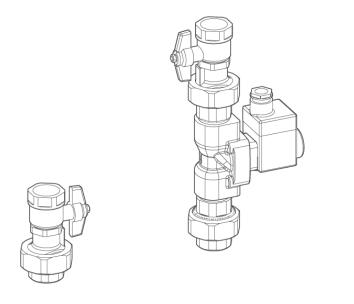
We understand water.



Accessories | Shut-off kit for heat exchangers

Operation manual

grünbeck

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1 Introduction

This manual is intended for owner/operators/operating companies, users and qualified specialists. The manual is an integral part of the product.

- Carefully read this manual and the included manuals on the components before you operate your product.
- Obey all safety and handling instructions.
- Keep this manual and all other applicable documents, so that they are available when needed.

1.1 Target group

This manual is intended for Grünbeck's technical service or a qualified specialist trained by Grünbeck.

1.2 Validity of the manual

Shut-off kit for heat exchangers

1.3 Other applicable documents

- Operation manual of stainless steel heat exchangers GENO-WT 42/76/105/146/210
- Operation manual of titanium heat exchangers GENO-WT-T 42/76/105

2 Safety

Obey the warning and safety instructions of the respective heat exchanger.

2.1 Safety measures

- Only operate your product if all components are installed properly.
- Only use genuine spare parts for maintenance or repair.

2.1.1 Mechanical hazards

• You must never remove, bridge, or otherwise tamper with safety equipment.

2.1.2 Pressure-related hazards

- Components can be under pressure. There is a risk of injuries and damage to property due to escaping water and unexpected movement of components. Check the system's pressure lines at regular intervals.
- Before starting any repair and maintenance work, make sure that all affected components are depressurised.

2.1.3 Electrical hazards

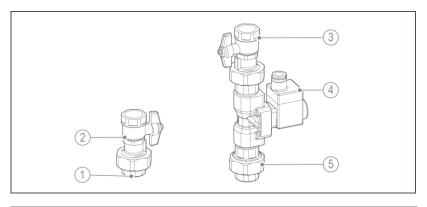
- There is an immediate danger of fatal injury from electric shock when touching live parts. Damage to the insulation or individual components can be lethal.
- Only have qualified electricians carry out electrical work on the system.
- In case of damage to live components, switch off the voltage supply immediately and arrange for repair.
- Switch off the supply voltage before working on electrical system parts. Discharge residual voltage.
- Keep moisture away from live parts. Moisture can cause short-circuits.

3 **Product description**

3.1 Intended use

- The shut-off kit for heat exchangers is designed to shut off an on-site heating circulation in private or public swimming pools and whirlpools.
- The solenoid valve interrupts the heating circulation and protects the plastic pipes from excessive temperatures.

3.2 Product components



	Designation	Function
1	Screw-in part	For connection to the heat exchanger (return of heating circuit)
2	Shut-off valve 1"	For connection to the return of the heating circuit
3	Shut-off valve 1"	For connection to the supply of the heating circuit
4	Solenoid valve	As forced pilot-controlled 2/2-way valve (normally closed) with coil
5	Insert with union nut	For connection to the heat exchanger (supply of heating circuit)

4 Transport and storage

4.1 Shipping/Delivery/Packaging

The product is packed in a cardboard box at the factory.

 Upon receipt, immediately check for completeness and transport damage.

4.2 Transport

► Transport the product in its original packaging only.

4.3 Storage

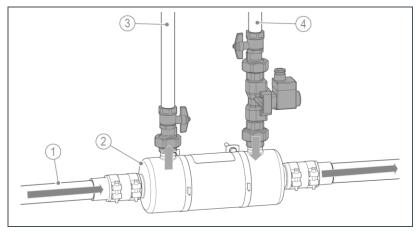
- Protect the product from the impacts below when storing it:
 - Dampness, moisture
 - Environmental impacts such as wind, rain, snow, etc.
 - Frost, direct sunlight, severe heat exposure
 - · Chemicals, dyes, solvents and their vapours

5 Installation



The installation of the system must be carried out by a qualified specialist only.

Installation example



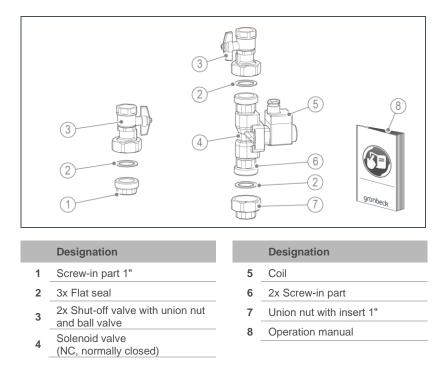
Designation

- 1 Main line of pool water circuit
- 2 Heat exchanger, for example GENO-WT or GENO-WT-T

Designation

- 3 Return of heating circuit
- 4 Supply of heating circuit

5.1 Checking the scope of supply

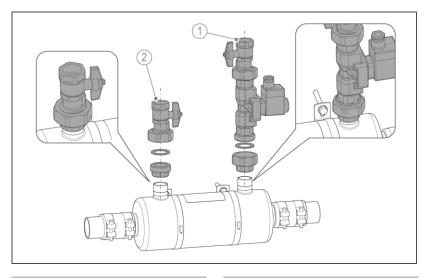


• Check the scope of supply for completeness and damage.

5.2 Installing the product



Obey the flow directions on the heating and pool water side.



Designation Designation 1 Heating supply fitting with solenoid value 2 Heating return fitting

- **1.** Fasten the supply fitting on the heating side.
 - a Install the insert with union nut on the heat exchanger.
 - **b** Insert the flat seal and install the solenoid valve with shut-off valve in the heating supply.
- 2. Fasten the return fitting on the heating side.
 - c Install the screw-in part on the heat exchanger.
 - **d** Insert the flat seal and install the shut-off valve in the heating return.
- ► Fasten the on-site supply and return heating pipes.
- Insulate the components on the heating side.

5.3 Electrical installation

CAUTION



The electrical installation must be carried out by a qualified electrician only.

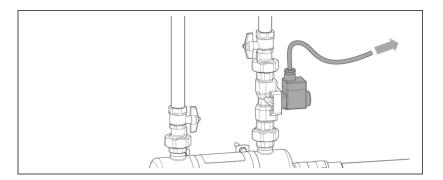


Maximum temperature exceeded

- System failure and risk of water damage
- Use the control unit to make sure that in case of a standstill of the pool water circulation pump, the solenoid valve is closed as well.
- » The flow on the heating side is stopped or interrupted.



Obey the installation instructions for the solenoid valve.



Connect the solenoid valve to the control unit.

Connection terminals on filter control units

Control unit	Terminal	Terminal	Terminal
	L	N	PE
	(brown or black 1)	(blue or black 2)	(yellow-green)
BW-tronic	17	18	free PE
BWH-W	4	3	free PE

6 Start-up/commissioning



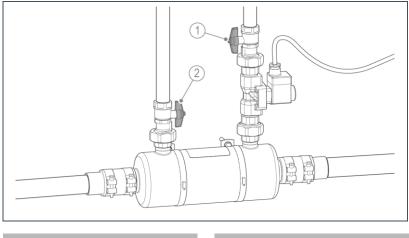
The initial start-up/commissioning of the product must be carried out by technical service personnel only.

CAUTION

Thermal hazard due to contact with hot surfaces (up to 90 $^{\circ}\text{C})$

- Burns
- Do not touch the hot surfaces of the components on the heating side.
- ▶ Sufficiently insulate the components on the heating side.
- Allow the components to cool down before carrying out any work.
- ► Use protective gloves.

6.1 Venting the system/checking for leaks



Designation

1 Shut-off valve of heating supply

2 Shut-off valve of heating return

Designation

- 1. Open the shut-off valves.
- 2. Vent the pipes on the pool and heating side.
- 3. Visually check the installation for leaks.

6.2 Checking the system for function

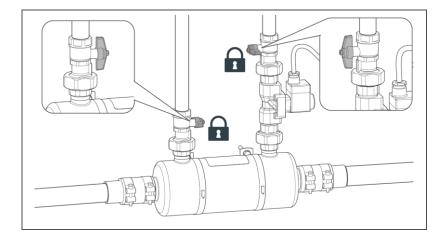
- 1. Check the heat input into the swimming pool
- 2. Check that the solenoid valve closes when the pool water circulation pump is switched off and that it shuts off the on-site heating circulation.

7 Operation/handling

Recommendation

- Switch the solenoid valve once every 24 hours.
- » Changing the switching state reduces the risk of the solenoid valve becoming contaminated by material build-up or material deposits.

In case of prolonged seasonal non-use:



Close the two shut-off valves for supply and return.

8 Maintenance and repair

- Perform all necessary work within the scope of the maintenance work for the heat exchanger (refer to the operation manual of the respective heat exchanger).
- ▶ Only use genuine spare and wearing parts from Grünbeck.

WARNING

Mechanical hazards due to pressurised components

- Splashing by medium, startling, scalding in case of hot media
- Depressurise and drain the system before removing any components.

CAUTION

Thermal hazard due to unexpected supply of heating water when the heat exchanger or components are removed

- Escaping heating water with temperatures of up to 90 °C
- Scalding
- Close the shut-off valves and the on-site ball valves before removing any components.

8.1 Inspection

- ► Carry out an inspection at least once a month.
 - 1. Check the solenoid valve for function.
- » When the pool water circulation pump stops, the solenoid valve must close.
- » The flow on the heating side is stopped or interrupted.
 - 2. Check all components for leaks.

8.2 Maintenance

- 8.2.1 Semi-annual maintenance
 - 1. Check all product components for impurities and clean them, if necessary.
 - 2. Check all product components for function and leaks.
 - 3. Check all connections for damage and a tight fit.
 - **4.** Check the shut-off of the solenoid valve with the pool water circulation pump being switched off.

8.2.2 Annual maintenance

In addition to semi-annual maintenance, the work below must be carried out as well:

- 5. Check the solenoid valve for material build-up or material deposits.
- 6. Clean the solenoid valve, if necessary.
 - a Replace a worn solenoid valve, if necessary.

8.3 Spare parts

For an overview of the spare parts, refer to our spare parts catalogue at <u>www.gruenbeck.com</u>. You can order the spare parts from your local Grünbeck representative.

8.4 Wearing parts



Wearing parts must be replaced by qualified specialists only.

The wearing parts are listed below:

- Seals
- Solenoid valve

9 Disposal

• Obey the applicable national regulations.

Packaging

Dispose of the packaging in an environmentally sound manner.

Product



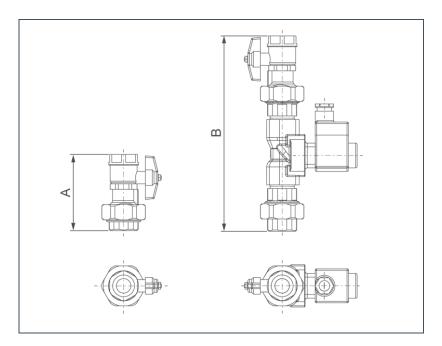
If this symbol (crossed-out wheelie bin) is on the product, it means that this product or its electrical and electronic components must not be disposed of as household waste.

- ► Find out about the local regulations on the separate collection of electrical and electronic products.
- Make use of the collection points available to you for the disposal of your product.



For information on collection points for your product contact your municipality, the public waste management authority, an authorised body for the disposal of electrical and electronic products or your waste disposal service.

10 Technical specifications



Dim	ensions and weights		
А	Installation length of return	mm	107
В	Installation length of supply	mm	270
	Weight	kg	~ 3
Con	nnection data		
Hea	ting connection		1" female thread
Heating pressure		bar	2 – 10
Power supply		V/Hz	230/50
Protection			IP 67
Per	formance data		Solenoid valve with coil
Pow	ver input	W	10
K _V v	value	m³/h	7
Clos	sing time	ms	100
Ope	ening time	ms	150

General data		
Material		brass
Heating supply temperature	°C	≤ 90
Ambient temperature	°C	5 – 35
Order no.		208 444

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