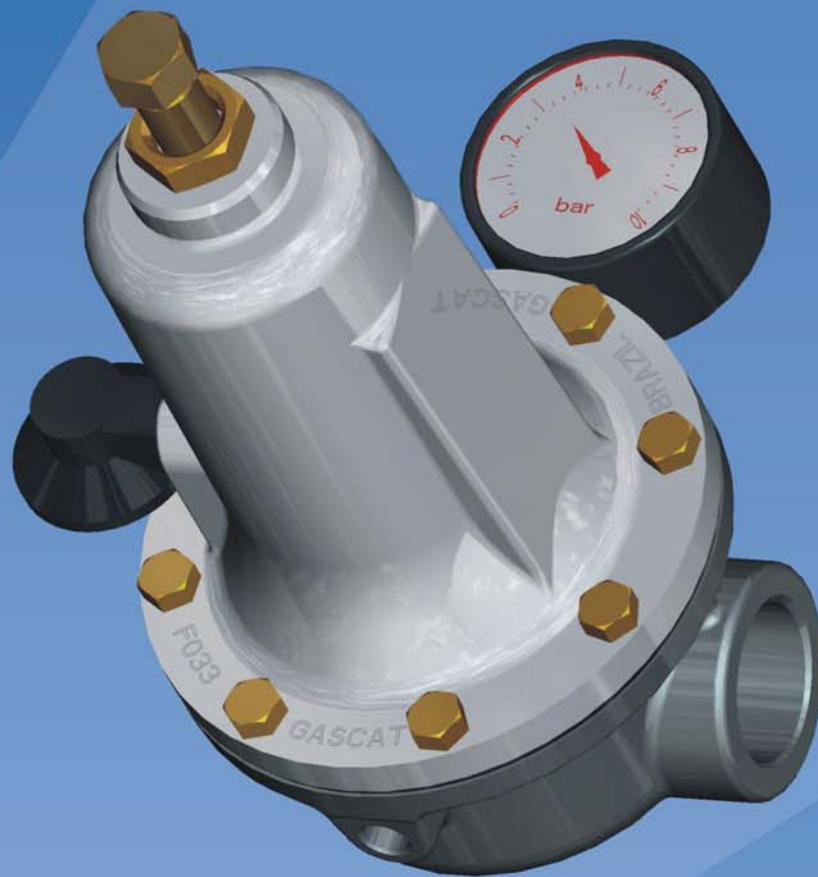


JUNIOR CH

Pressure Regulator



GASCAT

INTRODUCTION

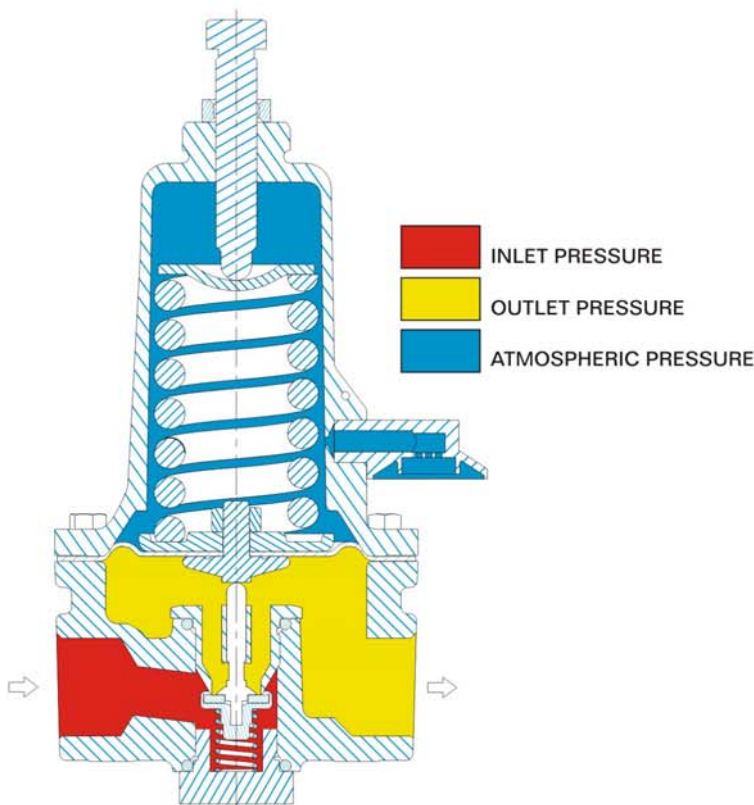
The new JUNIOR CH is based on many years of experience of the former JUNIOR family regulators. It is a field regulator or also a first stage regulator that combines the very simplicity design and rugged construction to control these first reduction stages in the wide and diversified industrial process applications.

FEATURES

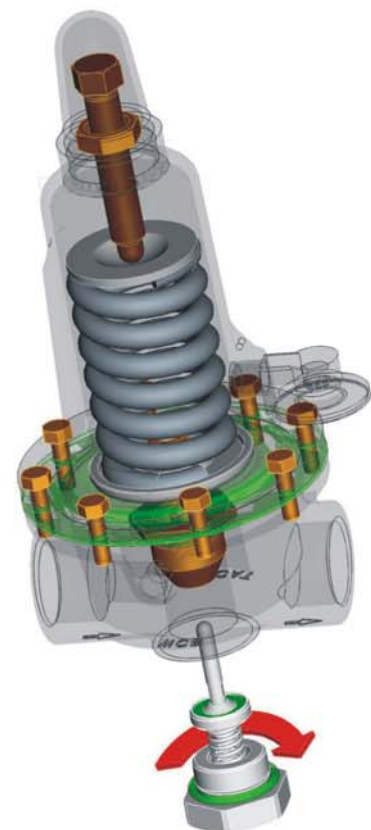
- Can be used in any gas application whereas compatible with material or any liquid application as well.
- Very simply maintenance; it is possible to change all pieces without removing the body from pipe line. Checking the valve and shutter is one tool and 2 minutes job by removing the bottom screw.
- Tight shutoff performance: a flat face disc of Buna-N or Viton or any others soft elastomers required provides excellent bubble tight seal.
- Easy to install: the regulator can be work in any position like vertical, horizontal or upside-down.
- It comes along with gauge avoiding additional work of gauge installations on pipes.
- Versatility: the new JUNIOR CH is available in three different materials: Carbon Steel, Cooper Alloy (clean for Oxygen application) and Stainless Steel. The flanged type can be supplied under request.

PRINCIPLE OF OPERATION

The internal registration pressure is registered under the diaphragm trough the same passage of gas outlet flows. When the downstream pressure is coming to be above the set pressure the diaphragm moves up releasing the stem and shutter goes up and move the disc up against the seat and breaking of the flow through the regulator. When the demand is open or increase, downstream pressure drops allowing the spring to extend moving all parts down and the disc away from the seat allowing flow through the consumption.



PRINCIPLE OF OPERATION



CHECK & CLEAN
INTERNALS (2 min.)



TECHNICAL DATA

- Maximum inlet pressure: 20 bar
- Outlet pressure: 0,2 to 12 bar
- Operation temperature: -10° to 65°C
- Nominal diameter: 3/4" and 1"
- Orifice diameter: 15 mm
- Gauges: 0 to 4 bar
0 to 10 bar
0 to 25 bar
- Materials:
Body: Carbon Steel / Stainless Steel / Brass
Top Cover: Aluminum

Internals: Brass / Stainless Steel
Diaphragm: Buna N / Viton

SPRING RANGES

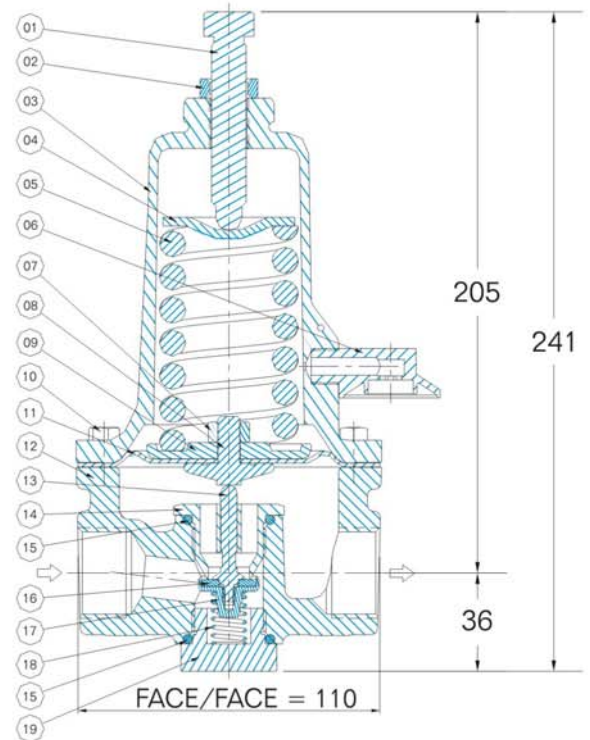
| SPRING COLOR | SPRING RANGES (BAR) | MAXIMUM INLET PRESSURE (BAR) |
|--------------|---------------------|------------------------------|
| CADMIUM | 0,3 - 1,2 BAR | 10,0 |
| WHITE | 1,0 - 3,0 BAR | 16,0 |
| BROWN | 3,0 - 7,0 BAR | 18,0 |
| GREY | 5,0 - 12,0 BAR | 20,0 |

FLOW CAPACITIES (Nm³/h of Air)

| | OUTLET PRESSURE (bar) | INLET PRESSURE (bar) | | | | | | | | | | |
|---------------------------------|-----------------------|----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| Cadmium Spring 0,3 - 1,2 bar | 0,3 | 37 | 56 | 90 | 120 | 120 | 120 | | | | | |
| | 0,4 | 40 | 58 | 93 | 125 | 125 | 130 | | | | | |
| | 0,5 | 42 | 62 | 95 | 130 | 130 | 135 | | | | | |
| | 0,4 | 32 | 58 | 93 | 110 | 112 | 125 | | | | | |
| | 0,6 | 18 | 62 | 98 | 140 | 144 | 144 | | | | | |
| | 0,8 | 10 | 60 | 110 | 160 | 162 | 162 | | | | | |
| | 1,0 | | 60 | 80 | 160 | 176 | 176 | | | | | |
| | 1,2 | | 60 | 114 | 190 | 190 | 190 | | | | | |
| White Spring 1,0 - 3,0 bar | 1,0 | | 80 | 120 | 150 | 160 | 160 | 160 | 160 | 160 | | |
| | 2,0 | | | 140 | 220 | 230 | 230 | 230 | 230 | 230 | | |
| | 3,0 | | | 70 | 220 | 230 | 240 | 240 | 240 | 240 | | |
| Brown Spring 3,0 - 7,0 bar | 3,0 | | | | 140 | 260 | 260 | 260 | 260 | 260 | 260 | |
| | 4,0 | | | | 140 | 260 | 290 | 290 | 290 | 290 | 290 | |
| | 6,0 | | | | | 260 | 290 | 300 | 300 | 300 | 300 | |
| Gray Spring 5,0 - 12,0 bar | 5,0 | | | | | 240 | 240 | 300 | 320 | 400 | 400 | 400 |
| | 7,0 | | | | | | 260 | 300 | 320 | 400 | 420 | 420 |
| | 10,0 | | | | | | | 260 | 360 | 420 | 420 | 420 |
| | 12,0 | | | | | | | | 360 | 420 | 420 | 420 |

COMPONENTS DESCRIPTION

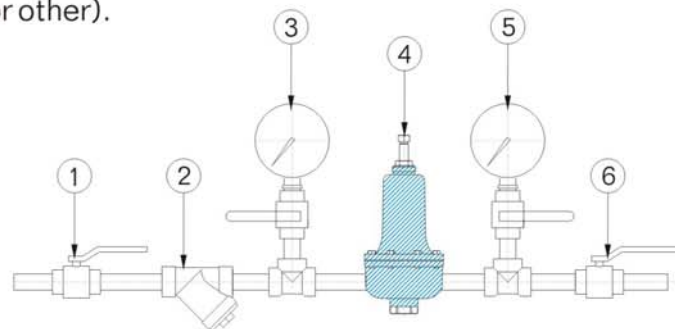
| POSITION | DESCRIPTION |
|----------|------------------|
| 1 | REGULATE SCREW |
| 2 | NUT LOCK |
| 3 | UPPER COVER |
| 4 | SPRING SUPPORT |
| 5 | REGULATE SPRING |
| 6 | RELIEF |
| 7 | HEXAGONAL NUT |
| 8 | PLATE SUPPORT |
| 9 | DIAPHRAGM SCREW |
| 10 | HEXAGONAL NUT |
| 11 | DIAPHRAGM |
| 12 | BODY |
| 13 | OBTURATOR STEM |
| 14 | SEAT |
| 15 | O'RING |
| 16 | OBTURATOR SEAL |
| 17 | OBTURATOR |
| 18 | OBTURATOR SPRING |
| 19 | PLUG |



INSTALLATION

In order to have an appropriate installation, we recommend:

1. Block Valve (can be ball or other).
2. Filter (besides the regulator has a rugged construction always a filter is recommended).
3. Gauge to see the inlet pressure.
4. Pressure regulator.
5. Larger gauge in case of JUNIOR's gauge is difficult to see.
6. Block valve (can be ball or other).



Factory

Rodovia SP 73, nº 1141 - Bairro Pimenta

Indaiatuba - SP - Brazil - Zip Code 13.347-390

Phone: (55 19) 3936-9300 - Fax: (55 19) 3935-6009

<http://www.gascat.com.br>

e-mail: sales@gascat.com.br

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