 m ³ /hr up to 250 m ³ /hr.
Filtration levels	Down to 25 micron.
Materials of construction	Cast Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Working pressure	n/a.
Design temperature	-10 to 80°C (Other temperatures available on request).
Filter elements	Wedge Wire Tubes, Mesh Tubes, Round Profile Wire Tubes.
Typical applications	Cooling Tower Side Stream Filtration. Transfer and cleaning of liquids.
Options include	Differential Pressure Indicator/Switch. Pre-Strainer – Simplex or Duplex type. Duty/Standby Pumps. Control panels to customer specification.

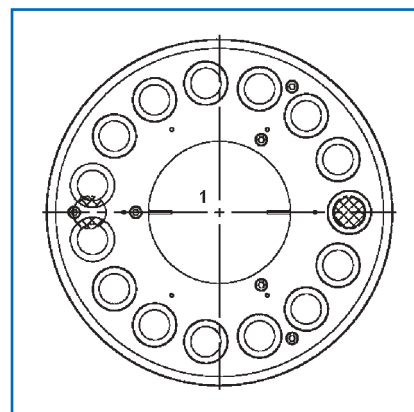
AUTOMATIC

Backflushing Filter

6.18.2 HEAVY DUTY FILTER



- No pre-screening required
- Each element cleans twice per cycle
- Can handle large solids and cope with high solids loading
- On-stream cleaning in seconds
- Backflush using process fluid

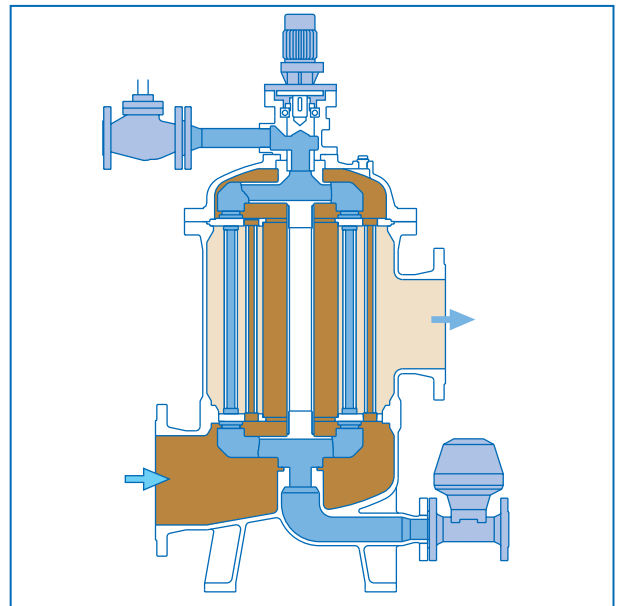


TECHNICAL SPECIFICATIONS

BOLLFILTER 6.18.2 Automatic Filter	
Filter sizes	100mm up to 400mm N/B.
Flow rates	7 m ³ /hr up to 2500 m ³ /hr.
Filtration levels	10mm down to 50 micron.
Materials of construction	Cast Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Working pressure	2 to 10 bar.
Design temperature	0 to 80°C (Other temperatures available on request)
Filter elements	Wedge Wire Tubes, Round Profile Wire Tubes.
Typical applications	Raw Water Inlets, River Water, Canal Water, Irrigation Water.
Options include	DWI approved internals for potable water applications. Control panels to customer specification. Manual bypass strainer.



AUTOMATIC Low Pressure Backflushing Filter TYPE 6.19

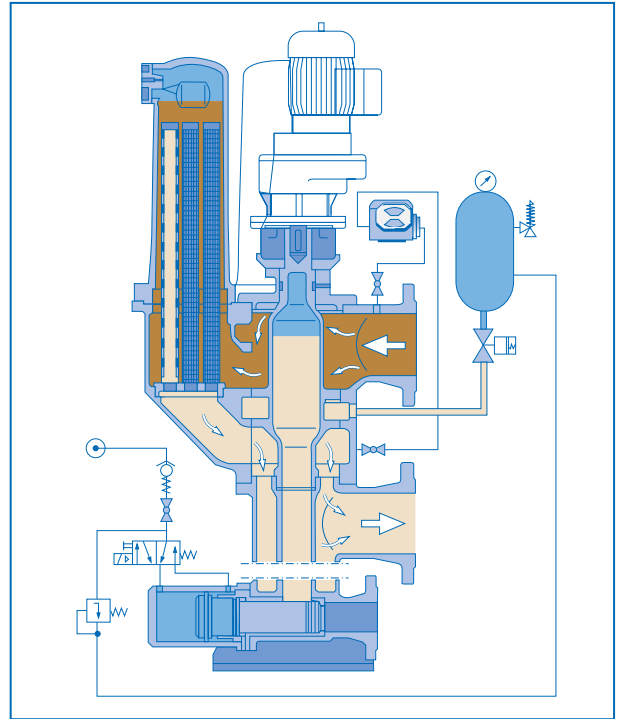
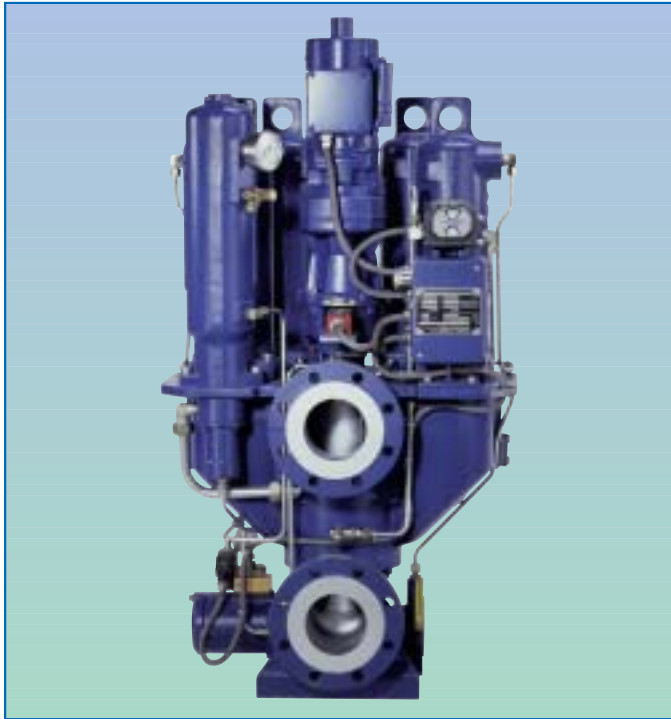


- Operates at very low working pressures
- Efficient cleaning
- Can handle large solids and cope with high solids loading
- On-stream cleaning in seconds
- Low backflush with external medium

TECHNICAL SPECIFICATIONS

BOLLFILTER 6.19 Automatic Filter	
Filter sizes	50mm up to 300mm N/B.
Flow rates	7 m ³ /hr up to 1000 m ³ /hr.
Filtration levels	6mm down to 50 micron.
Materials of construction	Cast Iron, Carbon Steel, Stainless Steel.
Internals/Lining	Stainless Steel/FIP Epoxy Lining.
Design pressure	Minimum 0.5 bar.
Design temperature	0 to 80°C (Other temperatures available on request).
Filter elements	Wedge wire Tubes, Mesh Tubes, Round Profile Wire Tubes.
Typical applications	Filter Membrane, Spray Nozzle, Pump & Heat Exchanger protection. General pipeline scale removal.
Options include	Differential Pressure Indicator/Switch. DWI approved internals for potable water applications. Control panels to customer specification. Skid mounted pump and control system.

AUTOMATIC Oil & Coolant Filter TYPE 6.61

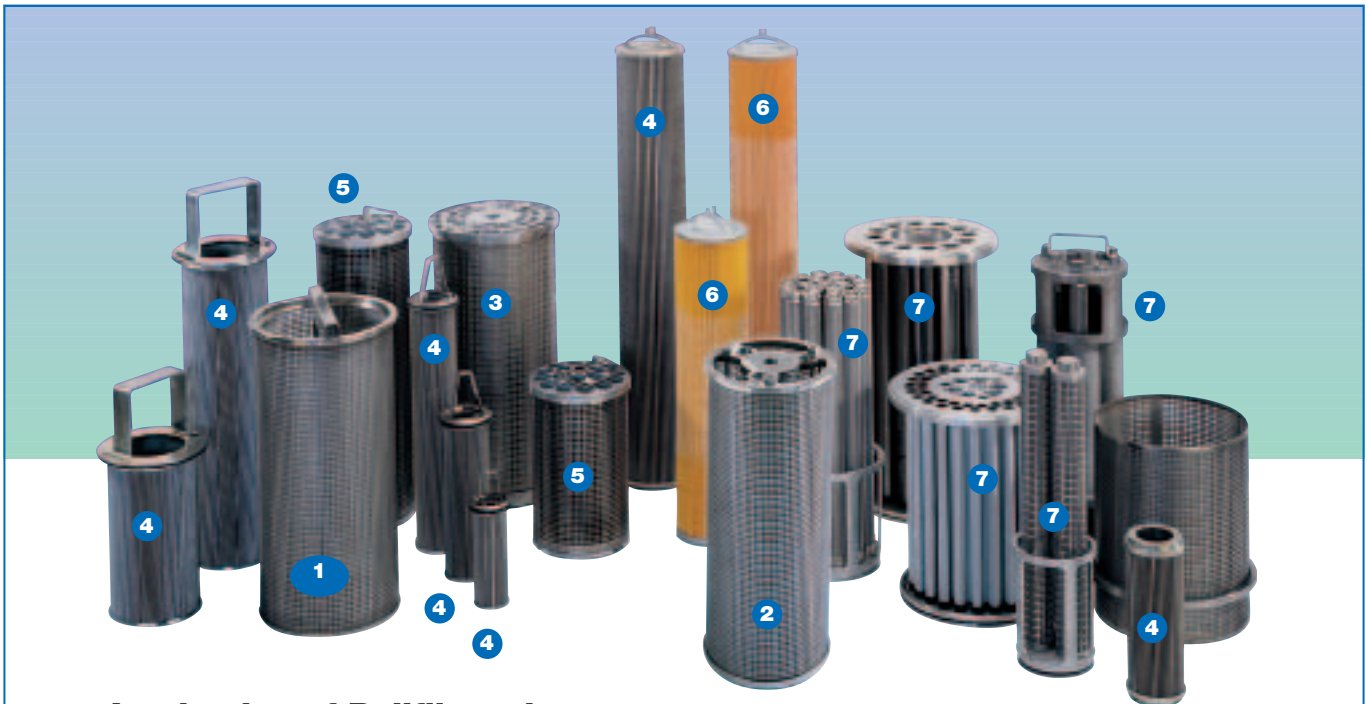


The 6.61 Series is a compact automatic self-cleaning filter offering a large filtration area with highly efficient, effective compressed air assisted backflushing.

- Low maintenance automatic operation
- Low backflush quantities & pressure loss
- Compact with large filter area
- Low operating costs

TECHNICAL SPECIFICATIONS

BOLLFILTER 6.61 Automatic Filter	
Filter sizes	50mm up to 300mm N/B.
Flow rates	1 m ³ /hr up to 800 m ³ /hr.
Filtration levels	2mm down to 10 micron.
Materials of construction	Cast Iron, Ductile Iron.
Internals/Lining	Stainless Steel/Nickel-plated Lining (water).
Working pressure	0.5 bar up to 10 bar as standard.
Design temperature	-10 to 80°C (Other temperatures available on request).
Filter elements	Cylindrical screw-in candle type with special weave mesh.
Typical applications	Lubricating Oils, Machining Coolants, Industrial Washing Liquids, Fuel Oils, Diesel Oils.
Options include	Backflushed liquid recycling unit. Duplexed filters complete with manual change-over valve.



A selection of Bollfilter elements

- | | |
|-------------------------|---|
| 1. Basket element | 5. Filter candle element |
| 2. Ring filter element | 6. Filter cartridge |
| 3. Multi-mantle element | 7. Filter candle element for backflushing filters |
| 4. Star-pleated element | |

ELEMENT TYPES & FILTRATION LEVELS

BOLLFILTER Simplex & Duplex Elements	
1. BASKET	For filtration levels of 100 micron or coarser. Can remove a wide range of solid sizes.
2. RING FILTER	As Basket Element. With higher filtration area.
3. MULTI MANTLE	For high filtration areas with levels down to 10 micron. Generally used on specialist applications.
4. STAR PLEATED	10 to 100 micron. Offering very high filter area in a small element.
5. FILTER CANDLE	For high filtration areas with levels down to 10 micron. Ideal for applications where high differential pressures may be required.
6. FILTER CARTRIDGE	Paper, polyester or fibreglass. Generally used for fine filtration of quality product (down to 1 micron).
Automatic Elements	
7. BACKFLUSHING FILTER FOR WATER OR OIL	Wedge wire for levels down to 25 micron and Stainless Steel mesh type for levels down to 25 micron (water) or 5 micron (oil).

ACCESSORIES

DP Indicators & Switches

VALVES & CONTROL PANELS



- Standard or custom control panels
- Pneumatic or electric backflush valves
- Standard DPI/DPS or adjustable switches
- DP Transmitters

INDICATOR/SWITCH SPECIFICATIONS

	DPI Type 4.36.1	DPI Type 4.36.2	DPI Type 4.46.1	DPI Type 4.46.2
Type	DP Indicator	DP Indicator/Switch	DP Indicator	DP Indicator/Switch
Case Material	Aluminium	Aluminium	Aluminium	Aluminium
Internals	Aluminium	Aluminium	Stainless Steel	Stainless Steel
Design pressure	100 Bar	100 Bar	160 Bar	160 Bar
Design temperature	150°C	150°C	150°C	150°C
DP Range	Zero to 0.5, 0.8, 1.2, 2.0, 3.0 bar (to be specified when ordering).			
Set Points	N/A	1st = max. x 75% 2nd = max. x 100%	N/A	1st = max. x 75% 2nd = max. x 100%
Typical applications	Lube Oil Fuel Oil Hydraulic Oil Solvents	Lube Oil Fuel Oil Hydraulic Oil Solvents	Water Acids Emulsions Chemicals	Water Acids Emulsions Chemicals

DESIGN & MANUFACTURING

facilities



ABOVE & RIGHT. Boll & Kirch's manufacturing facility near Cologne, Germany.

TOP RIGHT: Photo-realistic image of product in development.

MIDDLE RIGHT: Part of the main filter production area.
BOTTOM RIGHT: Testbed in dedicated R & D department.



TECHNICAL SUPPORT

Bollfilter UK combines the strength of a leading European manufacturer with local sales and service support. The Bollfilter UK team has many years' experience of the UK filtration industry and extensive knowledge of a wide range of filter applications.

Bollfilter UK offers in-depth technical support, including field engineering and maintenance, contract servicing and fast, efficient spares supply.



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