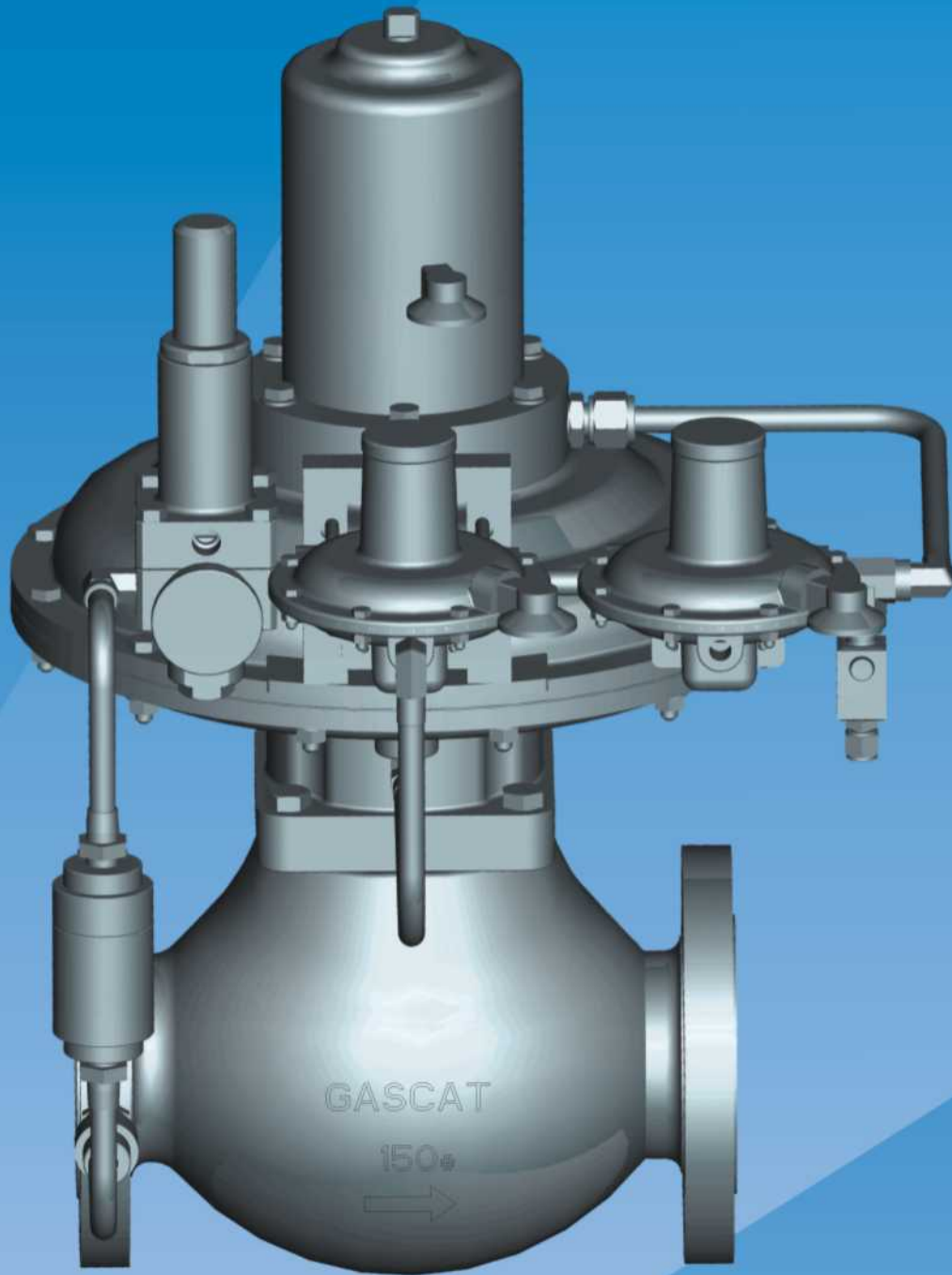


BRISE Plus

*Pilot Operated
Pressure Regulator*



GASCAT

INTRODUCTION

The Brise Plus series with balanced trim has been developed as a final solution to large flow capacity at very low pressures such as 21 mbar (210 mmwc).

They are usually used as district regulators, where high flow is requested during some periods of the day.

The Brise Plus series is the best solution when a very accurate pressure control, high flow and fast response for the whole flow range are required.

Gascat has several regulators on field working at high flow, very low outlet pressure and a very good accuracy.

Two versions are available: the single low pressure pilot version – where a fixed set-point is required; the two low pressure pilots version – where two set-points are required in the installation during the day. In this version a timer with a switch valve is necessary to select the pilot which will control the outlet pressure at that moment and how long this pilot will be working as the main pilot.

SPECIFICATIONS

MATERIALS

Main Regulator:

Body: Ductile Iron ASTM A-536 Grade 60.45.12
 Covers: Aluminum
 Diaphragm: Buna N
 Seals: Buna N
 Seat: Brass
 Plug: Brass + Buna N

Power Pilot:

Body: Ductile Iron
 Seat: Aluminum
 Diaphragm: Buna N
 Plug: Buna N

OPERATION LIMITS AND STANDARDS

The Brise Plus is available on following sizes
 1" screwed NPT or flanged 150#
 2" flanged 150#
 3" flanged 150#
 All flanges are according to ANSI B16.5

FEATURES

Maximum inlet pressure recommended: 10 bar.
 Accuracy: AC 2.5%
 Lock up: SG 10%
 Designed Temperature: -20°C to +70°C.
 The regulator gives tight shut-off at zero flow.

FLOW COEFFICIENT

ND	Cv
1"	16
2"	55
3"	138

OPERATION PRINCIPLE

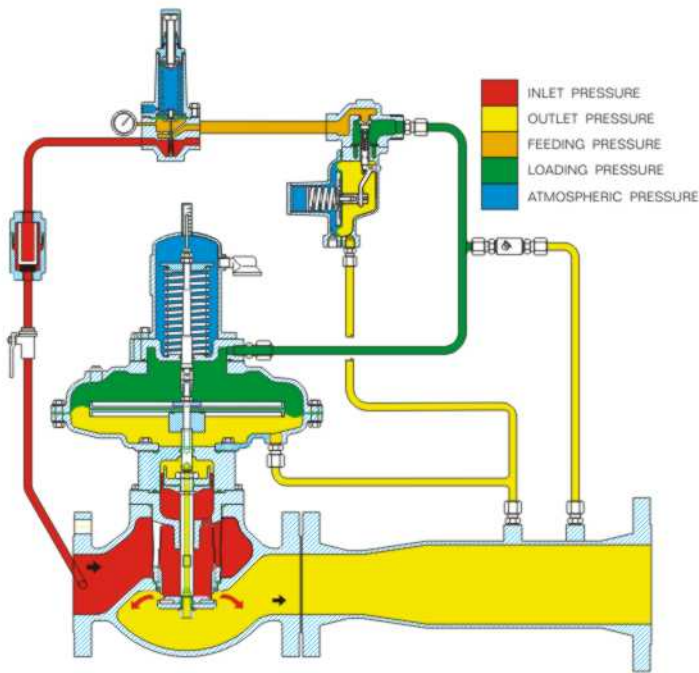
The outlet pressure is controlled by a low pressure pilot (043 Power Pilot series). An adjustable pre-regulator (G30 series) is used to guarantee a stable feeding pressure to the low pressure pilot and the accuracy of the system.

A filter is assembled upstream the pre-regulator and the pilot to protect them against impurities.

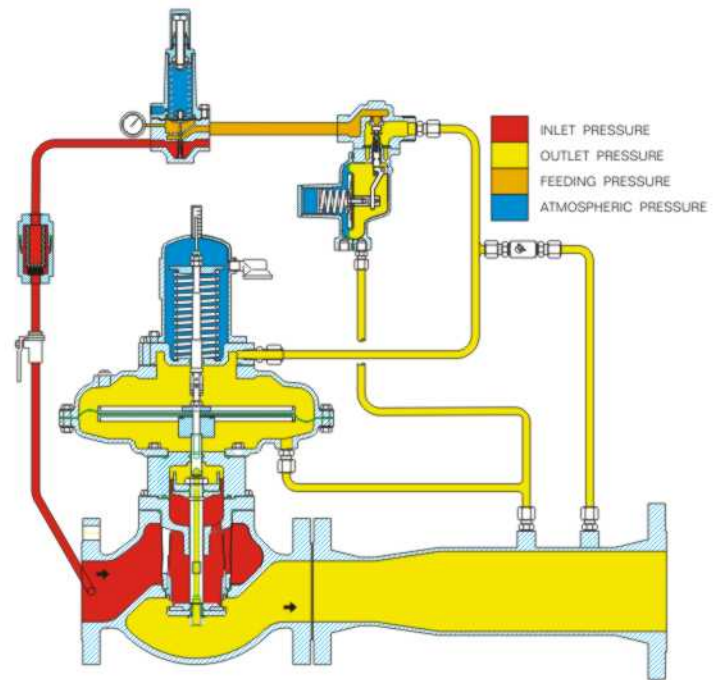
When there is gas flow, the pilot compares the outlet pressure with the adjusted pressure in the pilot spring. If the pressure under the pilot diaphragm is lower than the desirable pressure, the pilot will open and feed the upper chamber actuator of the main valve, opening it.

If the gas flow decrease or is interrupted, the outlet pressure begins to increase and it is compared with the adjusted pressure in the pilot spring. If the outlet pressure is greater than the pilot set pressure, the pilot will close and the pressure in the upper and lower chamber of the main valve will be the same, so the main valve will be closed by the force of the closer spring.

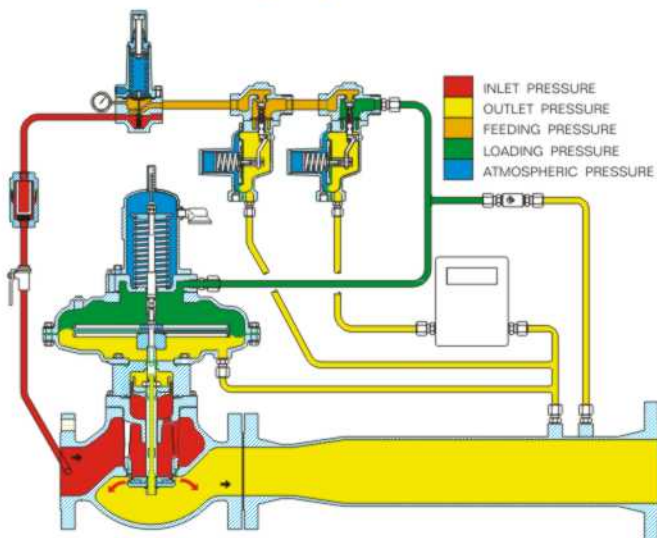
Cut a way view with a single low pressure pilot (open position)



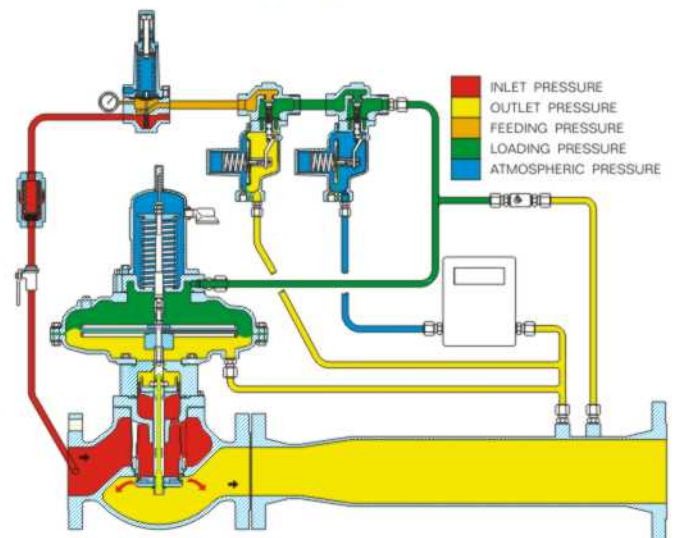
Cut a way view with a single low pressure pilot (closed position)



Cut a way view with a double low pressure pilot (open position)



Cut a way view with a double low pressure pilot (open position)



Note: The timer is not part of the valve.

INSTALLATION DIMENSIONS AND WEIGHTS

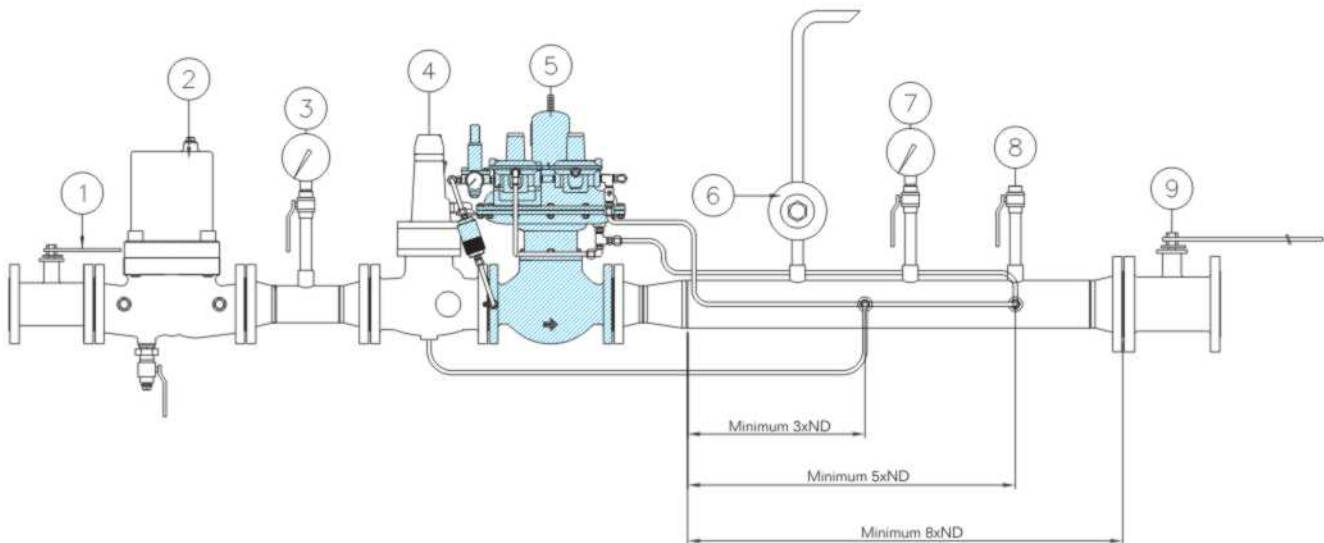
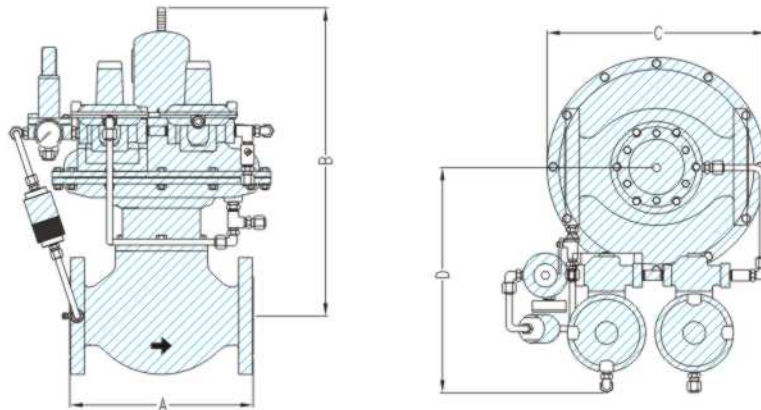
DIMENSIONS (mm)					
	A RF	B	C	D	WEIGHTS
ND	150#	150#	150#	150#	Kg
1"	184	327	290	333	28
2"	254	463	356	366	35
3"	299	501	356	366	45

General Tolerance: $\pm 1,6$

RECOMMENDED INSTALLATION

A safe installation shall contain, at least (see outline drawing proposed below)

- 1 - Manual blocking valve (ball type or similar)
- 2 - Filter (Gascat's GINO model)
- 3 - Pressure gauge for inlet pressure reading
- 4 - Automatic shut-off valve (Gascat's GIPS model)
- 5 - Pressure regulator
- 6 - Relief valve (Gascat's JUNIOR model)
- 7 - Pressure gauge for outlet pressure reading
- 8 - Purge valve 1/2"
- 9 - Manual blocking valve (ball type or similar)



Factory

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The Gascat policy is one of continuous improvement and development. The Company reserves the right to change especifications and introduce improved designs without previous notice.

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