Fabrication program
The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally. Design in accordance with “International Standard ISO 4126-1:2004 Safety Valves”.

Depending on version
-60°C to +450°C
0.20 bar to 40.00 bar
Steam / Gases / Liquids
Connection: Flange x Flange
NPS1 x NPS2: 1” x 2” to 8” x 10”
Material: Carbon steel. 150 lbs and 300 lbs
Stainless steel. 150 lbs and 300 lbs
Seal: Metal

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.
Design in accordance with “ASME code section VIII”. Materials according ASME code section II and ASTM. Connections according ASME B1.20.1 standard.

Depending on version
-20.2°F to +842°F
2.90 psi to 580.15 psi
Steam / Gases / Liquids

Connection: Female thread NPT x Female thread NPT
FNPT1 x FNPT2: 3/4” x 1 1/4” and 1” x 1 1/2”
Material: Carbon steel. 300 lbs
Stainless steel. 300 lbs
Seal: Metal

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.
Design in accordance with “ASME code section VIII”. Materials according ASME code section II and ASTM. Connections according ASME B1.20.1 standard.

Depending on version
-20.2°F to +842°F
2.90 psi to 580.15 psi
Steam / Gases / Liquids
Safety

Full lift safety valve with spring loading. (AIT)

Mod. 596 EN

Connection: Flange x Flange
DN1 x DN2: 25x32 to 400x500
Material: Carbon steel
PN-25/40/83/100/160. PMS-62 bar
Stainless steel
PN-25/40/83/100/160. PMS-62 bar
Seal: Metal

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally. Design in accordance with "International Standard ISO 4126-1:2004 Safety Valves".

Depending on version
-50°C to +450°C
0.20 bar to 62.00 bar
Steam / Gases / Liquids

Mod. 696 EN

Connection: Flange x Flange
DN1 x DN2: 25x40 to 300x400
Material: Carbon steel
PN-25/40/83/100/160. PMS-95 bar
Stainless steel
PN-25/40/83/100/160. PMS-95 bar
Seal: Metal

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally. Design in accordance with "International Standard ISO 4126-1:2004 Safety Valves".

Depending on version
-50°C to +450°C
0.20 bar to 95.00 bar
Steam / Gases / Liquids
Mod. 695 EN

Connection: Male thread x Female thread
3/8"x1/2" to 1"x1"
Material:
- Bronze, PMS-36 bar
- Stainless steel, PN-40
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

Seal: Depending on version
- -60ºC to +200ºC 0,20 bar to 36,00 bar Steam / Gases / Liquids

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with "International Standard ISO 4126-1:2004 Safety Valves".

Mod. 685 ASME

Connection: Male thread NPT x Female thread NPT
3/8"x1/2" to 1"x1"
Material:
- Bronze, PMS-522,14 psi
- Stainless steel, 300 lbs
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

Seal: Depending on version
- -76ºF to +392ºF 2,90 psi to 522,14 psi Steam / Gases / Liquids

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with "ASME code section VIII". Materials according ASME code section II and ASTM. Connections according ASME B1.20.1 standard.
The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally. Design in accordance with "International Standard ISO 4126-1:2004 Safety Valves". The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally. Design in accordance with "ASME code section VIII". Materials according ASME code section II and ASTM. Connections according ASME B1.20.1 standard.

Depending on version

-196°C to +200°C  0,20 bar to 36,00 bar  Steam / Gases / Liquids

-320,8°F to +392°F  2,90 psi to 522,14 psi  Steam / Gases / Liquids
The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with “International Standard ISO 4126-1:2004 Safety Valves”.

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with “ASME code section VIII”.

Materials according ASME code section II and ASTM. Connections according ASME B1.20.1 standard.

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with “ASME code section VIII”.

Materials according ASME code section II and ASTM. Connections according ISO 2852 standard.

Depending on version

-60°C to +200°C
0,20 bar to 144,00 bar
Gases

-76°F to +392°F
2,90 psi to 2,088,57 psi
Gases

-60°C to +200°C
0,20 bar to 16,00 bar
Steam / Gases / Liquids
Safety

Normal safety valve with spring loading. (AN)

Connection: Flange x Flange
DN1 x DN2: 25x25 to 200x200
Material:
- Cast Iron, PN-16
- Nodular Iron, PN-40, 350°C
- Cast steel, PN-40
- Stainless steel, PN-40
Seal: Metal

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open, at the first proportional to the pressure increase, and after instantly and totally. Design in accordance with “International Standard ISO 4126 -1: 2004 Safety Valves”.

Depending on version
- -60°C to +450°C
- 0.20 bar to 40.00 bar
- Steam / Gases / Liquids
The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open, at the first proportional to the pressure increase, and after instantly and totally.

Design in accordance with “International Standard ISO 4126 -1: 2004 Safety Valves”.

Depending on version

-60°C to +250°C 0,20 bar to 25,00 bar  Steam / Gases / Liquids

Connection: Male thread x Female thread
MR1 x FR2: 1/2”x1” to 1 1/4” x 2”
Material:
- Bronze. PMS-25 bar
- Carbon steel. PMS-25 bar
- Stainless steel. PMS-25 bar

Seal:
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

Mod. 295 EN

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open, at the first proportional to the pressure increase, and after instantly and totally.

Design in accordance with “International Standard ISO 4126 -1: 2004 Safety Valves”.

Depending on version

-60°C to +250°C 0,20 bar to 25,00 bar  Steam / Gases / Liquids

Connection: Flange x Flange
DN1 x DN2: 15x25 to 32x50
Material:
- Bronze. PMS-25 bar
- Carbon steel. PMS-25 bar
- Stainless steel. PMS-25 bar

Seal:
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

Mod. 296 EN
**Safety**

**Mod. 095 EN**

Connection: Male thread x Female thread
MR1 x FR2: 1/4”x1/4” to 4”x4”

Material:
- Bronze/Brass. PN-16
- Mixed (Bronze/Brass - S. steel). PN-25
- Stainless steel. PN-25

Seal:
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open proportional to the pressure increase. Design in accordance with “International Standard ISO 4126-1:2004 Safety Valves”.

Depending on version:

-60°C to +250°C

0.20 bar to 25.00 bar

Steam / Gases / Liquids

**Mod. 096 EN**

Connection: Flange x Female thread
DN1 x FR2: 8x1/4” to 100x4”

Material:
- Bronze/Brass. PN-16
- Mixed (Bronze/Brass - S. steel). PN-25
- Stainless steel. PN-25

Seal:
- PTFE (Teflon)
- Silicone’s rubber
- Fluorelastomer (Viton)

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open proportional to the pressure increase. Design in accordance with “International Standard ISO 4126-1:2004 Safety Valves”.

Depending on version:

-60°C to +250°C

0.20 bar to 25.00 bar

Steam / Gases / Liquids
Vacuum breaker safety valve

Connection: Male thread x Free admission
MR1 x 6ØB: 3/8”x6ØB to 1”x6ØB
Material: Brass. PN-16
Stainless steel. PN-16
Seal: Silicone’s rubber
Fluorelastomer (Viton)

The valve acts as an automatic regulator of pressure drops and prevents the creation of a vacuum inside pressurised installations or vessels.

Depending on version

-50°C to +150°C
-0.05 bar to -0.40 bar
Gases

Multi-stage diffusion silencers

Connection: Flange
Male thread GAS
Female thread GAS
Male thread NPT
Female thread NPT
SW welding end
DN: To be agreed
R: To be agreed
Material: Carbon Steel

During the expansion process for compressible substances such as gases, steam or air, one of the main problems is noise pollution. The noise is caused by opening the valve and discharging the expanded fluid at the speed of sound. Silencers are a great way to reduce this noise, caused by discharging the valve, bringing it down to allowable levels.

They are used in places such as power, chemical and petrochemical plants to discharge safety valves, control valves, etc. in pressure lines and equipment that convey compressible substances such as steam, air, carbon dioxide, helium, methane, nitrogen, oxygen and other gases.

They achieve noise reductions of more than 50 dB without any additional acoustic absorption materials.

Depending on version

+540°C
To be agreed
Steam / Gases
Disc check valve

Mod. 170 EN ASME/ANSI

Connection: For placing between flanges
DN: 15 to 100
Material:
- Bronze. PN-16
- Cast steel. PN-40
- Stainless steel. PN-40
Seal:
- Metal

Disc check valve with centering ring for placing between flanges in accordance with DIN, UNE, ANSI, BS, etc. DN -15 to 100. Face-to-face dimensions in accordance with EN-558, basic series 49.

Depending on version
-60°C to +400°C
40,00 bar
Steam / Gases / Liquids

Mod. 172 EN ASME/ANSI

Connection: For placing between flanges
DN: 125 to 300
Material:
- Cast iron. PN-16
- Bronze. PN-16
- Cast steel. PN-40
- Stainless steel. PN-40
Seal:
- Metal

Disc check valve with centering ring for placing between flanges in accordance with DIN, UNE, ANSI, BS, etc. DN -15 to 100. Face-to-face dimensions in accordance with EN-558, basic series 49 and 51.

Depending on version
-60°C to +400°C
40,00 bar
Steam / Gases / Liquids
Steam traps

Mod. 179 EN ASME/FNPT ASME/SW

Connection: Female thread GAS
Female thread NPT
Socket welding ends SW
R: 1/4” to 2”
Material:
- Brass. PN-200
- Cast steel. PN-250
- Stainless steel. PN-250
- Metal

Check valve with spring operated piston closure.

Mod. 041 EN ASME/FNPT ASME/SW

Connection: Female thread GAS
Female thread NPT
Socket welding ends SW
R: 1/2” to 1”
Material:
- Stainless steel. PMA. 63 bar
- Metal

Mod. 043 EN ASME/FNPT ASME/SW

Connection: Female thread GAS
Female thread NPT
Socket welding ends SW
R: 1/2” to 1”
Material:
- Stainless steel. PMA. 63 bar
- Metal

Mod. 044 EN ASME/ANSI

Connection: Flange x Flange
DN: 15 to 25
Material:
- Stainless steel. PMA. 63 bar
- Metal

For the extraction of steam condensates.
For use in: steam piping, irons, laundries, tanks and vessels with condensate discharge, multiple plate presses, vulcanizing autoclaves, pressure reduction equipment, etc.

Depending on version

+400°C
0.20 bar to 42.00 bar
Steam

Piston check valve
Thermodynamic steam trap
Steam traps

**Bimetallic steam trap**

**Mod. 143 EN ASME/FNPT ASME/SW**

- Connection: Female thread GAS
  - Female thread NPT
  - Socket welding ends SW
- R: BP 1/2” and 3/4”
  - MP 1/2” and 3/4”
  - AP 1/2” to 1”
- Material: Cast steel. BP . PN-40
  - Cast steel. MP . PN-40
  - Cast steel. AP . PN-100
- Seal: Metal

**Mod. 144 EN ASME/ANSI**

- Connection: Flange x Flange
- DN: BP 15 to 25
  - MP 15 to 25
  - AP 15 to 25
- Material: Cast steel. BP . PN-40
  - Cast steel. MP . PN-40
  - Cast steel. AP . PN-100
- Seal: Metal

For the extraction of steam condensates.

Applicable in: steam piping, heat exchangers, chemical and petrochemical industries, etc.

**Inverted bucket steam trap**

**Mod. 343 EN ASME/FNPT**

- Connection: Female thread GAS
- R: 1/2” to 1”
- Material: Cast iron. PN-16
- Seal: Metal

To extract saturated or super-heated low-pressure steam condensates.

Applicable to: steam piping, heat exchangers, plants with automatic temperature control, etc., in the chemical and petrochemical industries, etc.

**Depending on version**

- For temperatures up to 450°C and pressures up to 80.00 bar, suitable for saturated steam.
- For temperatures up to 220°C and pressures up to 16.00 bar, suitable for super-heated steam.
Float and thermostatic steam trap

Mod. 241 EN ASME/FNPT

Connection: Female thread GAS
Connection: Female thread NPT
R: 1/2” to 1”
Material: Cast iron. PMS-14 bar
Seal: Metal

To extract saturated or super-heated medium or low-pressure steam condensates.
Applicable to: steam piping, heat exchangers, plants with automatic temperature control, etc., in the chemical and petrochemical industries, etc.

Mod. 444 EN ASME/ANSI

Connection: Female thread GAS
Connection: Female thread NPT
R: 1/2”
Material: Cast steel. PMS-14 bar
Seal: Metal

Depending on version

Steam
+220°C 14,20 bar

Thermostatic steam trap

Mod. 243 EN ASME/FNPT ASME/SW

Connection: Female thread GAS
Connection: Female thread NPT
Socket welding ends SW
R: 1/2” to 1”, 1 1/2” and 2”
Material: Cast steel. PMS-14 bar
Seal: Metal

Mod. 444 EN ASME/ANSI

Connection: Female thread GAS
Connection: Female thread NPT
R: 1/4” to 1”
Material: Stainless steel. PMS-22 bar
Seal: Metal

For placing between flanges
DN: 15 to 25

Mod. 543 EN ASME/FNPT

Connection: Female thread GAS
Connection: Female thread NPT
R: 1/2”
Material: Stainless steel. PMS-22 bar
Seal: Metal

To extract saturated or super-heated medium or low-pressure steam condensates.
Applicable to: steam piping, ironias, laundries, vessels with condensate discharge, cooking pots, sterilizers, heat exchangers, multiple dish presses, vulcanizing autoclaves, calenders, pressure reducing equipment, etc.

Depending on version

Steam
+250°C 22,00 bar
Reducing Mixing

Direct action pressure reducing valve

Steam-water mixing valve

Mod. 513 EN

Connection: Female thread
R: 1/2” to 1”
Material: Nodular iron, PN-25
Cast steel, PN-40
Stainless steel, PN-40
Seal: Metal

Mod. 514 EN

Connection: Flange x Flange
DN: 15 to 25
Material: Nodular iron, PN-25
Cast steel, PN-40
Stainless steel, PN-40
Seal: Metal

For steam and gases. (For liquids, consult our technical department).
Suitable for application in: ironing machines, laundries and dry cleaners, cooking vats, textile machinery, drying cylinders, autoclaves, steam ovens, distilleries, heat exchangers, the food industry, chemical laboratories, etc.

 Depending on version
+60 to +230°C
1.40 to 17.00 bar
Steam / Gases / Liquids

Mod. 253 EN

Connection: Female thread
R: 1/2”, 3/4”, 1” and 1 1/2”
Material: Bronze, PN-16
Seal: PTFE (Teflon)

Depending on version
+187°C
0.35 to 10.50 bar
Steam

Watergun Pl. 1

Connection: Female thread
R: 1/2”
Material: Bronze (covered with synthetic rubber)
Seal: Fluorelastomer (Viton)

In installations with steam, the steam can be mixed with cold water to obtain instant hot water in the most economical way. Can be used in packaging plants, dairies, detergent plants, slaughterhouses, meat processing plants, hospitals, etc. For cleaning floors, vehicles, toilets, tanks, filters, etc. In the manufacture of food, chemical, paper and tannery products, etc.

Depending on version
+82°C
28.00 bar
Liquids
Float-Buoys

To control the level of liquids in tanks, deposits, etc.

Mod. 150 EN ASME/ANSI

- Connection: Flange
- DN: 15 to 65
- Material: Stainless steel, PN-16
- Seal: Silicone’s rubber

Mod. 151 EN ASME/FNPT

- Connection: Male thread GAS
- Male thread NPT
- R: 3/8” to 2 1/2”
- Material: Stainless steel, PN-16
- Seal: Silicone’s rubber

Mod. 152

- Material: Stainless steel
  - Flat:
    - Ø150x60: Female thread. M10
    - Ø150x60: Sliding (Ø8 mm. internal)
    - Ø200x80 & Ø250x95: Female thread. M10
    - Ø300x115 & Ø350x130: Female thread. M12
  - Cylindrical:
    - Ø40x50: Male thread. M4
    - Ø40x50: Sliding (Ø4 mm. internal)
    - Ø60x120: Female thread. M6. (With or without Epoxi coating)
    - Ø60x120: Sliding (Ø6 mm. internal). (With or without Epoxi coating)
  - Spherical:
    - Ø60: Dowel Ø4,5 mm.
    - Ø60: Female thread. M4
    - Ø90: Female thread. M10
    - Ø105: Sliding (Ø18 mm. internal)
    - Ø110 & Ø150: Female thread. M10
    - Ø200 & Ø300: Female thread. M12

Depending on version

-60°C to +200°C
16,00 bar
Liquids
**Instrumentation**

**Siphon tube. For pressure gauges**

- **Connection:** Male thread
- **R:** 1/4” to 1/2”
- **Material:**
  - Cast steel. PN-32
  - Stainless steel. PN-40

**Sleeve and nuts**

- **Connection:** Female thread
- **R:** 1/4” to 1/2”
- **Material:**
  - Brass
  - Stainless steel

Prevents breakdowns and misalignments in pressure gauges.
Absorbs abrupt pressure changes or water hammer which cause malfunctioning pressure gauges.
Isolates the pressure gauge from extreme temperatures by creating thermal isolation space.
If working with steam, ensure that the pressure gauge is activated by water condensation and not by steam.

Depending on version

- -60ºC to +400ºC
- 40.00 bar
- Steam/Gases/Liquids

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**Needle valve**

**Mod. 011 EN**

- **Connection:** Female thread GAS
- **R:** 1/4” to 2”
- **Material:**
  - Brass. PN-200
  - Cast steel. PN-250
  - Stainless steel. PN-250
  - Metal

For liquids, gases and steam.
For use in hydraulic, pneumatic, heating and steam systems, chemical and food industries, etc.

Depending on version

- -60ºC to +400ºC
- 250.00 bar
- Steam/Gases/Liquids

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**Mod. 147 EN ASME/FNPT ASME/SW**

- **Connection:** Female thread NPT
- **Socket welding ends SW**
- **R:** 1/4” to 2”
- **Material:**
  - Stainless Steel. PN-40

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Bleeding for steam boilers

The water in the boiler contains salts, which are built up by the continuous evaporation. If these salts are not eliminated, bubbles and foam are formed when the density of the water increased. To prevent these lime deposits forming, the water supply must be suitably treated, with the result that certain salts are changed producing impurities which form sludge and encrusted deposits which then adhere to the sides or the bottom of the boiler and to the combustion tubes, together with particles of dirt, remains of electrodes, carbonic acid, oxygen, etc. This leads to a high level of rust which may:
- Destroy the metal plate of the boiler, causing high maintenance costs.
- Produce thermic voltages, causing cracks in the metal plate and soldering cord.
- Notably slow down thermic transmission, meaning an unnecessary and excessive consumption of fuel.

Depending on version

Connection: Flange x Flange
DN: 25 to 50
Material: √ Cast steel. PN-40
Seal: √ Metal

Connection: Flange x Flange
DN: 20 to 50
Material: √ Cast steel. PN-40
Seal: √ Metal

The water in the boiler contains salts, which are built up by the continuous evaporation. If these salts are not eliminated, bubbles and foam are formed when the density of the water increased. To prevent these lime deposits forming, the water supply must be suitably treated, with the result that certain salts are changed producing impurities which form sludge and encrusted deposits which then adhere to the sides or the bottom of the boiler and to the combustion tubes, together with particles of dirt, remains of electrodes, carbonic acid, oxygen, etc. This leads to a high level of rust which may:
- Destroy the metal plate of the boiler, causing high maintenance costs.
- Produce thermic voltages, causing cracks in the metal plate and soldering cord.
- Notably slow down thermic transmission, meaning an unnecessary and excessive consumption of fuel.

Depending on version

Connection: Flange x Flange
DN: 25 to 50
Material: √ Cast steel. PN-40
Seal: √ Metal

Connection: Flange x Flange
DN: 20 to 50
Material: √ Cast steel. PN-40
Seal: √ Metal
Bleeding for steam boilers

**Blowdown valve**

*for automatic bleeding dirt and sludge*

*For steam boilers*

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**Continuous desalting valve**

*For steam boilers*

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**Mod. 260-A EN**

- Connection: Flange x Flange
- **DN:** 20 to 50
- **Material:** Cast steel. PN-40
- **Seal:** Metal

**Mod. 560 EN**

- Connection: Flange x Flange
- **DN:** 15 and 20
- **Material:** Cast steel. PN-40
- **Seal:** Metal

**Programmable control for automatic bleeding of dirt and sludge.**

**MP-1 and MP-2**

- Connection: Air inlet 1/8”
- **Control and discharge tube Ø6/4 mm.**
- **Voltage:** 220 V.A.C. ±10% 50/60 Hz.

The water in the boiler contains salts, which are built up by the continuous evaporation. If these salts are not eliminated, bubbles and foam are formed when the density of the water increased. To prevent these lime deposits forming, the water supply must be suitably treated, with the result that certain salts are changed producing impurities which form sludge and encrusted deposits which then adhere to the sides or bottom of the boiler and to the combustion tubes, together with particles of dirt, remains of electrodes, carbonic acid, oxygen, etc. This leads to a high level of rust which may:
- Destroy the metal plate of the boiler, causing high maintenance costs.
- Produce thermic voltages, causing cracks in the metal plate and soldering cord.
- Notably slow down thermic transmission, meaning an unnecessary and excessive consumption of fuel.

The continuous desalting valve is used to empty an adjustable quantity of water from the steam boiler, removing:
- Organic matter and mineral salts in solution. (Calcium, magnesium, sodium, potassium, iron, bicarbonate ions, chlorides, sulphates, nitrates, ...etc.).
- Solid materials in suspension. (Sand, clay, metal residues, rock residues, organic matter, ...etc.).

The continuous bleeding process prevents:
- Damage caused by erosion and perforation, entailing the following high costs:
  - Direct: Replacement or repair of materials.
  - Indirect: Stoppages, product losses, ...etc.
- Danger of boiler explosion.

And reduces:
- Incrustations and sediments caused by precipitation of calcium and magnesium salts, which obstruct thermic transmission and which cause unnecessary and excessive fuel consumption.
- Foam formation caused by excessive saline concentration, with its corresponding drag.

**Depending on version**

- **+250°C**
- **40,00 bar**
- Steam/Liquids

- **+300°C**
- **40,00 bar**
- Steam/Liquids
Efficient monitoring of the purging of salts, dirt and sludge in a steam boiler requires regular analysis of the water in order to verify that its parameters are within the ideal levels of salinity and alkalinity demanded by law. All the Continuous desalting valve (Mod. 560 and 560-A) are provided with taps for obtaining samples. As the water is extracted continuously 30 ÷ 50 mm. below the minimum level, the collection level is ideal and does not interfere with the control and level regulation devices.

Direct sampling is incorrect:
- Losses by expansion increase the density of the water and falsify results.
- There is an obvious physical risk involved.

The basic premise for conducting analyses correctly is to bring the samples from the tap of the Continuous desalting valve to the Samples water-cooled DRM-1, and bring them down to between 24 ÷ 26°C.

This combination of measuring, comparison and control ensures minimum water loss and thus gives considerable energy savings.
### Automatic level controller

This device guarantees automatic, safe and reliable control, regulation and signalling of the level of liquids in: wells, tanks, cisterns, etc.

#### Sliding buoy type automatic level controller

- **Mod. 290 EN**
  - **Connection:** Bracket with 2 screws M.8 x...
  - **Material:** Stainless steel
  - **Standard level fluctuation:** 495 mm.
  - **Buoy:** Ø150x60 sliding
  - **Maximum nº of switches:** 1

- **Mod. 291 EN**
  - **Connection:** Female thread R: 2 1/2"
  - **Material:** Stainless steel - Brass. PMS-19 bar
  - **Standard level fluctuation:** 3.000 mm.
  - **Buoy:** Ø60x120 sliding
  - **Maximum nº of switches:** 1

This device guarantees automatic, safe and reliable control, regulation and signalling of the level of liquids in: wells, tanks, cisterns, etc.

#### BuoY type automatic level controller

- **Mod. 076 EN**
  - **Connection:** Flange DN: 25
  - **Connection (SC):** Flange with 4 screws M. 16x40
  - **Material:** Cast iron. PN-16
  - **Stainless steel. PN-16 (SC)**
  - **Standard level fluctuation:** 120 mm.
  - **Buoy:** Ø60x120
  - **Maximum nº of switches:** 10
  - **Distance between centres of flanges:** 190 or 250 mm.
  - **Viewer (CM):** F =Front. D =Right. I =Left
  - **Blowoff valve:** Mod. 999 1/2" with simple joint plug

This device guarantees automatic, safe and reliable control, regulation and signalling of the level of liquids in: steam boilers, pressurised vessels, preheaters, processes, etc.

#### Mod. 262

- **Connection:** M.4
- **Voltage:** 220 V.A.C
- **To be meant for Mod. 290, 291 and 076**
This device guarantees a safe and reliable control, regulation and electronic signalling of the level of electrically conducting liquids in: steam and hot water boilers, autoclaves, preheaters, pressure vessels, feedwater and condensates tanks, processes, etc.

This device, when combined with a motorised valve, ensures the continuous control and display of the level, with a high and low level alarm for: steam and hot water boilers, autoclaves, pre-heaters, pressured vessels, condensation and feedwater tanks, processing, etc. Applicable to steam boilers in accordance with TRD-602, TRD-604 (24/72 hours) and EN-12953 Part 6 (24 hours).

Depending on version

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<thead>
<tr>
<th>Mod. 176 EN</th>
<th>Mod. 276 EN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage: 220 V.A.C. ±10% 50/60 Hz.</td>
<td>Voltage: 220 V.A.C. ±10% 50/60 Hz.</td>
</tr>
<tr>
<td>Level controller. RN-1</td>
<td>Modulating level controller. RAC-1, RAC-2, RAC-3</td>
</tr>
<tr>
<td>Minimum level safety controller. RS-1</td>
<td></td>
</tr>
<tr>
<td>Level electrode. EN-1</td>
<td>Modulating level electrode. EAC-1</td>
</tr>
<tr>
<td>Minimum level safety electrode. ES-1</td>
<td></td>
</tr>
<tr>
<td>Connection: Male thread</td>
<td>Connection: Male thread</td>
</tr>
<tr>
<td>R: 1&quot;</td>
<td>R: 1&quot;</td>
</tr>
<tr>
<td>Material: PTFE (Teflon)-Stainless steel. PMS-32 bar</td>
<td>Material: PTFE (Teflon)-Stainless steel. PMS-32 bar</td>
</tr>
<tr>
<td>Measuring standard length: 700 mm</td>
<td>Measuring standard length: 300 to 1.500 mm.</td>
</tr>
<tr>
<td>Electrode connection colector</td>
<td>Electrode connection colector</td>
</tr>
<tr>
<td>Connection: Flange</td>
<td>Connection: Flange</td>
</tr>
<tr>
<td>DN: 25</td>
<td>DN: 25</td>
</tr>
<tr>
<td>Material: Cast steel. PN-40</td>
<td>Material: Cast steel. PN-40</td>
</tr>
<tr>
<td>Maximum nº of electrodes: 1 or 3</td>
<td>Maximum nº of electrodes: 1 or 3</td>
</tr>
<tr>
<td>Distance between centres of flanges: 190 or 250 mm.</td>
<td>Distance between centres of flanges: 190 or 250 mm.</td>
</tr>
<tr>
<td>Blowoff valve: Mod. 999 1/2” with simple joint plug</td>
<td>Blowoff valve: Mod. 999 1/2” with simple joint plug</td>
</tr>
</tbody>
</table>

Depending on version

| +238°C | +238°C |
| 32.00 bar | 32.00 bar |
| Steam/Liquids | Steam/Liquids |
To verify the flow, direction and condition of liquid in a section of piping, it helps detect blockages in valves, filters and other line equipment. In particular, it enables verification of correct operation of the condensate traps, ensuring that there are no steam leaks, with the cost this would entail. It also enables observation of a product's viscosity, turbidity and, in particular, its colour in the different phases of its production process. Applicable for piping conveying liquids, steam and condensates, among others, in any type of industry: chemical, petrochemical, pharmaceutical, food and more.

Depending on version

-60°C to +280°C
40.00 bar
Steam/Gases/Liquids
**Mod. 666 EN**
**Level gauges**

For use in boilers, receivers, cisterns, reservoirs, ...etc., to control the level of liquids, gases and steam. A multiple-slot polyprismatic viewer allows the level to be optically read, clearly differentiating liquid and gas phases from liquid ones.

-60°C to +400°C
40,00 bar
Steam/Gases/Líquids

**Connection:** Flanged
**Connection:** Flanged

**Material:**
- Cast iron. PN-16
- Nodular iron. PN-40. 350°C
- Cast steel. PN-40
- Stainless steel. PN-40

**Seal:**
- Metal

**Blowoff valve:** Mod. 999 3/8” with simple joint plug and/or sleeve

**Mod. 466 EN**
**Level gauges**

For use in boilers, receivers, cisterns, reservoirs, ...etc., to control the level of liquids, gases and steam. A multiple-slot polyprismatic viewer allows the level to be optically read, clearly differentiating liquid and gas phases from liquid ones.

-60°C to +400°C
40,00 bar
Steam/Gases/Líquids

**Connection:** Flange
**Connection:** Flange

**Material:**
- Cast iron. PN-16
- Nodular iron. PN-40. 350°C
- Cast steel. PN-40
- Stainless steel. PN-40

**Seal:**
- Metal

**Mod. 166-ER EN**
**Round-dowel level indicator box**

Connection: Round-dowel Ø 20 mm.

- Box nº: 0 to X
- Material: Cast steel. PN-16. PN-40
- Stainless steel. PN-40

For use in boilers, receivers, cisterns, reservoirs, ...etc., to control the level of liquids, gases and steam. A multiple-slot polyprismatic viewer allows the level to be optically read, clearly differentiating liquid and gas phases from liquid ones.

Depending on version

-60°C to +400°C
40,00 bar
Steam/Gases/Líquids

**Mod. 166-EC EN**
**Square-dowel level indicator box**

Connection: Square-dowel 18 mm.

- Box nº: 0 to X
- Material: Cast steel. PN-16. PN-40
- Stainless steel. PN-40

For use in boilers, receivers, cisterns, reservoirs, ...etc., to control the level of liquids, gases and steam. A multiple-slot polyprismatic viewer allows the level to be optically read, clearly differentiating liquid and gas phases from liquid ones.

Depending on version

-60°C to +400°C
40,00 bar
Steam/Gases/Líquids
Level indicators
Window Sight glasses

Reflection and transparency glasses
For level indicator box

Mica shield
For level indicator box

Mod. 066

Type:
Reflection: A 5 prisms 0 to IX
B 5 prisms 0 to IX
H 5 prisms 0 to IX
Transparency: A V to IX
B V to IX
H V to IX
Material: Borosilicate
Klingerit cardboard type (Joint)
Graphite (Joint)

For visual checking of the level of liquids in all types of vessel, including those under pressure, in special thermal and chemical conditions. Also for checking processes. The quality of the sight glass satisfies the most demanding safety standards and industry guarantees in general.

Depending on version

+243°C
100.00 bar
Steam/Gases/Liquids

Mod. 066-PM

Type: A  I to X
B/H  I to X
Material: Natural muscovite mica

In combination with transparent glasses the life of these is increased when working at high pressures and temperatures. Also, they are protected from erosion, which results from the effects of the corrosive chemical components, alkaline solutions, boiler water, steam, caustic products, hydrofluoric acids, hot and concentrated phosphoric acids, sodium and potassium hydroxides and other contaminating, viscous or corrosive media.

Applicable in level indicators for electrical generation plants, thermal power plants, petroleum refineries, petrochemical plants, pressure vessels, fertilizers, sugar refining plants, paper mills,... etc..

Depending on version

+600°C
392.00 bar
Steam/Gases/Liquids
Mod. 999 EN

**Connection:** Female thread
- R: 3/8” and 1/2”
- Material: Brass, PN-25
- Seal: PTFE (Teflon)-Metal

**Connection:** Male thread x Female thread
- R: 3/8” and 1/2”
- Material: Stainless steel, PMS-56 bar
- Seal: PTFE (Teflon)-Metal

**Simple plug**
- Connection: Male thread x Tube Ø 12/10 and Ø 15/13 mm.
- R: 3/8” and 1/2”
- Material: Cast steel

**Sleeve**
- Connection: Male thread
- R: 3/8” and 1/2”
- Material: Cast steel

Depending on version
-60°C to +260°C
66.00 bar
Steam/Gases/Liquids