

Documentation

Safety Valves *- Type HSV ... -*



1. Direction

1. Direction	1
2. Advices	1
3. Warranty	1
4. General delivery information	1
5. Description of the valve	1
6. Safety provisions	2
7. Transport	2
8. Installation	2
9. Cleaning and lubrication	2
10. Routine maintenance - inspection	3
11. Periodical checks on the safety valves with elastomer seal seat for steam	3
12. Technical specifications	3
13. Dimensions	4

2. Advices

Caution: The user is responsible for guaranteeing the compatibility of the type of valve and the material used for its construction, with the fluid and the normal operating and process conditions. The checks are based solely on the information provided by the customer/user.

Caution: The storage, installation, routine checks and maintenance operations are the responsibility of the user.

Pay careful attention when using the safety valves, as this manual is not, and cannot be, completely comprehensive and cover all the possible installations and uses of the valves.

The safety valves are designed for fluids such as gases, steam and liquids. They are not suitable for powders / solids. The following factors have not been taken into consideration in the design of the valve: stress due earthquakes, loads due to wind, stress from fatigue. In the event of external fires, when the operating temperature is exceeded, the seal seat of safety valve collapses, and the valve will automatically discharge. To avoid this, suitable cooling and protection systems should be adopted.

3. Warranty

Whenever communicating, always indicate the type and the serial number marked on the valve body.

The products are guaranteed for a period of 24 months from the date of testing.

The average life of the safety valves, in the specific operating conditions they have been designed for, is 24-36 months for valves with elastomer seal seats, and 36-48 months for valves with metal or PTFE seal seats. At the end of this period, an external visual check must be performed to make sure that the valves are in good condition (no serious oxidation - erosion and with the slits/discharge connections free of blockages). If there is no evident oxidation, erosion, fouling and/or damage due to external causes, the average life is extended by the same period as described above.

All the parts found to have material or manufacturing defects will be replaced free-of-charge, ex-works.

Claims regarding damage due to wear, dirt, incorrect handling, etc. will be rejected, as will any other contractual warranties. Any complaints regarding the products received, relating to quantities or configurations other than those ordered, must be received in writing within 10 days from receipt of the material.

4. General delivery information

On receiving the valve, make sure that:

- The packing is intact.
- The material supplied corresponds to the order specifications (see the delivery note and/or invoice)
- There is no damage.

In the event of damage or missing parts, immediately notify the carrier, or the local agent with details.

Suggestion: Install the valves immediately and do not store them for an extended period (max. 6 months in conditions suitable for the maintenance of the materials).

5. Description of the valve

The spring-loaded safety valves for steam, gases or liquids are the result of extensive experience acquired over a number of decades in different applications, and amply satisfy all the last-resort requirements in pressure equipment.

They are fully able to prevent the pressure from exceeding the maximum value, even if the other safety devices fitted upstream are disabled.

The safety valves feature a brass or stainless steel body that is highly resistant to high and low temperatures.

They are fitted with a stem, a seat and a moving element that guarantee maximum efficiency over time.

The safety valves are built with standardised fittings according to the main national and international standards (UNI, ISO, ANSI, ...).

All the valves are factory-calibrated to guarantee maximum safety and minimum maintenance.

As a result, please carefully read this manual so as to ensure all the advantages and safety required for the installations where the valves are fitted.

6. Safety provisions

Before any service or maintenance operations, make sure that there is no pressure in the installation. Any adjustment or calibration operations must be performed by specialised technicians who are aware of the dangers of safety valves.

Take care when dealing with toxic or harmful gases.

Before making any adjustments or calibrations, put on SAFETY GLASSES, GLOVES and other PERSONAL PROTECTION EQUIPMENT.

If the valve is not properly secured, vibrations may occur.

Therefore, make sure that the fastenings are fully tightened.

The valve may only be used after having been tested or other relevant organisations.

The test certificate describes the exact calibration of the valve (see lead seal).

When the operation of the valve is being tested or when the installation is operating and the valve is not connected to a point of discharge, no persons may stand in front of the valve discharge.

Before working on a valve, make sure that it is at room temperature.

Danger of scalding or burns. The Outside surface may reach the temperature of the fluid contained inside.

Never tamper with the valve, nor remove the lead/manufacturer's seal for any reason.

Do not lubricate for any reason.

In case of defective operation, contact immediately.

Caution: only stainless steel valves must be used in corrosive environments.

The fittings must be sized and arranged according to the safety specifications of the installation.

The valve should be connected to a discharge line.

If the valve discharges into the atmosphere, it should be pointed in a direction that will not cause material damage or personal injury.

Caution: not suitable for unstable fluids.

7. Transport

The valves, depending on the size, can be transported in boxes or crates.

The smaller valves can be carried by hand, and the larger valves using a fork lift or crane.

Caution: Vibrations, impact and impurities may damage the operation of the valve, therefore the valves must be handled carefully and without removing the caps on the fittings, which prevent impurities from entering inside before installation.

8. Installation

The valves are supplied with the required calibration and sealed.

Caution: Make sure that the lead / manufacturer's seal is never damaged. The breakage of the seal will void the warranty.

To secure the valve to the appliance being protected, only use the seat made at the bottom of the body, near the inlet fitting, using appropriate tools.

Install the valves in an accessible site, protected against impact and tampering, so as to avoid personal injuries during discharge, and to simplify periodical checks and inspections.

Never install shut-off or choking devices between the tank (or the installation) and the valve.

The valve connection pipe must be as short as possible and have a cross-section no smaller than that of the inlet and outlet fittings.

The spring-loaded safety valves that have a pressure calibrated to less than 1 bar must be fitted with the cap facing upwards. For pressure levels calibrated higher than 1 bar, the position of assembly has no influence on correct operation.

Making sure not to damage the surface, remove the caps and fit the valve, according to the requirements of the installation.

If the discharge is connected to an outside pipe, this pipe must be as short as possible, to avoid unforeseen backpressure. The maximum backpressure allowed is 10% of the calibration pressure.

Prevent the supports or pipes from transmitting forces or moments of reaction to the valve.

For the safety valves with discharge lines, connect the discharge outlet to a pipe leading to a safe area. For pulsating operating pressure, the safety valve must be calibrated at a higher value than the maximum peak in pulsating pressure.

Make sure the valve is properly earthed, through the inlet fitting where possible.

Before starting the installation, make sure that there are no solid bodies inside that may damage the seal seat of the valve.

9. Cleaning and lubrication

The safety valves have been built to work without lubrication; they simply need to be kept clean and in good working order.

10. Routine maintenance - inspection

The valve is a very delicate mechanism. It is the installation personnel's duty to check its efficiency and if required contact the specialist technician.

The safety valves must only be inspected by the relevant organisations, according to the specific legislation in force in the country where the valve is installed.

Caution: Not liable in any way for unauthorised operations or tampering. No longer liable for the valve after repairs, recalibration, replacement of parts or any other work not performed under its direct supervision.

11. Periodical checks on the safety valves with elastomer seal seat for steam

To make sure that the safety valves continue to operate in good working condition, these must be periodically tested. To do this, open the valve manually using the opening lever or nut; this test must be done while keeping the protected appliance at a pressure between 80 and 90% of the valve calibration pressure. The valve must open cleanly, and release an abundant amount of fluid, and must then close fully once the lever has been released or the nut tightened. The operation must be short and performed just once. The interval depends on the conditions of the installation (probability of the valve becoming fouled with dirt or salt from the water). **When an installation is started, initially perform the tests frequently (daily), gradually increasing the interval when the installation shows no problems (monthly/yearly).**

12. Technical specifications

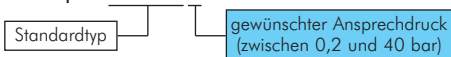
Material: Brass (UNI EN 12164 CW614N), SB283 C37700, (-50 / +200°C)

Homologation: CE IV

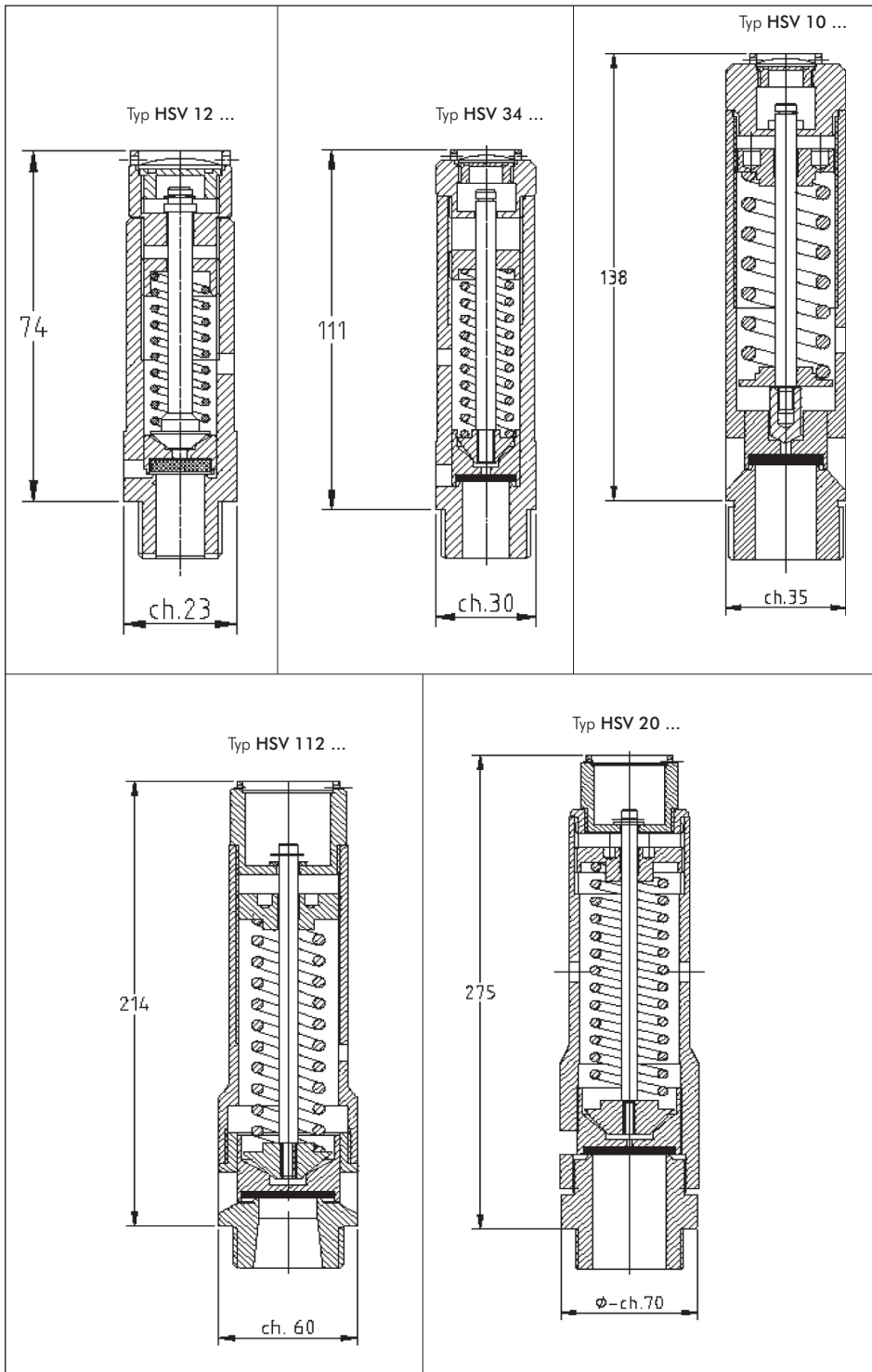
PN: 40

Typ	DN	Gewinde	Ansprechdruck (Druckbereich)	Abblaseleistung (m ³ /h) bei			
				6 bar	8 bar	11 bar	16 bar
HSV 12-**	10	G 1/2"	0,3 - 40 bar	405	522	699	996
HSV 34-**	14	G 3/4"	0,3 - 30 bar	835	1137	1448	2053
HSV 10-**	18	G 1"	0,3 - 21 bar	1395	1799	2411	3432
HSV 114-**	32	G 1 1/4"	0,2 - 30 bar	3123	4027	5382	7642
HSV 112-**	32	G 1 1/2"	0,2 - 30 bar	3123	4027	5382	7642
HSV 20-**	48	G 2"	0,2 - 30 bar	5802	6034	8065	11451

 **Bestellbeispiel:** HSV 12 - **



13. Dimensions



Alle Angaben verstehen sich als unverbindliche Richtwerte! Für nicht schriftlich bestätigte Datenauswahl übernehmen wir keine Haftung. Druckangaben beziehen sich, soweit nicht anders angegeben, auf Flüssigkeiten der Gruppe II bei +20°C.