



Inspired by  
**temperature**

## **Breather Control**

**Installation Manual**

**huber**



**Installation manual**

# **Breather Control**

**19.05.2017**

**Valid for: #9771  
#10219**

# Contents

V1.4/05.17

- 1 Intended use and general safety instructions..... 2**
- 2 Description..... 3**
- 3 Preparation and usage ..... 3**
  - 3.1 Transport damages ..... 3
  - 3.2 Installation, commissioning, setup..... 3
- 4 Troubleshooting ..... 5**

# 1 Intended use and general safety instructions

---



**DANGER**

Non-intended use can result in considerable personal injuries and material damage

---



This instruction manual is valid only in connection with the operating instructions of your Huber temperature control device.

The breather control is manufactured for commercial use only. The breather control may only be taken into operation together with a Huber temperature control device. Operation of the breather control and the temperature control device should be carried out according to the instructions in the manuals. Any non-observance of the mounting and operating instruction is considered as non-intended use. The breather control corresponds to the state-of-the-art and the recognized safety-related regulations

## **The following must be observed:**

Always use the breather control in a perfect working condition!

Only expert personnel may initially start-up and repair the device!

Do not bypass, bridge-over, dismantle or switch off the safety mechanisms!

This installation manual is to be kept easily accessible and in the immediate vicinity of the breather control!



The manufacturer is not liable for damages caused by technical changes to the breather control, inappropriate handling and / or use of the temperature control device without regard to the installation manual.

## 2 Description

The breather control limits the pressure for the pressure overlay in the expansion vessel. The expansion vessel in the unistats can handle a pressure of up to 0.3 bar. A pressure overlay without the breather control is carried out at one's own risk. The breather control consists of the atmospheric sealing kit and the parts built onto the mounting plate: pressure regulator (20-150 mbar), needle valve, pressure relief valve, bubble counter and connection hose. The pressure regulator does have a preset pressure relief valve that will blow-off at too high a pressure.

## 3 Preparation and usage

### 3.1 Transport damages

Please look for any transport damage while unpacking.

Contact your transport agent or supplier for any claim adjustment. Do not try to operate a damaged device, unless the damage has been repaired or you know the effects the damage will have when in use. This will be at your own risk.

### 3.2 Installation, commissioning, setup



**DANGER**

---

Choking hazard through nitrogen gas

- discharge leaking nitrogen gas to the atmosphere
  - use breather control only in forced-air cooled rooms
- 

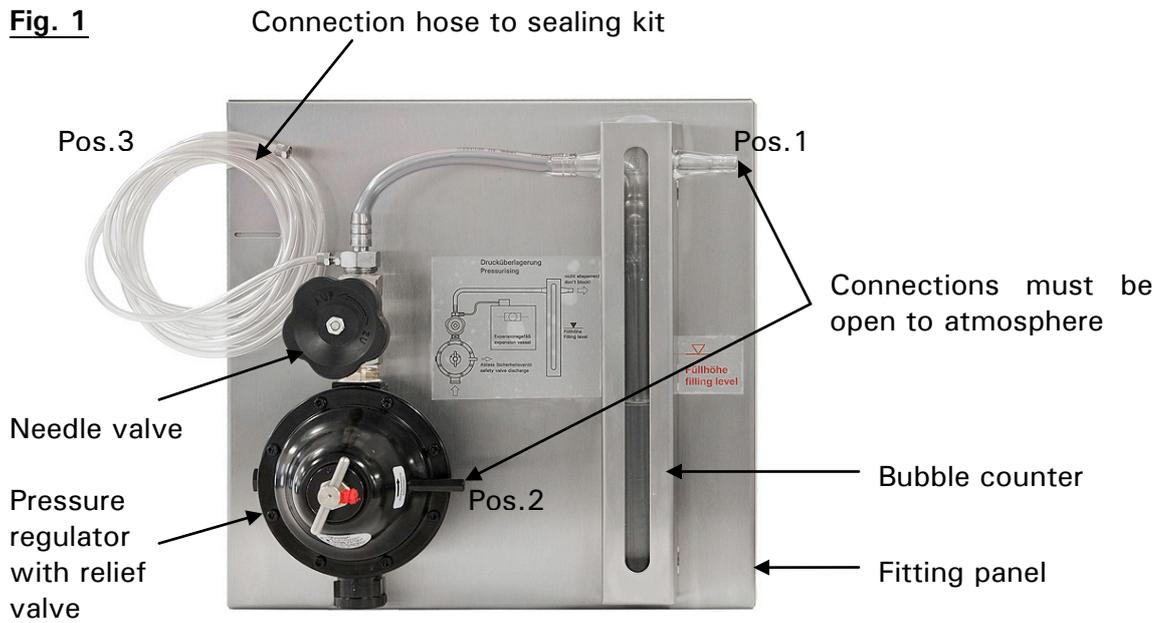
- Fix the mounting plate vertically onto an appropriate base (e.g. a wall)
- Fill the bubble counter to the marking (filling volume)
- Fix the open connections (Pos. 1 und 2) along the shortest path without any pressure loss to the atmosphere.
- Connect dry nitrogen gas at a constant pressure of max. 1 bar onto the G 1/2" IT connections of the ventilation regulator

Further procedure for when the temperature control unit and the application have been filled and vented

- Assemble the sealing kit onto the temperature control unit as represented in figures 2 and 3.
- Connect the needle valve to the sealing kit via the connection hose.
- Open the nitrogen gas supply.
- The nitrogen gas flow-rate can be regulated by using the needle valve. It must be ensured that at every operating temperature a sufficient amount of bubbles can be seen in the bubble counter. Only in this way can it be ensured that the desired nitrogen overlay is taking place. To avoid wastage, the number of bubbles should be kept as low as possible. When using nitrogen in enclosed spaces, it is essential to ensure adequate ventilation.

- These settings must be regularly monitored and checked.

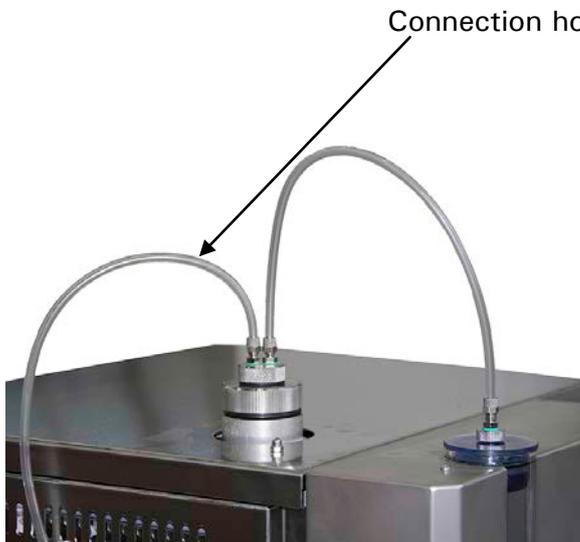
**Fig. 1**



- 
- 
- 
- 

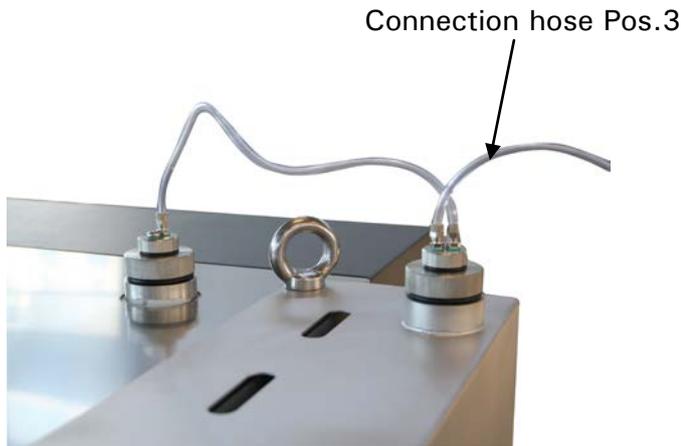
**Fig. 2** (Sealing set Variation 1)

**Fig. 3** (Sealing set variation 2)



- 
- 
- 
- 
- 
-

**Fig. 4** (Sealing set Variation 3)



- 
- 

## 4 Troubleshooting

Error	Cause	Solutions
not enough bubbles in bubble counter	inlet pressure too low / not stable enough	inspect external pressure regulator
	Oil fill is too high	fill to correct level (corresponds to approx. 15mbar)
	leaky screw connections	inspect the gaskets in sealing kit
irregular bubbles in bubble counter	leaky screw connections	inspect the gaskets in sealing kit
	machine is heating or cooling	behaviour is normal until temperature has been reached



# Inspired by **temperature** designed for you

Peter Huber Kältemaschinenbau SE  
Werner-von-Siemens-Str. 1  
77656 Offenburg / Germany

Telefon +49 (0)781 9603-0  
Telefax +49 (0)781 57211

[info@huber-online.com](mailto:info@huber-online.com)  
[www.huber-online.com](http://www.huber-online.com)

Technischer Service: +49 (0)781 9603-244

-125 °C ... +425 °C

**huber**