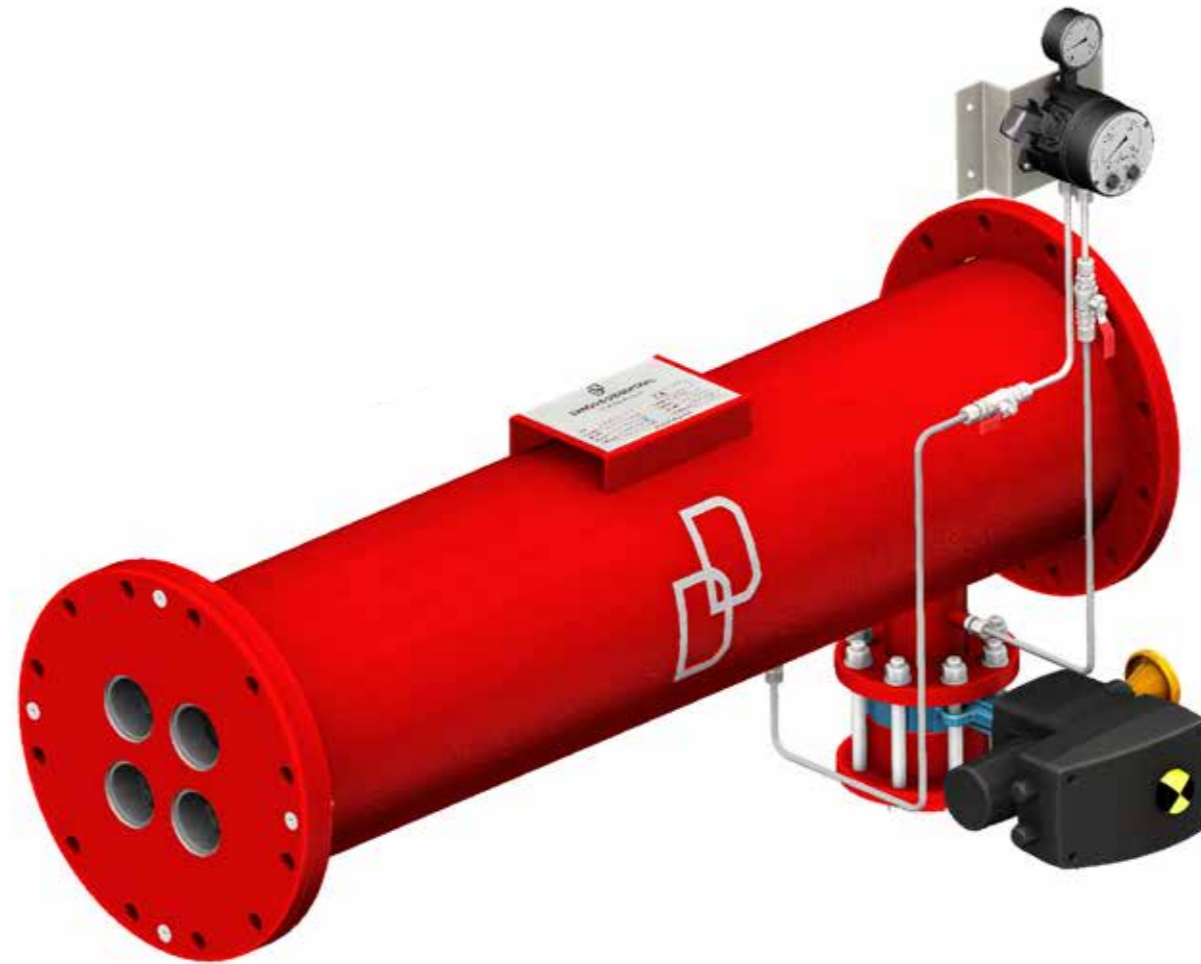


JET FILTER

AUTOMATIC FILTER WITHOUT ANY MOVING PARTS



DANGO & DIENENTHAL
BETTER VALUES.

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JET FILTER (JET)

AUTOMATIC FILTER WITHOUT ANY MOVING PARTS

The JET Filter is an inline filter without any moving internal parts. Its patented design enables very high flow rates, a high diversity of materials, and flexible installation in pipework.

FILTER HOUSING

| | |
|---------------------------|---|
| Standard design | Galvanized steel, steel-coated |
| Seawater-resistant design | GFRP, rubberized steel covering, stainless steel |
| Special design | PP, PE, PVC |

TECHNICAL DATA

| | |
|---------------------------------|------------------------------------|
| Flow rate | max. 25,000 m³/h |
| Filter fineness | ≥ 50 μm |
| Operating pressure | 1.5 to 63 bar |
| Pressure loss with clean filter | 0.1 to 0.3 bar |
| Flanges | DN 50 to 3,000 |
| Temperature | -10 to +110°C |
| Automatic cleaning | Yes |
| Inline design | Yes |



ADVANTAGES

- ⊙ High cleaning speed (up to 10 m/s)
- ⊙ Any installation position (horizontal/vertical)
- ⊙ Easy installation (inline design)
- ⊙ Low wear and tear (no moving parts in the filter)
- ⊙ Low flushing water losses
- ⊙ No increase in differential pressure during filter operation
- ⊙ Diversity of materials
- ⊙ Completely wired and tested unit
- ⊙ Special design solutions for special customer requirements

OUR FILTERS IN ACTION



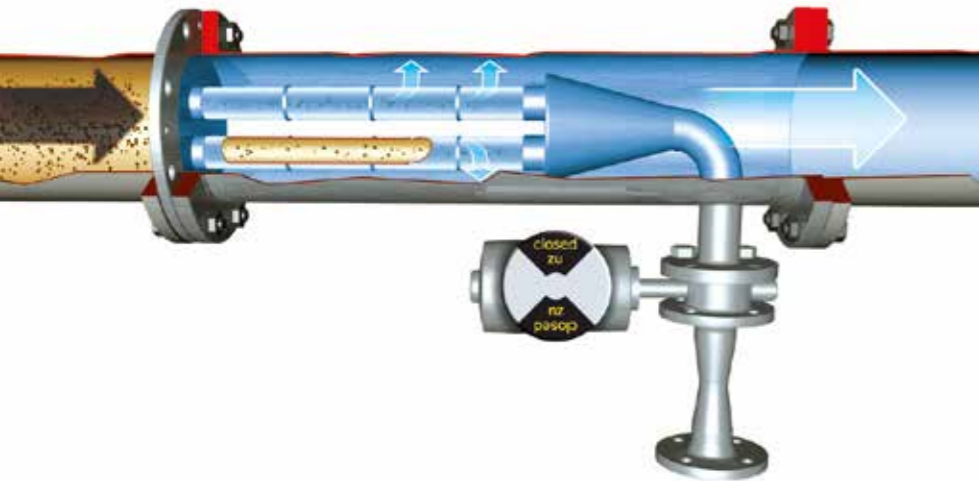
OUR FILTER SYSTEMS PROTECT:

- ⊙ Plate heat exchangers
- ⊙ Spray nozzles
- ⊙ Piping systems
- ⊙ Mechanical seals
- ⊙ Pumps
- ⊙ Microfiltration systems
- ⊙ The environment
- ⊙ Final products

THE NEW DEFINITION OF PURITY FOR YOUR MEDIUM:

- ⊙ Cooling water
- ⊙ River water
- ⊙ Seawater & ballast water
- ⊙ Sinter & scale water
- ⊙ Process water
- ⊙ Oils & emulsions
- ⊙ Mussels & mussel larvae infested waters
- ⊙ Drinking water
- ⊙ Effluent water

FILTRATION



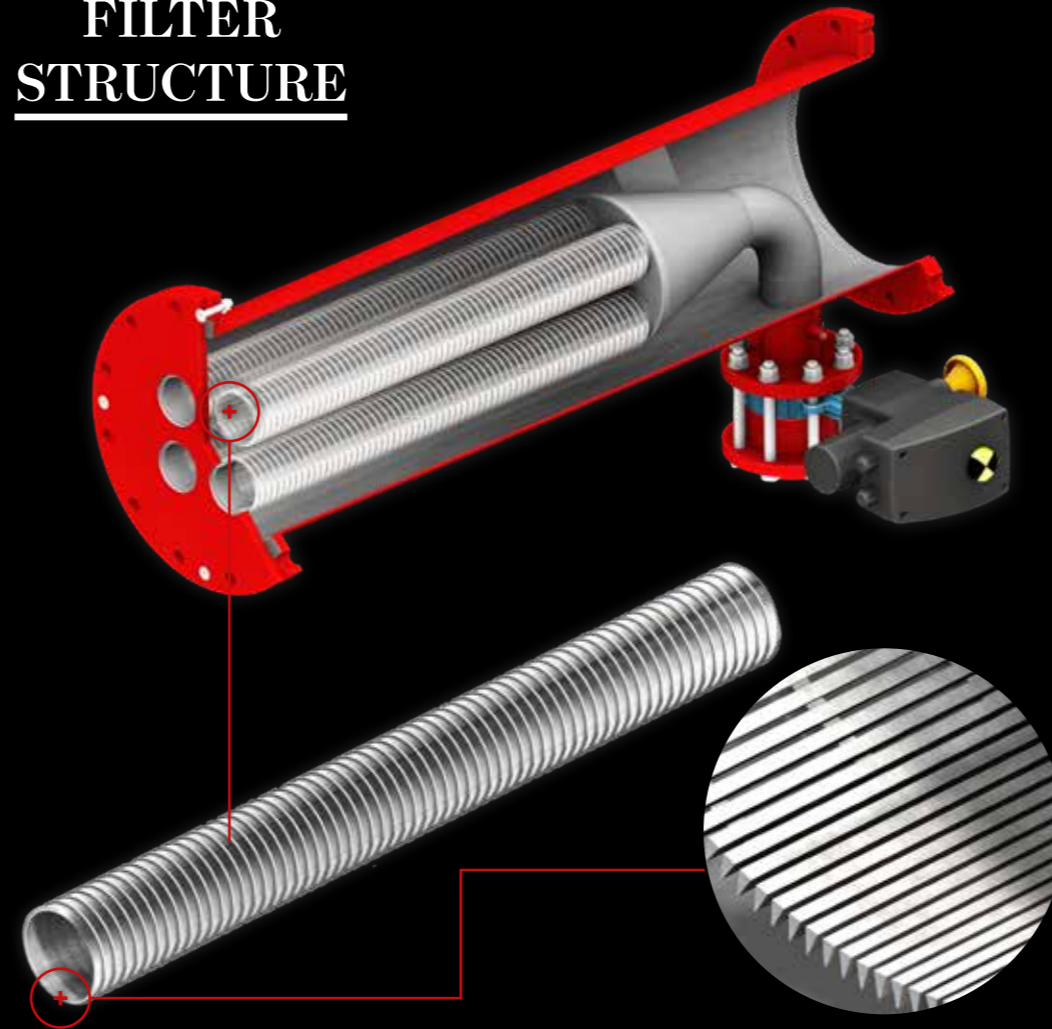
The raw water flows through the openings in the clamping plate, entering the filter elements located behind them. The reductions in cross-section result in a proportional increase in the axial flow velocity in the filter element of 5-7 m/s. A conical dirt collector is located at the end of the filter elements, joining these together.

Raw water is filtered according to Bernoulli's law in the last third of the filter elements. The raw water flows through the filter elements from the inside to the outside. The clean water then flows around the dirt collection container and exits the JET Filter on the clean water side.

The axial flow velocity of 5-7 m/s in the filter elements guides the dirt particles into the conical dirt collection container. The filter backwash process is initiated by the differential pressure (the pressure difference between the raw and clean water side).

In addition, an adjustable time relay in the electrical control system enables the filter backwash process.

FILTER STRUCTURE



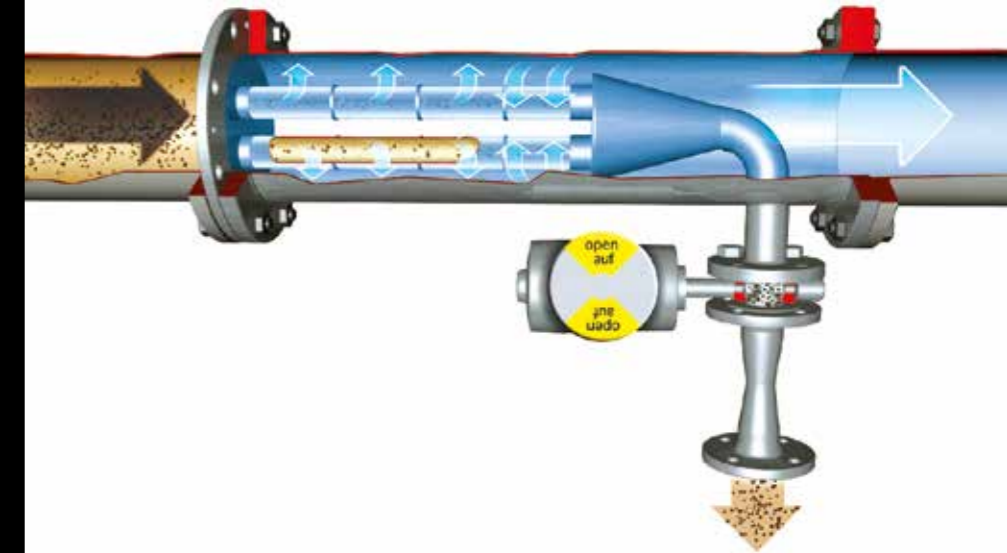
THE FILTER CARTRIDGE

The use of multiple filter cartridges allows larger quantities of water to be filtered.

- Based on welded stainless steel triangular rods
- Axial gaps for optimal filter element cleaning
- Different numbers of filter cartridges available depending on the filter size
- Highly robust design
- Can be manufactured in various stainless steel grades
- Filter fineness $\geq 50 \mu\text{m}$

The filter elements have a long-lasting stainless steel design for maximum durability.

BACKWASH PROCESS



At the start of filter cleaning, the motor-driven backwash valve opens. A small amount of the raw water then flows through the backwash opening. This flushes the dirt particles in the dirt collection container out of the filter. During backwashing, the axial flow velocity in the filter elements increases to up to 10 m/s.

This high axial velocity additionally cleans the filter elements. Furthermore, a vacuum is generated in the filter elements, which guarantees that backwashing proceeds from the outside to the inside with clean water.

The backwashing process is complete after 10-20 seconds, and the backwash valve is then closed automatically.

Filtration is not interrupted during backwashing.

FILTER SIZE

The filter size depends on the throughput capacity, the filter fineness, the acceptable pressure drop and the degree of contamination of the raw water.

NOW IT'S UP TO YOU

To prepare a quotation, we need your operating data. Complete the questionnaire for filter projects and send it to us by e-mail:

www.dds-filter.com/en/downloads/

FILTER COMPONENTS



ELECTRICAL CONTROL SYSTEM

The backwash process is initiated depending on time and/or differential pressure, thereby enabling fully automatic filter operation.

The standard control system includes the following signal exchange with the customer process control system (PCS):

- ⊕ Collective fault
- ⊕ Ready for operation
- ⊕ Filter in flushing mode
- ⊕ External triggering of filter backwash
- ⊕ External release for filter backwash



DIFFERENTIAL PRESSURE MEASUREMENT

Comprising:

- ⊕ Optical display of the operating pressure upstream of the filter
- ⊕ Optical display for differential pressure
- ⊕ Two freely adjustable switching contacts
- ⊕ Start of filter flushing
- ⊕ Alarm message

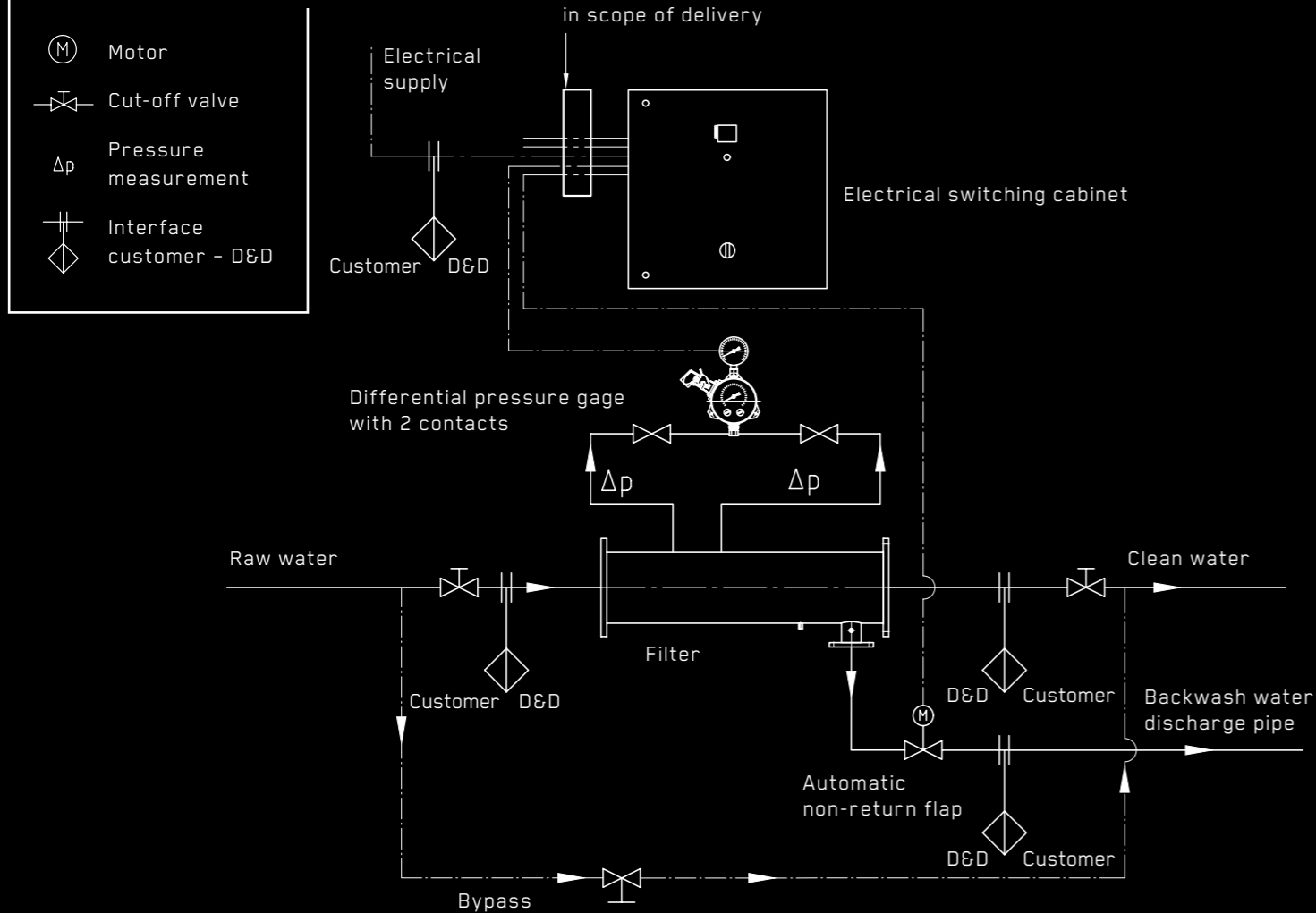


VENTURI NOZZLE WITH BACKWASH VALVE

The Venturi nozzle is designed to suit the customer's operating conditions to adjust the required flushing water quantity and to prevent pressure fluctuations in the pipe network. The backwash valve is equipped with an electric or pneumatic actuator as standard.



PROCESS DIAGRAM



JET FILTER S

THE SMALL SOLUTION

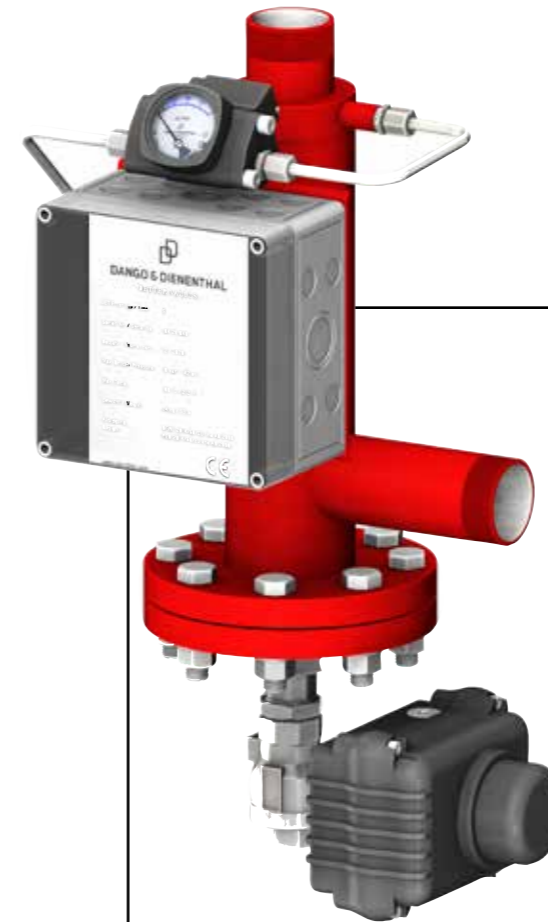
The Jet Filter S enables small flow rates and has been specially developed for confined spaces. With the electronic control system, it is ready for immediate operation as a complete module and can be used universally for practically all applications. The filter element can be exchanged without removing the filter.

FILTER HOUSING

| | |
|---------------------------|---------------------------------|
| Standard design | Stainless steel, plastic |
| Seawater-resistant design | Stainless steel, plastic |

TECHNICAL DATA

| | |
|---------------------------------|-----------------------|
| Flow rate | max. 125 m³/h |
| Filter fineness | ≥ 50 µm |
| Operating pressure | 1.5 to 25 bar |
| Pressure loss with clean filter | 0.1 to 0.3 bar |
| Flanges | DN 50 to 150 |
| Temperature | -10 to +110°C |
| Automatic cleaning | Yes |



ADVANTAGES

- ⊙ High cleaning speed (up to 10 m/s)
- ⊙ Any installation position (horizontal/vertical)
- ⊙ Easy installation
- ⊙ Low wear and tear (no moving parts in the filter)
- ⊙ Low flushing water losses
- ⊙ No increase in differential pressure during filter operation
- ⊙ Diversity of materials
- ⊙ Completely wired and tested unit
- ⊙ Special design solutions for special customer requirements

TECHNICAL INFORMATION

SCOPE OF DELIVERY

- ⊙ 230 V or 400 V voltage
- ⊙ 110 V to 690 V* voltage
- ⊙ Pressure Equipment Directive (PED)
- ⊙ ASME*
- ⊙ Explosion protection
- ⊙ Differential pressure measurement
- ⊙ Differential pressure as 4-20 mA signal*
- ⊙ Automatic filter control system
- ⊙ Backwash with own medium
- ⊙ Backwash with external medium*
- ⊙ Backwash with suction pump*
- ⊙ Electrical or pneumatic flushing valve
- ⊙ Signal exchange with PCS
- ⊙ Cabling including plug
- ⊙ Documentation
- ⊙ Certificates*
- ⊙ Function test in the manufacturer's factory

* Available at extra cost



MORE VALUES

SHAPE BETTER VALUES

CLOSER. BETTER. SIMPLER.

We make sure that you get the filter that is perfectly suited to your application. Our engineering office will design the filter to match your operating parameters. This allows us to adapt our product to your specific use.



EXPERIENCED PARTNER

All DANGO & DIENENTHAL filters are handled by our specially qualified and regularly trained staff. Both our mechanical production and assembly departments have extensive expertise.



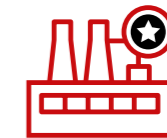
CERTIFIED TESTING

Our certified quality management system enables seamless monitoring and control of all production steps. This ensures early detection and troubleshooting, enabling us to offer you a high level of quality.



THE TEAM AT YOUR SIDE

If you require staff for training or maintenance at your company, don't hesitate to contact us. Our specially qualified employees will be happy to assist you.



IDEAL PRODUCTION CONDITIONS

We have been producing filters in our factory in Siegen, Germany, since 1941. Our continuously improved, state-of-the-art range of machinery and modern factory buildings provide an environment that is essential for manufacturing high quality products.

WE ARE THERE TO ASSIST YOU

+49 271 401 4123

Or by e-mail: post@dds-filter.com

Monday-Friday:

You can find us at the following address:

8:00 a.m. – 4:00 p.m. (CET)

Hagener Str. 103

(except for holidays)

57072 Siegen, Germany



WWW.DDS-FILTER.COM