



Brochure Piston Valves

YAKACIK VALF has many years of experience regarding elastic sealing systems, and has designed their piston valves after long term research. Lots of piston valves were used and are still in use after many decades and all around the world. The main application areas are vapor, steam, water, heat transfer oils, high temperature hot water, thermal oil, chemical industry using corrosive fluids and food industry. YAKACIK came up with the idea of replacing the usual seat and plug with elastic sealing rings and cylindrical pistons in globe valves. The aim is to ensure customer satisfaction by manufacturing valves which meet all expectations based on international standards and legal regulations.

Application examples



Piston valves can be used to control the flow of almost any kind of fluid, and are especially suitable for steam . The following valve body materials are available: cast iron, ductile iron, cast steel or stainless steel, all of them with the appropriate sealing rings.



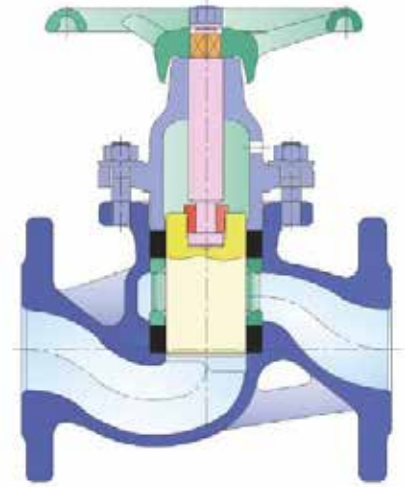


Piston Valves have two important components: the finely machined cylindrical piston in stainless steel and the elastic valve rings. Suitable ring materials are available for almost all types of fluids. The elastic upper and lower rings seal the piston with the required tightness. The seal is adjusted by tightening the bonnet nuts. The pressure is transmitted to the upper and lower ring through a lantern bushing. The axial thrust is converted to radial pressure by compressing the elastic rings. The compressed rings enable an outstanding leak tightness. The lower ring is leakproof across the ports, the upper ring is leakproof to the atmosphere. At fully open or fully closed position, there is no contact between the cylindrical piston surface and the fluid. This eliminates abrasion.

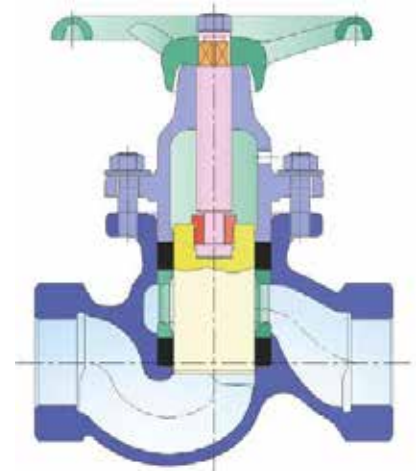
Advantages

- Asbestos free
- Energy efficient
- Maintenance free
- Exceptional tightness across the ports and to atmosphere
- Abrasionproof sealing surface
- Valve rings are replaceable in the pipeline
- Excellent control characteristics
- Fire safe is tested according to ISO 10497 / API 607
- TUV certified
- Suitable for oxygen line
- Economic, easy to service
- Compliant with German TA Luft and USA EPA

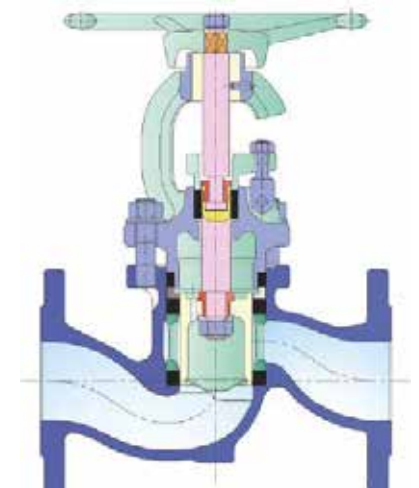
YVN DN15 ~ DN50



YVMN 1/4" ~ 2" YVSN 1/4" ~ 2"

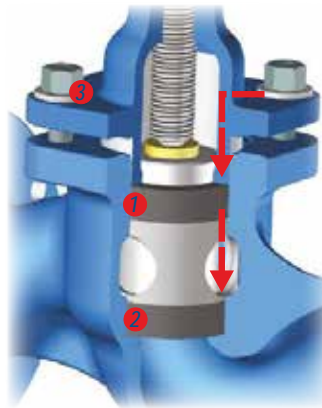


YVNB DN65 ~ DN200



Sealing system

- The sealing system in the piston valve consists of a stainless steel piston and a couple of special elastic rings which surround the piston tightly.
- The sealing surface is the side surface of the piston. The upper ring provides sealing to atmosphere, the lower ring provides tightness in the line.
- Leakproofing is done by tightening the bonnet to increase pressure on the upper ring. The pressure is transmitted from the upper ring to the lower ring via a lantern bushing. The elastic rings are compressed and expand radially, increasing pressure on the piston.
- The elastic rings are supported by the wall of the valve body, which surrounds the cylindrical piston surface. This provides an outstanding seal.



- 1) YX-GT upper ring
 - 2) YX-GT lower ring
 - 3) Belleville washer
- Layers of YX-GT rings press radially on the sealing surface of the piston.
 - Belleville washers compensate the pressure and temperature changes. This provides a permanent self-sealing.



The sealing system is unaffected by unexpected materials in the fluid. There is no corrosion on leak-proof surfaces

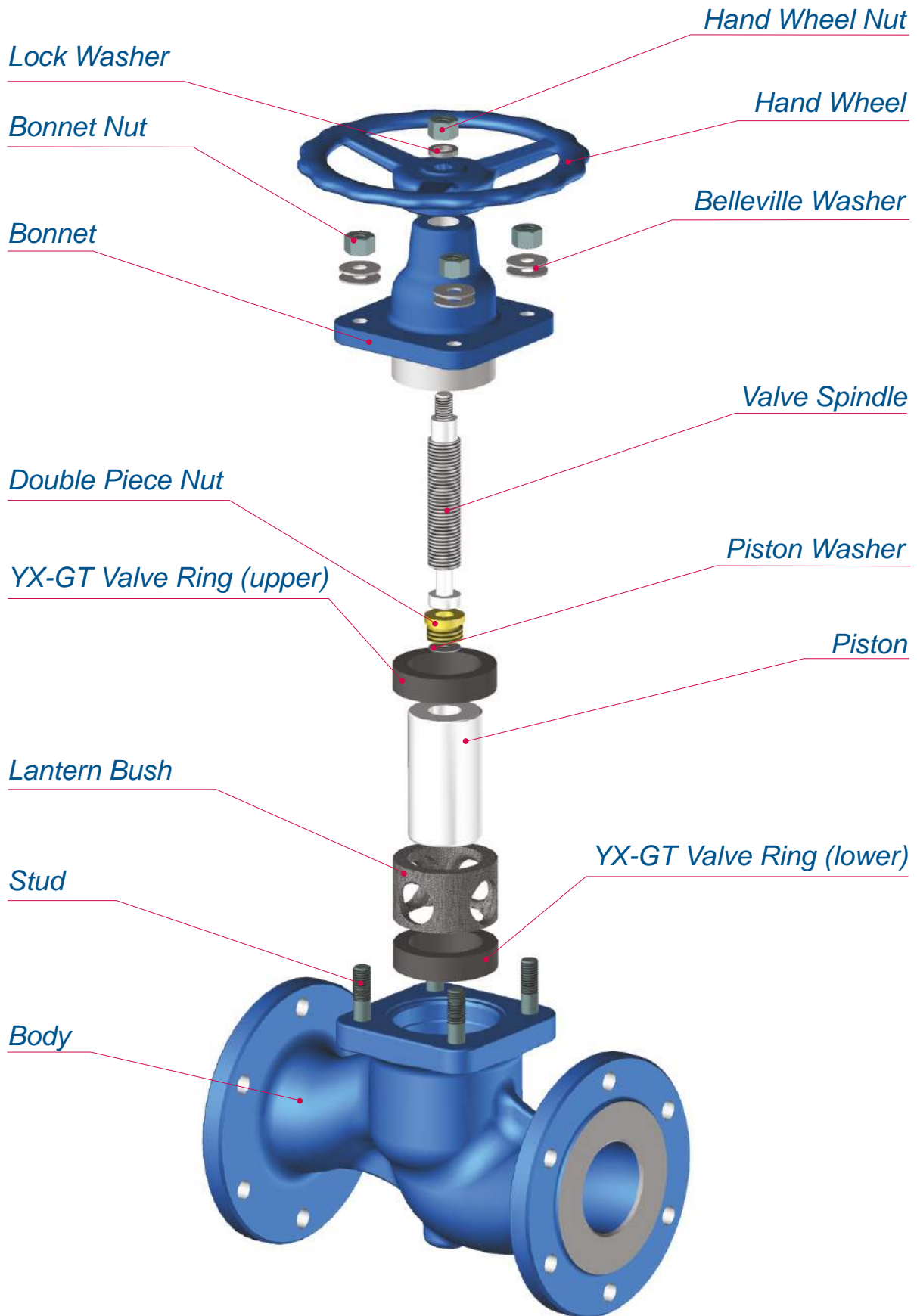
- There is no direct contact between the surface of the piston and the fluid. This eliminates the risk of corrosion risk of the sealing surfaces. Only the bottom of the piston is exposed to the fluid. This part does not influence the sealing performance.
- Unexpected materials in the medium do not harm the piston valve. When the valve is being closed and the piston pushes into the lower ring, it cleans of any particles of sand, welding globules and other impurities present in the fluid. The risk of damage being caused to the sealing system by abrasive matter in the fluid is a well-known problem with valve seats. This risk is eliminated with the piston valves. Fibrous and contaminated media can be reliably shut off without trouble.

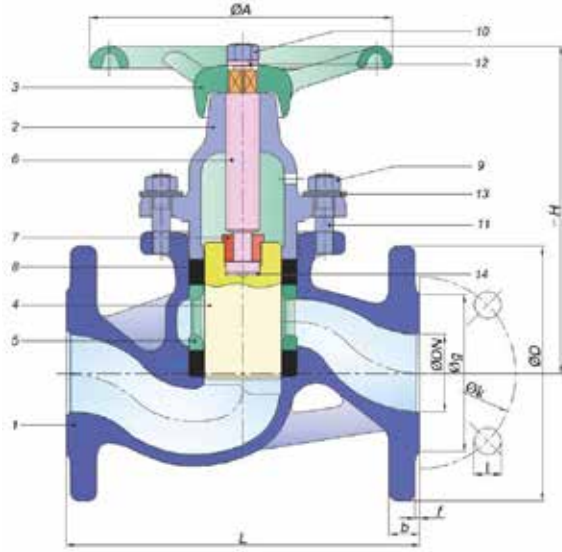
- The type YVN valves (DN15 to DN50) have the same sealing system. There is no stuffing box to complement the rings.
- The type YVNB balanced piston valves (DN65 to DN200) have a stuffing box to complement the ring. Easy operation is enabled thanks to pressure balance across the piston.
- Ring replacement is quick. There is no need for difficult mechanical processes like seat grinding etc. for piston valves. The valve is like new, simply by replacing the sealing rings. Since they are supported by stainless steel plate, the rings have a long service life.



Safe for the environment Saves energy

- Piston valves provide an outstanding leaktightness to both atmosphere and line. They also prevent environmental contamination. Toxic fluids remain in the piping system and can not diffuse into the atmosphere.
- Piston valves save energy by preventing leakage of steam and other power transfer fluids to the atmosphere.





Fluid types

All kinds of fluids, such as: water, hot water, high temperature hot water, steam, thermal oil, LPG, fuel oil, pressurized air, etc.

| Material Type | Cast Iron | Ductile Iron | Cast Steel | Stainless Steel |
|----------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Size | DN15-50 | DN15-50 | DN15-50 | DN15-50 |
| Pressure Class | PN16 | PN25 | PN40 | PN40 |
| Dimensions | DIN EN 558/1.serie | DIN EN 558/1.serie | DIN EN 558/1.serie | DIN EN 558/1.serie |
| Assembly | Flanged according to DIN EN 1092-2 | Flanged according to DIN EN 1092-2 | Flanged according to DIN EN 1092-1 | Flanged according to DIN EN 1092-1 |
| Temperature | -10°C +300 °C | -10°C +350 °C | -10°C * +400°C | -10°C * +400°C |
| Order Code | YVN-3 | On request | YVN-8 | On request |

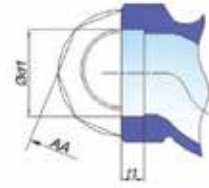
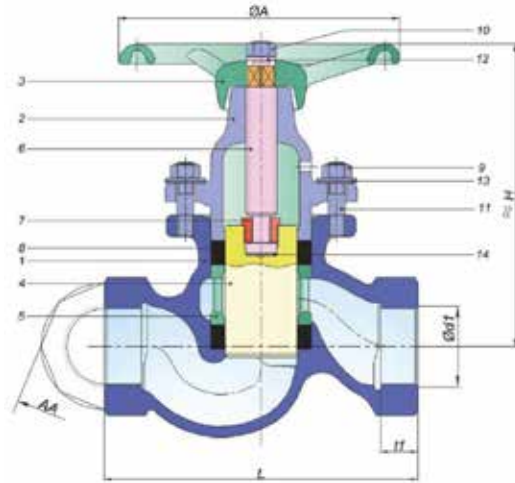
* For temperatures below -10°C, the bolting needs to be in stainless steel

| P.No | Part Name | Cast Iron | Ductile Iron | Cast Steel | Stainless Steel | Stainless Steel |
|------|-------------------|---------------------|---------------------|---------------------|-----------------|-----------------|
| 1 | Body | GJL 250 | 0.7040 | 1.0619 | 1.4308 | 1.4408 |
| 2 | Upper Bonnet | GJL 250 ** | 0.7040 ** | 1.0619 ** | 1.4308 | 1.4408 |
| 3 | Hand Wheel | GJL 200 | GJL 200 | GJL 200 | GJL 200 | GJL 200 |
| 4 | Piston | 1.4021 | 1.4021 | 1.4021 | 1.4301 | 1.4401 |
| 5 | Lantern Bush | GJL 200 + Phosphate | GJL 200 + Phosphate | GJL 200 + Phosphate | 1.4308*** | 1.4408*** |
| 6 | Valve Spindle | 1.4021/St-42 | 1.4021/St-42 | 1.4021/St-42 | 1.4301 | 1.4401 |
| 7 | Double Piece Nut | Ms-58 | Ms-58 | Ms-58 | 1.4301 | 1.4401 |
| 8 | Valve Ring | Graphite | Graphite | Graphite | Graphite | Graphite |
| 9 | Nut | 8.8 (galvanized) | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 10 | Nut | 8.8 (galvanized) | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 11 | Stud | 8.8 (galvanized) | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 12 | Lock Washer | 8.8 (galvanized) | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 13 | Belleville Washer | 50CrV4 | 50CrV4 | 50CrV4 | A2-70 | A2-70 |
| 14 | Piston Washer | Ms-58 | Ms-58 | Ms-58 | 1.4301 | 1.4301 |

** 1.440 for DN15 and DN20

*** Ck22 for DN15 and DN20

| DN | | Dimensions | | | Assembly size | | | | | | | | | | | | |
|----|--------|------------|-----|-----|---------------|-----|----------|-----|------|---|----|------|---|----|------|---|----|
| mm | inch | L | H | A | D | g | Hole Nr. | k | PN16 | | | PN25 | | | PN40 | | |
| | | | | | | | | | b | f | l | b | f | l | b | f | l |
| 15 | 1/2" | 130 | 105 | 100 | 95 | 45 | 4 | 65 | 14 | 2 | 14 | 16 | 2 | 14 | 16 | 2 | 14 |
| 20 | 3/4" | 150 | 120 | 120 | 105 | 58 | 4 | 75 | 16 | 2 | 14 | 18 | 2 | 14 | 18 | 2 | 14 |
| 25 | 1" | 160 | 138 | 140 | 115 | 68 | 4 | 85 | 16 | 2 | 14 | 18 | 3 | 14 | 18 | 2 | 14 |
| 32 | 1 1/4" | 180 | 154 | 160 | 140 | 78 | 4 | 100 | 18 | 2 | 19 | 18 | 3 | 19 | 18 | 2 | 18 |
| 40 | 1 1/2" | 200 | 186 | 180 | 150 | 88 | 4 | 110 | 18 | 3 | 19 | 18 | 3 | 19 | 18 | 2 | 18 |
| 50 | 2" | 230 | 211 | 200 | 165 | 102 | 4 | 125 | 20 | 3 | 19 | 20 | 3 | 19 | 20 | 2 | 18 |



Fluid types

All kinds of fluids, such as: water, hot water, high temperature hot water, steam, thermal oil, LPG, fuel oil, pressurized air, etc.

| Material Type | Cast Iron | Cast Steel | Stainless Steel |
|----------------|--|--|--|
| Size | DN1/4"-2" | DN1/4"-2" | DN1/4"-2" |
| Pressure Class | PN16 | PN40 DN 11/4"-2" / PN63 DN 1/4"-1" | PN40 DN 11/4"-2" / PN63 DN 1/4"-1" |
| Dimensions | DIN EN 3202-4/M9 (Except DN 1/4") | DIN EN 3202-4/M9 (Except DN 1/4") | DIN EN 3202-4/M9 (Except DN 1/4") |
| Assembly | Threaded according to DIN EN ISO 228-1 | Threaded according to DIN EN ISO 228-1 | Threaded according to DIN EN ISO 228-1 |
| Temperature | -10°C +300 °C | -10°C ** +400 °C | -10°C ** +400 °C |
| Order Code | YVMN-3 | YVMN-8 | On request |

* For temperatures below -10°C, the bolting needs to be in stainless steel

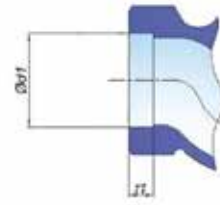
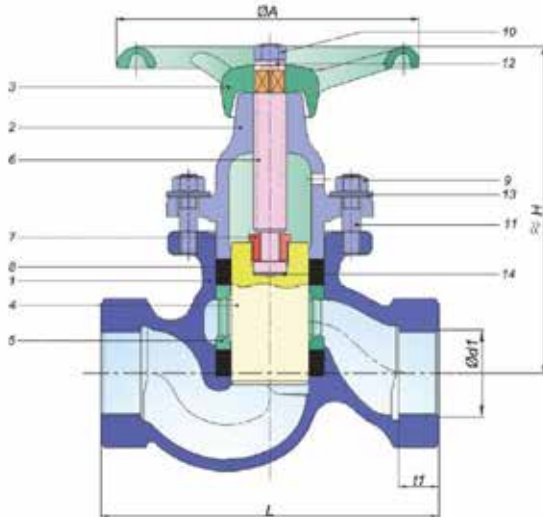
** NPT threaded version according to ANSI 2.1 1950 available on demand

| P.No | Part Name | Cast Iron | Cast Steel | Stainless Steel | Stainless Steel |
|------|-------------------|---------------------|---------------------|-----------------|-----------------|
| 1 | Body | GJL 250 | 1.0619 | 1.4308 | 1.4408 |
| 2 | Upper Bonnet | GJL 250 *** | 1.0619 *** | 1.4308 | 1.4408 |
| 3 | Hand Wheel | GJL 200 | GJL 200 | GJL 200 | GJL 200 |
| 4 | Piston | 1.4021 | 1.4021 | 1.4301 | 1.4401 |
| 5 | Lantern Bush | GJL 200 + Phosphate | GJL 200 + Phosphate | 1.4308**** | 1.4408**** |
| 6 | Valve Spindle | 1.4021/St-42 | 1.4021/St-42 | 1.4301 | 1.4401 |
| 7 | Double Piece Nut | Ms-58 | Ms-58 | 1.4301 | 1.4401 |
| 8 | Valve Ring | Graphite | Graphite | Graphite | Graphite |
| 9 | Nut | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 10 | Nut | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 11 | Stud | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 12 | Lock Washer | 8.8 (galvanized) | 8.8 (galvanized) | A2-70 | A2-70 |
| 13 | Belleville Washer | 50CrV4 | 50CrV4 | A2-70 | A2-70 |
| 14 | Piston Washer | Ms-58 | Ms-58 | 1.4301 | 1.4301 |

*** 1.440 for DN15 and DN20

**** Ck22 for DN15 and DN20

| DN | | Dimensions | | | Assembly | | |
|----|--------|------------|-----|-----|----------|------|----|
| mm | inch | L | H | A | d1 | t1 | AA |
| 6 | 1/4" | 85 | 105 | 100 | R 1/4" | 10.5 | 32 |
| 10 | 3/8" | 85 | 105 | 100 | R 3/8" | 12.5 | 32 |
| 15 | 1/2" | 100 | 105 | 100 | R 1/2" | 15.5 | 36 |
| 20 | 3/4" | 120 | 120 | 120 | R 3/4" | 16 | 41 |
| 25 | 1" | 135 | 138 | 140 | R 1" | 19 | 50 |
| 32 | 1 1/4" | 160 | 154 | 160 | R 1 1/4" | 21 | 65 |
| 40 | 1 1/2" | 185 | 186 | 180 | R 1 1/2" | 21 | 75 |
| 50 | 2" | 220 | 211 | 200 | R 2" | 26 | 90 |



Fluid types

All kinds of fluids, such as: water, hot water, high temperature hot water, steam, thermal oil, LPG, fuel oil, pressurized air, etc.

| Material Type | Cast Steel | Stainless Steel |
|----------------|-------------------------------------|-------------------------------------|
| Size | DN1/4"-2" | DN1/4"-2" |
| Pressure Class | PN40 DN 11/4"-2" / PN63 DN 1/4"-1" | PN40 DN 11/4"-2" / PN63 DN 1/4"-1" |
| Dimensions | DIN EN 3202-4/M9 (Except DN 1/4") | DIN EN 3202-4/M9 (Except DN 1/4") |
| Assembly | Socketed according to DIN EN 12760* | Socketed according to DIN EN 12760* |
| Temperature | -10°C ** +400 °C | -10°C ** +400 °C |
| Order Code | YVSN-8 | On request |

* For temperatures below -10°C, the bolting needs to be in stainless steel

| P.No | Cast Steel | Stainless Steel | Stainless Steel |
|------|---------------------|-----------------|-----------------|
| 1 | 1.0619 | 1.4308 | 1.4408 |
| 2 | 1.0619 *** | 1.4308 | 1.4408 |
| 3 | GJL 200 | GJL 200 | GJL 200 |
| 4 | 1.4021 | 1.4301 | 1.4401 |
| 5 | GJL 200 + Phosphate | 1.4308**** | 1.4408**** |
| 6 | 1.4021/St-42 | 1.4301 | 1.4401 |
| 7 | Ms-58 | 1.4301 | 1.4401 |
| 8 | Graphite | Graphite | Graphite |
| 9 | 8.8 (galvanized) | A2-70 | A2-70 |
| 10 | 8.8 (galvanized) | A2-70 | A2-70 |
| 11 | 8.8 (galvanized) | A2-70 | A2-70 |
| 12 | 8.8 (galvanized) | A2-70 | A2-70 |
| 13 | 50CrV4 | A2-70 | A2-70 |
| 14 | Ms-58 | 1.4301 | 1.4301 |

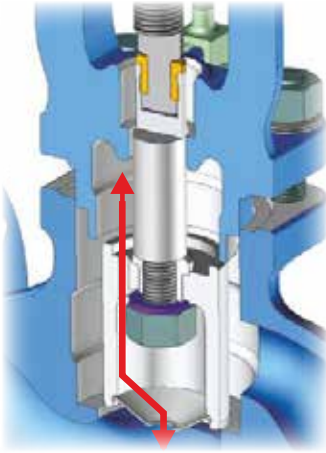
*** 1.440 for DN15 and DN20

**** Ck22 for DN15 and DN20

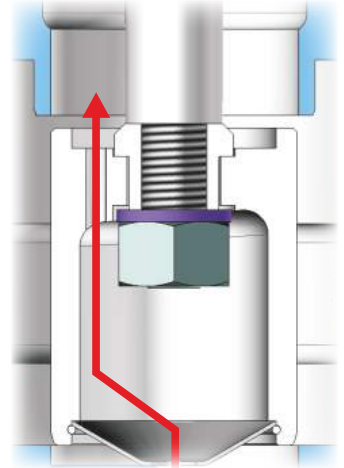
| DN | Dimensions | | | Assembly | |
|----|------------|-----|-----|----------|----|
| | L | H | A | d1 | t1 |
| 6 | 85 | 105 | 100 | 14.2 | 10 |
| 10 | 85 | 105 | 100 | 17.6 | 10 |
| 15 | 100 | 105 | 100 | 22 | 10 |
| 20 | 120 | 120 | 120 | 27.5 | 13 |
| 25 | 135 | 138 | 140 | 34.5 | 13 |
| 32 | 160 | 154 | 160 | 43 | 13 |
| 40 | 185 | 186 | 180 | 49 | 13 |
| 50 | 220 | 211 | 200 | 61.5 | 16 |



Easy to operate



For balanced piston valves, both top and bottom surfaces of the piston are in contact with fluid. This means that the pressure force is balanced to some extent on the piston. No counter pressure is exerted during release or shut off operation. Only the friction force contributes to release or shut off effort.



Sealing system



1) Spindle sealing

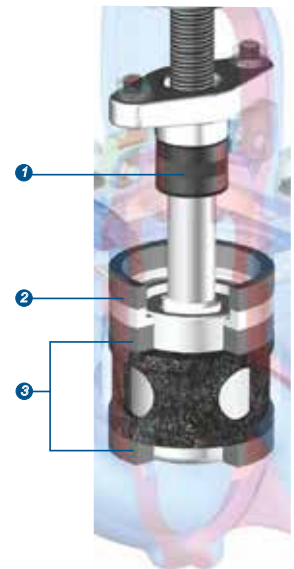
The sealing between spindle and atmosphere is ensured by a stuffing box composed of 3 YX-GT rings.

2) Body Sealing

The sealing between body and atmosphere is ensured by 1 YX-GT ring between body and bonnet.

3) Inner sealing

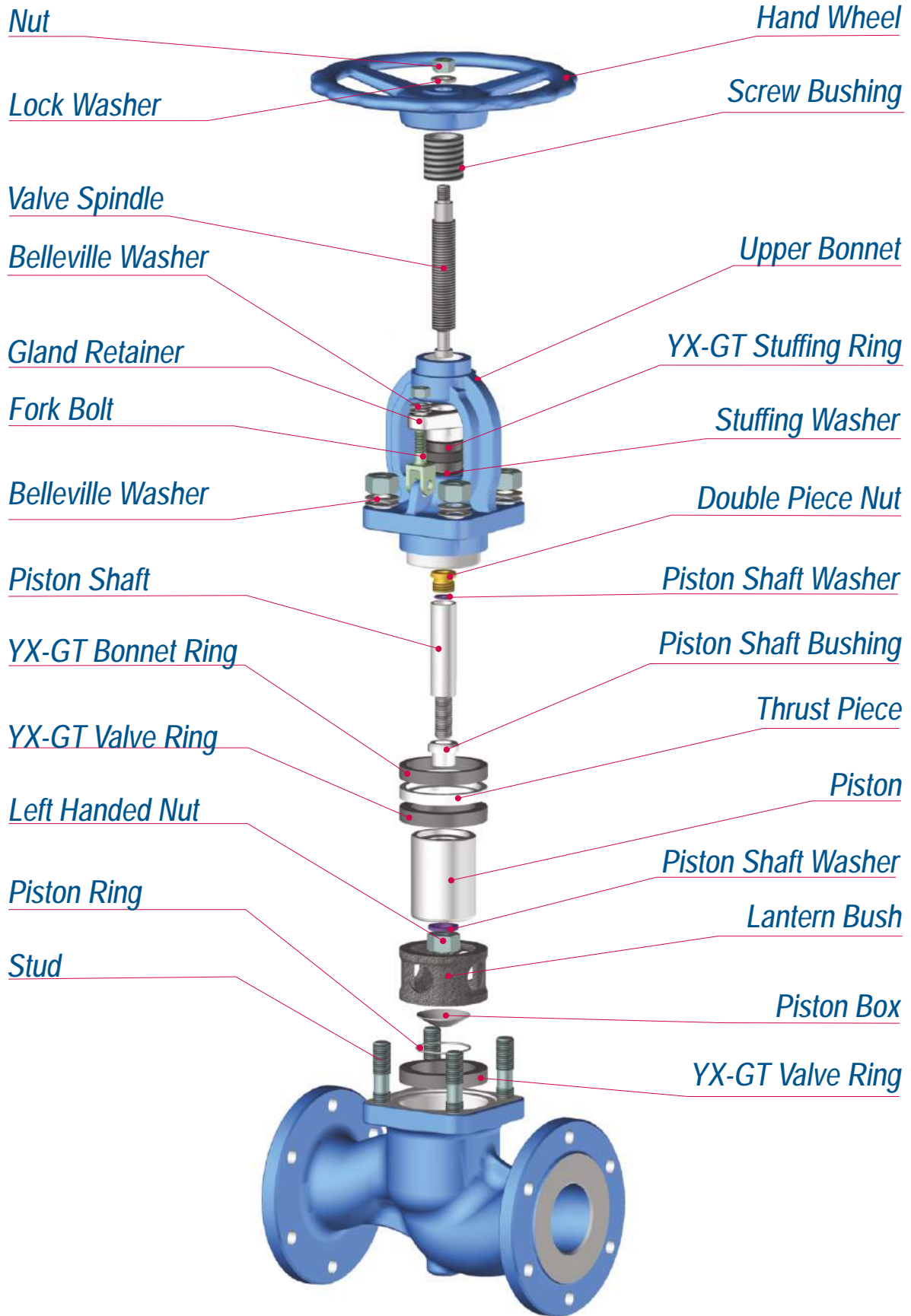
The inner sealing is ensured by 2 specially manufactured elastic YX-GT rings surrounding the piston.

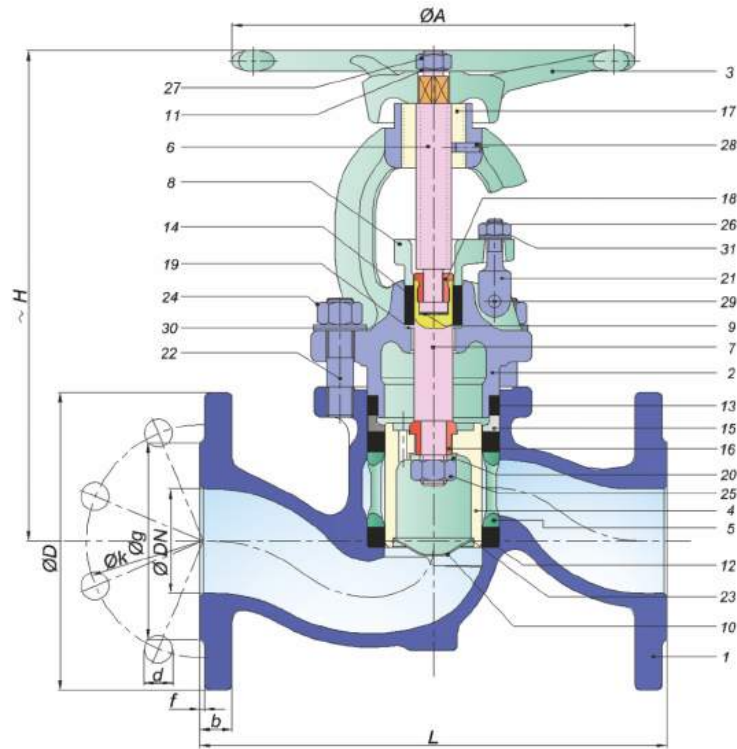


Maintenance free



High temperature resistant Belleville washers (located on the bonnet and under the stuffing box nuts) create a constant pressure on the rings. This compensates pressure and temperature variations and avoids loosening due to abrasion. An outstanding maintenance free sealing is achieved for a long service life.





| Material Type | Cast Iron | Ductile Iron | Cast Steel | Stainless Steel |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Size | DN65-200 | DN65-200 | DN65-200 | DN65-200 |
| Pressure Class | PN16 | PN25 | PN40 | PN40 |
| Dimensions | DIN EN 558/1.serie | DIN EN 558/1.serie | DIN EN 558/1.serie | DIN EN 558/1.serie |
| Assembly | Flanged DIN EN 1092-2 | Flanged DIN EN 1092-2 | Flanged DIN EN 1092-1 | Flanged DIN EN 1092-1 |
| Temperature | -10°C +300 °C | -10°C +350 °C | -10°C* +400°C | -10°C* +400°C |
| Order Code | YVNB-3 | On request | YVNB-8 | On request |

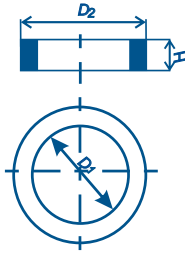
* For temperatures below -10°C, the bolting needs to be in stainless steel

| DN | | Dimensions | | | Assembly size | | | | | | | | | | | | | | | | | | | | |
|-----|--------|------------|-----|-----|---------------|----|-----|----------|----|-----|---|------|----|-----|----------|----|-----|------|-----|----|-----|----------|----|-----|---|
| mm | inch | L | H | A | PN16 | | | | | | | PN25 | | | | | | PN40 | | | | | | | |
| | | | | | D | b | g | Hole Nr. | d | k | f | D | b | g | Hole Nr. | d | k | f | D | b | g | Hole Nr. | d | k | f |
| 65 | 2 1/2" | 290 | 306 | 250 | 185 | 20 | 122 | 4 | 19 | 145 | 3 | 185 | 20 | 118 | 8 | 19 | 145 | 3 | 185 | 22 | 122 | 8 | 18 | 145 | 2 |
| 80 | 3" | 310 | 327 | 250 | 200 | 22 | 138 | 8 | 19 | 160 | 3 | 200 | 22 | 132 | 8 | 19 | 160 | 3 | 200 | 24 | 138 | 8 | 18 | 160 | 2 |
| 100 | 4" | 350 | 374 | 280 | 220 | 24 | 158 | 8 | 19 | 180 | 3 | 235 | 24 | 156 | 8 | 23 | 190 | 3 | 235 | 24 | 162 | 8 | 22 | 190 | 2 |
| 125 | 5" | 400 | 447 | 320 | 250 | 26 | 188 | 8 | 19 | 210 | 3 | 270 | 26 | 184 | 8 | 28 | 220 | 3 | 270 | 26 | 188 | 8 | 26 | 220 | 2 |
| 150 | 6" | 480 | 477 | 360 | 285 | 26 | 212 | 8 | 23 | 240 | 3 | 300 | 26 | 211 | 8 | 28 | 250 | 3 | 300 | 28 | 218 | 8 | 26 | 250 | 2 |
| 200 | 8" | 600 | 561 | 400 | 340 | 30 | 268 | 12 | 23 | 295 | 3 | 360 | 30 | 274 | 12 | 28 | 310 | 3 | 375 | 34 | 285 | 12 | 30 | 320 | 2 |



Materials

| P.No | Part Name | Cast Iron | Ductile Iron | Cast Steel | St. Steel | St. Steel |
|------|-----------------------------------|--------------------|--------------------|--------------------|-----------|-----------|
| 1 | Body | GJL 250 | 0.7040 | 1.0619 | 1.4308 | 1.4408 |
| 2 | Upper Bonnet | GJL 250 | 0.7040 | 1.0619 | 1.4308 | 1.4408 |
| 3 | Hand Wheel | GJL 250 | GJL 250 | GJL 250 | GJL 250 | GJL 250 |
| 4 | Piston | 1.4086 | 1.4086 | 1.4086 | 1.4308 | 1.4408 |
| 5 | Lantern Bush | GJL200 + Phosphate | GJL200 + Phosphate | GJL200 + Phosphate | 1.4308 | 1.4408 |
| 6 | Valve Spindle | St-42 | St-42 | St-42 | 1.4301 | 1.4401 |
| 7 | Piston Shaft | 1.4021 | 1.4021 | 1.4021 | 1.4301 | 1.4401 |
| 8 | Gland Retainer | 0.7040 | 0.7040 | 0.7040 | 1.4308 | 1.4408 |
| 9 | Piston Shaft Washer | 1.4301 | 1.4301 | 1.4301 | 1.4301 | 1.4301 |
| 10 | Piston Box | 1.4301 | 1.4301 | 1.4301 | 1.4301 | 1.4401 |
| 11 | Lock Washer | 55Si7 | 55Si7 | 55Si7 | A2-70 | A2-70 |
| 12 | Valve Ring | Graphite | Graphite | Graphite | Graphite | Graphite |
| 13 | Bonnet Ring | Graphite | Graphite | Graphite | Graphite | Graphite |
| 14 | Stuffing Ring | Graphite | Graphite | Graphite | Graphite | Graphite |
| 15 | Thrust Piece | GJL200 + Phosphate | GJL200 + Phosphate | GJL200 + Phosphate | 1.4308 | 1.4408 |
| 16 | Piston Shaft Bushing | 1.4021 | 1.4021 | 1.4021 | 1.4301 | 1.4401 |
| 17 | Screw Bushing | Ms-58 | Ms-58 | Ms-58 | Ms-58 | Ms-58 |
| 18 | Double Piece Nut | Ms-58 | Ms-58 | Ms-58 | 1.4301 | 1.4301 |
| 19 | Stuffing Washer | St-37+Gal. | St-37+Gal. | St-37+Gal. | 1.4301 | 1.4401 |
| 20 | Piston Washer | Ms-58 | Ms-58 | Ms-58 | 1.4301 | 1.4401 |
| 21 | Fork Bolt | St-42 | St-42 | St-42 | 1.4301 | 1.4401 |
| 22 | Stud | 8.8+Gal. | 8.8+Gal. | 8.8+Gal. | A2-70 | A2-70 |
| 23 | Piston Ring | 1.4301 | 1.4301 | 1.4301 | 1.4301 | 1.4301 |
| 24 | Nut | 8.8+Gal. | 8.8+Gal. | 8.8+Gal. | A2-70 | A2-70 |
| 25 | Left Hand Nut | A2-70 | A2-70 | A2-70 | A2-70 | A2-70 |
| 26 | Nut M10 | 8.8+Gal. | 8.8+Gal. | 8.8+Gal. | A2-70 | A2-70 |
| 27 | Nut | 8.8+Gal. | 8.8+Gal. | 8.8+Gal. | A2-70 | A2-70 |
| 28 | Pin 6x15 | St-42+Gal. | St-42+Gal. | St-42+Gal. | A2-70 | A2-70 |
| 29 | Sloted pin 8x22 | 8.8 | 8.8 | 8.8 | 1.4301 | 1.4301 |
| 30 | Belleville Washer | 50CrV4 | 50CrV4 | 50CrV4 | A2-70 | A2-70 |
| 31 | Belleville Washer (20/10.2x11) | 50CrV4 | 50CrV4 | 50CrV4 | A2-70 | A2-70 |



Dimensions piston valve ring

| Model | Used Areas | D2 (Outer Diameter) | D1 (Inner Diameter) | H (Height) |
|------------------------------------|-----------------------|---------------------|---------------------|------------|
| YVN YX-GT 15 YVMN / YVSN 1/2" | Sealing Ring (2 pcs.) | 23.5 | 15 | 8 |
| YVN YX-GT 20 YVMN / YVSN 3/4" | Sealing Ring (2 pcs.) | 30 | 20 | 9.3 |
| YVN YX-GT 25 YVMN / YVSN 1" | Sealing Ring (2 pcs.) | 38 | 25 | 10.6 |
| YVN YX-GT 32 YVMN / YVSN 1 1/4" | Sealing Ring (2 pcs.) | 45 | 30 | 14.6 |
| YVN YX-GT 40 YVMN / YVSN 1 1/2" | Sealing Ring (2 pcs.) | 58 | 40 | 14.6 |
| YVN YX-GT 50 YVMN / YVSN 2" | Sealing Ring (2 pcs.) | 70 | 50 | 16 |

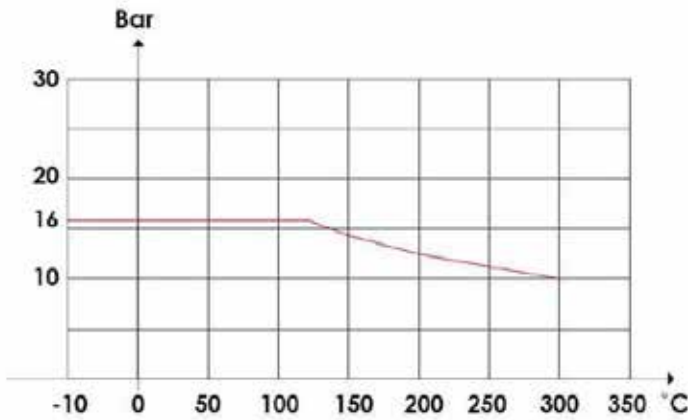
Dimensions balanced piston valve ring

| Model | Used Areas | D2 (Outer Diameter) | D1 (Inner Diameter) | H (Height) |
|----------------|----------------------------|---------------------|---------------------|------------|
| YVNB YX-GT 65 | Bonnet Ring (1 pc.) | 82 | 69 | 10 |
| | Sealing Ring (2 pcs.) | 82 | 60 | 13.3 |
| | Stuffing Box Ring (3 pcs.) | 36 | 24 | 8 |
| YVNB YX-GT 80 | Bonnet Ring (1 pc.) | 94 | 80 | 10 |
| | Sealing Ring (2 pcs.) | 94 | 70 | 14.6 |
| | Stuffing Box Ring (3 pcs.) | 36 | 24 | 8 |
| YVNB YX-GT 100 | Bonnet Ring (1 pc.) | 112 | 100 | 11 |
| | Sealing Ring (2 pcs.) | 112 | 90 | 14.6 |
| | Stuffing Box Ring (3 pcs.) | 46 | 30 | 10 |
| YVNB YX-GT 125 | Bonnet Ring (1 pc.) | 135 | 121 | 13 |
| | Sealing Ring (2 pcs.) | 135 | 110 | 16 |
| | Stuffing Box Ring (3 pcs.) | 46 | 30 | 10 |
| YVNB YX-GT 150 | Bonnet Ring (1 pc.) | 155 | 141 | 13 |
| | Sealing Ring (2 pcs.) | 155 | 130 | 17.3 |
| | Stuffing Box Ring (3 pcs.) | 46 | 30 | 10 |
| YVNB YX-GT 200 | Bonnet Ring (1 pc.) | 200 | 184 | 15 |
| | Sealing Ring (2 pcs.) | 200 | 170 | 18.6 |
| | Stuffing Box Ring (3 pcs.) | 46 | 30 | 10 |

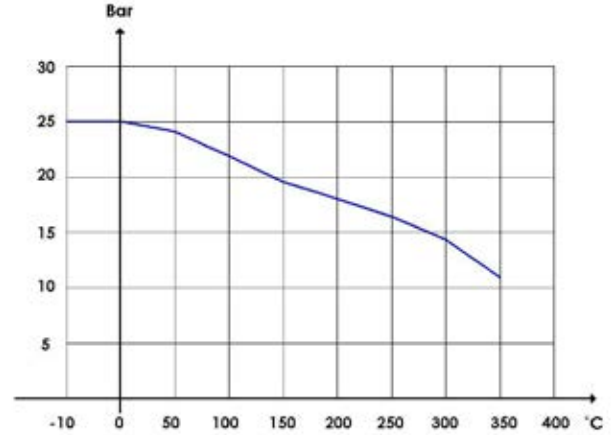
Valve body material and color

| Material code | Body | Bonnet | Colour of body |
|---------------|-----------------|-----------------|-------------------|
| II | cast iron | cast iron | grey |
| III | ductile iron | ductile iron | green |
| VII | cast steel | cast steel | blue |
| Xb | stainless steel | stainless steel | polished, pickled |

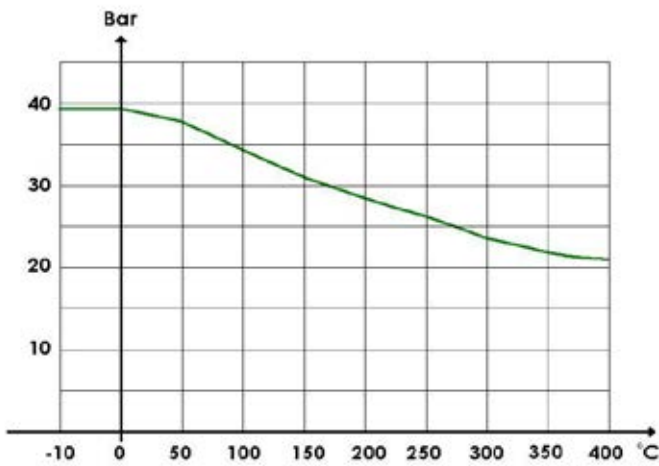
P/T Type YVN3 / YVNB2 PN16 (GJL-250)



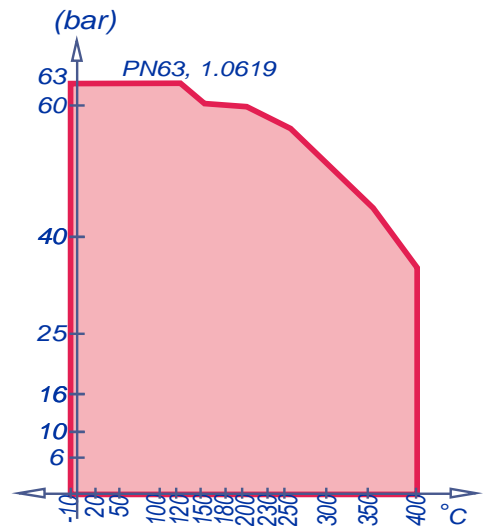
P/T Type YVN6 / YVNB6 PN25 (0.7040)



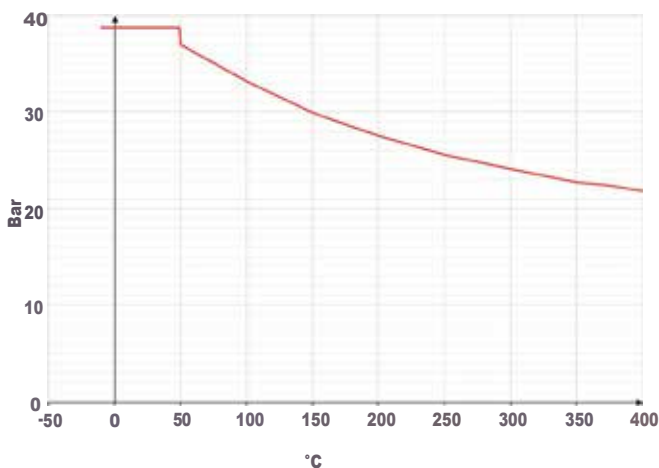
P/T Type YVN8 / YVNB8 / YVMN8 (1.1/4" ~ 2") PN40 (1.0619)



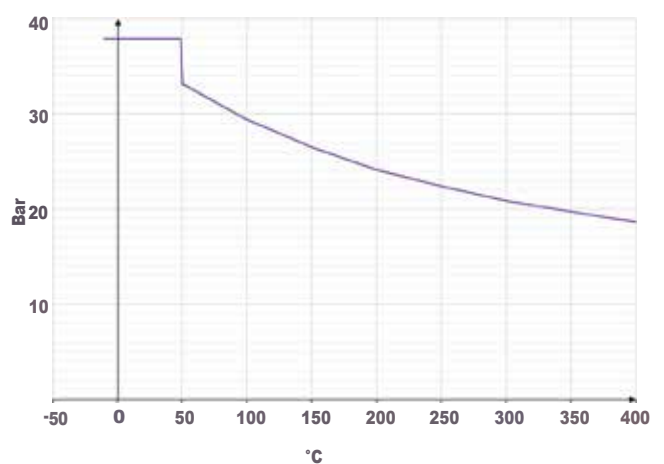
P/T Type YVMN8 (1/2" ~ 1") PN63 (1.0619)



P/T Type YVN9 / YVNB9 PN40 (CF8M / 1.4408)

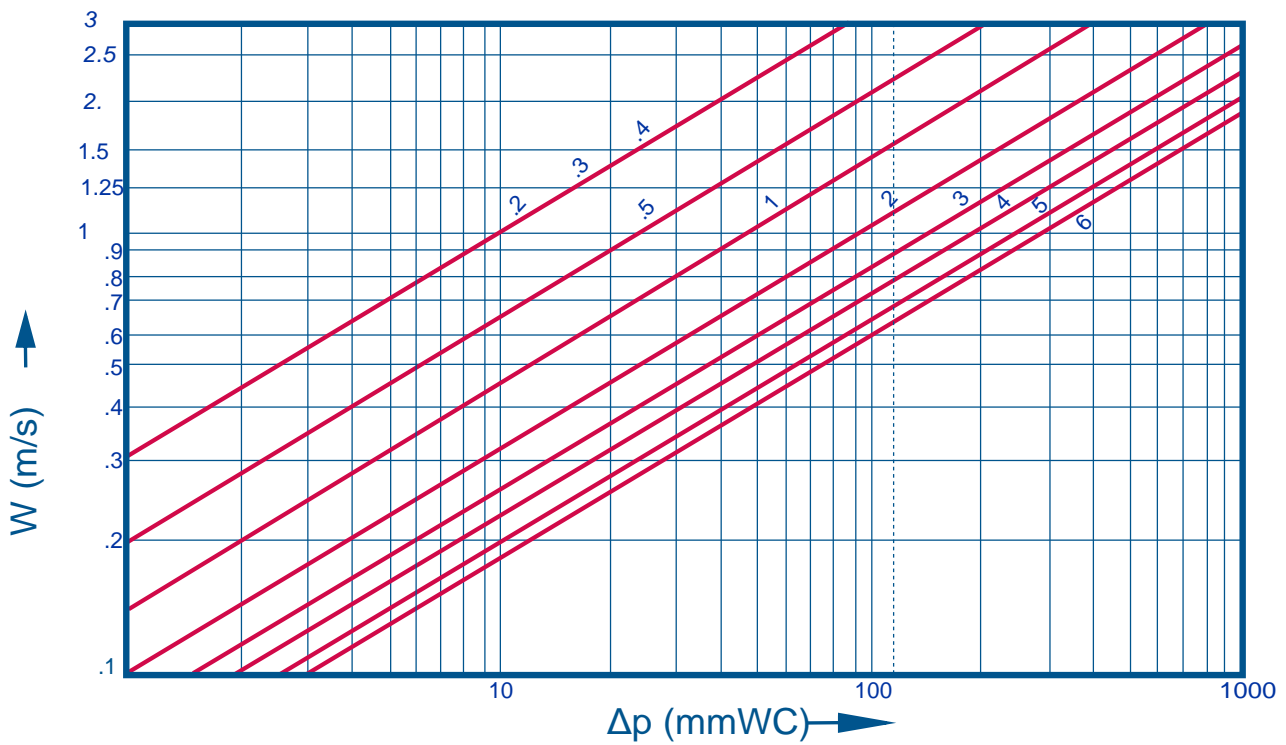


P/T Type YVN10 PN40 (CF8 / 1.4308)





Pressure drop



Kv values

| DN | ξ | Kv |
|-----|-------|------|
| 15 | 4 | 4.5 |
| 20 | 4 | 8 |
| 25 | 4 | 12.5 |
| 32 | 4 | 20.5 |
| 40 | 4 | 32 |
| 50 | 4 | 50 |
| 65 | 6 | 69 |
| 80 | 6 | 104 |
| 100 | 6 | 163 |
| 125 | 7.2 | 233 |
| 150 | 7.2 | 335 |
| 200 | 7.5 | 582 |



In September 2013, our YVN and YVNB series cast steel piston valves have been fire tested according to API 6FA:2008 and ISO 10497:2010 standards, with the guidance of notified body, TÜV SÜD. Our valves have passed these tests with extremely good results and have been approved as "fire safe" valves.

СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFICATE / SERTİFİKA Industrie Service

Fire test on PN 40 (30 #) and DN 50 (2") PISTON Valve
PN 40 (300 #), DN 50 (2") PİSTONLU Vana Yangın Testi



| | |
|--|--|
| User* Kullanıcı* | : General / Genel |
| Project No.* Proje No* | : 13-B-00286/01 |
| Manufacturer İmalatçı | : YAKACIK VALF SAN. ve TIC. A.Ş. Cumhuriyet mah. Abdi İpekçi Cad. No:2 34876 Yakacık / Kartal / İstanbul / TÜRKİYE |
| Manufact. project no. İmalatçı Proje no | : OE.21082013-1 |
| Manufacturer year İmalat Yılı | : 2013 |
| Drawings No. Resim No. | : In the related YAKACIK drawing No: YPG.7F.50.00 YAKACIK ilgili Resim No.: YPG.7F.50.00 |
| Max working pres. Max. Çalışma Basıncı | : 40 Bar (PN 40 (300 #)) |
| Related test standart Test Standardı | : API 6FA:2008 and ISO 10497:2010 |

Valve which has properties PN 40 (300 #) and DN 50 (2') PISTON Valve has been Fire tested According to related standarts API 6FA and ISO 10497 under observation of TÜV SÜD. Inspector in the YAKACIK Factory for general using purpose. After the satisfactory results related Fire Test report of valve has been approved by TÜV Inspector. TÜV SÜD. inspector prepared and approved this certificate Due to Client request.

СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFICATE / SERTİFİKA Industrie Service

Fire test on PN 40 (30 #) and DN 100 (4") PISTON Valve
PN 40 (300 #), DN 100 (2") PİSTONLU Vana Yangın Testi



| | |
|--|--|
| User* Kullanıcı* | : General / Genel |
| Project No.* Proje No* | : 13-B-00286/02 |
| Manufacturer İmalatçı | : YAKACIK VALF SAN. ve TIC. A.Ş. Cumhuriyet mah. Abdi İpekçi Cad. No:2 34876 Yakacık / Kartal / İstanbul / TÜRKİYE |
| Manufact. project no. İmalatçı Proje no | : OE.21082013-2 |
| Manufacturer year İmalat Yılı | : 2013 |
| Drawings No. Resim No. | : In the related YAKACIK drawing No: YPG.7F.81.00 YAKACIK ilgili Resim No.: YPG.7F.81.00 |
| Max working pres. Max. Çalışma Basıncı | : 40 Bar (PN 40 (300 #)) |
| Related test standart Test Standardı | : API 6FA:2008 and ISO 10497:2010 |

Valve which has properties PN 40 (300 #) and DN 100 (4') PISTON Valve has been Fire tested According to related standarts API 6FA and ISO 10497 under observation of TÜV SÜD. Inspector in the YAKACIK Factory for general using purpose. After the satisfactory results related Fire Test report of valve has been approved by TÜV Inspector. TÜV SÜD. inspector prepared and approved this certificate Due to Client request.





It is important that you clearly specify the parameters stated in the check list below to choose the suitable valve. If things are unclear or if you have any further questions, please do not hesitate to contact us.

Check list

- 1) Valve Type
- 2) Quantity
- 3) Valve Size
- 4) Max. Operating Pressure
- 5) Max. and Min. Operating Temperatures
- 6) Connection Type (Flanged, Screwed, SW or BW)
- 7) Fluid
(Water, hot water, air, gas, steam, LPG, oil, thermal oil, acid, base, ... + concentration and other specifications)
- 8) Actuation Type
- 9) Application purpose
(Fully open or fully closed, throttling element, ...)
- 10) Special requests (Material, control, etc.)



Available certificates



ISO 9001-2008
Quality management system



AD 2000 - W 0
Manufacturing quality



CE 2354
PED 97/23 EC / III Module H



FIRE SAFE
Ball valves - cast steel



FIRE SAFE
Piston valves - cast steel



TPED 99 36
Transportable PED



GOST
All products

Also available



Level gauges



Boiler blowdown valves



Ball valves

