



TECHNICAL CATALOGUE

# ROMA<sup>®</sup> CHECK VALVES

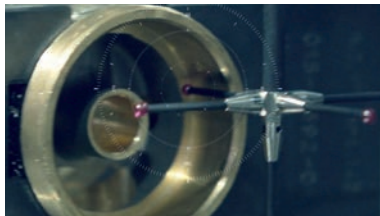
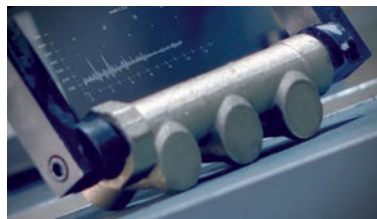
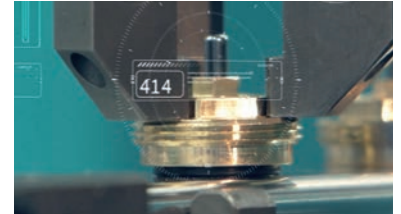
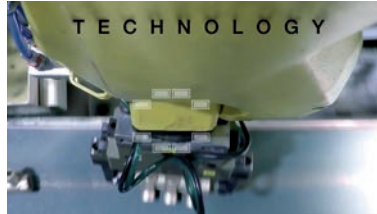


## > THE COMPANY

ITAP SpA, founded in Lumezzane (Brescia) in 1972, is currently one of the leading production companies in Italy of **valves, fittings and distribution manifolds** for plumbing and heating systems.

Thanks to fully automated production processes, with 87 transfer machines and 70 assembly lines, we are able to produce 400,000 pieces per day.

Our innate pursuit for innovation and observance of technical regulations is supported by the company certification ISO 9001. The company has always considered its focus on quality as the main tool to obtain significant business results: today ITAP SpA is proud to offer products bearing the approval of numerous international certifying bodies.



> ITAP products have obtained approvals by more than 30 certification bodies from all over the world.





# ROMA® CHECK VALVES

## 104 ROMA® check valve

Suitable for domestic water services, heating, air-conditioning plants and compressed air systems.

They can be installed in any position: vertical, horizontal, oblique.

Suitable for use with gasoline and fuels in general.



| SIZE          | PRESSURE       | CODE    | PACKING |
|---------------|----------------|---------|---------|
| 3/8" (DN 10)  | 25bar/362.5psi | 1040038 | 10/100  |
| 1/2" (DN 15)  | 25bar/362.5psi | 1040012 | 10/100  |
| 3/4" (DN 20)  | 25bar/362.5psi | 1040034 | 8/72    |
| 1" (DN 25)    | 25bar/362.5psi | 1040100 | 6/48    |
| 1"1/4 (DN 32) | 18bar/261psi   | 1040114 | 4/32    |
| 1"1/2 (DN 40) | 18bar/261psi   | 1040112 | 4/24    |
| 2" (DN 50)    | 18bar/261psi   | 1040200 | 2/16    |

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Body in brass.

Plate in stainless steel.

Washer in Viton®.

Spring: stainless steel.

Outlet plugs in brass, thread 1/4".

Minimum working temperature: -20°C.

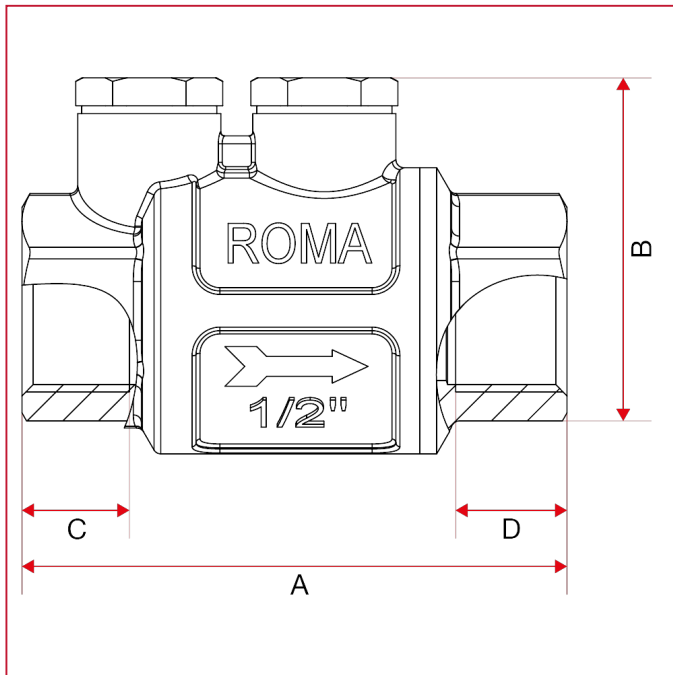
Maximum working temperature: 100°C with water ;150°C with fluid hydrocarbons or compressed air.

Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).



# ROMA<sup>®</sup> CHECK VALVES

## OVERALL DIMENSIONS

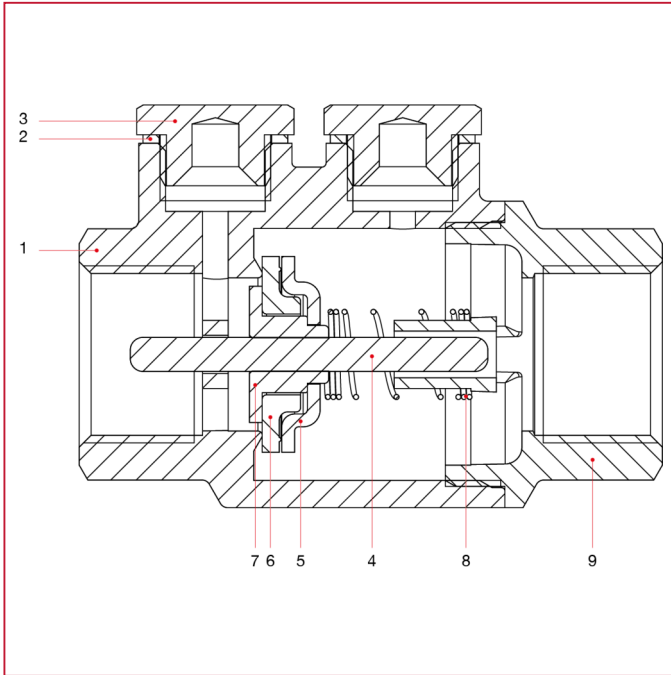


|                        | 3/8"  | 1/2"  | 3/4"  | 1"    | 1"1/4 | 1"1/2 | 2"   |
|------------------------|-------|-------|-------|-------|-------|-------|------|
| DN                     | 10    | 15    | 20    | 25    | 32    | 40    | 50   |
| A                      | 63    | 68,5  | 69,5  | 79    | 84    | 93,5  | 108  |
| B                      | 47,3  | 47,3  | 54,5  | 60,8  | 72,8  | 83,3  | 99,3 |
| C                      | 10    | 13,5  | 14    | 15    | 16    | 16    | 20   |
| D                      | 10    | 14    | 14    | 15    | 15,5  | 17    | 19   |
| Kg/cm <sup>2</sup> bar | 25    | 25    | 25    | 25    | 18    | 18    | 18   |
| LBS - psi              | 362,5 | 362,5 | 362,5 | 362,5 | 261   | 261   | 261  |



# ROMA<sup>®</sup> CHECK VALVES

## MATERIALS



| POS. | DESCRIPTION | N. | MATERIAL                 |
|------|-------------|----|--------------------------|
| 1    | Body        | 1  | Brass CW617N             |
| 2    | Washer      | 2  | Aluminium                |
| 3    | Cap         | 2  | Brass CW614N             |
| 4    | Pin         | 1  | Brass CW614N             |
| 5    | Plate       | 1  | Stainless steel AISI 304 |
| 6    | Washer      | 1  | Viton®                   |
| 7    | Cap         | 1  | Brass CW614N             |
| 8    | Spring      | 1  | Stainless steel AISI 302 |
| 9    | End adapter | 1  | Brass CW617N             |



# ROMA<sup>®</sup> CHECK VALVES

## INSTALLATION

The ROMA<sup>®</sup> check valves are uni-directional; that means they manage the flow in one direction only, which is indicated by the arrow on the body.

The valves are composed by a spring, a little valve and a couple of parts made of brass (body and end-adapter) which contain them and that are assembled but means of thread and a sealed material to obtain their aim.

In order to avoid that the sealed material gets broken and then the valve loses the connection between the body and the end-adapter, it's necessary to avoid to submit the two parts under the influence of a torque.

For the installation normal hydraulic practices must be used, and especially:

- for a proper installation of the valve, near curves and circulation pumps, the valve must be mounted at a distance equal to 10 times the diameter of the pipe.
- ones have to be sure that the two pipes are correctly aligned;
- during the assembling process the installer has to apply its assembling tools at the end that is nearest to the pipe;
- the application of the sealing materials by the fitter (PTFE or hempen cloth) must be limited at the thread zone. An excess should interfere in the ball gasket's closure zone, compromising the tightness;
- in case the fluid transported has got some impurities (dust, too hard water, and so on) it's necessary to remove impurities by or filter them, otherwise they could damage the seal.

## DISASSEMBLY

To remove the valve from the pipe line or anyhow before to unscrew the junctions linked to it:

- wear the protective clothing normally required to work with carried fluids;
- Depressurize the line;
- During the disassembling process, apply the key at the end of the valve, the one nearest the pipe.

## MAINTENANCE

Verify the valves periodically, in function of their application's field and in function of their work conditions, to be sure that the valves work correctly.

In case of losses of tightening, take note that these can be caused by a deposit of foreign bodies (dirty, calcareous) on the rubber seal.

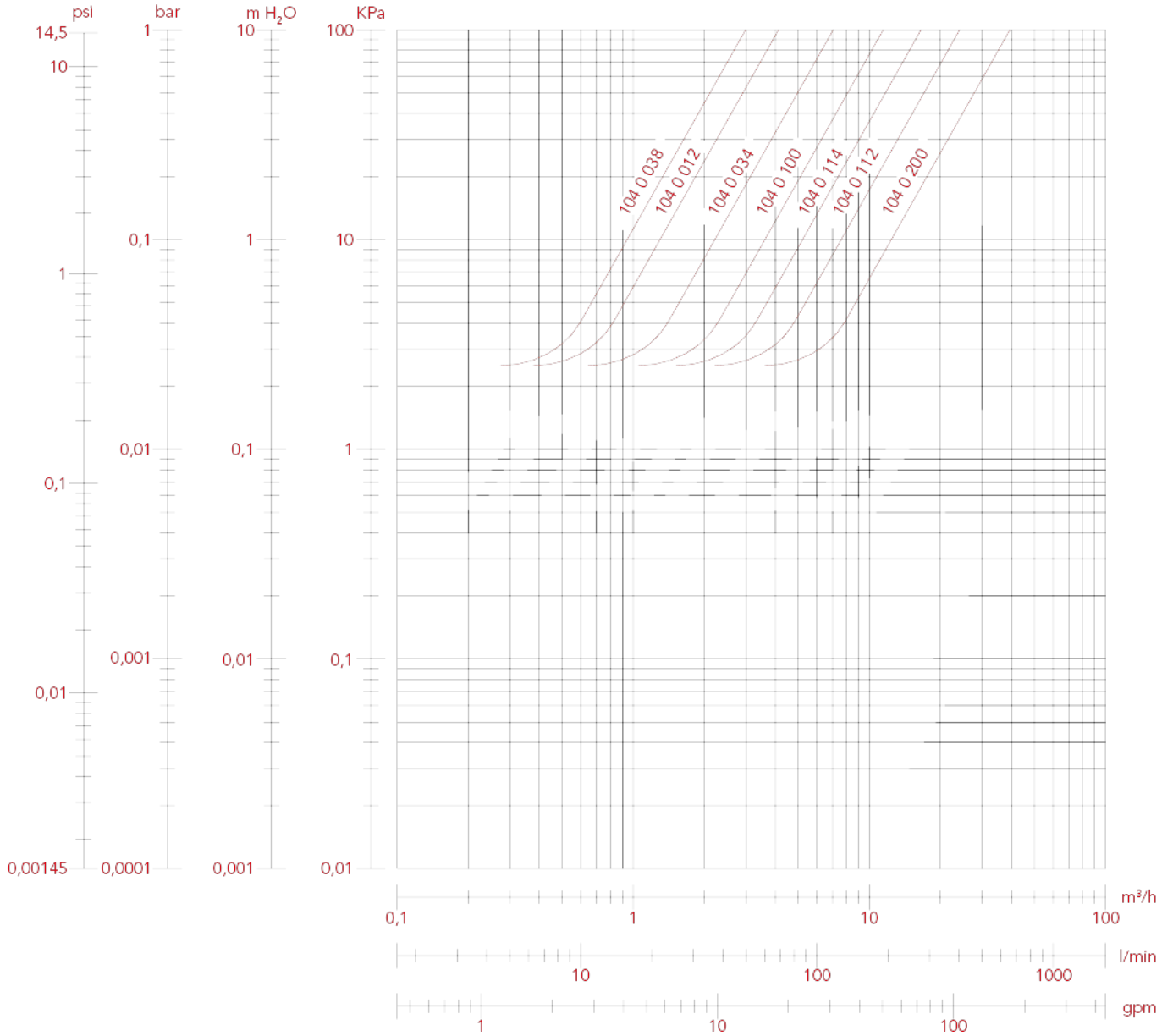
In order to solve this inconvenient, it's necessary to unmount the valve and remove the foreign body with compressed air tools.



# ROMA<sup>®</sup> CHECK VALVES

## LOSS DIAGRAM (With water)

|    | 3/8" | 1/2" | 3/4" | 1"    | 1"1/4" | 1"1/2" | 2"    |
|----|------|------|------|-------|--------|--------|-------|
| KV | 2,99 | 4,12 | 7,03 | 11,45 | 16,54  | 24,12  | 39,32 |

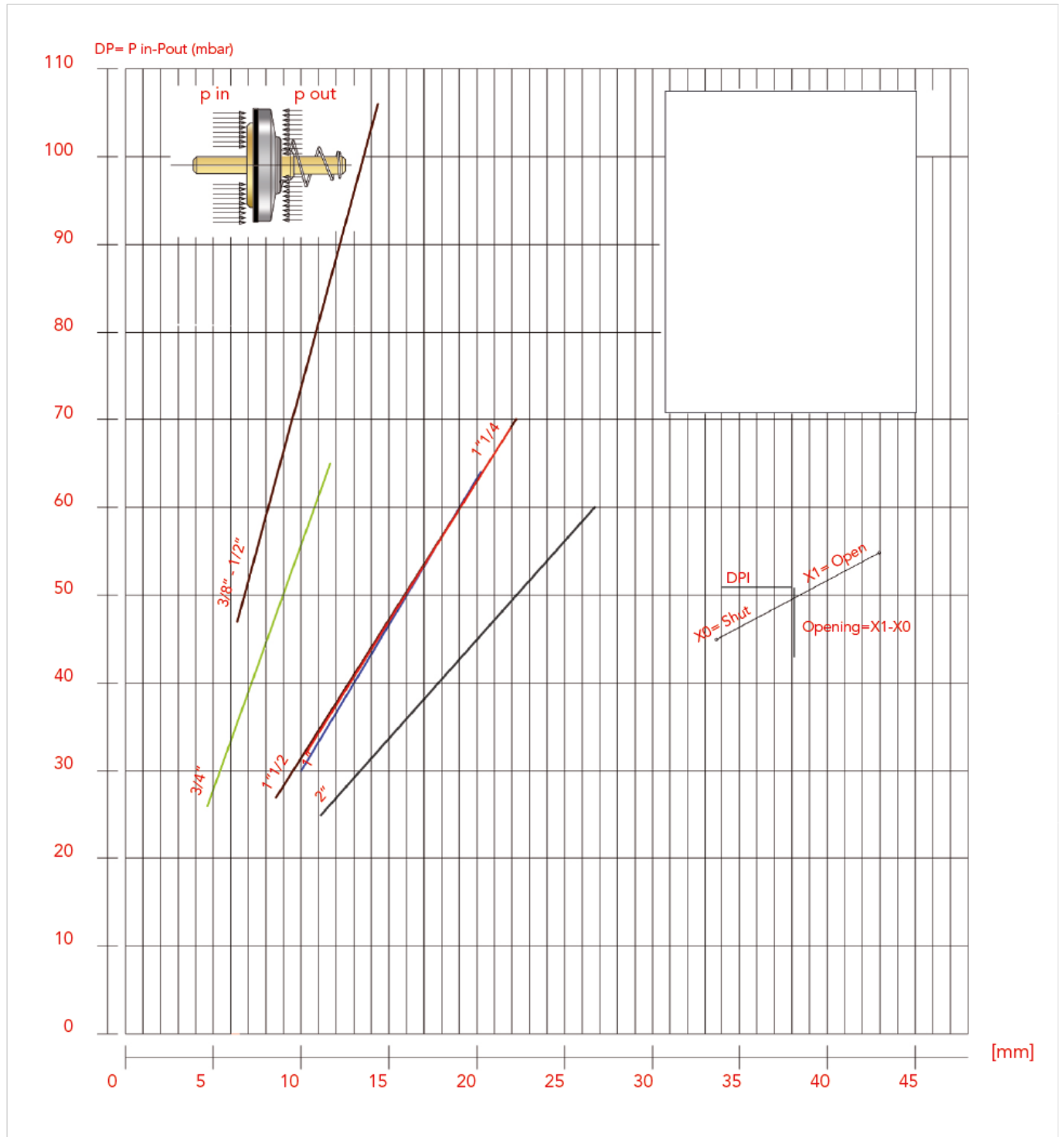




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## DIAGRAM OF THE MINIMUM PRESSURE NEEDED TO GET THE VALVES OPENING

The opening of the valve is given by the different pressure between the two sides of the seat.

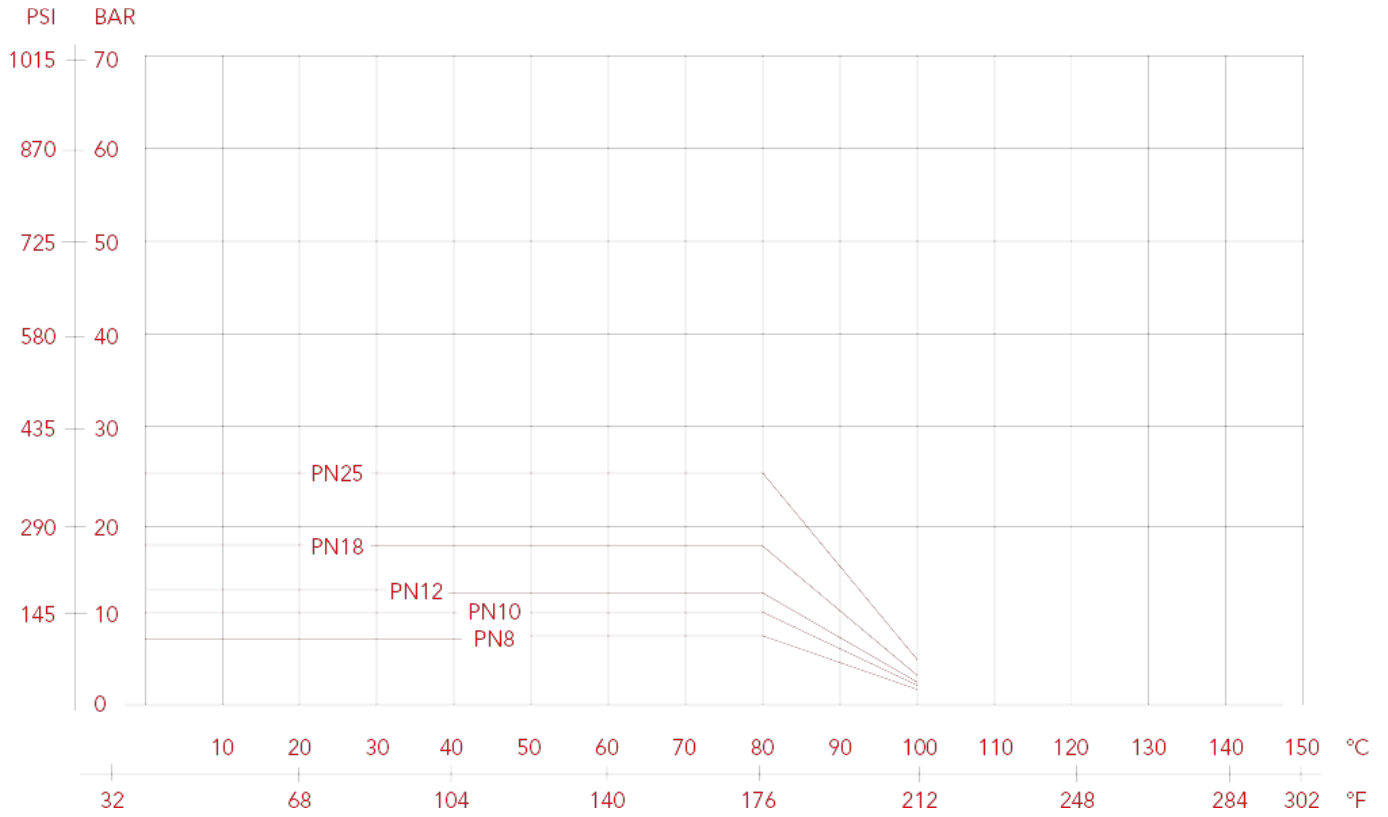




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## PRESSURE-TEMPERATURE DIAGRAM

The values shown by the dropping lines state the maximum limit of employment of the valves.  
The shown values are approximate.





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We reserve the right to make improvements and changes to the products described herein and to the relative technical data, at any time and without forewarning.

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