

**Safety valves****Types****810/410****811/411****812/412****813/413****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 safety valve is 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 shall be null and void if the sealed cover is removed.
6. All assembly work is to be carried out by authorized specialist staff.

Safety 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 safety 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 safety valve leaking. If the safety valves are painted, make sure that the sliding parts do not come into contact with the paint.

Safety valve **types 810/410, 811/411 and 812/412 for air, non-toxic gas and technical steam** for protection against excess pressure in pressure tanks which are in compliance with the specifications of the AD-2000 data sheet A2, or as equipment component with safety function for pressure equipment in compliance with the EC pressure equipment directive.

Safety valve **type 813/413 for fixed tanks for granular or powdered materials or vehicle tanks for liquid, granular or powdered materials** according to AD 2000 data sheet HP 801 No. 23 which are discharged using compressed air. For protection against excess pressure in pressure tanks which comply with the specifications of AD-2000 data sheet A2, or as equipment component with safety function for pressure equipment in compliance with the EC pressure equipment directive.

For details on the range of application of the individual versions please refer to the technical documentation (catalogue) of the manufacturer.

Spring-loaded safety valves are to be installed with the spring bonnet pointing vertically upward. The safety function of the valves is also guaranteed and tested in a horizontal position. To ensure a satisfactory operation of the safety valves they must be installed in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads. During installation the max. torque value must not be exceeded (see chart). Appropriate protection devices must be applied if the medium that discharges upon actuation of the valve can lead to direct or indirect hazards to people or the environment. Always pay attention to possible fumes discharging from the relief bores in the spring bonnet. For example by fitting a blow-off/protective cover.

Valve size	Max. torque value
DN 8	30 Nm
DN 10	40 Nm
DN 15	50 Nm
DN 20	60 Nm
DN 25	60 Nm
DN 32	80 Nm
DN 40	80 Nm
DN 50	90 Nm

### Supply

Supply connection pieces for safety valves are to be kept as short as possible and are to be designed in such a way that there can be no pressure loss greater than max. 3 % of the response pressure.

## 5 Operating and Maintenance

The operating pressure of the plant is to be at least 5 % lower than the closing pressure of the safety valve. In this way, the valve can satisfactorily close again after blowing off. In the event of minor leaks, which may be caused by contamination between the sealing surfaces, the valve can be made to blow off through lifting, for cleaning purposes. In addition, by using an appropriate open-end wrench – for type 812/412 and 813/413 using a strap wrench (not a pipe wrench) – the entire upper part can be unscrewed from the housing and any residue removed from the seat and the seat sealing. By screwing the upper section onto the housing with subsequent tightening the valve operates again at the set pressure.

If this does not remove the leak the sealing surface is probably damaged and this can only be repaired at our factory or by authorized specialists.

It is recommended and also stipulated by pertinent regulations to make the safety valve blow off from time to time through lifting, in dependence of the respective system, in order to check the correct operation of the safety valve. They can be made to open by hand at the latest when the working pressure is > 75% of the response pressure.

Lifting is carried out by turning the knurled nut above the bonnet in counterclockwise direction. Turn the knurled nut back to the stop again afterwards.

Safety valves are the ultimate safety device for the tank or system. They must be able to prevent impermissible overpressure even when all other upstream control and monitoring equipment fail.

To ensure these characteristics safety valves require maintenance, just like any other technical device.

The maintenance intervals are determined by the operator independence of the operating conditions.

## **6**      **Removal of the Fitting**

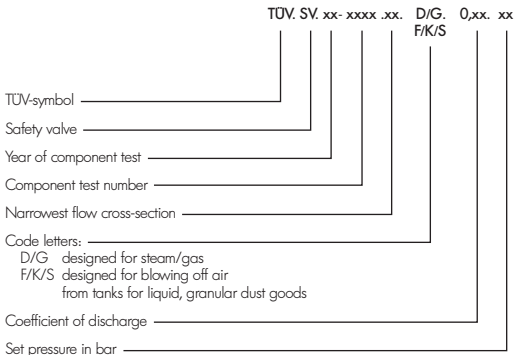
In addition to the general installation instructions it must be ensured that the system is made pressure free prior to disassembly of the safety valve.

## **7**      **Repair Work**

Repair work on safety valves is only to be carried out by Goetze KG or by officially approved specialist workshops authorized by Goetze KG using original spare parts only.

## **8**      **Warranty**

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 any liability for any damage or other such obligations. If the factory seal is damaged, in the event of any incorrect handling or installation, non-observance of these operating and maintenance instructions, contamination or normal wear, warranty claims shall be null and void.



We check the safety valves for pressure resistance and tightness, adjust the requested set pressure and seal them.

The identification on the type plate or on the spring bonnet of the valve is applied using a permanent marking system.

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

We, **Goetze KG Armaturen, D-71636 Ludwigsburg**  
declare under sole responsibility that the delivered product:

### Safety valve

Type	TÜV component test no.	EC type approval certificate no.
810/410	2055	✓
811/411	317	✓
812/813 412/413	2003	✓

to which this declaration relates, has been manufactured in compliance with the Directive 97/23/EC, DIN EN ISO 4126 and the German regulations AD 2000- A2/A4, TRD 421/721 and was subjected to the conformity assessment procedure:

### Modules B+D

There is an EC type approval certificate for the component for pressure equipment.

The monitoring of the production quality assurance is performed by  
TÜV SÜD Industrie Service GmbH (CE 0036).

Ludwigsburg, 29.10.2010  
(Place and name of issuer)



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