

ALL METAL LEAK VALVE Mod.VFCR

Tightness : better than 10^{-11} atm.cc/s

Bellows sealed

All metal

Mounting in any position

Bakeable up to 450°C

Panel mounting

Choice of seat material

The VFCR valve has been designed to meter the gas admittance in UHV systems in very clean areas and for managing high and aggressive gases.

Due to the needle shape the control of gas passage from 10 mbar to the atmosphere is realised.

During the opening the needle goes completely out from the seat allowing the best conductance to the gas stream. The closure is made by the conical base of the needle.

The seat is made of gold coated OFHC copper and it can be manufactured with different materials as Ti ,Ni ,Monel ,Inconel ,and so on. The body is made of 316L and the bellows in AISI347 .To eliminate outgassing or memory phenomena ,the valve can be baked at 400°C with the inside parts under vacuum or inert gas. To clean the inside parts or to change the seat , the VFCR is easily dismountable.

Two version are available :in line and angle type. The standard version is provided with 6mm OD tube ;on request Tecna can weld different types of flanges.

The stem position is regulated by the graduated knob.

SPECIFICATION

Pressure range : 10^{-11} to 2500 mbar

Max gas flow : 2mbar.l/s

Conductance in high vacuum :0.1 l/s

Leak : $< 10^{-11}$ mbar.l/s

Bakeable : to 400°C

Position : any

Material : body :AISI 316L

bellows :AISI 347

seat :silver coated OFHC Cu

Lubrication : Mo disulfide

Opening : both side to atmosphere

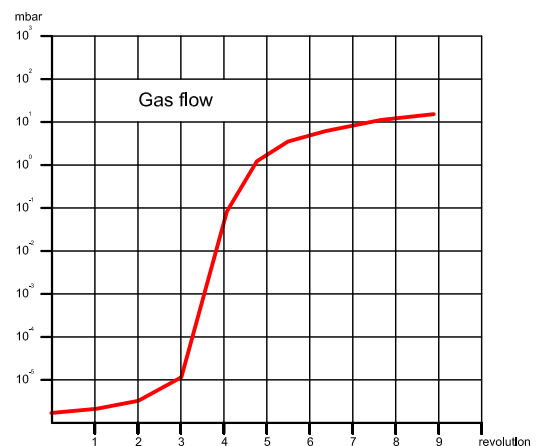
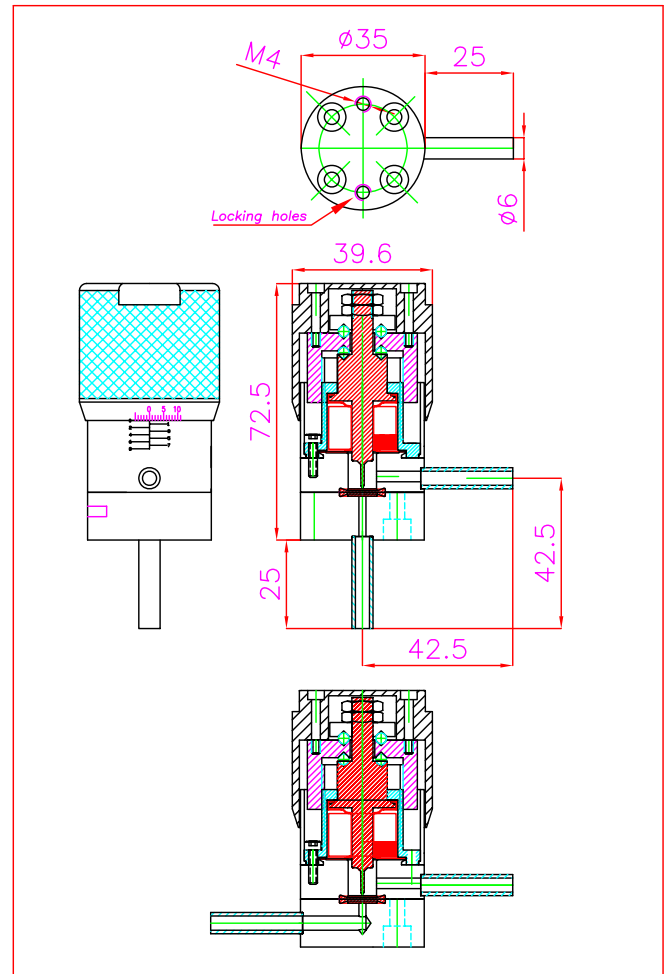
ORDERS

Mod VFCR

Code TV 065

Mod VFCR in line

Code TV 066



SEAL VALVES

These valves are particularly suitable for evacuating containers which have to remain under vacuum (dewar, transfer pipes) or to be repumped occasionally, or to be filled up with pure gas (cryostat, lasers, etc.)

The overall dimensions are very restricted. In order to open the valve, to use a restoring valve is necessary: this safely prevents any non-intentional gaping, which might eventually occur.

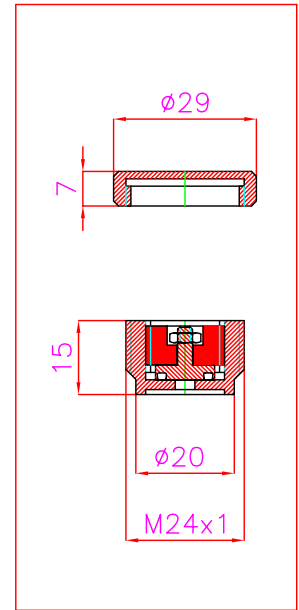
After the emptying-operations, a metallic cap is screwed down on the valve.

These valves are usually welded directly on the container wall.

ORDERS

Mod VTV-5

Code TV 040



RESTORING VALVES

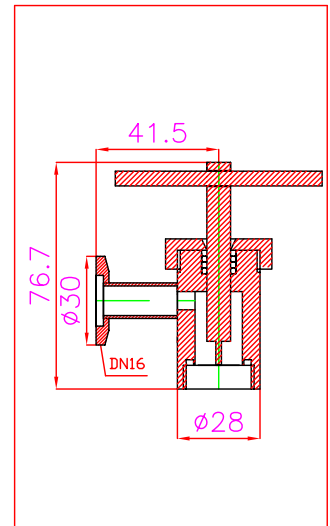
The restoring valves (RV) are meant for opening the a/m seal valves, consequently allowing the evacuation of the vacuum vessels.

The RV behavior is like an in-vacuum screwdriver: the pad of seal valve is operated to allow the pumping and to seal the vessel. Once the pumping is ended, the RV is removed from the container, thus limiting the overall dimensions.

ORDERS

Mod VRV-5

Code TV 041

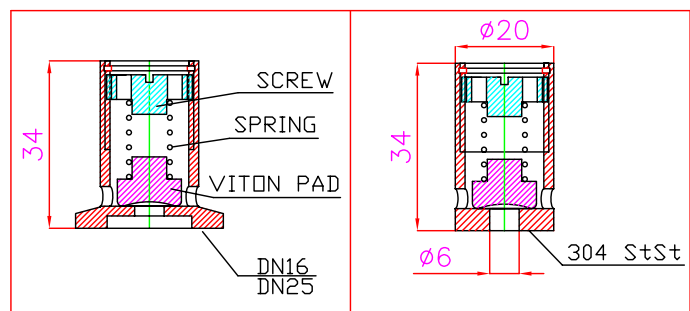


OVERPRESSURE VALVES

The overpressure valve (OV) are suitable for limiting the pressure raise in vessels.

OV are produced in three models: welding, DN16 and DN25 flanged.

Adjusting range: from vacuum to 1 bar.



ORDERS

Mod OV-W

Code TV 043

Mod OV-DN16

Code TV 044

Mod OV-DN25

Code TV 045