Adding value to your process.

Suitable for many applications within the oilfield and industrial process industries.

Twin Filter BV, a member of the Parker Hannifin Corporation, manufactures its own automatic self cleaning filter series: **TWINOMATIC.** Heavy duty filter equipment that can be used in many different applications within the oilfield and industrial process industries, specially designed for high flow rates and continuous operation. Our TwinOmatic is capable of handling flow rates up to 1800 m³/h per single screen covering a filtration range from 10 to 500 micron. The unique design of the TwinOmatic automatic self cleaning filter series guarantees a continuous flow rate, even during cleaning cycle. The cleaning mechanism uses high efficiency suction nozzles which clean 100% of the total filter area due to the spiral rotation of the suction scanner. The self cleaning process starts automatically but manual override is always possible.

FILTERING PROCESS

Water enters the filter through the inlet (depending on type first by coarse protection screen), and flows into the fine screen from inside out creating a minimum head loss. Different types of screens can be used for different filtration ratings. The suction scanner is driven by an electric motor and scans the screen spirally. It removes the filter cake after the drain valve opens. The hollow nozzles of the scanner collect the filter cake, which is then discharged through the drain valve. Cleaning takes approximately 25 seconds.

BENEFITS

The TwinOmatic series is a competitive piece of filter equipment that can be used for the removal of suspended solids. Automatic self cleaning filters extend the life, performance and efficiency of bag and/or cartridge filters or protect other equipment.

CONTROL SYSTEM

The TwinOmatic is equipped with a switch that transmits an electric signal to the controller when the differential pressure across the screen reaches a preset value. The controller (PLC) activates the flushing cycle by opening the drain valve and starts the drive.

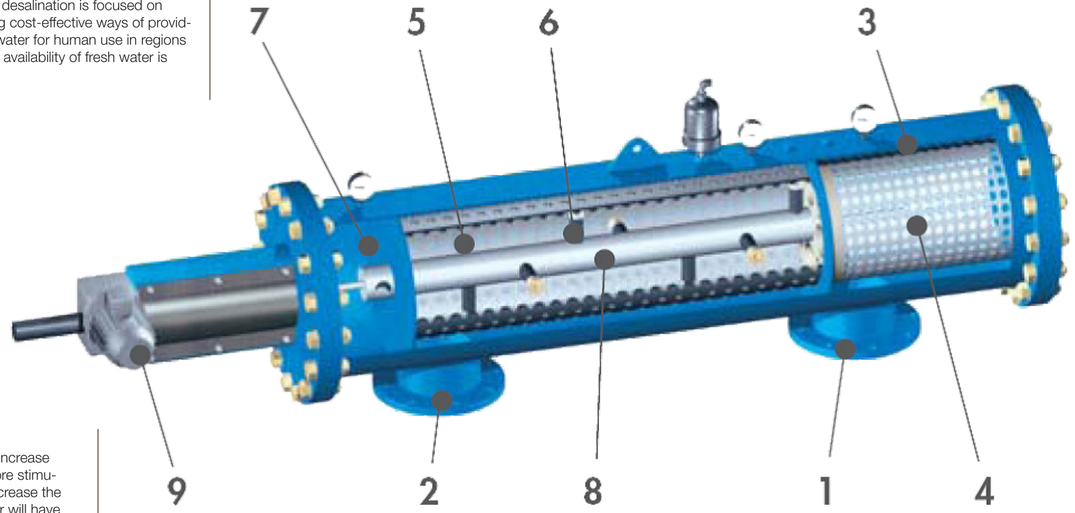
SKID MOUNTED SYSTEM

Twin Filter builds complete systems specially designed for the high demands of the offshore and process industries. Twin Filter can design a custom made skid mounted lay-out for the TwinOmatic series, to easily move or protect the equipment on site. Other options such as material, connection type and size are available on request.

Sea Water Intake
Clean (sea) water is used in various applications like water injection, cooling water, process water, ballast water and pre-filtration. Algae, sand, silt and other contaminants cause clogging and damage to installations and processes.

Cooling Water
Water cooling systems are equiped for convective heat transfer. The TwinOmatic can protect the open systems by recirculating water or be placed in closed (mounted) systems. Common applications include circulating systems in oil refineries, petrochemical and chemical or thermal power plants.

Prefiltration RO
Sea water is desalinated in order to convert to fresh water suitable for human consumption. Most of the modern interest in desalination is focused on developing cost-effective ways of providing fresh water for human use in regions where the availability of fresh water is limited.



Produced Water
Whether the goal is to re-inject for disposal or maintain resevoir pressure, discharge to surface water or overboard, the TwinOmatic can help to effectively treat produced water in a easy and cost efficient way.

1) Inlet
2) Outlet
3) Strainer Chamber
4) Coarse screen
5) Fine screen
6) Nozzle with brushes
7) Flushing chamber
8) Suction scanner
9) Motor drive

Water Injection
Water injection is used to increase pressure on a well, therefore stimulate the production and increase the oil recovery. Unclean water will have significant impact on the performance of the water treatment facilities and will result in clogging of the reservoir and loss of oil production. The TwinOmatic series used as prefilter mounted in the reinjection system, to protect the main point injection equipment.

Pipeline Cleaning
Systems such as fuel lines, lube lines, oil transfer lines and hydraulic systems require extremely clean piping. The TwinOmatic is an ideal solution to remove large volumes of solids, such as sand, gravel, fine heavy powder and rust. The TwinOmatic series protect the system to avoid and/or reduce tear and wear of the pipelines.

Waste Water
During many different (oilfield) operations waste water is created. Often these waste streams contain hydrocarbons and/or heavy metals, free and dissolved. Waste water treatment is necessary to make industrial waste water safe for reuse or release into the environment. Oils, greases and heavy metals, as well as gasoline and other petroleum by-products are the most common contaminants. The TwinOmatic series used as prefilter can remove as first stage filter the hard particles and reduces the operational costs of the complete filter system.

Solids Removal
Automatic self cleaning filters are very effective in the removal of suspended solids down to less than 10 micron in size without flocculants, precoats or granulated media. They are used to remove sand, silt and algae from sea water and raw water taken from lakes, rivers or canals.

TwinOmatic Self Cleaning Filter

Our standard TwinOmatic series consist of the following types:

TwinOmatic Horizontal - Automatic Self Cleaning Filter Unit

- Uninterrupted flow and continuous filtration during cleaning cycle.
- Highly effective cleaning of total filtration area.
- Automatically initiated self cleaning process, manual override possible.
- Minimal flush water for cleaning.
- Simple, reliable and robust.
- Wide filtration range.
- Fully automatic operation.
- Low and easy maintenance, due to horizontal design.
- Extra protection due to prefilter.

TwinOmatic Vertical - Automatic Self Cleaning Filter Unit

- Uninterrupted flow and continuous filtration during cleaning cycle.
- Highly effective cleaning of total filtration area.
- Automatically initiated self cleaning process, manual override possible.
- Minimal flush water for cleaning.
- Simple, reliable and robust.
- Wide filtration range.
- Fully automatic operation.
- Low maintenance.
- Small footprint due to vertical position.

TwinOmatic Brush - Automatic Self Cleaning Filter Unit

- Uninterrupted flow and continuous filtration during cleaning cycle.
- More effective cleaning through brushes.
- Automatically initiated self cleaning process, manual override possible.
- Minimal flush water for cleaning.
- Simple, reliable and robust.
- Wide filtration range.
- Fully automatic operation.
- Low maintenance.

TwinOmatic Compact - Automatc Self Cleaning Filter Unit

- Uninterrupted flow and continuous filtration during cleaning cycle.
- Effective cleaning of total filtration area.
- Automatically initiated self cleaning process, manual override possible.
- Minimal flush water for cleaning.
- Simple and reliable.
- Wide filtration range.
- Fully automatic operation.
- Low and easy maintenance.
- Cost effective.

TwinOmatic Mega - Automatic Self Cleaning Filter Unit

- Uninterrupted flow and continuous filtration during cleaning cycle.
- Highly effective cleaning of total filtration area.
- Automatically initiated self cleaning process, manual override possible.
- Minimal flush water for cleaning.
- Simple, reliable and robust.
- Wide filtration range.
- Fully automatic operation.
- Low maintenance.
- Small footprint due to vertical position.
- Multiple filtration screens.

		TwinOmatic Horizontal	TwinOmatic Vertical	TwinOmatic Brush	TwinOmatic Compact	TwinOmatic Mega
Maximal flow rate	bbl/hr (m^3/hr)	750 - 11,300 (120 - 1.800)	750 - 11,300 (120 - 1.800)	3,150 - 11,300 (500 - 1.800)	450 - 2,200 (70 - 350)	19,300 - 60,400 (2.300 - 7.200)
Filtration area	ft^2 (cm^2)	3 - 23 (2.650 - 21.300)	9 - 23 (7.990 - 21.300)	9 - 23 (7.990 - 21.300)	1.08 - 5.7 (1.000 - 5.300)	28.4 - 91.7 (26.000 - 85.000)
Minimal operating pressure	psi (bar)	29 (2)	29 (2)	29 (2)	29 (2)	29 (2)
Maximal operating temperature	°F (°C)	122°F (50°C)	122°F (50°C)	122°F (50°C)	122°F (50°C)	122°F (50°C)
Inlet and outlet connection*	" (mm)	3 - 14 (80 - 350)	6 - 14 (150 - 350)	6 - 14 (150 - 350)	2 - 6 (50 - 150)	10 - 14 (250 - 350)
Dump connection	" (mm)	2" (50 mm)	2" (50 mm)	3" (76 mm)	2" (50 mm)	2x3" (2x76 mm)
Flush water for cleaning @ 2 bar	bbl (L)	9.25 - 46.2 (35 - 175)	27.7 - 46.2 (105 - 175)	37 - 61.6 (140 - 233)	2.11 - 14 (8 - 53)	92.5 - 185 (350 - 700)
Mounting position		Horizontal	Vertical	Vertical	Vertical	Vertical
Motor drive*		Electrical				
Control system*		PLC				
Construction material vessels*		Carbon steel, epoxy coated				
Construction material internals*		Stainless steel 316L				

** Other options are available on request.*

Parker Twin Filter

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For more detailed information please see our data sheets, available on request.

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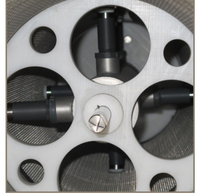
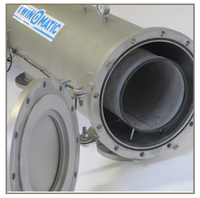
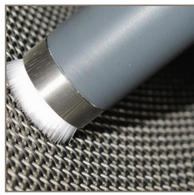




- Waste water
- Produced water
- Sea-, river-, well water intake
- Water injection
- Cooling water
- Pre-filtration RO
- Pipeline flushing
- Solids removal for protection of process equipment.

TWINOMATIC

Automatic Self Cleaning Filter Series



ENGINEERING YOUR SUCCESS.