



## Pressure limiting / overflow valves

### Types

418

604/605

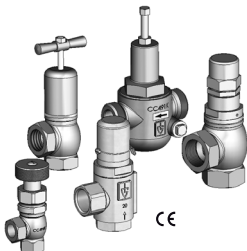
608/609

610

615/616

618/619

GB



### 1

#### General Notes of Safety

1. Only use the valve:
  - for the specified purpose
  - in satisfactory condition
  - with respect for safety and potential hazards.
2. Always observe the installation instructions.
3. Any defects which could affect the safe operation of the valve have to be remedied immediately.
4. The valves are exclusively designed for the range of application described in these installation instructions. Any other use, or a use exceeding the range of application shall be considered as improper use.
5. The manufacturer's warranty for the setting of the valve shall be null and void if the sealed cover is removed.
6. All assembly work is to be carried out by authorized specialist staff.

Overflow valves and pressure limiting valves are high-quality fittings which require a particularly careful handling. The sealing surfaces are precision-machined at the seat and cone to attain the required tightness. Always avoid the penetration of foreign particles into the valve during assembly and during the operation. The tightness of a pressure limiting / overflow valve can be impaired when using hemp, Teflon tape, as well as through welding beads, among other things. Also rough handling of the finished valve during storage, transport and assembly can result in a valve leaking. If the valves are painted, make sure that the sliding parts do not come into contact with the paint.

As **pressure limiting valve (proportional safety valve)** for non-adhesive liquids, gas, steam for protection against excess pressure in pressure tanks or steam boilers as well as pressure-holding equipment parts for pressure devices in compliance with the EC pressure equipment directive.

As **overflow valve (only the gastight versions 418, 608/609, 610, 618/619)** for non-adhesive liquids, gas and steam for pressure limitation and/or regulation, for protection of pumps and as bypass valve. Overflow valves can also be used if there is counterpressure.

For details on the range of application of the individual versions such as materials and performance data please refer to the technical documentation (catalogue) of the manufacturer.

To ensure a satisfactory operation of the valves they must be assembled in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads.

The installation has to be flushed before installing the valve. If an installation is not sufficiently cleaned or the valve is installed improperly, the valve may leak even the first time it responds.

Appropriate safety measures must be taken at the place of installation of the valves if the medium that discharges upon actuation of the valve can lead to direct or indirect hazards to people or the environment.

**Pressure limiting valves** are to be installed vertically, if possible, and with the bonnet pointing upward.

**Overflow valves (418, 618/619, 608/609, 610)** can be installed in any position. The function of the valves is guaranteed in every position.

During **assembly** always make sure **not to apply any force when fastening the connecting thread and not to screw it in too far**, as this could otherwise **damage the seat of the valve**. Do not allow sealing material such as hemp or Teflon to penetrate into the valve.

## 5

## Setting

The valves can be delivered with a set pressure and sealed by the factory or without set pressure with the desired range of adjustment. Valves which have been set and sealed by the factory are marked with the set pressure. Before changing the set pressure the seal has to be removed.

If valves are unsealed, the desired pressure can be set within the pressure range of the spring.

### Types 418, 604/605:

1. Unscrew capstan headed screw (1) and remove cap (2).
2. Release locknut (3).
3. Turn pressure screw (4). (In type 418 medium does not discharge via the spring chamber even under operating conditions or with available counterpressure.)  
Turn in clockwise direction to increase pressure, turn in counterclockwise direction to reduce pressure.
4. Tighten locknut (3).
5. Mount cap (2) and fasten capstan headed screw (1).

### Types 615/616:

1. Unscrew locknut (5) and lifting toggle (6).
2. Unscrew capstan headed screw (1) and remove cap (2).
3. Release locknut (3).
4. Turn pressure screw (4): Turn in clockwise direction to increase pressure, turn in counterclockwise direction to reduce pressure.
5. Tighten locknut (3).
6. Mount cap (2) and fasten capstan headed screw (1).
7. Screw on lifting toggle (6) and locknut (5).

### Types 618/619:

1. Unscrew cap nut (7) and remove copper gasket (8).
2. Release locknut (3).
3. Turn pressure screw (4): Turn in clockwise direction to increase pressure, turn in counterclockwise direction to reduce pressure.
4. Tighten locknut (3) again and mount copper gasket (8).
5. Screw on cap nut (7) and tighten.

### Types 608/609:

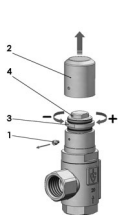
1. Carry out pressure adjustment at handwheel (9). Turn in clockwise direction to increase pressure, turn in counterclockwise direction to reduce pressure.

### Type 610:

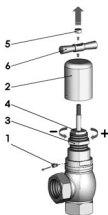
1. Release locknut (11).
2. Adjust pressure at adjusting spindle (10). By connecting a pressure gauge (available as accessory) the set pressure can be conveniently read from the pressure gauge.
3. Tighten locknut (11) again.

After setting or adjusting the valve the set pressure can be marked on the nameplate (in type 418) or on the provided brass label.

The setting can be secured by means of a seal.



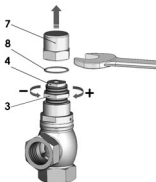
Type: 418 / 604 / 605



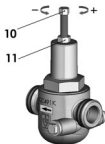
Type: 615 / 616



Type: 608 / 609



Type: 618 / 619



Type: 610

The operating pressure of the plant is to be at least 5 % lower than the closing pressure of the valve if it is used as a pressure limiting valve. In this way, the valve can satisfactorily close again after blowing off.

In the event of minor leaks, the valves can be made to respond by lifting the lever for version 615/616 (the lever is not used for adjusting the valve!), or by applying overpressure for the remaining model series. If this does not remove the leak the valve has to be overhauled.

For the valves of the types 418 (fig. 1) and 610 (fig. 2) there is a replacement cartridge which can be changed when the installation is pressureless. For the type 418 the cartridge can be delivered as a replacement part which was preset and sealed at the factory.



Fig. 1



Fig. 2

Every valve is tested prior to leaving the factory. We grant a warranty for our products which entails the repair, free of charge, of any parts that are returned and verified as being prematurely unsuitable for use due to defective material or manufacturing. We shall not assume liability for any damage or other such obligations. If the factory seal is damaged (in the case of pressure limiting valves), in the event of any incorrect handling or installation, contamination or normal wear, warranty claims shall be null and void.

Valves adjusted at the factory have the set pressure marked in a permanent manner on the nameplate (type 418) or on a brass label that is attached to the valve. For valves that are not adjusted at the factory the range of adjustment for the installed spring is specified on it.

according to Annex VII of the Directive 97/23/EC

We, **Armaturenfabrik Gerhard Götze KG, D-71636 Ludwigsburg**  
declare under sole responsibility that the delivered product:

Pressure-holding equipment part	Type	Nom. width	Pressure range
Pressure limiting valve/ overflow valve	418	3/8" – 1 1/4"	0.2 – 25 bar
	618/619	3/8" – 2"	0.2 – 20 bar
	608	3/8	0.2 – 20 bar
	610	1" – 1 1/2"	1 – 9 bar
Pressure limiting valve	604/605 615/616	3/8" – 2"	0.2 – 20 bar

has been manufactured in compliance with the Directive 97/23/EC and was subjected to the conformity assessment procedure

#### Module A

The monitoring of the production quality assurance (certificate no. DGR-0036-QS-397-05) is performed by TÜV SÜD Industrie Service GmbH (ICE 0036).

Ludwigsburg, 25.06.2007  
(Place and date issued)



D. Weimann  
Management