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Valves, controls + systems

EN

Strainer (flanged model) PN 16
DN350 - DN600
Operating instructions

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1. General information

The original operating instructions were drafted in German.

The operating instructions in other languages have been translated from German.

1.1 Validity of the operating instructions

These operating instructions are valid for the strainer in flanged model PN 16.

DN	Item no.
350	1122059
400	1122060
450	1122061
500	1122062
600	1122063

1.2 Type plate

The type plate is located on the periphery of flange below the cover.

1.3 Extent of supply

Please check your delivery for any damage caused during transit and for completeness.

Items included in the extent of supply:

- Strainer PN16
- Safety and installation advice

1.4 Contact

Contact address

OVENTROP GmbH & Co. KG

Paul-Oventrop-Straße 1

59939 Olsberg

GERMANY

www.oventrop.com

Technical services

Phone: +49 (0) 29 62 82-234

1.5 Declaration of conformity

Oventrop GmbH & Co. KG hereby declares that this product complies with the basic requirements and other relevant provisions of the EC Directives concerned.

The declaration of conformity can be obtained from the manufacturer.

1.6 Used symbols

	Highlights important information and further explanations.
▶	Action required
•	List
1. 2.	Fixed order. Steps 1 to X.
▷	Result of action

2. Safety-related information

2.1 Correct use

Operating safety is only guaranteed if the product is used correctly.

Oventrop strainers are used in central heating and cooling systems and industrial plants with closed circuits which are operated with non-aggressive and harmless fluids.

Any other use of the product will be considered incorrect use.

Claims of any kind against the manufacturer and/or its authorised representatives due to damage caused by incorrect use will not be accepted.

Observance of the operating instructions is part of compliance with correct use.

2.2 Warnings

Each warning contains the following elements:

Warning symbol SIGNAL WORD
Type and source of danger! Possible consequences if the danger occurs or the warning is ignored. ▶ Ways to avoid the danger.

The signal words identify the severity of the danger arising from a situation.

⚠ DANGER
Indicates an imminent danger with high risk. The situation will lead to death or serious injury if not avoided.

⚠ WARNING
Indicates a possible danger with moderate risk. The situation may lead to death or serious injury if not avoided.

⚠ CAUTION
Indicates a possible danger with lower risk. The situation may lead to minor and reversible injury if not avoided.

NOTICE
Indicates a situation that may lead to damage to property if not avoided.

2.3 Safety notes

We have developed this product in accordance with current safety requirements.

Please note the following information concerning safe use.

2.3.1 Danger caused by inadequately qualified personnel

Any work on this product must only be carried out by qualified tradesmen.

As a result of their professional training and experience as well as their knowledge of the relevant legal regulations, qualified tradesmen are able to carry out any work on the described product professionally.

2.3.2 Risk of injury from heavy product!

- ▶ Wear safety shoes during installation.
- ▶ Install the product with the help of several persons, if necessary.
- ▶ Use a suitable hoisting device if necessary.

2.3.3 Risk of injury from pressurised components

- ▶ Only carry out work when the system is depressurised.
- ▶ Observe the permissible operating pressures during operation.

2.3.4 Risk of injury from hot or cold components and surfaces

- ▶ Wear suitable protective clothing to avoid unprotected contact with hot or cold system components and fittings.
- ▶ If necessary, wait until the product has nearly reached the ambient temperature before carrying out work.

2.3.5 Risk of injury in case of improper work

Stored residual energies, angular components, points, and edges on and in the product may cause injuries.

- ▶ Wear suitable protective clothing.
- ▶ Before starting work, make sure that there is sufficient space.
- ▶ Handle open and sharp-edged components with care.
- ▶ Make sure that the work place is tidy and clean to avoid accidents.

2.3.6 Availability of the operating instructions

These operating instructions and all other valid documents (e.g. accessory manuals) have to be read and applied by any person working with the product.

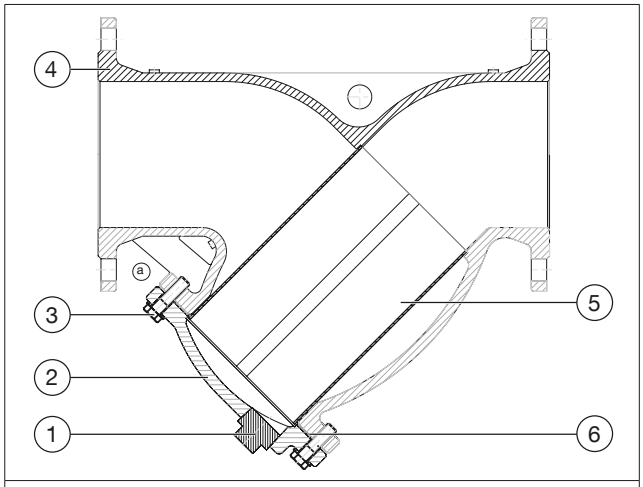
The operating instructions must be available at the

installation location of the product.

- Hand these operating instructions and all other relevant documents (e.g. accessory manuals) over to the user.

3. Technical description

3.1 Construction



Illust. 1: Strainer construction

(1)	Draining screw
(2)	Cover
(3)	Screw
(4)	Body
(5)	Screen
(6)	Seal

3.2 Functional description

Oventrop strainers consist of an angle-seat body and a mounted wire basket with cover.

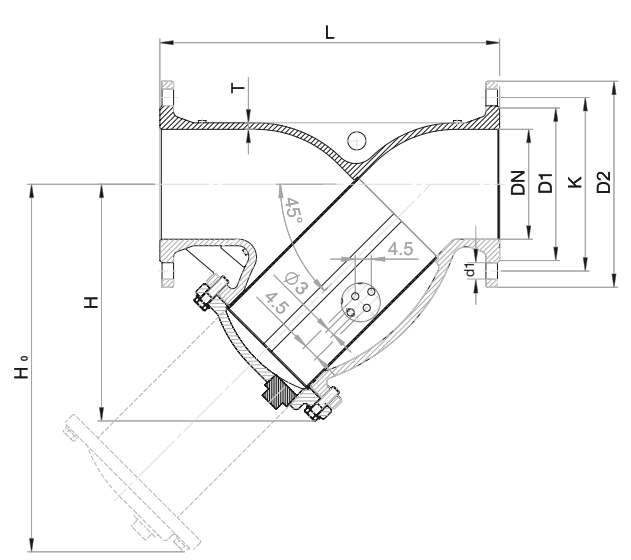
They are fitted in flow and return pipes in closed-circuit central heating and cooling systems in order to collect harmful impurities.

This increases the service life of the control and isolation fittings in the system and prevents the premature breakdown of machines and appliances.

3.3 Technical data

Operating pressure (p_s)	max. 16 bar (PN16)
Operating temperature (t_s)	0 °C to 120 °C
Fluid	Non-aggressive, harmless fluids (e.g. water or water and glycol mixtures according to VDI 2035/ÖNORM 5195)
Flanged connections	According to DIN EN 1092-2 PN16

Materials	
Body, cover,	Cast iron EN-JS-1050, DIN EN 1563
Wire basket	Corrosion-resistant steel
Seal	asbestos-free



Illust. 2: Dimensions

	Item no. 1122059	Item no. 1122060	Item no. 1122061
DN	350	400	450
D1	429	480	548
K	470	525	585
D2	520	580	640
n x d1	16x28	16x31	20x31
H0	1270	1400	1550
H	750	840	910
L	960	1079	1168
T	12	13	14
Screen aperture width	3	3	3
Weight (kg)	320	410	540
kvs value	2970	4150	5540

	Item no. 1122062	Item no. 1122063	
DN	500	600	
D1	609	720	
K	650	770	
D2	715	840	
n x d1	20x34	20x37	
H0	1650	2100	
H	970	1160	
L	1275	1450	
T	15	17	
Screen aperture width	3	3	
Weight (kg)	670	970	
kvs value	6850	9280	

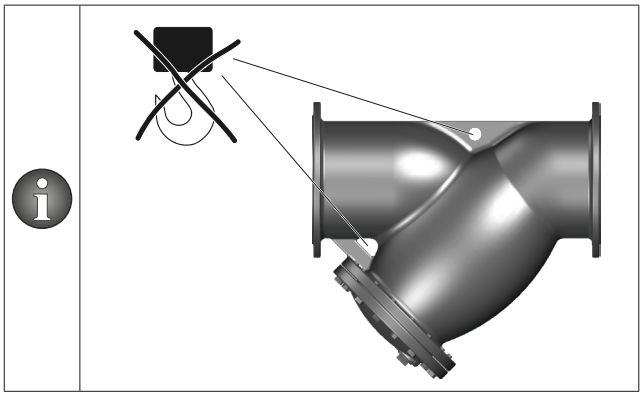
4. Accessories and spare parts

Wire basket and blind flange ring gasket

Accessories	Item no.
DN 350	1122159
DN 400	1122160
DN 450	1122161
DN 500	1122162
DN 600	1122163

5. Transport and storage

Temperature range	-20 °C to +55 °C
Relative air humidity	Max. 95 %
Particles	Store dry and free from dust
Mechanical influences	Protected from mechanical agitation
Weather influences	Do not store outdoors
	Protect from direct sunlight
Chemical influences	Do not store together with aggressive fluids



6. Installation

- We recommend installing an Oventrop strainer in every pipework.
- You can install the strainer both vertically and horizontally.
- ▶ Keep the product and the pipework free from impurities.
- ▶ Observe the direction of flow.
- ▶ When installing vertically, make sure that the screen chamber is facing downwards in order to collect the impurities.
- ▶ Install the strainer while it is disconnected from the power supply.
- ▶ Ensure that the area in front of the cover remains unobstructed (see the dimension H0 in Illust. 2 on page 7).

WARNING

Risk of injury from heavy product!

- ▶ Wear safety shoes during installation.
- ▶ Have additional persons assist with the installation if necessary.
- ▶ Use a suitable hoisting device if necessary.

WARNING

Risk of injury from pressurised components!

Fluids escaping under pressure may lead to injuries.

- ▶ Only carry out work when the system is depressurised.
- ▶ If refitting an existing system: drain the system or close the supply pipes feeding the relevant system section and depressurise it.
- ▶ Wear safety goggles.

CAUTION

Risk of injury from hot or cold components and surfaces

- ▶ Wear suitable protective clothing to avoid unprotected contact with hot or cold sections of the system and fittings.
- ▶ If necessary, wait until the fitting has nearly reached the ambient temperature before carrying out work.

1. Remove the adhesive sheets on the flanges.
2. Align the strainer precisely on the adjacent flange surfaces. Use the complete sealing surface.
3. Tighten the flange screws by hand.
4. Tighten the flange screws crosswise.

7. Commissioning

- ▶ Before commissioning, fill and bleed the installation, observing the permissible operating pressures.
- ▶ After installation, check all installation points for leaks.

8. Maintenance

WARNING

Risk of injury from pressurised components!

Fluids escaping under pressure may lead to injuries.

- ▶ Only carry out work when the system is depressurised.
- ▶ Wear safety goggles.

CAUTION

Risk of injury from hot or cold components and surfaces

- ▶ Wear suitable protective clothing to avoid unprotected contact with hot or cold sections of the system and fittings.
- ▶ If necessary, wait until the fitting has nearly reached the ambient temperature before carrying out work.

- ▶ Unscrew the cover (see position 2 in Illust. 1 on page 6) in order to clean the wire basket.

The cleaning interval for the wire basket is dependent on the degree of contamination of the fluid being used.

9. Removal and disposal

⚠ WARNING
Risk of injury from pressurised components! Fluids escaping under pressure may lead to injuries. ▶ Only carry out work when the system is depressurised. ▶ Wear safety goggles.

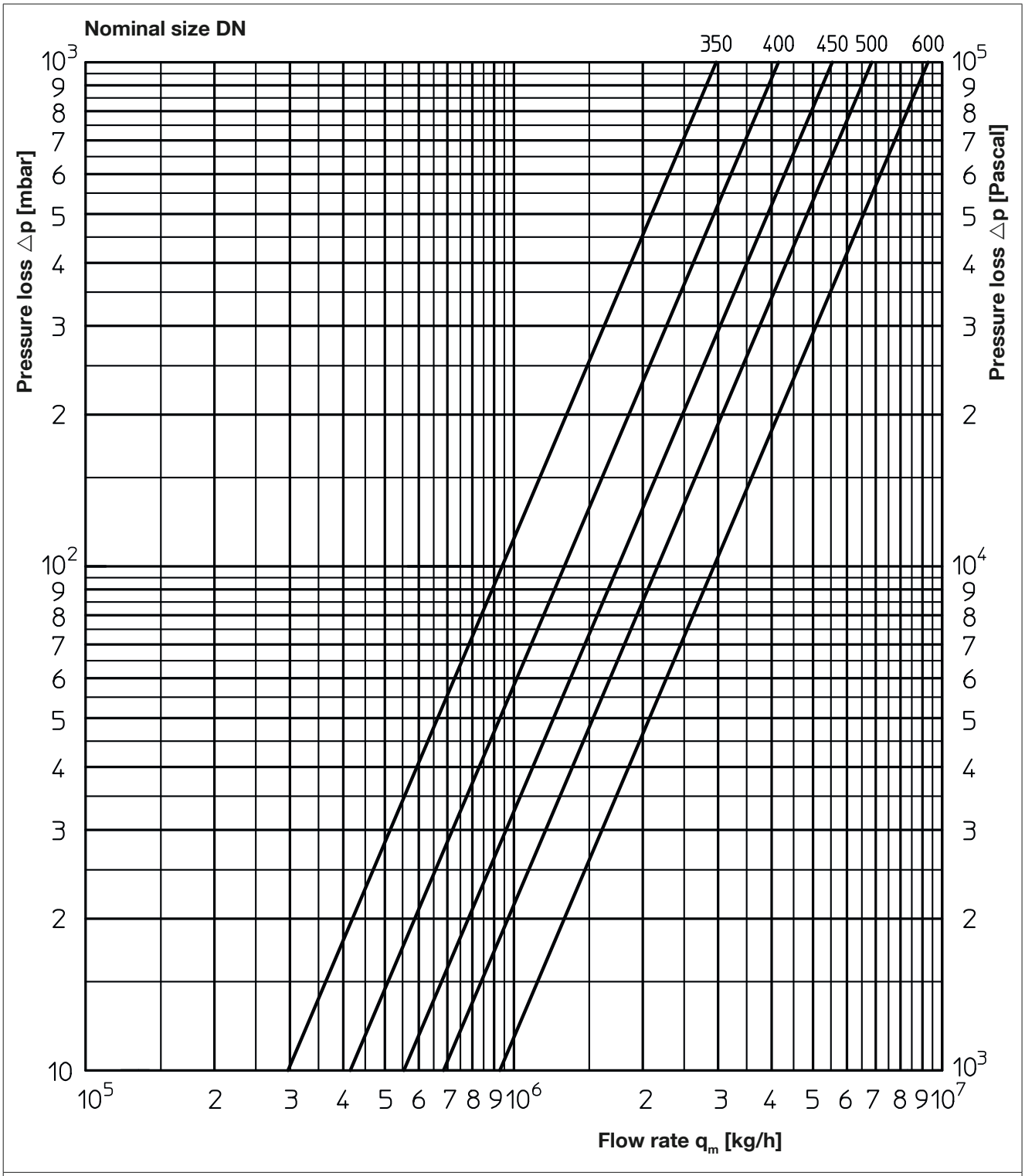
⚠ CAUTION
Risk of injury from hot or cold components and surfaces ▶ Wear suitable protective clothing to avoid unprotected contact with hot or cold sections of the system and fittings. ▶ If necessary, wait until the fitting has nearly reached the ambient temperature before carrying out work.

NOTICE
Risk of environmental pollution! Incorrect disposal (for instance with standard waste) may lead to environmental damage. ▶ Dispose of packaging material in an environmentally friendly manner. ▶ Dispose of the components appropriately.

If no return or disposal agreement has been made, dispose of the product yourself.

- ▶ If possible, recycle the components.
- ▶ Dispose of components which cannot be recycled according to local regulations.

10. Appendix



Illust. 3: Flow chart

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