

**Strainers**  
**Type 1 N**  
**Type 1 NI**  
**Type 1 FN**  
**Type 1 FNI**



*Fig. 1 · Type 1 N/NI Strainer*

## **Mounting and Operating Instructions**

**EB 1010 EN**

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## 1 Design and principle of operation

Strainers protect downstream plants, assemblies as well as measuring and control equipment from becoming blocked up with dirt particles carried along by the process medium.

The strainers consist of a Y-shaped body with threaded ends, a strainer insert and a cap for the strainer.

**Type 1 N** is equipped with a single wide-meshed filter element. **Type 1 NI** has a single strainer insert plus an additional fine-meshed internal insert (dual insert).

**Type 1 FN** is intended for district heating systems. Its body has male threads for connection nuts and welding ends. The strainer is equipped with a single strainer insert.

**Type 1 FNI** is the same as Type 1 FN, except it has a dual strainer insert.

The process medium flows through the body in the direction indicated by the arrow on the body. Any dirt particles in the pipeline are retained and collected in the strainer insert.

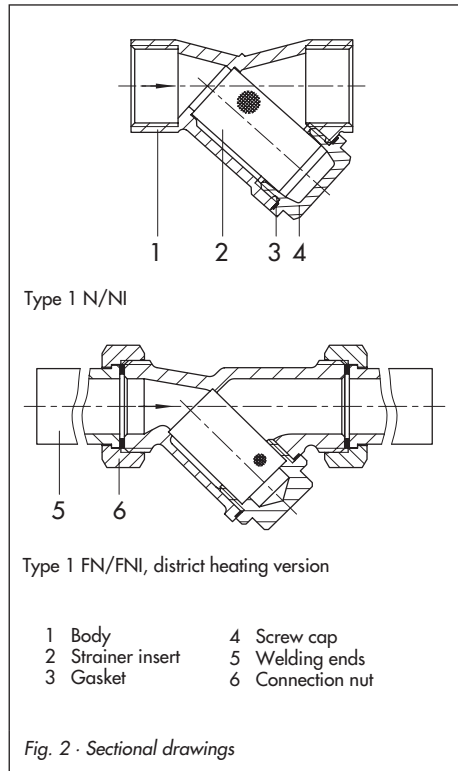


Fig. 2 · Sectional drawings



- ▶ The strainer is to be assembled, started up or operated by trained and experienced personnel familiar with the product. According to these mounting and operating instructions, trained personnel is referred to as individuals who are able to judge the work they are assigned to and recognize possible dangers due to their specialized training, their knowledge and experience as well as their knowledge of the applicable standards.
- ▶ Any hazards that could be caused in the strainer by the process medium and the operating pressure are to be prevented by means of the appropriate measures.
- ▶ Proper shipping and appropriate storage are assumed.

## 2 Installation

- ▶ Make sure the direction of flow is consistent with the arrow on the body.
- ▶ Leave enough space to remove the strainer insert.
- ▶ **Standard installation:** Drain flange with the internal strainer insert **points down**.  
**Exception for steam pipes:** Drain flange points **to the side**.
- ▶ Strainers in vertical pipelines with the medium flowing upward are to be installed with the drain flange pointing up as indicated by the arrow. In this case, dirt particles are retained but not collected.

## 3 Maintenance

To prevent wear, regularly check whether dirt, which could block the flow through the strainer, has collected. Remove the strainer insert to do so.



### Note!

*Shut off and drain the plant section before starting any work on it.*

- ▶ Unscrew the screw cap (4). Also remove the strainer insert(s) and clean them.
- ▶ Replace damaged strainer inserts (2). Always replace the gasket (3) after the strainer insert has been removed.

Refer to the table below for required spares.

**Table 1** · Order no. and tightening torques of screw cap

Nominal size		DN 10 G 3/8	DN 15 G 1/2	DN 20 G 3/4	DN 25 G 1	DN 32 G 1 1/4	DN 40 G 1 1/2	DN 50 G 2
Spare parts for Type ...		<b>Order no.</b>						
Standard strainer insert <b>N</b>	<b>0550-</b>	0745		0746	0747	0748	0749	0750
Dual strainer insert <b>NI</b>	<b>0550-</b>	0751		0752	0753	0754	0755	0756
Screw cap <b>N/NI/FN/FNI</b>	<b>0070-</b>	0408		0164	0411	0412	0167	0168
Screw cap tightening torques		~25 Nm		~25 to 30 Nm		~30 to 40 Nm	~40 to 50 Nm	~50 to 60 Nm
Gasket <b>N/NI/FN/FNI</b>	<b>8413-</b>	1569		1570	1571	1572	1573	1574
Standard strainer insert <b>FN</b>	<b>0550-</b>	–	0767	0768	0769	0770	0771	0772
Dual strainer insert <b>FNI</b>	<b>0550-</b>	–	0773	0774	0775	0776	0777	0778

**Table 2** · Dimensions in mm and weights

Body made of brass, malleable iron or red brass · PN 25							
Thread size G	$\frac{3}{8}$ <sup>1)</sup>	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Length L	65	65	75	90	110	120	150
Connection thread R	-	$\frac{3}{4}$ "	1"	1 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "	2"	2 $\frac{1}{2}$ "
Width across flats SW	-	30	36	46	59	65	82
Length L1	-	80	85	100	125	135	160
Length L2	-	225	250	265	293	320	360
Height H1		40	45	56	73	84	108
Height H2 (insert extended)		61	75	90	115	134	158
<b>Weight, approx. kg</b>							
Type 1 N/NI (brass)		0.2	0.3	0.47	0.77	1.35	1.9
Type 1 N/NI (iron)	-	0.3	0.5	0.6	0.9	1.6	2.4
Type 1 FN/FNI (red brass)	-	0.55	0.65	0.8	1.1	1.85	2.6

1) Only Types 1 N/NI with brass body

