

SPECIAL DESIGN VALVES







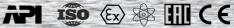












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I.B.C. Praha is one of the founding members of the the newly formed Czech Power Industry Alliance. For more information please visit website www.cpia.cz



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COMPANY PROFILE



Certified manufacturer and supplier of industrial valves, especially designed for employment in power generation industry, heat, oil, gas, chemical and other industries. The valves are designed, manufactured and tested according to EN, DIN, API and GOST Standards. The entire range of products is certified for delivery to EU countries, as well as to Eurasian countries.

I.B.C. Praha spol. s r.o. founded in 1994 as a successor of the SIGMA concern. I.B.C. Praha spol. s r.o. is now a leading member of a strong Czech engineering group which continues more than 60 years long tradition of development and manufacturing of industrial valves.



The company has an implemented and certified quality management system according to ISO 9001, ISO 3834-2 and it has applied requirements of the European Pressure Equipment Directive (PED). It has extensive experience with valve supplies in accordance with the API, EN and GOST standards, which guarantee a high level of safety, quality and reliability of such products.



I.B.C. Praha spol. s r.o. is one the few valve manufacturers offering a truly broad portfolio of products – from stop valves, control valves and swing check valves to change-over and safety valves. Most of our valves are used in the oil and gas sectors - chemical and petrochemical industry and in heat and power industry, including the nuclear energy.

The production program includes particularly ball valves, globe valves, gate valves, swing check valves, butterfly valves, lift check valves and strainers, as well as completely special valves developed for the most demanding industrial applications.

OVERVIEW OF THE PRODUCTION RANGE

BALL VALVES - equipped with floating ball or floating seats

DN 6-1400, PN-6-400 / NPS 1/8" - 56", CLASS 150 - 2500 Lbs For temperature range of : 196°C - 550°C

GATE VALVES and SWING CHECK VALVES

DN 6 - 1000, PN 6 - 400 / NPS 1/8" - 40", (LASS 150 - 2500 Lbs For temperature range of : -196°C - 550°C

CONTROL VALVES and CHECK VALVES

DN 6 - 400, PN 16 - 400 / NPS 1/8" - 16" (LASS 150 - 2500 bs For temperature range of : -196° (~ 550° (

BUTTERFLY VALVES - centric, double and triple Eccentric

DN 40 - 400, PN 16 - 100 / NPS $11/2^{\circ} - 80^{\circ}$ (CLASS 150 - 600 Lbs For temperature range of : -196° C $\sim 550^{\circ}$ C

SPECIAL PURPOSE VALVES

Design and manufacture tailored to customer's individual requirements. Globe valves, control valves, ball valves, shut-off, safety and swing check valves, change over valves, gate valves and cavitation nozzles.



CONTROL VALVE



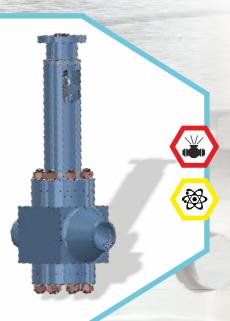
DN 50 - 150 | PN 10 - 320

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A15 control valves are valves designed for nuclear power engineering which, in addition to regulating the flow of the medium in intermediate positions, also work reliably as shutoff valves. In a "closed" position, the permissible leakage is comparable to cap leakage permitted by standards for shut-off valves, while the medium leakage in intermediate positions is directly proportional to the cone stroke. The shut-off and control body consists of a solid seat and a cup cone. When the cup cone is pulled out of the seat, it gradually opens the openings drilled along the perimeter of the cup.

The valve has a metal body, the cap joint is sealed with a soft graphite gasket material, and the spindle is sealed with bellows and emergency sealing from expanded graphite. The valve features an indicator of the position of the shut-off body which also works as a stopper.

Advantages of this valve include the possibility of smooth regulation of the medium flow and its long operational reliability.









LIFT CHECK VALVE



NPS 1/4" - 12" | CLASS 150 - 2500 △ C€ ERI

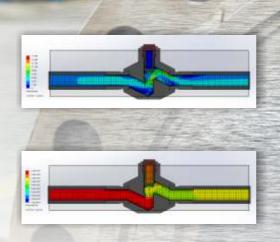
C09 3 lift check valves are automatic valves which prevent the reverse flow of the medium. With this valve, cap tightness cannot be guaranteed in the same way as with classic shut-off valves.

The valves come in direct, inclined and corner designs; they can be connected to the pipes using flanges which can be welded or threaded.

The body is forged and secured from the top with screw joints which are sealed with a graphite sealing ring. The cone can be fitted with a spring for additional sealing of the cone in the seat.

The body is made from a forged semi-finished product which guarantees its long service life and 100% tightness. The seat and the sealing surface of the cone are welded using the hardfacing technique which guarantees their long service life and high resistance to abrasive wear.







GLOBE VALVE



DN 6 - 150 | PN 160 - 700

△ C€ EHE

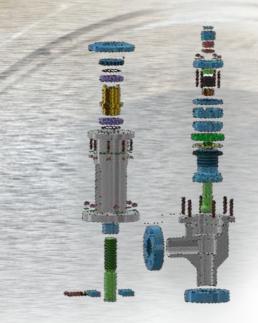
GLB globe valves can be used within wide temperature and pressure ranges in heavy-duty industrial applications.

An advantage of these valves is the reliability of operation at high temperatures (up to 650° C) and pressures (up to 70MPa).

GLB globevalves are designed as forged valves. The body is sealed with a pressure-tight cap, while the pressure of the medium adds to the final sealing effect. The spindle is sealed with a graphite gasket material which can be supplemented with the so-called lifeloading system - a system of springs which constantly adds to the sealing effect of the gasket, not allowing the medium to leak through the sealing. The cone comes both in a shut-off and control design. The valve is fitted with an indicator of the position which also works as a safeguard against spindle rotation.









CHANGE OVER VALVE



DN 15 - 1000 | PN 16 - 400

△ C€ EHI

The purpose of change-over valves is to allow continuous operation of the piping when performing maintenance of the safety valve (e.g. cleaning or lapping of the seat). For this purpose, an assembly consisting of two change-over valves and two safety valves is delivered. This assembly directs the flow of the medium through the two safety valves in such a way as to ensure that the flow only goes through one of them at a time.

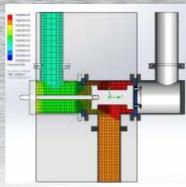
With such an assembly, it is possible to repair or clean the safety valve without the need to put the route out of operation, by simply directing the medium to the other route.

The shut-off element consists of a double-acting cylindrical cone slid onto the spindle and secured with a nut. The cone moves inside the central part of the body. The spindle passes through the opening in the upper body and is sealed against the body with a sealing material compressed through the sealing cap with screws, O-rings from PTFE or bellows. The upper end of the bellows is sealed with a graphite ring and tightened with a nut.

At the customer's request, change-over valves can be equipped with a heating jacket.







SWING CHECK VALVE



DN 50 - 400 | PN 160 - 400

∆ C€ EHI

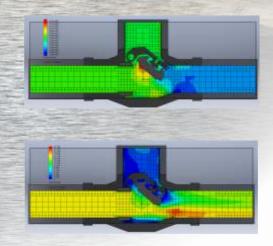
L10 innovated valves are automatic swing check valves. When the medium flows through the valve in the direction of the arrow, the disc opens and allows the medium to flow freely. When the medium pressure drops, the disc returns to its zero position and is pressed by the medium at the outlet part of the valve to the seat in the body.

The innovation of the L10 PN 250 swing change valve is mainly noticeable in its body which is made from a single piece without any weld joints, while the shape of the pressure envelope is optimized using a strength calculation in accordance with EN 12516-2. Instead of a central nut, the pressure-tight cap is fixed with bolts - this makes it possible to reduce its height and simplify its shape. The lower height of the pressure-tight cap also reduces the height of the body, thus reducing the total height of the valve as well as its total weight. The single-piece body design eliminates the use of demanding welding technology with subsequent heat processing and X-ray examination of the joint.

Another advantage of this valve is the suspension system of the closing disc which guarantees 100% tightness in the seat. The valves are also designed for operation at temperatures of up to 650°C and pressure of up to 40MPa.







GATE VALVE



DN 50 - 400 | PN 160 - 400

∆ C€ EHI

S43 gate valves are shut-off valves. They can be used to transport water, steam, gases and other media used in power engineering, chemical and other industries.

S43 gate valves are robust forged valves. The wedge is designed so that the wedge plates can move and their sealing surfaces can adjust to the sealing surfaces of the seats, thus ensuring 100% tightness. The body extension is sealed with a pressure-tight cap, while the pressure of the medium adds to the final sealing effect. The spindle is sealed with a graphite gasket material which can be supplemented with the so-called life-loading system - a system of springs which constantly adds to the sealing effect of the gasket, not allowing the medium to leak through the sealing.

The above solution concerning the most significant points of the gate valve has a positive impact on its high operational reliability, as well as on the long service life of the valve. An advantage of this valve is its absolute tightness.









LIFT CHECK VALVE



DN 50 - 150 | PN 160 - 400

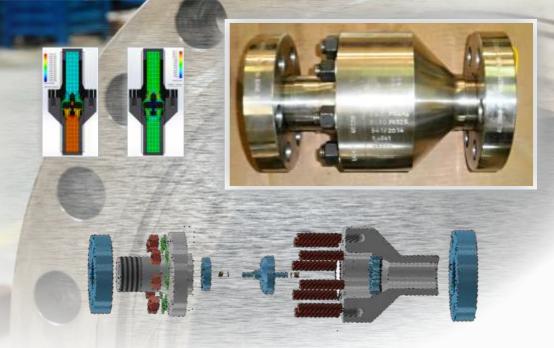
△ C€ ERE

PSG valves are automatic lift check valves manufactured in two versions:

- 1. Check valve for vertical pipes, with automatic overflow designed to protect the pump against the effects of the recoil caused by the transported medium by overflowing it.
- 2. Check valves for vertical pipes, without overflow designed to protect the pump against the effects of the recoil caused by the transported medium by stopping it.

This valve has a robust design which allows it to work with the medium pressure of up to 70MPa. Hardfacing of the sealing surfaces guarantees a long service life, maximum reliability and high abrasion resistance.





BUTTERFLY VALVE



DN 50 - 2000 | PN 6 - 100

 Δ CE EHI

TE-BTF butterfly valves are shut-off valves with triple eccentricity which can be combined as a control valve for any liquid and gas media.

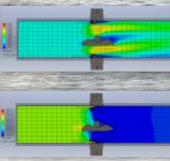
The triple eccentric seat guarantees zero friction between the sealing ring and the seat, thus preventing wear of the key parts of the valve. A uniform contact angle along the perimeter prevents the sealing ring from jamming in the seat. Upon opening, the sealing surfaces are immediately separated; while upon closing, they are tightly re-connected without any angular area of friction. Flexibility of the disc sealing ring (metal, graphite) guarantees the same contact force in each contact point with the seat. The replaceable floating disc is centred by the pressure of the replaceable ring inserted in the body which compensates dilatation of the body at high temperatures or in cryogenic applications and prevents damage to the sealing surfaces.

Main advantages of this valve:

- The valve can be used in various applications in the power engineering and petrochemical industries
- The shut-off and control valve is 100% tight at both sides in both directions of the flow
- Robust and reliable design for long-term and zeromaintenance operation and maximum operational reliability
- Complete repairs can be carried out at the customer's, where the valve is installed









GLOBE VALVE



DN 50 - 150 | PN 16 - 320

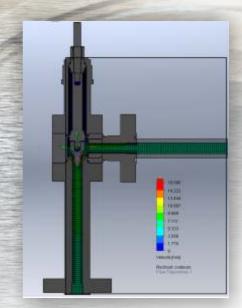
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V115 valves are corner shut-off valves. They are not designed to regulate the flow of the medium. The valves are one-way valves where the medium flows in the direction of the arrow indicated on the body. The valve design is leak-free which is achieved by the spindle sealing against the ambient conditions provided by multi-walled bellows. The valves come in a flange design.

The valves are designed for heavy-duty industrial applications and are maintenance-free. They come in an explosion-proof design, either in a shut-off or control version.







PRODUCTION PLANT

FACTORY BUILDINGS







RESEARCH & DEVELOPMENT





CNC & NC MACHINING





PRODUCTION PLANT

CERTIFIED AND ADVANCED WELDING METHODS & ASSEMBLING





INSPECTIONS & PRESSURE TESTINGS







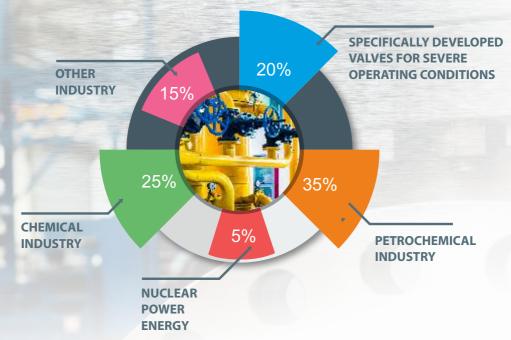
CONTROLLED PAINTING





REFERENCES

Overview of our deliveries of industrial valves by industry



Overview of our largest customers

















































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