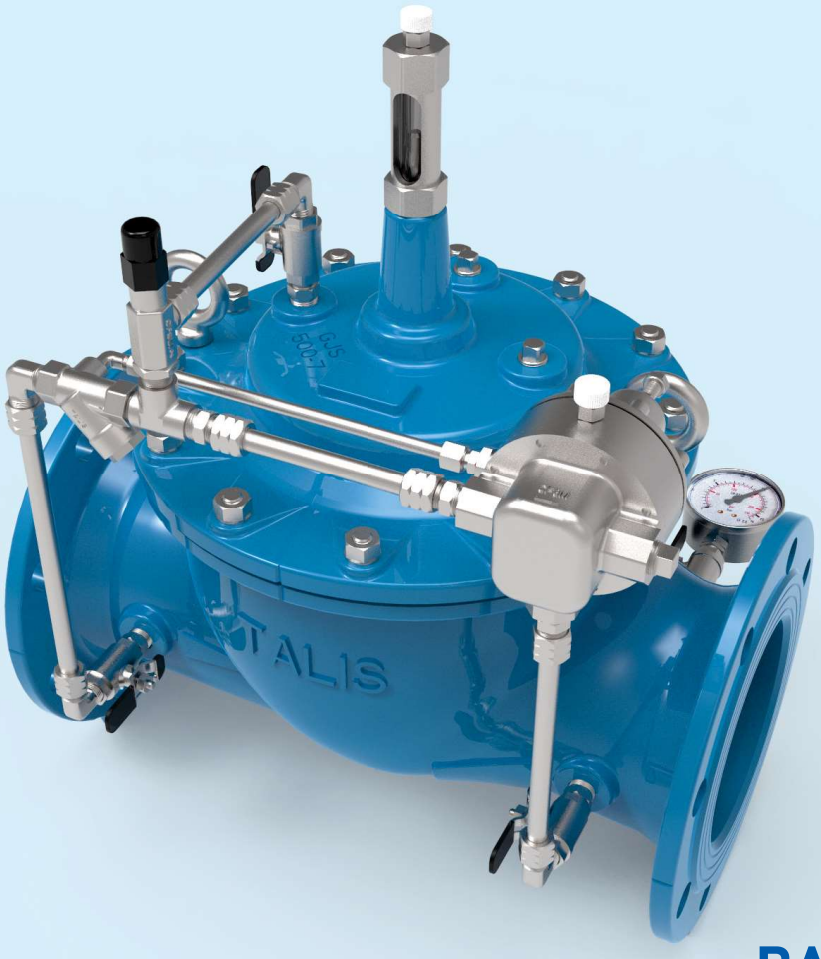
BAYARD
BY TALIS

HYDROSTAB PREMIUM UPSTREAM
SERIES K1 21

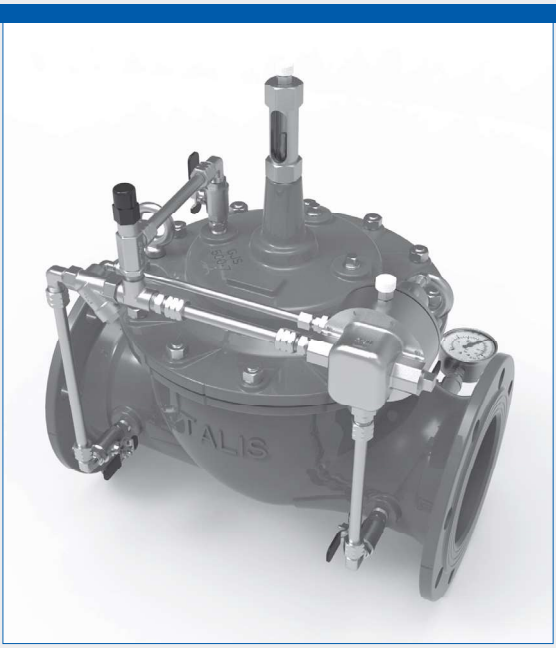


BAYARD RANGE

HYDROSTAB PREMIUM UPSTREAM CONTROL VALVE

SERIES K1 21

Based on the latest developments of the Hydrobloc system, The Hydrostab Premium Upstream K1 21 uses high quality materials and a proven design to guarantee our customers exceptional service life, accuracy and functionality.



FUNCTION

The Hydrostab Premium Upstream K1 21 series is an automatic control valve which enables a minimum upstream pressure to be maintained, or which acts as a discharge valve.

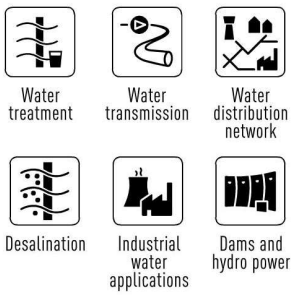
MAIN ADVANTAGES:

PERFORMANCE & DURABILITY

- **Strength and durability** with a pilot circuit entirely* made from stainless steel 316. The internal moving parts are entirely made from stainless- steel 316 up to DN 200 mm —unique solution on the market as standard — provides high durability and performance even in harsh conditions of use, such as major upstream/downstream pressure differences.
- **Resistance to corrosion** by application of a minimum 250 µm coating and the use of connecting pieces passing through the valve body.
- **High performance and durability** ensured by the use of a new, high density, EPDM, preformed diaphragm
- **Clarification relating to the pressure settings upstream** thanks to the new 52P pilot and its diaphragm with an augmented active surface.
- **Easy service and simplified maintenance:** delivered with simplified instructions and upstream and downstream pressure gauges. The pilot circuit is completely disassembled in three points using new axial, gasketless leaktightness connecting pieces.

*Not including valve body

APPLICATIONS



COMPLIANCE WITH STANDARDS:

- NF EN 1074-5
- Category A leak-tightness as per ISO 5208-2
- Compliance with Standard EN 12266.
- Face-to-face dimensions NF EN 558-1 and ISO 5752-1
- Connection flange drilling as per EN 1092-2 and ISO 7005-2 ISO PN 10 as standard, ISO PN 16, ISO PN 25 or other drillings for ND 50 to 300 (please consult us)
- **Attestation of Sanitary Conformity (ACS)**

USES

Regulation valves can be:

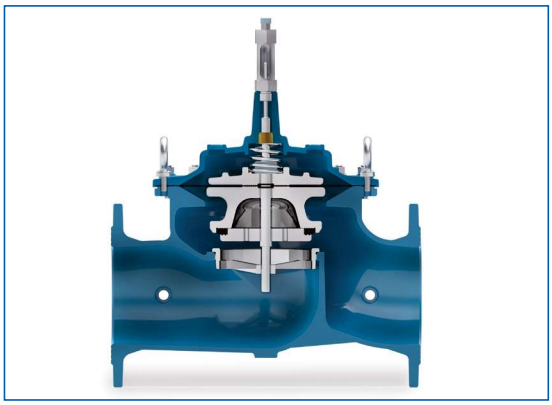
- Installed both in new works or existing installations.
- Installed in valve chambers or buildings, in all cases with frost protection.

The use of the Hydrostab Premium Upstream control valves enables:

- **Upstream Pressure Maintenance:** a stable minimum pressure rating to be maintained in the upstream network regardless of the variations in the downstream pressure and the flow rate (installed in parallel):
  - A minimum pressure to be maintained at a high point, or for supplying a poorly served connection.
  - An excessive loss of pressure to be avoided when supplying a tank, and the time taken to fill it to be increased.
  - A minimum pressure to be maintained at a pump, and consequently to limit the flow rate so that it does not operate at a level which causes cavitation. (to be checked according to the pump curve).
- **Upstream Discharger:** limits any pressure within a network which exceeds the specified pressure rating by drawing pressure off towards another network, a cistern, or an atmospheric relief valve (installation depends on the type of pipeline).
  - Avoids over-pressure in a network when a cut-off device is closed.
  - Ensures a minimum flow rate at the outlet of a pump so as to protect it from the effects of operating at an insufficient flow rate.

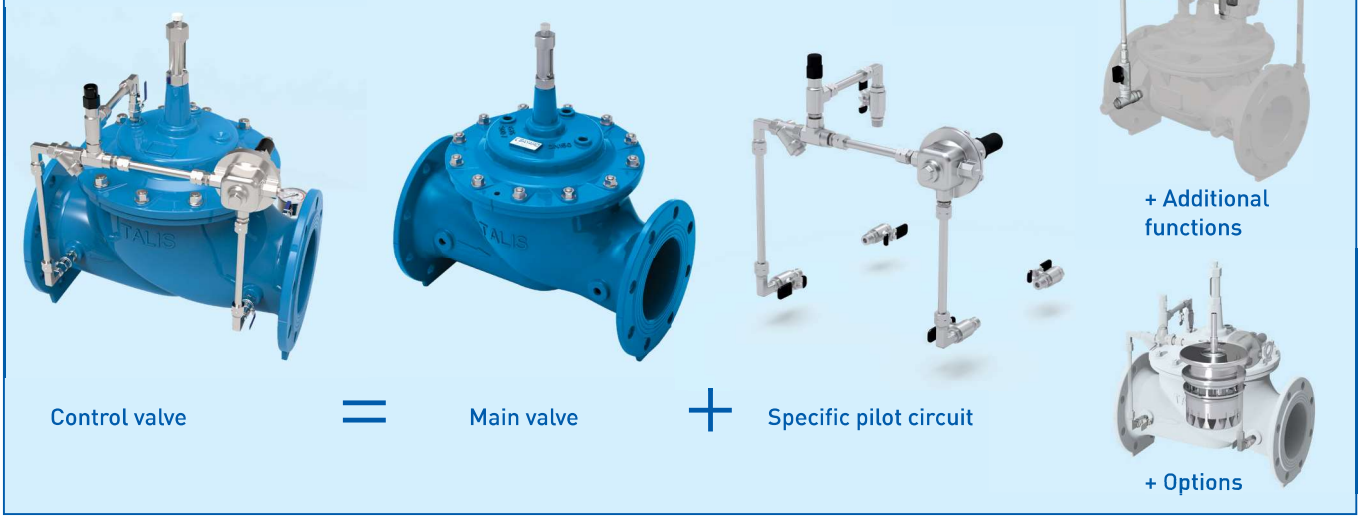
MAIN TECHNICAL DATA

- PFA 10, 16 or 25 bar depending on the applications (PFA 40 bar, please consult us)
- DN 40 to 300 with standardised flanges
- Leak-tightness at nil flow rate
- Operating temperatures from 0 °C to 65 °C
- Flow medium: 2 mm screened potable or raw water
- Optional anti-cavitation kit ACD040 with slotted cylinders
- Assembly of the pilot circuit on the right strand as standard, on the left strand by request
- Numerous options available on the main valve or the pilot device (see page 8-9-10)



Section of main valve XG

PRINCIPLE OF THE HYDROBLOC PREMIUM SYSTEM



THE TECHNICAL ADVANTAGES OF THE UPSTREAM HYDROSTAB PREMIUM

MAIN VALVE OPTIMISED FOR LONG-LASTING INVESTMENT:

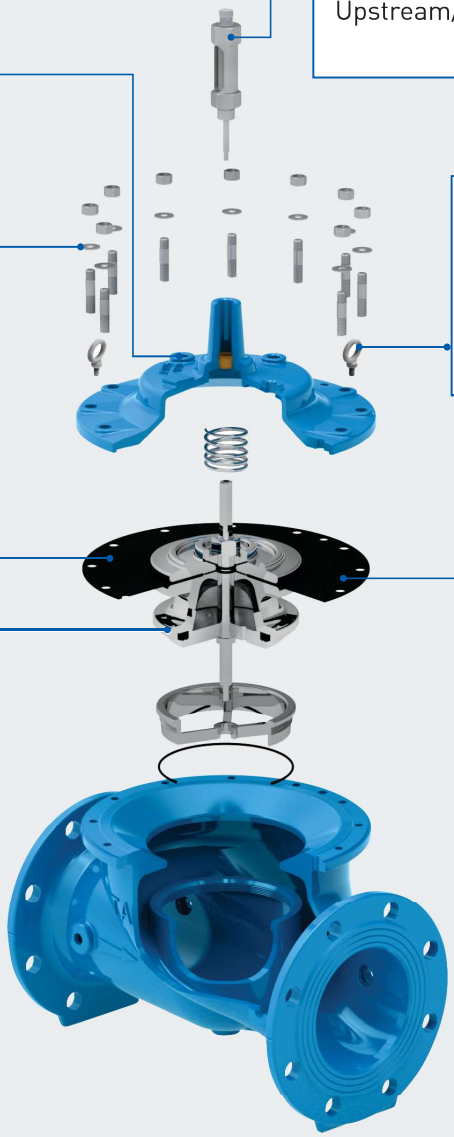
NO RISK OF CORROSION:
Full hot epoxy coating with ***minimum thickness 250 µm***.
Specific boss profile (pilot circuit connection areas): all drilling coated and protected.

EASY COMMISSIONING AND CONTROL:
Position indicator made from stainless steel 316 with high resistance glass.
Integrated manual air release valve.
Upstream/downstream pressure gauges supplied as standard.

EASY INSTALLATION:
Lifting rings on all diameters.
Reduced overall size of the pilot circuit.
No straight length upstream or downstream required.

EASY MAINTENANCE:
The use of ***studs*** and a ***perforated diaphragm*** facilitates disassembly and re-assembly operations.

ECONOMY:
All moving parts and seat made entirely from ***stainless steel 316****
ensure exceptional durability and reliability. This improves and reduces the cost of network operation.



PERFORMANCE AND DURABILITY:
High density preformed diaphragm (individual manufacturing process), naturally positioned in the body of the Hydrobloc ***without elongation*** for increased service life and responsiveness.
New body design for enhanced flow performance and reduced loss of pressure.

CUSTOMER and USER SATISFACTION:
Use of the ***"small flow"*** *2 SPD device* as standard ensures stability and set-point precision over the full range of operation.
Untimely variations in pressure are impossible.

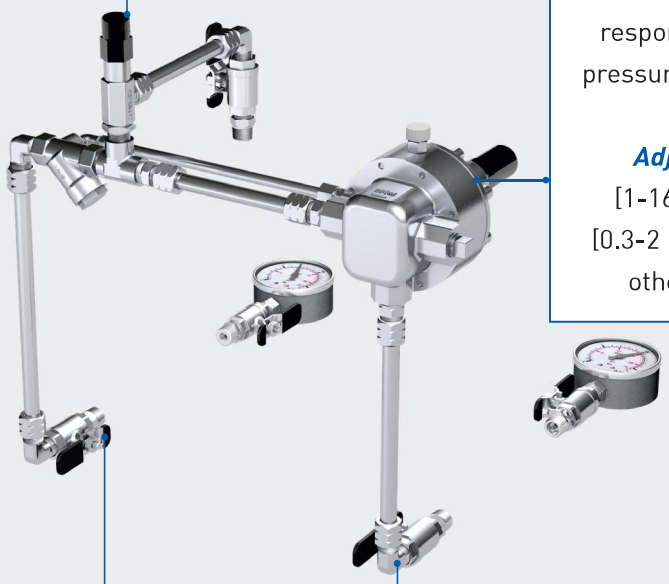
*Up to DN 200 XGS and DN 150 XG

THE TECHNICAL ADVANTAGES OF THE UPSTREAM HYDROSTAB PREMIUM

PILOT CIRCUIT OPTIMISED FOR DURABILITY, ACCURACY AND EASIER MAINTENANCE:

RELIABILITY AND DURABILITY:
Circuit and components entirely made from stainless steel 316*
for high resistance to conditions of use, even the most extreme.
Unalterable external appearance regardless of the environment.

SENSITIVITY AND ACCURACY:
New downstream pilot 100% stainless steel 316. Active diaphragm surface area increased for enhanced response to variations in pressure related to the flow rate.
Adjustment range:
[1-16 bar] as standard
[0.3-2 bar], [15-25 bar], or others as an option.



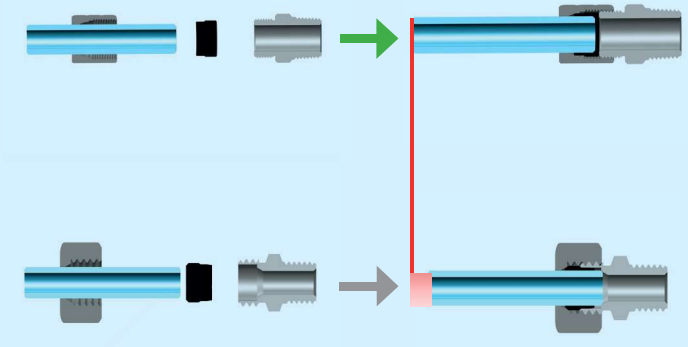
EASY MAINTENANCE:
Pilot circuit is assembled in three points.
New axial metal/metal leak-tightness connecting pieces facilitate disassembly, reassembly or modifications.

New maintenance-free opening retarder.
New filter with increased filtering surface area for reduced maintenance frequency.

EASY COMMISSIONING and CONTROL:
New isolation control valves made from stainless steel 316 and plastic coated.
Simplified installation, commissioning and maintenance instruction leaflet.

New BAYARD axial leaktightness connecting pieces without insert

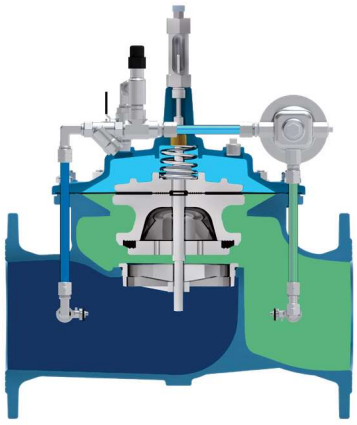
Previous version with insert



The new connecting piece enables:
- Easier lateral disconnection for quick maintenance.
- Easy piping disconnection in the event of modification to be made that no longer takes account of the length to be inserted into the connecting piece (Part).

*Not including valve body

GENERAL OPERATING PRINCIPLE



DESCRIPTION

The Upstream Hydrostab Premium comprises:

- A MAIN VALVE comprising an upstream zone (dark blue), a downstream zone (green) and a control chamber (light blue), isolated from the latter by a diaphragm.

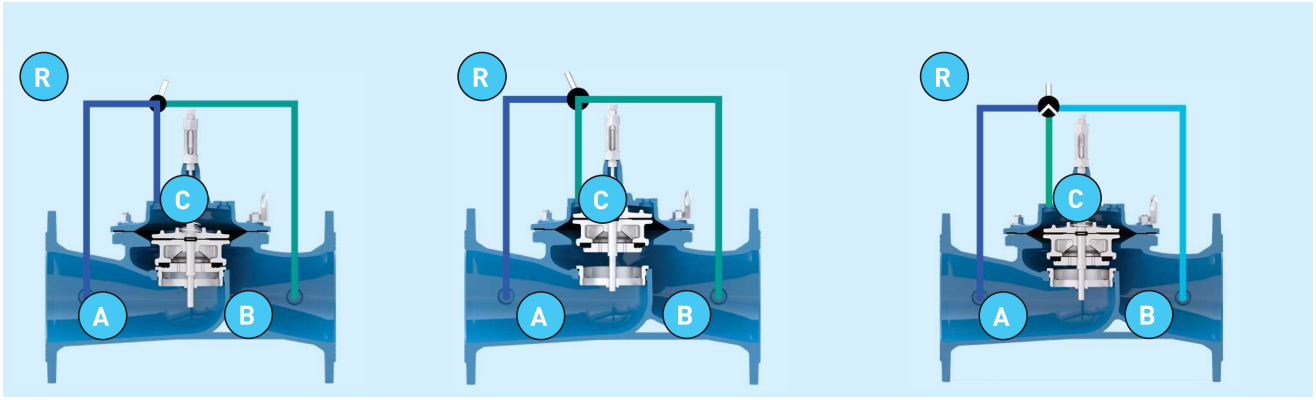
- Operation of the regulator. Hydrostab Upstream.

The control valve reproduces the movements of the pilot control system:

- If the upstream pressure exceeds the setting, the pilot opens, and the Hydrobloc opens.
- If the upstream pressure is less than the setting, the pilot closes, and the Hydrobloc closes.
- If the upstream pressure equals the setting, the pilot controls it, and the Hydrobloc controls it.

GENERAL OPERATION OF THE HYDROBLOC PREMIUM REGULATION VALVE:

The regulation valve is under the control of its pilot circuit.



CLOSING

From the upstream zone to the chamber:

- The valve **(R)** lets water into the chamber **(C)**, which fills due to upstream pressure.
- The forces that push the moving parts downwards are the strongest.

Conclusion: "to close a Hydrobloc Premium valve, the chamber needs to be filled ".

OPENING

From the chamber to the downstream zone:

- The valve **(R)** prevents the water from entering the chamber **(C)**. It lets the water leave the chamber **(C)**. It empties towards the lower downstream pressure **(B)**.
- The forces that push the moving parts upwards are the strongest.

Conclusion: "to open a Hydrobloc Premium valve, the chamber needs to be emptied".

BLOCKING

Or chamber isolation:

- The valve **(R)** prevents the water from entering or leaving the chamber **(C)**. The operating chamber is blocked.
- So the forces cannot vary

Conclusion: "to keep the Hydrobloc Premium valve in an intermediate position, the volume in the chamber must not change".

PILOT CIRCUIT OPERATING PRINCIPLE

FUNCTIONING OF THE UPSTREAM PILOT CIRCUIT (FIG. I):

- The operation of the pilot spring (52P) determines the minimum value used for maintaining the upstream pressure, and it tends to shut off the flow of water in the pilot.
- The upstream pressure (blue zone) applies below the diaphragm of the pilot and the action of the spring. The increasing of the upstream pressure tends to increase the flow of water in the pilot (see notice for T Pilot upstream series 52P).
- Dark blue zone = upstream pressure, green zone = downstream pressure, light blue zone = variable equilibrium pressure between the diaphragm (01) and the pilot.
- The bi-directional retarder (02) enables the filling and emptying of the chamber to be controlled.

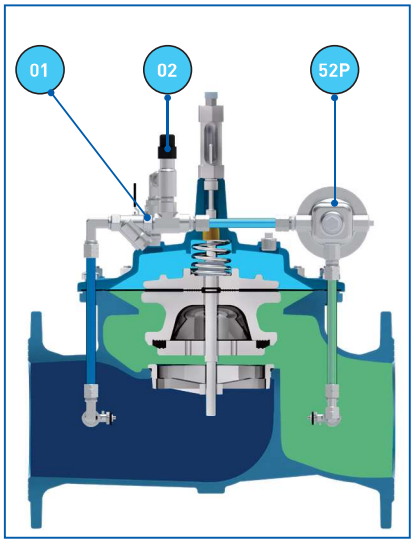


Fig. I

FUNCTIONING OF THE UPSTREAM PILOT 52P IN DETAIL:

- The upstream pilot mainly comprises of (Fig. II):
  - A spring (01) to adjust the setpoint pressure.
  - A diaphragm (02) under which the pressure to be regulated is applied (upstream pressure)
  - From a valve stem mounting (03) which crosses the measuring chamber
  - From a collar (04), a measuring chamber linked to the upper section of the device
  - From a valve (05)

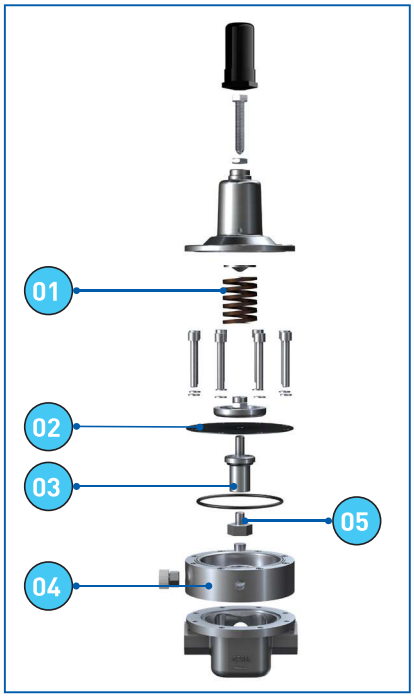


Fig. II

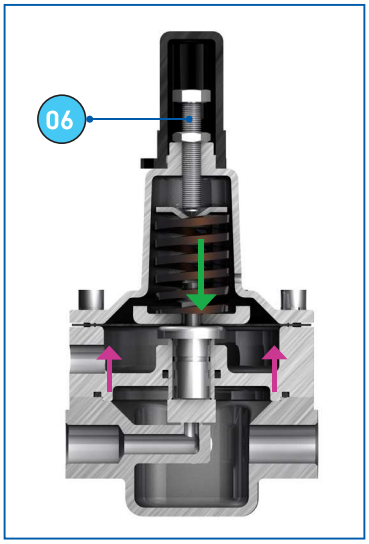


Fig.III

- The compression of the spring by the calibrating screw (05) exerts a downward force (green arrow) which, thanks to the holder, allows the disc to descend and open the water way through the pilot (Fig.III).
- The upstream pressure on the diaphragm exerts an upwards force (violet arrows) which counteracts the force of the spring and tends to raise the valve and to open the flow of water through the pilot.

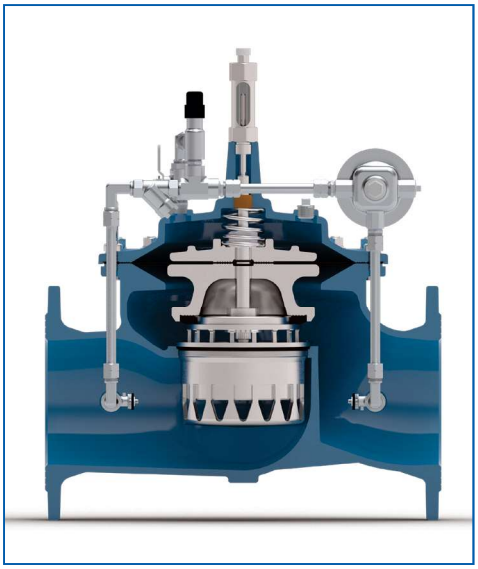
Comment by hydraulic engineer:

This design means that the upstream pilot is an N.C. pilot (Normally Closed). Only the action of the upstream pressure below the diaphragm can actuate the opening of this device.

- Tightening the adjusting screw = increases the compression of the spring = increases the upstream pressure threshold.
- Loosening the adjusting screw = reduces the compression of the spring = reduces the upstream pressure threshold.

ACCESSORIES AND OPTIONS

1- ANTI-CAVITATION DEVICE ACD 040



When the pressure differential generated by the reduction of the desired pressure entails a risk of cavitation (see table on page 12), the solution is anticavitation device ACD 040 (Anti Cavitation Device 0-40 bar).

APPLICATIONS

- Reduction of pressure.
- Reduction of noise.
- Reservoir filling.
- By-pass of an overpressure pump.
- Discharge with emission directly into the atmosphere.

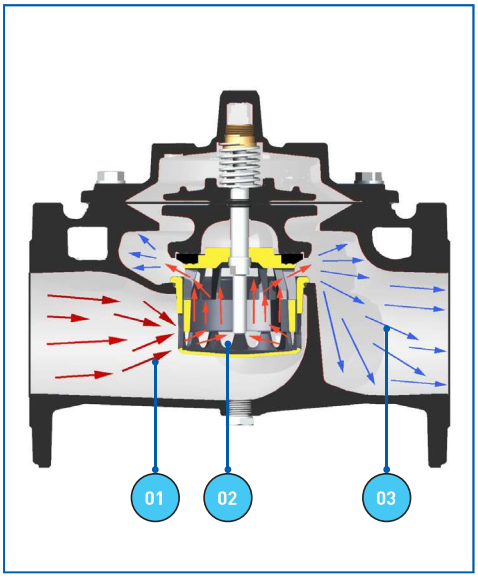
In general, all of the applications where valves are subject to extreme differences of pressure or conditions where the downstream pressure is low or nil.

FUNCTIONS

The effects of cavitation are devastating, particularly when using equipment with little opening possibility or at high speeds. This device makes it possible to extend the range of normal use of a standard hydrobloc valve to particularly harsh operating regimes without the risk of damage.

PRINCIPLE OF THE DEVICE ACD 040

The BAYARD patented ACD 040 device (Anti-Cavitation Device 0 to 40 bar) is an advance in the control of cavitation and high speeds.



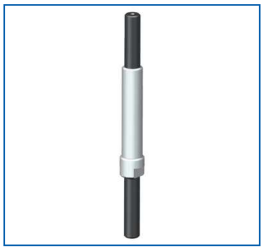
Applying the principle of a double slotted cylinder, which has very much proved its worth in our annular valves, the design has been optimised to accept high pressure differences from small openings onwards, while preserving high flow capacity at full fire.

The principle of this device is to dissipate the energy in two successive, balanced phases. Most of the cavitation (60 to 70%) will be dissipated by passing from zone 1 to zone 2, and any cavitation is contained in zone 2. Circulation from zone 2 to zone 3 completes the reduction of pressure and high speeds, and does so regardless of the percentage of opening.

On the basis of these two principles, cascaded dissipation and linearity on the range of opening, device ACD 040 offers remarkable performances.

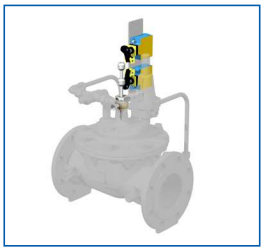
2- MAIN OPTIONS

Anti-calcification stem:
The upper and lower guide parts are covered with Teflon. The lime-scale settles but does not adhere, the guides self-clean with the displacement of the mobile ensemble during operation.



Automatic drainage kit:
Mini air valve above the position indicator, it automatically removes air that may accumulate in the valve and ensures the device operates optimally.

Dry contactors:



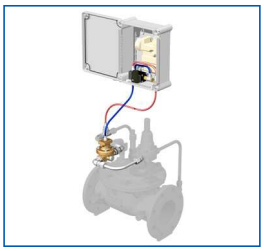
Analogue opening contactors:
Removal of magnetic contactors and a potentiometer to indicate the percentage of opening.

Teleprocessing head:
Control equipment with position indicator 4 - 20 mA and limit switches 6 - 240 V AC/DC

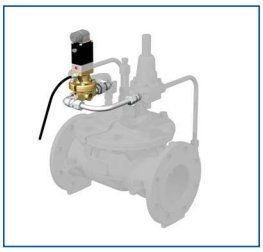
Manual drive:
Makes it possible to use the device as a hydraulically operated isolating valve, a valuable option on large DN.

Return or anti-return function circuit:
Authorises the valve to open or close when reversing the direction of flow.

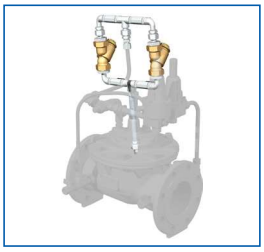
Operated by programmable time stamp:
Selects or annuls a function depending on the date and time stamp programming.



Control by solenoid valve:
• 12 V, 24 V, or 240 V
Selects or annuls a function depending on the date and time stamp programming.



Double filtering:
Facilitates filter maintenance operations without interrupting service. Recommended for raw water network. Automatic filtration automatic, consult us.



Opening assistance kit:
Upward traction system of the moving parts to facilitate the opening of the main valve without pressure.

Other options: (non-exhaustive list)

Vertical or horizontal assembly up to DN 200 XG and 250 XGS:

- Valve with no position indicator
- Mechanical stroke limiter

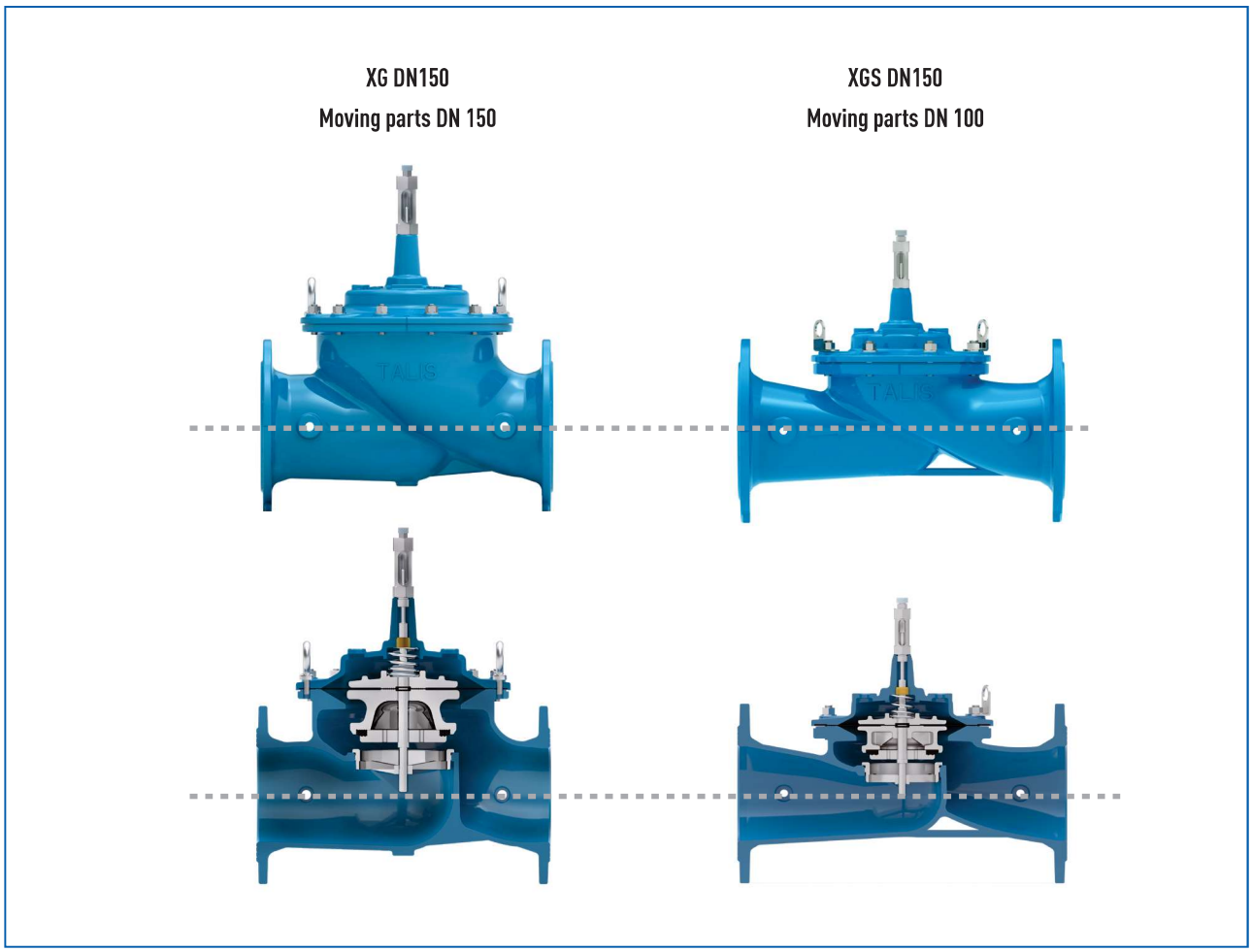
CHOICE OF MODEL AND DIMENSIONING

Each network is unique. In order for a regulation valve to be entirely satisfactory and for its service life to be as long as possible, a number of criteria must be determined:

- The network life scenario, which will determine the operation of the device
- The network's operating conditions (fl ow rate, pressure, etc.)
- The model and DN
- Additional function(s)
- Supplementary options
- Options specifi c to the operating conditions

1- CHOICE OF MAIN VALVE

To ensure the pressure reduction function, a main valve type XGS (reduced throughway) is recommended in network operation cases where the available p (i.e., the difference in pressure between the upstream and the downstream of the regulation valve), is greater than or equal to 1 bar.
If the available p is continuously 1 bar lower, we advise an XG type main valve (full throughway). This choice tends to be unusual in the case of pressure reduction.
If the flow is low and the available p is greater than or equal to 1 bar and becomes lower than 1 bar when the flow rate is high, we recommend you contact BAYARD Customer Technical Service.



THE ADVANTAGES OF THE XGS VERSION REDUCED THROUGHWAY FOR PRESSURE REDUCTION:

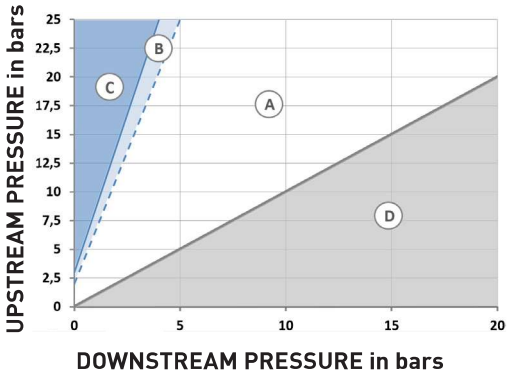
- High hydraulic performance: the XGS versions offer high fl ow-rate coeffi cients.
- A better range of operation: reduced throughway automatically generates a greater degree of opening of the upstream Hydrostab Premium at low fl ow-rates. Thus, the stability of the device is optimised and the risk of cavitation reduced.
- Greater precision attributable to the stability of the valve.

- The Hydrostab Premium XGS
- Associated with the specific moving parts profile "SPD" (Low Flowrate System).
- The best performances on the market.

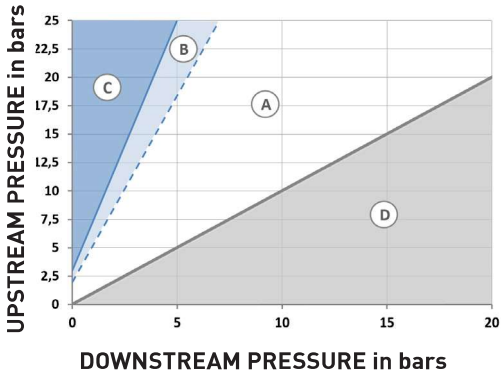
2- CAVITATION:

Depending on the reduction of pressure desired, it is worth making sure that the device will not be in a cavitation zone. To determine whether a risk exists, please refer to the graphics below.

MODEL XGS



MODEL XG



Zone A: Conditions not including cavitation.

Zone B: Harsh area of use. Make sure you have a polyurethane disk kit.

Zone C: Cavitation zone. Make sure you have an anti-cavitation kit ACD040 or cascaded devices.
In the case of downstream pressure below 1 bar, an air inlet device may be considered (consult us).

Zone D: Impossible zone, upstream pressure lower than downstream pressure.

Hydraulic engineer's notes:

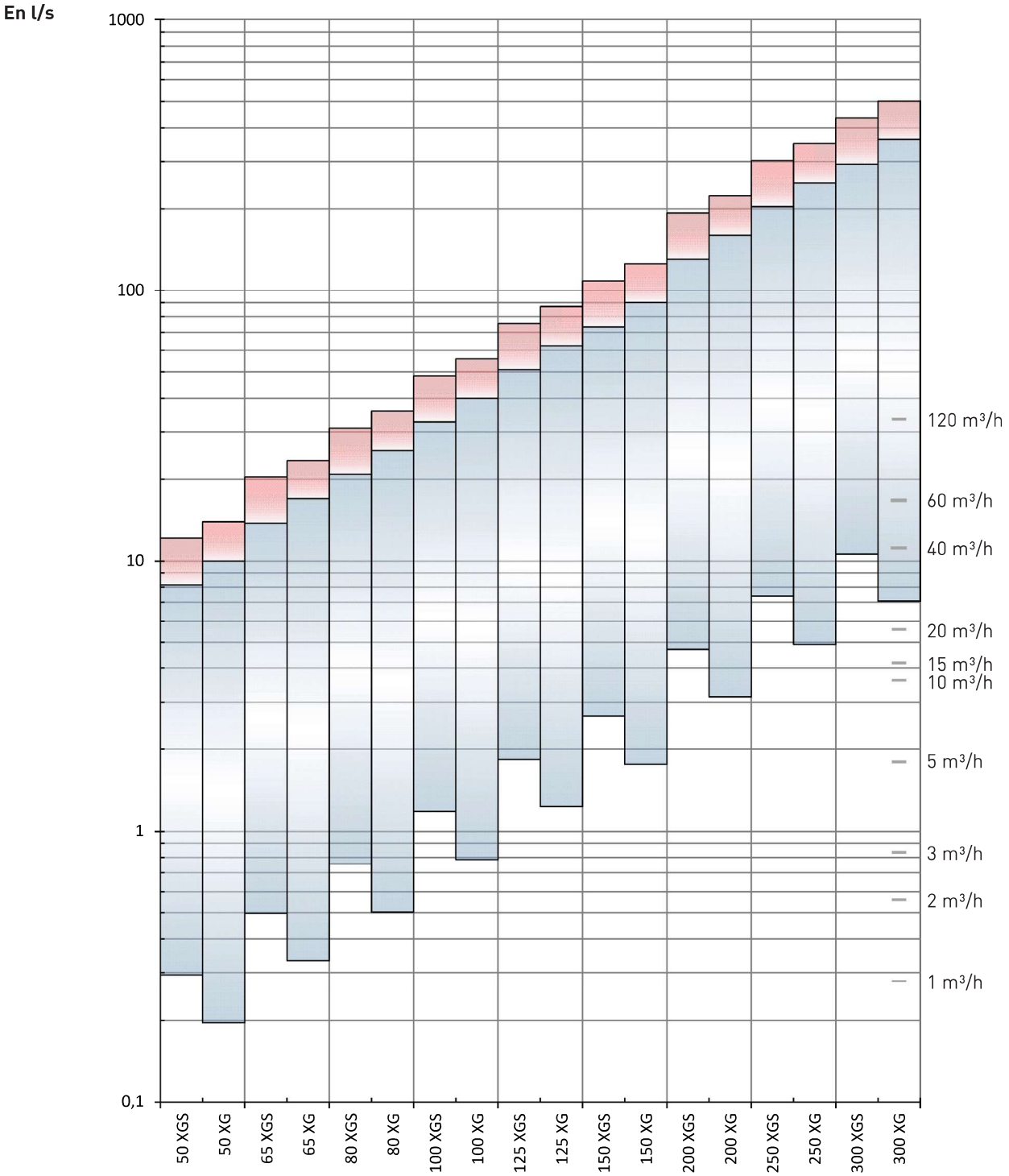
The potential damage created by cavitation in the regulation valve are detrimental to its service life and therefore to the precision of the downstream pressure controlled. The anti-cavitation device addresses this threat. Furthermore, this device only requires the installation of a single device on the network, unlike some manufacturers' recommendations (two devices in series). This avoids higher hardware costs, a larger valve chamber and more complex maintenance.

Request Hydrosize II to help you with the dimensioning of the device!

THE HYDROBLOC SYSTEM ESTABLISHING A PROJECT
OPERATING RANGES

3- FLOW SPEEDS:

The table below summarises the flow coefficients as well as the flow rates under certain speeds. The Hydrobloc Premium series allows an exceptional speed, which can be used for flows related to fire-fighting (red zone).



Optimum operating range by DN.
The Δp available and consumable in the valve must be between the Δp necessary for operation of the valve and the maximum allowable (see cavitation and speed diagrams).

Range of operation under conditions (please consult us):

- XGS: speeds of between 4 m/s and 6 m/s.
- XG: speeds of between 5 m/s and 7 m/s.

THE HYDROBLOC SYSTEM ESTABLISHING A PROJECT
OPERATING RANGES

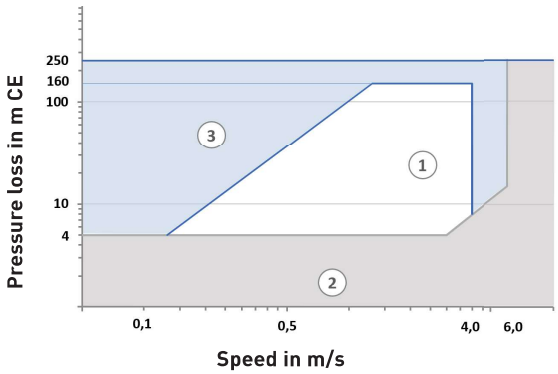
Calculation rule BAYARD

Choice of model and DN with the BAYARD calculation rule:

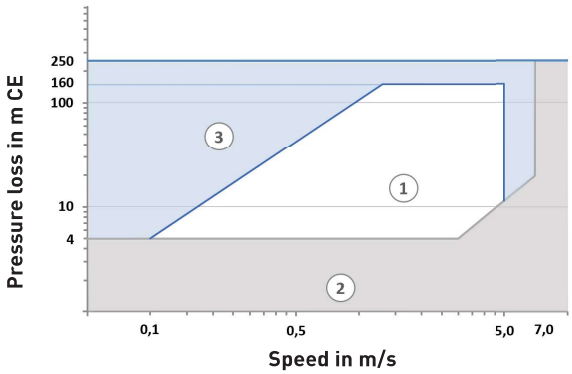
The mode of use together with the BAYARD calculation rule enables you to determine the regulator that is suitable for the installation and its operating conditions.

• The diagrams below can be used to check whether the device will operate in an optimum operation zone, knowing the available p and the speed in the inlet section.

XGS Model



XG Model



Zone 1 = Optimum conditions of use.
Zone 2 = The p available is too low, please consult us.
Zone 3 = Operation possible but to be avoided in steady state, please consult us.

Part no.	Models XGS		Models XG	
DN	Kv	K	Kv	K
50	22	20,3	50	3,9
65	52	10,3	91	3,4
80	90	7,9	126	4,0
100	135	8,6	178	5,0
125	189	10,7	283	4,8
150	196	20,6	417	4,6
200	456	12,1	670	5,6
250	605	16,7	1223	4,1
300	1266	7,9	1472	5,9

Reminders:

- The pressure loss in the Hydrobloc valve is its driving force.
- The XGS model has a reduced throughway cross-section compared with the inlet section.

OPERATING CONDITIONS

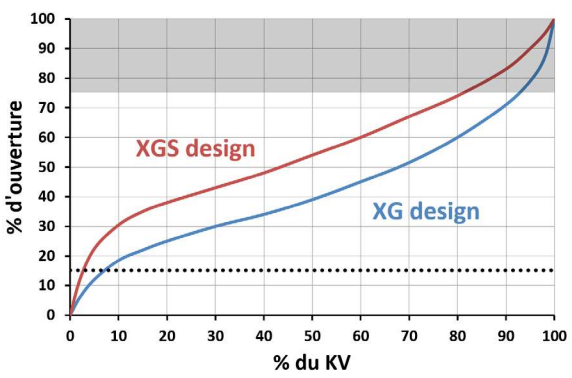
• The valve is dimensioned on the basis of the cross-section of the throughway at disk level (reduced on the XGS, practically equal to the cross-section of the inlet on the XG), and the fl ow-speed of the water or fl ow rate (Q = V x S).

• The Hydrobloc Premium valve is a globe valve; its throughway cross-section is equal to the circumference of the seat multiplied by the height of opening of the disk.

• Between 15 and 75% opening, the operation of the valve is optimal in normal conditions of use.

• Below 15%, the quality of the regulation remains excellent, particularly thanks to the SPD device, but the valve is subject to a harsh operating regime that may induce vibration and nose. The device is probably oversized.

• Above 75% opening, regulation performs less well as the pressure difference becomes very low. The device is slow to react, it is probably undersized. However, this range is usable in "all or nothing" mode, such as in the case of reservoir-fi lling applications.



4- RANGE OF ADJUSTMENT OF THE SPRING:

Pressure reduction pilot 51P offers several adjustment ranges:

- Standard: 1 to 16 bar
- Option 1: 0.3 to 2 bar (for a reservoir by-pass, for example)
- Option 2: 15 to 25 bar (other ranges: please consult us)

NB: it is possible to modify the range in-situ without changing the regulation valve or the pilot. Only the pilot spring is replaced by simply removing the pilot bonnet!

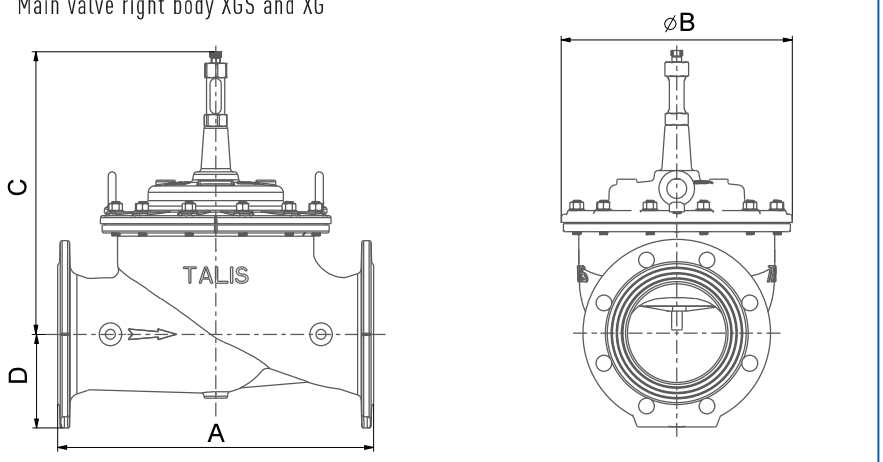
DIMENSIONS

MAIN VALVE TYPE XGS

REDUCED THROUGHWAY

DN	A (mm)	B (mm)	C (mm)	D (mm)	Weight* (kg)
40/50	230	145	195	80	10.2
65	290	173	237	95	15
80	310	198	257	102	21
100	350	226	277	112	27
125	400	265	312	127	34
150	480	265	376	145	37
200	600	351	431	172	68
250	730	436	521	205	125
300	850	524	647	232	200

Main valve right body XGS and XG



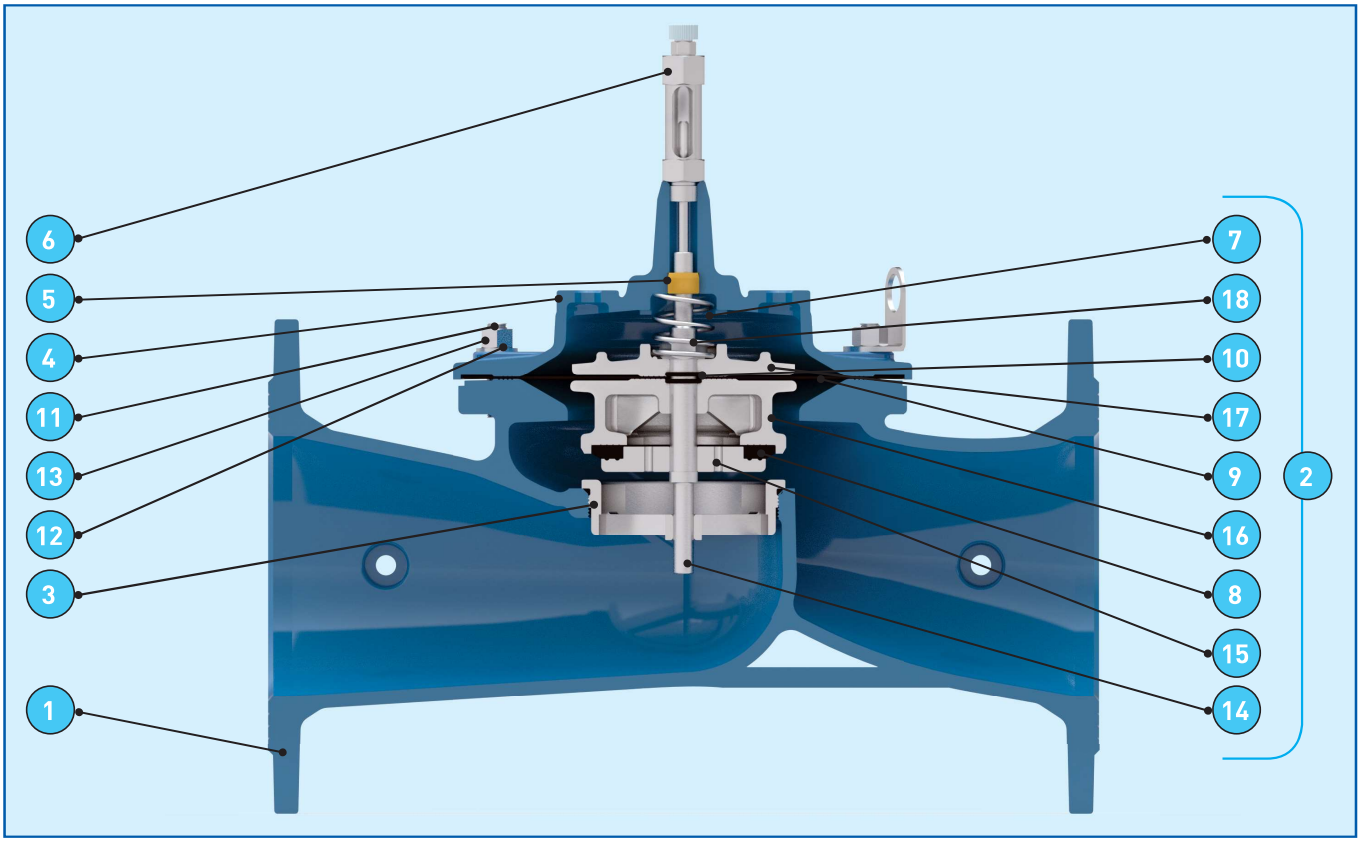
MAIN VALVE TYPE XG

FULL THROUGHWAY

DN	A (mm)	B (mm)	C (mm)	D (mm)	Poids* (kg)
40/50	230	173	237	85	14
65	290	198	257	95	19
80	310	226	277	102	23
100	350	265	312	112	32
125	400	307	376	127	50
150	480	351	431	145	68
200	600	436	521	172	125
250	730	524	647	205	200
300	850	606	697	232	260

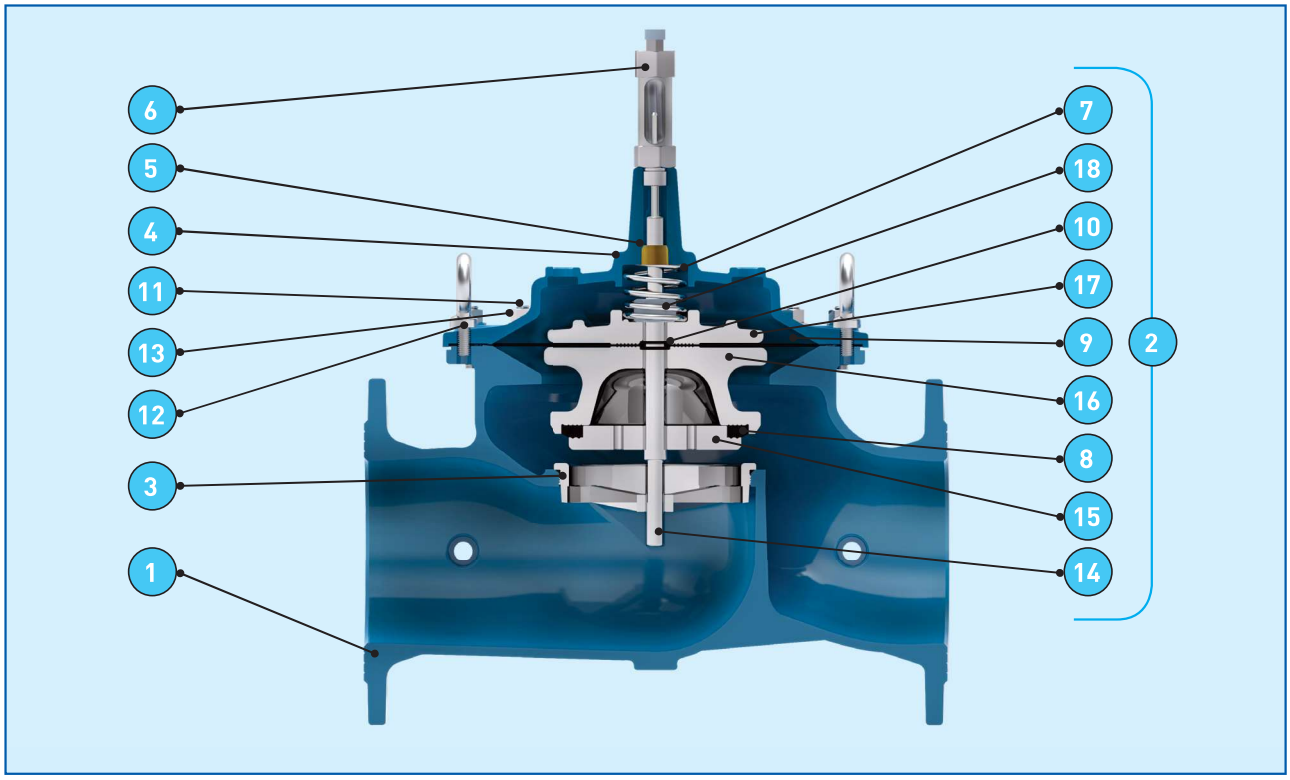
*Weight bare valve

NOMENCLATURE HYDROBLOC PREMIUM: XGS [DN50200MM] ET XG [DN50150MM]



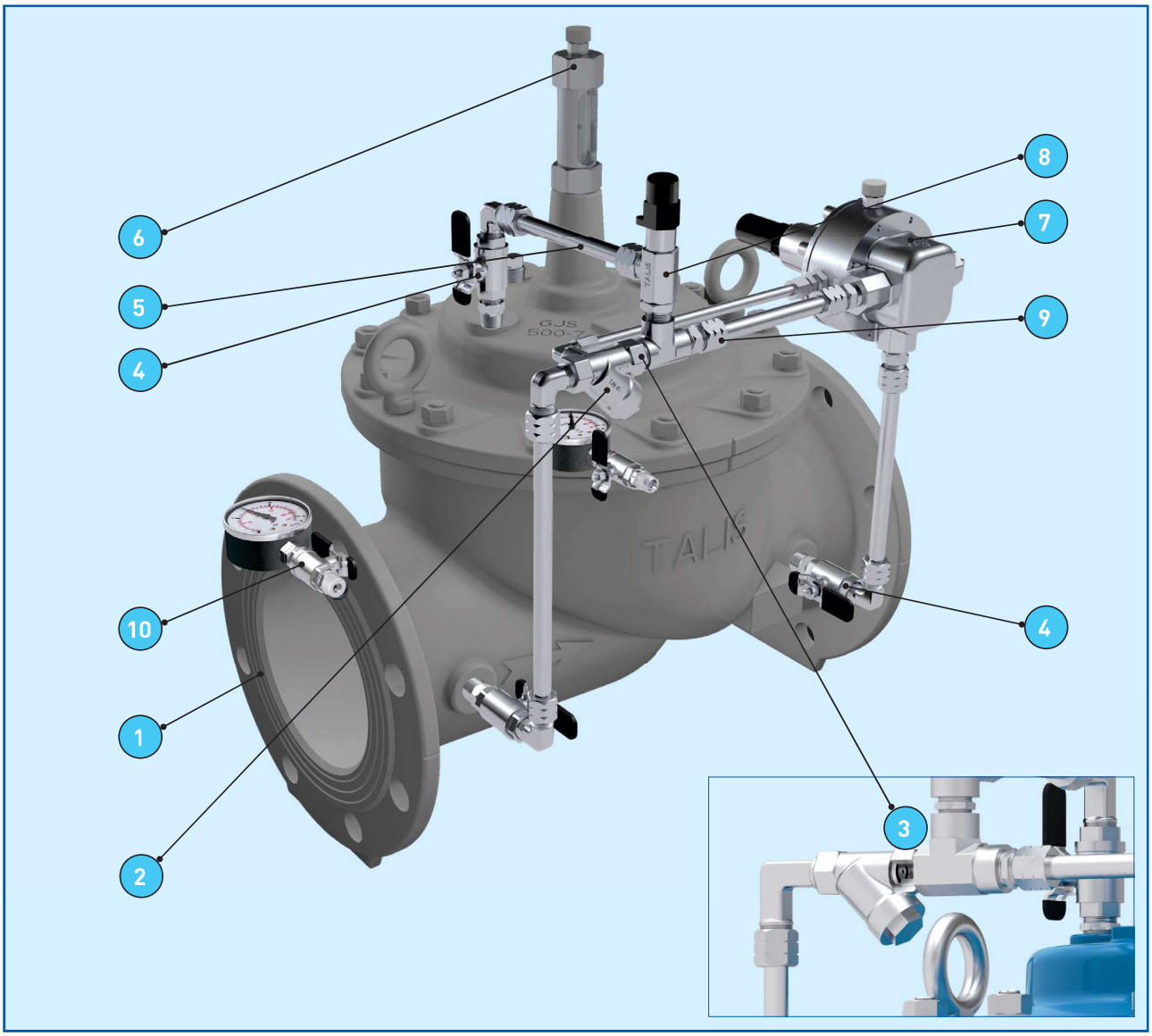
Part no.	Name	Type	Name	Number	Standard
1	BODY	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
2	MOBILE PARTS Nos. 14-15-16-8-17-18				
3	SEAT	STAINLESS-STEEL	GX5CrNiMo19-11-2	1.4408	EN 10213-4
4	BONNET	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
5	GUIDE	BRASS	CuZn21Si3P (CR)	CW724R	EN 12164
6	INDICATOR	STAINLESS STEEL	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
7	SPRING	STAINLESS STEEL	X5CrNiMo17-12-2	1.4401	EN 10088
8	DISK	ELASTOMER	EPDM		ISO 1629
9	DIAPHRAGM	ELASTOMER	EPDM		ISO 1629
10	O-RINGS	ELASTOMER	EPDM		ISO 1629
11	STUD	STAINLESS STEEL	A2		ISO 3506
12	WASHER	STAINLESS STEEL	A2		ISO 3506
13	NUT	STAINLESS STEEL	A4		ISO 3506
14	SHAFT	STAINLESS STEEL	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
15	DISK RETAINER	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
16	DISK HOLDER	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
17	DIAPHRAGM RETAINER	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
18	NUT	STAINLESS STEEL	A2		ISO 3506

NOMENCLATURE HYDROBLOC PREMIUM: XGS[DN250300MM] AND XG [DN200300MM]



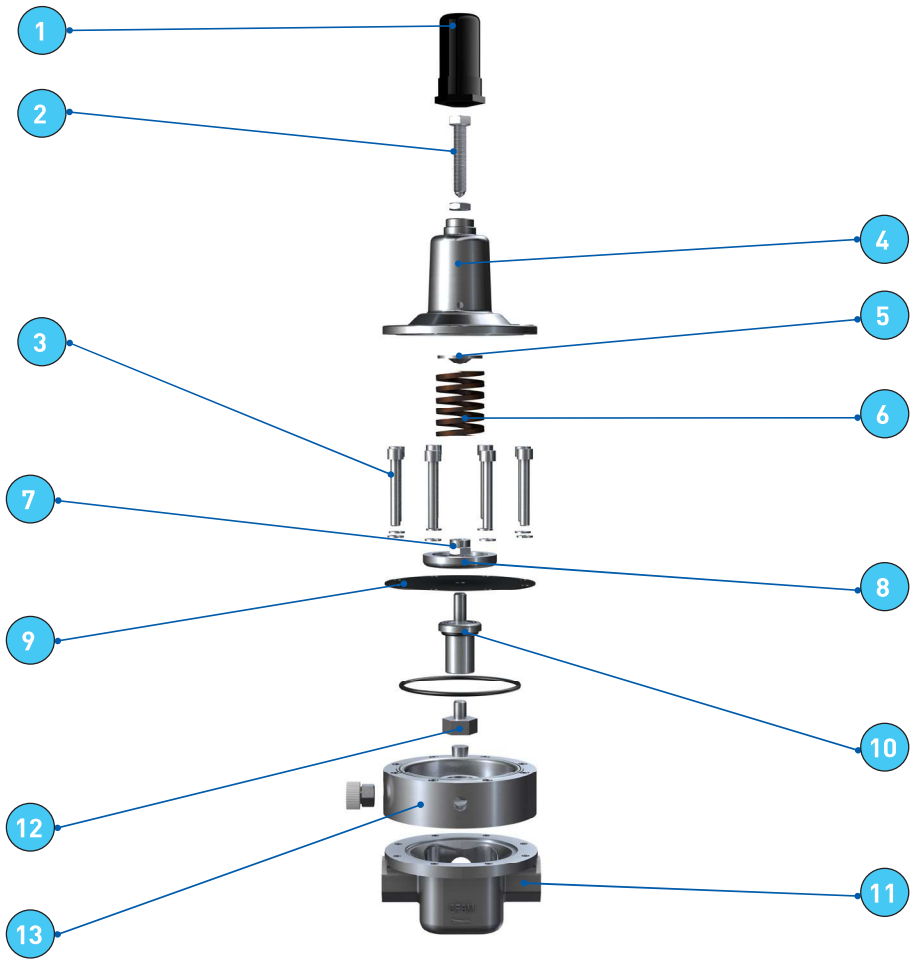
Part no.	Name	Type	Name	Number	Standard
1	BODY	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
2	MOBILE PARTS Nos. 14-15-16-8-17-18				
3	SEAT	STAINLESS STEEL	GX5CrNiMo19-11-2	1.4408	EN 10213-4
4	BONNET	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
5	GUIDE	BRASS	CuZn21Si3P (CR)	CW724R	EN 12164
6	INDICATOR	STAINLESS STEEL	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
7	SPRING	STAINLESS STEEL	X5CrNiMo17-12-2	1.4401	EN 10088
8	DISK	ELASTOMER	EPDM		ISO 1629
9	DIAPHRAGM	ELASTOMER	EPDM		ISO 1629
10	O-RINGS	ELASTOMER	EPDM		ISO 1629
11	STUD	STAINLESS STEEL	A2		ISO 3506
12	WASHER	STAINLESS STEEL	A2		ISO 3506
13	NUT	STAINLESS STEEL	A4		ISO 3506
14	SHAFT	STAINLESS STEEL	X5CrNiMo17-12-2	1.4401	EN 10088
15	DISK RETAINER	STAINLESS STEEL	GX5CrNiMo19-11-2	1.4408	EN 10213-4
16	DISK HOLDER	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
17	DIAPHRAGM RETAINER	DUCTILE IRON	EN-GJS-500-7	5.3200	EN 1563
18	NUT	STAINLESS STEEL	A2		ISO 3506

NOMENCLATURE OF THE UPSTREAM PILOT CIRCUIT



Part no.	Name	N.B.	Type	Name	Number	Standard
01	Main valve	1	-	See detail pages 15-16		
02	Filter with G 3/8 screen	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
03	Diaphragm in the filter 02	1	STAINLESS STEEL	X2CrNiMo17-12-2 (AISI 316L)	1.4408	EN 10088
04	Ball valve FF G 3/8	3	CUPRO / STAIN-LESS STEEL	-	-	
05	Pipe connection piece kit	1	STAINLESS STEEL	X2CrNiMo17-12-2 (AISI 316L)	1.4408	EN 10088
06	Position indicator	1	STAINLESS STEEL / glass	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
07	Downstream type pilot 51P	1	-	See details page 18	-	-
08	Opening retarder OR	1	STAINLESS STEEL	-	-	-
09	Connection cross	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
10	Pressure-gauge holding valve G 3/8	2	CUPRO / STAIN-LESS STEEL	-	-	

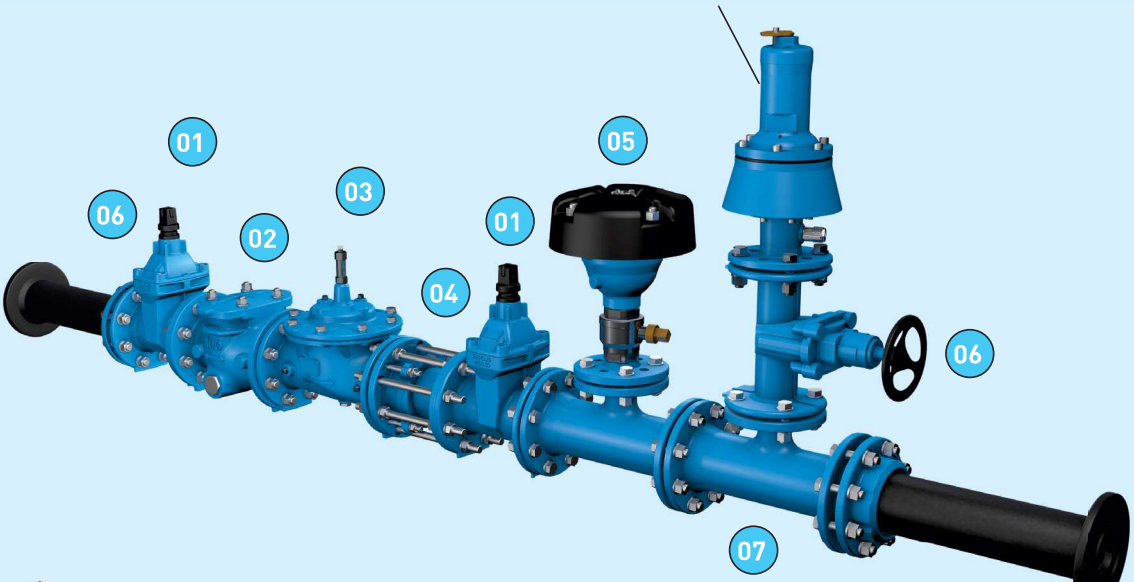
NOMENCLATURE OF THE UPSTREAM PILOT TYPE 52P



Part no.	Name	N.B.	Type	Name	Number	Standard
01	Protective cap	1	PLASTIC	ABS	-	-
02	Pilot calibrating screw + locknut	1	STAINLESS STEEL	A4	-	ISO 3506
03	CHc screw	8	STAINLESS STEEL	A4	-	ISO 3506
04	Pilot cap	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
05	Calibrating screw supporting plate	1	STAINLESS STEEL	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
06	Spring 1 to 16 bar	1	STEEL	SWOSC-V	-	JIS G3561
	Spring 0.3 to 2 bar (optional)	1	STAINLESS STEEL	X10CrNi18-8 (AISI 302)	1.4310	EN 10088
	Spring 15 to 25 bar (optional)	1	Please consult us.	-	-	-
07	Diaphragm retaining nut.	1	STAINLESS STEEL	A4	-	ISO 3506
08	Flange	1	STAINLESS STEEL	X5CrNiMo17-12-2 (AISI 316)	1.4401	EN 10088
09	Pilot diaphragm	1	ELASTOMER CLOTH	EPDM	-	ISO 1629
10	Disk holder	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
11	Pilot body	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4
12	Disk	1+1	EPDM + STAINLESS STEEL	-	-	ISO 1629
13	Collar	1	STAINLESS STEEL	GX5CrNiMo19-11-2 (CF8M)	1.4408	EN 10213-4

INSTALLATION RECOMMENDATIONS:

Safety valve: this will protect the downstream network in the event the stabiliser fails due to lack of monitoring and maintenance. Its gradual leakage will alert the network manager to an anomaly before there are financial consequences due to damage caused by excessive pressure.



The overall dimensions of the pilot circuit, depending on the DN, may be greater than those of the valve.

PFA 16bar

B1 20 or 25 01

PFA 25bar

B1 92 01

C1 30 - C1 35 06

C1 45 06

F3 10 02

B1 92 03

F1 20 05

C4 20 07

C1 55 04

C4 30 04

C4 60

F1 30

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JANUARY 2019

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