



OPERATING INSTRUCTIONS

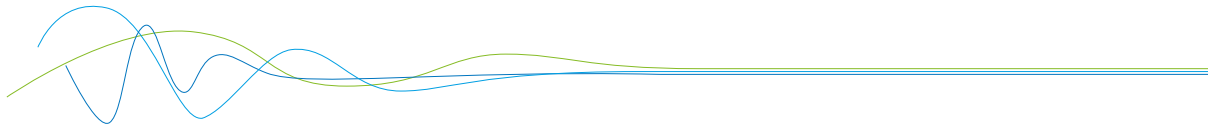
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# Air Purge Flange

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CLEANING KIT FOR THE MAXXFLOW HTC





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## 1. System overview

An air purged set for the MaxxFlow HTC system consists of the following components:

- Flange: DN 100 / DN 150 / DN 200
- Air tank 20 l
- Magnet valve 24 V DC
- 1 m pipe connection:  $\varnothing$  11,6 x 9 mm
- Consumables

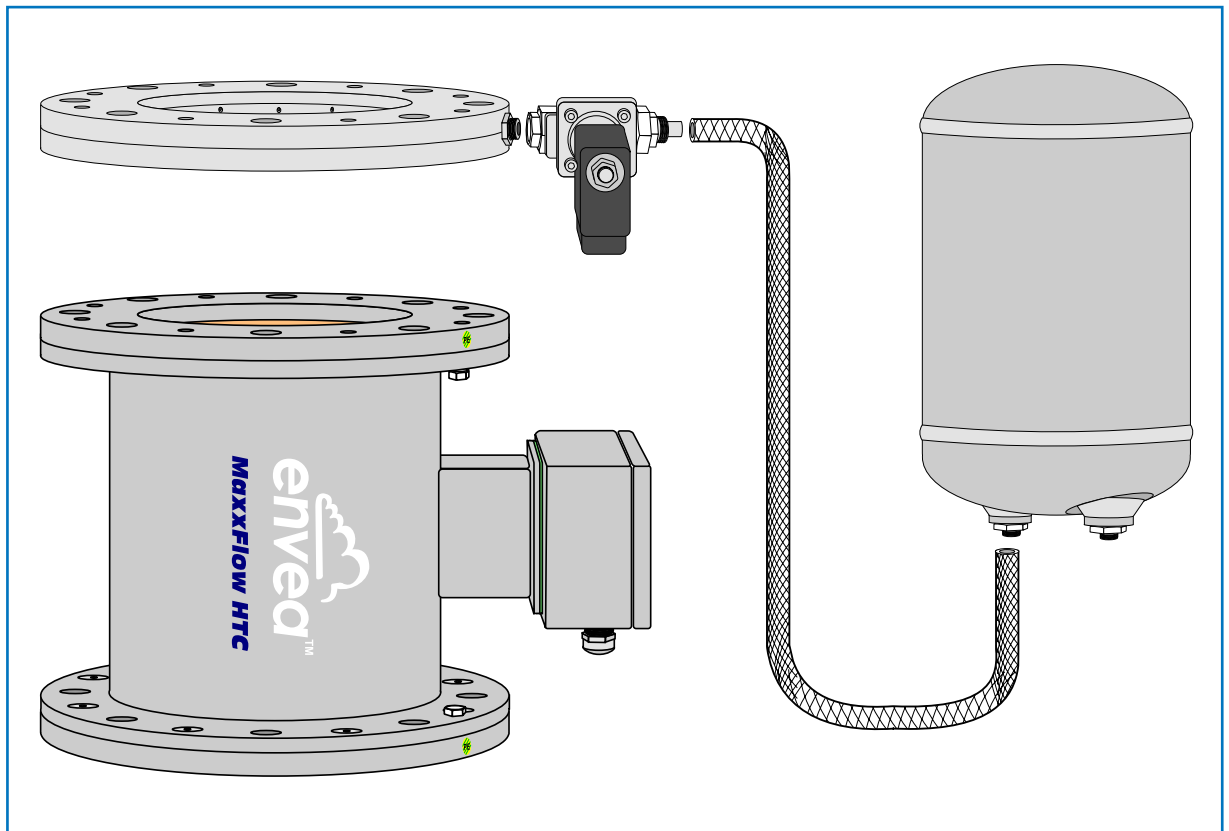


Fig. 1: Overview MaxxFlow HTC with purge air set

## 2. Function

An air purge set is always used when the process conditions cause the material to cake on the inside of the MaxxFlo HTC. This could lead to strong measurement errors and should therefore be avoided by regular cleaning.

ENVEA Process GmbH offers **two variants** for sensor cleaning:

### ***Air purge set***

The air purge set is used for caking, coarse-grained material. The set blows into the center of the inner diameter. This deflects the coarse-grained material during the running process in such a way that cleaning takes place on the inner wall of the sensor by „active irradiation“.

A typical application for this is the measurement of coarse salt.

### ***Air purge set - circular***

The air purge set - circular is used in dusty processes, where a dust deposit leads to a measurement deviation. The circular purge set creates an air flow along the inner wall of the sensor. This air flow removes dusty deposits.

A typical application for this is the measurement of lime.

The air purged set is supplied with a 20 l pressure vessel, a 24 V DC magnetic valve and small parts for mounting. It is advisable to use a discontinuous cleaning, at the latest at each process break. If the purge air is used during the process, this can lead to a faulty measured value on the MaxxFlo HTC evaluation unit.

The air purge system can be controlled via a PLC.

On the evaluation unit of the MaxxFlo HTC, the pulse output could be used for cleaning pulses at freely selectable intervals. As a result, for example, the supplied magnetic valve can be controlled with this feature.

### 3. Safety

The air purge set for the MaxxFlow HTC has a state of the art, reliable design. It was tested and found to be in a perfectly safe condition when leaving the factory. Nevertheless, the system components may present dangers to personnel and items if they are not operated correctly. Therefore, the operating manual must be read in full and the safety instructions followed to the letter. If the device is not used correctly for its intended purpose the manufacturer's liability and warranty will be void.

#### 3.1 Normal use

- The cleaning flange may only be used to clean the MaxxFlow HTC inner tube. Other uses and modifications are not permitted.
- Only genuine spare parts and accessories from ENVEA Process may be used.

#### 3.2 Identification of hazards

- Possible dangers when using the purge flange are highlighted in the operating instructions with the following symbols:



##### Warning!

- This symbol is used in the operating manual to denote actions which, if not performed correctly may result in death or injury.



##### Attention!

- This symbol is used in the operating manual to denote actions which may result in danger to property.

#### 3.3 Operational safety

- The air purge set may only be installed by trained, authorised personnel.
- During all maintenance, cleaning and inspection work on the pipelines or the air purge set, make sure that the system is in an unpressurised state.
- Switch off the power supply before performing any maintenance work, cleaning work or inspections on the pipelines or the air purge set components. See the instructions in the section entitled Maintenance and care.
- The components and electrical connections must be inspected for damage at regular intervals. If any signs of damage are found, they must be rectified before the devices are used again.

#### 3.4 Storage conditions

Observe the following instructions during storage:

- To ensure shock resistance, store in original packaging.
- Do not remove protective discs or caps mounted on process connections. They prevent mechanical damage and contamination to the sealing surfaces.
- Protect from sunlight to avoid impermissibly high surface temperatures.
- Store in a dry and dust-free place.
- Do not store outside.

## 4. Mounting and installation

### 4.1 Installation overview

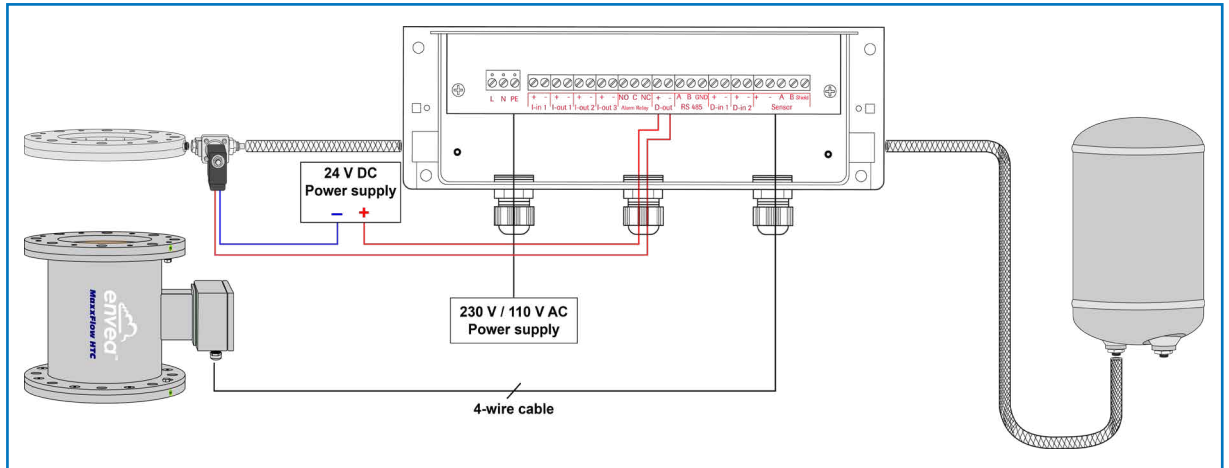


Fig. 2: Electrical overview purge flange

### 4.2 Required equipment

- Appropriately sized spanner or ring spanner
- Tools for electrical connections
- Suitable seal between MaxxFLOW HTC and purge flange

### 4.3 Mounting of the air purge flange

The purge flange is mounted directly on the MaxxFLOW HTC.

The flange dimensions are identical to the MaxxFLOW HTC flange and can therefore be placed directly above one another. Make sure that there is a suitable seal between both flanges.

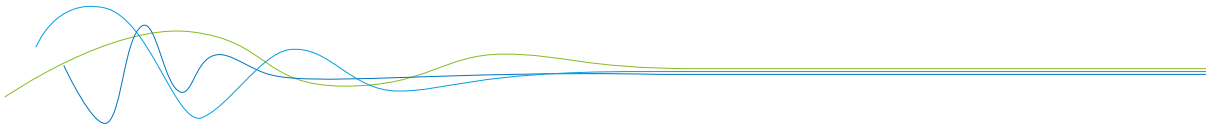


**ATTENTION:** The purge air openings must face the sensor (down).

- The magnetic valve is already factory-installed on the purge flange and must still be connected to the pressure tank on site.
- The pressure vessel is freely attached by the customer. It should imperatively be ensured that adequate strength is ensured.
- If the pressure vessel could freely mounted by the customer. It has to be connected to the magnetic valve via a pressure-resistant hose. For the connection of the magnetic valve to the pressure vessel, a 1 m long, pressure-resistant hose is supplied.

## 5. Commissioning

- A compressed air supply must be connected to the pressure vessel by customer site.
- The magnetic valve is connected via a pressure-resistant hose to the pressure vessel. The delivery includes 1 m pressure-resistant hose.
- The magnetic valve is connected with 24 V DC and controlled by the customer.
- The cleaning should be adjusted so that an interval purge takes place. It is recommended to purge for at least 4 s purge - 10 s break / 4 s purge - 10 s break / 4 s purge - process.
- Optimally, it is only purged without running process. If purging takes place during the running process, the measured values of the MaxxFLOW HTC cannot be trusted during the flushing period.



## 6. Technical Data

### 6.1 Details purge flange

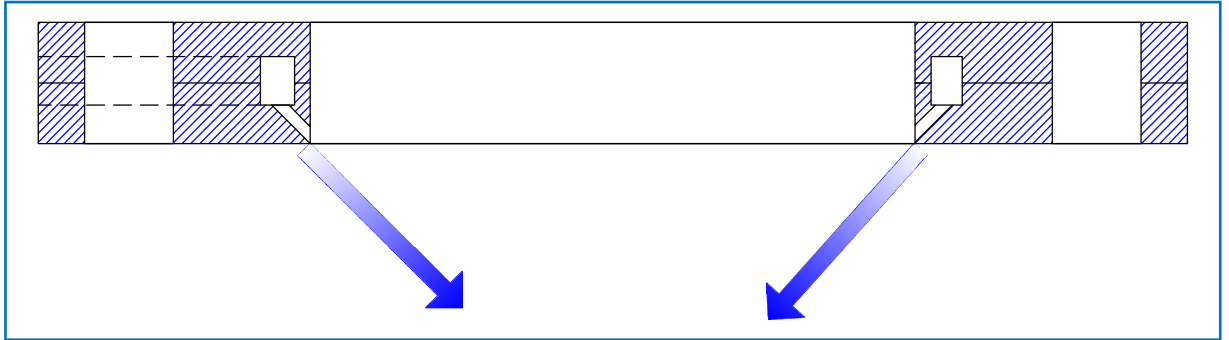


Fig. 3: Cross-section area: purge flange

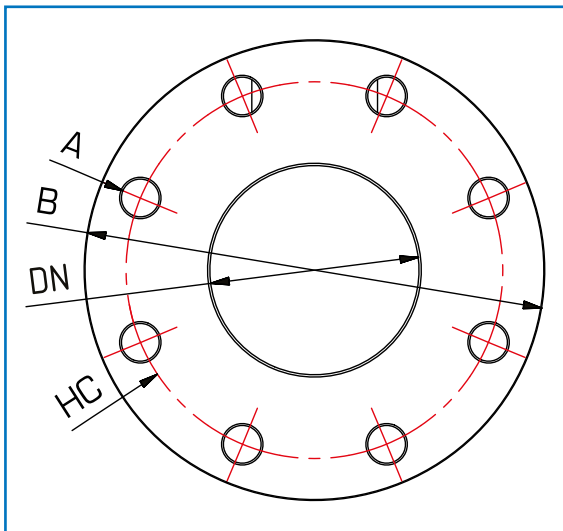
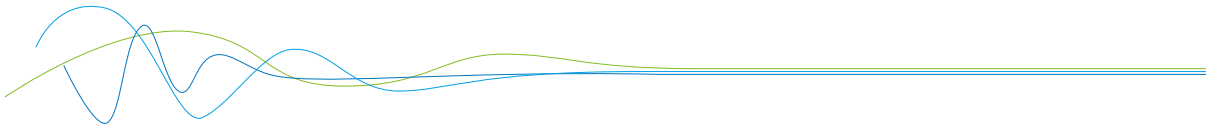


Fig. 4: Top view: purge flange

DN	A	B	HC (Hole circle)	Height	Material
100	18	220	180	18	St. 1.4571
150	22	285	240	30	St. 1.4571
200	22	340	295	30	St. 1.4571



## 6.2 Details pressure vessel

Volume	20 l
Max. pressure	16 bar
Diameter	206 mm
Length	696 mm
Weight	9 kg
Connection	G 3/8", G 1"

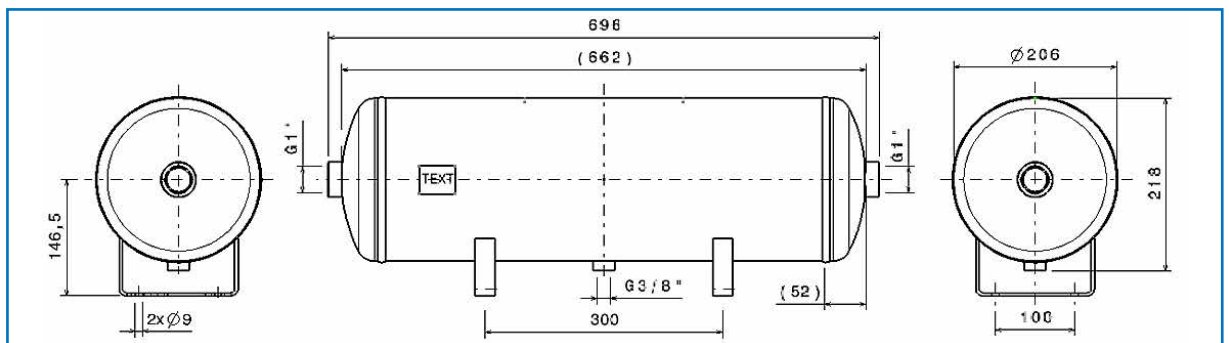


Fig. 5: Pressure vessel

## 6.3 Details magnetic valve

Fitting connection	G3/8
Electrical connection	Plug, square shape acc. to EN 175301-803, Form A
Medium pressure	0 ... 10 bar
Power supply	24 V DC 310 %
Flow direction	Not reversible
Shifting time ON	130 ms
Shifting time OFF	180 ms
Nominal width	13.5 mm
Medium temperature	-10 ... 80 °C
Ambient temperature	-10 ... 35 °C
Material information	LABS containing materials included RoHS compliant
Medium	Inert gases, mineral oil neutral liquids, water Compressed air to ISO 8573-1-2010 [7:4:4]
Corrosion resistant class KBK	1 - low corrosion stress
Protection category	IP 65
Weight	1 kg

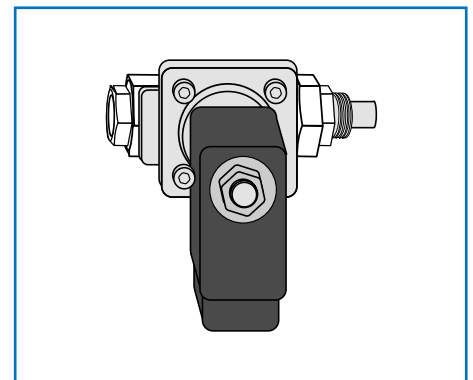


Fig. 6: Magnetic valve

