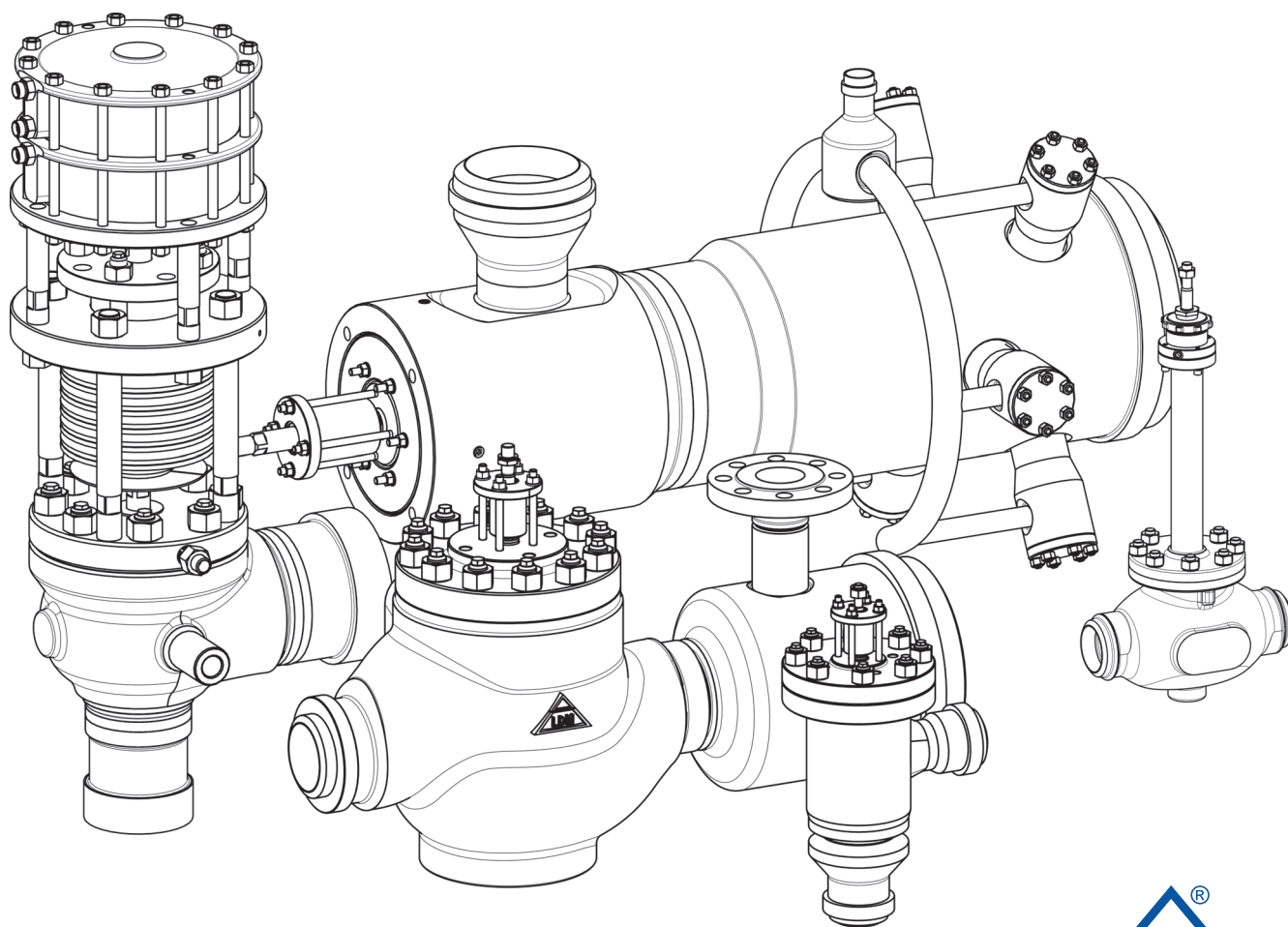




OVERVIEW OF PRODUCTION RANGE

Power generation



05.21.GB

| Series | | 300 line | | | | 500 line | 700 line | | |
|---|----------------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------|-----------|---------------------|---------------------|
| Marking of type | | RV 3x0 UV 3x0 | RV 3x2 | CV 3x0 SV 3x0 | CV 3x2 | UV 526 | RV 701 | RV 702 | RS 702 |
| Type of valve | Control valve | ● | ● | ● | ● | | ● | ● | |
| | Steam-conditioning station | | | | | | | | ● |
| | Safety valve | | | | | | | | |
| | Shut-off valve | ● | | ● | | ● | | | |
| | Check valve | | | | | | | | |
| | Special valve | | | | | | | | |
| Application | For liquids | ● | ● | ● | ● | ● | ● | | |
| | For gases, steam | ● | ● | ● | ● | ● | | ● | ● |
| Execution | Straight-through | ● | ● | ● | ● | ● | ● | ● | ● |
| | Angle | | | | | | | | |
| | "Z" | | | | | | | | |
| | Three-way | | | | | | | | |
| Connection | Flanged | ● | ● | ● | ● | ● | ● | ● | ● |
| | Weld ends | ● | ● | ● | ● | ● | ● | ● | ● |
| Diameter Nominal DN (inlet) | | 15 - 400 | 25 - 400 | | | 10 - 65 | 25 - 250 | 25 - 250 | 25 - 250 |
| Diameter Nominal DN (outlet) | | | | | | | 25 - 1000 | 150 - 1000 | |
| Pressure Nominal PN (inlet) | | 40 ⁴⁾ - 63 | 40 ⁴⁾ - 63 | | | 63 - 250 | 16 - 400 | 16 - 400 | 16 - 400 |
| Pressure Nominal PN (outlet) | | | | | | | 16 - 400 | 16 - 400 | 16 - 400 |
| Range of Kvs [m³/h] | | 0,01 - 1600 | 1,6 - 1600 | | | 1,53 - 29,4 | 0,1 - 630 | 0,25 - 630 | 1,25 - 630 |
| Diameter Nominal NPS ⁶⁾ (inlet) | | | | 1/2" - 16" | 1" - 16" | | | | |
| Diameter Nominal NPS ⁶⁾ (outlet) | | | | | | | | | |
| Pressure Nominal Class ⁶⁾ | | | | 150 ⁴⁾ - 600 | 150 ⁴⁾ - 600 | | | | |
| Range of Cv ⁶⁾ [US Galon/min] | | | | 0,012 - 1850 | 1,85 - 1850 | | | | |
| Number of orifice plate | | 1 | 1 | 1 | 1 | 1 | 1 - 3 | 1 - 2 ¹⁾ | 1 - 2 ¹⁾ |
| Body material | Grey cast iron | | | | | | | | |
| | Spheroidal cast iron | | | | | | | | |
| | Cast steel | ● | ● | ● | ● | ● | ● | ● | ● |
| | Alloy steel | ● | ● | ● | ● | ● | ● | ● | ● |
| | Stainless steel | ● | ● | ● | ● | ● | ● | ● | ● |
| Flow characteristic | Linear | ● | ● | ● | ● | | ● | ● | ● |
| | Equal-percentage | ● | ● | ● | ● | | ● | ● | ● |
| | LDMspline ⁶⁾ | ● | ● | ● | ● | | | | |
| | Parabolic | ● | ● | ● | ● | | | | |
| | On-off | ● | | ● | | ● | | | |
| Actuating | Hand wheel | ● | ● | ● | ● | ● | ● | ● | |
| | Electromechanic actuator | ● | ● | ● | ● | ● | ● | ● | ● |
| | Pneumatic actuator | ● | ● | ● | ● | | ● | ● | ● |

¹⁾ Further reduction: max. 3 fixed orifice plates

²⁾ Further reduction: max. 1 fixed orifice plate

³⁾ Material of weld ends only. The body made of 1.4922 (stainless steel X20 CrMoV 11-1) as standard

⁴⁾ PN 40 (CLASS 150) weld ends only

⁵⁾ Angle and angle with two inlets

⁶⁾ Execution of valves according to ASME

⁷⁾ For DN 20 - 100, PN 63 input insert only

| 700 line | | | 800 line | | 900 line | | | |
|------------|----------------------|----------------------|-----------------|-----------------|-----------------------|-----------------------|----------|----------|
| CV 701 | CV 702 | CS 702 | RV 805 | RV 806 | RV 902 | RS 902 | UV 926 | ZV 926 |
| ● | ● | | ● | ● | ● | | | |
| | | ● | | | | ● | | |
| | | | | | | | | |
| | | | | | | | ● | |
| | | | | | | | | ● |
| | | | | | | | | |
| ● | | | ● | ● | | | ● | ● |
| | ● | ● | | | ● | ● | ● | ● |
| ● | ● | ● | | | | | ● | ● |
| | | | ● | | ● | ● | | |
| | | | | ● | | | | |
| | | | | | | | | |
| ● | ● | ● | | | | | ● | ● |
| ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | | 25 - 100 | 25 - 100 | 50 - 250 80 - 700 | 50 - 250 80 - 700 | 10 - 65 | 10 - 65 |
| | | | 160 - 400 | 160 - 400 | 100 - 630 16 - 400 | 100 - 630 16 - 400 | 63 - 630 | 63 - 630 |
| | | | 0,63 - 50 | 0,63 - 50 | 8 - 500 | 8 - 500 | 1,5 - 30 | 1,5 - 30 |
| 1" - 10" | 1" - 10" 1" - 40" | 1" - 10" 1" - 40" | | | | | | |
| 150 - 2500 | 150 - 2500 | 150 - 2500 | | | | | | |
| 0,11 - 728 | 0,29 - 728 | 1,45 - 728 | | | | | | |
| 1 - 3 | 1 - 2 ¹⁾ | 1 - 2 ¹⁾ | 1 - 4 | 1 - 4 | 1 - 2 ¹⁾ | 1 - 2 ¹⁾ | 1 | 1 |
| | | | | | | | | |
| | | | | | | | | |
| ● | ● | ● | ● ³⁾ | ● ³⁾ | ● | ● | ● | ● |
| ● | ● | ● | ● ³⁾ | ● ³⁾ | ● | ● | ● | ● |
| ● | ● | ● | | | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● | | |
| ● | ● | ● | ● | ● | ● | ● | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | ● | ● |
| ● | ● | | | | | | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | |

| Series | | Series G | | | | | Control cock | Safety valves | |
|--|----------------------------|-----------|-----------------|-----------|------|-----------------|--------------|---------------|-----------|
| Marking of type | | G 45 | G 46 | G 47 | G 92 | G 93 | RK 601 | SiZ 1508 | PV 1509 |
| Type of valve | Control valve | ● | ● | ● | ● | ● | | | |
| | Steam-conditioning station | | | | | | | | |
| | Safety valve | | | | | | | ● | ● |
| | Shut-off valve | | | | | | | | |
| | Check valve | | | | | | | | |
| | Special valve | | | | | | ● | | |
| Application | For liquids | ● | | ● | ● | ● | ● | | |
| | For gases, steam | | ● | | | ● | ● | ● | ● |
| Execution | Straight-through | ● | ● | ● | | | | | |
| | Angle | | | | ● | ● ⁵⁾ | | ● | ● |
| | "Z" | | | | | | | | |
| | Three-way | | | | | | ● | | |
| Connection | Flanged | ● | ● | ● | | | | ● | ● |
| | Weld ends | ● | ● | ● | ● | ● | ● | ● | ● |
| Diameter Nominal DN (inlet) | | 150 - 400 | 65 - 300 | 125 - 300 | 150 | 150 | 200 - 600 | 25 - 350 | 65 - 350 |
| (outlet) | | | 125 - 600 | | | | 200 - 600 | 40 - 600 | 100 - 600 |
| Pressure Nominal PN (inlet) | | 16 - 100 | 16 - 250 | 125 - 500 | 400 | 400 | 40 - 100 | 16 - 400 | --- |
| (outlet) | | | 10 - 160 | | | | | 10 - 160 | |
| Range of Kvs [m³/h] | | 45 - 1100 | 16 - 1125 | 10 - 435 | 191 | 60 - 250 | to 25 000 | | |
| Diameter Nominal NPS ⁶⁾ (inlet) | | | | | | | | | |
| (outlet) | | | | | | | | | |
| Pressure Nominal Class ⁶⁾ | | | | | | | | | |
| Range of Cv ⁶⁾ [US Galon/min] | | | | | | | | | |
| Number of orifice plate | | 1 | 1 ²⁾ | 1 | 4 | 5 | | | |
| Body material | Grey cast iron | | | | | | | | |
| | Spheroidal cast iron | | | | | | | | |
| | Cast steel | ● | ● | ● | | | ● | ● | ● |
| | Alloy steel | ● | ● | ● | ● | ● | ● | ● | ● |
| | Stainless steel | | | | | | ● | ● | ● |
| Flow characteristic | Linear | ● | ● | ● | | ● | | | |
| | Equal-percentage | ● | ● | ● | ● | ● | | | |
| | LDMspline ⁶⁾ | | | | | | | | |
| | Parabolic | | | | | | | | |
| | On-off | | | | | | | | |
| Actuating | Hand wheel | | | | | | | | |
| | Electromechanic actuator | ● | ● | ● | ● | ● | ● | | |
| | Pneumatic actuator | | | | | | | | |

¹⁾ Further reduction: max. 3 fixed orifice plates

²⁾ Further reduction: max. 1 fixed orifice plate

³⁾ Material of weld ends only. The body made of 1.4922 (stainless steel X20 CrMoV 11-1) as standard

⁴⁾ PN 40 (CLASS 150) weld ends only

⁵⁾ Angle and angle with two inlets

⁶⁾ Execution of valves according to ASME

⁷⁾ For DN 20 - 100, PN 63 input insert only

HISTORY AND PRESENT TIME OF LDM

LDM spol, s r. o. was established by three partners in the mid of 1991. From the very beginning it has always been and also for the future will be focused on production of industrial valves.

The history of production of industrial valves in Česká Třebová is dated since 1909 when Mr. Josef Jindra founded a company with the homonymic firm name.

In 1919 he amalgamated with Mr. Václav Šrefl and Jindra, later registered as Jindra and Šrefl. Then production programme included wide variety valves from small brass water valves over gas valves up to steam valves made of cast steel, including steam safety valves. At the end of 1929 both partners were separating and both founded own factory in Česká Třebová for manufacturing of industrial valves. Nowadays the former Šrefl's factory is the part of production facilities of LDM.

After nationalization in 1948 both companies changed their names several times till 1975 when became a part of worldwide known Czechoslovak concern Sigma Lutín.

After so-called velvet revolution is the Sigma concern separated to different companies which were privatized or restored. Also the Sigma Česká Třebová was privatized and became an joint-stock company, nevertheless the company became bankrupt in 1995. LDM bought it and became the continuator of more than 100-years of valves manufacturing tradition in Česká Třebová. Currently LDM is strongly export-oriented company with more than 220 employees and LDM industrial valves can be found



Period catalogue of Jindra and Šrefl company in 20's

worldwide particularly in power generation, industrial processes, heating, ventilation, air conditioning, gas industry and other applications.

LDM product range includes control valves, shut-off valves and safety valves in pressure ranges from PN 6 to PN 400 and dimensions from DN 10 to DN 600. The wide product portfolio is a reason why LDM valves can be found in almost all fields of human activities where it is necessary to control a flow, pressure or temperature.

LDM has its own subsidiary in Slovakia, Poland, Bulgaria, Germany, Russia and Kazakhstan and many authorized partners in other countries.

LDM has also well-established and certified integrated quality management system according to standards ISO 9001, ISO 14001 and OHSAS 18001 which it is ensuring permanent quality and a high level of all company processes.

As follows from above mentioned, LDM company dignity continues the long-time tradition of industrial valves

manufacturing in Česká Třebová to which proudly claims as its successor. The company's future consist in fulfilment of the vision that was already defined in 1995:

- World-famous, leading and trend-making company in the development, production, sale and service of industrial valves
- Dynamic company allowing to all their employees achievement of high level of self-fulfillment and social prestige
- Reputable company whose name stands for high utility value, quality and reliability

Successful fulfillment of the vision results from the conviction, that three main pillars on which the company stands are strong.

The first pillar are our customers and their needs whose satisfaction is directed effort of the whole company to. The second pillar are our products. LDM is company which firmly stands on its own development, so the cycle of a development, design, manufacturing, sale and service is closed. The third and no less important pillar are own employees who are able to respond flexibly to constantly changing market requirements and who are able to actively and jointly form the company future.

Ultimately, not only many awards from international exhibitions from past, but also many OEM products, whose LDM manufacture and delivers to many other producers under their own brand, recognize the high quality of LDM production and confirm the right way, which LDM took in 1991.



LDM facility today



A sample of manufacturing portfolio of LDM nowadays

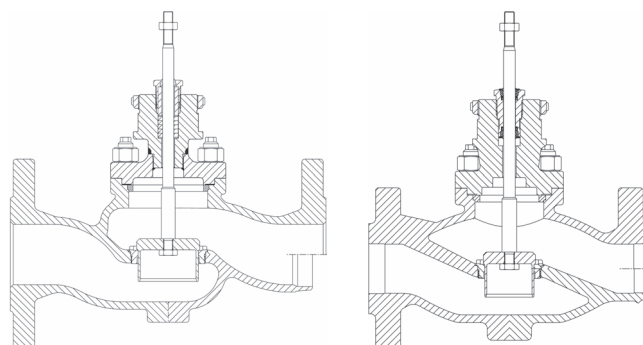
300 line

Control and shut-off valve RV/UV 3x0 and CV/SV 3x0

Description

The valves of the series RV/UV 3x0 and CV/SV 3x0 are single-seated control and shut-off valves of a unit construction design to control or closing a flow and a pressure of liquids, vapours and gases without mechanical impurities. The valves are designed for applications in heating, ventilation, power generation and chemical processing industries.

The valves can be actuated with hand wheel or with electric or pneumatic actuators of the following producers: ZPA Nová Paka (for RV/UV 3x0), ZPA Pečky (for CV/SV 3x0), Regada, Auma, Schiebel, A.Hock, Flowserve or others.



RV/UV 3x0

CV/SV 3x0

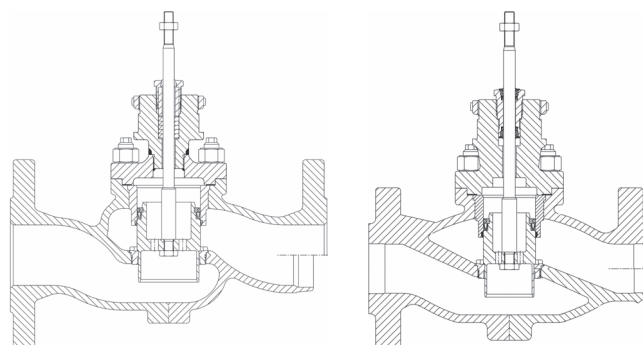
| Technical data | RV/UV 3x0 | CV/SV 3x0 |
|------------------------|---|-----------------------------|
| Execution | Control valve, single-seated, straight-through, flanged or with weld ends | |
| Diameter nominal range | DN 15 to 400 | NPS 1/2" to 16" |
| Nominal pressure | PN 40 and 63 | Class 150, 300, 600 |
| Operating temp. range | -10 to 550°C | -10 to 550°C (14 to 1020°F) |

Control valve RV 3x2 and CV 3x2

Description

The valves of the series RV 3x2 and CV 3x2 are single-seated pressure balanced control valves of a unit construction design to control a flow and a pressure of liquids, vapours and gases without mechanical impurities. The valves are designed for applications in heating, ventilation, power generation and chemical processing industries.

The valves can be actuated with hand wheel or with electric or pneumatic actuators of the following producers: ZPA Nová Paka (for RV 3x2), ZPA Pečky (for CV 3x2), Regada, Auma, Schiebel, A.Hock, Flowserve or others.



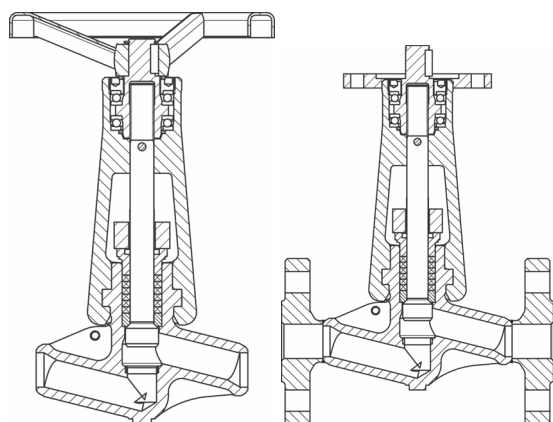
RV 3x2

CV 3x2

| Technical data | RV 3x2 | CV 3x2 |
|------------------------|---|-----------------------------|
| Execution | Control valve, single-seated, straight-through with pressure-balanced plug, flanged or with weld ends | |
| Diameter nominal range | DN 25 to 400 | NPS 1" to 16" |
| Nominal pressure | PN 40 and 63 | Class 150, 300, 600 |
| Operating temp. range | -10 to 550°C | -10 to 550°C (14 to 1020°F) |

500 line

Shut-off valve UV 526



Description

Shut-off valves UV 526 are single-seated globe valves designed for shutting off flow of a media. The valves could be optionally equipped with shaped plug for rough control in case of demand.

The valves are designed for applications in power generation and chemical processing industries. They are suitable for shutting off water, steam and other liquids and gases which are compatible with used materials of the valve body and internal materials.

Shut-off valves UV 526 are designed to be actuated with hand wheel or with multi-turn electric actuators.

Technical data

| | |
|------------------------|---|
| Execution | Shut-off valve, single-seated, straight-through, two-way, flanged or welded |
| Diameter nominal range | DN 10 to 65 |
| Nominal pressure | PN 63 to 250 |
| Operating temp. range | -10°C to 600°C |

700 line

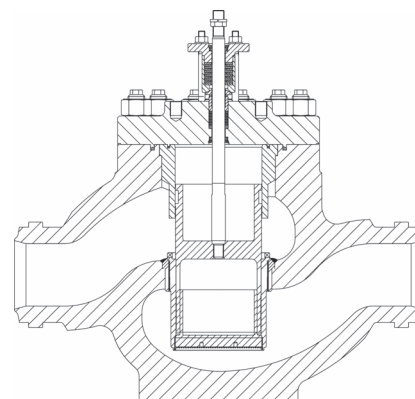
Control valve RV 701 and CV 701

Description

The valves of the series RV 701 and CV 701 are single-seated control valves of a unit construction designed to control a flow and a pressure of liquids without mechanical impurities. The pressure-balanced, multi-step throttling trim is always designed with regard to the resistance to creation and effects of cavitation and noisiness. The valves are equipped with "Live Loading" packing.

The common process medium is water or other media compatible with a valve body material carbon steel, alloy steel or stainless steel and its inner parts.

The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others.



| Technical data | RV 701 | CV 701 |
|------------------------|--|-----------------------------|
| Execution | Control valve, single-seated, straight-through, pressure-balanced plug, flanged or weld ends | |
| Diameter nominal range | DN 25 to 250 | NPS 1" to 10" |
| Nominal pressure | PN 16 to 400 | Class 150 to 2500 |
| Operating temp. range | -10 to 600°C | -10 to 600°C (14 to 1112°F) |

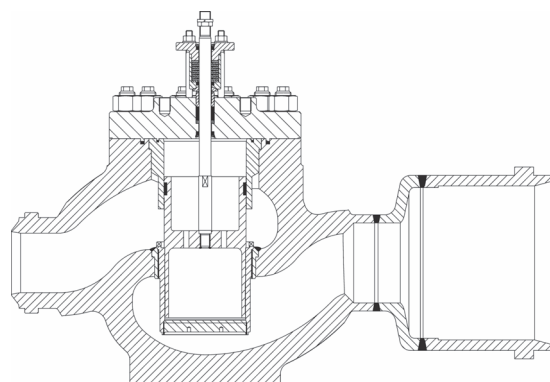
Control valve with extended outlet and orifice plate RV 702 and CV 702

Description

The valves with extended outlet of the series RV 702 and CV 702 are single-seated control valves of a unit construction designed to control a flow and a pressure of vapours and gases without mechanical impurities. The pressure-balanced, multi-step throttling trim is always designed to eliminate the valve's high differential pressures with a high resistance to wearing caused by flow and effects of expanding steam. It also ensures a low noisiness level. The valves are equipped with "Live Loading" packing.

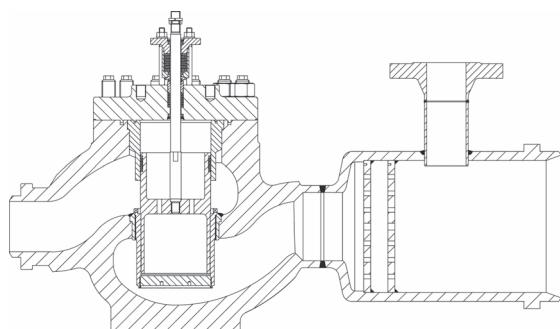
The common process media is saturated or superheated steam and other media compatible with a valve body material carbon steel, alloy steel or stainless steel and its inner parts.

The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others.



| Technical data | RV 702 | CV 702 |
|------------------------|--|---|
| Execution | Control valve, single-seated, straight-through, pressure-balanced plug, orifice plate in extended outlet, flanged or weld ends | |
| Diameter nominal range | inlet DN 25 to 250, outlet DN 25 to 1000 | inlet NPS 1" to 10", outlet NPS 1" to 40" |
| Nominal pressure | inlet PN 16 to 400, outlet PN 16 to 400 | inlet Class 150 to 2500, outlet Class 150 to 2500 |
| Operating temp. range | -10 to 600°C | -10 to 600°C (14 to 1112°F) |

Steam-conditioning station RS 702 and CS 702



Description

Steam conditioning station RS 702 and CS 702 is single-seated control valve of a unit construction designed for water injection into the extended outlet. The pressure-balanced, multi-step throttling trim is designed to eliminate high differential pressures within the valve and ensure the low noisiness. It ensures a high resistance to wearing caused by medium flow and to effects of the expanding steam. Cooling water is injected into the extended outlet with a specially designed nozzle (VH, VHF or VHP) with changeable flow. The valve is equipped with "Live Loading" packing.

The valves are designed to regulate the pressure and temperature of steam without mechanical impurities.

The connection is designed for both domestic and foreign actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel and Flowserve.

| Technical data | RS 702 | CS 702 |
|------------------------|---|---|
| Execution | Control valve, single-seated, straight-through, with pressure-balanced plug, with orifice plate and injection head at extended outlet, with weld ends | |
| Diameter nominal range | inlet DN 25 to 250, výstup DN 25 to 1000 | inlet NPS 1" to 10", výstup NPS 1" to 40" |
| Nominal pressure | inlet PN 16 to 400, výstup PN 16 to 400 | inlet Class 150 to 2500, výstup Class 150 to 2500 |
| Operating temp. range | -10 to 600°C | -10 to 600°C (14 to 1112°F) |

800 line

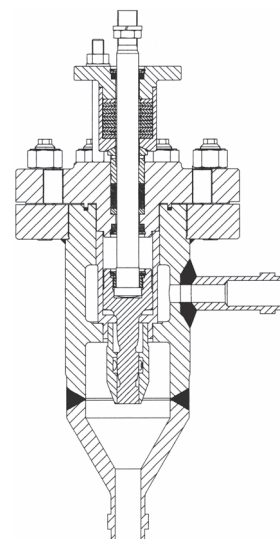
Control valve RV 805

Description

The valves of the series RV 805 are single-seated angle control valves of a unit construction that provides a great variety of control elements. Thanks to such a combination, it is possible to satisfy the customers' requirements and demands. The valve is equipped with "Live Loading" packing.

The valves series RV 805 are especially designed as control elements for control of injection water supply into steam pipeline. Thanks to their high nominal working pressure (PN 400) and ability to manage high differential pressures (ordinarily 15 MPa, max. 20 MPa), owing to a multi-step pressure reduction, the valves can be used in every application to which any other common valve cannot resist due to its low service life.

The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others.



| Technical data | |
|------------------------|--|
| Execution | Control valves, single-seated, angle, with weld ends |
| Diameter nominal range | DN 25, 40, 50, 65, 80, 100 |
| Nominal pressure | PN 160 to 400 |
| Operating temp. range | -10 to 550°C |

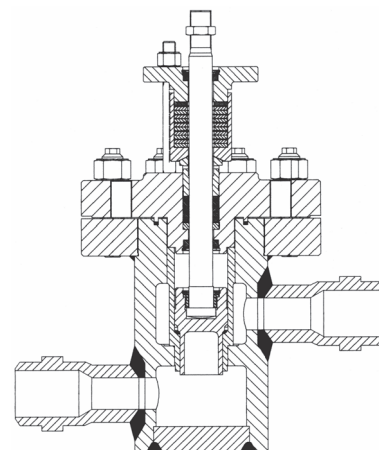
Control valve RV 806

Description

The valves of the series RV 806 are single-seated valves of a unit construction that provides a great variety of control elements. Thanks to such a combination, it is possible to satisfy the customers' requirements and demands. The valve is equipped with "Live Loading" packing.

The valves series RV 806 are especially designed as control elements for control of injection water supply into steam pipeline. Thanks to their high nominal working pressure (PN 400) and ability to manage high differential pressures (ordinarily 15 MPa, max. 20 MPa), owing to a multi-step pressure reduction, the valves can be used in every application to which any other common valve cannot resist due to its low service life.

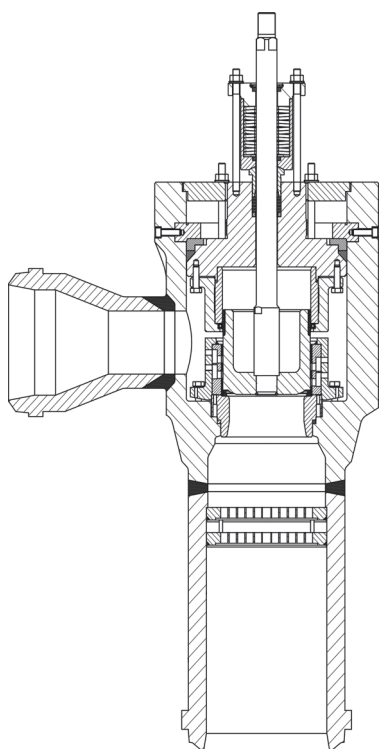
The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others.



| Technical data | |
|------------------------|---|
| Execution | Control valve, single-seated "Z-shaped", with weld ends |
| Diameter nominal range | DN 25, 40, 50, 65, 80, 100 |
| Nominal pressure | PN 160 to 400 |
| Operating temp. range | -10 to 550°C |

900 line

Control valve RV 902 with extended outlet and orifice plate



Description

The valves with extended outlet of the series RV 902 are single-seated angle control valves of a unit construction designed to control a flow and a pressure of vapours and gases without mechanical impurities. The pressure-balanced, multi-step throttling trim is always designed to eliminate the valve's high differential pressures with a high resistance to wearing caused by flow and effects of expanding steam. It also ensures a low noisiness level. The valves are equipped with "Live Loading" packing.

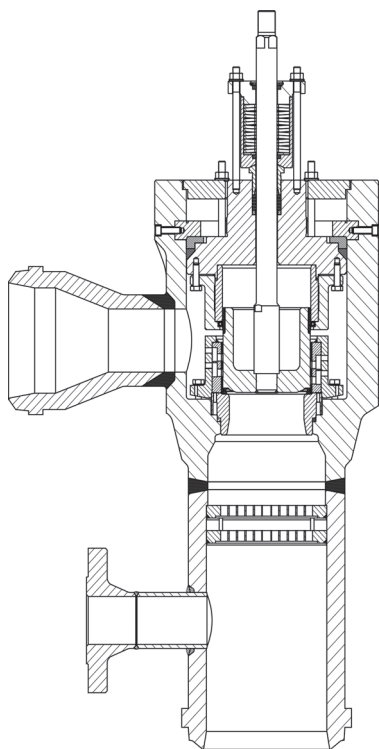
The common process media is saturated or superheated steam and other media compatible with a valve body material carbon steel, alloy steel or stainless steel and its inner parts.

The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others. It is also possible to use fast acting electrohydraulic actuators for quick closing or opening

Technical data

| | |
|------------------------|---|
| Execution | Angle control valve, single-seated, pressure-balanced plug, orifice plate in extended outlet, weld ends |
| Diameter nominal range | inlet DN 50 to 250, outlet DN 80 to 700 |
| Nominal pressure | inlet PN 100 to 630, outlet PN 16 to 400 |
| Operating temp. range | 20 to 600°C |

Steam-conditioning station RS 902



Description

Steam conditioning stations of the series RS 902 are single-seated angle control valves of a unit construction designed to control a flow and a pressure of steam and simultaneous cooling water injection into the extended outlet. The pressure-balanced, multi-step throttling trim is always designed to eliminate high differential pressures within the valve and ensure the low noisiness. It ensures a high resistance to wearing caused by medium flow and to effects of the expanding steam. Cooling water is injected into the extended outlet with a specially designed injection head (VH, VHF and VHP). The valves are equipped with "Live Loading" packing.

The valves can be actuated with electric or pneumatic actuators of the following producers: Regada, ZPA Pečky, Auma, Schiebel, Flowserve or others. It is also possible to use fast acting electrohydraulic actuators for quick closing or opening.

Technical data

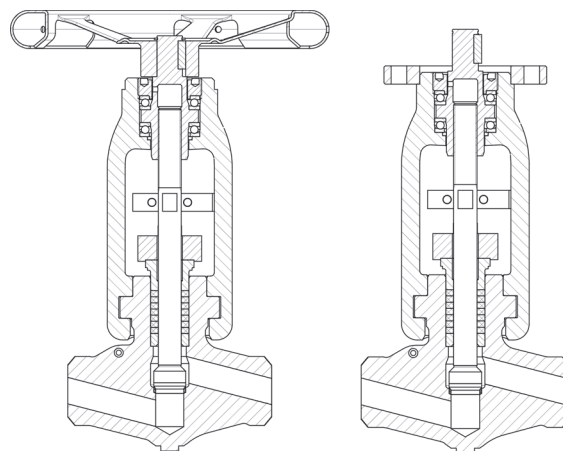
| | |
|------------------------|--|
| Execution | Angle control valve, single-seated, pressure-balanced plug, orifice plate and injection head in extended outlet, weld ends |
| Diameter nominal range | inlet DN 50 to 250, outlet DN 80 to 700 |
| Nominal pressure | inlet PN 100 to 630, outlet PN 16 to 400 |
| Operating temp. range | 20 to 600°C |

Description

Shut-off valves UV 926 are single-seated globe valves designed for shutting off flow of a media. The valves could be optionally equipped with shaped plug for rough control in case of demand.

The valves are designed for applications in power generation and chemical processing industries. They are suitable for shutting off water, steam and other liquids and gases which are compatible with used materials of the valve body and internal materials.

Shut-off valves are designed to be actuated with hand wheel or with multi-turn electric actuators of the following producers: Regada, Auma, Schiebel and Sipos, or pneumatic actuators A.Hock.

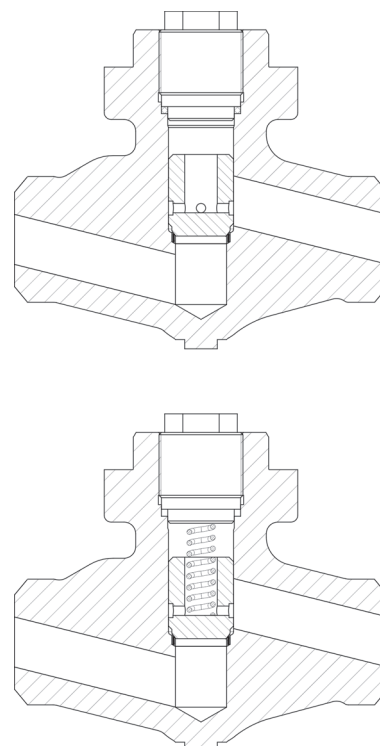


| Technical data | |
|------------------------|---|
| Execution | Shut-off valve, single-seated, straight-through, two-way, flanged or welded |
| Diameter nominal range | DN 10 to 65 |
| Nominal pressure | PN 63 to 630 |
| Operating temp. range | -10 to 650°C |

Description

The valves ZV 926 is single-seat check valve and they are intended for back flow prevention of a medium.

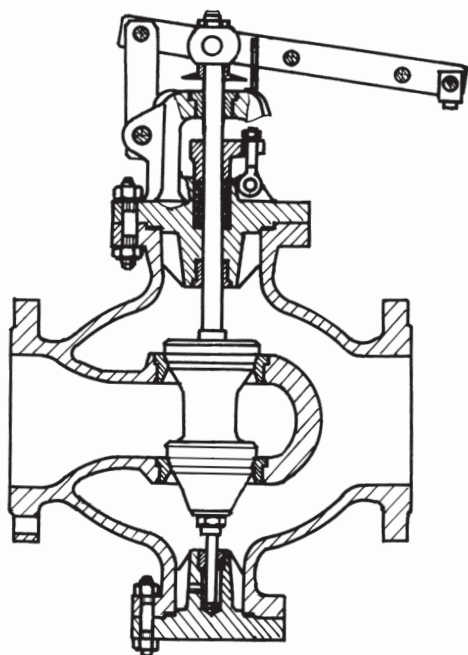
The valves are designed for applications in power generation and chemical processing industries. They are suitable for shutting off water, steam and other liquids and gases which are compatible with used materials of the valve body and internal materials.



| Technical data | |
|------------------------|--|
| Execution | Check valve, single-seated, straight-through, two-way, flanged or welded |
| Diameter nominal range | DN 10 to 65 |
| Nominal pressure | PN 63 to 630 |
| Operating temp. range | -10 to 650°C |

Series G

Control valve G 45



Description

The valve is double-seated, lever-actuated designed to be actuated with an electric or a pneumatic actuator possibly with an electric or a hydraulic cylinder. It is also possible to use linear or rotative actuator. Its control plug is always designed according to the parameters specified in the order and according to the required type of flow characteristic.

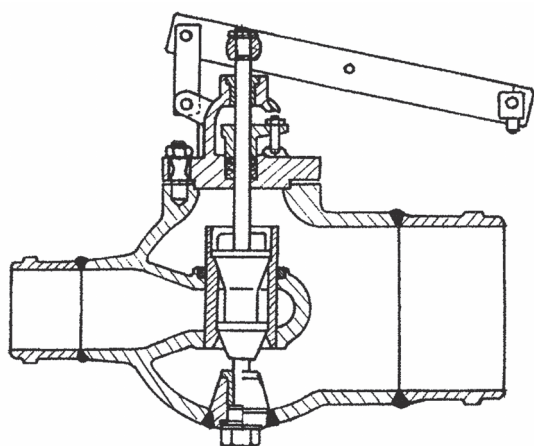
The valves are used as control and reduction element in industrial applications - power plants, heating plants, technological processes, especially for control and reduction of water.

The valve can be delivered with lever actuators of the following producer: ZPA Pečky, possibly with linear actuators ZPA Pečky, Regada Prešov or rotative actuators Auma or Schiebel.

Technical data

| | |
|------------------------|--|
| Execution | Control valves, double-seated, straight-through, flanged or with weld ends |
| Diameter nominal range | DN 150 to 400 |
| Nominal pressure | PN 16 to 100 |
| Operating temp. range | -10 to 550°C |

Control valve G 46



Description

The valve is double-seated, lever-actuated, designed to be actuated with an electric actuator or a hydraulic or pneumatic cylinder. The control valve plug is always designed according to the parameters specified in the order and according to the requested type of flow characteristic.

The valves are used as control and reduction element in industrial applications - power plants, heating plants, technological processes, especially for control and reduction of water.

The valve can be actuated with lever actuators ZPA Pečky.

Technical data

| | |
|------------------------|--|
| Execution | Control valves, double-seated, straight-through, with extended outlet, flanged or with weld ends |
| Diameter nominal range | inlet DN 65 to 300, outlet DN 125 to 500 |
| Nominal pressure | inlet PN 16 to 250, outlet PN 10 to 160 |
| Operating temp. range | -10 to 575°C |

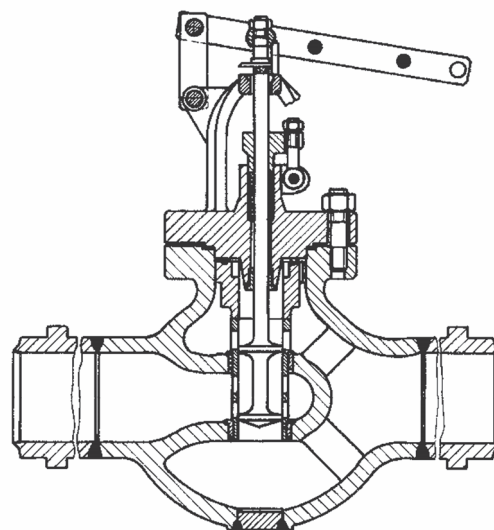
Description

The valve is piston type equipped with control cage, lever- actuated designed to be actuated with an electric actuator. It is also possible to use linear or rotative actuators. Its control cage is always designed according to the parametres specified in the order and according to the requested type of flow characteristic.

The valves are used as control and reduction elements for industrial applications for power plants and heating plants especially for regulation of feeding water flow and pressure into steam boilers.

The valve can be actuated with lever actuators ZPA Pečky.

| Technical data | |
|------------------------|--|
| Execution | Control valve (feeding), straight-through, flanged or with weld ends |
| Diameter nominal range | DN 125 to 300 |
| Nominal pressure | PN 125 to 500 |
| Operating temp. range | -10 to 400°C |



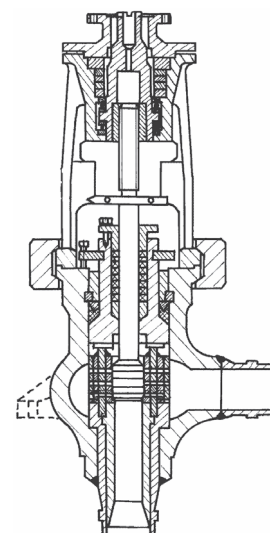
Description

The valve is single-seated, designed to be actuated with an electric rotating actuator. The piston type plug moves in a special control cage with holes and cross section grooves that, when the valve opens, gradually enlarge which provides a smooth regulation.

The valves serves as a control valve applicable to where it is necessary to change the flow water pressure from its maximum value to minimum or vice versa.

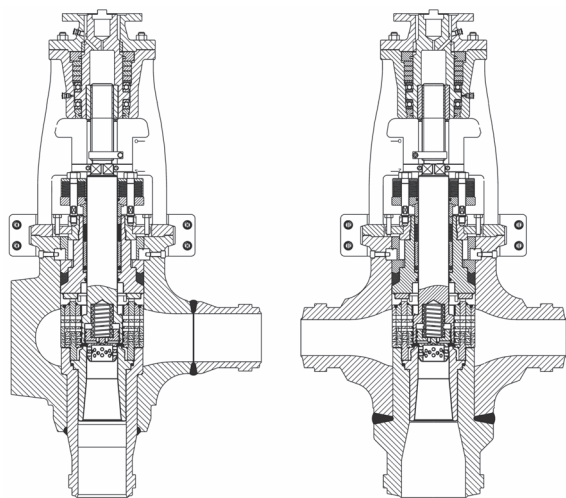
The valves are supplied with the actuators of the following producers: ZPA Pečky or possibly with AUMA or Schiebel.

| Technical data | |
|------------------------|--|
| Execution | Control valves (starting), angle, with weld ends |
| Diameter nominal range | DN 150 |
| Nominal pressure | PN 400 |
| Operating temp. range | -10 to 550°C |





Control valve G 93



Description

The valve is single-seated, angle (angle with two inlets), welding ends. Control mechanism with a multi-stage pressure reduction is made by special control cage with holes and cross section grooves and two plugs. Main piston plug, which is a part of the valve stem, provides media flow control and ensures also a tightness when the valve is closed. Internal perforated plug reduces the pressure drop at stroke begins to prevent wear of sealing surfaces. Valve is equipped by a Chesterton stuffing box, type "Live Loading".

Valve is designed to be actuated with an electric rotating actuator ZPA Pečky, Auma or Schiebel.

Technical data

| | |
|------------------------|---|
| Execution | Control valves (starting), angle, with weld ends |
| Diameter nominal range | DN 150 |
| Nominal pressure | PN 400 |
| Operating temp. range | -10 to 550°C |

Control cock

Three-way control cock RK 601

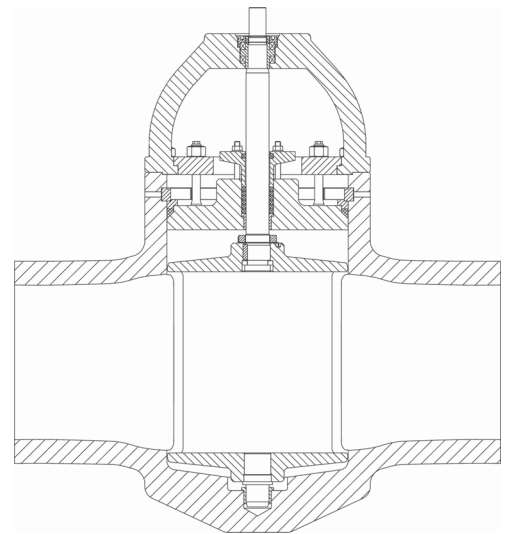
Description

Control cock RK 601 is a three way valve with turn throttling organ (segment) for diverting or mixing of the medium flow. Construction of the cock doesn't allow to close the medium.

Optimized shape of the channels by CFD achieves high values of flow rate as well as by low pressure drop.

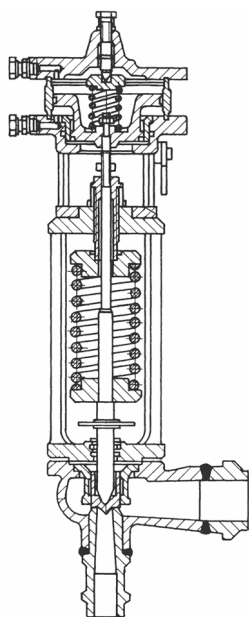
Cock is designed for connection with electromechanical actuators of various producers acc. to customer requirement. Flange F14 connection.

| Technical data | |
|------------------------|---------------|
| Execution | Control cock |
| Diameter nominal range | DN 200 to 600 |
| Nominal pressure | PN 40 to 100 |
| Operating temp. range | -10 to 600°C |



Safety valves

Full-lift safety valve with additional loading type SiZ 1508



Description

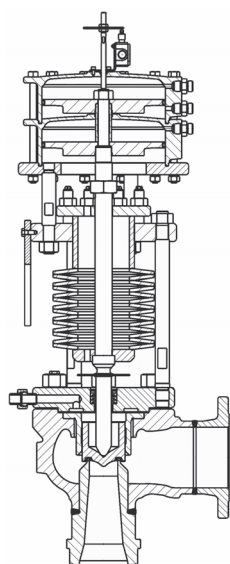
The full-lift safety valve with additional loading is a valve designed for automatic protection of a pressure equipment (steam boilers, pressure pipelines, steam-conditioning stations, pressure vessels, turbine extraction etc.) against unpermitted pressure increase over allowable limit.

The safety valves SiZ 1508 are designed for steam, air, and non-aggressive gases and vapours.

Technical data

| | |
|------------------------|---|
| Execution | Full-lift safety valve with additional loading, flanged or with weld ends |
| Diameter nominal range | inlet DN 25 to 350, outlet DN 40 to 600 |
| Nominal pressure | inlet PN 16 to 400, outlet PN 10 to 160 |
| Opening pressure | max. 400 barg |
| Operating temp. range | max. 620°C |

Full-lift safety valve with additional loading type PV 1509



Description

The full-lift safety valve with additional loading is a valve designed for automatic protection of a pressure equipment (steam boilers, pressure pipelines, steam-conditioning stations, pressure vessels, turbine extraction etc.) against unpermitted pressure increase over allowable limit.

The safety valves PV 1509 are designed for steam, air, and non-aggressive gases and vapours..

Technical data

| | |
|------------------------|---|
| Execution | Full-lift safety valve with additional loading, flanged or with weld ends |
| Diameter nominal range | inlet DN 65 to 350, outlet DN 100 to 600 |
| Opening pressure | max. 250 barg |
| Operating temp. range | max 620°C |

Control unit RP 5330, RP 5340

Description

Pneumatic control units RP 5330 and RP 5430 are designed for control of spring loaded safety valves with additional pneumatic loading (pneumatic actuator), type SiZ 1508 and PV 1509, manufactured by LDM Co. Ltd., Česká Třebová, respective for control of other types of safety valves operated by pneumatic cylinder.

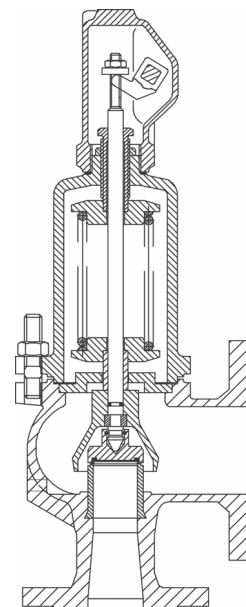
Spring loaded full lift safety valves PV 61 and PV 63

Description

Spring loaded full lift safety valves Series PV 61 and PV 63 are designed and certified as a safety device for automatic protection of pressure equipment (as a boiler, a pressure vessel, a pressure reduction station, pipeline, etc.) against excessive pressure. The spring, which causes the closing/sealing force, is designed for specific range of set pressures, the fine setting is made through adjusting screw.

The valve is equipped with lever, which serves for manual valve opening or functional test under the normal operating conditions of protected pressure equipment.

Because the valves PV 63 are with closed bonnet they can be delivered both in normal (standard) or gas-tight execution. The valves are determined for liquids (PV 63 only), steam, air and other gases which are compatible with used materials of the valve body and internal parts.



| Technical data | PV 61 | PV 63 |
|------------------------|--|--|
| Execution | Spring loaded full lift safety valve, angle, flanged, with open bonnet | Spring loaded full lift safety valve, angle, flanged, with closed bonnet |
| Diameter nominal range | inlet DN 20 to 400, outlet DN 32 to 500 | |
| Nominal pressure | PN 16 to 100 | |
| Opening pressure | 0,25 to 95 barg | |
| Operating temp. range | 5 to 450°C | |

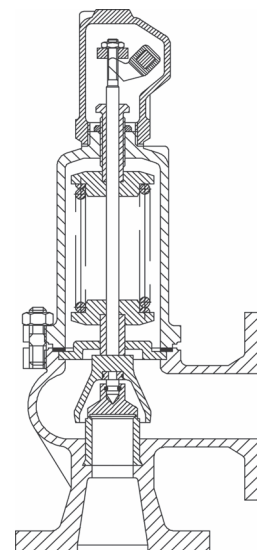
Spring loaded proportional safety valves PV 25

Description

Spring loaded proportional safety valves Series PV 25 are designed and certified as a safety device for automatic protection of pressure equipment (as a boiler, a pressure vessel, a pressure reduction station, pipeline, etc.) against excessive pressure. The spring, which causes the closing/sealing force, is designed for specific range of set pressures, the fine setting is made through adjusting screw.

The valve is equipped with lever, which serves for manual valve opening or functional test under the normal operating conditions of protected pressure equipment.

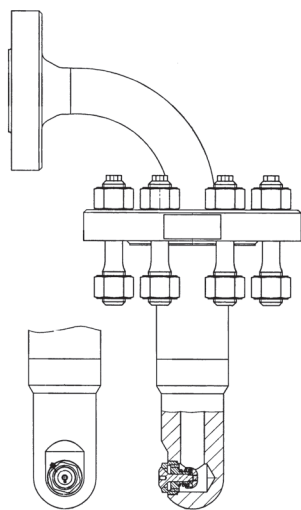
Because the valves PV 25 are with closed bonnet they can be delivered both in normal (standard) or gas-tight execution. The valves are designed to use for liquids, steam, air and other gases which are compatible with used materials of the valve body and internal parts.



| Technical data | |
|------------------------|--|
| Execution | Spring loaded proportional safety valve angle, flanged, with closed bonnet |
| Diameter nominal range | DN 15 to 200 |
| Nominal pressure | PN 16 and 40 |
| Opening pressure | 0,2 to 40 barg |
| Operating temp. range | 5 to 400°C |

Steam desuperheating

Mechanical injection head VH



Description

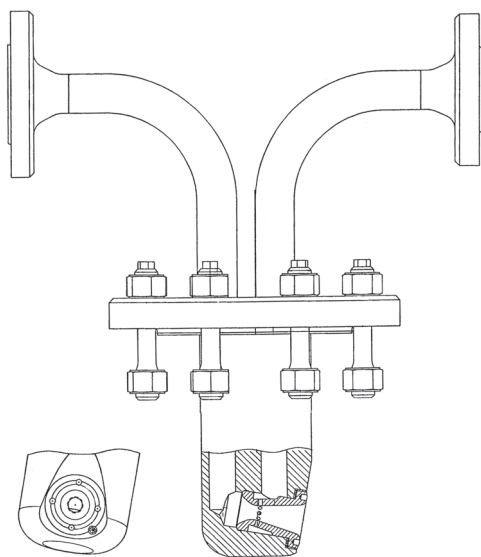
The injection head (further in text only VH) is a device designed to control the temperature of steam. VH is equipped with a mechanical spraying nozzle with changable flow.

VH is designed especially for industrial applications such as low-pressure steam production in heating, steam circuits in power plants or technological processes.

Technical data

| | |
|------------------------|---|
| Execution | Injection head with 1, 2 or 3 nozzles |
| Diameter nominal range | Steam pipeline connection ... DN 80 Cooling water connection ... DN 25, 40, 50 |
| Nominal pressure | PN 16 to 250 |
| Operating temp. range | 20 to 600°C |

Drive-steam injection head VHP



Description

Drive-steam injection head (further in text only VHP) is a device designed to regulate the temperature of the steam. VHP is equipped with Laval nozzle which sprays the injection water with the aid of kinetic energy of drive steam expanding in the nozzle.

VHP is designed for precise and economic injection of cooling water into steam. VHP is especially designed for industrial applications such as production of low-pressure steam or stem production in technology.

Technical data

| | |
|------------------------|--|
| Execution | Drive-steam injection head with Laval nozzle |
| Diameter nominal range | Steam pipeline connection ... DN 80 Cooling water connection ... DN 20 and 25 |
| Nominal pressure | PN 16 to 250 |
| Operating temp. range | 20 to 600°C |

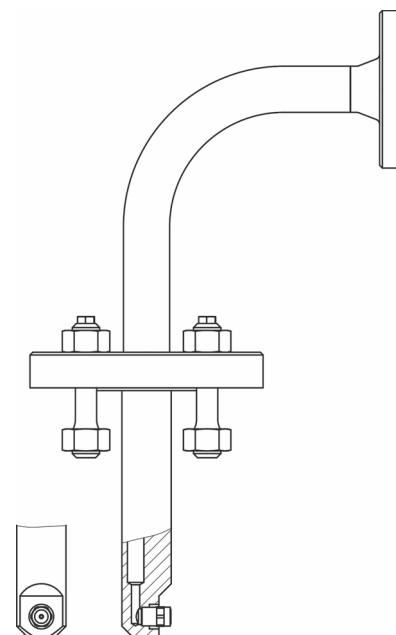
Mechanical injection head VHF

Description

The injection head with a nozzle with fixed flow (further in text only VHF) is a device designed to control the temperature of steam. VHF could be equipped with one to three mechanical spraying nozzles with fixed flow.

VHF is designed especially for industrial applications such as low-pressure steam production in heating, steam circuits in power plants or technological processes.

| Technical data | |
|------------------------|--|
| Execution | Injection head with 1, 2 or 3 nozzles |
| Diameter nominal range | Steam pipeline connection ... DN 50 and 65 Cooling water connection ... DN 15 to 25 |
| Nominal pressure | PN 16 to 400 |
| Operating temp. range | 20 to 600°C |



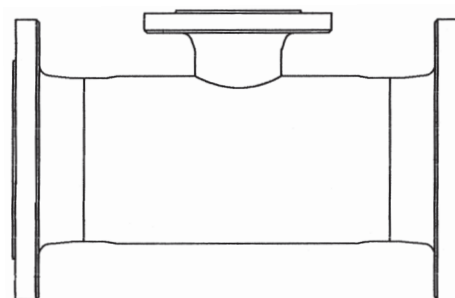
Desuperheater CHP

Description

Desuperheater (further in text only CHP) is a body that is put directly into the steam pipeline and subsequently serves for connection with either mechanical injection head VH, VHF or drive-steam injection head VHP. According to dimensions of the pipeline and necessary intensity of cooling, the body can be equipped with more inlets for connection of VH, VHF or VHP.

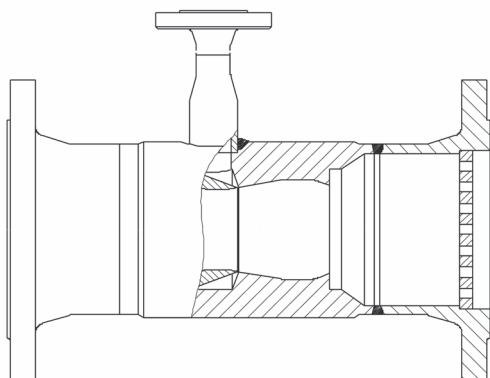
It is designed especially for industrial applications such as low-pressure steam production in heating or the steam production for technological processes.

| Technical data | |
|------------------------|--|
| Execution | Flanged or with weld ends |
| Diameter nominal range | Steam pipeline connection ... DN 100 to 600 Injection head connection ... DN 50 to 80 |
| Nominal pressure | PN 16 to 400 |
| Operating temp. range | 20 to 600°C |





Desuperheater CHPE

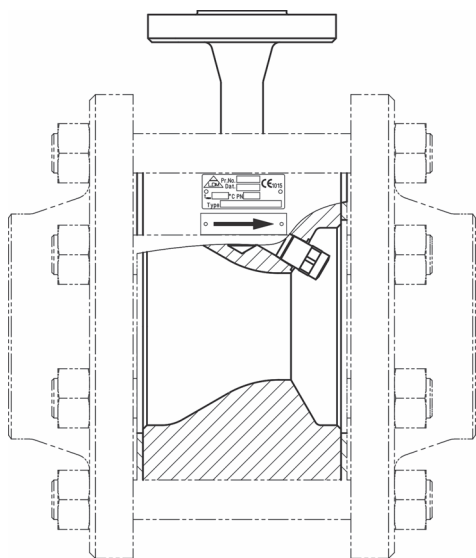


Description

Desuperheater (further the CHPE only) is a device designed to control the temperature of steam. Internal shape is formed by Venturi tube where there is a significant increase of speed. This increased speed positively influences the quality of water atomization as well as evaporation velocity of injection water. The orifice plate is included in the output port of CHPE to increase the cooling effect. Due to construction of CHPE it is capable of injecting water from zero values. CHPE is especially designed for industrial applications such as low-pressure steam production in heating, steam circuits in power plants or technological processes.

| Technical data | |
|------------------------|--|
| Execution | Flanged or with weld ends |
| Diameter nominal range | Steam pipeline connection ... DN 40 to 200 Cooling water connection ... DN 15 to 50 |
| Nominal pressure | PN 16 to 320 |
| Operating temp. range | 20 to 600°C |

Desuperheater CHPF



Description

Desuperheater with a nozzle with fixed flow are (further the CHPF only) is a device designed to control the temperature of steam. CHPF could be equipped with one or more mechanical nozzles with fixed flow and to be installed between flanges using long bolts. CHPF is especially designed for industrial applications such as low-pressure steam production in heating, steam circuits in power plants or technological processes.

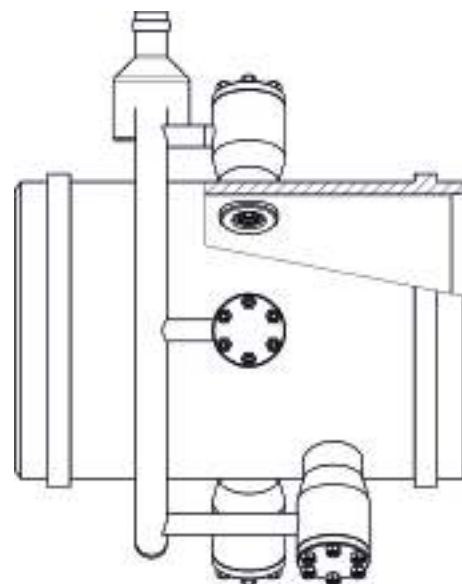
| Technical data | |
|------------------------|--|
| Execution | Flange |
| Diameter nominal range | Steam pipeline connection ... DN 50 to 200 Cooling water connection ... DN 15 to 25 |
| Nominal pressure | PN 16 to 400 |
| Operating temp. range | 20 to 600°C |

Description

The CHPR desuperheater (further CHPR only) is device designed for the process steam temperature control. CHPR is equipped with two or more mechanical nozzles with variable flow area. The number of nozzles is designed according to the required power. The amount of injection water is controlled by a separate control valve.

The CHPR serves for precise and economical steam temperature control by a direct injection of cooling water into flow of steam. It is designed primarily for by-pass stations.

| Technical data | |
|------------------------|--|
| Execution | Weld ends |
| Diameter nominal range | Steam pipeline connection ... DN 200 to 600 Cooling water connection ... DN 15 to 100 |
| Nominal pressure | PN 16 to 400 |
| Operating temp. range | 20 to 600°C |



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