VIRTUAL CATALOGUE

RELIEF VALVE VS SERIES

- *DIRECT ACTION, DIRECT SPRING-ADJUSTED*
- *WIDE ADJUSTMENT RANGE*
- *HIGH ACTUATION ACCURACY*
- *TOTAL CLOSURE AT ZERO FLOW*
- *SIMPLE MAINTENANCE; NO NEED TO REMOVE FROM LINE*
- *LARGE FLOW COEFFICIENT*
- *THREADED CONNECTIONS 1"G*

VS/25

VS/44

APQ

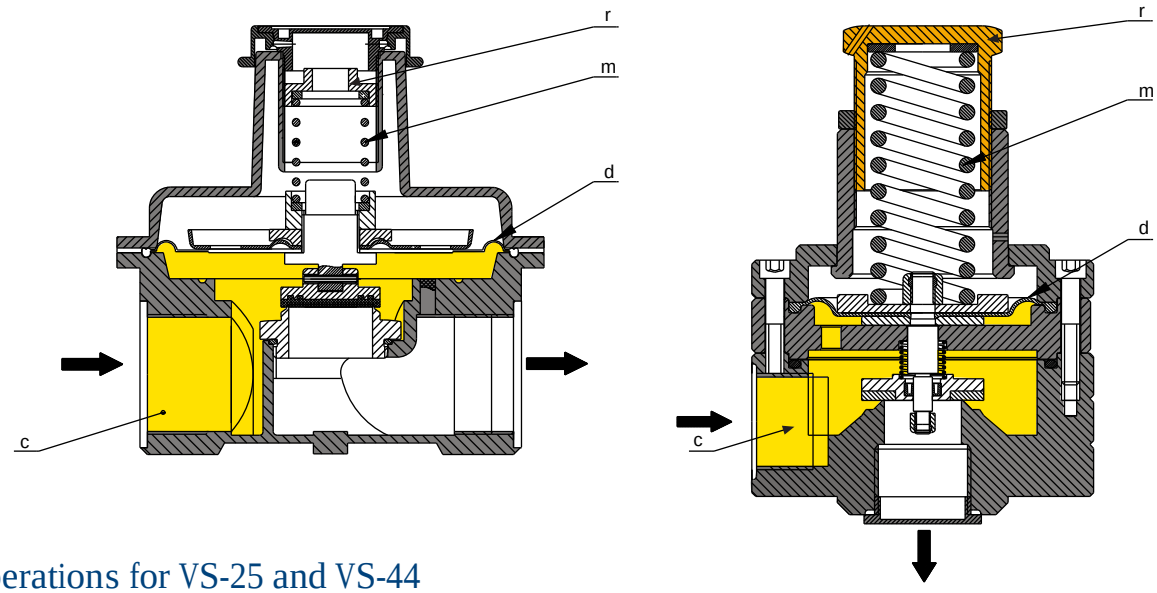
VS 25 VS 44

Use

Relief valves are safety elements used in gas installations in order to discharge a certain amount of gas into the atmosphere when the value at the relief valve inlet exceeds a certain pre-established value. In general, this increase in gas pressure in the pipes is produced at zero flow and is caused by an increase in temperature in the pipes due to solar radiation or the proximity of a heat source. It may also be due to an imperfect closure of the gas regulator.
They can work with natural or manufactured gas, propane, air and other gases that do not contain a high percentage of benzol. -

Construction characteristics

VS 25 and VS 44 series escape valves are direct action with diverted flow, where adjustment is carried out by means of directly tightening the spring.
This series of regulators has been designed with easy, practical maintenance in mind and any element can be substituted without having to be removed from the gas line.



Operations for VS-25 and VS-44

The gas from the piping under control arrives at the chamber (c) and exercises a force on one of the sides of the membrane (d), gradually moving it. The other side of this membrane also undergoes a counterforce exercised by the calibration spring (m). Under normal working conditions, the force exercised by the spring (m) is greater than the force exercised by the gas on the membrane and therefore the gas cannot pass through. If the pressure in the controlled section of piping increases to a specific value and the force produced by this pressure exceeds that exercised by the calibration spring (m), the membrane (d) moves and opens the valve, consequently releasing the gas.
When, as a result of this opening, the pressure drops and returns to below the value of the spring, the internal moving system will gradually close, until it is totally shut and flow is zero.

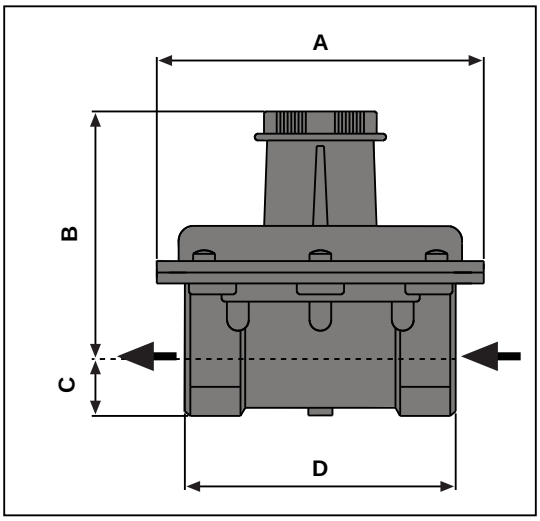
Setting

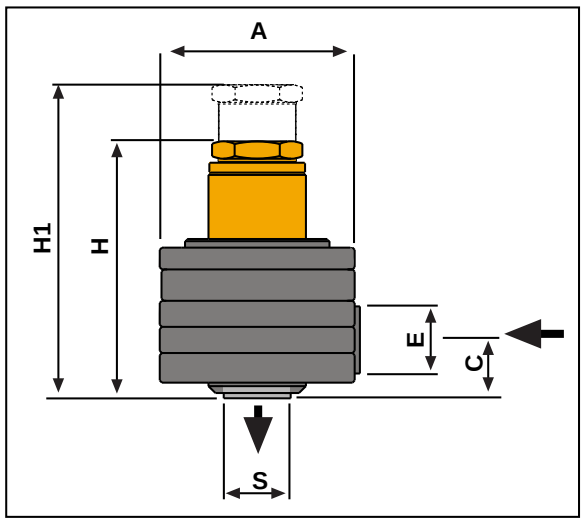
To set the valve correctly and to facilitate later checks, we recommend assembling at the VS inlet an APQ three-way PUSH valve. The VS inlet should be connected to the shared channel; the piping under control should be connected to one that is normally open and the normally closed channel should be connected to a pressure source for testing, which will depend on the range of pressures of the VS. First, set the dial (r) at a value considered to be higher than that desired. A manometer with an appropriate scale should be located at the entry point and a pressure created that is higher than the pressure desired for VS to be activated. To this end, at the VS inlet connect an air compressor, some pressurised air or gas bottles, a manometric bulb or increase the pressure of the regulator located upstream, if there is one.
Slowly reduce the dial (r) until you notice that the VS has opened, via the outlet or a decrease in the manometer connected at the inlet. Continue reducing the dial (r) until the desired value is reached.

Installation

a) Install in a gas line that is sufficiently strong to withstand the weight of the relief valve.
b) Assemble the VS with the correct gas flow direction, as indicated by the arrow engraved on the valve body.
c) Should the outflow need to be limited, assemble an APQ VLO limiting unit or a valve with lockable intermediate positions between the piping to be protected and the VS.
d) Do not assembly the above-mentioned limiting elements in the exit piping, since this could negatively affect the functioning of the VS.
e) The pipe downstream from the VS must be nominal size or larger.
f) Ensure that the pipe has been cleaned of earth, sand, solder remains, etc.
g) The gas discharge must take place at least 3 metres above ground level, if exterior. If assembled in a covered area, the discharge must take place externally, 1 metre above the highest point.

Dimensions





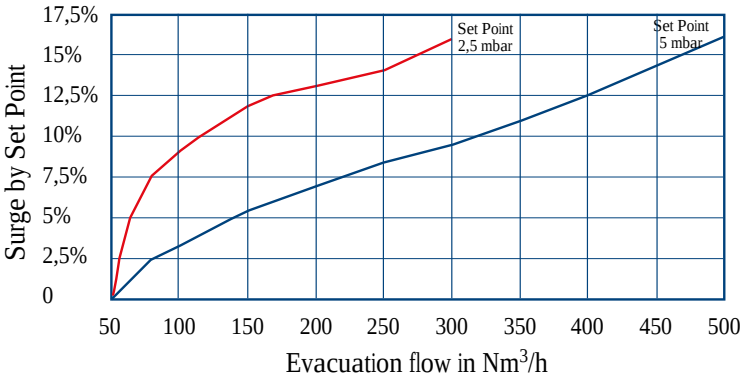
TECHNICAL CHARACTERISTICS

	VS 25 BP	VS 25 MP	VS 44
Body design pressure	2 bar	2 bar	20 bar
Actuation field	25 to 200 mbar	190 to 500 mbar	400 to 8000 mbar
Entry connection	1" G.	1" G.	1" G.
Exit connection	1" G.	1" G.	1" G.
Connection arrangement	180º	180º	90º
Operational temperature	-10º ÷ 50 ºC	-10º ÷ 50 ºC	-10º ÷ 50 ºC

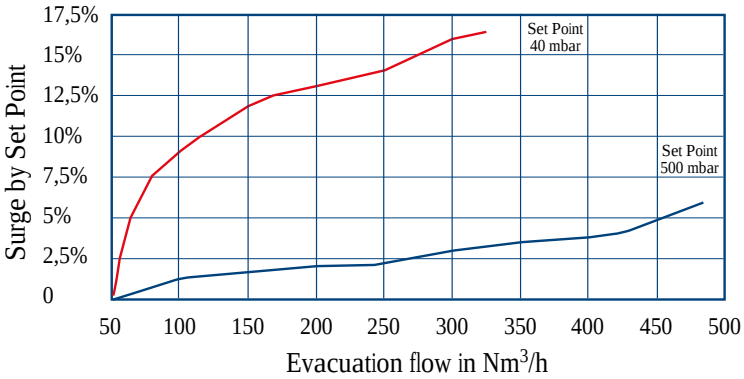
MATERIALS

	VS 25 BP	VS 25 MP	VS 44
Valve body	injected aluminium	Injected aluminium	Steel
Plug	Vulcanised brass	Vulcanised brass	Vulcanised brass
Valve seat	Brass	Brass	Steel
Membrane	Nitrile	Woven nitrile	Woven nitrile
Joints	Nitrile	Nitrile	Nitrile
Spring	Steel	Steel	Steel

FLOW TABLE: VS 44



FLOW TABLE: VS 25



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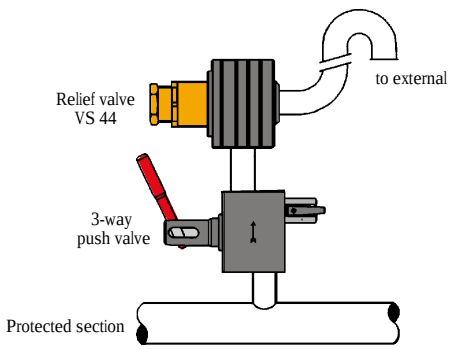

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