BLAGOVESCHENSK
VALVES
PLANT

Product Catalog

2019

BLAGOVESCHENSK
VALVES
PLANT

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БЛАГОВЕЩЕНСКИЙ
АРМАТУРНЫЙ ЗАВОД

Purpose of Catalog

High product quality, reliability, longevity is the guiding principle for the employee team.

The 2019 product catalog presents an updated line of standard shutoff and safety valves ranging in nominal diameters (DN) from 50 to 900 mm and rated for PN of between 16 and 250 kgf/cm^2, check valves of DN between 50 and 400 mm rated for PN of between 16 and 250 kgf/c^2, and safety valves with DN of between 25 and 300 mm rated

for PN of between 16 and 250 kgf/cm^2. The range of pressure rating has become much more comprehensive given that valves with nominal pressures of 8.0 MPa, 10.0 MPa, 25.0 MPa.

The AO Blagoveshchensk Valve Plant product catalog is targeted towards the engineering staff in design organizations, manufacturing facilities that act as operators of the product as well as sales organizations operating in the relevant product markets.

To make the catalog user-friendly, all the pipeline valving is presented in sections by valve type and ranked by medium pressure in ascending order within each section.

The catalog also contains information regarding product names, application, and service, technical, dimensional, and mass properties as well as information about electric drive that are compatible with the AO BAZ valves.

When selecting valves for corrosive service, care must be taken that valve components are resistant to the effects of the relevant media.

The information provided in the catalog is not intended as an indication of the limits to AO BAZ valve design and manufacturing capabilities. If you have not found the desired valve size or rating in the listing of pipeline valves in the catalog, or the proposed material is not suitable, we recommend that you contact Marketing within the Sales Directorate. Upon request, we will furnish additional information regarding product availability, costs, and delivery lead times for the products you require.

We would like to extend invitations to collaborate to companies, firms, research and design institutions.

Operating, test, and rated pressures as a function of medium temperatures shall be as per GOST 356-80.

Blagoveshchensk Valve Plant, Public Joint-Stock Company

The facility was founded in 1756. Since 1949, the facility has been focusing on pipeline valves. It is located in the town of Blagoveshchensk which the district seat of the Blagoveshchensk District in the Republic of Bashkortostan, 42 km from the City of Ufa.

The facility manufactures industrial valves and has a fully integrated process from billets to assembly, testing, and final product quality control.

Certificates

The AO BAZ quality management system meets the requirements of ISO 9001:2015, Gazprom STO 9001-2018 (Intergazcert Voluntary Certification System), API Spec Q1. AO BAZ has a license to apply the API monogram to its product being manufactured to the requirements of API Spec 6D. The AO BAZ environmental management system meets the requirements of ISO 14001:2015 where as the occupational safety and health management system metts the requirements of OHSAS 18001:2007.

OMK Structure

The United Metallurgical Company (AO OMK) is one of Russia's premier manufacturers of tubualrs, train wheels, rolled goods, pipeline valves, and other metal products for energy, transportation, and industry companies.

OMK owns 6 major manufacturers in the metallurgical sector: Vyksa Steel Works
(Nizhniy Novgorod Region), Almetyevsk Pipe Plant (Republic of Tatarstan), Trubodetal (Chelyabinsk Region), Integrated Casting and Rolling Facility (Nizhniy Novgorod Region), Blagoveshchensk Valve Plant (Republic of Bashkortostan), and Chusovoy Metallurgical Works (Perm Territory).

The various company facilities employ over 30,000 people.

ОБЪЕДИНЕННАЯ МЕТАЛЛУРГИЧЕСКАЯ КОМПАНИЯ

ВЫКСУНСКИЙ МЕТАЛЛУРГИЧЕСКИЙ ЗАВОД

АЛЬМЕТЬЕВСКИЙ ТРУБНЫЙ ЗАВОД

БЛАГОВЕЩЕНСКИЙ АРМАТУРНЫЙ ЗАВОД

ЧУСОВСКОЙ МЕТАЛЛУРГИЧЕСКИЙ ЗАВОД

ОМК-СТАЛЬ
Литейно-прокатный комплекс

ТРУБОДЕТАЛЬ

Production

The AO Blagoveshchensk Valve Plant total area is 239,669 m^2.

The plant is home to the following production facilities:
1. foundry;
2. a forging and press facility;
3. a welding and heat treatment facility;
4. machining and welding of components and assemblies;
5. non-destructive testing lab.
6. finished product warehouse.

Customer

AO BAZ customers include companies in the oil and gas production and refining sector and Russia's energy companies. Product is also exported to different countries around the world.

Listing of pipeline valves

Spring-Loaded Safety Valves

Valves are manufactured from the following steel grades: 20, 20Л, 09Г2С, 20ГЛ, 20ГМЛ, 12Х18Н9Т, 12Х18Н9ТЛ, 12Х18Н12М3ТЛ; with flanged or stub connections, with or without a forced opening mechanism, with or without a bellows.

DN	PN, kgf/cm^2
25	40, 63, 100, 160, 250
50	16, 25, 40, 63, 100, 160, 250
80	16, 25, 40, 63, 100, 160, 250
100	16, 25, 40, 63, 100, 160, 250
150	16, 25, 40, 63, 100
200	16, 25, 40, 63, 100
250	16
300	16

Factory length shall be per GOST 16587-71

Switching Devices

Switching devices are manufactured from the following steel grades: 20Л, 20ГЛ, 20ГМЛ, 12Х18Н9ТЛ, 12Х18Н12М3ТЛ, 12Х18Н12М3ТЛ;

DN	PN, kgf/cm^2
25	40, 63, 100, 160, 250
50	16, 25, 40, 63, 100, 160, 250
80	6, 16, 25, 40, 63, 100, 160, 250
100	6, 16, 25, 40, 63, 100, 160, 250
150	16, 25, 40, 63, 100
200	6, 16, 25, 40, 63, 100
250	6, 16
300	6, 16, 25, 40, 63
350	6, 16
400	6, 16

Safety valve assemblies with switching devices

Block of safety valves with switching devices are made of the following steel grades:
20Л, 20ГЛ, 20ГМЛ, 12Х18Н9ТЛ, 12Х18Н12М3ТЛ

DN	PN, kgf/cm^2
25	40, 63, 100, 160, 250
50	16, 25, 40, 63, 100, 160, 250
80	16, 25, 40, 63, 100, 160, 250
100	16, 25, 40, 63, 100, 160, 250
150	16, 25, 40, 63, 100
200	16, 25, 40, 63, 100

Check Valves

Valves are manufactured from the following steel grades: 20, 20Л, 20ГЛ, 20ГМЛ, 20ХН3Л, 20Х5МЛ, 12Х18Н9ТЛ, 12Х18Н12М3ТЛ;

DN	PN, kgf/cm^2
50	16, 25, 40, 63, 80, 100, 160, 250
80	16, 25, 40, 63, 80, 100, 160, 250
100	16, 25, 40, 63, 80, 100, 160, 250
150	16, 25, 40, 63, 80, 100, 160, 250
200	16, 25, 40, 63, 80, 100, 160, 250
250	16, 25, 40, 63, 80, 100
300	16, 25, 40, 63, 80, 100, 160
350	16, 25, 40, 63, 80, 100, 160
400	16, 25, 40, 63, 80, 100, 160

Factory length shall be per GOST 3326-86

Wedge valves

Valves are manufactured from the following steel grades: 20Л, 25Л, 20ГЛ, 20ГМЛ, 20ХН3Л, 20Х5МЛ, 12Х18Н9ТЛ, 12Х18Н12М3ТЛ;
with a flanged weldable body and a vented (combination) body construction. Valve control: manual using a wheel, using a manual drive (gear box); electric drive

DN	PN, kgf/cm^2
50	16, 25, 40, 63, 80, 100, 160, 250
80	16, 25, 40, 63, 80, 100, 160, 250
100	16, 25, 40, 63, 80, 100, 160, 250
125	16
150	16, 25, 40, 63, 80, 100, 160, 250
200	16, 25, 40, 63, 80, 100, 160, 250
250	16, 25, 40, 63, 80, 100, 160, 250
300	16, 25, 40, 63, 80, 100, 160, 250
350	16, 40, 63, 80, 100, 250
400	16, 25, 40, 63, 80, 100, 160
450	16, 25, 40, 63, 80, 100, 160
500	16, 25, 40, 63, 80, 100, 160
600	16, 25, 40, 63, 80, 100
700	16, 25, 40
800	16, 25, 40
900	16

Factory length shall be per GOST 3706, Row 1, Row 2, Row 3.

The facility makes safety valve springs for flanges, gaskets, pins, nuts, stampimgs, and castings.

Flanges are made to
GOST 33259-2015, Row 1 Manufacture to other standards is available. Flanges, gaskets, pins, and nuts are manufactured on customer request and
cost extra.

Caution!
The drawings in the catalog provide a general idea about product design and as far as the detail is concerned may differ
from the actual product as built.

When ordering valves, you need to specify the fluid and the other operating parameters as well as the need for additional testing:
• for resistance to intergranular corrosion;
• for impact bending at reduced temperatures.

A product designation legend commonly used in valve manufacture (table of figures) comprises letters and numbers. The fist two letters refer to valve type (see Table 1), the letters that follow refer to the body material (see Table 2), the digits following the letters are the model number, and if there are any numbers, the first refers to actuator type (see Table 3), the following letters refer to sealing surface material (see Table 4).
In certain cases, a number is added at the end of the designation to denote the construction.

Certain products use designations from drawings or numbers assigned by the design organization.

Table 1

Valve Type	Legend
Safety Valve	17, 28
Check Valve (Rotary Check Valve)	19
Gate	30, 31
Switching Device	23
Safety valve assemblies with switching devices	50

Table 2

Body Material	Legend
Carbon steel	с
Alloy steel	лс
Corrosion resistant steel	нж

Table 3

Actuator Type	Legend
Bevel Gearbox	5
Electric	9

Table 4

Sealing surface material	Legend
Corrosion resistant steel	нж
Stellite	ст

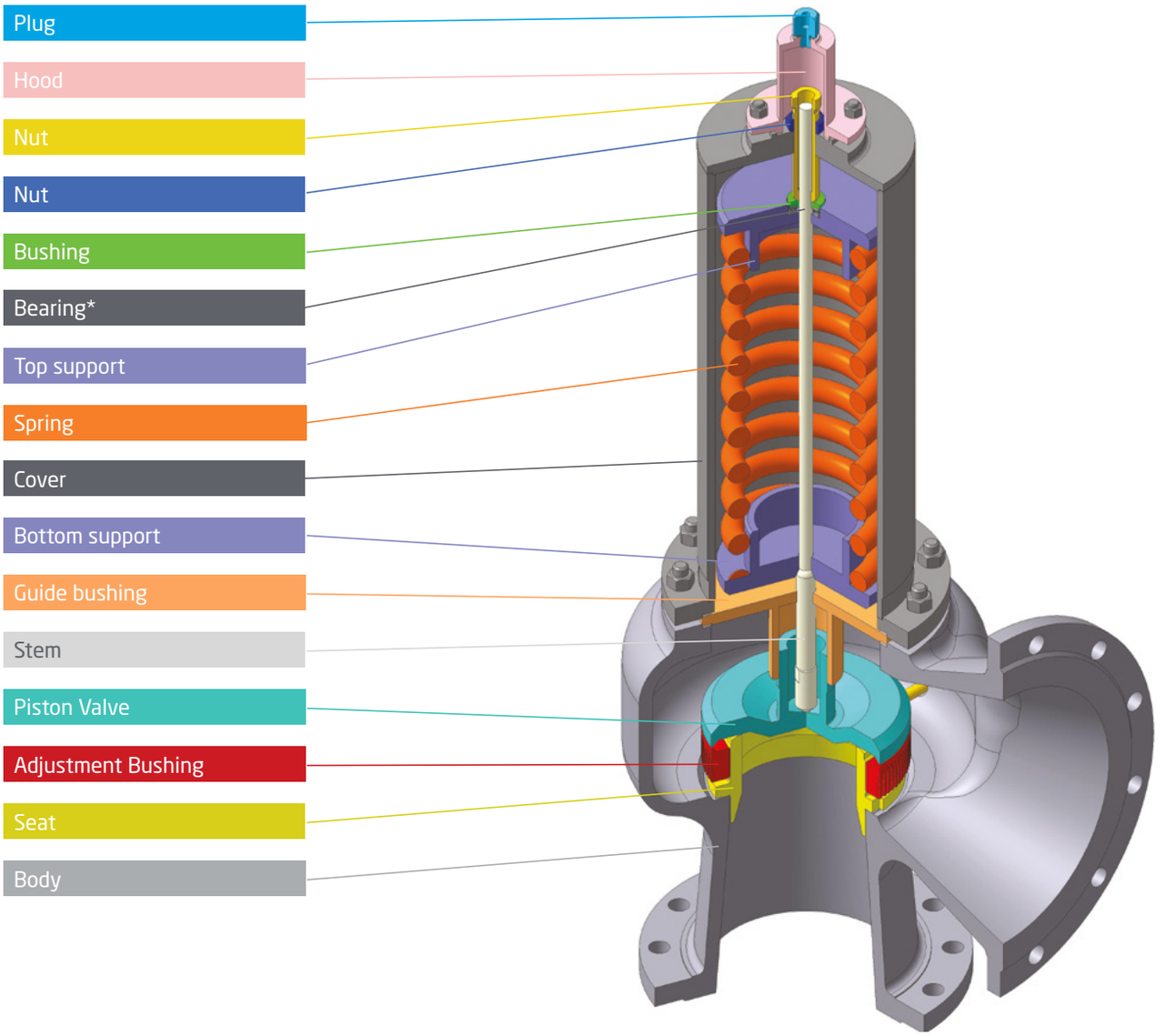
Example reading of designation in table of figures:

30 с 9 41 нж 1

valve type
body material
actuator type
model number
sealing surface material
construction

Spring-loaded safety valves

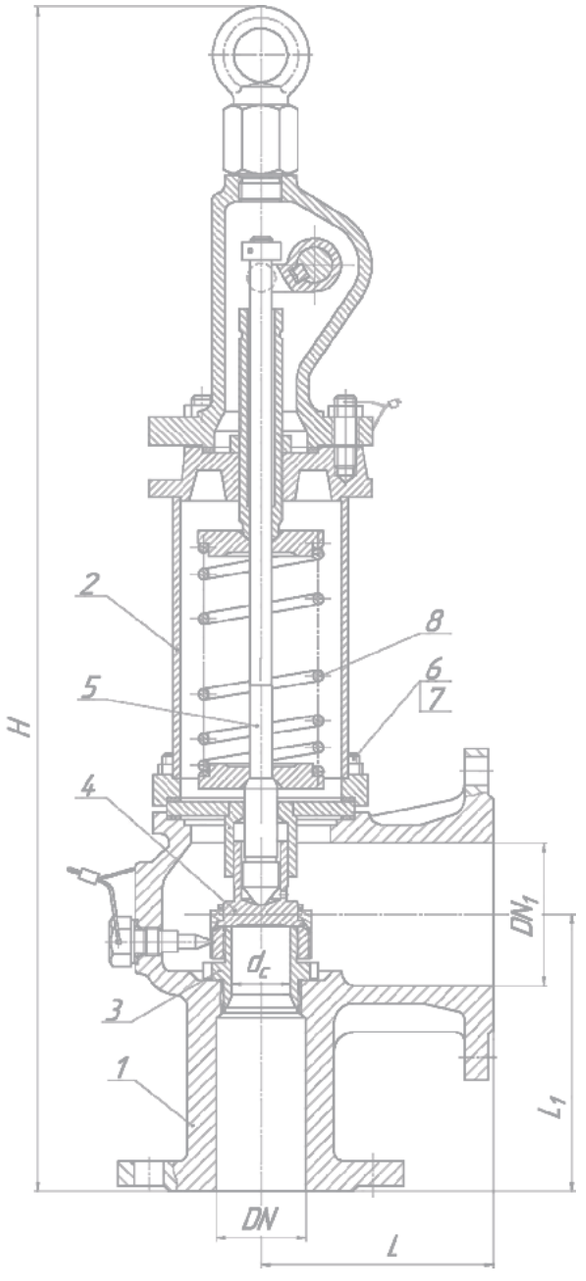
Safety valves are designed to protect equipment from unacceptable pressure excursions.



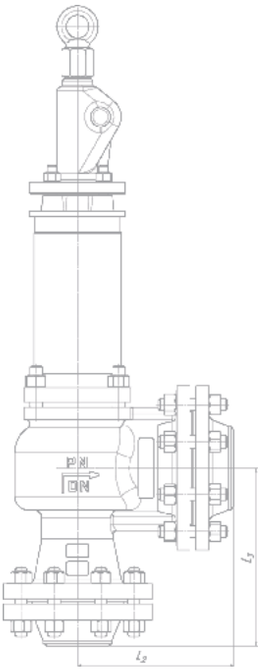
* Some valve designs.

Manufacture and delivery per TU 3742-004-07533604-2008, TU 3742-005-07533604-2005,
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017

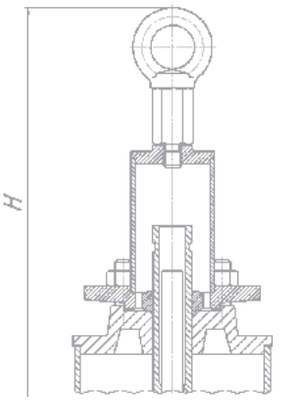
SPPKR



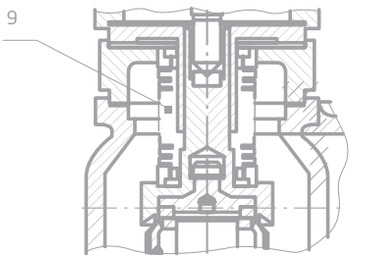
SPPK with matching flanges



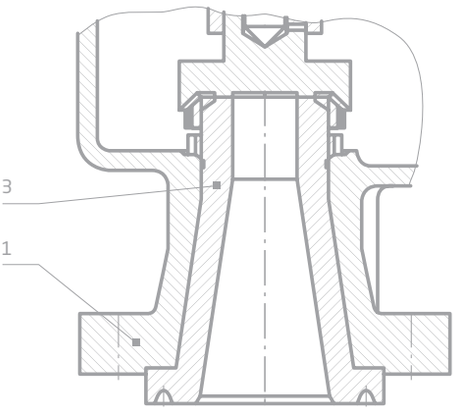
SPPK



SPPKS



DN 100 PN 6.3 MPa (63 kgf/cm²)
DN 100 PN 16.0 MPa (160 kgf/cm²)



Safety valves are used on tanks, boilers, containers, vessels, and pipelines to protect
from unacceptable pressure excursions by automatically releasing the fluid into the environment or a discharge line. After the pressure drops to the required value, the safety valve stops releasing the fluid. Throughput calculation shall be per
GOST 12.2.085.

Safety valves are designed for liquids and gases as well as steam.

Direction of flow for spring loaded direct action safety valves: under the piston valve. The force of the compressed spring presses the piston valve against the seat. When the fluid pressure exceeds its setting, the piston valve compresses the spring and opens a path for the fluid to be released. After the pressure upstream of the valve drops to the closing setting, the piston valve
is returned by the force of the spring to bear again against the saddle stopping the release of the fluid.

Ps, pressure setting: the highest positive pressure at the valve inlet that assures the required closure seal.

Pbd stands for opening pressure (break-down pressure; pressure setting): positive pressure at the safety valve inlet balancing the force to open the valve against the closure retaining force.

Pr stands for relieving pressure, (full bore pressure, fully open pressure), i. e. a positive valve inlet pressure causing the valve to move achieving maximum throughput.

Note: At the break-down pressure the specified closure seal is broken, and the closure starts rising.

The break-down pressure is adjusted by the manufacturer without valve outlet back pressure (test fluid released into the environment).

At pressure settings (Ps) through 0.3 MPa (3.1 kgf/cm^2): the opening pressure (Pbd) should not exceed
Ps+0.02 MPa (0.2 kgf/cm^2); the relieving pressure (Pr) should not exceed Ps+0.05 MPa (0.51 kgf/cm^2).

At pressure settings between 0.3 MPa (3.1 kgf/cm^2) and 6.0 MPa (61.2 kgf/cm^2): the opening pressure (Pbd) should not exceed
1.07 x Ps while the relieving pressure should not exceed 1.15 x Ps.

At pressure settings (Ps) in excess of 6.0 MPa (61.2 kgf/cm^2): the break-down pressure should not exceed 1.05 x Ps; the relieving pressure shall not exceed 1.1 x Ps.

The closing pressure (Pc) should be at least 0.8 x Ps. The back pressure shall not exceed 0.1 x Ps for valves without bellows. The back pressure shall not exceed 0.3 x Ps for valves with bellows.

Valves with a bellows are balanced valves. The bellows compensates for the back pressure at the valve outlet.

The bellows also protects the valve spring from the harmful effects of the fluid and elevated or low fluid temperatures. Bellows-sealed valves made of 12X18H9TΛ steel are designed for fluids with temperatures starting at -110 °C. For bellows-sealed valves, the letter C is added to the product designation, for example: SPPK4C, SPPK5C, SPPK6C, SPPK6CO.

To verify functionality in working condition, the valves may be equipped with a manual opening and purge mechanism (manual actuation assembly). The letter P is added to the valve designation, as below for instance: SPPKR, SPPK4P, SPPK5PC, SPPK6P, SPPK6PB, SPPK6PCO.

Matching and sealing surface dimensions are per GOST 33259, Row 1. Factory lengths are per GOST 16587.

DN 25, PN 100 kgf/cm^2 valves are manufactured with stud ends to connect to a pipeline per GOST 2822.

Closure Seal Class: B per GOST 9544, test fluid: air or water. The test pressure is equal to Ps. **Closures with other seal ratings are permitted.**

Valve install position is vertical, hood up.

Note:
1. Spring-loaded safety valves with a compensator bushing have the letter B added to the product designation, for instance: SPPK6B, SPPK6PB;
2. Spring-loaded safety valves with an open-type cover have the letter O added to the product designation, for instance: SPPK6CO, SPPK6PCO.
3. A bellows assembly is required for spring-loaded safety valves with an open-type cover.

A data sheet needs to be completed to order valves, or the following information specified:
- product name, designation, type designation (from table of figure);
- inlet stub nominal diameter, DN;
- pressure rating, PN, kgf/cm^2
- pressure setting (Ps, kgf/cm^2) or spring code. At the same time, the effect of back pressure, if any in the system at the valve outlet, must be taken into account;
- body material;
- presence of manual actuation assembly in the design;
- presence of bellows in the valve design.

An example designation in an order (and other documents) of valve DN 50, PN 40 kgf/cm^2 of steel 12X18H9TΛ with a manual actuation assembly, and a pressure setting, Ps, of 1 kgf/cm^2, model SPPK4 per TU 3742- 004-07533604-2008:
SPPK4P 50-40 DN 50, PN 40 kgf/cm^2, Ps 14 kgf/cm^2 17нж25нж safety valve.

When processing an order, special mention shall be made of the need to equip the valves with matching flanges , gaskets, pins, nuts; for DN 25, PN 100 kgf/cm^2 : pins with union nuts and gaskets.

AO BAZ reserves the right to use other materials that are permitted by the relevant requirements.

Principal Parameters

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4 25-40	17с14нж	20Л	25/40	40/16	18	254	0.6	0.15	570	100	120	147	157	17	21
SPPK4 25-40 лс	17лс14нж	20ГЛ/20ГМЛ													
SPPK4 25-40-Н лс	17лс14нж8	20ГЛ/20ГМЛ													
SPPK4 25-40 нж	17нж14нж	12Х18Н9ТЛ													
SPPK4C 25-40	17с14нж1	20Л							585					18	22
SPPK4C 25-40 лс	17лс14нж1	20ГЛ/20ГМЛ													
SPPK4C 25-40-Н лс	17лс14нж2	20ГЛ/20ГМЛ													
SPPK4C 25-40 нж	17нж14нж1	12Х18Н9ТЛ													
SPPK5C 25-40 нж1	28нж21нж	12Х18Н12М3ТЛ													
SPPK4P 25-40	17с25нж	20Л							610					21	25
SPPK4P 25-40 лс	17лс25нж	20ГЛ/20ГМЛ													
SPPK4P 25-40-Н лс	17лс25нж8	20ГЛ/20ГМЛ													
SPPK4P 25-40 нж	17нж25нж	12Х18Н9ТЛ													
SPPK4PC 25-40	17с25нж1	20Л							625					22	26
SPPK4PC 25-40 лс	17лс25нж1	20ГЛ/20ГМЛ													
SPPK4PC 25-40-Н лс	17лс25нж2	20ГЛ/20ГМЛ													
SPPK4PC 25-40 нж	17нж25нж1	12Х18Н9ТЛ													
SPPK5PC 25-40 нж1	28нж21нж1	12Х18Н12М3ТЛ													
SPPK4 25-63	17с81нж1	20Л	25/40	63/40	18	254	0.6	0.15	580	105	125	152	190	17	23
SPPK4 25-63 лс	17лс81нж1	20ГЛ/20ГМЛ													
SPPK4 25-63-Н лс	17лс81нж2	20ГЛ/20ГМЛ													
SPPK4 25-63 нж	17нж81нж1	12Х18Н9ТЛ													
SPPK4C 25-63	17с81нж2	20Л							610					18	24
SPPK4C 25-63 лс	17лс81нж3	20ГЛ/20ГМЛ													
SPPK4C 25-63-Н лс	17лс81нж4	20ГЛ/20ГМЛ													
SPPK4C 25-63 нж	17нж81нж2	12Х18Н9ТЛ													
SPPK5C 25-63 нж1	17нж81нж3	12Х18Н12М3ТЛ													
SPPK4P 25-63	17с81нж3	20Л							625					21	27
SPPK4P 25-63 лс	17лс81нж5	20ГЛ/20ГМЛ													
SPPK4P 25-63-Н лс	17лс81нж6	20ГЛ/20ГМЛ													
SPPK4P 25-63 нж	17нж81нж4	12Х18Н9ТЛ													
SPPK4PC 25-63	17с81нж4	20Л							655					22.2	28.2
SPPK4PC 25-63 лс	17лс81нж7	20ГЛ/20ГМЛ													
SPPK4PC 25-63-Н лс	17лс81нж8	20ГЛ/20ГМЛ													
SPPK4PC 25-63 нж	17нж81нж5	12Х18Н9ТЛ													
SPPK5PC 25-63 нж1	17нж81нж6	12Х18Н12М3ТЛ													
SPPK4 25-100	17с84нж1	20Л	25/40	100/40	18	254	0.6	0.15	580	105	125	152	190	18	24
SPPK4 25-100 лс	17лс84нж1	20ГЛ/20ГМЛ													
SPPK4 25-100-Н лс	17лс84нж2	20ГЛ/20ГМЛ													
SPPK4 25-100 нж	17нж84нж1	12Х18Н9ТЛ													
SPPK4C 25-100	17с84нж2	20Л							610					18	25
SPPK4C 25-100 лс	17лс84нж3	20ГЛ/20ГМЛ													
SPPK4C 25-100-Н лс	17лс84нж4	20ГЛ/20ГМЛ													
SPPK4C 25-100 нж	17нж84нж2	12Х18Н9ТЛ													
SPPK5C 25-100 нж1	17нж84нж3	12Х18Н12М3ТЛ													
SPPK4P 25-100	17с84нж3	20Л	25/40	100/40	18	254	0.6	0.15	625	105	125	152	190	22	28
SPPK4P 25-100 лс	17лс84нж5	20ГЛ/20ГМЛ													
SPPK4P 25-100-Н лс	17лс84нж6	20ГЛ/20ГМЛ													
SPPK4P 25-100 нж	17нж84нж4	12Х18Н9ТЛ													
SPPK4PC 25-100	17с84нж4	20Л	25/40	100/40	16	254	0.6	0.15	655	105	125	152	190	23.5	29.5
SPPK4PC 25-100 лс	17лс84нж7	20ГЛ/20ГМЛ													
SPPK4PC 25-100-Н лс	17лс84нж8	20ГЛ/20ГМЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4PC 25-100 нж	17нж84нж5	12Х18Н9ТЛ	25/40	100/40	16	254	0.6	0.15	655	105	125	152	190	23.5	29.5
SPPK5PC 25-100 нж1	17нж84нж6	12Х18Н12М3ТЛ													
SPPK 25-100	17с81нж	Steel 20	25/40	100/40	18	254	0.6	0.15	535	90	75	137	125	12	13.6
SPPK 25-100 лс	17лс81нж	09Г2С													
SPPK 25-100-Н лс	17лс81нж8	09Г2С													
SPPK 25-100 нж	17нж81нж	12Х18Н10Т													
SPPKP 25-100	17с84нж	Steel 20							575					16	17.6
SPPKP 25-100 лс	17лс84нж	09Г2С													
SPPKP 25-100-Н лс	17лс84нж8	09Г2С													
SPPKP 25-100 нж	17нж84нж	12Х18Н10Т													
SPPK4 25-160	17с9нж	20Л	25/40	160/40	18	254	0.6	0.15	580	105	125	152	190	18	24
SPPK4 25-160 лс	17лс9нж	20ГЛ/20ГМЛ													
SPPK4 25-160-Н лс	17лс9нж8	20ГЛ/20ГМЛ													
SPPK4 25-160 нж	17нж9нж	12Х18Н9ТЛ													
SPPK4C 25-160	17с9нж1	20Л							610					18	25
SPPK4C 25-160 лс	17лс9нж1	20ГЛ/20ГМЛ													
SPPK4C 25-160-Н лс	17лс9нж2	20ГЛ/20ГМЛ													
SPPK4C 25-160 нж	17нж9нж1	12Х18Н9ТЛ													
SPPK5C 25-160 нж1	17нж9нж2	12Х18Н12М3ТЛ													
SPPK4P 25-160	17с9нж2	20Л							625					22	28
SPPK4P 25-160 лс	17лс9нж3	20ГЛ/20ГМЛ													
SPPK4P 25-160-Н лс	17лс9нж4	20ГЛ/20ГМЛ													
SPPK4P 25-160 нж	17нж9нж2	12Х18Н9ТЛ													
SPPK4PC 25-160	17с9нж3	20Л							655					23.5	29.5
SPPK4PC 25-160 лс	17лс9нж5	20ГЛ/20ГМЛ													
SPPK4PC 25-160-Н лс	17лс9нж6	20ГЛ/20ГМЛ													
SPPK4PC 25-160 нж	17нж9нж3	12Х18Н9ТЛ													
SPPK5PC 25-160 нж1	17нж9нж4	12Х18Н12М3ТЛ													
SPPK5 25-250	Information available on request	20Л	25/50	250/63	16	201	0.65	0.15	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 25-250 лс		20ГЛ/20ГМЛ													
SPPK5 25-250-Н лс		20ГЛ/20ГМЛ													
SPPK5 25-250 нж		12Х18Н9ТЛ													
SPPK5C 25-250		20Л													
SPPK5C 25-250 лс		20ГЛ/20ГМЛ													
SPPK5C 25-250-Н лс		20ГЛ/20ГМЛ													
SPPK5C 25-250 нж		12Х18Н9ТЛ													
SPPK5C 25-250 нж1		12Х18Н12М3ТЛ													
SPPK5P 25-250	Information available on request	20Л	25/50	250/63	16	201	0.65	0.15	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5P 25-250 лс		20ГЛ/20ГМЛ													
SPPK5P 25-250-Н лс		20ГЛ/20ГМЛ													
SPPK5P 25-250 нж		12Х18Н9ТЛ													
SPPK5PC 25-250		20Л													
SPPK5PC 25-250 лс		20ГЛ/20ГМЛ													
SPPK5PC 25-250-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 25-250 нж		12Х18Н9ТЛ													
SPPK5PC 25-250 нж1		12Х18Н12М3ТЛ													
SPPK4 50-16	17с7нж	20Л	50/80	16/6	33	855	0.8	0.4	555	130	155	178	204	26	32.5
SPPK4 50-16 лс	17лс13нж	20ГЛ/20ГМЛ													
SPPK4 50-16-Н лс	17лс13нж8	20ГЛ/20ГМЛ													
SPPK4 50-16 нж	17нж13нж	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4C 50-16	17с7нж1	20Л			33	855	0.8	0.4	587					27	33.5
SPPK4C 50-16 лс	17лс13нж1	20ГЛ/20ГМЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4C 50-16-H лс	17лс13нж10	20ГЛ/20ГМЛ	50/80	16/6	33	855	0.8	0.4	587	130	155	178	204	27	33.5
SPPK4C 50-16 нж	17нж13нж1	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5C 50-16 нж1	28нж20нж	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK4P 50-16	17с6нж	20Л	50/80	16/6	33	855	0.8	0.4	600	130	155	178	204	29	35.5
SPPK4P 50-16 лс	17лс17нж	20ГЛ/20ГМЛ													
SPPK4P 50-16-H лс	17лс17нж8	20ГЛ/20ГМЛ													
SPPK4P 50-16 нж	17нж17нж	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4PC 50-16	17с6нж1	20Л			33	855	0.8	0.4	630					30	36.5
SPPK4PC 50-16 лс	17лс17нж1	20ГЛ/20ГМЛ													
SPPK4PC 50-16-H лс	17лс13нж11	20ГЛ/20ГМЛ													
SPPK4PC 50-16 нж	17нж17нж1	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5PC 50-16 нж1	28нж20нж1	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK4 50-25	17с13нж3	20Л	50/80	25/16	33	855	0.8	0.4	555	130	155	178	204	26	34.5
SPPK4 50-25 лс	17лс13нж3	20ГЛ/20ГМЛ													
SPPK4 50-25-H лс	17лс13нж4	20ГЛ/20ГМЛ													
SPPK4 50-25 нж	17нж13нж3	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4C 50-25	17с13нж4	20Л			33	855	0.8	0.4	587					27	35.5
SPPK4C 50-25 лс	17лс13нж5	20ГЛ/20ГМЛ													
SPPK4C 50-25-H лс	17лс13нж6	20ГЛ/20ГМЛ													
SPPK4C 50-25 нж	17нж13нж4	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5C 50-25 нж1	28нж20нж2	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK4P 50-25	17с13нж5	20Л			33	855	0.8	0.4	600					29	37.5
SPPK4P 50-25 лс	17лс13нж7	20ГЛ/20ГМЛ													
SPPK4P 50-25-H лс	17лс13нж12	20ГЛ/20ГМЛ													
SPPK4P 50-25 нж	17нж13нж5	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4PC 50-25	17с13нж6	20Л			33	855	0.8	0.4	630					30	38.5
SPPK4PC 50-25 лс	17лс13нж13	20ГЛ/20ГМЛ													
SPPK4PC 50-25-H лс	17лс13нж14	20ГЛ/20ГМЛ													
SPPK4PC 50-25 нж	17нж13нж6	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5PC 50-25 нж1	28нж20нж3	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK4 50-40	17с23нж	20Л	50/80	40/16	33	855	0.8	0.4	555	130	155	185	201	27	35.5
SPPK4 50-40 лс	17лс14нж	20ГЛ/20ГМЛ													
SPPK4 50-40-H лс	17лс14нж9	20ГЛ/20ГМЛ													
SPPK4 50-40 нж	17нж14нж	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4C 50-40	17с23нж1	20Л			33	855	0.8	0.4	587					28	36.5
SPPK4C 50-40 лс	17лс14нж1	20ГЛ/20ГМЛ													
SPPK4C 50-40-H лс	17лс14нж10	20ГЛ/20ГМЛ													
SPPK4C 50-40 нж	17нж14нж1	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5C 50-40 нж1	28нж21нж	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK4P 50-40	17с21нж	20Л			33	855	0.8	0.4	600					30	38.5
SPPK4P 50-40 лс	17лс25нж	20ГЛ/20ГМЛ													
SPPK4P 50-40-H лс	17лс25нж9	20ГЛ/20ГМЛ													
SPPK4P 50-40 нж	17нж25нж	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK4PC 50-40	17с21нж1	20Л	50/80	40/16	33	855	0.8	0.4	630	130	155	185	201	31	39.5
SPPK4PC 50-40 лс	17лс25нж2	20ГЛ/20ГМЛ													
SPPK4PC 50-40-H лс	17лс25нж11	20ГЛ/20ГМЛ													
SPPK4PC 50-40 нж	17нж25нж2	12Х18Н9ТЛ			30	706	0.6	0.3							
SPPK5PC 50-40 нж1	28нж21нж1	12Х18Н12М3ТЛ			33	855	0.8	0.45							
SPPK5 50-40	28с32нж	20Л	50/80	40/16	37	1075	0.85	0.68	685	130	155	185	201	31.2	39.5
SPPK5 50-40 ХЛ	28лс32нж	20ГЛ/20ГМЛ													
SPPK5P 50-40	28с32нж1	20Л							770					35.6	44.1
SPPK5P 50-40 ХЛ	28лс32нж1	20ГЛ/20ГМЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5C 50-40	28с32нж2	20Л	50/80	40/16	37	1075	0.85	0.68	760	130	155	185	201	38.2	46.7
SPPK5C 50-40 ХЛ	28лс32нж2	20ГЛ/20ГМЛ													
SPPK5PC 50-40	28с32нж3	20Л							850					39.5	48
SPPK5PC 50-40 ХЛ	28лс32нж3	20ГЛ/20ГМЛ													
SPPK5 50-40-01	28с32нж4	20Л		40/40					685			192	201	32	42
SPPK5 50-40-01 ХЛ	28лс32нж4	20ГЛ/20ГМЛ													
SPPK5P 50-40-01	28с32нж5	20Л							770					36	46
SPPK5P 50-40-01 ХЛ	28лс32нж5	20ГЛ/20ГМЛ													
SPPK5C 50-40-01	28с32нж6	20Л							760					39	49
SPPK5C 50-40-01 ХЛ	28лс32нж6	20ГЛ/20ГМЛ													
SPPK5PC 50-40-01	28с32нж7	20Л							850					40.2	50.2
SPPK5PC 50-40-01 ХЛ	28лс32нж7	20ГЛ/20ГМЛ													
SPPK5 50-63	17с16нж1	20Л	50/80	63/40	33	855	0.8	0.5	735	145	160	201	234	43	56
SPPK5 50-63 лс	17лс85нж	20ГЛ/20ГМЛ													
SPPK5 50-63-Н лс	17лс89нж9	20ГЛ/20ГМЛ													
SPPK5 50-63 нж	17нж16нж1	12Х18Н9ТЛ													
SPPK5C 50-63	17с16нж3	20Л						0.4	745					45	58
SPPK5C 50-63 лс	17лс16нж	20ГЛ/20ГМЛ													
SPPK5C 50-63-Н лс	17лс89нж10	20ГЛ/20ГМЛ													
SPPK5C 50-63 нж	17нж16нж1	12Х18Н9ТЛ													
SPPK5C 50-63 нж1	28нж22нж	12Х18Н12М3ТЛ													
SPPK5P 50-63	17с16нж	20Л						0.5	780					45	58
SPPK5P 50-63 лс	17лс89нж	20ГЛ/20ГМЛ													
SPPK5P 50-63-Н лс	17лс89нж8	20ГЛ/20ГМЛ													
SPPK5P 50-63 нж	17нж16нж	12Х18Н9ТЛ													
SPPK5PC 50-63	17с16нж2	20Л						0.4	795					47	60
SPPK5PC 50-63 лс	17лс89нж1	20ГЛ/20ГМЛ													
SPPK5PC 50-63-Н лс	17лс89нж10	20ГЛ/20ГМЛ													
SPPK5PC 50-63 нж	17нж89нж2	12Х18Н9ТЛ													
SPPK5PC 50-63 нж1	28нж22нж1	12Х18Н12М3ТЛ													
SPPK5 50-100	17с89нж2	20Л	50/80	100/40	33	855	0.8	0.5	735	145	160	201	242	48	63.5
SPPK5 50-100 лс	17лс89нж2	20ГЛ/20ГМЛ													
SPPK5 50-100-Н лс	17лс89нж4	20ГЛ/20ГМЛ													
SPPK5 50-100 нж	17нж89нж1	12Х18Н9ТЛ													
SPPK5C 50-100	17с89нж3	20Л						0.4	745					49.5	65
SPPK5C 50-100 лс	17лс89нж5	20ГЛ/20ГМЛ													
SPPK5C 50-100-Н лс	17лс89нж6	20ГЛ/20ГМЛ													
SPPK5C 50-100 нж	17нж89нж3	12Х18Н9ТЛ													
SPPK5C 50-100 нж1	28нж22нж2	12Х18Н12М3ТЛ													
SPPK5P 50-100	17с89нж4	20Л	50/80	100/40	33	855	0.8	0.5	780	145	160	201	242	51	67.5
SPPK5P 50-100 лс	17лс89нж7	20ГЛ/20ГМЛ													
SPPK5P 50-100-Н лс	17лс89нж12	20ГЛ/20ГМЛ													
SPPK5P 50-100 нж	17нж89нж5	12Х18Н9ТЛ													
SPPK5PC 50-100	17с89нж5	20Л						0.4	795					54.5	70
SPPK5PC 50-100 лс	17лс89нж13	20ГЛ/20ГМЛ													
SPPK5PC 50-100-Н лс	17лс89нж14	20ГЛ/20ГМЛ													
SPPK5PC 50-100 нж	17нж89нж6	12Х18Н9ТЛ													
SPPK5PC 50-100 нж1	28нж22нж3	12Х18Н12М3ТЛ													
SPPK5 50-160	17с8нж1	20Л	50/80	160/40	33	855	0.8	0.5	735	145	160	201	242	48	63.5
SPPK5 50-160 лс	17лс80нж	20ГЛ/20ГМЛ													
SPPK5 50-160-Н лс	17лс90нж8	20ГЛ/20ГМЛ													
SPPK5 50-160 нж	17нж8нж1	12Х18Н9ТЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5C 50-160	17с8нж3	20Л	50/80	160/40	33	855	0.8	0.4	745	145	160	201	242	49.5	65
SPPK5C 50-160 лс	17лс8нж	20ГЛ/20ГМЛ													
SPPK5C 50-160-Н лс	17лс90нж10	20ГЛ/20ГМЛ													
SPPK5C 50-160 нж	17нж8нж1	12Х18Н9ТЛ													
SPPK5C 50-160 нж1	28нж23нж	12Х18Н12М3ТЛ													
SPPK5P 50-160	17с8нж	20Л	50/80	160/40	33	855	0.8	0.5	780	145	160	201	242	51	67.5
SPPK5P 50-160 лс	17лс90нж	20ГЛ/20ГМЛ													
SPPK5P 50-160-Н лс	17лс90нж9	20ГЛ/20ГМЛ													
SPPK5P 50-160 нж	17нж8нж	12Х18Н9ТЛ													
SPPK5PC 50-160	17с8нж2	20Л						0.4	795					54.5	70
SPPK5PC 50-160 лс	17лс90нж1	20ГЛ/20ГМЛ													
SPPK5PC 50-160-Н лс	17лс90нж11	20ГЛ/20ГМЛ													
SPPK5PC 50-160 нж	17нж90нж1	12Х18Н9ТЛ													
SPPK5PC 50-160 нж1	28нж23нж1	12Х18Н12М3ТЛ													
SPPK5 50-250	Information available on request	20Л	50/80	250/63	33	855	0.8	0.5	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 50-250 лс		20ГЛ/20ГМЛ													
SPPK5 50-250-Н лс		20ГЛ/20ГМЛ													
SPPK5 50-250 нж		12Х18Н9ТЛ													
SPPK5C 50-250		20Л													
SPPK5C 50-250 лс		20ГЛ/20ГМЛ													
SPPK5C 50-250-Н лс		20ГЛ/20ГМЛ													
SPPK5C 50-250 нж		12Х18Н9ТЛ													
SPPK5C 50-250 нж1		12Х18Н12М3ТЛ													
SPPK5P 50-250		20Л													
SPPK5P 50-250 лс		20ГЛ/20ГМЛ													
SPPK5P 50-250-Н лс		20ГЛ/20ГМЛ													
SPPK5P 50-250 нж		12Х18Н9ТЛ													
SPPK5PC 50-250		20Л													
SPPK5PC 50-250 лс		20ГЛ/20ГМЛ													
SPPK5PC 50-250-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 50-250 нж		12Х18Н9ТЛ													
SPPK5PC 50-250 нж1		12Х18Н12М3ТЛ													
SPPK4 80-16	17с7нж	20Л	80/100	16/6	40	1256	0.8	0.5	745	150	175	192	229	33	42
SPPK4 80-16 лс	17лс13нж	20ГЛ/20ГМЛ													
SPPK4 80-16-Н лс	17лс13нж9	20ГЛ/20ГМЛ													
SPPK4 80-16 нж	17нж13нж	12Х18Н9ТЛ													
SPPK4C 80-16	17с7нж2	20Л	80/100	16/6	40	1256	0.8	0.5	765	150	175	192	229	37	46
SPPK4C 80-16 лс	17лс13нж2	20ГЛ/20ГМЛ													
SPPK4C 80-16 нж	17нж13нж2	20ГЛ/20ГМЛ													
SPPK4C 80-16-Н лс	17лс13нж10	12Х18Н9ТЛ													
SPPK5C 80-16 нж1	28нж20нж	12Х18Н12М3ТЛ													
SPPK4P 80-16	17с6нж	20Л							790					39	48
SPPK4P 80-16 лс	17лс17нж	20ГЛ/20ГМЛ													
SPPK4P 80-16-Н лс	17лс17нж8	20ГЛ/20ГМЛ													
SPPK4P 80-16 нж	17нж17нж	12Х18Н9ТЛ													
SPPK4PC 80-16	17с21нж2	20Л							810					42	51
SPPK4PC 80-16 лс	17лс17нж2	20ГЛ/20ГМЛ													
SPPK4PC 80-16 нж	17нж17нж2	20ГЛ/20ГМЛ													
SPPK4PC 80-16-Н лс	17лс17нж11	12Х18Н9ТЛ													
SPPK5PC 80-16 нж1	28нж20нж1	12Х18Н12М3ТЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4 80-25	17с25нж2	20Л	80/100	25/16	40	1256	0.8	0.5	745	150	175	204	231	35	48
SPPK4 80-25 лс	17лс25нж3	20ГЛ/20ГМЛ													
SPPK4 80-25-Н лс	17лс25нж4	20ГЛ/20ГМЛ													
SPPK4 80-25 нж	17нж25нж3	12Х18Н9ТЛ													
SPPK4С 80-25	17с25нж3	20Л							765					39	52
SPPK4С 80-25 лс	17лс25нж5	20ГЛ/20ГМЛ													
SPPK4С 80-25 нж	17лс25нж6	20ГЛ/20ГМЛ													
SPPK4С 80-25-Н лс	17нж25нж4	12Х18Н9ТЛ													
SPPK5С 80-25 нж1	28нж20нж4	12Х18Н12М3ТЛ													
SPPK4Р 80-25	17с25нж4	20Л							790					41	54
SPPK4Р 80-25 лс	17лс25нж7	20ГЛ/20ГМЛ													
SPPK4Р 80-25-Н лс	17лс25нж10	20ГЛ/20ГМЛ													
SPPK4Р 80-25 нж	17нж25нж5	12Х18Н9ТЛ													
SPPK4РС 80-25	17с25нж5	20Л							810					44	57
SPPK4РС 80-25 лс	17лс25нж12	20ГЛ/20ГМЛ													
SPPK4РС 80-25 нж	17лс25нж13	20ГЛ/20ГМЛ													
SPPK4РС 80-25-Н лс	17нж25нж6	12Х18Н9ТЛ													
SPPK5РС 80-25 нж1	28нж20нж5	12Х18Н12М3ТЛ													
SPPK4 80-40	17с23нж	20Л	80/100	40/16	40	1256	0.8	0.5	745	150	175	204	231	35	48
SPPK4 80-40 лс	17лс14нж	20ГЛ/20ГМЛ													
SPPK4 80-40-Н лс	17лс21нж9	20ГЛ/20ГМЛ													
SPPK4 80-40 нж	17нж14нж	12Х18Н9ТЛ													
SPPK4С 80-40	17с23нж2	20Л							765					39	52
SPPK4С 80-40 лс	17лс14нж	20ГЛ/20ГМЛ													
SPPK4С 80-40 нж	17нж14нж1	20ГЛ/20ГМЛ													
SPPK4С 80-40-Н лс	17лс14нж10	12Х18Н9ТЛ													
SPPK5С 80-40 нж1	28нж21нж	12Х18Н12М3ТЛ													
SPPK4Р 80-40	17с21нж	20Л							790					41	54
SPPK4Р 80-40 лс	17лс25нж	20ГЛ/20ГМЛ													
SPPK4Р 80-40-Н лс	17лс21нж8	20ГЛ/20ГМЛ													
SPPK4Р 80-40 нж	17нж25нж	12Х18Н9ТЛ													
SPPK4РС 80-40	17с21нж2	20Л							810					44	57
SPPK4РС 80-40 лс	17лс25нж2	20ГЛ/20ГМЛ													
SPPK4РС 80-40 нж	17нж25нж2	20ГЛ/20ГМЛ													
SPPK4РС 80-40-Н лс	17нж25нж11	12Х18Н9ТЛ													
SPPK5С 80-40 нж1	28нж21нж1	12Х18Н12М3ТЛ													
SPPK5 80-40	28с33нж	20Л	80/100	40/16	52	2123	0.85	0.65	820	150	175	204	231	55	68
SPPK5 80-40 ХЛ	28лс33нж	20ГЛ/20ГМЛ													
SPPK5Р 80-40	28с33нж1	20Л							905					60	73
SPPK5Р 80-40 ХЛ	28лс33нж1	20ГЛ/20ГМЛ													
SPPK5С 80-40	28с33нж2	20Л							930					62	75
SPPK5С 80-40 ХЛ	28лс33нж2	20ГЛ/20ГМЛ													
SPPK5РС 80-40	28с33нж3	20Л	80/100	40/16	52	2123	0.85	0.65	1020	150	175	204	231	66	79
SPPK5РС 80-40 ХЛ	28лс33нж3	20ГЛ/20ГМЛ													
SPPK5 80-40-01	28с33нж4	20Л		40/40					820			220	231	56.5	73
SPPK5 80-40-01 ХЛ	28лс33нж4	20ГЛ/20ГМЛ													
SPPK5Р 80-40-01	28с33нж5	20Л							905					61.5	78
SPPK5Р 80-40-01 ХЛ	28лс33нж5	20ГЛ/20ГМЛ													
SPPK5С 80-40-01	28с33нж6	20Л							930					63.5	80
SPPK5С 80-40-01 ХЛ	28лс33нж6	20ГЛ/20ГМЛ													
SPPK5РС 80-40-01	28с33нж7	20Л							1020					67.5	84
SPPK5РС 80-40-01 ХЛ	28лс33нж7	20ГЛ/20ГМЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4 80-63	17с85нж	20Л	80/100	63/40	40	1256	0.8	0.3	800	165	195	231	274	49.5	69.5
SPPK4 80-63 лс	17лс85нж	20ГЛ/20ГМЛ													
SPPK4 80-63-Н лс	17лс85нж8	20ГЛ/20ГМЛ													
SPPK4 80-63 нж	17нж85нж	12Х18Н9ТЛ													
SPPK4C 80-63	17с85нж1	20Л							815					52	72
SPPK4C 80-63 лс	17лс85нж1	20ГЛ/20ГМЛ													
SPPK4C 80-63-Н лс	17лс85нж10	20ГЛ/20ГМЛ													
SPPK4C 80-63 нж	17нж85нж1	12Х18Н9ТЛ													
SPPK5C 80-63 нж1	28нж22нж	12Х18Н12М3ТЛ					0.6	0.1							
SPPK4P 80-63	17с89нж	20Л					0.8	0.3	825					54	74
SPPK4P 80-63 лс	17лс89нж	20ГЛ/20ГМЛ													
SPPK4P 80-63-Н лс	17лс88нж8	20ГЛ/20ГМЛ													
SPPK4P 80-63 нж	17нж89нж	12Х18Н9ТЛ													
SPPK4PC 80-63	17с89нж1	20Л							845					57	77
SPPK4PC 80-63 лс	17лс89нж3	20ГЛ/20ГМЛ													
SPPK4PC 80-63-Н лс	17лс88нж11	20ГЛ/20ГМЛ													
SPPK4PC 80-63 нж	17нж89нж4	12Х18Н9ТЛ													
SPPK5PC 80-63 нж1	28нж22нж1	12Х18Н12М3ТЛ					0.6	0.1							
SPPK4 80-100	17с88нж	20Л	80/100	100/40	40	1256	0.8	0.3	800	165	195	231	292	55	81
SPPK4 80-100 лс	17лс88нж	20ГЛ/20ГМЛ													
SPPK4 80-100-Н лс	17лс88нж1	20ГЛ/20ГМЛ													
SPPK4 80-100нж	17нж88нж	12Х18Н9ТЛ													
SPPK4C 80-100	17с88нж1	20Л							820					57	83
SPPK4C 80-100 лс	17лс88нж2	20ГЛ/20ГМЛ													
SPPK4C 80-100-Н лс	17лс88нж3	20ГЛ/20ГМЛ													
SPPK4C 80-100 нж	17нж88нж1	12Х18Н9ТЛ													
SPPK5C 80-100 нж1	28нж22нж2	12Х18Н12М3ТЛ					0.6	0.1							
SPPK4P 80-100	17с88нж2	20Л					0.8	0.3	840					58	84
SPPK4P 80-100 лс	17лс88нж4	20ГЛ/20ГМЛ													
SPPK4P 80-100-Н лс	17лс88нж5	20ГЛ/20ГМЛ													
SPPK4P 80-100 нж	17нж88нж2	12Х18Н9ТЛ													
SPPK4PC 80-100	17с88нж3	20Л	80/100	100/40	40	1256	0.8	0.3	860	165	195	231	292	60	86
SPPK4PC 80-100 лс	17лс88нж6	20ГЛ/20ГМЛ													
SPPK4PC 80-100-Н лс	17лс88нж7	20ГЛ/20ГМЛ													
SPPK4PC 80-100 нж	17нж88нж3	12Х18Н9ТЛ													
SPPK5PC 80-100 нж1	28нж22нж3	12Х18Н12М3ТЛ					0.6	0.1							
SPPK4 80-160	17с80нж	20Л	80/100	160/40	35	960	0.8	0.3	800	165	195	231	292	55	81
SPPK4 80-160 лс	17лс80нж	20ГЛ/20ГМЛ													
SPPK4 80-160-Н лс	17лс80нж8	20ГЛ/20ГМЛ													
SPPK4 80-160 нж	17нж80нж	12Х18Н9ТЛ													
SPPK4C 80-160	17с80нж1	20Л							820					57	83
SPPK4C 80-160 лс	17лс80нж1	20ГЛ/20ГМЛ													
SPPK4C 80-160-Н лс	17лс80нж10	20ГЛ/20ГМЛ													
SPPK4C 80-160 нж	17нж80нж1	12Х18Н9ТЛ													
SPPK5C 80-160 нж1	28нж23нж	12Х18Н12М3ТЛ					0.6	0.1							
SPPK4P 80-160	17с90нж	20Л					0.8	0.3	840					58	84
SPPK4P 80-160 лс	17лс90нж	20ГЛ/20ГМЛ													
SPPK4P 80-160-Н лс	17лс88нж9	20ГЛ/20ГМЛ													
SPPK4P 80-160 нж	17нж90нж	12Х18Н9ТЛ													
SPPK4PC 80-160	17с90нж1	20Л							860					60	86
SPPK4PC 80-160 лс	17лс90нж2	20ГЛ/20ГМЛ													
SPPK4PC 80-160-Н лс	17лс88нж11	20ГЛ/20ГМЛ													
SPPK4PC 80-160 нж	17нж90нж2	12Х18Н9ТЛ													
SPPK5PC 80-160 нж1	28нж23нж1	12Х18Н12М3ТЛ					0.6	0.1							

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5 80-250	Information available on request	20Л	80/100	250/63	35	960	0.8	0.3	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 80-250 лс		20ГЛ/20ГМЛ													
SPPK5 80-250-Н лс		20ГЛ/20ГМЛ													
SPPK5 80-250 нж		12Х18Н9ТЛ													
SPPK5C 80-250		20Л													
SPPK5C 80-250 лс		20ГЛ/20ГМЛ													
SPPK5C 80-250-Н лс		20ГЛ/20ГМЛ													
SPPK5C 80-250 нж		12Х18Н9ТЛ													
SPPK5C 80-250 нж1		12Х18Н12М3ТЛ													
SPPK5P 80-250		20Л													
SPPK5P 80-250 лс		20ГЛ/20ГМЛ													
SPPK5P 80-250-Н лс		20ГЛ/20ГМЛ													
SPPK5P 80-250 нж		12Х18Н9ТЛ													
SPPK5PC 80-250		20Л													
SPPK5PC 80-250 лс		20ГЛ/20ГМЛ													
SPPK5PC 80-250-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 80-250 нж		12Х18Н9ТЛ													
SPPK5PC 80-250 нж1		12Х18Н12М3ТЛ													
SPPK5 100-16	17с7нж	20Л	100/150	16/16	50	1963	0.8	0.5	855	160	200	222	254	54	72.5
SPPK5 100-16 лс	17лс7нж	20ГЛ/20ГМЛ													
SPPK5 100-16-Н лс	17лс7нж8	20ГЛ/20ГМЛ													
SPPK5 100-16 нж	17нж7нж	12Х18Н9ТЛ													
SPPK5C 100-16	17с7нж3	20Л	100/150	16/16	50	1963	0.8	0.5	895	160	200	222	254	56.5	75
SPPK5C 100-16 лс	17лс7нж1	20ГЛ/20ГМЛ													
SPPK5C 100-16-Н лс	17лс7нж10	20ГЛ/20ГМЛ													
SPPK5C 100-16 нж	17нж7нж2	12Х18Н9ТЛ													
SPPK5C 100-16 нж1	28нж20нж	12Х18Н12М3ТЛ													
SPPK5P 100-16	17с6нж	20Л							900					58	76
SPPK5P 100-16 лс	17лс6нж	20ГЛ/20ГМЛ													
SPPK5P 100-16-Н лс	17лс6нж8	20ГЛ/20ГМЛ													
SPPK5P 100-16 нж	17нж6нж	12Х18Н9ТЛ													
SPPK5PC 100-16	17с6нж1	20Л							935					60	78.5
SPPK5PC 100-16 лс	17лс6нж1	20ГЛ/20ГМЛ													
SPPK5PC 100-16-Н лс	17нж6нж1	20ГЛ/20ГМЛ													
SPPK5PC 100-16 нж	17нж6нж11	12Х18Н9ТЛ													
SPPK5PC 100-16 нж1	28нж20нж1	12Х18Н12М3ТЛ													
SPPK5 100-25	17с26нж	20Л	100/150	25/16	50	1963	0.8	0.5	855	160	200	222	260	54.2	73
SPPK5 100-25 лс	17лс26нж	20ГЛ/20ГМЛ													
SPPK5 100-25-Н лс	17лс26нж1	20ГЛ/20ГМЛ													
SPPK5 100-25 нж	17нж26нж	12Х18Н9ТЛ													
SPPK5C 100-25	17с26нж1	20Л							895					56.8	75.5
SPPK5C 100-25 лс	17лс26нж2	20ГЛ/20ГМЛ													
SPPK5C 100-25-Н лс	17лс26нж3	20ГЛ/20ГМЛ													
SPPK5C 100-25 нж	17нж26нж1	12Х18Н9ТЛ													
SPPK5C 100-25 нж1	28нж21нж2	12Х18Н12М3ТЛ													
SPPK5P 100-25	17с26нж2	20Л							900					58.5	77
SPPK5P 100-25 лс	17лс26нж4	20ГЛ/20ГМЛ													
SPPK5P 100-25-Н лс	17лс26нж5	20ГЛ/20ГМЛ													
SPPK5P 100-25 нж	17нж26нж2	12Х18Н9ТЛ													
SPPK5PC 100-25	17с26нж3	20Л							935					60.5	79.3
SPPK5PC 100-25 лс	17лс26нж6	20ГЛ/20ГМЛ													
SPPK5PC 100-25-Н лс	17лс26нж7	20ГЛ/20ГМЛ													
SPPK5PC 100-25 нж	17нж26нж3	12Х18Н9ТЛ													
SPPK5PC 100-25 нж1	28нж21нж3	12Х18Н12М3ТЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5 100-40	17с23нж	20Л	100/150	40/16	50	1963	0.8	0.5	855	160	200	222	265	54.5	78
SPPK5 100-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK5 100-40-Н лс	17лс23нж8	20ГЛ/20ГМЛ													
SPPK5 100-40 нж	17нж23нж	12Х18Н9ТЛ													
SPPK5C 100-40	17с23нж3	20Л							895					58	81.5
SPPK5C 100-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK5C 100-40-Н лс	17лс23нж10	20ГЛ/20ГМЛ													
SPPK5C 100-40 нж	17нж23нж1	12Х18Н9ТЛ													
SPPK5C 100-40 нж1	28нж21нж	12Х18Н12М3ТЛ													
SPPK5P 100-40	17с21нж	20Л							900					58.5	82
SPPK5P 100-40 лс	17лс25нж	20ГЛ/20ГМЛ													
SPPK5P 100-40-Н лс	17лс26нж8	20ГЛ/20ГМЛ													
SPPK5P 100-40 нж	17нж25нж	12Х18Н9ТЛ													
SPPK5PC 100-40	17с21нж3	20Л	100/150	40/16	50	1963	0.8	0.5	935	160	200	222	265	61.5	85
SPPK5PC 100-40 лс	17лс25нж2	20ГЛ/20ГМЛ													
SPPK5PC 100-40-Н лс	17лс25нж11	20ГЛ/20ГМЛ													
SPPK5PC 100-40 нж	17нж25нж2	12Х18Н9ТЛ													
SPPK5PC 100-40 нж1	28нж21нж1	12Х18Н12М3ТЛ													
SPPK5 100-63	17с16нж	20Л	100/150	63/40	63	3117	0.8	0.4	1040	235	246	306	325	158	193
SPPK5 100-63-01	17с16нж4	20Л			72	4071								157	192
SPPK5 100-63 лс	17лс16нж2	20ГЛ/20ГМЛ			63	3117								158	193
SPPK5 100-63-01 лс	17лс16нж4	20ГЛ/20ГМЛ			72	4071								157	192
SPPK5 100-63-Н лс	17лс16нж8	20ГЛ/20ГМЛ			63	3117								158	193
SPPK5 100-63-01Н лс	17лс23нж9	20ГЛ/20ГМЛ			72	4071								157	192
SPPK5 100-63 нж	17нж16нж2	12Х18Н9ТЛ			63	3117								158	193
SPPK5 100-63-01 нж	17нж16нж6	12Х18Н9ТЛ			72	4071								157	192
SPPK5C 100-63	17с16нж3	20Л			63	3117			1075					165	200
SPPK5C 100-63 лс	17лс16нж3	20ГЛ/20ГМЛ													
SPPK5C 100-63-Н лс	17лс16нж9	20ГЛ/20ГМЛ													
SPPK5C 100-63 нж	17нж16нж2	12Х18Н9ТЛ													
SPPK5C 100-63 нж1	28нж22нж	12Х18Н12М3ТЛ													
SPPK5P 100-63	17с16нж	20Л			63	3117			1100					163	198
SPPK5P 100-63-01	17с16нж4	20Л			72	4071								162	197
SPPK5P 100-63 лс	17лс16нж	20ГЛ/20ГМЛ			63	3117								163	198
SPPK5P 100-63-01 лс	17лс16нж4	20ГЛ/20ГМЛ			72	4071								162	197
SPPK5P 100-63-Н лс	17лс16нж8	20ГЛ/20ГМЛ			63	3117								163	198
SPPK5P 100-63-01Н лс	17лс23нж9	20ГЛ/20ГМЛ			72	4071								162	197
SPPK5P 100-63 нж	17нж16нж	12Х18Н9ТЛ			63	3117								163	198
SPPK5P 100-63-01 нж	17нж16нж4	12Х18Н9ТЛ			72	4071								162	197
SPPK5PC 100-63	17с16нж1	20Л			63	3117			1135					169	204
SPPK5PC 100-63 лс	17лс16нж1	20ГЛ/20ГМЛ													
SPPK5PC 100-63-Н лс	17лс16нж11	20ГЛ/20ГМЛ													
SPPK5PC 100-63 нж	17нж16нж1	12Х18Н9ТЛ													
SPPK5PC 100-63 нж1	28нж22нж1	12Х18Н12М3ТЛ													
SPPK5 100-100	17с16нж5	20Л	100/150	100/40	48	1809	0.8	0.4	1040	235	246	306	325	156	196
SPPK5 100-100-01	17с16нж6	20Л			56	2463								155	195
SPPK5 100-100 лс	17лс16нж5	20ГЛ/20ГМЛ			48	1809								156	196
SPPK5 100-100-01 лс	17лс16нж6	20ГЛ/20ГМЛ			56	2463								155	195
SPPK5 100-100-Н лс	17лс16нж7	20ГЛ/20ГМЛ			48	1809								156	196
SPPK5 100-100-01Н лс	17лс16нж12	20ГЛ/20ГМЛ			56	2463								155	195
SPPK5 100-100 нж	17нж16нж3	12Х18Н9ТЛ			48	1809								156	196
SPPK5 100-100-01 нж	17нж16нж5	12Х18Н9ТЛ			56	2463								155	195

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5C 100-100	17с16нж7	20Л	100/150	100/40	56	2463	0.8	0.4	1075	235	246	306	325	162	202
SPPK5C 100-100 лс	17лс16нж13	20ГЛ/20ГМЛ													
SPPK5C 100-100-Н лс	17лс16нж14	20ГЛ/20ГМЛ													
SPPK5C 100-100 нж	17нж16нж7	12Х18Н9ТЛ													
SPPK5C 100-100 нж1	28нж22нж2	12Х18Н12М3ТЛ													
SPPK5P 100-100	17с16нж8	20Л			48	1809			1100					161	201
SPPK5P 100-100-01	17с16нж9	20Л			56	2463								160	200
SPPK5P 100-100 лс	17лс16нж15	20ГЛ/20ГМЛ	100/150	100/40	48	1809	0.8	0.4	1100	235	246	306	325	161	201
SPPK5P 100-100-01 лс	17лс16нж16	20ГЛ/20ГМЛ			56	2463								160	200
SPPK5P 100-100-Н лс	17лс16нж17	20ГЛ/20ГМЛ			48	1809								161	201
SPPK5P 100-100-01Н лс	17лс16нж18	20ГЛ/20ГМЛ			56	2463								160	200
SPPK5P 100-100 нж	17нж16нж8	12Х18Н9ТЛ			48	1809								161	201
SPPK5P 100-100-01 нж	17нж16нж9	12Х18Н9ТЛ			56	2463								160	200
SPPK5PC 100-100	17с16нж10	20Л			56	2463			1135					166	206
SPPK5PC 100-100 лс	17лс16нж19	20ГЛ/20ГМЛ													
SPPK5Pc 100-100-Н лс	17лс16нж20	20ГЛ/20ГМЛ													
SPPK5PC 100-100 нж	17нж16нж10	12Х18Н9ТЛ													
SPPK5PC 100-100 нж1	28нж22нж3	12Х18Н12М3ТЛ													
SPPK5 100-160	17с8нж2	20Л	100/150	160/40	48	1809	0.8	0.4	1040	235	246	306	325	158	198
SPPK5 100-160-01	17с8нж6	20Л			56	2463								157	197
SPPK5 100-160 лс	17лс8нж2	20ГЛ/20ГМЛ			48	1809								158	198
SPPK5 100-160-01 лс	17лс8нж6	20ГЛ/20ГМЛ			56	2463								157	197
SPPK5 100-160-Н лс	17лс8нж9	20ГЛ/20ГМЛ			48	1809								158	198
SPPK5 100-160-01Н лс	17лс7нж9	20ГЛ/20ГМЛ			56	2463								157	197
SPPK5 100-160 нж	17нж8нж2	12Х18Н9ТЛ			48	1809								158	198
SPPK5 100-160-01 нж	17нж8нж6	12Х18Н9ТЛ			56	2463								157	197
SPPK5C 100-160	17с8нж3	20Л			56	2463			1075					164	204
SPPK5C 100-160 лс	17лс8нж3	20ГЛ/20ГМЛ													
SPPK5C 100-160-Н лс	17лс8нж10	20ГЛ/20ГМЛ													
SPPK5C 100-160 нж	17нж8нж3	12Х18Н9ТЛ													
SPPK5C 100-160 нж1	28нж23нж	12Х18Н12М3ТЛ													
SPPK5P 100-160	17с8нж	20Л			48	1809			1100					163	203
SPPK5P 100-160-01	17с8нж4	20Л			56	2463								162	202
SPPK5P 100-160 лс	17лс8нж	20ГЛ/20ГМЛ			48	1809								163	203
SPPK5P 100-160-01 лс	17лс8нж4	20ГЛ/20ГМЛ			56	2463								162	202
SPPK5P 100-160-Н лс	17лс8нж9	20ГЛ/20ГМЛ			48	1809								163	203
SPPK5P 100-160-01Н лс	17лс7нж9	20ГЛ/20ГМЛ			56	2463								162	202
SPPK5P 100-160 нж	17нж8нж	12Х18Н9ТЛ			48	1809								163	203
SPPK5P 100-160-01 нж	17нж8нж4	12Х18Н9ТЛ			56	2463								162	202
SPPK5PC 100-160	17с8нж1	20Л			56	2463			1135					168	208
SPPK5PC 100-160 лс	17лс8нж1	20ГЛ/20ГМЛ													
SPPK5PC 100-160-Н лс	17лс8нж11	20ГЛ/20ГМЛ													
SPPK5PC 100-160 нж	17нж8нж1	12Х18Н9ТЛ													
SPPK5PC 100-160 нж1	28нж23нж1	12Х18Н12М3ТЛ													
SPPK5 100-250	Information available on request	20Л	150/200	250/63	49	1885	0.8	0.4	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 100-250 лс		20ГЛ/20ГМЛ													
SPPK5 100-250-Н лс		20ГЛ/20ГМЛ													
SPPK5 100-250 нж		12Х18Н9ТЛ													
SPPK5C 100-250		20Л													
SPPK5C 100-250 лс		20ГЛ/20ГМЛ													
SPPK5C 100-250-Н лс		20ГЛ/20ГМЛ													

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5C 100-250 нж	Information available on request	12Х18Н9ТЛ	150/200	250/63	49	1885	0.8	0.4	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5C 100-250 нж1		12Х18Н12М3ТЛ													
SPPK5P 100-250		20Л													
SPPK5P 100-250 лс		20ГЛ/20ГМЛ													
SPPK5P 100-250-Н лс		20ГЛ/20ГМЛ													
SPPK5P 100-250 нж		12Х18Н9ТЛ													
SPPK5PC 100-250		20Л													
SPPK5PC 100-250 лс		20ГЛ/20ГМЛ													
SPPK5PC 100-250-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 100-250 нж		12Х18Н9ТЛ													
SPPK5PC 100-250 нж1		12Х18Н12М3ТЛ													
SPPK4 150-16	17с7нж	20Л	150/200	16/6	75	4417	0.8	0.56	950	205	230	260	291	89	110
SPPK4 150-16 лс	17лс7нж	20ГЛ/20ГМЛ													
SPPK4 150-16-Н лс	17лс5нж9	20ГЛ/20ГМЛ													
SPPK4 150-16 нж	17нж7нж	12Х18Н9ТЛ													
SPPK4C 150-16	17с7нж4	20Л						0.4	970					94	115
SPPK4C 150-16 лс	17лс7нж	20ГЛ/20ГМЛ													
SPPK4C 150-16-Н лс	17лс5нж10	20ГЛ/20ГМЛ													
SPPK4C 150-16 нж	17нж7нж1	12Х18Н9ТЛ													
SPPK5C 150-16 нж1	28нж20нж	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4P 150-16	17с6нж	20Л					0.8	0.56	1030					93.5	114.5
SPPK4P 150-16 лс	17лс6нж	20ГЛ/20ГМЛ													
SPPK4P 150-16-Н лс	17лс5нж8	20ГЛ/20ГМЛ													
SPPK4P 150-16 нж	17нж6нж	12Х18Н9ТЛ													
SPPK4PC 150-16	17с6нж2	20Л						0.4	1060					99	120
SPPK4PC 150-16 лс	17лс6нж2	20ГЛ/20ГМЛ													
SPPK4PC 150-16-Н лс	17лс5нж11	20ГЛ/20ГМЛ													
SPPK4PC 150-16 нж	17нж6нж2	12Х18Н9ТЛ													
SPPK5PC 150-16 нж1	28нж20нж	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4 150-16М1	17с7нж	20Л	150/200	16/6	75	4417	0.8	0.65	935	205	230	260	291	92	113
SPPK4 150-16М1 лс	17лс7нж	20ГЛ/20ГМЛ													
SPPK4C 150-16М1	17с7нж1	20Л							975					97.5	118.5
SPPK4C 150-16М1 лс	17лс7нж1	20ГЛ/20ГМЛ													
SPPK4P 150-16М1	17с6нж	20Л							1025					97	118
SPPK4P 150-16М1 лс	17лс6нж	20ГЛ/20ГМЛ													
SPPK4PC 150-16М1	17с6нж1	20Л	150/200	16/6	75	4417	0.8	0.65	1060	205	230	260	291	102	123
SPPK4PC 150-16М1 лс	17лс6нж1	20ГЛ/20ГМЛ													
SPPK4 150-25	28с21нж	20Л	150/200	25/16	75	4417	0.8	0.56	950	205	230	260	295	93	128
SPPK4 150-25 лс	28лс21нж	20ГЛ/20ГМЛ													
SPPK4 150-25-Н лс	28лс21нж1	20ГЛ/20ГМЛ													
SPPK4 150-25 нж	28нж21нж2	12Х18Н9ТЛ						0.4	970					98	133
SPPK4C 150-25	28с21нж1	20Л													
SPPK4C 150-25 лс	28лс21нж2	20ГЛ/20ГМЛ													
SPPK4C 150-25-Н лс	28лс21нж3	20ГЛ/20ГМЛ													
SPPK4C 150-25 нж	28нж21нж3	12Х18Н9ТЛ						0.4	970						
SPPK5C 150-25 нж1	28нж21нж4	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4P 150-25	28с21нж2	20Л					0.8	0.4	1030					97.5	132.5
SPPK4P 150-25 лс	28лс21нж4	20ГЛ/20ГМЛ													
SPPK4P 150-25-Н лс	28лс21нж5	20ГЛ/20ГМЛ													
SPPK4P 150-25 нж	28нж21нж5	12Х18Н9ТЛ													
SPPK4PC 150-25	28с21нж3	20Л						0.56	1060					103	138
SPPK4PC 150-25 лс	28лс21нж6	20ГЛ/20ГМЛ													
SPPK4PC 150-25-Н лс	28лс21нж7	20ГЛ/20ГМЛ													
SPPK4PC 150-25 нж	28нж21нж6	12Х18Н9ТЛ													
SPPK5PC 150-25 нж1	28нж21нж7	12Х18Н12М3ТЛ					0.6	0.5							

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK4 150-40	17с23нж	20Л	150/200	40/16	75	4417	0.8	0.56	950	205	230	267	300	96.5	131.5
SPPK4 150-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK4 150-40-Н лс	17лс22нж8	20ГЛ/20ГМЛ													
SPPK4 150-40 нж	17нж23нж	12Х18Н9ТЛ													
SPPK4C 150-40	17с23нж3	20Л						0.4	970					101.5	136.5
SPPK4C 150-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK4C 150-40-Н лс	17лс22нж10	20ГЛ/20ГМЛ													
SPPK4C 150-40 нж	17нж23нж1	12Х18Н9ТЛ													
SPPK5C 150-40 нж1	28нж21нж	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4P 150-40	17с21нж	20Л					0.8	0.56	1030					101	136
SPPK4P 150-40 лс	17лс21нж	20ГЛ/20ГМЛ													
SPPK4P 150-40-Н лс	17лс21нж9	20ГЛ/20ГМЛ													
SPPK4P 150-40 нж	17нж21нж	12Х18Н9ТЛ													
SPPK4PC 150-40	17с21нж1	20Л						0.4	1060					106.5	141.5
SPPK4PC 150-40 лс	17лс21нж1	20ГЛ/20ГМЛ													
SPPK4PC 150-40-Н лс	17лс21нж7	20ГЛ/20ГМЛ													
SPPK4PC 150-40 нж	17нж21нж1	12Х18Н9ТЛ													
SPPK5PC 150-40 нж1	28нж21нж1	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4PC 150-16М1	17с6нж1	20Л	150/200	16/6	75	4417	0.8	0.65	1060	205	230	260	291	102	123
SPPK4PC 150-16М1 лс	17лс6нж1	20ГЛ/20ГМЛ													
SPPK4 150-25	28с21нж	20Л	150/200	25/16	75	4417	0.8	0.56	950	205	230	260	295	93	128
SPPK4 150-25 лс	28лс21нж	20ГЛ/20ГМЛ													
SPPK4 150-25-Н лс	28лс21нж1	20ГЛ/20ГМЛ													
SPPK4 150-25 нж	28нж21нж2	12Х18Н9ТЛ						0.4	970					98	133
SPPK4C 150-25	28с21нж1	20Л													
SPPK4C 150-25 лс	28лс21нж2	20ГЛ/20ГМЛ													
SPPK4C 150-25-Н лс	28лс21нж3	20ГЛ/20ГМЛ						0.4	970						
SPPK4C 150-25 нж	28нж21нж3	12Х18Н9ТЛ													
SPPK5C 150-25 нж1	28нж21нж4	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4P 150-25	28с21нж2	20Л					0.8	0.4	1030					97.5	132.5
SPPK4P 150-25 лс	28лс21нж4	20ГЛ/20ГМЛ													
SPPK4P 150-25-Н лс	28лс21нж5	20ГЛ/20ГМЛ													
SPPK4P 150-25 нж	28нж21нж5	12Х18Н9ТЛ													
SPPK4PC 150-25	28с21нж3	20Л						0.56	1060					103	138
SPPK4PC 150-25 лс	28лс21нж6	20ГЛ/20ГМЛ													
SPPK4PC 150-25-Н лс	28лс21нж7	20ГЛ/20ГМЛ													
SPPK4PC 150-25 нж	28нж21нж6	12Х18Н9ТЛ													
SPPK5PC 150-25 нж1	28нж21нж7	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4 150-40	17с23нж	20Л	150/200	40/16	75	4417	0.8	0.56	950	205	230	267	300	96.5	131.5
SPPK4 150-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK4 150-40-Н лс	17лс22нж8	20ГЛ/20ГМЛ													
SPPK4 150-40 нж	17нж23нж	12Х18Н9ТЛ													
SPPK4C 150-40	17с23нж3	20Л						0.4	970					101.5	136.5
SPPK4C 150-40 лс	17лс23нж	20ГЛ/20ГМЛ													
SPPK4C 150-40-Н лс	17лс22нж10	20ГЛ/20ГМЛ													
SPPK4C 150-40 нж	17нж23нж1	12Х18Н9ТЛ													
SPPK5C 150-40 нж1	28нж21нж	12Х18Н12М3ТЛ					0.6	0.5							
SPPK4P 150-40	17с21нж	20Л					0.8	0.56	1030					101	136
SPPK4P 150-40 лс	17лс21нж	20ГЛ/20ГМЛ													
SPPK4P 150-40-Н лс	17лс21нж9	20ГЛ/20ГМЛ													
SPPK4P 150-40 нж	17нж21нж	12Х18Н9ТЛ													
SPPK4PC 150-40	17с21нж1	20Л	150/200	40/16	75	4417	0.8	0.4	1060	205	230	267	300	106.5	141.5
SPPK4PC 150-40 лс	17лс21нж1	20ГЛ/20ГМЛ													
SPPK4PC 150-40-Н лс	17лс21нж7	20ГЛ/20ГМЛ													
SPPK4PC 150-40 нж	17нж21нж1	12Х18Н9ТЛ													
SPPK5PC 150-40 нж1	28нж21нж1	12Х18Н12М3ТЛ					0.6	0.5							

Principal Parameters (Continued)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5 150-63	Information available on request	20Л	150/200	63/40	77	4656	0.8	0.5	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 150-63 лс		20ГЛ/20ГМЛ													
SPPK5 150-63-Н лс		20ГЛ/20ГМЛ													
SPPK5 150-63 нж		12Х18Н9ТЛ													
SPPK5C 150-63		20Л													
SPPK5C 150-63 лс		20ГЛ/20ГМЛ													
SPPK5C 150-63-Н лс		20ГЛ/20ГМЛ													
SPPK5C 150-63 нж		12Х18Н9ТЛ													
SPPK5C 150-63 нж1		12Х18Н12М3ТЛ													
SPPK5P 150-63		20Л													
SPPK5P 150-63 лс		20ГЛ/20ГМЛ													
SPPK5P 150-63-Н лс		20ГЛ/20ГМЛ													
SPPK5P 150-63 нж		12Х18Н9ТЛ													
SPPK5PC 150-63		20Л													
SPPK5PC 150-63 лс		20ГЛ/20ГМЛ													
SPPK5PC 150-63-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 150-63 нж		12Х18Н9ТЛ													
SPPK5PC 150-63 нж1		12Х18Н12М3ТЛ													
SPPK5 150-100	Information available on request	20Л	150/200	100/63	77	4656	0.8	0.5	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 150-100 лс		20ГЛ/20ГМЛ													
SPPK5 150-100-Н лс		20ГЛ/20ГМЛ													
SPPK5 150-100 нж		12Х18Н9ТЛ													
SPPK5C 150-100		20Л													
SPPK5C 150-100 лс		20ГЛ/20ГМЛ													
SPPK5C 150-100-Н лс		20ГЛ/20ГМЛ													
SPPK5C 150-100 нж		12Х18Н9ТЛ													
SPPK5C 150-100 нж1		12Х18Н12М3ТЛ													
SPPK5P 150-100		20Л													
SPPK5P 150-100 лс		20ГЛ/20ГМЛ													
SPPK5P 150-100-Н лс		20ГЛ/20ГМЛ													
SPPK5P 150-100 нж		12Х18Н9ТЛ													
SPPK5PC 150-100		20Л													
SPPK5PC 150-100 лс		20ГЛ/20ГМЛ													
SPPK5PC 150-100-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 150-100 нж		12Х18Н9ТЛ													
SPPK5PC 150-100 нж1		12Х18Н12М3ТЛ													
SPPK4 200-16	17с13нж	20Л	200/300	16/6	142	15836	0.4	0.23	1060	280	320	335	382	176	212
SPPK4 200-16 лс	17лс13нж	20ГЛ/20ГМЛ													
SPPK4 200-16-Н лс	17лс80нж9	20ГЛ/20ГМЛ													
SPPK4 200-16 нж	17нж13нж	12Х18Н9ТЛ													
SPPK4C 200-16	17с17нж2	20Л					0.4	0.1	1110					190	226
SPPK4C 200-16 лс	17лс13нж	20ГЛ/20ГМЛ													
SPPK4C 200-16-Н лс	17лс80нж10	20ГЛ/20ГМЛ													
SPPK4C 200-16 нж	17нж13нж1	12Х18Н9ТЛ													
SPPK5C 200-16 нж1	28нж20нж	12Х18Н12М3ТЛ													
SPPK4P 200-16	17с17нж	20Л	200/300	16/6	142	15836	0.4	0.23	1140	280	320	335	382	180	216
SPPK4P 200-16 лс	17лс17нж	20ГЛ/20ГМЛ													
SPPK4P 200-16-Н лс	17лс22нж9	20ГЛ/20ГМЛ													
SPPK4P 200-16 нж	17нж17нж	12Х18Н9ТЛ													
SPPK4PC 200-16	17с17нж1	20Л					0.4	0.1	1185					193	229
SPPK4PC 200-16 лс	17лс17нж1	20ГЛ/20ГМЛ													
SPPK4PC 200-16-Н лс	17лс22нж11	20ГЛ/20ГМЛ													
SPPK4PC 200-16 нж	17нж17нж1	12Х18Н9ТЛ													
SPPK5PC 200-16 нж1	28нж20нж1	12Х18Н12М3ТЛ													
SPPK4 200-16М	17с13нж	20Л	200/300	16/6	142	15836	0.7	0.6	1250	280	320	335	382	196	232
SPPK4 200-16М лс	17лс13нж	20ГЛ/20ГМЛ													
SPPK4P 200-16М	17с17нж	20Л							1330					200	236
SPPK4P 200-16М лс	17лс17нж	20ГЛ/20ГМЛ													

Principal Parameters (Conclusion)

Item Designation	Table of Figures	Body Material	DN, mm in/out	PN, kgf/cm² in/out	dc, mm	Fc, mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight, kg	Weight with matching flanges, kg
TU 3742-004-07533604-2008, TU 28.14.11-035-07533604-2017															
SPPK5 200-63	Information available on request	20Л	200/300	63/40	145	15836	0.75	0.55	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 200-63 лс		20ГЛ/20ГМЛ													
SPPK5 200-63-Н лс		20ГЛ/20ГМЛ													
SPPK5 200-63 нж		12Х18Н9ТЛ													
SPPK5C 200-63		20Л													
SPPK5C 200-63 лс		20ГЛ/20ГМЛ													
SPPK5C 200-63-Н лс		20ГЛ/20ГМЛ													
SPPK5C 200-63 нж		12Х18Н9ТЛ													
SPPK5C 200-63 нж1		12Х18Н12М3ТЛ													
SPPK5P 200-63		20Л													
SPPK5P 200-63 лс		20ГЛ/20ГМЛ													
SPPK5P 200-63-Н лс		20ГЛ/20ГМЛ													
SPPK5P 200-63 нж		12Х18Н9ТЛ													
SPPK5PC 200-63		20Л													
SPPK5PC 200-63 лс		20ГЛ/20ГМЛ													
SPPK5PC 200-63-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 200-63 нж		12Х18Н9ТЛ													
SPPK5PC 200-63 нж1		12Х18Н12М3ТЛ													
SPPK5 200-100	Information available on request	20Л	200/300	100/63	145	15836	0.75	0.55	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK5 200-100 лс		20ГЛ/20ГМЛ													
SPPK5 200-100-Н лс		20ГЛ/20ГМЛ													
SPPK5 200-100 нж		12Х18Н9ТЛ													
SPPK5C 200-100		20Л													
SPPK5C 200-100 лс		20ГЛ/20ГМЛ													
SPPK5C 200-100-Н лс		20ГЛ/20ГМЛ													
SPPK5C 200-100 нж		12Х18Н9ТЛ													
SPPK5C 200-100 нж1		12Х18Н12М3ТЛ													
SPPK5P 200-100		20Л													
SPPK5P 200-100 лс		20ГЛ/20ГМЛ													
SPPK5P 200-100-Н лс		20ГЛ/20ГМЛ													
SPPK5P 200-100 нж		12Х18Н9ТЛ													
SPPK5PC 200-100		20Л													
SPPK5PC 200-100 лс		20ГЛ/20ГМЛ													
SPPK5PC 200-100-Н лс		20ГЛ/20ГМЛ													
SPPK5PC 200-100 нж		12Х18Н9ТЛ													
SPPK5PC 200-100 нж1		12Х18Н12М3ТЛ													
SPPK5 200-100-01		20Л			111	9676									
SPPK5 200-100-01 лс		20ГЛ/20ГМЛ													
SPPK5 200-100-01Н лс		20ГЛ/20ГМЛ													
SPPK5 200-100-01 нж		12Х18Н9ТЛ													
SPPK5C 200-100-01		20Л													
SPPK5C 200-100-01 лс		20ГЛ/20ГМЛ													
SPPK5C 200-100-01Н лс		20ГЛ/20ГМЛ													
SPPK5C 200-100-01 нж		12Х18Н9ТЛ													
SPPK5C 200-100-01 нж1		12Х18Н12М3ТЛ													
SPPK5P 200-100-01		20Л													
SPPK5P 200-100-01 лс		20ГЛ/20ГМЛ													
SPPK5P 200-100-01Н лс		20ГЛ/20ГМЛ													
SPPK5P 200-100-01 нж		12Х18Н9ТЛ													
SPPK5PC 200-100-01		20Л													
SPPK5PC 200-100-01 лс		20ГЛ/20ГМЛ													
SPPK5PC 200-100-01Н лс		20ГЛ/20ГМЛ													
SPPK5PC 200-100-01 нж		12Х18Н9ТЛ													
SPPK5PC 200-100-01 нж1		12Х18Н12М3ТЛ													

SPPK6 6th Generation Spring-Loaded Safety Valves

Sixth-generation safety valves are an import-substitution product designed for heavy-duty service and high fluid flow rates as well as a broad range of fluid temperatures.

Design advantages of 6-th generation valves:

- High throughput as compared to the previous generation.
- Broad variety of materials and options for any application.
- Best combination of properties for inlet and outlet lines, closure assembly geometry assure high valve throughput. Throughput factors have been validated by analysis and testing.
- A broad range of pressure settings.
- A single standard body design for constructions with and without a compensation bellows both for liquid and gaseous fluids.
- Life expectancy of body components is 30 years

Principal Parameters

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6P 25-40	28с31нж	Between -40 and 300	20Л	25/50	40/16	24	452	0.88	0.69	640	100	120	150	160	24.5	30.5
SPPK6 25-40	28с31нж									600					20.8	26.8
SPPK6PC 25-40	28с31нж1	Between -40 and 450								705					27.4	33.4
SPPK6C 25-40	28с31нж1									665					24.1	30.1
SPPK6PCO 25-40	28с31нж2									740					30.3	36.3
SPPK6CO 25-40	28с31нж2									660					26.6	32.6
SPPK6PB 25-40	28с31нж3									720					27.6	33.6
SPPK6B 25-40	28с31нж3									680					23.9	30
SPPK6P 25-40-01	28с31нж4	Between -40 and 300			40/40					640					25.5	32.5
SPPK6 25-40-01	28с31нж4									600					21.8	29
SPPK6PC 25-40-01	28с31нж5	Between -40 and 450								705					28.4	35.5
SPPK6C 25-40-01	28с31нж5									665					25.1	32
SPPK6PCO 25-40-01	28с31нж6									740					31.3	38.3
SPPK6CO 25-40-01	28с31нж6									660					27.6	34.6
SPPK6PB 25-40-01	28с31нж7									720					28.6	35.6
SPPK6B 25-40-01	28с31нж7									680					24.9	32
SPPK6P 25-40 лс	28лс31нж	Between -60 and 300	20ГЛ/20ГМЛ		40/16					640					24.5	30.5
SPPK6 25-40 лс	28лс31нж									600					20.8	26.8
SPPK6PC 25-40 лс	28лс31нж1	Between -40 and 425								705					27.4	33.4
SPPK6C 25-40 лс	28лс31нж1									665					24.1	30.1
SPPK6PCO 25-40 лс	28лс31нж2									740					30.3	36.3
SPPK6CO 25-40 лс	28лс31нж2									660					26.6	32.6
SPPK6PB 25-40 лс	28лс31нж3									720					27.6	33.6
SPPK6B 25-40 лс	28лс31нж3									680					23.9	30
SPPK6P 25-40 лс-01	28лс31нж4	Between -60 and 300			40/40					640					25.5	32.5
SPPK6 25-40 лс-01	28лс31нж4									600					21.8	29
SPPK6PC 25-40 лс-01	28лс31нж5	Between -40 and 425								705					28.4	35.5
SPPK6C 25-40 лс-01	28лс31нж5									665					25.1	32
SPPK6PCO 25-40 лс-01	28лс31нж6									740					31.3	38.3
SPPK6CO 25-40 лс-01	28лс31нж6									660					27.6	34.6
SPPK6PB 25-40 лс-01	28лс31нж7									720					28.6	35.6
SPPK6B 25-40 лс-01	28лс31нж7									680					24.9	32
SPPK6P 25-40 нж	28нж31нж	Between -60 and 300	12Х18Н9ТЛ		40/16					640					24.5	30.5
SPPK6 25-40 нж	28нж31нж									600					20.8	26.8
SPPK6PC 25-40 нж	28нж31нж1	Between -60 and 425								705					27.4	33.4
SPPK6C 25-40 нж	28нж31нж1	Between -110 and 425								665					24.1	30.1
SPPK6PCO 25-40 нж	28нж31нж2	Between -60 and 600								740					30.3	36.3
SPPK6CO 25-40 нж	28нж31нж2	Between -110 and 600								660					26.6	32.6
SPPK6PB 25-40 нж	28нж31нж3	Between -60 and 600								720					27.6	33.6
SPPK6B 25-40 нж	28нж31нж3	Between -110 and 600								680					23.9	30

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
ТУ 3742-011-07533604-2014, ТУ 28.14.11-035-07533604-2017																
SPPK6P 25-40 нж-01	28нж31нж4	Between -60 and 300	12Х18Н9ТЛ	25/50	40/40	24	452	0.88	0.69	640	100	120	150	160	25.5	32.5
SPPK6 25-40 нж-01	28нж31нж4									600					21.8	29
SPPK6PC 25-40 нж-01	28нж31нж5	Between -60 and 425								705					28.4	35.5
SPPK6C 25-40 нж-01	28нж31нж5	Between -110 and 425								665					25.1	32
SPPK6PCO 25-40 нж-01	28нж31нж6	Between -60 and 600								740					31.3	38.3
SPPK6CO 25-40 нж-01	28нж31нж6	Between -110 and 600								660					27.6	34.6
SPPK6PB 25-40 нж-01	28нж31нж7	Between -60 and 600								720					28.6	35.6
SPPK6B 25-40 нж-01	28нж31нж7	Between -110 and 600								680					24.9	32
SPPK6PC 25-40 нж1	28нж31нж8	Between -60 and 350	12Х18Н12М3ТЛ		40/16					705					27.4	34.5
SPPK6C 25-40 нж1	28нж31нж8	Between -110 and 350								665					24.1	31
SPPK6PC 25-40 нж1-01	28нж31нж9	Between -60 and 350			40/40					705					28.4	35.5
SPPK6C 25-40 нж1-01	28нж31нж9	Between -110 and 350								665					25.1	32
SPPK6P 25-100	28с48нж	Between -40 and 300	20Л	25/50	100/40	24	452	0.88	0.68	680	115	125	165	190	29	37.5
SPPK6 25-100	28с48нж									640					25.5	34
SPPK6PC 25-100	28с48нж1	Between -40 and 450								740					32.5	41
SPPK6C 25-100	28с48нж1									700					28.5	37
SPPK6PCO 25-100	28с48нж2									760					28.5	37
SPPK6CO 25-100	28с48нж2									720					35.5	44
SPPK6PB 25-100	28с48нж3									780					32.5	41
SPPK6B 25-100	28с48нж3									675					29	37.5
SPPK6P 25-100 лс	28лс48нж	Between -60 and 300	20ГЛ/20ГМЛ							680					29	37.5
SPPK6 25-100 лс	28лс48нж									640					25.5	34
SPPK6PC 25-100 лс	28лс48нж1	Between -40 and 425								740					32.5	41
SPPK6C 25-100 лс	28лс48нж1									700					28.5	37
SPPK6PCO 25-100 лс	28лс48нж2									760					28.5	37
SPPK6CO 25-100 лс	28лс48нж2									720					35.5	44
SPPK6PB 25-100 лс	28лс48нж3									780					32.5	41
SPPK6B 25-100 лс	28лс48нж3									675					29	37.5
SPPK6P 25-100 нж	28нж48нж	Between -60 and 300	12Х18Н9ТЛ							680					29	37.5
SPPK6 25-100 нж	28нж48нж									640					25.5	34
SPPK6PC 25-100 нж	28нж48нж1	Between -60 and 425								740					32.5	41
SPPK6C 25-100 нж	28нж48нж1	Between -110 and 425								700					28.5	37
SPPK6PCO 25-100 нж	28нж48нж2	Between -60 and 600								760					28.5	37
SPPK6CO 25-100 нж	28нж48нж2	Between -110 and 600								720					35.5	44
SPPK6PB 25-100 нж	28нж48нж3	Between -60 and 600								780					32.5	41
SPPK6B 25-100 нж	28нж48нж3	Between -110 and 600								675					29	37.5
SPPK6PC 25-100 нж1	28нж48нж4	Between -60 and 350	12Х18Н12М3ТЛ							700					32.5	41
SPPK6C 25-100 нж1	28нж48нж4	Between -110 and 350								760					28.5	37
SPPK6P 25-100Ш	28с48нж	Between -40 and 300	Steel 20	25/40	100/40	24	452	0.87	0.67	680	130	115	200	175	24	27
SPPK6 25-100Ш	28с48нж									635					20	23
SPPK6PC 25-100Ш	28с48нж1	Between -40 and 450								750					27	30
SPPK6C 25-100Ш	28с48нж1									700					23.2	26.5
SPPK6PCO 25-100Ш	28с48нж2									790					30.5	33.5
SPPK6CO 25-100Ш	28с48нж2									710					26.2	29.5
SPPK6PB 25-100Ш	28с48нж3									770					27	30
SPPK6B 25-100Ш	28с48нж3									720					23.2	26.5
SPPK6P 25-100Ш лс	28лс48нж	Between -60 and 300	09Г2С							680					24	27
SPPK6 25-100Ш лс	28лс48нж									635					20	23
SPPK6PC 25-100Ш лс	28лс48нж1	Between -40 and 425								750					27	30
SPPK6C 25-100Ш лс	28лс48нж1									700					23.2	26.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6PCO 25-100Ш лс	28лс48нж2	Between -40 and 425	09Г2С	25/40	100/40	24	452	0.87	0.67	790	130	115	200	175	30.5	33.5
SPPK6CO 25-100Ш лс	28лс48нж2									710					26.2	29.5
SPPK6PB 25-100Ш лс	28лс48нж3									770					27	30
SPPK6B 25-100Ш лс	28лс48нж3									720					23.2	26.5
SPPK6P 25-100Ш нж	28нж48нж	Between -60 and 300	12Х18Н10Т							680					24	27
SPPK6 25-100Ш нж	28нж48нж									635					20	23
SPPK6PC 25-100Ш нж	28нж48нж1	Between -60 and 425								750					27	30
SPPK6C 25-100Ш нж	28нж48нж1	Between -110 and 425								700					23.2	26.5
SPPK6PCO 25-100Ш нж	28нж48нж2	Between -60 and 600								790					30.5	33.5
SPPK6CO 25-100Ш нж	28нж48нж2	Between -110 and 600								710					26.2	29.5
SPPK6PB 25-100Ш нж	28нж48нж3	Between -60 and 600								770					27	30
SPPK6B 25-100Ш нж	28нж48нж3	Between -110 and 600								720					23.2	26.5
SPPK6PC 25-100Ш нж1	28нж48нж4	Between -60 and 350	10Х17Н12М2Т							750					27	30
SPPK6C 25-100Ш нж1	28нж48нж4	Between -110 and 350								700					23.2	26.2
SPPK6P 25-160	28с47нж	Between -40 and 300	20Л	25/50	160/40	24	452	0.88	0.68	680	115	125	165	190	29	37.5
SPPK6 25-160	28с47нж									640					25.5	34
SPPK6PC 25-160	28с47нж1	Between -40 and 450								740					32.5	41
SPPK6C 25-160	28с47нж1									700					28.5	37
SPPK6PCO 25-160	28с47нж2									760					28.5	37
SPPK6CO 25-160	28с47нж2									720					35.5	44
SPPK6PB 25-160	28с47нж3									780					32.5	41
SPPK6B 25-160	28с47нж3									675					29	37.5
SPPK6P 25-160 лс	28лс47нж	Between -60 and 300	20ГЛ/20ГМЛ							680					29	37.5
SPPK6 25-160 лс	28лс47нж									640					25.5	34
SPPK6PC 25-160 лс	28лс47нж1	Between -40 and 425								740					32.5	41
SPPK6C 25-160 лс	28лс47нж1									700					28.5	37
SPPK6PCO 25-160 лс	28лс47нж2									760					28.5	37
SPPK6CO 25-160 лс	28лс47нж2									720					35.5	44
SPPK6PB 25-160 лс	28лс47нж3									780					32.5	41
SPPK6B 25-160 лс	28лс47нж3									675					29	37.5
SPPK6P 25-160 нж	28нж47нж	Between -60 and 300	12Х18Н9ТЛ	25/50	160/40	24	452	0.88	0.68	680	115	125	165	190	29	37.5
SPPK6 25-160 нж	28нж47нж									640					25.5	34
SPPK6PC 25-160 нж	28нж47нж1	Between -60 and 425								740					32.5	41
SPPK6C 25-160 нж	28нж47нж1	Between -110 and 425								700					28.5	37
SPPK6PCO 25-160 нж	28нж47нж2	Between -60 and 600								760					28.5	37
SPPK6CO 25-160 нж	28нж47нж2	Between -110 and 600								720					35.5	44
SPPK6PB 25-160 нж	28нж47нж3	Between -60 and 600								780					32.5	41
SPPK6B 25-160 нж	28нж47нж3	Between -110 and 600								675					29	37.5
SPPK6PC 25-160 нж1	28нж47нж4	Between -60 and 350	12Х18Н12М3ТЛ							700					32.5	41
SPPK6C 25-160 нж1	28нж47нж4	Between -110 and 350								760					28.5	37
SPPK6B 50-16	28с44нж	Between -40 and 450	20Л	50/80	16/6	45	1590	0.9	0.7	805	130	155	185	205	42.5	49
SPPK6PB 50-16	28с44нж									915					47	53.5
SPPK6C 50-16	28с44нж1									765					43.5	50
SPPK6PC 50-16	28с44нж1									875					48	54.5
SPPK6 50-16	28с44нж2	Between -40 and 300								740					39	45.5
SPPK6P 50-16	28с44нж2									845					43.5	50
SPPK6B 50-16-01	28с44нж3	Between -40 and 450			16/16					805			190		43	49.5
SPPK6PB 50-16-01	28с44нж3									915					47.5	54
SPPK6C 50-16-01	28с44нж4									765					44	50.5
SPPK6PC 50-16-01	28с44нж4									875					48.4	55
SPPK6 50-16-01	28с44нж5	Between -40 and 300								740					39.1	45.6
SPPK6P 50-16-01	28с44нж5									845					44	50.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6B 50-16 нж	28нж44нж	Between -60 and 600	12Х18Н9ТЛ	50/80	16/6	45	1590	0.9	0.7	805	130	155	185	205	42.5	49
SPPK6PB 50-16 нж	28нж44нж									915					47	53.5
SPPK6CO 50-16 нж	28нж44нж1	Between -110 and 600								765					40	46.5
SPPK6PCO 50-16 нж	28нж44нж1	Between -60 and 600								875					45.5	52
SPPK6 50-16 нж	28нж44нж2	Between -60 and 300								740					39	45.5
SPPK6P 50-16 нж	28нж44нж2									845					43.5	50
SPPK6C 50-16 нж	28нж44нж3	Between -110 and 480								765					43.5	50
SPPK6PC 50-16 нж	28нж44нж3	Between -60 and 480								875					48	54.5
SPPK6B 50-16 нж-01	28нж44нж4	Between -60 and 600			16/16					805			190		43	49.5
SPPK6PB 50-16 нж-01	28нж44нж4									915					47.5	54
SPPK6CO 50-16 нж-01	28нж44нж5	Between -110 and 600								765					40.5	47
SPPK6PCO 50-16 нж-01	28нж44нж5	Between -60 and 600								875					46	52.5
SPPK6C 50-16 нж-01	28нж44нж6	Between -60 and 300								740					39.5	46
SPPK6PC 50-16 нж-01	28нж44нж6	Between -110 and 480								845					44	50.5
SPPK6 50-16 нж-01	28нж44нж7	Between -60 and 480								765					39	46
SPPK6P 50-16 нж-01	28нж44нж7									875					43.5	50.5
SPPK6B 50-16 лс	28лс44нж	Between -60 and 450	20ГЛ/20ГМЛ	50/80	16/6	45	1590	0.9	0.7	805	130	155	185	205	42.5	49
SPPK6PB 50-16 лс	28лс44нж									915					47	53.5
SPPK6C 50-16 лс	28лс44нж1									765					43.5	50
SPPK6PC 50-16 лс	28лс44нж1									875					48	54.5
SPPK6 50-16 лс	28лс44нж2	Between -60 and 300								740					39	45.5
SPPK6P 50-16 лс	28лс44нж2									845					43.5	50
SPPK6B 50-16 лс-01	28лс44нж3	Between -60 and 450			16/16					805			190		43	49.5
SPPK6PB 50-16 лс-01	28лс44нж3									915					47.4	54
SPPK6C 50-16 лс-01	28лс44нж4									765					44	50.5
SPPK6PC 50-16 лс-01	28лс44нж4									875					48.4	55
SPPK6 50-16 лс-01	28лс44нж5	Between -60 and 300								740					39.1	45.6
SPPK6P 50-16 лс-01	28лс44нж5									845					44	50.5
SPPK6C 50-16 нж1	28нж44нж8	Between -110 and 350	12Х18Н12М3ТЛ		16/6					765			185		43.5	50
SPPK6PC 50-16 нж1	28нж44нж8	Between -60 and 350								875					48	54.5
SPPK6C 50-16 нж1-01	28нж44нж9	Between -110 and 350			16/16					765			190		44	50.5
SPPK6PC 50-16 нж1-01	28нж44нж9	Between -60 and 350								845					48.5	55
SPPK6B 50-40	28с40нж	Between -40 and 450	20Л	50/80	40/16	45	1590	0.9	0.7	805	130	155	185	210	44.5	54
SPPK6PB 50-40	28с40нж									915					49	57.5
SPPK6C 50-40	28с40нж1									765					45.5	54
SPPK6PC 50-40	28с40нж1									875					50	58.5
SPPK6 50-40	28с40нж2	Between -40 and 300								740					41	49.5
SPPK6P 50-40	28с40нж2									845					45.5	54
SPPK6B 50-40-01	28с40нж3	Between -40 and 450			40/40					805			193		45	53.5
SPPK6PB 50-40-01	28с40нж3									915					49.4	57.9
SPPK6C 50-40-01	28с40нж4									765					46	54.5
SPPK6PC 50-40-01	28с40нж4									875					50.4	58.9
SPPK6 50-40-01	28с40нж5	Between -40 and 300								740					41.1	49.6
SPPK6P 50-40-01	28с40нж5									845					46	54.5
SPPK6B 50-40 нж	28нж40нж	Between -60 and 600	12Х18Н9ТЛ		40/16					805			185		44.5	53
SPPK6PB 50-40 нж	28нж40нж									915					49	57.5
SPPK6CO 50-40 нж	28нж40нж1	Between -110 and 600								765					42	50.5
SPPK6PCO 50-40 нж	28нж40нж1	Between -60 and 600								875					47.5	56
SPPK6 50-40 нж	28нж40нж2	Between -60 and 300								740					41	49.5
SPPK6P 50-40 нж	28нж40нж2									845					45.5	54
SPPK6C 50-40 нж	28нж40нж3	Between -110 and 480								765					45.5	54
SPPK6PC 50-40 нж	28нж40нж3	Between -60 and 480								875					50	58.5
SPPK6B 50-40 нж-01	28нж40нж4	Between -60 and 600			40/40					805			193		45	53.5
SPPK6PB 50-40 нж-01	28нж40нж4									915					49.5	58
SPPK6CO 50-40 нж-01	28нж40нж5	Between -110 and 600								765					42.5	50.5
SPPK6PCO 50-40 нж-01	28нж40нж5	Between -60 and 600								875					48	56.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6C 50-40 нж-01	28нж40нж6	Between -110 and 350	12Х18Н9ТЛ	50/80	40/40	45	1590	0.9	0.7	740	130	155	193	210	41.4	50
SPPK6PC 50-40 нж-01	28нж40нж6	Between -60 and 350								845					46	54.5
SPPK6 50-40 нж-01	28нж40нж7	Between -60 and 300								765					41.4	50
SPPK6P 50-40 нж-01	28нж40нж7									875					46	54.5
SPPK6B 50-40 лс	28лс40нж	Between -60 and 450	20ГЛ/20ГМЛ		40/16					805			185		44.5	53
SPPK6PB 50-40 лс	28лс40нж									915					49	57.5
SPPK6C 50-40 лс	28лс40нж1									765					45.5	54
SPPK6PC 50-40 лс	28лс40нж1									875					50	58.5
SPPK6 50-40 лс	28лс40нж2	Between -60 and 300								740					41	49.5
SPPK6P 50-40 лс	28лс40нж2									845					45.5	54
SPPK6B 50-40 лс-01	28лс40нж3	Between -60 and 450			40/40					805			193		45	53.5
SPPK6PB 50-40 лс-01	28лс40нж3									915					49.4	57.9
SPPK6C 50-40 лс-01	28лс40нж4									765					46	54.5
SPPK6PC 50-40 лс-01	28лс40нж4									875					50.4	58.9
SPPK6 50-40 лс-01	28лс40нж5	Between -60 and 300								740					41.1	49.6
SPPK6P 50-40 лс-01	28лс40нж5									845					46	54.5
SPPK6C 50-40 нж1	28нж40нж6	Between -110 and 350	12Х18Н12М3ТЛ		40/16					765			185		45.5	54
SPPK6PC 50-40 нж1	28нж40нж6	Between -60 and 350								875					50	58.5
SPPK6C 50-40 нж1-01	28нж40нж7	Between -110 and 350			40/16					765			193		45.9	54.4
SPPK6PC 50-40 нж1-01	28нж40нж7	Between -60 and 350								845					50.4	58.9
SPPK6B 100-16	28с30нж	Between -40 and 450	20Л	100/150	16/6	88	6082	0.87	0.67	1100	160	200	208	255	95	113
SPPK6PB 100-16	28с30нж									1180					98	116
SPPK6C 100-16	28с30нж1									1100					99	117
SPPK6PC 100-16	28с30нж1									1180					102	120
SPPK6 100-16	28с30нж2	Between -40 and 300								1070					86	104
SPPK6P 100-16	28с30нж2									1180					91	109
SPPK6B 100-16-01	28с30нж3	Between -40 and 450			16/16					1100			222		99	117
SPPK6PB 100-16-01	28с30нж3									1180					102	120
SPPK6C 100-16-01	28с30нж4									1100					103	121
SPPK6PC 100-16-01	28с30нж4									1180					106	124
SPPK6 100-16-01	28с30нж5	Between -40 and 300								1090					86	104
SPPK6P 100-16-01	28с30нж5									1070					93	111
SPPK6B 100-16 нж	28нж30нж	Between -60 and 600	12Х18Н9ТЛ		16/6					1110			208		95	113
SPPK6PB 100-16 нж	28нж30нж									1180					98	116
SPPK6CO 100-16 нж	28нж30нж1	Between -110 and 600								1100					97	115
SPPK6PCO 100-16 нж	28нж30нж1	Between -60 and 600								1180					100	118
SPPK6 100-16 нж	28нж30нж2	Between -60 and 300								1090					86	104
SPPK6P 100-16 нж	28нж30нж2									1070					91	109
SPPK6C 100-16 нж	28нж30нж3	Between -110 and 480								1100					101	119
SPPK6PC 100-16 нж	28нж30нж3	Between -60 and 480								1180					104	122
SPPK6B 100-16 нж-01	28нж30нж4	Between -60 and 600			16/16					1100			222		99	117
SPPK6PB 100-16 нж-01	28нж30нж4									1180					102	120
SPPK6CO 100-16 нж-01	28нж30нж5	Between -110 and 600	12Х18Н9ТЛ	100/150	16/16	88	6082	0.87	0.67	1100	160	200	222	255	101	119
SPPK6PCO 100-16 нж-01	28нж30нж5	Between -60 and 600								1180					104	122
SPPK6 100-16 нж-01	28нж30нж6	Between -60 and 300								1090					105	123
SPPK6P 100-16 нж-01	28нж30нж6									1070					108	126
SPPK6C 100-16 нж-01	28нж30нж7	Between -110 and 480								1100					90	108
SPPK6PC 100-16 нж-01	28нж30нж7	Between -60 and 480								1180					95	113
SPPK6B 100-16 лс	28лс30нж	Between -60 and 450	20ГЛ/20ГМЛ		16/6					1100			208		95	113
SPPK6PB 100-16 лс	28лс30нж									1180					98	116
SPPK6C 100-16 лс	28лс30нж1									1100					99	117
SPPK6PC 100-16 лс	28лс30нж1									1180					102	120

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6 100-16 лс	28лс30нж2	Between -60 and 300	20ГЛ/20ГМЛ	100/150	16/6	88	6082	0.87	0.67	1070	160	200	208	255	86	104
SPPK6P 100-16 лс	28лс30нж2									1180					91	109
SPPK6B 100-16 лс-01	28лс30нж3	Between -60 and 450			16/16					1100			222		99	117
SPPK6PB 100-16 лс-01	28лс30нж3									1180					102	120
SPPK6C 100-16 лс-01	28лс30нж4									1100					103	121
SPPK6PC 100-16 лс-01	28лс30нж4									1180					106	124
SPPK6 100-16 лс-01	28лс30нж5	Between -60 and 300								1090					90	108
SPPK6P 100-16 лс-01	28лс30нж5									1070					93	111
SPPK6C 100-16 нж1	28нж30нж8	Between -110 and 350	12Х18Н12М3ТЛ		16/6					1100			208		95	113
SPPK6PC 100-16 нж1	28нж30нж8	Between -60 and 350								1180					98	116
SPPK6C 100-16 нж1-01	28нж30нж9	Between -110 and 350			16/16					1100			222		99	117
SPPK6PC 100-16 нж1-01	28нж30нж9	Between -60 and 350								1180					102	120
SPPK6B 100-40	28с34нж	Between -40 and 450	20Л		40/16	88	6082	0.87	0.67	1100	160	200	222	270	101	124.5
SPPK6PB 100-40	28с34нж									1180					104	127.5
SPPK6C 100-40	28с34нж1									1100					105	128.5
SPPK6PC 100-40	28с34нж1									1180					108	131.5
SPPK6 100-40	28с34нж2	Between -40 and 300								1070					92	115.5
SPPK6P 100-40	28с34нж2									1180					97	120.5
SPPK6B 100-40-01	28с34нж3	Between -40 and 450			40/40					1100			233		103	126.5
SPPK6PB 100-40-01	28с34нж3									1180					106	129.5
SPPK6C 100-40-01	28с34нж4									1100					107	130.5
SPPK6PC 100-40-01	28с34нж4									1180					110	133.5
SPPK6 100-40-01	28с34нж5	Between -40 and 300								1090					94	117.5
SPPK6P 100-40-01	28с34нж5									1070					97	120.5
SPPK6B 100-40 нж	28нж34нж	Between -60 and 600	12Х18Н9ТЛ		40/16					1110			222		101	124.5
SPPK6PB 100-40 нж	28нж34нж									1180					104	127.5
SPPK6CO 100-40 нж	28нж34нж1	Between -110 and 600								1100					103	126.5
SPPK6PCO 100-40 нж	28нж34нж1	Between -60 and 600								1180					106	129.5
SPPK6 100-40 нж	28нж34нж2	Between -60 and 300								1090					92	115.5
SPPK6P 100-40 нж	28нж34нж2									1070					97	120.5
SPPK6C 100-40 нж	28нж34нж3	Between -110 and 480								1100					107	130.5
SPPK6PC 100-40 нж	28нж34нж3	Between -60 and 480								1180					110	133.5
SPPK6B 100-40 нж-01	28нж34нж4	Between -60 and 600			40/40					1100			233		103	126.5
SPPK6PB 100-40 нж-01	28нж34нж4									1180					106	129.5
SPPK6CO 100-40 нж-01	28нж34нж5	Between -110 and 600	12Х18Н9ТЛ		40/40					1100			233		105	128.5
SPPK6PCO 100-40 нж-01	28нж34нж5	Between -60 and 600								1180					108	131.5
SPPK6 100-40 нж-01	28нж34нж6	Between -60 and 300								1090					109	132.5
SPPK6P 100-40 нж-01	28нж34нж6									1070					112	135.5
SPPK6C 100-40 нж-01	28нж34нж7	Between -110 and 480								1100					94	117.5
SPPK6PC 100-40 нж-01	28нж34нж7	Between -60 and 480								1180					99	122.5
SPPK6B 100-40 лс	28лс34нж	Between -60 and 450	20Л/20ГЛ		40/16	88	6082	0.87	0.67	1100	160	200	222	270	101	124.5
SPPK6PB 100-40 лс	28лс34нж									1180					104	127.5
SPPK6C 100-40 лс	28лс34нж1									1100					105	128.5
SPPK6PC 100-40 лс	28лс34нж1									1180					108	131.5
SPPK6 100-40 лс	28лс34нж2	Between -60 and 300								1070					92	115.5
SPPK6P 100-40 лс	28лс34нж2									1180					97	120.5
SPPK6B 100-40 лс-01	28лс34нж3	Between -60 and 450			40/40					1100			233		103	126.5
SPPK6PB 100-40 лс-01	28лс34нж3									1180					106	129.5
SPPK6C 100-40 лс-01	28лс34нж4									1100					107	130.5
SPPK6PC 100-40 лс-01	28лс34нж4									1180					110	133.5
SPPK6 100-40 лс-01	28лс34нж5	Between -60 and 300								1090					94	117.5
SPPK6P 100-40 лс-01	28лс34нж5									1070					97	120.5
SPPK6C 100-40 нж1	28нж34нж8	Between -110 and 350	12Х18Н12М3ТЛ		40/16					1100			222		101	124.5
SPPK6PC 100-40 нж1	28нж34нж8	Between -60 and 350								1180					104	127.5
SPPK6C 100-40 нж1-01	28нж34нж9	Between -110 and 350			40/40					1100			233		103	126.5
SPPK6PC 100-40 нж1-01	28нж34нж9	Between -60 and 350								1180					106	129.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6B 100-63	28с42нж	Between -40 and 450	20Л	100/150	63/40	82	5281	0.9	0.7	1490	265	245	340	335	237	272
SPPK6PB 100-63	28с42нж									1550					252	287
SPPK6C 100-63	28с42нж1									1510					254	289
SPPK6PC 100-63	28с42нж1									1570					268	303
SPPK6 100-63	28с42нж2	Between -40 and 300								1410					217	252
SPPK6P 100-63	28с42нж2									1470					232	267
SPPK6B 100-63 нж	28нж42нж	Between -60 and 600	12Х18Н9ТЛ							1490					237	272
SPPK6PB 100-63 нж	28нж42нж									1550					252	287
SPPK6CO 100-63 нж	28нж42нж1	Between -110 and 600								1510					242	277
SPPK6PCO 100-63 нж	28нж42нж1	Between -60 and 600								1570					257	292
SPPK6 100-63 нж	28нж42нж2	Between -60 and 300								1410					217	252
SPPK6P 100-63 нж	28нж42нж2									1470					232	267
SPPK6C 100-63 нж	28нж42нж3	Between -110 and 500								1510					254	289
SPPK6PC 100-63 нж	28нж42нж3	Between -60 and 500								1570					268	303
SPPK6B 100-63 лс	28лс42нж	Between -60 and 450	20ГЛ/20ГМЛ							1490					237	272
SPPK6PB 100-63 лс	28лс42нж									1550					251	286
SPPK6C 100-63 лс	28лс42нж1									1510					254	289
SPPK6PC 100-63 лс	28лс42нж1									1570					268	303
SPPK6 100-63 лс	28лс42нж2	Between -60 and 300								1410					217	252
SPPK6P 100-63 лс	28лс42нж2									1470					232	267
SPPK6C 100-63 нж1	28нж42нж4	Between -110 and 350	12Х18Н12М3ТЛ	100/150	63/40	82	5281	0.9	0.7	1570	265	245	340	335	254	289
SPPK6PC 100-63 нж1	28нж42нж4	Between -60 and 350								1510					268	303
SPPK6B 100-160	28с43нж	Between -40 and 450	20Л	100/150	160/40	82	5281	0.9	0.7	1490	265	245	355	335	247	287
SPPK6PB 100-160	28с43нж									1550					262	302
SPPK6C 100-160	28с43нж1									1510					264	304
SPPK6PC 100-160	28с43нж1									1570					278	318
SPPK6 100-160	28с43нж2	Between -40 and 300								1410					227	267
SPPK6P 100-160	28с43нж2									1470					242	282
SPPK6C 100-160-01	28с43нж3	Between -40 and 350				72	4071			1510					246	286
SPPK6PC 100-160-01	28с43нж3									1570					260	300
SPPK6 100-160-01	28с43нж4	Between -40 and 300								1410					228	268
SPPK6P 100-160-01	28с43нж4									1470					242	282
SPPK6C 100-160-02	28с43нж5					62	3019			1510					246	286
SPPK6PC 100-160-02	28с43нж5									1570					260	300
SPPK6 100-160-02	28с43нж6									1410					228	268
SPPK6P 100-160-02	28с43нж6									1470					242	282
SPPK6B 100-160 нж	28нж43нж	Between -60 and 600	12Х18Н9ТЛ			82	5281			1490					247	287
SPPK6PB 100-160 нж	28нж43нж									1550					262	302
SPPK6CO 100-160 нж	28нж43нж1	Between -110 and 600								1510					252	292
SPPK6PCO 100-160 нж	28нж43нж1	Between -60 and 600								1570					267	307
SPPK6 100-160 нж	28нж43нж2	Between -60 and 300								1410					227	267
SPPK6P 100-160 нж	28нж43нж2									1470					242	282
SPPK6C 100-160 нж	28нж43нж3	Between -110 and 500								1510					264	304
SPPK6PC 100-160 нж	28нж43нж3	Between -60 and 500								1570					278	318
SPPK6B 100-160-01 нж	28нж43нж4					72	4071			1490					245	285
SPPK6PB 100-160-01 нж	28нж43нж4									1550					260	300
SPPK6CO 100-160-01 нж	28нж43нж5	Between -110 and 500								1510					234	274
SPPK6PCO 100-160-01 нж	28нж43нж5	Between -60 and 500								1570					249	289
SPPK6 100-160-01 нж	28нж43нж6	Between -60 and 300								1510					246	286
SPPK6P 100-160-01 нж	28нж43нж6									1570					260	300
SPPK6C 100-160-01 нж	28нж43нж7	Between -110 and 300								1410					228	268
SPPK6PC 100-160-01 нж	28нж43нж7	Between -60 and 300								1470					242	282

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6CO 100-160-02 нж	28нж43нж8	Between -110 and 300	12Х18Н9ТЛ	100/150	160/40	62	3019	0.9	0.7	1510	265	245	355	335	234	274
SPPK6PCO 100-160-02 нж	28нж43нж8	Between -60 and 300								1570					248	288
SPPK6C 100-160-02 нж	28нж43нж9	Between -110 and 300								1510					245	285
SPPK6PC 100-160-02 нж	28нж43нж9	Between -60 and 300								1570					260	300
SPPK6 100-160-02 нж	28нж43нж10									1410					228	268
SPPK6P 100-160-02 нж	28нж43нж10									1470					242	282
SPPK6B 100-160 лс	28лс43нж	Between -60 and 450	20ГЛ/20ГМЛ			82	5281			1490					247	287
SPPK6PB 100-160 лс	28лс43нж									1550					261	301
SPPK6C 100-160 лс	28лс43нж1									1510					264	304
SPPK6PC 100-160 лс	28лс43нж1									1570					278	318
SPPK6 100-160 лс	28лс43нж2	Between -60 and 300	20ГЛ/20ГМЛ			82	5281			1410					227	267
SPPK6P 100-160 лс	28лс43нж2									1470					242	282
SPPK6C 100-160-01 лс	28лс43нж3	Between -60 and 350				72	4071			1510					246	286
SPPK6PC 100-160-01 лс	28лс43нж3									1570					260	300
SPPK6 100-160-01 лс	28лс43нж4	Between -60 and 300								1410					228	268
SPPK6P 100-160-01 лс	28лс43нж4									1470					242	282
SPPK6C 100-160-02 лс	28лс43нж5					62	3019			1510					245	285
SPPK6PC 100-160-02 лс	28лс43нж5									1570					260	300
SPPK6 100-160-02 лс	28лс43нж6									1410					228	268
SPPK6P 100-160-02 лс	28лс43нж6									1470					242	282
SPPK6C 100-160 нж1	28нж43нж11	Between -110 and 350	12Х18Н12М3ТЛ			82	5281			1510					264	304
SPPK6PC 100-160 нж1	28нж43нж11	Between -60 and 350								1570					278	318
SPPK6C 100-160-01 нж1	28нж43нж12	Between -110 and 350				72	4071			1510					246	286
SPPK6PC 100-160-01 нж1	28нж43нж12	Between -60 and 350								1570					278	318
SPPK6C 100-160-02 нж1	28нж43нж13	Between -110 and 350				62	3019			1510					245	285
SPPK6PC 100-160-02 нж1	28нж43нж13	Between -60 and 350								1570					260	300
SPPK6B 150-16	28с27нж2	Between -40 and 300	20Л	150/200	16/6	120	11304	0.9	0.7	1580	205	245	259	306	275	296
SPPK6PB 150-16	28с27нж2									1660					298	319
SPPK6C 150-16	28с27нж1									1590					275	296
SPPK6PC 150-16	28с27нж1									1660					298	319
SPPK6 150-16	28с27нж	Between -40 and 450								1500					260	281
SPPK6P 150-16	28с27нж									1570					271	292
SPPK6B 150-16 нж	28нж27нж2	Between -60 and 600	12Х18Н9ТЛ							1580					275	296
SPPK6PB 150-16 нж	28нж27нж2									1660					298	319
SPPK6CO 150-16 нж	28нж27нж3	Between -110 and 600								1590					261	282
SPPK6PCO 150-16 нж	28нж27нж3	Between -60 and 600								1660					271	292
SPPK6 150-16 нж	28нж27нж	Between -60 and 300								1500					260	281
SPPK6P 150-16 нж	28нж27нж									1570					271	292
SPPK6C 150-16 нж	28нж27нж4	Between -110 and 480								1590					275	296
SPPK6PC 150-16 нж	28нж27нж4	Between -60 and 480								1660					285	306
SPPK6B 150-16 лс	28лс27нж1	Between -60 and 300	20ГЛ/20ГМЛ							1580					275	296
SPPK6PB 150-16 лс	28лс27нж1									1660					298	319
SPPK6C 150-16 лс	28лс27нж2									1590					275	296
SPPK6PC 150-16 лс	28лс27нж2									1660					285	306
SPPK6 150-16 лс	28лс27нж	Between -60 and 450								1500					260	281
SPPK6P 150-16 лс	28лс27нж									1570					271	292
SPPK6C 150-16 нж1	28нж27нж1	Between -110 and 350	12Х18Н12М3ТЛ							1590					275	296
SPPK6PC 150-16 нж1	28нж27нж1	Between -60 and 350								1660					285	306

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6B 150-40	28с26нж2	Between -40 and 300	20Л	150/200	40/16	120	11304	0.9	0.7	1580	205	245	267	317	275	310
SPPK6PB 150-40	28с26нж2									1660					298	333
SPPK6C 150-40	28с26нж3									1590					275	310
SPPK6PC 150-40	28с26нж3									1660					285	320
SPPK6 150-40	28с26нж	Between -40 and 450								1500					260	295
SPPK6P 150-40	28с26нж									1570					271	306
SPPK6B 150-40-01	28с26нж4	Between -40 and 300				102	8168			1580					274	309
SPPK6PB 150-40-01	28с26нж4									1660					297	332
SPPK6C 150-40-01	28с26нж5									1590					274	309
SPPK6PC 150-40-01	28с26нж5									1660					284	319
SPPK6 150-40-01	28с26нж1	Between -40 and 450								1500					259	294
SPPK6P 150-40-01	28с26нж1									1570					270	305
SPPK6B 150-40 нж	28нж26нж4	Between -60 and 600	12Х18Н9ТЛ			120	11304			1580					275	310
SPPK6PB 150-40 нж	28нж26нж4									1660					298	333
SPPK6CO 150-40 нж	28нж26нж5	Between -110 and 600								1590					261	296
SPPK6PCO 150-40 нж	28нж26нж5	Between -60 and 600								1660					271	306
SPPK6 150-40 нж	28нж26нж	Between -60 and 300								1500					260	295
SPPK6P 150-40 нж	28нж26нж									1570					271	306
SPPK6C 150-40 нж	28нж26нж6	Between -110 and 480								1590					275	310
SPPK6PC 150-40 нж	28нж26нж6	Between -60 and 480								1660					285	320
SPPK6B 150-40 нж-01	28нж26нж7	Between -60 and 600				102	8168			1580					274	309
SPPK6PB 150-40 нж-01	28нж26нж7									1660					297	332
SPPK6CO 150-40 нж-01	28нж26нж8	Between -110 and 600								1590					260	295
SPPK6PCO 150-40 нж-01	28нж26нж8	Between -60 and 600								1660					270	305
SPPK6 150-40 нж-01	28нж26нж1	Between -60 and 300								1500					274	309
SPPK6P 150-40 нж-01	28нж26нж1									1570					284	319
SPPK6C 150-40 нж-01	28нж26нж9	Between -110 and 480								1590					259	294
SPPK6PC 150-40 нж-01	28нж26нж9	Between -60 and 480								1660					270	305
SPPK6B 150-40 лс	28лс26нж2	Between -60 and 300	20ГЛ/20ГМЛ			120	11304			1580					275	310
SPPK6PB 150-40 лс	28лс26нж2									1660					298	333
SPPK6C 150-40 лс	28лс26нж3									1590					275	310
SPPK6PC 150-40 лс	28лс26нж3									1660					285	320
SPPK6 150-40 лс	28лс26нж	Between -60 and 450								1500					260	295
SPPK6P 150-40 лс	28лс26нж									1570					271	306
SPPK6B 150-40 лс-01	28лс26нж4	Between -60 and 300				102	8168			1580					274	309
SPPK6PB 150-40 лс-01	28лс26нж4									1660					297	332
SPPK6C 150-40 лс-01	28лс26нж5									1590					274	309
SPPK6PC 150-40 лс-01	28лс26нж5									1660					284	319
SPPK6 150-40 лс-01	28лс26нж1	Between -60 and 450								1500					259	294
SPPK6P 150-40 лс-01	28лс26нж1									1570					270	305
SPPK6C 150-40 нж1	28нж26нж2	Between -110 and 350	12Х18Н12М3ТЛ	150/200	40/16	120	11304	0.9	0.7	1590	205	245	267	317	275	310
SPPK6PC 150-40 нж1	28нж26нж2	Between -60 and 350								1660					285	320
SPPK6C 150-40 нж1-01	28нж26нж3	Between -110 and 350				102	8168			1590					274	309
SPPK6PC 150-40 нж1-01	28нж26нж3	Between -60 and 350								1660					284	319
SPPK6B 200-16	28с39нж2	Between -40 and 450	20Л	200/300	16/6	170	22698	0.88	0.7	1720	280	320	334	383	301	348.5
SPPK6PB 200-16	28с39нж2									1770					317	364.5
SPPK6C 200-16	28с39нж3									1650					291	338.5
SPPK6PC 200-16	28с39нж3									1705					306	353.5
SPPK6 200-16	28с39нж	Between -40 and 300								1635					285	332.5
SPPK6P 200-16	28с39нж									1690					299	346.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6B 200-16-01	28с39нж4	Between -40 and 450	20Л	200/300	16/16	170	22698	0.88	0.7	1720	280	320	350	383	309	345.5
SPPK6PB 200-16-01	28с39нж4									1770					325	361.5
SPPK6C 200-16-01	28с39нж5									1650					299	335.5
SPPK6PC 200-16-01	28с39нж5									1705					314	350.5
SPPK6 200-16-01	28с39нж1	Between -40 and 300								1635					293	329.5
SPPK6P 200-16-01	28с39нж1									1690					307	343.5
SPPK6B 200-16 нж	28нж39нж4	Between -60 and 600	12Х18Н9ТЛ		16/6					1720			334		301	348.5
SPPK6PB 200-16 нж	28нж39нж4									1770					317	364.5
SPPK6CO 200-16 нж	28нж39нж5	Between -110 and 600								1650					276	323.5
SPPK6PCO 200-16 нж	28нж39нж5	Between -60 and 600								1705					291	338.5
SPPK6 200-16 нж	28нж39нж	Between -60 and 300								1635					285	332.5
SPPK6P 200-16 нж	28нж39нж									1690					299	346.5
SPPK6C 200-16 нж	28нж39нж6	Between -110 and 480								1650					291	338.5
SPPK6PC 200-16 нж	28нж39нж6	Between -60 and 480								1705					306	353.5
SPPK6B 200-16 нж-01	28нж39нж7	Between -60 and 600			16/16					1720			350		309	345.5
SPPK6PB 200-16 нж-01	28нж39нж7									1770					325	361.5
SPPK6CO 200-16 нж-01	28нж39нж8	Between -110 and 600								1650					284	320.5
SPPK6PCO 200-16 нж-01	28нж39нж8	Between -60 and 600								1705					299	335.5
SPPK6 200-16 нж-01	28нж39нж1	Between -60 and 300								1635					293	329.5
SPPK6P 200-16 нж-01	28нж39нж1									1690					307	343.5
SPPK6C 200-16 нж-01	28нж39нж9	Between -110 and 480								1650					299	335.5
SPPK6PC 200-16 нж-01	28нж39нж9	Between -60 and 480								1705					314	350.5
SPPK6B 200-16 лс	28лс39нж2	Between -60 and 450	20ГЛ/20ГМЛ		16/6					1720			334		301	348.5
SPPK6PB 200-16 лс	28лс39нж2									1770					317	364.5
SPPK6C 200-16 лс	28лс39нж3									1650					291	338.5
SPPK6PC 200-16 лс	28лс39нж3									1705					306	353.5
SPPK6 200-16 лс	28лс39нж	Between -60 and 300								1635					285	332.5
SPPK6P 200-16 лс	28лс39нж									1690					299	346.5
SPPK6B 200-16 лс-01	28лс39нж4	Between -60 and 450			16/16					1720			350		309	345.5
SPPK6PB 200-16 лс-01	28лс39нж4									1770					325	361.5
SPPK6C 200-16 лс-01	28лс39нж5									1650					299	335.5
SPPK6PC 200-16 лс-01	28лс39нж5									1705					314	350.5
SPPK6 200-16 лс-01	28лс39нж1	Between -60 and 300								1635					293	329.5
SPPK6P 200-16 лс-01	28лс39нж1									1690					307	343.5
SPPK6C 200-16 нж1	28нж39нж2	Between -110 and 350	12Х18Н12М3ТЛ	200/300	16/6	170	22698	0.88	0.7	1650	280	320	334	383	291	338.5
SPPK6PC 200-16 нж1	28нж39нж2	Between -60 and 350								1705					306	353.5
SPPK6C 200-16 нж1-01	28нж39нж3	Between -110 and 350			16/16					1650			350		299	335.5
SPPK6PC 200-16 нж1-01	28нж39нж3	Between -60 and 350								1705					314	350.5
SPPK6B 200-25	28с37нж2	Between -40 and 450	20Л	200/300	25/16	170	22698	0.88	0.7	1730	280	320	334	383	375	431.5
SPPK6PB 200-25	28с37нж2									1800					392	448.5
SPPK6C 200-25	28с37нж3									1660					365	421.5
SPPK6PC 200-25	28с37нж3									1715					375	431.5
SPPK6 200-25	28с37нж	Between -40 and 300								1650					352	408.5
SPPK6P 200-25	28с37нж									1705					366	422.5
SPPK6B 200-25-01	28с37нж4	Between -40 and 450			25/25					1730			350		385	458.5
SPPK6PB 200-25-01	28с37нж4									1800					402	475.5
SPPK6C 200-25-01	28с37нж5									1660					375	448.5
SPPK6PC 200-25-01	28с37нж5									1715					385	458.5
SPPK6 200-25-01	28с37нж1	Between -40 and 300								1650					362	435.5
SPPK6P 200-25-01	28с37нж1									1705					376	449.5
SPPK6B 200-25 нж	28нж37нж4	Between -60 and 600	12Х18Н9ТЛ		25/16					1730			334		375	431.5
SPPK6PB 200-25 нж	28нж37нж4									1800					392	448.5

Principal Parameters (Continued)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6CO 200-25 нж	28нж37нж5	Between -110 and 600	12Х18Н9ТЛ	200/300	25/16	170	22698	0.88	0.7	1660	280	320	334	383	350	406.5
SPPK6PCO 200-25 нж	28нж38нж5	Between -60 and 600								1715					360	416.5
SPPK6 200-25 нж	28нж37нж	Between -60 and 300								1650					352	408.5
SPPK6P 200-25 нж	28нж37нж									1705					366	422.5
SPPK6C 200-25 нж	28нж37нж6	Between -110 and 480								1660					365	421.5
SPPK6PC 200-25 нж	28нж37нж6	Between -60 and 480								1715					375	431.5
SPPK6B 200-25 нж-01	28нж37нж7	Between -60 and 600			25/25					1730			350		385	458.5
SPPK6PB 200-25 нж-01	28нж37нж7									1800					402	475.5
SPPK6CO 200-25 нж-01	28нж37нж8	Between -110 and 600								1660					360	433.5
SPPK6PCO 200-25 нж-01	28нж37нж8	Between -60 and 600								1715					370	443.5
SPPK6 200-25 нж-01	28нж37нж1	Between -60 and 300								1650					375	448.5
SPPK6P 200-25 нж-01	28нж37нж1									1705					385	458.5
SPPK6C 200-25 нж-01	28нж37нж9	Between -110 and 480								1660					362	435.5
SPPK6PC 200-25 нж-01	28нж37нж9	Between -60 and 480								1715					376	449.5
SPPK6B 200-25 лс	28лс37нж2	Between -60 and 450	20ГЛ/20ГМЛ		25/16					1730			334		375	431.5
SPPK6PB 200-25 лс	28лс37нж2									1800					392	448.5
SPPK6C 200-25 лс	28лс37нж3									1660					365	421.5
SPPK6PC 200-25 лс	28лс37нж3									1715					375	431.5
SPPK6 200-25 лс	28лс37нж	Between -60 and 300								1650					352	408.5
SPPK6P 200-25 лс	28лс37нж									1705					366	422.5
SPPK6B 200-25 лс-01	28лс37нж4	Between -60 and 450			25/25					1730			350		385	458.5
SPPK6PB 200-25 лс-01	28лс37нж4									1800					402	475.5
SPPK6C 200-25 лс-01	28лс37нж5									1660					375	448.5
SPPK6PC 200-25 лс-01	28лс37нж5									1715					385	458.5
SPPK6 200-25 лс-01	28лс37нж1	Between -60 and 300								1650					362	435.5
SPPK6P 200-25 лс-01	28лс37нж1									1705					376	449.5
SPPK6C 200-25 нж1	28нж37нж2	Between -110 and 350	12Х18Н12М3ТЛ	200/300	25/16	170	22698	0.88	0.7	1660	280	320	334	383	365	421.5
SPPK6PC 200-25 нж1	28нж37нж2	Between -60 and 350								1715					375	431.5
SPPK6C 200-25 нж1-01	28нж37нж3	Between -110 and 350			25/25					1660			350		375	448.5
SPPK6PC 200-25 нж1-01	28нж37нж3	Between -60 and 350								1715					385	458.5
SPPK6 200-40TH	28с25нж	Between -40 and 300	20Л	200/300	40/16	170	22698	0.88	0.66	1675	280	320	345	395	370	440
SPPK6P 200-40TH	28с25нж									1730					385	455
SPPK6C 200-40TH	28с25нж1	Between -40 and 350								1695					380	450
SPPK6PC 200-40TH	28с25нж1									1750					400	470
SPPK6 200-40TH-01	28с25нж2	Between -40 and 300				145	16512			1675			395		377	447
SPPK6P 200-40TH-01	28с25нж2									1730					392	462
SPPK6C 200-40TH-01	28с25нж3	Between -40 and 350								1695					387	457
SPPK6PC 200-40TH-01	28с25нж3									1750					407	477
SPPK6 200-40TH ХЛ	28лс25нж	Between -60 and 300	20ГЛ/20ГМЛ			170	22698			1675			345		370	440
SPPK6P 200-40TH ХЛ	28лс25нж									1730					385	455
SPPK6C 200-40TH ХЛ	28лс25нж1	Between -60 and 350								1695					380	450
SPPK6PC 200-40TH ХЛ	28лс25нж1									1750					400	470
SPPK6 200-40TH ХЛ-01	28лс25нж2	Between -60 and 300				145	16512			1675			395		377	447
SPPK6P 200-40TH ХЛ-01	28лс25нж2									1730					392	462
SPPK6C 200-40TH ХЛ-01	28лс25нж3	Between -60 and 350								1695					387	457
SPPK6PC 200-40TH ХЛ-01	28лс25нж3									1750					407	477
SPPK6 200-40TH-04	28с25нж4	Between -40 and 300	20Л		40/40	170	22698			1675			345		390	510
SPPK6P 200-40TH-04	28с25нж4									1730					403	522
SPPK6C 200-40TH-04	28с25нж5	Between -40 and 350								1695					408	527
SPPK6PC 200-40TH-04	28с25нж5									1750					421	540
SPPK6 200-40TH-05	28с25нж6	Between -40 and 300				145	16512			1675			395		397	517
SPPK6P 200-40TH-05	28с25нж6									1730					410	529

Principal Parameters (Continued)

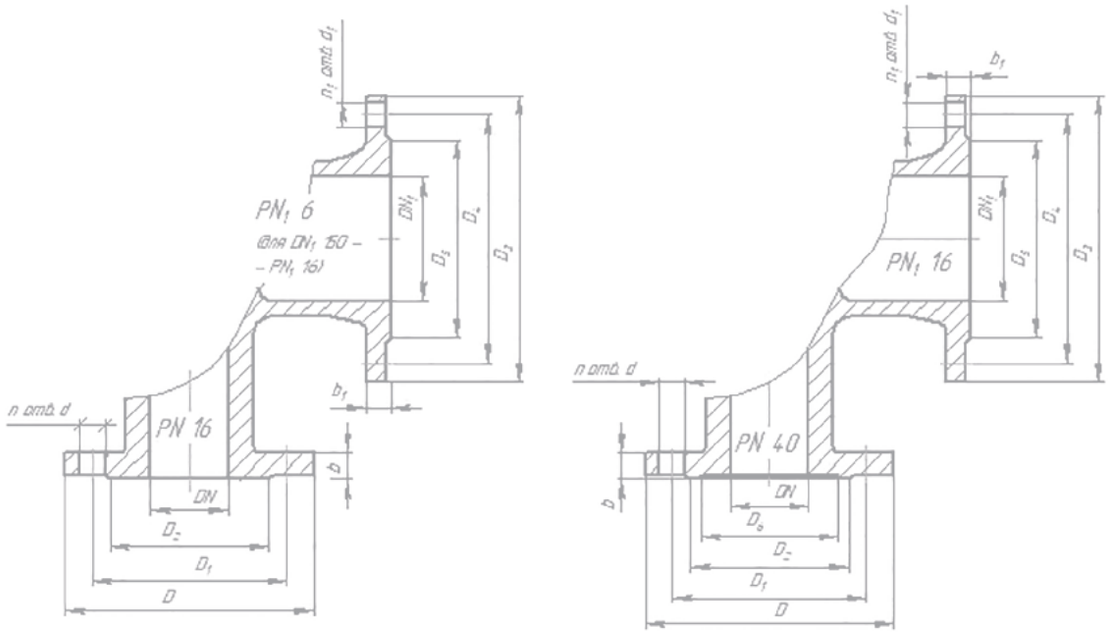
Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6C 200-40TH-05	28с25нж7	Between -40 and 350	20Л	200/300	40/40	145	16512	0.88	0.66	1695	280	320	395	395	415	547
SPPK6PC 200-40TH-05	28с25нж7									1750					428	524
SPPK6 200-40TH ХЛ-04	28лс25н4	Between -60 and 300	20ГЛ/20ГМЛ			170	22698			1675			345		390	510
SPPK6P 200-40TH ХЛ-04	28лс25н4									1730					403	522
SPPK6C 200-40TH ХЛ-04	28лс25нж5	Between -60 and 350								1695					408	527
SPPK6PC 200-40TH ХЛ-04	28лс25нж5									1750					421	540
SPPK6 200-40TH ХЛ-05	28лс25нж6	Between -60 and 300				145	16512			1675			395		397	517
SPPK6P 200-40TH ХЛ-05	28лс25нж6									1730					410	529
SPPK6C 200-40TH ХЛ-05	28лс25нж7	Between -60 and 350								1695					415	547
SPPK6PC 200-40TH ХЛ-05	28лс25нж7									1750					428	524
SPPK6B 250-16	28с45нж2	Between -40 and 450	20Л	250/350	16/6	200	31415	0.86	0.66	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK6PB 250-16	28с45нж2															
SPPK6C 250-16	28с45нж3															
SPPK6PC 250-16	28с45нж3															
SPPK6 250-16	28с45нж	Between -40 and 300														
SPPK6P 250-16	28с45нж															
SPPK6B 250-16-01	28с45нж4	Between -40 and 450			16/16											
SPPK6PB 250-16-01	28с45нж4															
SPPK6C 250-16-01	28с45нж5															
SPPK6PC 250-16-01	28с45нж5															
SPPK6 250-16-01	28с45нж1	Between -40 and 300														
SPPK6P 250-16-01	28с45нж1															
SPPK6B 250-16 нж	28нж45нж4	Between -60 and 600	12Х18Н9ТЛ		16/6											
SPPK6PB 250-16 нж	28нж45нж4															
SPPK6CO 250-16 нж	28нж45нж5	Between -110 and 600														
SPPK6PCO 250-16 нж	28нж45нж5	Between -60 and 600														
SPPK6 250-16 нж	28нж45нж	Between -60 and 300														
SPPK6P 250-16 нж	28нж45нж															
SPPK6C 250-16 нж	28нж45нж6	Between -110 and 480														
SPPK6PC 250-16 нж	28нж45нж6	Between -60 and 480														
SPPK6B 250-16 нж-01	28нж45нж7	Between -60 and 600			16/16											
SPPK6PB 250-16 нж-01	28нж45нж7															
SPPK6CO 250-16 нж-01	28нж45нж8	Between -110 and 600														
SPPK6PCO 250-16 нж-01	28нж45нж8	Between -60 and 600														
SPPK6 250-16 нж-01	28нж45нж1	Between -60 and 300														
SPPK6P 250-16 нж-01	28нж45нж1															
SPPK6C 250-16 нж-01	28нж45нж9	Between -110 and 480														
SPPK6PC 250-16 нж-01	28нж45нж9	Between -60 and 480														
SPPK6B 250-16 лс	28лс45нж2	Between -60 and 450	20ГЛ/20ГМЛ		16/6											
SPPK6PB 250-16 лс	28лс45нж2															
SPPK6C 250-16 лс	28лс45нж3															
SPPK6PC 250-16 лс	28лс45нж3															
SPPK6 250-16 лс	28лс45нж	Between -60 and 300														
SPPK6P 250-16 лс	28лс45нж															
SPPK6B 250-16 лс-01	28лс45нж4	Between -60 and 450			16/16											
SPPK6PB 250-16 лс-01	28лс45нж4															
SPPK6C 250-16 лс-01	28лс45нж5															
SPPK6PC 250-16 лс-01	28лс45нж5															

Principal Parameters (Conclusion)

Item Designation	Table of Figures	Fluid temperature °C	Body Material	DN. mm in/out	PN. kgf/cm² in/out	dc. mm	Fc. mm²	α_1	α_2	H	L	L_1	L_2	L_3	Weight. kg	Weight with matching flanges. kg
TU 3742-011-07533604-2014, TU 28.14.11-035-07533604-2017																
SPPK6 250-16 лс-01	28лс45нж1	Between -60 and 300	20ГЛ/20ГМЛ	250/350	16/16	200	31415	0.86	0.66	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request	Information available on request
SPPK6P 250-16 лс-01	28лс45нж1															
SPPK6C 250-16 нж1	28нж45нж2	Between -110 and 350	12Х18Н12М3ТЛ		16/6											
SPPK6PC 250-16 нж1	28нж45нж2	Between -60 and 350														
SPPK6C 250-16 нж1-01	28нж45нж3	Between -110 and 350			16/16											
SPPK6PC 250-16 нж1-01	28нж45нж3	Between -60 and 350														
SPPK6B 300-16	28с46нж2	Between -40 and 460	20Л	300/400	16/6	235	31415	0.86	0.66		400	350	460	425		
SPPK6PB 300-16	28с46нж2															
SPPK6C 300-16	28с46нж3															
SPPK6PC 300-16	28с46нж3															
SPPK6 300-16	28с46нж	Between -40 and 300														
SPPK6P 300-16	28с46нж															
SPPK6B 300-16-01	28с46нж4	Between -40 and 450			16/16								485			
SPPK6PB 300-16-01	28с46нж4															
SPPK6C 300-16-01	28с46нж5															
SPPK6PC 300-16-01	28с46нж5															
SPPK6 300-16-01	28с46нж1	Between -40 and 300														
SPPK6P 300-16-01	28с46нж1															
SPPK6B 300-16 нж	28нж46нж4	Between -60 and 600	12Х18Н9ТЛ		16/6								460			
SPPK6PB 300-16 нж	28нж46нж4															
SPPK6CO 300-16 нж	28нж46нж5	Between -110 and 600														
SPPK6PCO 300-16 нж	28нж46нж5	Between -60 and 600														
SPPK6 300-16 нж	28нж46нж	Between -60 and 300														
SPPK6P 300-16 нж	28нж46нж															
SPPK6C 300-16 нж	28нж46нж6	Between -110 and 480														
SPPK6PC 300-16 нж	28нж46нж6	Between -60 and 480														
SPPK6B 300-16 нж-01	28нж46нж7	Between -60 and 600			16/16								485			
SPPK6PB 300-16 нж-01	28нж46нж7															
SPPK6CO 300-16 нж-01	28нж46нж8	Between -110 and 600														
SPPK6PCO 300-16 нж-01	28нж46нж8	Between -60 and 600														
SPPK6 300-16 нж-01	28нж46нж1	Between -60 and 300														
SPPK6P 300-16 нж-01	28нж46нж1															
SPPK6C 300-16 нж-01	28нж46нж9	Between -110 and 480														
SPPK6PC 300-16 нж-01	28нж46нж9	Between -60 and 480														
SPPK6B 300-16 лс	28лс46нж2	Between -60 and 450	20ГЛ/20ГМЛ		16/6								460			
SPPK6PB 300-16 лс	28лс46нж2															
SPPK6C 300-16 лс	28лс46нж3															
SPPK6PC 300-16 лс	28лс46нж3															
SPPK6 300-16 лс	28лс46нж	Between -60 and 300														
SPPK6P 300-16 лс	28лс46нж															
SPPK6B 300-16 лс-01	28лс46нж4	Between -60 and 450			16/16								485			
SPPK6PB 300-16 лс-01	28лс46нж4															
SPPK6C 300-16 лс-01	28лс46нж5															
SPPK6PC 300-16 лс-01	28лс46нж5															
SPPK6 300-16 лс-01	28лс46нж1	Between -60 and 300	20ГЛ/20ГМЛ	300/400	16/16	235	31415	0.86	0.66	Information available on request	400	350	485	425	Information available on request	Information available on request
SPPK6P 300-16 лс-01	28лс46нж1															
SPPK6C 300-16 нж1	28нж46нж2	Between -110 and 350	12Х18Н12М3ТЛ		16/6								460			
SPPK6PC 300-16 нж1	28нж46нж2	Between -60 and 350														
SPPK6C 300-16 нж1-01	28нж46нж3	Between -110 and 350			16/16								485			
SPPK6PC 300-16 нж1-01	28нж46нж3	Between -60 and 350														

Valve body flange construction drawings

PN 1.6, 2.5, and 4.0 MPa (16, 25, 40 kgf/cm²)



PN 1.6 MPa (16 kgf/cm²), principal dimensions, mm

Inlet flange							Outlet flange						
DN	D	D_1	D_2	d	n	b	DN_1	D_3	D_4	D_5	d_1	n_1	b_1
50	160	125	102	18	4	17	80	185	150	128	18	4	18
80	195	160	133	18	4	20	100	205	170	148	18	4	18
100	215	180	158	18	8	20	150	280	240	212	22	8	24
150	245	210	212	22	8	24	200	315	280	258	18	8	22
200	335	295	268	22	12	26	300	435	395	365	22	12	24
250	405	355	320	26	12	30	350	485	445	415	22	12	22
300	460	410	370	26	12	31	400	535	495	465	22	16	22

PN 2.5 MPa (25 kgf/cm²), principal dimensions, mm

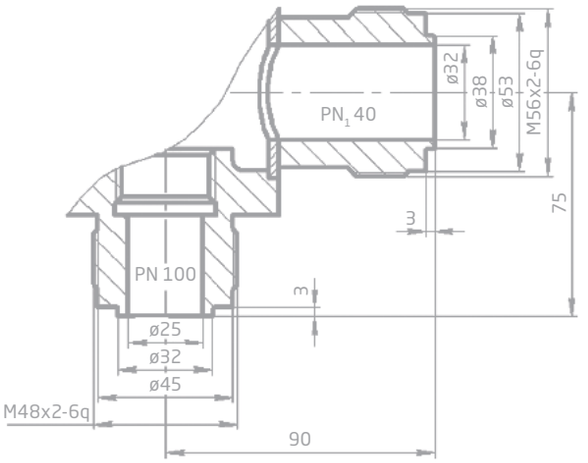
Inlet flange								Outlet flange						
DN	D	D_1	D_2	D_6	d	n	b	DN_1	D_3	D_4	D_5	d_1	n_1	b_1
50	160	125	102	88	18	4	20	80	195	160	133	18	4	20
80	195	160	133	121	18	8	22	100	215	180	158	18	8	20
100	230	190	158	150	22	8	24	150	245	210	212	22	8	24
150	300	250	212	204	26	8	30	200	335	295	268	22	12	26
200	360	360	278	260	26	12	34	300	460	410	370	26	12	31

PN 4.0 MPa (40 kgf/cm²), principal dimensions, mm

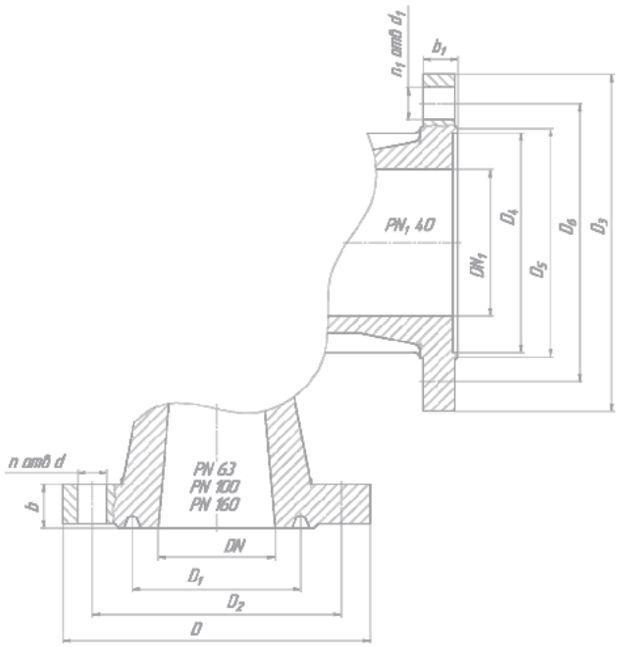
Inlet flange								Outlet flange						
DN	D	D_1	D_2	D_6	d	n	b	DN_1	D_3	D_4	D_5	d_1	n_1	b_1
25	115	85	68	58	14	4	16	40	145	110	76	18	4	17
50	160	125	102	88	18	4	20	80	195	160	133	18	4	20
80	195	160	133	121	18	8	22	100	215	180	158	18	8	20
100	230	190	158	150	22	8	24	150	245	210	212	22	8	24
150	300	250	212	204	26	8	30	200	335	295	268	22	12	26
200	375	375	285	260	30	12	38	300	460	410	370	26	12	31

Valve body flange construction drawings

DN 25 PN 10.0 MPa (100 kgf/cm²)



PN 6.3, 10.0, and 16.0 MPa (63, 100, and 160 kgf/cm²)



PN 6.3 MPa (63 kgf/cm²), principal dimensions, mm

Inlet flange							Outlet flange							
DN	D	D_1	D_2	d	n	b	DN_1	D_3	D_4	D_5	D_6	d_1	n_1	b_1
25	135	50	100	18	4	22	40	145	88	60	110	18	4	19
50	175	85	135	22	4	26	80	195	133	121	160	18	8	22
80	210	115	170	22	8	30	100	230	158	150	190	22	8	24
100	250	145	200	26	8	32	150	300	212	204	250	26	8	30
150	340	205	280	33	8	38	200	375	285	260	375	30	12	38
200	405	265	345	33		44	300	510	410	364	450	33	16	46

PN 10.0 MPa (100 kgf/cm²), principal dimensions, mm

Inlet flange							Outlet flange							
DN	D	D_1	D_2	d	n	b	DN_1	D_3	D_4	D_5	D_6	d_1	n_1	b_1
25	135	50	100	18	4	24	40	145	88	60	110	18	4	19
50	195	85	145	26	4	28	80	195	133	121	160	18	8	22
80	230	115	180	26	8	34	100	230	158	150	190	22	8	24
100	265	145	210	30	8	38	150	300	212	204	250	26	8	30
150	350	205	290	33	12	46	200	375	285	260	375	30	12	38
200	430	265	360	39		54	300	530	-*	364	460	39	16	54

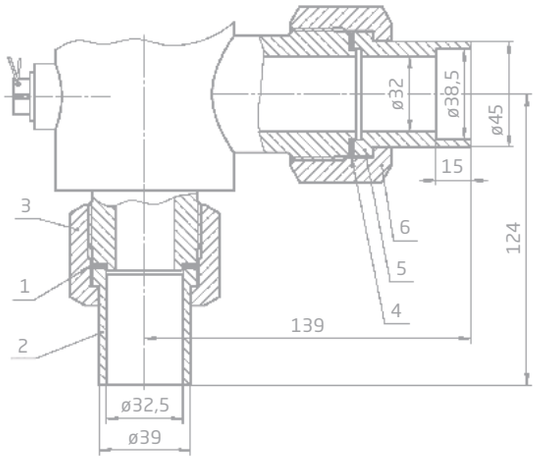
*For SPPK5 200-100, oulet flange DN 300 PN 6.3 MPa of Construction J per GOST 33259

PN 16.0 MPa (160 kgf/cm²), principal dimensions, mm

Inlet flange							Outlet flange							
DN	D	D_1	D_2	d	n	b	DN_1	D_3	D_4	D_5	D_6	d_1	n_1	b_1
25	135	50	100	18	4	24	40	145	88	60	110	18	4	19
50	195	95	145	26	4	30	80	195	133	121	160	18	8	22
80	230	130	180	26		36	100	230	158	150	190	22	8	24
100	265	145	210	30		40	150	300	212	204	250	26	8	30

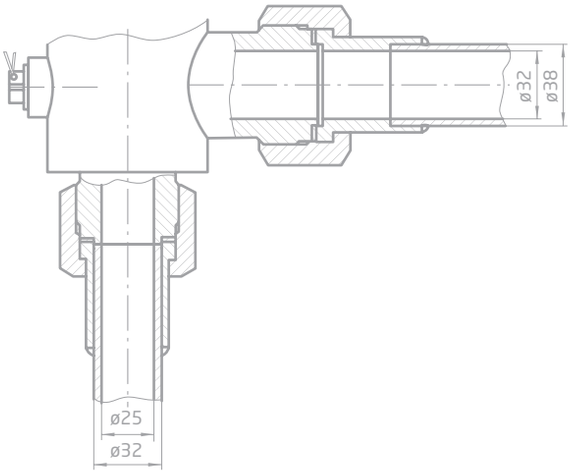
Drawing of safety valve DN 25 PN 10.0 MPa (100 kgf/cm²)

complete with matching components
(all dimensions for reference only)



Drawing of safety valve DN 25 PN 10.0 MPa (100 kgf/cm²)

for connection to pipelines (all dimensions for reference only)



Inlet			Outlet		
Component name	Item Reference	Notes	Component Name	Item Reference	Notes
Gasket	1	45x33x2	Gasket	4	52x39x2
Nipple	2	-	Nipple	5	-
Union nut	3	Dimension to fit Wrench 55	Union nut	6	Dimension to fit Wrench 65

Valve body flange primary construction

Valve rated pressure MPa (kgf/cm²)	Inlet flange		Outlet flange	
	PN, MPa (kgf/cm²)	Matching dimensions and sealing surface per GOST 33259, Row 1	PN, MPa (kgf/cm²)	Matching dimensions and sealing surface per GOST 33259, Row 1
PN 1.6 (16)	PN 1.6 (16)	Construction B	PN 0.6 (6)	Construction B
PN 2.5 (25)	PN 2.5 (25)	Construction F	PN 1.6 (16)	Construction B
PN 4.0 (40)	PN 4.0 (40)	Construction F	PN 1.6 (16)	Construction B
PN 6.3 (63)	PN 6.3 (63)	Construction J	PN 4.0 (40)	Construction F
PN 10.0 (100)	PN 10.0 (100)	Construction J	PN 4.0 (40)	Construction F
PN 16.0 (160)	PN 16.0 (160)	Construction J	PN 4.0 (40)	Construction F

Upon customer request, safety valves may be manufactured with other sealing surfaces per the information specified at Page 231.
Upon customer request, safety valves may be manufactured with sealing surfaces designed per GOST 12815, Row 2.

Safety Valve Application Parameters

Parameter Description	17с... 28с...	17лс... 28лс...	17нж... 28нж...	28нж...
	Weather class shall be per GOST 15150-69			
	U1	U1, XL1, UXL1	U1, XL1, UXL1	U1, XL1, UXL1
Fluids	Water, air, steam, ammonia, natural gas, petroleum, petroleum derivatives, liquid and gaseous hydrocarbons, and other fluids for which the corrosion rate of steels 20Л and 20 is equal to or less than 0.1 mm per year.	Water, air, steam, ammonia, natural gas, petroleum derivatives, liquid and gaseous petrochemicals, and other fluids for which the corrosion rate for steels 20ГЛ,09Г2С, 20ГМЛ is equal to or less than 0.1 mm per year.	Water, air, steam, ammonia, wet natural gas, petroleum derivatives, fluids with hydrogen sulfide[1], liquid and gaseous hydrocarbons, petrochemicals, and other fluids with corrosion rate for steels 12Х18Н9ТЛ and 12Х18Н10Тis equal to or less than 0.1 mm per year.	Highly sour natural gas, petroleum derivatives with elevated hydrogen sulfide[1] contents, hydrogen sulfide, and other fluids with corrosions rates for steel 12Х18Н12М3ТЛ is equal to or less than 0.1 mm per year.
	SPPK and SPPKS safety valves (DN 50-200, PN 16 kgf/cm², and DN 25-150, PN 40 kgf/cm²) per TU 3742-004-07533604-2008: liquid chlorineper GOST 6718-93 and gaseous chlorine with a moisture content not exceeding 0.04%			
Fluid Temperature[3], °C	Between -40 and +450	Between -60 and +450	Between -602 and +600	Between -602 and +350
Minimum Cooling Air Temperature, °C	-40	-60	-60	-60

[1] When ordering, please specify as a supplemental requirement on the data sheet.
[2] Bellows-sealed valves are suitable for fluids with temperatures starting with -110 °C.
[3] As prescribed by the TU, the fluid temperature may be reduced depending o concentration and chemistry.

Primary Component Materials

Item No.	Component Name	17с... 28с...	17лс... 28лс...	17нж... 28нж...	28нж...
		Weather class shall be per GOST 15150			
		U1	XL1, U1, UXL1	XL1, U1, UXL1	XL1, U1, UXL1
1	Body	Steel 20Л, Steel 20	Steels 20ГЛ,09Г2С, 20ГМЛ	Steels 12Х18Н9ТЛ and 12Х18Н10Т	Steel 12Х18Н12М3ТЛ
2	Cover	20	09Г2С	12Х18Н10Т	10Х17Н13М2Т
3	Seat	20Х13	12Х18Н10Т* or 20Х13	12Х18Н10Т*	10Х17Н13М2Т*
4	Piston Valve	30Х13	12Х18Н10Т* or 30Х13	12Х18Н10Т*	10Х17Н13М2Т*
5	Stem	30Х13	12Х18Н10Т* or 30Х13	12Х18Н10Т*	14Х17Н2, 10Х17Н13М2Т*
6	Nut	40Х.019**	40Х.019**	12Х18Н10Т	10Х17Н13М2Т
7	Pin	40Х.019**	40Х.019**	12Х18Н10Т	10Х17Н13М2Т
8	Spring	50ХФА, 51ХФА	50ХФА, 51ХФА	50ХФА, 51ХФА	50ХФА, 51ХФА
9	Bellows	08Х18Н10Т, 12Х18Н10Т	08Х18Н10Т, 12Х18Н10Т	08Х18Н10Т, 12Х18Н10Т	10Х17Н13М2Т (no protective coating) or 08Х18Н10Т ,12Х18Н10Т (with protective coating)

* With a fusion coating of a corrosion-resistant material.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.

Use of Springs Depending on Valve Pressure Settings

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
25	40	18	4...8 8...16 16...25 25...40	8 1 2 3
25	63	18	4...8 8...16 16...25 25...50 50 ... 63	8 1 2 3 4
25	100	18	4...8 8...16 16...25 25...50 50 ... 63	8 1 2 3 4
25	160	18	4...8 8...16 16...25 25...50 50...80 80...100 100...160	8 1 2 3 4 5 9
25	250	16	Information available on request	
50	16	30/33	0,5...1,2 1,2...2,5 2,5...4 4...8 8...16	10 11 12 13 14

Use of Springs Depending on Valve Pressure Settings (Continued)

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
For SPPK with bellows		30/33	4...8 8...16	13 14
50	16			
50	25	30/33	0,5...1,2 1,2...2,5 2,5...4 4...8 8...20 20...25	10 11 12 13 14 15
For SPPK with bellows		30/33	4...8 8...20 20...25	13 14 15
50	25			
50	40	30/33	0,5...1,2 1,2...2,5 2,5...4 4...8 8...20 20...30 30...40	10 11 12 13 14 15 16
50	40	37	1 ... 3,5 3,5 ... 6 6 ... 9 9 ... 12,5 12,5 ... 16 16 ... 22 22 ... 27 27 ... 33 33 ... 40	23 24 25 26 27 28 29 44 17
For SPPK with bellows		37	3,5 ... 6 6 ... 9 9 ... 12,5 12,5 ... 16 16 ... 22 22 ... 27 27 ... 33 33 ... 40	24 25 26 27 28 29 44 17
50	40			
For SPPK with bellows		30/33	4...8 8...20 20...30 30...40	13 14 15 16
50	40			
50	63	33	20...34 30...54 50...63	55 56 57
50	100	33	30...54 50...63 63 ... 90 85 ... 100	56 57 58 59
50	160	33	53...90 85...124 124...141 140...160	58 59 60 61
50	250	33	Information available on request	
80	16	40	0,5...1,2 1,2...3 3...5 5...8 8...16	30 31 32 33 34
For SPPK with bellows		40	3...5 5...8 8...16	32 33 34
80	16			

Use of Springs Depending on Valve Pressure Settings (Continued)

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
80	25	40	0,5...1,2 1,2...3 3...5 5...8 8...20 20...25	30 31 32 33 35 36
For SPPK with bellows		40	3...5 5...8 8...20 20...25	32 33 35 36
80	25			
80	40	40	0,5...1,2 1,2...3 3...5 5...8 8...20 20...30 30...40	30 31 32 33 35 36 37
80	40	52	1 ... 3,5 3,5 ... 5,5 5,5 ... 9 9 ... 13 13 ... 19 19 ... 22 22 ... 27 27 ... 33 33 ... 40	63 64 65 66 67 68 69 84 85
For SPPK with bellows		40	3...5 5...8 8...20 20...30 30...40	32 33 35 36 37
80	40			
For SPPK with bellows		52	3,5 ... 5,5 5,5 ... 9 9 ... 13 13 ... 19 19 ... 22 22 ... 27 27 ... 33 33 ... 40	64 65 66 67 68 69 84 85
80	40			
80	63	40	25...35 35...44 44...50 50...63	38 37 39 40
80	100	35	44 ... 50 50 ... 63 63...100	39 40 41
80	160	35	63...100 100...135 135...160	41 42 43
80	250	35	Information available on request	
100	16	50	0,5...1 0,8...1,6 1,5...3 2,5...4,5 4,5...8,5 8...16	50 51 52 53 54 55
For SPPK with bellows		50	4,5...8 8...16	54 55
100	16			

Use of Springs Depending on Valve Pressure Settings (Continued)

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
100	25	50	0,5...1 0,8...1,6 1,5...3 2,5...4,5 4,5...8,5 8...16 16 ... 25	50 51 52 53 54 55 56
For SPPK with bellows		50	4,5...8 8...16 16 ... 25	54 55 56
100	25			
100	40	50	4,5...8 8...16 16...26 26...40	54 55 56 57
100	63	63	16 ... 25 25...40 40...55 55...63	77.1 77a 80 81
		72	13 ... 18 18 ... 25 25...40 40...50 50...58 58...63	77.1 77a 80 81 82 83
100	100	48	30 ... 40 40 ... 63 63...100	77.1 77a 80
		56	50 ... 63 63...88 88...100	80 81 82
100	160	48	30 ... 40 40 ... 63 63...100 100...125 110...145 135...160	77.1 77a 80 81 82 83
100	160	56	50 ... 63 63...88 88...105 105...125 125 ... 140 140 ... 160	80 81 82 83 83.1 83.2
150	16	75	0,5...1,5 1,5...3 3...5 5...8 8...12 12...16	70 71 72 73 74 75
For SPPK with bellows		75	3...5 5...8 8...12 12...16	72 73 74 75
150	16			
150	25	75	0,5...1,5 1,5...3 3...5 5...8 8...12 12...18 18 ... 25	70 71 72 73 74 75 76

Use of Springs Depending on Valve Pressure Settings (Conclusion)

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
For SPPK with bellows		75	3...5 5...8 8...12 12...16 18 ... 25	72 73 74 75 76
150	25			
150	40	75	5...8 8...12 12...18 18...25 25...35 35...40	73 74 75 76 77 78
150	63	77	Information available on request	
150	100	77	Information available on request	
200	16	142	0,5...1 1...2 2...3 3...5 5...7 7...9 9...12 12...16	72 73 74 75 76 77 78 79
SPPK4P 200-16M SPPK4 200-16M SPPK4P 200-16M XΛ SPPK4 200-16M XΛ		142	3...4 4...5 5...7 7...9 9...12 12...16	75M-1 75M-2 76M 77M 78M 79M
200	63	142	Information available on request	
200	100	142	Information available on request	
		133	Information available on request	

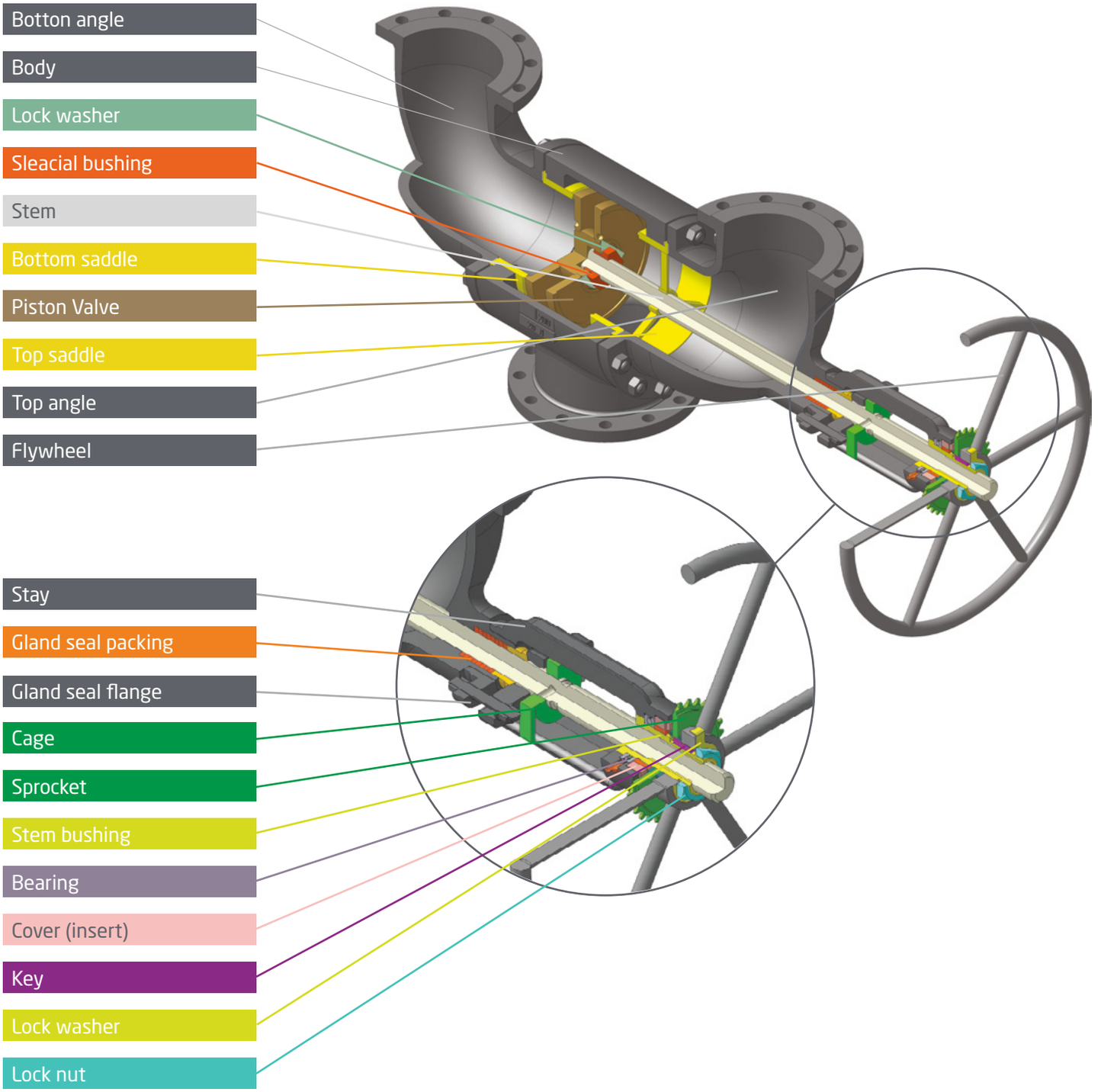
Use of Springs Depending on 6-th Generation Valve Pressure Settings

Valve Inlet Line Diameter (DNin, mm)	Inlet Line Pressure (PNin, kg/cm²)	Least Seat Diameter ds, mm	Pressure Setting Limit , Ps, kgf/cm²	Spring Code per Manufacturer Spec
25	40	24	1 ... 3 3 ... 6 6 ... 9 9 ... 13 13 ... 17 17 ... 21 21 ... 30 30 ... 40	11 12 12.2 12.1 13 13.1 14.1 14
For bellows-sealed SPPK		24	3 ... 6 6 ... 9 9 ... 13 13 ... 17 17 ... 21 21 ... 30 30 ... 40	12 12.2 12.1 13 13.1 14.1 14
25	40			
25	100	24	6 ... 9 9 ... 13 13 ... 17 17 ... 21 21 ... 30 30 ... 40 40 ... 54 54 ... 70 70 ... 87 87 ... 100	12.2 12.1 13 13.1 14.1 14 15.1 16.1 17 18
25	160	24	6 ... 9 9 ... 13 13 ... 17 17 ... 21 21 ... 30 30 ... 40 40 ... 54 54 ... 70 70 ... 87 87 ... 100 100 ... 160	12.2 12.1 13 13.1 14.1 14 15.1 16.1 17 18 19
50	16	45	1 ... 2 2 ... 3,5 3,5 ... 5 5 ... 7 7 ... 10 10 ... 16	31 32 33 34a 34 35
For bellows-sealed SPPK		45	3,5 ... 5 5 ... 7 7 ... 10 10 ... 16	33 34a 34 35
50	16			
50	40	45	5 ... 7 7 ... 10 10 ... 15 15 ... 24 24 ... 32 32 ... 40	34a 34 35 36a 38 37
100	16	88	1 ... 16	Springs are selected by AO BAZ specialists depending on the SPPK pressure setting.
100	40	88	1 ... 40	
100	63	82	25 ... 63	
100	160	62	135 ... 160	
		72	100 ... 135	
		82	55 ... 100	
150	16	120	1 ... 16	

Safety Valve Datasheet No. _____

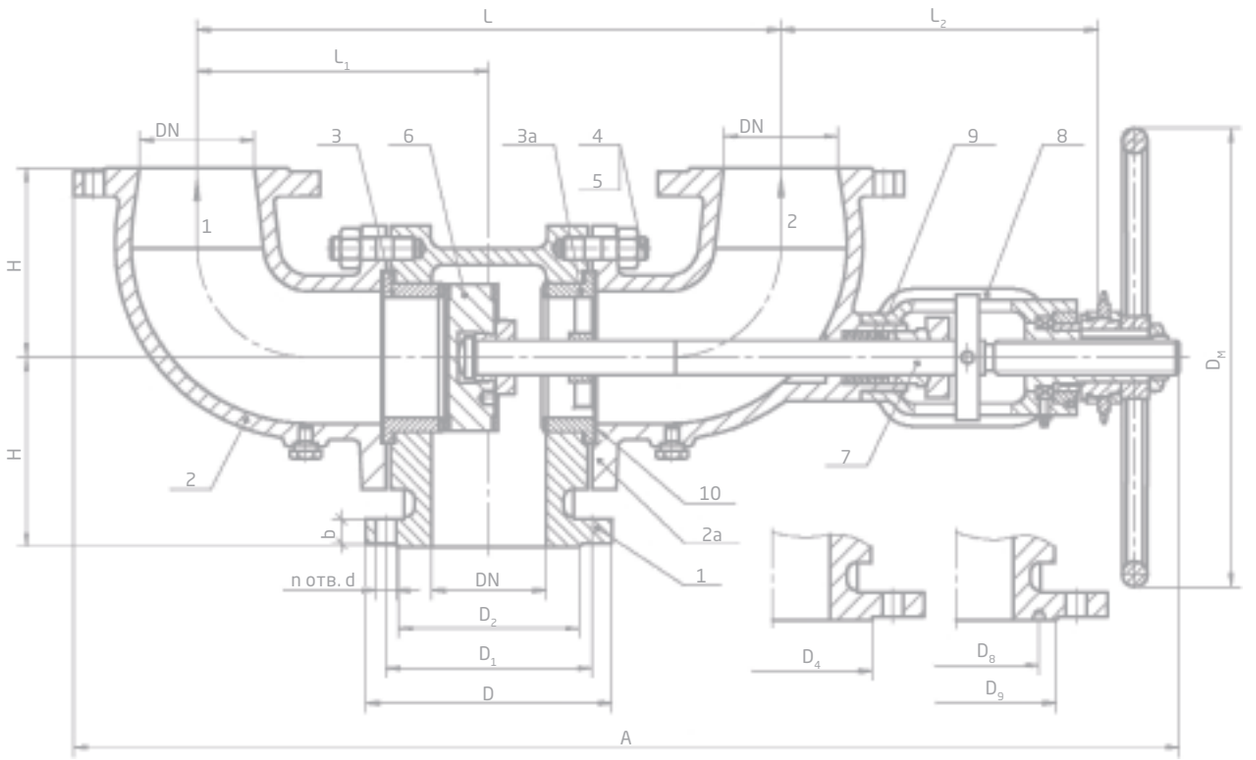
Customer:	Location:	
Project Reference:	Address:	
Facility:	Phone, Fax	
1	Item No.	
2	Arrangement	
3	Application.	
4	No. of valves	pcs
5	Including: primary backup	pcs
6	Inlet pressure rating:	kgf/cm^2, pos.
7	Valve outlet pressure rating	kgf/cm^2, pos.
8	Operating Pressure	kgf/cm^2, pos.
9	Fluid chemistry, state	% mole
10	Fluid flow rate: gas liquid; steam	 g/hr kg/hr kg/hr
11	Valve type	
12	Inlet/outlet temperature	°C
13	Molecular weight	
14	Adiabatic value for gas at release	
15	Fluid density at release	kg/m^3
16	Liquid/steam viscosity, Pa.sec	Pa.sec
17	Pressure setting	kgf/cm^2, pos.
18	Break down pressure	kgf/cm^2, pos.
19	Opening pressure	kgf/cm^2, pos.
20	Pressure downstream of valve:prior to valve actuation (valve closed); at actuation (valve open)	 kgf/cm^2, pos.
21	Design temperature of protected assemblies	°C
22	Design area of seat port	mm^2
23	Flow rate factor	
24	Minimum design seat diameter, mm	mm
25	Minimum ambient air temperature	°C
26	Nominal inlet diameter of valve, DN	
27	Nominal outlet diameter of valve, DN_1	
28	Pipeline connection: flanged, coupling, stub (underline) showing standards and sealing surface types	
29	Manual opening assembly	yes/no
30	Allowable valve leakage	cm^3/minute
31	Body component materials	
32	Service conditions are per GOST 15150	
33	Additional requirements (regarding impact bending tests at a temperature of-_____°C, the requirements for seismic resistance, harmful components and particulates in the fluid, for fluids containing hydrogen sulfide regarding the percentage H2S, additional layouts etc; for intergranular corrosion.	
34	Required hardware complement (matching flanges, pins, nuts, gaskets)	

Switching Devices



Manufacture and delivery is per TU 3742-007-07533604-2003, TU 3742-019-07533604-2013*

Switching devices are designed to change the direction of fluid flow. Switching devices are also installed in conjunction with safety valves wherever service conditions may require one safety valve to be deactivated and another to be activated without shutting down the production process.



* Per Gazprom Corporate Standard STO 2-4.1-212-2008.

Closure seal class is A per GOST 9544.

Connection to pipeline is via a flange.

Sealing surface and matching dimensions are per GOST 33259, Row 1:

- PN 0.6 MPa (6 kgf/cm²) – construction B
- PN 1.6 MPa (16 kgf/cm²) – construction B
- PN 2.5 MPa (25 kgf/cm²) – construction F
- PN 4.0 MPa (40 kgf/cm²) – construction F
- PN 6.3 MPa (63 kgf/cm²) – construction J
- PN 10.0 MPa (100 kgf/cm²) – construction J
- PN 16.0 MPa (160 kgf/cm²) – construction J
- PN 25.0 MPa (250 kgf/cm²):
  Construction C or flange construction per GOST 28919.

Upon customer request, switching devices may be manufactured with other sealing surfaces per the information specified at Page 232.

When the flywheel of a switching device is rotated, its closure moves from seat to seat. A slider installed on a stem indicates the position of the closure.

A switching device may be delivered complete with flanges, gaskets, and fasteners for installation in a pipeline.

If required, switching devices may be installed at safety valve inlet and outlet and connected through a switching device piston valve motion sync units (See section on Safety valve assemblies with switching devices).

When installing an assembly comprising a switching device and safety valves, and additional system fastener needs to be designed to assure stiffness and strength.

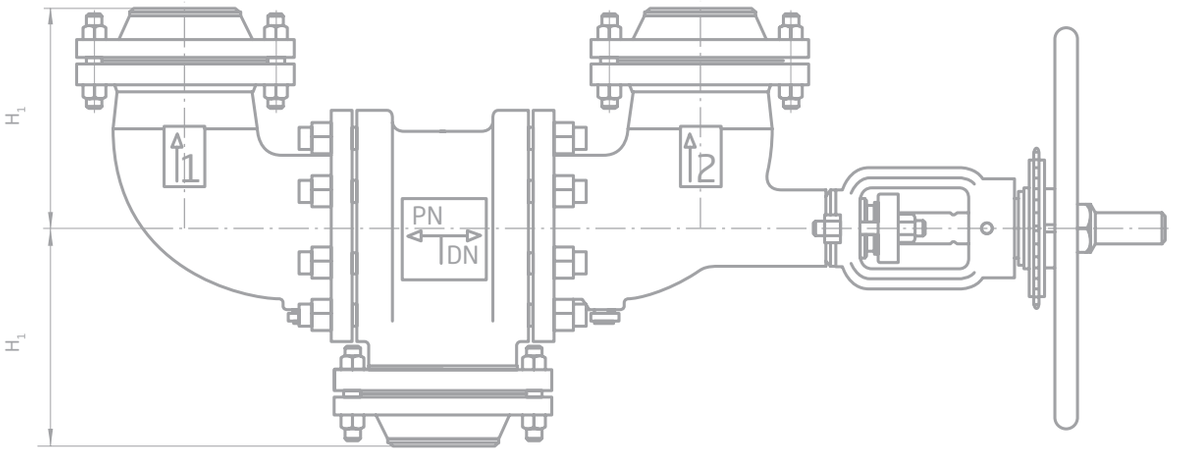
An example when ordering Switching Device DN 50 PN, 16 kgf/cm² of Steel 12Х18Н9ТЛ, factory length of 340 mm: Switching Device DN 50, PN 16 kgf/cm² ПУ 50-16-02 нж, 23нж16нж.

Switching devices designed for gaseous, explosive, flammable, and toxic fluids as well as steam are to undergo additional testing with air following hydraulic testing. When ordering the following mention has to be made: "gas".

When making an order, the need to equip switching devices with matching flanges, gaskets, pins, and nuts must be mentioned explicitly.

AO BAZ reserves the right to use other materials that are permitted by the relevant requirements.

ConStruction with Accessories (Set of Matching Flanges)



Materials of Principal Components of Switching Devices

Item No.1	Component NamesBody	23с16нж, 23с16нж1, 23с17нж, 23с17нж1, 23с18нж, 23с19нж, 23с20нж	23лс16нж, 23лс16нж1, 23лс17нж, 23лс17нж1, 23лс18нж1, 23лс19нж, 23лс20нж	23нж16нж, 23нж16нж1, 23нж17нж, 23нж17нж1, 23нж18нж, 23нж19нж, 23нж20нж	23нж16нж2, 23нж16нж3, 23нж17нж2, 23нж17нж3, 23нж18нж1, 23нж19нж1, 23нж20нж1
1	Body	Steel 20Л	Steel 20ГЛ; 20ГМЛ	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
2 2а	Elbow	Steel 20Л	Steels 20ГЛ and 20ГМЛ	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
3 3а	Seat	20* or 30Х13	09Г2С* or 30Х13	12Х18Н10Т	10Х17Н13М2Т*
4	Pin	40Х.019**	40Х.019**	12Х18Н10Т; 45Х14Н14В2М (PN 160 kgf/cm^2)	12Х18Н10Т; 45Х14Н14В2М (PN 160 kgf/cm^2)
5	Nut	40Х.019**	40Х.019**	12Х18Н10Т	12Х18Н10Т
6	Piston Valve	20* or 30Х13	09Г2С* or 30Х13	12Х18Н10Т*	10Х17Н13М2Т*
7	Stem	30Х13	14Х17Н2 or 30Х13	12Х18Н10Т	10Х17Н13М2Т
8	Stay	20Л	20ГЛ; 20ГМЛ	12Х18Н9ТЛ	12Х18Н12М3ТЛ
9	Gland seal packing	TEG rings	TEG ring	TEG ring	TEG ring
10	Gasket	ПУТГ-02-АРИ-ОУ; Oblong, of steel (PN 63, 160 kgf/cm^2)	ПУТГ-2-АРН-04; Oblong, of steel (PN 63, 160 kgf/cm^2)	ПУТГ-2-АРН-04; Oblong, of steel (PN 63, 160 kgf/cm^2)	ПУТГ-2-АРН-04; Oblong, of steel (PN 63, 160 kgf/cm^2)

* With a fusion coating of a corrosion-resistant material.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.

Switching Device Application Codes

Designation	23с16нж, 23с16нж1, 23с17нж, 23с17нж1, 23с18нж, 23с19нж, 23с20нж	23лс16нж, 23лс16нж1, 23лс17нж, 23лс17нж1, 23лс18нж1, 23лс19нж, 23лс20нж	23нж16нж, 23нж16нж1, 23нж17нж, 23нж17нж1, 23нж18нж, 23нж19нж, 23нж20нж	23нж16нж2, 23нж16нж3, 23нж17нж2, 23нж17нж3, 23нж18нж1, 23нж19нж1, 23нж20нж1
Fluids	Water, air, steam, ammonia[1], petroleum, petroleum derivatives, natural gas, gas condensate, liquid and gaseous hydrocarbon fluids, and other fluids causing steel 20Л to corrode at no more than 0.1 mm/year	Water, air, steam, ammonia[1], petroleum, petroleum derivatives, natural gas, gas condensate, liquid and gaseous hydrocarbons fluids, and other fluids causing steels 20ГЛ* and 20ГМЛ to corrode at no more than 0.1 mm/year	Water, air, steam, ammonia[1], petroleum, petroleum derivatives, natural gas, gas condensate, liquid and gaseous hydrocarbon fluids, and other fluids causing steel 20Л to corrode at no more than 0.1 mm/year	Steam, ammonia[1], wet natural gas, petroleum derivatives containing hydrogen sulfide[1], liquid and gaseous hydrocarbons, chemicals, and other fluids causing steel 12Х18Н12М3ТЛ to corrode at no more than 0.1 mm/year
Fluid Temperature °C	Between -40 and +450	Between -60 and +450	Between -110 and +600	Between -602 and +600
Environmental service conditions are per GOST 15150	U1, T1	U1, XL1, UXL1, T1	U1, XL1, UXL1, T1	UXL1, T1, U1, XL1
Minimum ambient air temperature during operation, °C	-40	-60	-110	-60

[1] When ordering, please specify as a supplemental requirement on the data sheet.
[2] For switching device assemblies with a bellows, these may be manufactured for fluids with temperatures of down to -110°C .

Switching Device Principal Properties and Characteristics

Item Designation	Table of Figures	Body Material	Nominal Diameter. mm	Pressure Rating. kgf/cm²	Fluid Temperature. °C	Weight. not to exceed kg	Weight with matching flanges. kg
TU 3742-007-07533604-2003, TU 28.14.13-037-07533604-2017							
ПУ 25-40	23с17нж	20Л	25	40	Between -40 and 450	30	34
ПУ 25-40-01 нж	23нж17нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 25-40-02 нж1	23нж17нж1	12Х18Н12М3ТЛ					
ПУ 25-40-03 ХЛ1	23лс17нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 25-63	Information available on request	20Л		63	Between -40 and 450	Information available on request	
ПУ 25-63 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 25-63 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 25-63 нж1		12Х18Н12М3ТЛ					
ПУ 25-100	23с21нж	20Л		100	Between -40 and 450	53.5	58.5
ПУ 25-100 лс	23лс21нж	20ГЛ/20ГМЛ			Between -60 and 600		
ПУ 25-100 нж	23нж21нж	12Х18Н9ТЛ			Between -60 and 450		
ПУ 25-100 нж1	23нж21нж1	12Х18Н12М3ТЛ					
ПУ 25-160	23с22нж	20Л		160	Between -40 and 450	53.5	58.5
ПУ 25-160 лс	23лс22нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 25-160 нж	23нж22нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 25-160 нж1	23нж22нж1	12Х18Н12М3ТЛ					
ПУ 25-250	Information available on request	20Л		250	Between -40 and 450	Information available on request	
ПУ 25-250 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 25-250 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 25-250 нж1		12Х18Н12М3ТЛ					
ПУ 50-16	23с16нж	20Л	50	16	Between -40 and 450	39	45
ПУ 50-16-01	23с16нж1					43	49
ПУ 50-16-02 нж	23нж16нж	12Х18Н9ТЛ			Between -60 and 600	39	45
ПУ 50-16-03 нж	23нж16нж1					43	49
ПУ 50-16-04 нж1	23нж16нж2	12Х18Н12М3ТЛ				39	45
ПУ 50-16-05 нж1	23нж16нж3					43	49
ПУ 50-16-06 ХЛ1	23лс16нж	20ГЛ/20ГМЛ			Between -60 and 450	39	45
ПУ 50-16-07 ХЛ1	23лс16нж1					43	49
ПУ 50-25	23с16нж2	20Л		25	Between -40 and 450	39	49
ПУ 50-25-01	23с16нж3					43	53
ПУ 50-25-02 нж	23нж16нж4	12Х18Н9ТЛ			Between -60 and 600	39	49
ПУ 50-25-03 нж	23нж16нж5					43	53
ПУ 50-25-04 нж1	23нж16нж6	12Х18Н12М3ТЛ				39	49
ПУ 50-25-05 нж1	23нж16нж7					43	53
ПУ 50-25-06 ХЛ1	23лс16нж2	20ГЛ/20ГМЛ			Between -60 and 450	39	49
ПУ 50-25-07 ХЛ1	23лс16нж3					43	53
ПУ 50-40	23с17нж	20Л		40	Between -40 and 450	39	49
ПУ 50-40-01	23с17нж1					43	53
ПУ 50-40-02 нж	23нж17нж	12Х18Н9ТЛ			Between -60 and 600	39	49
ПУ 50-40-03 нж	23нж17нж1					43	53
ПУ 50-40-04 нж1	23нж17нж2	12Х18Н12М3ТЛ				39	49
ПУ 50-40-05 нж1	23нж17нж3					43	53
ПУ 50-40-06 ХЛ1	23лс17нж	20ГЛ/20ГМЛ			Between -60 and 450	39	49
ПУ 50-40-07 ХЛ1	23лс17нж1					43	53
ПУ 50-63	23с18нж	20Л		63	Between -40 and 450	95	110
ПУ 50-63-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 50-63-01 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 50-63-03 ХЛ1	23лс18нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 50-100	23с18нж1	20Л		100	Between -40 and 450	100	120
ПУ 50-100-01 нж	23нж18н2	12Х18Н9ТЛ			Between -60 and 600		
ПУ 50-100-02 нж1	23нж18нж3	12Х18Н12М3ТЛ					
ПУ 50-100-03 ХЛ1	23лс18нж1	20ГЛ/20ГМЛ			Between -60 and 450		

Switching Device Principal Properties and Characteristics (Continued)

Item Designation	Table of Figures	Body Material	Nominal Diameter. mm	Pressure Rating. kgf/cm²	Fluid Temperature. °C	Weight. not to exceed kg	Weight with matching flanges. kg
TU 3742-007-07533604-2003, TU 28.14.13-037-07533604-2017							
ПУ 50-160	23с19нж	20Л	50	160	Between -40 and 450	105	126
ПУ 50-160-01 нж	23нж19нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 50-160-02 нж1	23нж19нж1	12Х18Н12М3ТЛ					
ПУ 50-160-03 ХЛ1	23лс19нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 50-250	Information available on request	20Л		250	Between -40 and 450	Information available on request	
ПУ 50-250 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 50-250 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 50-250 нж1		12Х18Н12М3ТЛ					
ПУ 80-6	23с18нж	20Л	80	6	Between -40 and 450	51	61
ПУ 80-6-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 80-6-02 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 80-6-03 ХЛ1	23лс18нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 80-16	23с16нж	20Л		16	Between -40 and 450	57	71
ПУ 80-16-01	23с16нж1					62	76
ПУ 80-16-02 нж	23нж16нж	12Х18Н9ТЛ			Between -60 and 600	57	71
ПУ 80-16-03 нж	23нж16нж1					62	76
ПУ 80-16-04 нж1	23нж16нж2	12Х18Н12М3ТЛ				57	71
ПУ 80-16-05 нж1	23нж16нж3					62	76
ПУ 80-16-06 ХЛ1	23лс16нж	20ГЛ/20ГМЛ			Between -60 and 450	57	71
ПУ 80-16-07 ХЛ1	23лс16нж1					62	76
ПУ 80-25	23с16нж2	20Л	80	25	Between -40 and 450	75	91
ПУ 80-25-01	23с16нж3					84	100
ПУ 80-25-02 нж	23нж16нж4	12Х18Н9ТЛ			Between -60 and 600	75	91
ПУ 80-25-03 нж	23нж16нж5					84	100
ПУ 80-25-04 нж1	23нж16нж6	12Х18Н12М3ТЛ		25	Between -60 and 600	75	91
ПУ 80-25-05 нж1	23нж16нж7					84	100
ПУ 80-25-06 ХЛ1	23лс16нж2	20ГЛ/20ГМЛ			Between -60 and 450	75	91
ПУ 80-25-07 ХЛ1	23лс16нж3					84	100
ПУ 80-40	23с17нж	20Л		40	Between -40 and 450	75	91
ПУ 80-40-01	23с17нж1					84	100
ПУ 80-40-02 нж	23нж17нж	12Х18Н9ТЛ			Between -60 and 600	75	91
ПУ 80-40-03 нж	23нж17нж1					84	100
ПУ 80-40-04 нж1	23нж17нж2	12Х18Н12М3ТЛ				75	91
ПУ 80-40-05 нж1	23нж17нж3					84	100
ПУ 80-40-06 ХЛ1	23лс17нж	20ГЛ/20ГМЛ			Between -60 and 450	75	91
ПУ 80-40-07 ХЛ1	23лс17нж1					84	100
ПУ 80-63	23с20нж	20Л		63	Between -40 and 450	135	158
ПУ 80-63-01 нж	23нж20нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 80-63-01 нж1	23нж20нж1	12Х18Н12М3ТЛ					
ПУ 80-63-03 ХЛ1	23лс201нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 80-100	23с20нж1	20Л		100	Between -40 and 450	153	186
ПУ 80-100-01 нж	23лс20нж1	20ГЛ/20ГМЛ			Between -60 and 600		
ПУ 80-100-02 нж1	23нж20нж2	12Х18Н9ТЛ			Between -60 and 450		
ПУ 80-100-03 ХЛ1	23нж20нж3	12Х18Н12М3ТЛ					
ПУ 80-160	23с19нж	20Л		160	Between -40 and 450	155	188
ПУ 80-160-01 нж	23нж19нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 80-160-02 нж1	23нж19нж1	12Х18Н12М3ТЛ					
ПУ 80-160-03 ХЛ1	23лс19нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 80-250	Information available on request	20Л		250	Between -40 and 450	Information available on request	
ПУ 80-250 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 80-250 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 80-250 нж1		12Х18Н12М3ТЛ					

Switching Device Principal Properties and Characteristics (Continued)

Item Designation	Table of Figures	Body Material	Nominal Diameter. mm	Pressure Rating. kgf/cm²	Fluid Temperature. °C	Weight. not to exceed kg	Weight with matching flanges. kg
TU 3742-007-07533604-2003, TU 28.14.13-037-07533604-2017							
ПУ 100-6	23с18нж	20Л	100	6	Between -40 and 450	67	78
ПУ 100-6-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 100-6-02 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 100-6-03 ХЛ1	23лс18нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 100-16	23с16нж	20Л		16	Between -40 and 450	79	95
ПУ 100-16-01	23с16нж1					87	103
ПУ 100-16-02 нж	23нж16нж	12Х18Н9ТЛ			Between -60 and 600	79	95
ПУ 100-16-03 нж	23нж16нж1					87	103
ПУ 100-16-04 нж1	23нж16нж2	12Х18Н12М3ТЛ				79	95
ПУ 100-16-05 нж1	23нж16нж3					87	103
ПУ 100-16-06 ХЛ1	23лс16нж	20ГЛ/20ГМЛ			Between -60 and 450	79	95
ПУ 100-16-07 ХЛ1	23лс16нж1					87	103
ПУ 100-25	23с16нж2	20Л		25	Between -40 and 450	94	118
ПУ 100-25-01	23с16нж3					116	140
ПУ 100-25-02 нж	23нж16нж4	12Х18Н9ТЛ			Between -60 and 600	94	118
ПУ 100-25-03 нж	23нж16нж5					116	140
ПУ 100-25-04 нж1	23нж16нж6	12Х18Н12М3ТЛ				94	118
ПУ 100-25-05 нж1	23нж16нж7					116	140
ПУ 100-25-06 ХЛ1	23лс16нж2	20ГЛ/20ГМЛ			Between -60 and 450	94	118
ПУ 100-25-07 ХЛ1	23лс16нж3					116	140
ПУ 100-40	23с17нж	20Л		40	Between -40 and 450	94	118
ПУ 100-40-01	23с17нж1					116	140
ПУ 100-40-02 нж	23нж17нж	12Х18Н9ТЛ			Between -60 and 600	94	118
ПУ 100-40-03 нж	23нж17нж1					116	140
ПУ 100-40-04 нж1	23нж17нж2	12Х18Н12М3ТЛ				94	118
ПУ 100-40-05 нж1	23нж17нж3					116	140
ПУ 100-40-06 ХЛ1	23лс17нж	20ГЛ/20ГМЛ			Between -60 and 450	94	118
ПУ 100-40-07 ХЛ1	23лс17нж1					116	140
ПУ 100-63	23с20нж	20Л		63	Between -40 and 450	220	254
ПУ 100-63-01 нж	23нж20нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 100-63-01 нж1	23нж20нж1	12Х18Н12М3ТЛ					
ПУ 100-63-03 ХЛ1	23лс201нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 100-100	23с20нж1	20Л		100	Between -40 and 450	235	253
ПУ 100-100-01 нж	23лс20нж1	20ГЛ/20ГМЛ			Between -60 and 600		
ПУ 100-100-02 нж1	23нж20нж2	12Х18Н9ТЛ			Between -60 and 450		
ПУ 100-100-03 ХЛ1	23нж20нж3	12Х18Н12М3ТЛ					
ПУ 100-160	23с19нж	20Л		160	Between -40 and 450	235	253
ПУ 100-160-01 нж	23нж19нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 100-160-02 нж1	23нж19нж1	12Х18Н12М3ТЛ					
ПУ 100-160-03 ХЛ1	23лс19нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 100-250	Information available on request	20Л		250	Between -40 and 450	Information available on request	
ПУ 100-250 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 100-250 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 100-250 нж1		12Х18Н12М3ТЛ					
ПУ 150-16	23с16нж	20Л	150	16	Between -40 and 450	180	206
ПУ 150-16-01	23с16нж1					195	221
ПУ 150-16-02 нж	23нж16нж	12Х18Н9ТЛ			Between -60 and 600	180	206
ПУ 150-16-03 нж	23нж16нж1					195	221
ПУ 150-16-04 нж1	23нж16нж2	12Х18Н12М3ТЛ				180	206
ПУ 150-16-05 нж1	23нж16нж3					195	221
ПУ 150-16-06 ХЛ1	23лс16нж	20ГЛ/20ГМЛ			Between -60 and 450	180	206
ПУ 150-16-07 ХЛ1	23лс16нж1					195	221

Switching Device Principal Properties and Characteristics (Continued)

Item Designation	Table of Figures	Body Material	Nominal Diameter. mm	Pressure Rating. kgf/cm²	Fluid Temperature. °C	Weight. not to exceed kg	Weight with matching flanges. kg
TU 3742-007-07533604-2003, TU 28.14.13-037-07533604-2017							
ПУ 150-25	23с16нж2	20Л	150	25	Between -40 and 450	195	236
ПУ 150-25-01	23с16нж3					215	256
ПУ 150-25-02 нж	23нж16нж4	12Х18Н9ТЛ			Between -60 and 600	195	236
ПУ 150-25-03 нж	23нж16нж5					215	256
ПУ 150-25-04 нж1	23нж16нж6	12Х18Н12М3ТЛ				195	236
ПУ 150-25-05 нж1	23нж16нж7					215	256
ПУ 150-25-06 ХЛ1	23лс16нж2	20ГЛ/20ГМЛ			Between -60 and 450	195	236
ПУ 150-25-07 ХЛ1	23лс16нж3					215	256
ПУ 150-40	23с17нж	20Л		40	Between -40 and 450	195	236
ПУ 150-40-01	23с17нж1					215	256
ПУ 150-40-02 нж	23нж17нж	12Х18Н9ТЛ			Between -60 and 600	195	236
ПУ 150-40-03 нж	23нж17нж1					215	256
ПУ 150-40-04 нж1	23нж17нж2	12Х18Н12М3ТЛ				195	236
ПУ 150-40-05 нж1	23нж17нж3					215	256
ПУ 150-40-06 ХЛ1	23лс17нж	20ГЛ/20ГМЛ			Between -60 and 450	195	236
ПУ 150-40-07 ХЛ1	23лс17нж1					215	256
ПУ 150-63	Information available on request	20Л		63	Between -40 and 450	Information available on request	
ПУ 150-63 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 150-63 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 150-63 нж1		12Х18Н12М3ТЛ					
ПУ 150-100	Information available on request	20Л		100	Between -40 and 450	Information available on request	
ПУ 150-100 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 150-100 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 150-100 нж1		12Х18Н12М3ТЛ					
ПУ 200-6	23с18нж	20Л	200	6	Between -40 and 450	241	268
ПУ 200-6-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-6-02 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 200-6-03 ХЛ1	23лс18нж1	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-16	23с18нж	20Л		16	Between -40 and 450	250	287
ПУ 200-16-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-16-02 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 200-16-03 ХЛ1	23лс18нж1	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-25	23с24нж	20Л		25	Between -40 and 450	Information available on request	
ПУ 200-25 лс	23лс24нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-25 нж	23нж24нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-25 нж1	23нж24нж1	12Х18Н12М3ТЛ					
ПУ 200-40	23с25нж	20Л		40	Between -40 and 450	Information available on request	
ПУ 200-40-01	23с25нж1						
ПУ 200-40-02 нж	23нж25нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-40-03 нж	23нж25нж1						
ПУ 200-40-04 нж1	23нж25нж2	12Х18Н12М3ТЛ					
ПУ 200-40-05 нж1	23нж25нж3						
ПУ 200-40-06 лс	23лс25нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-40-07 лс	23лс25нж1						
ПУ 200-63	Information available on request	20Л		63	Between -40 and 450	Information available on request	
ПУ 200-63 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-63 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-63 нж1		12Х18Н12М3ТЛ					
ПУ 200-100	Information available on request	20Л		100	Between -40 and 450	Information available on request	
ПУ 200-100 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 200-100 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 200-100 нж1		12Х18Н12М3ТЛ					

Switching Device Principal Properties and Characteristics (Conclusion)

Item Designation	Table of Figures	Body Material	Nominal Diameter. mm	Pressure Rating. kgf/cm²	Fluid Temperature. °C	Weight. not to exceed kg	Weight with matching flanges. kg
TU 3742-007-07533604-2003, TU 28.14.13-037-07533604-2017							
ПУ 250-16	23с23нж	20Л	250	16	Between -40 and 450	Information available on request	
ПУ 250-16 лс	23лс23нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 250-16 нж	23нж23нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 250-16 нж1	23нж23нж1	12Х18Н12М3ТЛ					
ПУ 300-6	23с18нж	20Л	300	6	Between -40 and 450	460	507
ПУ 300-6-01 нж	23нж18нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 300-6-02 нж1	23нж18нж1	12Х18Н12М3ТЛ					
ПУ 300-6-03 лс	23лс18нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 300-16	23с26нж	20Л		16	Between -40 and 450	Information available on request	
ПУ 300-16-01	23с26нж1						
ПУ 300-16-02 лс	23лс26нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 300-16-03 лс	23лс26нж1						
ПУ 300-16-04 нж	23нж26нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 300-16-05 нж	23нж26нж1						
ПУ 300-16-06 нж1	23нж26нж2	12Х18Н12М3ТЛ					
ПУ 300-16-07 нж1	23нж26нж3						
ПУ 300-25	23с29нж	20Л		25	Between -40 and 450	Information available on request	
ПУ 300-25 лс	23лс29нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 300-25 нж	23нж29нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 300-25 нж1	23нж29ж1	12Х18Н12М3ТЛ					
ПУ 300-40	23с30нж	20Л	300	40	Between -40 and 450	Information available on request	
ПУ 300-40 лс	23лс30нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 300-40 нж	23нж30нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 300-40 нж1	23нж30нж1	12Х18Н12М3ТЛ					
ПУ 300-63	Information available on request	20Л		63	Between -40 and 450	Information available on request	
ПУ 300-63 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 300-63 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 300-63 нж1		12Х18Н12М3ТЛ					
ПУ 350-6	Information available on request	20Л	350	6	Between -40 and 450	Information available on request	
ПУ 350-6 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 350-6 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 350-6 нж1		12Х18Н12М3ТЛ					
ПУ 350-16	Information available on request	20Л		16	Between -40 and 450	Information available on request	
ПУ 350-16 лс		20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 350-16 нж		12Х18Н9ТЛ			Between -60 and 600		
ПУ 350-16 нж1		12Х18Н12М3ТЛ					
ПУ 400-6	23с27нж	20Л	400	6	Between -40 and 450	Information available on request	
ПУ 400-6 лс	23лс27нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 400-6 нж	23нж27нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 400-6 нж1	23нж27нж1	12Х18Н12М3ТЛ					
ПУ 400-16	23с28нж	20Л		16	Between -40 and 450	Information available on request	
ПУ 400-16 лс	23лс28нж	20ГЛ/20ГМЛ			Between -60 and 450		
ПУ 400-16 нж	23нж28нж	12Х18Н9ТЛ			Between -60 and 600		
ПУ 400-16 нж1	23нж28нж1	12Х18Н12М3ТЛ					

Switching Device and Matching Dimensions (in mm)

Designation	DN, мм	PN, kgf/cm²	L	L_1	L_2	A	D	D_1	D_2	D_4	D_8	D_9	H	H_1	n, holes	d	b	D_m
ПУ 25-40	25	40	340	170	250	720	115	85	-	57	-	-	95	113	4	14	16	240
ПУ 25-40-01 нж																		
ПУ 25-40-02 нж1																		
ПУ 25-40-03 ХЛ1																		
ПУ 25-63	25	63	Information available on request															
ПУ 25-63 лс																		
ПУ 25-63 нж																		
ПУ 25-63 нж1																		
ПУ 25-100	25	100	430	215	250	825	135	100	-	-	50	68	154	120	4	18	24	320
ПУ 25-100 лс																		
ПУ 25-100 нж																		
ПУ 25-100 нж1																		
ПУ 25-160	25	160	430	215	250	825	135	100	-	-	50	68	154	120	4	18	24	320
ПУ 25-160 лс																		
ПУ 25-160 нж																		
ПУ 25-160 нж1																		
ПУ 25-250	25	250	Information available on request															
ПУ 25-250 лс																		
ПУ 25-250 нж																		
ПУ 25-250 нж1																		
ПУ 50-16	50	16	340	170	250	750	160	125	99	-	-	-	105	153	4	18	17	320
ПУ 50-16-01			430	260		850												
ПУ 50-16-02 нж			340	170		750												
ПУ 50-16-03 нж			430	260		850												
ПУ 50-16-04 нж1			340	170		750												
ПУ 50-16-05 нж1			430	260		850												
ПУ 50-16-06 ХЛ1			340	170		750												
ПУ 50-16-07 ХЛ1			430	260		850												
ПУ 50-25	50	25	Information available on request															
ПУ 50-25-01																		
ПУ 50-25-02 нж																		
ПУ 50-25-03 нж																		
ПУ 50-25-04 нж1																		
ПУ 50-25-05 нж1																		
ПУ 50-25-06 ХЛ1																		
ПУ 50-25-07 ХЛ1																		
ПУ 50-40	50	40	340	170	250	750	160	125	-	87	-	-	105	153	4	18	20	320
ПУ 50-40-01			430	260		850												
ПУ 50-40-02 нж			340	170		750												
ПУ 50-40-03 нж			430	260		850												
ПУ 50-40-04 нж1			340	170		750												
ПУ 50-40-05 нж1			430	260		850												
ПУ 50-40-06 ХЛ1			340	170		750												
ПУ 50-40-07 ХЛ1			430	260		850												
ПУ 50-63	50	63	430	215	250	860	175	135	-	-	85	102	180	250	4	22	26	400
ПУ 50-63-01 нж																		
ПУ 50-63-01 нж1																		
ПУ 50-63-03 ХЛ1																		
ПУ 50-100	50	100	Information available on request															
ПУ 50-100-01 нж																		
ПУ 50-100-02 нж1																		
ПУ 50-100-03 ХЛ1																		

Switching Device and Matching Dimensions (in mm) (Continued)

Designation	DN, мм	PN, kgf/cm^2	L	L_1	L_2	A	D	D_1	D_2	D_4	D_8	D_9	H	H_1	n, holes	d	b	D_m
ПУ 50-160	50	160	430	215	250	870	195	145	-	-	95	115	180	258	4	26	30	400
ПУ 50-160-01 нж																		
ПУ 50-160-02 нж1																		
ПУ 50-160-03 ХЛ1																		
ПУ 50-250	50	250	Information available on request															
ПУ 50-250 лс																		
ПУ 50-250 нж																		
ПУ 50-250 нж1																		
ПУ 80-6	80	6	430	215	250	845	185	150	124	-	-	-	150	190	4	18	18	320
ПУ 80-6-01 нж																		
ПУ 80-6-02 нж1																		
ПУ 80-6-03 ХЛ1																		
ПУ 80-16	80	16	430	215	250	850	195	160	132	-	-	-	150	203	8	18	20	320
ПУ 80-16-01			510	295	275	955												
ПУ 80-16-02 нж			430	215	250	850												
ПУ 80-16-03 нж			510	295	275	955												
ПУ 80-16-04 нж1			430	215	250	850												
ПУ 80-16-05 нж1			510	295	275	955												
ПУ 80-16-06 ХЛ1			430	215	250	850												
ПУ 80-16-07 ХЛ1			510	295	275	955												
ПУ 80-25	80	25	Information available on request															
ПУ 80-25-01																		
ПУ 80-25-02 нж																		
ПУ 80-25-03 нж																		
ПУ 80-25-04 нж1																		
ПУ 80-25-05 нж1																		
ПУ 80-25-06 ХЛ1																		
ПУ 80-25-07 ХЛ1																		
ПУ 80-40	80	40	430	215	250	850	195	160	-	120	-	-	150	206	8	18	22	320
ПУ 80-40-01			510	295	275	955												
ПУ 80-40-02 нж			430	215	250	850												
ПУ 80-40-03 нж			510	295	275	955												
ПУ 80-40-04 нж1			430	215	250	850												
ПУ 80-40-05 нж1			510	295	275	955												
ПУ 80-40-06 ХЛ1			430	215	250	850												
ПУ 80-40-07 ХЛ1			510	295	275	955												
ПУ 80-63	80	63	510	255	375	1075	210	170	-	-	115	133	200	275	8	22	30	400
ПУ 80-63-01 нж																		
ПУ 80-63-01 нж1																		
ПУ 80-63-03 ХЛ1																		
ПУ 80-100	80	100	Information available on request															
ПУ 80-100-01 нж																		
ПУ 80-100-02 нж1																		
ПУ 80-100-03 ХЛ1																		
ПУ 80-160	80	160	510	255	375	1085	230	180	-	-	130	150	200	293	8	26	36	400
ПУ 80-160-01 нж																		
ПУ 80-160-02 нж1																		
ПУ 80-160-03 ХЛ1																		
ПУ 80-250	80	250	Information available on request															
ПУ 80-250 лс																		
ПУ 80-250 нж																		
ПУ 80-250 нж1																		

Switching Device and Matching Dimensions (in mm) (Continued)

Designation	DN, мм	PN, kgf/cm²	L	L_1	L_2	A	D	D_1	D_2	D_4	D_8	D_9	H	H_1	n, holes	d	b	D_m
ПУ 100-6	100	6	510	255	275	960	205	170	144	-	-	-	165	206	4	18	18	400
ПУ 100-6-01 нж																		
ПУ 100-6-02 нж1																		
ПУ 100-6-03 ХЛ1																		
ПУ 100-16	100	16	510	255	275	965	215	180	156	-	-	-	165	218	8	18	20	400
ПУ 100-16-01			705	450	375	1270												
ПУ 100-16-02 нж			510	255	275	965												
ПУ 100-16-03 нж			705	450	375	1270												
ПУ 100-16-04 нж1			510	255	275	965												
ПУ 100-16-05 нж1			705	450	375	1270												
ПУ 100-16-06 ХЛ1			510	255	275	965												
ПУ 100-16-07 ХЛ1			705	450	375	1270												
ПУ 100-25	100	25	Information available on request															
ПУ 100-25-01																		
ПУ 100-25-02 нж																		
ПУ 100-25-03 нж																		
ПУ 100-25-04 нж1																		
ПУ 100-25-05 нж1																		
ПУ 100-25-06 ХЛ1																		
ПУ 100-25-07 ХЛ1																		
ПУ 100-40	100	40	510	255	375	1070	230	190	-	149	-	-	165	233	8	22	24	400
ПУ 100-40-01			705	450		1270												
ПУ 100-40-02 нж			510	255		1070												
ПУ 100-40-03 нж			705	450		1270												
ПУ 100-40-04 нж1			510	255		1070												
ПУ 100-40-05 нж1			705	450		1270												
ПУ 100-40-06 ХЛ1			510	255		1070												
ПУ 100-40-07 ХЛ1			705	450		1270												
ПУ 100-63	100	63	705	352,5	375	1300	250	200	-	-	145	170	220	300	8	26	32	600
ПУ 100-63-01 нж																		
ПУ 100-63-01 нж1																		
ПУ 100-63-03 ХЛ1																		
ПУ 100-100	100	100	Information available on request															
ПУ 100-100-01 нж																		
ПУ 100-100-02 нж1																		
ПУ 100-100-03 ХЛ1																		
ПУ 100-160	100	160	705	352,5	375	1310	175	210	-	-	145	175	220	323	8	30	40	600
ПУ 100-160-01 нж																		
ПУ 100-160-02 нж1																		
ПУ 100-160-03 ХЛ1																		
ПУ 100-250	100	250	Information available on request															
ПУ 100-250 лс																		
ПУ 100-250 нж																		
ПУ 100-250 нж1																		
ПУ 150-16	150	16	705	352,5	375	1315	280	240	211	-	-	-	220	280	8	22	24	400
ПУ 150-16-01			780	427,5	460	1475	Information available on request											
ПУ 150-16-02 нж			705	352,5	375	1315												
ПУ 150-16-03 нж			780	427,5	460	1475												
ПУ 150-16-04 нж1			705	352,5	375	1315												
ПУ 150-16-05 нж1			780	427,5	460	1475												
ПУ 150-16-06 ХЛ1			705	352,5	375	1315												
ПУ 150-16-07 ХЛ1			780	427,5	460	1475												

Switching Device and Matching Dimensions (in mm) (Continued)

Designation	DN, мм	PN, kgf/cm^2	L	L_1	L_2	A	D	D_1	D_2	D_4	D_8	D_9	H	H_1	n, holes	d	b	D_m
ПУ 150-25	150	25	Information available on request															
ПУ 150-25-01																		
ПУ 150-25-02 нж																		
ПУ 150-25-03 нж																		
ПУ 150-25-04 нж1																		
ПУ 150-25-05 нж1																		
ПУ 150-25-06 ХЛ1																		
ПУ 150-25-07 ХЛ1																		
ПУ 150-40	150	40	705	352,5	375	1325	300	250	-	203	-	-	220	291	8	26	30	400
ПУ 150-40-01			780	427,5	460	1485												
ПУ 150-40-02 нж			705	352,5	375	1325												
ПУ 150-40-03 нж			780	427,5	460	1485												
ПУ 150-40-04 нж1			705	352,5	375	1325												
ПУ 150-40-05 нж1			780	427,5	460	1485												
ПУ 150-40-06 ХЛ1			705	352,5	375	1325												
ПУ 150-40-07 ХЛ1			780	427,5	460	1485												
ПУ 150-63	150	63	Information available on request															
ПУ 150-63 лс																		
ПУ 150-63 нж																		
ПУ 150-63 нж1																		
ПУ 150-100	150	100	Information available on request															
ПУ 150-100 лс																		
ПУ 150-100 нж																		
ПУ 150-100 нж1																		
ПУ 200-6	200	6	780	390	460	1475	315	280	254	-	-	-	250	303	8	22	22	600
ПУ 200-6-01 нж																		
ПУ 200-6-02 нж1																		
ПУ 200-6-03 ХЛ1																		
ПУ 200-16	200	16	780	390	460	1485	335	295	266	-	-	-	250	311	12	22	26	600
ПУ 200-16-01 нж																		
ПУ 200-16-02 нж1																		
ПУ 200-16-03 ХЛ1																		
ПУ 200-25	200	25	Information available on request															
ПУ 200-25 лс																		
ПУ 200-25 нж																		
ПУ 200-25 нж1																		
ПУ 200-40	200	40	Information available on request															
ПУ 200-40-01																		
ПУ 200-40-02 нж																		
ПУ 200-40-03 нж																		
ПУ 200-40-04 нж1																		
ПУ 200-40-05 нж1																		
ПУ 200-40-06 лс																		
ПУ 200-40-07 лс																		
ПУ 200-63	200	63	Information available on request															
ПУ 200-63 лс																		
ПУ 200-63 нж																		
ПУ 200-63 нж1																		
ПУ 200-100	200	100	Information available on request															
ПУ 200-100 лс																		
ПУ 200-100 нж																		
ПУ 200-100 нж1																		

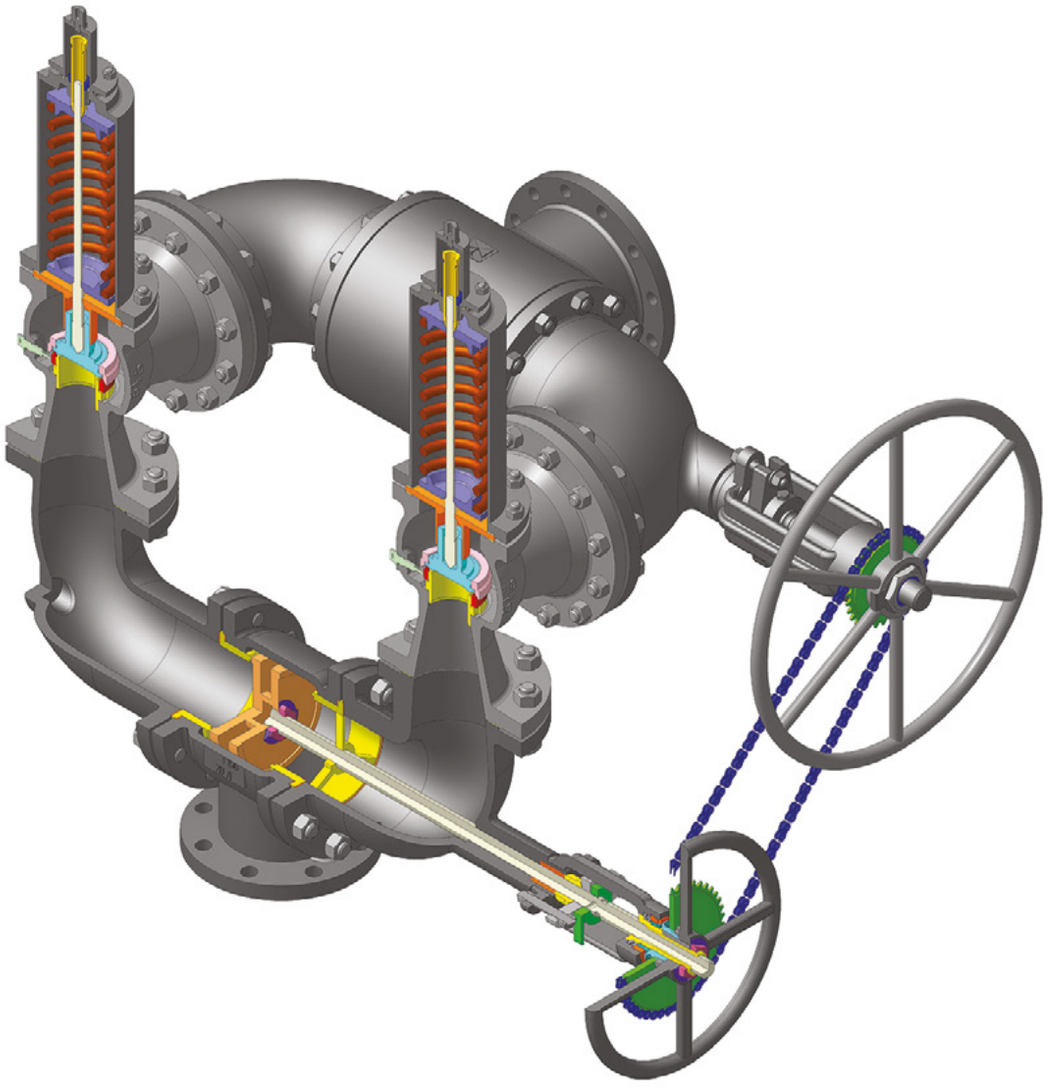
Switching Device and Matching Dimensions (in mm) (Conclusion)

Designation	DN, мм	PN, kgf/cm²	L	L_1	L_2	A	D	D_1	D_2	D_4	D_8	D_9	H	H_1	n, holes	d	b	D_m
ПУ 250-16	250	16	Information available on request															
ПУ 250-16 лс																		
ПУ 250-16 нж																		
ПУ 250-16 нж1																		
ПУ 300-6	300	6	780	390	460	1570	435	395	363	-	-	-	300	354	12	22	24	600
ПУ 300-6-01 нж																		
ПУ 300-6-02 нж1																		
ПУ 300-6-03 лс																		
ПУ 300-16	300	16	Information available on request															
ПУ 300-16-01																		
ПУ 300-16-02 лс																		
ПУ 300-16-03 лс																		
ПУ 300-16-04 нж																		
ПУ 300-16-05 нж																		
ПУ 300-16-06 нж1																		
ПУ 300-16-07 нж1																		
ПУ 300-25	300	25	Information available on request															
ПУ 300-25 лс																		
ПУ 300-25 нж																		
ПУ 300-25 нж1																		
ПУ 300-40	300	40	Information available on request															
ПУ 300-40 лс																		
ПУ 300-40 нж																		
ПУ 300-40 нж1																		
ПУ 300-63	300	63	Information available on request															
ПУ 300-63 лс																		
ПУ 300-63 нж																		
ПУ 300-63 нж1																		
ПУ 350-6	350	6	Information available on request															
ПУ 350-6 лс																		
ПУ 350-6 нж																		
ПУ 350-6 нж1																		
ПУ 350-16	350	16	Information available on request															
ПУ 350-16 лс																		
ПУ 350-16 нж																		
ПУ 350-16 нж1																		
ПУ 400-6	400	6	Information available on request															
ПУ 400-6 лс																		
ПУ 400-6 нж																		
ПУ 400-6 нж1																		
ПУ 400-16	400	16	Information available on request															
ПУ 400-16 лс																		
ПУ 400-16 нж																		
ПУ 400-16 нж1																		

Switching Device Datasheet No._____

Customer:		Location:
Project Reference:		Address:
Facility:		Phone, Fax
1	Item No.	
2	Arrangement	
3	Product Name	
4	Table of Figures	
5	Nominal Diameter (Design Bore), DN	
6	Pressure rating (Theoretical), PN, kgf/cm^2	
7	Application.	
8	Fluid temperature	between °C and °C
9	Minimum ambient air temperature	°C
10	Fluid chemistry, state	
11	Body component materials	
12	Service conditions are per GOST 15150-69	
13	Connection to pipeline referencing standards and sealing surface types	
14	Additional Requirements [ ] [ ] [ ] [ ] [ ] mass particulate concentration _____% H_2S _____% H_2O _____%	1. Impact bending test at a temperature of _____°C 2. Intergranular corrosion test 3. Seismic resistance 4. Testing for contaminants and particulates: for fluids with hydrogen sulfide – for hydrogen sulfide content, for chlorine – percentage moisture.
15	Supplemental delivery	1. Flanges (a specific number must be provided. If the need for such a delivery is agreed without the number being specified, only a single flange for the switching device inlet will be supplied) 2. Pins 3. Nuts 4. Gaskets 5. Others

Safety valve assemblies with switching devices



Safety valve assemblies with switching devices

Manufacture and delivery per TU 3742-015-07533604-2012, TU 3742-020-07533604-2013*, TU 28.14.11-031-07513604-2017

An assembly is designed to help the process operate continuously in pipelines, vessels, apparatuses, and process units in situations where service might require deactivation (closure) of a safety valve by cutting off fluid flow.

Safety valve assemblies with switching devices are equipped with a syncing unit that monitors that both the switching device closures move in unison deactivating one of the safety valves while activating the other, which is required for safety.

The sealing standard is assigned based on the leakage allowed for the safety valves.

Safety valve assemblies with switching devices are manufactured such that their flywheels are located on the right (as shown in Page 069), Upon customer request, safety valve assemblies may be manufactured with the flywheels mounted in the left.

An example designation of an assembly with safety valves SPPK4P 50-40 нж, 17нж25нж, with pressure setting Ps = 20 kgf/cm^2, a forced opening mechanism, and a switching device at the inlet ПУ 50-40-03 нж, 23нж17нж1; with a switching device at the outlet ПУ 80-16-02 нж, 23нж16нж1:

БПУ Р 50-40 нж, 50нж03нж1, Ps = 20 kgf/cm^2, ТУ 3742-015-07533604-2012

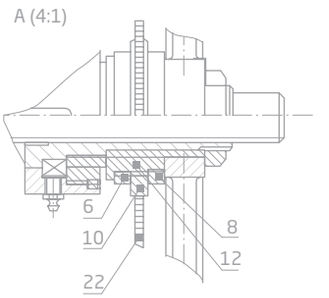
Upon customer request, an assembly may be manufactures with a single switching device on inlet or outlet only.

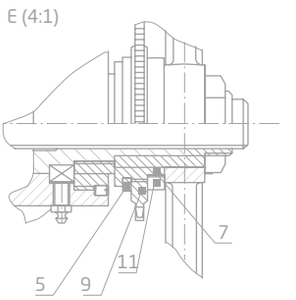
Safety valve assemblies with switching units must be selected based on the required safety valve as per the table entitled **"Principal Parameters of Safety Valve Assemblies with Switching Devices" shown in page 076.**

Safety valve assemblies with switching units designed for gaseous, flammable, explosive, and toxic fluids as well as steam must be tested with air following hydraulic testing. When ordering the following mention has to be made: "gas".

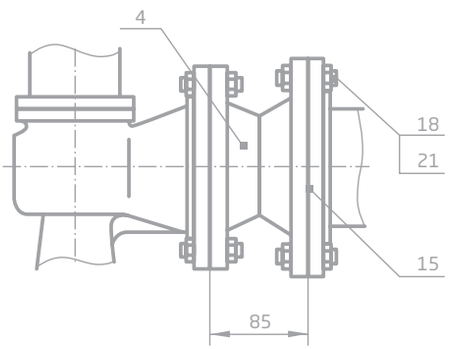
When making an order, the need to equip safety valve assemblies with matching flanges, gaskets, pins, and nuts must be mentioned explicitly.

АО BAZ reserves the right to use other materials that are permitted by the relevant requirements.



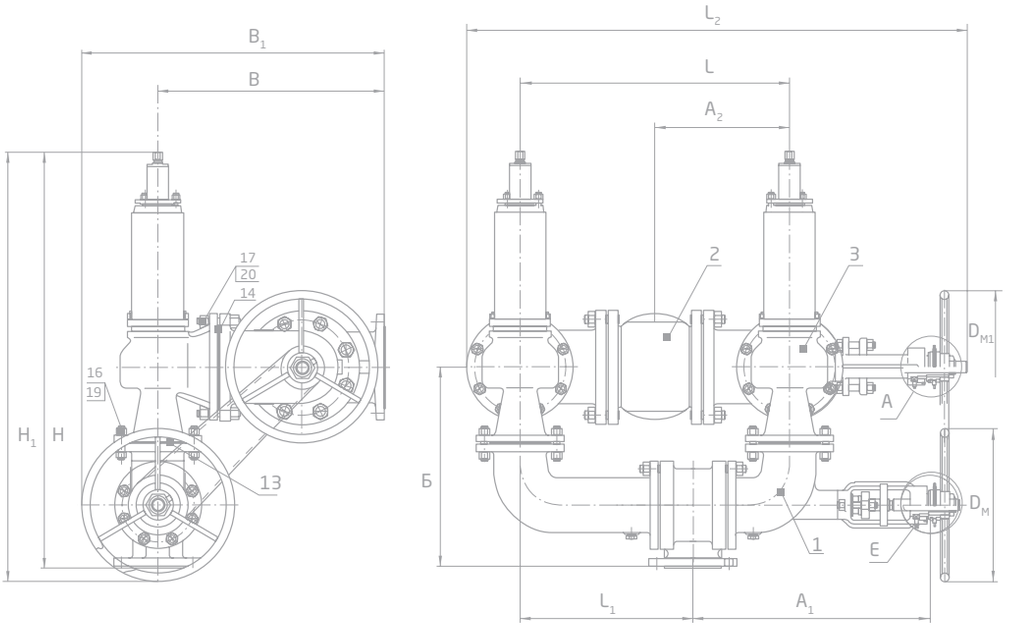


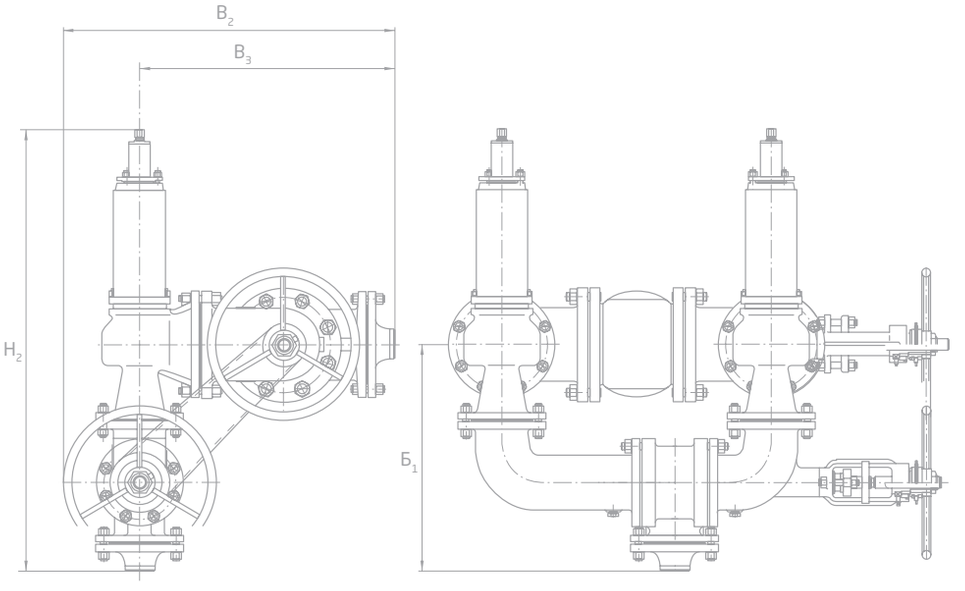
DN 25, PN 40 kgf/cm^2 (with adapter)



* Per Gazprom Corporate Standard STO 2-4.1-212-2008.

Principal Dimensions of Safety Valve Assemblies with Switching Devices (all dimensions for reference only)*





* Dimension B1 is limiting. When a flywheel projects beyond the switching device (outlet) flange, the relevant dimension shall be measured from the flywheel edge. Dimension B is measured from flange edge.

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	B	B_1	B_2	B_3	$D_м$	$D_{м1}$	H	H_1	H_2
БПУ 25-40	420	170	170	340	750	310	350	400	570	620	450	240	320	705	705	745
БПУ Р 25-40	420	170	170	340	750	310	350	400	570	620	450	240	320	750	750	790
БПУ 25-40 нж	420	170	170	340	750	310	350	400	570	620	450	240	320	695	685	735
БПУ Р 25-40 нж	420	170	170	340	750	310	350	400	570	620	450	240	320	735	695	775
БПУ С 25-40 нж1	420	170	170	340	750	370	350	400	570	620	450	240	320	718	720	755
БПУ РС 25-40 нж1	420	170	170	340	750	310	350	400	570	620	450	240	320	763	765	802
БПУ 25-40 лс	420	170	170	340	750	310	350	400	570	620	450	240	320	695	685	735
БПУ Р 25-40 лс	420	170	170	340	750	310	350	400	570	620	450	240	320	735	735	775
БПУ С 25-40 нж	420	170	170	340	750	310	350	400	570	620	450	240	320	720	720	760
БПУ С 25-40 лс	420	170	170	340	750	310	350	400	570	620	450	240	320	720	720	760
БПУ 50-16	420	215	260	430	850	365	415	430	600	640	470	320	320	765	820	815
БПУ Р 50-16	420	215	260	430	850	365	415	430	600	640	470	320	320	810	865	860
БПУ 50-16 нж	420	215	260	430	850	365	415	430	600	640	470	320	320	780	835	830
БПУ Р 50-16 нж	420	215	260	430	850	365	415	430	600	640	470	320	320	805	860	855
БПУ С 50-16 нж1	420	215	260	430	850	365	415	430	600	640	470	320	320	797	855	845
БПУ РС 50-16 нж1	420	215	260	430	850	365	415	430	600	640	470	320	320	842	895	890
БПУ 50-16 лс	420	215	260	430	850	365	415	430	600	640	470	320	320	730	835	830
БПУ Р 50-16 лс	420	215	260	430	850	365	415	430	600	640	470	320	320	805	860	855
БПУ 50-40	420	215	260	430	850	365	415	430	600	655	485	320	320	765	820	815
БПУ Р 50-40	420	215	260	430	850	365	415	430	600	655	485	320	320	810	865	860
БПУ 50-40 нж	420	215	260	430	850	365	415	430	600	655	485	320	320	780	835	830
БПУ Р 50-40 нж	420	215	260	430	850	365	415	430	600	655	485	320	320	805	860	855
БПУ С 50-40 нж1	420	215	260	430	850	365	415	430	600	655	485	320	320	797	855	845
БПУ РС 50-40 нж1	420	215	260	430	850	365	415	430	600	655	485	320	320	842	895	890
БПУ 50-40 лс	420	275	260	430	850	365	415	430	600	655	485	320	320	780	835	830
БПУ Р 50-40 лс	420	215	260	430	850	365	415	430	600	655	485	320	320	805	855	855
БПУ С 50-40 нж	420	215	260	430	850	365	415	430	600	655	485	320	320	800	855	850
БПУ С 50-40 лс	420	215	260	430	850	365	415	430	600	655	485	320	320	800	855	850
БПУ 50-63	465	215	215	430	870	520	590	445	655	713	505	400	320	1035	1055	1105
БПУ Р 50-63	465	215	215	430	870	520	590	445	655	713	505	400	320	1080	1100	1150
БПУ 50-63 нж	465	215	215	430	870	520	590	445	655	713	505	400	320	1035	1055	1105
БПУ Р 50-63 нж	465	215	215	430	870	520	590	445	655	713	505	400	320	1080	1100	1150
БПУ С 50-63 нж1	465	215	215	430	870	520	590	445	655	713	505	320	320	1066	1090	1136
БПУ РС 50-63 нж1	465	215	215	430	870	520	590	445	655	713	505	320	320	1110	1130	1180
БПУ 50-63 лс	465	215	215	430	870	520	590	445	655	713	505	400	320	1035	1055	1105
БПУ Р 50-63 лс	465	215	215	430	870	520	590	445	655	713	505	400	320	1080	1100	1150
БПУ С 50-63 нж	465	215	215	430	870	520	590	445	655	713	505	400	320	1060	1080	1130
БПУ С 50-63 лс	465	215	215	430	870	520	590	460	655	713	520	400	320	1050	1070	1120
БПУ 50-160	465	215	215	430	870	520	600	445	655	713	505	400	320	1035	1055	1115
БПУ Р 50-160	465	215	215	430	870	520	600	445	655	713	505	400	320	1080	1100	1160
БПУ 50-160 нж	465	215	215	430	870	520	600	445	655	713	505	400	320	1035	1055	1115
БПУ Р 50-160 нж	465	215	215	430	870	520	600	445	655	713	505	400	320	1080	1100	1160

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions) (Continued)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	В	B_1	B_2	B_3	$D_м$	$D_{м1}$	H	H_1	H_2
БПУ С 50-160 нж1	465	215	215	430	870	520	600	460	655	713	520	320	320	1066	1090	1145
БПУ РС 50-160 нж1	465	215	215	430	870	520	600	460	655	713	520	320	320	1110	1130	1190
БПУ 50-160 лс	465	215	215	430	870	520	600	445	655	713	505	400	320	1035	1055	1115
БПУ Р 50-160 лс	465	215	215	430	870	520	600	445	655	713	505	400	320	1080	1100	1160
БПУ С 50-160 нж	465	215	215	430	870	520	600	445	655	713	505	400	320	1060	1080	1140
БПУ С 50-160 лс	465	215	215	430	870	520	600	460	655	713	520	400	320	1050	1090	1130
БПУ 80-16	490	255	295	510	965	475	530	480	675	716	522	320	400	955	965	1010
БПУ Р 80-16	490	255	295	510	965	475	530	480	675	716	522	320	400	975	985	1030
БПУ 80-16 нж	490	255	295	510	965	475	530	480	675	716	522	320	400	950	960	1005
БПУ Р 80-16 нж	490	255	295	510	965	475	530	480	675	716	522	320	400	975	985	1030
БПУ С 80-16 нж1	490	255	295	510	965	475	530	480	675	716	522	320	400	960	970	1015
БПУ РС 80-16 нж1	490	255	295	510	965	475	530	480	675	716	522	320	400	1002	1015	1055
БПУ 80-16 лс	490	255	295	510	965	475	530	480	675	716	522	320	400	975	960	1010
БПУ Р 80-16 лс	490	255	295	510	965	475	530	480	675	716	522	320	400	975	985	1030
БПУ 80-40	490	255	295	510	965	475	535	480	675	730	535	320	400	950	960	1010
БПУ Р 80-40	490	255	295	510	965	475	535	480	675	730	535	320	400	975	985	1035
БПУ 80-40 нж	490	255	295	510	965	475	535	480	675	730	535	320	400	950	960	1010
БПУ Р 80-40 нж	490	255	295	510	965	475	535	480	675	730	535	320	400	975	985	1035
БПУ С 80-40 нж1	490	255	295	510	965	475	535	480	675	730	535	320	400	960	970	1020
БПУ РС 80-40 нж1	490	255	295	510	965	475	535	480	675	730	535	320	400	1002	1015	1060
БПУ 80-40 лс	490	255	295	510	965	475	535	480	675	730	535	320	400	950	960	1010
БПУР 80-40 лс	490	255	295	510	965	475	535	480	675	730	535	320	400	975	985	1035
БПУ С 80-40 нж	490	255	295	510	965	475	535	480	675	730	535	320	400	950	960	1010
БПУ С 80-40 лс	490	255	295	510	965	450	535	495	675	730	535	320	400	965	975	1025
БПУ 80-63	630	255	255	510	1085	595	670	495	730	800	565	400	400	1115	1115	1190
БПУ Р 80-63	630	255	255	510	1085	595	670	495	730	800	565	400	400	1160	1160	1235
БПУ 80-63 нж	630	255	255	510	1085	595	670	495	730	800	565	400	400	1115	1115	1190
БПУ Р 80-63 нж	630	255	255	510	1085	595	670	495	730	800	565	400	400	1160	1160	1235
БПУ С 80-63 нж1	630	255	255	510	1085	595	670	495	730	800	565	400	400	1110	1110	1185
БПУ РС 80-63 нж1	630	255	255	510	1085	595	670	495	730	800	565	400	400	1155	1155	1230
БПУ 80-63 лс	630	255	255	510	1085	595	670	495	730	800	565	400	400	1115	1115	1190
БПУ Р 80-63 лс	630	255	255	510	1085	595	670	495	730	800	565	400	400	1160	1160	1235
БПУ 80-160	630	255	255	510	1085	595	690	495	730	800	565	400	400	1115	1115	1210
БПУ Р 80-160	630	255	255	510	1085	595	690	495	730	800	565	400	400	1160	1160	1255
БПУ 80-160 нж	630	255	255	510	1085	595	690	495	730	800	565	400	400	1115	1115	1210
БПУ Р 80-160 нж	630	255	255	510	1085	595	690	495	730	800	565	400	400	1160	1160	1255
БПУ С 80-160 нж1	630	255	255	510	1085	595	690	495	730	800	565	400	400	1110	1110	1205
БПУ РС 80-160 нж1	630	255	255	510	1085	595	690	495	730	800	565	400	400	1155	1155	1250
БПУ 80-160 лс	630	255	255	510	1085	595	690	495	730	800	565	400	400	1115	1115	1210
БПУ Р 80-160 лс	630	255	255	510	1085	595	690	495	730	800	565	400	400	1160	1160	1255
БПУ 100-16	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1095	1115
БПУ Р 100-16	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1100	1135	1155
БПУ 100-16 нж	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1095	1115

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions) (Continued)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	B	B_1	B_2	B_3	D_M	D_{M1}	H	H_1	H_2
БПУ Р 100-16 нж	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1100	1135	1155
БПУ С 100-16 нж1	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1160	1115
БПУ РС 100-16 нж1	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1095	1195	1150
БПУ 100-16 лс	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1095	1115
БПУ Р 100-16 лс	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1100	1135	1155
БПУ 100-40	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1095	1130
БПУ Р 100-40	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1100	1135	1170
БПУ 100-40 нж	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1095	1130
БПУ Р 100-40 нж	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1100	1135	1170
БПУ С 100-40 нж1	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1160	1130
БПУ РС 100-40 нж1	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1095	1195	1165
БПУ 100-40 лс	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1095	1130
БПУ Р 100-40 лс	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1100	1135	1170
БПУ С 100-40 нж	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1130	1130
БПУ С 100-40 лс	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1130	1130
БПУ 100-63	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ 100-63-01	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ Р 100-63	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ Р 100-63-01	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ 100-63 нж	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ 100-63 нж1	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ Р 100-63 нж	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ Р 100-63 нж1	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ С 100-63 нж1	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1365	1520	1445
БПУ РС 100-63 нж1	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1410	1580	1490
БПУ 100-63 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ 100-63-01 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1406	1490	1486
БПУ Р 100-63 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ Р 100-63-01 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1462	1545	1542
БПУ С 100-63 нж	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1405	1520	1485
БПУ С 100-63 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1438	1520	1518
БПУ 100-160	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1406	1490	1510
БПУ 100-160-01	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1406	1490	1510
БПУ Р 100-160	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1462	1545	1565
БПУ Р 100-160-01	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1462	1545	1565
БПУ 100-160 нж	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1406	1490	1510
БПУ 100-160 нж1	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1365	1490	1468
БПУ Р 100-160 нж	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1462	1545	1565
БПУ Р 100-160 нж1	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1410	1545	1515
БПУ С 100-160 нж1	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1365	1520	1468
БПУ РС 100-160 нж1	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1410	1580	1515
БПУ 100-160 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1406	1490	1510

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions) (Continued)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	В	B_1	B_2	B_3	D_M	D_{M1}	H	H_1	H_2
БПУ 100-160-01 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1406	1490	1510
БПУ Р 100-160 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1462	1545	1565
БПУ Р 100-160-01 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1462	1545	1565
БПУ С 100-160 нж	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1440	1520	1545
БПУ С 100-160 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1438	1520	1541
БПУ 150-16М	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1380	1380	1440
БПУ 150-16М1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1304	1304	1364
БПУ Р 150-16М	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1300	1300	1405
БПУ Р 150-16М1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1388	1388	1450
БПУ 150-16 нж	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1300	1300	1360
БПУ Р 150-16 нж	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1380	1380	1485
БПУ С 150-16 нж1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1324	1324	1384
БПУ РС 150-16 нж1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1367	1367	1430
БПУ 150-16 лс	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1300	1300	1360
БПУ 150-16М1 ХЛ1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1304	1304	1365
БПУ Р 150-16 лс	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1380	1380	1485
БПУ Р 150-16М1 ХЛ1	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1388	1388	1450
БПУ С 150-16 нж	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1315	1315	1375
БПУ С 150-16 лс	812,5	390	427,5	780	1535	645	730	730	955	1010	760	400	600	1315	1315	1375
БПУ 150-40	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1300	1300	1372
БПУ Р 150-40	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1380	1380	1497
БПУ 150-40 нж	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1300	1300	1372
БПУ Р 150-40 нж	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	540	1380	1380	1497
БПУ С 150-40 нж1	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1324	1324	1393
БПУ РС 150-40 нж1	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1367	1367	1439
БПУ 150-40 лс	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1300	1300	1372
БПУ Р 150-40 лс	812,5	390	427,5	705	1535	530	742	600	955	1017	767	400	400	1380	1380	1497
БПУ С 150-40 нж	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1295	1295	1367
БПУ С 150-40 лс	812,5	390	427,5	780	1535	645	742	730	955	1017	767	400	600	1315	1315	1387
БПУ 200-16	860	390	390	780	1570	820	883	880	1180	1235	935	600	600	1500	1550	1562
БПУ 200-16М	860	390	390	780	1570	820	883	880	1180	1235	935	600	600	1675	1725	1737
БПУ Р 200-16	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1560	1610	1667
БПУ Р 200-16М	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1760	1810	1822
БПУ 200-16 нж	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1670	1720	1732
БПУ Р 200-16 нж	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1750	1800	1857
БПУ С 200-16 нж1	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1527	1580	1588
БПУ РС 200-16 нж1	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1570	1620	1631
БПУ 200-16 лс	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1670	1720	1732
БПУ 200-16М ХЛ1	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1675	1725	1737
БПУ Р 200-16 лс	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1750	1800	1857
БПУ Р 200-16М ХЛ1	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1760	1810	1822
БПУС 200-16 нж	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1540	1590	1602

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions) (Continued)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	В	B_1	B_2	B_3	$D_м$	$D_{м1}$	H	H_1	H_2
БПУ С 200-16 лс	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1540	1590	1602
БПУ С 25-40	420	170	170	340	750	310	350	400	570	620	450	240	320	720	720	755
БПУ РС 25-40	420	170	170	340	750	310	350	400	570	620	450	240	320	763	765	802
БПУ РС 25-40 лс	420	170	170	340	750	310	350	400	570	620	450	240	320	763	765	802
БПУ РС 25-40 нж	420	170	170	340	750	310	350	400	570	620	450	240	320	763	765	802
БПУ С 50-16	420	215	260	430	850	365	415	430	600	640	470	320	320	797	855	845
БПУ РС 50-16	420	215	260	430	850	365	415	430	600	640	470	320	320	842	895	890
БПУ С 50-16 лс	420	215	260	430	850	365	415	430	600	640	470	320	320	797	855	845
БПУ РС 50-16 лс	420	215	260	430	850	365	415	430	600	640	470	320	320	842	895	890
БПУ С 50-16 нж	420	215	260	430	850	365	415	430	600	640	470	320	320	797	855	845
БПУ РС 50-16 нж	420	215	260	430	850	365	415	430	600	640	470	320	320	842	895	890
БПУ С 50-40	420	215	260	430	850	365	415	430	600	655	485	320	320	800	855	845
БПУ РС 50-40	420	215	260	430	850	365	415	430	600	655	485	320	320	842	895	890
БПУ РС 50-40 лс	420	215	260	430	850	365	415	430	600	655	485	320	320	842	895	890
БПУ РС 50-40 нж	420	215	260	430	850	365	415	430	600	655	485	320	320	842	895	890
БПУ С 50-63	465	215	215	430	870	520	590	445	655	713	505	320	320	1066	1090	1136
БПУ РС 50-63	465	215	215	430	870	520	590	445	655	713	505	320	320	1110	1130	1180
БПУ РС 50-63 лс	465	215	215	430	870	520	590	445	655	713	505	320	320	1110	1130	1180
БПУ РС 50-63 нж	465	215	215	430	870	520	590	445	655	713	505	320	320	1110	1130	1180
БПУ С 50-160	465	215	215	430	870	520	600	460	655	713	520	320	320	1066	1090	1145
БПУ РС 50-160	465	215	215	430	870	520	600	460	655	713	520	320	320	1110	1130	1190
БПУ РС 50-160 лс	465	215	215	430	870	520	600	460	655	713	520	320	320	1110	1130	1190
БПУ РС 50-160 нж	465	215	215	430	870	520	600	460	655	713	520	320	320	1110	1130	1190
БПУ С 80-16	490	255	295	510	965	475	530	480	675	716	522	320	400	960	970	1015
БПУ РС 80-16	490	255	295	510	965	475	530	480	675	716	522	320	400	1002	1015	1055
БПУ С 80-16 лс	490	255	295	510	965	475	530	480	675	716	522	320	400	960	970	1015
БПУ РС 80-16 лс	490	255	295	510	965	475	530	480	675	716	522	320	400	1002	1015	1055
БПУ С 80-16 нж	490	255	295	510	965	475	530	480	675	716	522	320	400	960	970	1015
БПУ РС 80-16 нж	490	255	295	510	965	475	530	480	675	716	522	320	400	1002	1015	1055
БПУ С 80-40	490	255	295	510	965	475	535	480	675	730	535	320	400	960	970	1020
БПУ РС 80-40	490	255	295	510	965	475	535	480	675	730	535	320	400	1002	1015	1060
БПУ РС 80-40 лс	490	255	295	510	965	475	535	480	675	730	535	320	400	1002	1015	1060
БПУ РС 80-40 нж	490	255	295	510	965	475	535	480	675	730	535	320	400	1002	1015	1060
БПУ С 80-63	630	255	255	510	1085	595	670	495	730	800	565	400	400	1110	1110	1185
БПУ РС 80-63	630	255	255	510	1085	595	670	495	730	800	565	400	400	1155	1155	1230
БПУ С 80-63 лс	630	255	255	510	1085	595	670	495	730	800	565	400	400	1110	1110	1185
БПУ РС 80-63 лс	630	255	255	510	1085	595	670	495	730	800	565	400	400	1155	1155	1230
БПУ С 80-63 нж	630	255	255	510	1085	595	670	495	730	800	565	400	400	1110	1110	1185
БПУ РС 80-63 нж	630	255	255	510	1085	595	670	495	730	800	565	400	400	1155	1155	1230

Principal Dimensions of Safety Valve Assemblies with Switching Devices (Reference Dimensions) (Conclusion)

Item Designation	Dimensions, mm															
	A_1	A_2	L_1	L	L_2	Б	$Б_1$	В	B_1	B_2	B_3	$D_м$	$D_{м1}$	H	H_1	H_2
БПУ С 80-160	630	255	255	510	1085	595	690	495	730	800	565	400	400	1110	1110	1205
БПУ РС 80-160	630	255	255	510	1085	595	690	495	730	800	565	400	400	1155	1155	1250
БПУ С 80-160 лс	630	255	255	510	1085	595	690	495	730	800	565	400	400	1110	1110	1205
БПУ РС 80-160 лс	630	255	255	510	1085	595	690	495	730	800	565	400	400	1155	1155	1250
БПУ С 80-160 нж	630	255	255	510	1085	595	690	495	730	800	565	400	400	1110	1110	1205
БПУ РС 80-160 нж	630	255	255	510	1085	595	690	495	730	800	565	400	400	1155	1155	1250
БПУ С 100-16	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1160	1115
БПУ РС 100-16	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1095	1195	1150
БПУ С 100-16 лс	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1160	1115
БПУ РС 100-16 лс	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1095	1195	1150
БПУ С 100-16 нж	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1060	1160	1115
БПУ РС 100-16 нж	630	352,5	450	705	1315	530	585	600	600	660	660	400	400	1095	1195	1150
БПУ С 100-40	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1060	1160	1130
БПУ РС 100-40	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1095	1195	1165
БПУ РС 100-40 лс	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1095	1195	1165
БПУ РС 100-40 нж	630	352,5	450	705	1315	530	600	600	600	660	660	400	400	1095	1195	1165
БПУ С 100-63	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1365	1520	1445
БПУ РС 100-63	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1410	1580	1490
БПУ РС 100-63 лс	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1410	1580	1490
БПУ РС 100-63 нж	727,5	352,5	352,5	705	1315	685	765	675	974	1045	746	600	400	1410	1580	1490
БПУ С 100-160	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1365	1520	1468
БПУ РС 100-160	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1410	1580	1515
БПУ РС 100-160 лс	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1410	1580	1515
БПУ РС 100-160 нж	727,5	352,5	352,5	705	1315	685	790	675	974	1045	746	600	400	1410	1580	1515
БПУ С 150-16	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1324	1324	1384
БПУ РС 150-16	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1367	1367	1430
БПУ РС 150-16 лс	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1367	1367	1430
БПУ РС 150-16 нж	812,5	390	427,5	780	1535	670	730	705	955	1010	760	400	600	1367	1367	1430
БПУ С 150-40	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1324	1324	1393
БПУ РС 150-40	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1367	1367	1439
БПУ РС 150-40 лс	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1367	1367	1439
БПУ РС 150-40 нж	812,5	390	427,5	780	1535	670	742	705	955	1017	767	400	600	1367	1367	1439
БПУ С 200-16	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1527	1580	1588
БПУ РС 200-16	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1570	1620	1631
БПУ РС 200-16 лс	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1570	1620	1631
БПУ РС 200-16 нж	850	390	390	780	1570	820	883	880	1180	1235	935	600	600	1570	1620	1631

ANY SAFETY VALVE ASSEMBLY DIMENSIONS NOT SHOWN IN THE TABLE ARE PROVIDED ON REQUEST.

Principal Parameters of Safety Valve Assemblies with Switching Devices

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 25-40	50с01нж	SPPK4 25-40 (17с14нж) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)	25/50	40/16	Between -40 and 450	20Л	120	123.5
БПУ 25-40 лс	50лс01нж	SPPK4 25-40 лс (17лс14нж) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 25-40-Н лс	50лс01нж4	SPPK4 25-40-Н лс (17лс14нж8) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)						
БПУ 25-40 нж	50нж01нж	SPPK4 25-40 нж (17нж14нж) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 25-40	50с01нж2	SPPK4C 25-40 (17с14нж1) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)			Between -40 and 450	20Л	121	128.5
БПУ С 25-40 лс	50лс01нж2	SPPK4C 25-40 лс (17лс14нж1) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 25-40-Н лс	50лс01нж6	SPPK4C 25-40-Н лс (17лс14нж2) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)						
БПУ С 25-40 нж	50нж01нж4	SPPK4C 25-40 нж (17нж14нж1) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			Between -110 and 600	12Х18Н9ТЛ		
БПУ С 25-40 нж1	50нж01нж2	SPPK5C 25-40 нж1 (28нж21нж) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-16-04 нж1 (23нж16нж2)			Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 25-40	50с01нж1	SPPK4P 25-40 (17с25нж) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)			Between -40 and 450	20Л	131	134.5
БПУ Р 25-40 лс	50лс01нж1	SPPK4P 25-40 лс (17лс25нж) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 25-40-Н лс	50лс01нж5	SPPK4P 25-40-Н лс (17лс25нж8) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)						
БПУ Р 25-40 нж	50нж01нж1	SPPK4P 25-40 нж (17нж25нж) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-40	50с01нж3	SPPK4PC 25-40 (17с25нж1) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)			Between -40 and 450	20Л	131	134.5
БПУ РС 25-40 лс	50лс01нж3	SPPK4PC 25-40 лс (17лс25нж1) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ	131	134.5
БПУ РС 25-40-Н лс	50лс01нж7	SPPK4PC 25-40-Н лс (17лс25нж2) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)						
БПУ РС 25-40 нж	50нж01нж5	SPPK4PC 25-40 нж (17нж25нж1) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-40 нж1	50нж01нж3	SPPK5PC 25-40 нж1 (28нж21нж1) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 25-63	Information available on request	Information available on request	25/50	63/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 25-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 25-63-Н лс								
БПУ 25-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 25-63					Between -40 and 450	20Л		
БПУ С 25-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 25-63-Н лс								
БПУ С 25-63 нж					Between -110 and 600	12Х18Н9ТЛ		
БПУ С 25-63 нж1					Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 25-63					Between -40 and 450	20Л		
БПУ Р 25-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 25-63-Н лс								
БПУ Р 25-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-63					Between -40 and 450	20Л		
БПУ РС 25-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 25-63-Н лс								
БПУ РС 25-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-63 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 25-100	50с17нж	SPPK4 25-100 (17с84нж1) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)		100/40	Between -40 and 450	20Л	142	149.5
БПУ 25-100 лс	50лс17нж	SPPK4 25-100 лс (17лс84нж1) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 25-100-Н лс	50лс17нж1	SPPK4 25-100-Н лс (17лс84нж2) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ 25-100 нж	50нж17нж	SPPK4 25-100 нж (17нж84нж1) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 25-100	50с17нж1	SPPK4C 25-100 (17с84нж2) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)		100/63	Between -40 and 450	20Л	145	152.5
БПУ С 25-100 лс	50лс17нж2	SPPK4C 25-100 лс (17лс84нж3) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 25-100-Н лс	50лс17нж3	SPPK4C 25-100-Н лс (17лс84нж4) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ С 25-100 нж	50нж17нж1	SPPK4C 25-100 нж (17нж84нж2) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			Between -110 and 600	12Х18Н9ТЛ		
БПУ С 25-100 нж1	50нж17нж2	SPPK5C 25-100 нж1 (17нж84нж3) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)			Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 25-100	50с17нж2	SPPK4P 25-100 (17с84нж3) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			Between -40 and 450	20Л	150	157.5
БПУ Р 25-100 лс	50лс17нж4	SPPK4P 25-100 лс (17лс84нж5) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 25-100-Н лс	50лс17нж5	SPPK4P 25-100-H лс (17лс84нж6) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)	25/50	100/63	Between -60 and 450	20ГЛ/20ГМЛ	150	157.5
БПУ Р 25-100 нж	50нж17нж3	SPPK4P 25-100 нж (17нж84нж4) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-100	50с17нж3	SPPK4PC 25-100 (17с84нж4) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			Between -40 and 450	20Л	153	160.5
БПУ РС 25-100 лс	50лс17нж6	SPPK4PC 25-100 лс (17лс84нж7) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 25-100-Н лс	50лс17нж7	SPPK4PC 25-100-H лс (17лс84нж8) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ РС 25-100 нж	50нж17нж4	SPPK4PC 25-100 нж (17нж84нж5) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-100 нж1	50нж17нж5	SPPK5PC 25-100 нж1 (17нж84нж6) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 25-160	50с18нж	SPPK4 25-160 (17с9нж) ПУ 25-160 (23с22нж) ПУ 50-40-01 (23с17нж1)		160/40	Between -40 and 450	20Л	142	149.5
БПУ 25-160 лс	50лс18нж	SPPK4 25-160 лс (17лс9нж) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 25-160-Н лс	50лс18нж1	SPPK4 25-160-H лс (17лс9нж8) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ 25-160 нж	50нж18нж	SPPK4 25-160 нж (17нж9нж) ПУ 25-160 нж (23нж22нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 25-160	50с18нж1	SPPK4C 25-160 (17с9нж1) ПУ 25-160 (23с22нж) ПУ 50-40-01 (23с17нж1)			Between -40 and 450	20Л	145	152.5
БПУ С 25-160 лс	50лс18нж2	SPPK4C 25-160 лс (17лс9нж1) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 25-160-Н лс	50лс18нж3	SPPK4C 25-160-H лс (17лс9нж2) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ С 25-160 нж	50нж18нж1	SPPK4C 25-160 нж (17нж9нж1) ПУ 25-160 нж (23нж22нж) ПУ 50-40-03 нж (23нж17нж1)			Between -110 and 600	12Х18Н9ТЛ		
БПУ С 25-160 нж1	50нж18нж2	SPPK5C 25-160 нж1 (17нж9нж2) ПУ 25-160 нж1 (23нж22нж1) ПУ 50-40-05 нж1 (23нж17нж3)			Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 25-160	50с18нж2	SPPK4P 25-160 (17с9нж2) ПУ 25-160 (23с22нж) ПУ 50-40-01 (23с17нж1)			Between -40 and 450	20Л	150	157.5
БПУ Р 25-160 лс	50лс18нж4	SPPK4P 25-160 лс (17лс9нж3) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 25-160-Н лс	50лс18нж5	SPPK4P 25-160-Н лс (17лс9нж4) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)	25/50	160/40	Between -60 and 450	20ГЛ/20ГМЛ	150	157.5
БПУ Р 25-160 нж	50нж18нж3	SPPK4P 25-160 нж (17нж9нж2) ПУ 25-160 нж (23нж22нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-160	50с18нж3	SPPK4PC 25-160 (17с9нж3) ПУ 25-160 (23с22нж) ПУ 50-40-01 (23с17нж1)			Between -40 and 450	20Л	153	160.5
БПУ РС 25-160 лс	50лс18нж6	SPPK4PC 25-160 лс (17лс9нж5) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 25-160-Н лс	50лс18нж7	SPPK4PC 25-160-Н лс (17лс9нж6) ПУ 25-160 лс (23лс22нж) ПУ 50-40-07 лс (23лс17нж1)						
БПУ РС 25-160 нж	50нж18нж4	SPPK4PC 25-160 нж (17нж9нж3) ПУ 25-160 нж (23нж22нж) ПУ 50-40-03 нж (23нж17нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-160 нж1	50нж18нж5	SPPK5PC 25-160 нж1 (17нж9нж4) ПУ 25-160 нж1 (23нж22нж1) ПУ 50-40-05 нж1 (23нж17нж3)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 25-250	Information available on request	Information available on request		250/63	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 25-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 25-250-Н лс								
БПУ 25-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 25-250					Between -40 and 450	20Л		
БПУ С 25-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 25-250-Н лс								
БПУ С 25-250 нж					Between -110 and 600	12Х18Н9ТЛ		
БПУ С 25-250 нж1					Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 25-250					Between -40 and 450	20Л		
БПУ Р 25-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 25-250-Н лс								
БПУ Р 25-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-250					Between -40 and 450	20Л		
БПУ РС 25-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 25-250-Н лс								
БПУ РС 25-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 25-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 50-16	50с02нж	SPPK4 50-16 (17с7нж) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)	50/80	16/6	Between -40 and 450	20Л	154	159.5
БПУ 50-16 лс	50лс02нж	SPPK4 50-16 лс (17лс13нж) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-16-Н лс	50лс02нж4	SPPK4 50-16-Н лс (17лс13нж8) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)						
БПУ 50-16 нж	50нж02нж	SPPK4 50-16 нж (17нж13нж) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ С 50-16	50с02нж2	SPPK4C 50-16 (17с7нж1) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)	50/80	16/6	Between -40 and 450	20Л	155	160.5
БПУ С 50-16 лс	50лс02нж2	SPPK4C 50-16 лс (17лс13нж1) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-16-Н лс	50лс02нж4	SPPK4C 50-16-Н лс (17лс13нж10) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)						
БПУ С 50-16 нж	50нж02нж4	SPPK4C 50-16 нж (17нж13нж1) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			Between -110 and 600	12Х18Н9ТЛ		
БПУ С 50-16 нж1	50нж02нж2	SPPK5C 50-16 нж1 (28нж20нж) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-6-02 нж1 (23нж18нж1)			Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-16	50с02нж1	SPPK4P 50-16 (17с6нж) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)			Between -40 and 450	20Л	160	165.5
БПУ Р 50-16 лс	50лс02нж1	SPPK4P 50-16 лс (17лс17нж) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-16-Н лс	50лс02нж5	SPPK4P 50-16-Н лс (17лс17нж8) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)						
БПУ Р 50-16 нж	50нж02нж1	SPPK4P 50-16 нж (17нж17нж) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-16	50с02нж3	SPPK4PC 50-16 (17с6нж1) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)			Between -40 and 450	20Л	165	170.5
БПУ РС 50-16 лс	50лс02нж3	SPPK4PC 50-16 лс (17лс17нж1) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-16-Н лс	50лс05нж3	SPPK4PC 50-16 лс (17лс13нж11) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)						
БПУ РС 50-16 нж	50нж02нж5	SPPK4PC 50-16 нж (17нж17нж1) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-16 нж1	50нж02нж3	SPPK5PC 50-16 нж1 (28нж20нж1) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 50-25	Information available on request	Information available on request		25/16	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 50-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-25-Н лс								
БПУ 50-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-25					Between -40 and 450	20Л		
БПУ С 50-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-25-Н лс								
БПУ С 50-25 нж					Between -110 and 600	12Х18Н9ТЛ		
БПУ С 50-25 нж1					Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-25					Between -40 and 450	20Л		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 50-25 лс	Information available on request	Information available on request	50/80	25/16	Between -60 and 450	20ГЛ/20ГМЛ	Information available on request	Information available on request
БПУ Р 50-25-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 50-25 нж					Between -40 and 450	20Л		
БПУ РС 50-25					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-25 лс								
БПУ РС 50-25-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-25 нж					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 50-25 нж1								
БПУ 50-40	50с03нж	SPPK4 50-40 (17с23нж) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)		40/16	Between -40 and 450	20Л	165	172.5
БПУ 50-40 лс	50лс03нж	SPPK4 50-40 лс (17лс14нж) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-40-Н лс	50лс03нж4	SPPK4 50-40-Н лс (17лс14нж9) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)						
БПУ 50-40 нж	50нж03нж	SPPK4 50-40 нж (17нж14нж) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-40	50с03нж3	SPPK4C 50-40 (17с23нж1) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	160	167.5
БПУ С 50-40 лс	50лс03нж2	SPPK4C 50-40 лс (17лс14нж1) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-40-Н лс	50лс03нж6	SPPK4C 50-40-Н лс (17лс14нж10) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)						
БПУ С 50-40 нж	50нж03нж4	SPPK4C 50-40 нж (17нж14нж1) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж)			Between -110 and 600	12Х18Н9ТЛ		
БПУ С 50-40 нж1	50нж03нж2	SPPK5C 50-40 нж1 (28нж21нж) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-16-04 нж1 (23нж16нж2)			Between -110 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-40	50с03нж1	SPPK4P 50-40 (17с21нж) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	165	172.5
БПУ Р 50-40 лс	50лс03нж1	SPPK4P 50-40 лс (17лс25нж) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-40-Н лс	50лс03нж5	SPPK4P 50-40-Н лс (17лс25нж9) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)						
БПУ Р 50-40 нж	50нж03нж1	SPPK4P 50-40 нж (17нж25нж) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-40	50с03нж2	SPPK4PC 50-40 (17с21нж1) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	167	174.5
БПУ РС 50-40 лс	50лс03нж3	SPPK4PC 50-40 лс (17лс25нж2) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-40-Н лс	50лс03нж7	SPPK4PC 50-40-Н лс (17лс25нж11) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)						

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ РС 50-40 нж	50нж03нж5	SPPK4PC 50-40 нж (17нж25нж2) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)	50/80	40/16	Between -60 and 600	12Х18Н9ТЛ	167	174.5
БПУ РС 50-40 нж1	50нж03нж3	SPPK5PC 50-40 нж1 (28нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 50-40-01	50с03нж3	SPPK5 50-40 (28с32нж) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	168.5	176
БПУ 50-40-01 лс	50лс03нж8	SPPK5 50-40 ХЛ (28лс32нж) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-40-01	50с03нж4	SPPK5P 50-40 (28с32нж1) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	169.5	177
БПУ Р 50-40-01 лс	50лс03нж9	SPPK5P 50-40 ХЛ (28лс32нж1) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-40-01	50с03нж5	SPPK5C 50-40 (28с32нж2) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	170.5	178
БПУ С 50-40-01 лс	50лс03нж10	SPPK5C 50-40 ХЛ (28лс32нж2) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-40-01	50с03нж6	SPPK5PC 50-40 (28с32нж3) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			Between -40 and 450	20Л	175.5	183
БПУ РС 50-40-01 лс	50лс03нж11	SPPK5PC 50-40 ХЛ (28лс32нж3) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-40-02	50с03нж7	SPPK5 50-40-01 (28с32нж4) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)		40/40	Between -40 and 450	20Л	170.5	179.5
БПУ 50-40-02 лс	50лс03нж12	SPPK5 50-40-01 ХЛ (28лс32нж4) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-40-02	50с03нж8	SPPK5P 50-40-01 (28с32нж5) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	171.5	180.5
БПУ Р 50-40-02 лс	50лс03нж13	SPPK5P 50-40-01 ХЛ (28лс32нж5) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-40-02	50с03нж9	SPPK5C 50-40-01 (28с32нж6) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	172.5	181.5
БПУ С 50-40-02 лс	50лс03нж14	SPPK5C 50-40-01 ХЛ (28лс32нж6) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-40-02	50с03нж10	SPPK5PC 50-40-01 (28с32нж7) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	177.5	186.5
БПУ РС 50-40-02 лс	50лс03нж15	SPPK5PC 50-40-01 ХЛ (28лс32нж7) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 50-63	50с04нж	SPPK5 50-63 (17с16нж1) ПУ 50-63 (23с20нж) ПУ 80-40 (23с17нж)	50/80	63/40	Between -40 and 450	20Л	270	280
БПУ 50-63 лс	50лс04нж	SPPK5 50-63 лс (17лс85нж) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-63-Н лс	50лс04нж4	SPPK5 50-63-Н лс (17лс89нж9) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ 50-63 нж	50нж04нж	SPPK5 50-63 нж (17нж16нж1) ПУ 50-63-01 нж (23нж20нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-63	50с04нж2	SPPK5C 50-63 (17с16нж3) ПУ 50-63 (23с20нж) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	252	262
БПУ С 50-63 лс	50лс04нж2	SPPK5C 50-63 лс (17лс16нж) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-63-Н лс	50лс04нж5	SPPK5C 50-63-Н лс (17лс89нж10) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	252	262
БПУ С 50-63 нж	50нж04нж4	SPPK5C 50-63 нж (17нж16нж1) ПУ 50-63-01 нж (23нж20нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-63 нж1	50нж04нж2	SPPK5C 50-63 нж1 (28нж22нж) ПУ 50-63-02 нж1 (23нж20нж1) ПУ 80-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-63	50с04нж1	SPPK5P 50-63 (17с16нж) ПУ 50-63 (23с20нж) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	275	285
БПУ Р 50-63 лс	50лс04нж1	SPPK5P 50-63 лс (17лс89нж) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-63-Н лс	50лс04нж3	SPPK5P 50-63-Н лс (17лс89нж8) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ Р 50-63 нж	50нж04нж1	SPPK5P 50-63 нж (17нж16нж) ПУ 50-63-01 нж (23нж20нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-63	50с04нж3	SPPK5PC 50-63 (17с16нж2) ПУ 50-63 (23с20нж) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	260	270
БПУ РС 50-63 лс	50лс04нж3	SPPK5PC 50-63 лс (17лс89нж1) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-63-Н лс	50лс04нж6	SPPK5PC 50-63 лс (17лс89нж10) ПУ 50-63-03 ХЛ1 (23лс20нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ РС 50-63 нж	50нж04нж5	SPPK5PC 50-63 нж (17нж89нж2) ПУ 50-63-01 нж (23нж20нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-63 нж1	50нж04нж3	SPPK5PC 50-63 нж1 (28нж22нж1) ПУ 50-63-02 нж1 (23нж20нж1) ПУ 80-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 50-100	Information available on request	Information available on request	50/80	100/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 50-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-100-Н лс								
БПУ 50-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-100	Information available on request	Information available on request			Between -40 and 450	20Л		
БПУ С 50-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-100-Н лс								
БПУ С 50-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-100 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-100					Between -40 and 450	20Л		
БПУ Р 50-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-100-Н лс								
БПУ Р 50-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-100					Between -40 and 450	20Л		
БПУ РС 50-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-100-Н лс								
БПУ РС 50-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-100 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 50-160	50с05нж	SPPK5 50-160 (17с8нж1) ПУ 50-160 (23с19нж) ПУ 80-40 (23с17нж)		160/40	Between -40 and 450	20Л	290	302
БПУ 50-160 лс	50лс05нж	SPPK5 50-160 лс (17лс80нж) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-160-Н лс	50лс05нж4	SPPK5 50-160-Н лс (17лс90нж8) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ 50-160 нж	50нж05нж	SPPK5 50-160 нж (17нж8нж1) ПУ 50-160-01 нж (23нж19нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-160	50с05нж2	SPPK5C 50-160 (17с8нж3) ПУ 50-160 (23с19нж) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	274	286
БПУ С 50-160 лс	50лс05нж2	SPPK5C 50-160 лс (17лс8нж) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-160-Н лс	50лс05нж6	SPPK5C 50-160-Н лс (17лс90нж10) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ С 50-160 нж	50нж05нж4	SPPK5C 50-160 нж (17нж8нж1) ПУ 50-160-01 нж (23нж19нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-160 нж1	50нж05нж2	SPPK5C 50-160 нж1 (28нж23нж) ПУ 50-160-02 нж1 (23нж19нж1) ПУ 80-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 50-160	50с05нж1	SPPK5P 50-160 (17с8нж) ПУ 50-160 (23с19нж) ПУ 80-40 (23с17нж)	50/80	160/40	Between -40 and 450	20Л	300	312
БПУ Р 50-160 лс	50лс05нж1	SPPK5P 50-160 лс (17лс90нж) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-160-Н лс	50лс05нж5	SPPK5P 50-160-Н лс (17лс90нж9) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ Р 50-160 нж	50нж05нж1	SPPK5P 50-160 нж (17нж8нж) ПУ 50-160-01 нж (23нж19нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-160	50с05нж3	SPPK5PC 50-160 (17с8нж2) ПУ 50-160 (23с19нж) ПУ 80-40 (23с17нж)			Between -40 and 450	20Л	305	317
БПУ РС 50-160 лс	50лс05нж3	SPPK5PC 50-160 лс (17лс90нж1) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-160-Н лс	50лс05нж7	SPPK5PC 50-160-Н лс (17лс90нж11) ПУ 50-160-03 ХЛ1 (23лс19нж) ПУ 80-40-06 ХЛ1 (23лс17нж)						
БПУ РС 50-160 нж	50нж05нж5	SPPK5PC 50-160 нж (17нж90нж1) ПУ 50-160-01 нж (23нж19нж) ПУ 80-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-160 нж1	50нж05нж3	SPPK5PC 50-160 нж1 (28нж23нж1) ПУ 50-160-02 нж1 (23нж19нж1) ПУ 80-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 50-250	Information available on request	Information available on request		250/63	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 50-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 50-250-Н лс								
БПУ 50-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-250					Between -40 and 450	20Л		
БПУ С 50-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 50-250-Н лс								
БПУ С 50-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 50-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 50-250					Between -40 and 450	20Л		
БПУ Р 50-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 50-250-Н лс								
БПУ Р 50-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-250					Between -40 and 450	20Л		
БПУ РС 50-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 50-250-Н лс								
БПУ РС 50-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 50-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 80-16	50с06нж	SPPK4 80-16 (17с7нж) ПУ 80-16-01 (23с16нж1) ПУ 100-6 (23с18нж)	80/100	16/6	Between -40 and 450	20Л	210	218
БПУ 80-16 лс	50лс06нж	SPPK4 80-16 лс (17лс13нж) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-16-Н лс	50лс06нж4	SPPK4 80-16-Н лс (17лс13нж9) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)						

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 80-16 нж	50нж06нж	SPPK4 80-16 нж (17нж13нж) ПУ 80-16-03 нж (23нж16нж1) ПУ 100-6-01 нж (23нж18нж)	80/100	16/6	Between -60 and 600	12Х18Н9ТЛ	210	218
БПУ С 80-16	50с06нж2	SPPK4C 80-16 (17с7нж2) ПУ 80-16-01 (23с16нж1) ПУ 100-6 (23с18нж)			Between -40 and 450	20Л	212	220
БПУ С 80-16 лс	50лс06нж2	SPPK4C 80-16 лс (17лс13нж2) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-16-Н лс	50лс06нж2	SPPK4C 80-16-Н лс (17лс13нж10) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)						
БПУ С 80-16 нж	50нж06нж4	SPPK4C 80-16 нж (17нж13нж2) ПУ 80-16-03 нж (23нж16нж1) ПУ 100-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-16 нж1	50нж06нж2	SPPK5C 80-16 нж1 (28нж20нж) ПУ 80-16-05 нж1 (23нж16нж3) ПУ 100-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-16	50с06нж1	SPPK4P 80-16 (17с6нж) ПУ 80-16-01 (23с16нж1) ПУ 100-6 (23с18нж)			Between -40 and 450	20Л	216	224
БПУ Р 80-16 лс	50лс06нж1	SPPK4P 80-16 лс (17лс17нж) ПУ 80-16-07 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-16-Н лс	50лс06нж5	SPPK4P 80-16-Н лс (17лс17нж8) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)						
БПУ Р 80-16 нж	50нж06нж1	SPPK4P 80-16 УХЛ1 (17нж17нж) ПУ 80-16-03 нж (23нж16нж1) ПУ 100-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-16	50с06нж3	SPPK4PC 80-16 (17с21нж2) ПУ 80-16-01 (23с16нж1) ПУ 100-6 (23с18нж)			Between -40 and 450	20Л	218	226
БПУ РС 80-16 лс	50лс06нж3	SPPK4PC 80-16 лс (17лс17нж2) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ	218	226
БПУ РС 80-16-Н лс		SPPK4PC 80-16-Н лс (17лс17нж11) ПУ 80-16-07 ХЛ1 (23лс16нж1) ПУ 100-6-03 ХЛ1 (23лс18нж)						
БПУ РС 80-16 нж	50нж06нж5	SPPK4PC 80-16 нж (17нж17нж2) ПУ 80-16-03 нж (23нж16нж1) ПУ 100-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-16 нж1	50нж06нж3	SPPK5PC 80-16 нж1 (28нж20нж1) ПУ 80-16-05 нж1 (23нж16нж3) ПУ 100-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 80-25	Information available on request	Information available on request		25/16	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 80-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-25-Н лс								
БПУ 80-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-25					Between -40 and 450	20Л		
БПУ С 80-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-25-Н лс								
БПУ С 80-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-25 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-25					Between -40 and 450	20Л		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 80-25 лс	Information available on request	Information available on request	80/100	25/16	Between -60 and 450	20ГЛ/20ГМЛ	Information available on request	Information available on request
БПУ Р 80-25-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 80-25 нж					Between -40 and 450	20Л		
БПУ РС 80-25					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-25 лс								
БПУ РС 80-25-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-25 нж					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 80-25 нж1								
БПУ 80-40	50с07нж	SPPK4 80-40 (17с23нж) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)		40/16	Between -40 and 450	20Л	250	265
БПУ 80-40 лс	50лс07нж	SPPK4 80-40 лс (17лс14нж) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-40-Н лс	50лс07нж4	SPPK4 80-40-Н лс (17лс21нж9) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)						
БПУ 80-40 нж	50нж07нж	SPPK4 80-40 нж (17нж14нж) ПУ 80-40-03 нж (23нж17нж1) ПУ 100-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-40	50с07нж2	SPPK4C 80-40 (17с23нж2) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)		100/16	Between -40 and 450	20Л	256	271
БПУ С 80-40 лс	50лс07нж2	SPPK4C 80-40 лс (17лс14нж) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-40-Н лс	50лс07нж6	SPPK4C 80-40-Н лс (17лс14нж10) ПУ 80-40-03 нж (23нж17нж1) ПУ 100-16-02 нж (23нж16нж)						
БПУ С 80-40 нж	50нж07нж4	SPPK4C 80-40 нж (17лс14нж1) ПУ 80-40-03 нж (23нж17нж1) ПУ 100-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-40 нж1	50нж07нж2	SPPK5C 80-40 нж (28нж21нж) ПУ 80-40-05 нж1 (23нж17нж3) ПУ 100-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-40	50с07нж1	SPPK4P 80-40 (17с21нж) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)			Between -40 and 450	20Л	260	275
БПУ Р 80-40 лс	50лс07нж1	SPPK4P 80-40 лс (17лс25нж) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-40-Н лс	50лс07нж5	SPPK4P 80-40-Н лс (17лс21нж8) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)						
БПУ Р 80-40 нж	50нж07нж1	SPPK4P 80-40 нж (17нж25нж) ПУ 80-40-03 нж (23нж17нж1) ПУ 100-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-40	50с07нж3	SPPK4PC 80-40 (17с21нж2) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)			Between -40 and 450	20Л	265	280
БПУ РС 80-40 лс	50лс07нж3	SPPK4PC 80-40 лс (17лс25нж2) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-40-Н лс	50лс07нж7	SPPK4PC 80-40-Н лс (17лс25нж11) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)						

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ РС 80-40 нж	50нж07нж5	SPPK4PC 80-40 нж (17нж25нж2) ПУ 80-40-03 нж (23нж17нж1) ПУ 100-16-02 нж (23нж16нж)	80/100	100/16	Between -60 and 600	12Х18Н9ТЛ	265	280
БПУ РС 80-40 нж1	50нж07нж3	SPPK5PC 80-40 нж (28нж21нж1) ПУ 80-40-05 нж1 (23нж17нж3) ПУ 100-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 80-40-01	50с07нж4	SPPK5 80-40 (28с33нж) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)		40/16	Between -40 and 450	20Л	256	271
БПУ 80-40-01 лс	50лс07нж8	SPPK5 80-40 ХЛ (28лс33нж) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-40-01	50с07нж5	SPPK5P 80-40 (28с33нж1) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)			Between -40 and 450	20Л	276	291
БПУ Р 80-40-01 лс	50лс07нж9	SPPK5P 80-40 ХЛ (28лс33нж1) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-40-01	50с07нж6	SPPK5C 80-40 (28с33нж2) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)			Between -40 and 450	20Л	272	287
БПУ С 80-40-01 лс	50лс07нж10	SPPK5C 80-40 ХЛ (28лс33нж2) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-40-01	50с07нж7	SPPK5PC 80-40 (28с33нж3) ПУ 80-40-01 (23с17нж1) ПУ 100-16 (23с16нж)			Between -40 and 450	20Л	288	303
БПУ РС 80-40-01 лс	50лс07нж11	SPPK5PC 80-40 ХЛ (28лс33нж3) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-40-02	50с07нж8	SPPK5 80-40-01 (28с33нж4) ПУ 80-40-01 (23с17нж1) ПУ 100-40 (23с17нж)		40/40	Between -40 and 450	20Л	260	277
БПУ 80-40-02 лс	50лс07нж12	SPPK5 80-40-01 ХЛ (28лс33нж4) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-40-02	50с07нж9	SPPK5P 80-40-01 (28с33нж5) ПУ 80-40-01 (23с17нж1) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	280	297
БПУ Р 80-40-02 лс	50лс07нж13	SPPK5P 80-40-01 ХЛ (28лс33нж5) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-40-02	50с07нж10	SPPK5C 80-40-01 (28с33нж6) ПУ 80-40-01 (23с17нж1) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	276	293
БПУ С 80-40-02 лс	50лс07нж14	SPPK5C 80-40-01 ХЛ (28лс33нж6) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-40-02	50с07нж11	SPPK5PC 80-40-01 (28с33нж7) ПУ 80-40-01 (23с17нж1) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	292	308
БПУ РС 80-40-02 лс	50лс07нж15	SPPK5PC 80-40-01 ХЛ (28лс33нж7) ПУ 80-40-07 ХЛ1 (23лс17нж1) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 80-63	50с08нж	SPPK4 80-63 (17с85нж) ПУ 80-63 (23с20нж) ПУ 100-40 (23с17нж)	80/100	63/40	Between -40 and 450	20Л	375	390.5
БПУ 80-63 лс	50лс08нж	SPPK4 80-63 лс (17лс85нж) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-63-Н лс	50лс08нж4	SPPK4 80-63-Н лс (17лс85нж8) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						
БПУ 80-63 нж	50нж08нж	SPPK4 80-63 нж (17нж85нж) ПУ 80-63-01 нж (23нж20нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-63	50с08нж2	SPPK4C 80-63 (17с85нж1) ПУ 80-63 (23с20нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	382	397.5
БПУ С 80-63 лс	50лс08нж2	SPPK4C 80-63 лс (17лс85нж1) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-63-Н лс	50лс08нж4	SPPK4C 80-63-Н лс (17лс85нж10) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						
БПУ С 80-63 нж	50нж08нж4	SPPK4C 80-63 нж (17нж85нж1) ПУ 80-63-01 нж (23нж20нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-63 нж1	50нж08нж2	SPPK5C 80-63 нж (28нж22нж) ПУ 80-63-02 нж1 (23нж20нж1) ПУ 100-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-63	50с08нж1	SPPK4P 80-63 (17с89нж) ПУ 80-63 (23с20нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	380	395.5
БПУ Р 80-63 лс	50лс08нж1	SPPK4P 80-63 лс (17лс89нж) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-63-Н лс	50лс08нж5	SPPK4P 80-63-Н лс (17лс88нж8) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	380	395.5
БПУ Р 80-63 нж	50нж08нж1	SPPK4P 80-63 нж (17нж89нж) ПУ 80-63-01 нж (23нж20нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-63	50с08нж3	SPPK4PC 80-63 (17с89нж1) ПУ 80-63 (23с20нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	388	403.5
БПУ РС 80-63 лс	50лс08нж3	SPPK4PC 80-63 лс (17лс89нж3) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-63-Н лс	50лс08нж5	SPPK4PC 80-63-Н лс (17лс89нж11) ПУ 80-63-03 ХЛ1 (23лс20нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						
БПУ РС 80-63 нж	50нж08нж5	SPPK4PC 80-63 нж (17нж89нж4) ПУ 80-63-01 нж (23нж20нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-63 нж1	50нж08нж3	SPPK5PC 80-63 нж (28нж22нж1) ПУ 80-63-02 нж1 (23нж20нж1) ПУ 100-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 80-100	Information available on request	Information available on request	80/100	100/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 80-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-100-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ 80-100 нж					Between -40 and 450	20Л		
БПУ С 80-100					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-100 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-100-Н лс					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ С 80-100 нж					Between -40 and 450	20Л		
БПУ С 80-100 нж1					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-100					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 80-100 лс					Between -40 and 450	20Л		
БПУ Р 80-100-Н лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-100					Between -40 and 450	20Л		
БПУ РС 80-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-100-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-100 нж					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 80-100 нж1								
БПУ 80-160	50с09нж	SPPK4 80-160 (17с80нж) ПУ 80-160 (23с19нж) ПУ 100-40 (23с17нж)		160/40	Between -40 and 450	20Л	400	418.5
БПУ 80-160 лс	50лс09нж	SPPK4 80-160 лс (17лс80нж) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-160-Н лс	50лс09нж4	SPPK4 80-160-Н лс (17лс80нж8) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						
БПУ 80-160 нж	50нж09нж	SPPK4 80-160 нж (17нж80нж) ПУ 80-160-01 нж (23нж19нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-160	50с09нж2	SPPK4C 80-160 (17с80нж1) ПУ 80-160 (23с19нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	410	428.5
БПУ С 80-160 лс	50лс09нж2	SPPK4C 80-160 лс (17лс80нж1) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-160-Н лс	50лс09нж6	SPPK4C 80-160-Н лс (17лс80нж1) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						
БПУ С 80-160 нж	50нж09нж3	SPPK4C 80-160 нж (17нж80нж10) ПУ 80-160-01 нж (23нж19нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-160 нж1	50нж09нж2	SPPK5C 80-160 нж (28нж23нж) ПУ 80-160-02 нж1 (23нж19нж1) ПУ 100-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-160	50с09нж1	SPPK4P 80-160 (17с90нж) ПУ 80-160 (23с19нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	405	423.5
БПУ Р 80-160 лс	50лс09нж1	SPPK4P 80-160 лс (17лс90нж) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-160-Н лс	50лс09нж5	SPPK4P 80-160-Н лс (17лс88нж9) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)						

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 80-160 нж	50нж09нж1	SPPK4P 80-160 нж (17нж90нж) ПУ 80-160-01 нж (23нж19нж) ПУ 100-40-02 нж (23нж17нж)	80/100	160/40	Between -60 and 600	12Х18Н9ТЛ	405	423.5
БПУ РС 80-160	50с09нж3	SPPK4PC 80-160 (17с90нж1) ПУ 80-160 (23с19нж) ПУ 100-40 (23с17нж)			Between -40 and 450	20Л	415	433.5
БПУ РС 80-160 лс	50лс09нж3	SPPK4PC 80-160 лс (17лс90нж2) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-160-Н лс	50лс09нж7	SPPK4PC 80-160-Н лс (17лс88нж11) ПУ 80-160-03 ХЛ1 (23лс19нж) ПУ 100-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	415	433.5
БПУ РС 80-160 нж	50нж09нж4	SPPK4PC 80-160 нж (17нж90нж2) ПУ 80-160-01 нж (23нж19нж) ПУ 100-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-160 нж1	50нж09нж3	SPPK5PC 80-160 нж (28нж23нж1) ПУ 80-160-02 нж1 (23нж19нж1) ПУ 100-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 80-250	Information available on request	Information available on request		250/63	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 80-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 80-250-Н лс								
БПУ 80-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-250					Between -40 and 450	20Л		
БПУ С 80-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 80-250-Н лс								
БПУ С 80-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 80-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 80-250					Between -40 and 450	20Л		
БПУ Р 80-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 80-250-Н лс								
БПУ Р 80-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-250					Between -40 and 450	20Л		
БПУ РС 80-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 80-250-Н лс								
БПУ РС 80-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 80-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-16	50с10нж	SPPK5 100-16 (17с7нж) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)	100/150	16/16	Between -40 and 450	20Л	380	394
БПУ 100-16 лс	50лс10нж	SPPK5 100-16 лс (17лс7нж) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-16-Н лс	50лс10нж4	SPPK5 100-16-Н лс (17лс7нж10) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ 100-16 нж	50нж10нж	SPPK5 100-16 нж (17нж7нж) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-16	50с10нж2	SPPK5C 100-16 (17с7нж3) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	405	419

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ С 100-16 лс	50лс10нж2	SPPK5C 100-16 лс (17лс7нж1) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)	100/150	16/16	Between -60 and 450	20ГЛ/20ГМЛ	405	419
БПУ С 100-16-Н лс	50лс10нж6	SPPK5C 100-16-Н лс (17лс7нж10) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ С 100-16 нж	50нж10нж4	SPPK5C 100-16 нж (17нж7нж2) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-16 нж1	50нж10нж2	SPPK5C 100-16 нж1 (28нж20нж) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 100-16	50с10нж1	SPPK5P 100-16 (17с6нж) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	400	414
БПУ Р 100-16 лс	50лс10нж1	SPPK5P 100-16 лс (17лс6нж) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-16-Н лс	50лс10нж5	SPPK5P 100-16-Н лс (17лс6нж8) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ Р 100-16 нж	50нж10нж1	SPPK5P 100-16 нж (17нж6нж) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-16	50с10нж3	SPPK5PC 100-16 (17с6нж1) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	405	419
БПУ РС 100-16 лс	50лс10нж3	SPPK5PC 100-16 лс (17лс6нж1) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-16-Н лс	50лс10нж7	SPPK5PC 100-16-Н лс (17лс6нж1) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ РС 100-16 нж	50нж10нж5	SPPK5PC 100-16 нж (17нж6нж11) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-16 нж1	50нж10нж3	SPPK5PC 100-16 нж1 (28нж20нж1) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-16-04 нж1 (23нж16нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-25	Information available on request	Information available on request	100/150	25/16	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 100-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-25-Н лс								
БПУ 100-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-25					Between -40 and 450	20Л		
БПУ С 100-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-25-Н лс								
БПУ С 100-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-25 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 100-25					Between -40 and 450	20Л		
БПУ Р 100-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-25-Н лс								
БПУ Р 100-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-25					Between -40 and 450	20Л		
БПУ РС 100-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-25-Н лс								

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ РС 100-25 нж	Information available on request	Information available on request	100/150	25/16	Between -60 and 600	12Х18Н9ТЛ	Information available on request	
БПУ РС 100-25 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-40	50с11нж	SPPK5 100-40 (17с23нж) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)		40/16	Between -40 and 450	20Л	440	456.5
БПУ 100-40 лс	50лс11нж	SPPK5 100-40 лс (17лс23нж) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-40-Н лс	50лс11нж4	SPPK5 100-40-Н лс (17лс23нж8) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ 100-40 нж	50нж11нж	SPPK5 100-40 нж (17нж23нж) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-40	50с11нж3	SPPK5C 100-40 (17с23нж3) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	444	460.5
БПУ С 100-40 лс	50лс11нж2	SPPK5C 100-40 лс (17лс23нж) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-40-Н лс	50лс11нж6	SPPK5C 100-40-Н лс (17лс23нж10) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ С 100-40 нж	50нж11нж4	SPPK5C 100-40 нж (17лс23нж1) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-40 нж1	50нж11нж2	SPPK5C 100-40 нж1 (28нж21нж) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-16-04 нж1 (23нж16нж2)		40/16	Between -60 and 350	12Х18Н12М3ТЛ	444	460.5
БПУ Р 100-40	50с11нж1	SPPK5P 100-40 (17с21нж) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	450	466.5
БПУ Р 100-40 лс	50лс11нж1	SPPK5P 100-40 лс (17лс25нж) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-40-Н лс	50лс11нж5	SPPK5P 100-40-Н лс (17лс26нж8) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ Р 100-40 нж	50нж11нж1	SPPK5P 100-40 нж (17нж25нж) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-40	50с11нж2	SPPK5PC 100-40 (17с21нж3) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)			Between -40 and 450	20Л	454	470.5
БПУ РС 100-40 лс	50лс11нж3	SPPK5PC 100-40 лс (17лс25нж2) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-40-Н лс	50лс11нж7	SPPK5PC 100-40-Н лс (17лс25нж11) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)						
БПУ РС 100-40 нж	50нж11нж5	SPPK5PC 100-40 нж (17нж25нж2) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ РС 100-40 нж1	50нж11нж3	SPPK5PC 100-40 нж1 (28нж21нж1) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-16-04 нж1 (23нж16нж2)	100/150	40/16	Between -60 and 350	12Х18Н12М3ТЛ	454	470.5
БПУ 100-63	50с12нж	SPPK5 100-63 (17с16нж) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)		63/40	Between -40 and 450	20Л	735	760
БПУ 100-63-01	50с12нж1	SPPK5 100-63-01 (17с16нж4) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					734	759
БПУ 100-63 лс	50лс12нж	SPPK5 100-63 лс (17лс16нж2) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	735	760
БПУ 100-63-01 лс	50лс12нж1	SPPK5 100-63-01 лс (17лс16нж4) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					734	759
БПУ 100-63-Н лс	50лс12нж5	SPPK5 100-63-Н лс (17лс16нж8) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					735	760
БПУ 100-63-01Н лс	50лс12нж10	SPPK5 100-63-01Н лс (17лс23нж9) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)	100/150	63/40	Between -60 and 450	20ГЛ/20ГМЛ	734	759
БПУ 100-63 нж	50нж12нж	SPPK5 100-63 нж (17нж16нж2) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ	735	760
БПУ 100-63-01 нж	50нж12нж1	SPPK5 100-63-01 нж (17нж16нж6) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					734	759
БПУ С 100-63	50с12нж5	SPPK5C 100-63 (17с16нж3) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	735	761
БПУ С 100-63 лс	50лс12нж4	SPPK5C 100-63 лс (17лс16нж3) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-63-Н лс	50лс12нж9	SPPK5C 100-63-Н лс (17лс16нж9) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)						
БПУ С 100-63 нж	50нж12нж6	SPPK5C 100-63 нж (17нж16нж2) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-63 нж1	50нж12нж4	SPPK5C 100-63 нж1 (28нж22нж) ПУ 100-63-02 нж1 (23нж20нж1) ПУ 150-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 100-63	50с12нж2	SPPK5P 100-63 (17с16нж) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	745	770
БПУ Р 100-63-01	50с12нж3	SPPK5P 100-63-01 (17с16нж4) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					744	769
БПУ Р 100-63 лс	50лс12нж2	SPPK5P 100-63 лс (17лс16нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	745	770
БПУ Р 100-63-01 лс	50лс12нж3	SPPK5P 100-63-01 лс (17лс16нж4) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					744	769
БПУ Р 100-63-Н лс	50лс12нж6	SPPK5P 100-63-Н лс (17лс16нж8) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					745	770
БПУ Р 100-63-01Н лс	50лс12нж7	SPPK5P 100-63-01Н лс (17лс23нж9) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					744	769

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 100-63 нж	50нж12нж2	SPPK5P 100-63 нж (17нж16нж) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)	100/150	63/40	Between -60 and 600	12Х18Н9ТЛ	745	770
БПУ Р 100-63-01 нж	50нж12нж3	SPPK5P 100-63-01 нж (17нж16нж4) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					744	769
БПУ РС 100-63	50с12нж4	SPPK5PC 100-63 (17с16нж1) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	748	773
БПУ РС 100-63 лс	50лс12нж5	SPPK5PC 100-63 лс (17лс16нж1) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-63-Н лс	50лс12нж8	SPPK5PC 100-63-Н лс (17лс16нж11) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)						
БПУ РС 100-63 нж	50нж12нж7	SPPK5PC 100-63 нж (17нж16нж1) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-63 нж1	50нж12нж5	SPPK5PC 100-63 нж1 (28нж22нж1) ПУ 100-63-02 нж1 (23нж20нж1) ПУ 150-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-100	Information available on request	Information available on request		100/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 100-100-01					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-100 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ 100-100-01 лс					Between -40 and 450	20Л		
БПУ 100-100-Н лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-100-01Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ 100-100 нж					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-100-01 нж					Between -40 and 450	20Л		
БПУ С 100-100					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-100 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-100-Н лс					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ С 100-100 нж					Between -40 and 450	20Л		
БПУ С 100-100 нж1					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-100					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 100-100-01					Between -40 and 450	20Л		
БПУ Р 100-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-100-01 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 100-100-Н лс					Between -40 and 450	20Л		
БПУ Р 100-100-01Н лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 100-100-01 нж					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 100-100								
БПУ РС 100-100 лс								
БПУ РС 100-100-Н лс								
БПУ РС 100-100 нж								
БПУ РС 100-100 нж1								
БПУ 100-160	50с13нж	SPPK5 100-160 (17с8нж2) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)		160/40	Between -40 and 450	20Л	770	800
БПУ 100-160-01	50с13нж1	SPPK5 100-160-01 (17с8нжб) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					769	799

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ 100-160 лс	50лс13нж	SPPK5 100-160 лс (17лс8нж2) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)	100/150	160/40	Between -60 and 450	20ГЛ/20ГМЛ	770	800
БПУ 100-160-01 лс	50лс13нж1	SPPK5 100-160-01 лс (17лс8нж6) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					769	799
БПУ 100-160-Н лс	50лс13нж7	SPPK5 100-160-Н лс (17лс8нж9) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					770	800
БПУ 100-160-01Н лс	50лс13нж9	SPPK5 100-160-01Н лс (17лс7нж9) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					769	799
БПУ 100-160 нж	50нж13нж	SPPK5 100-160 нж (17нж8нж2) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ	770	800
БПУ 100-160-01 нж	50нж13нж1	SPPK5 100-160-01 нж (17нж8нж6) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					769	799
БПУ С 100-160	50с13нж5	SPPK5C 100-160 (17с8нж3) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	780	810
БПУ С 100-160 лс	50лс13нж4	SPPK5C 100-160 лс (17лс8нж3) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-160-Н лс	50лс13нж10	SPPK5C 100-160-Н лс (17лс8нж10) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)						
БПУ С 100-160 нж	50нж13нж6	SPPK5C 100-160 нж (17нж8нж3) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-160 нж1	50нж13нж4	SPPK5C 100-160 нж1 (28нж23нж) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 100-160	50с13нж2	SPPK5P 100-160 (17с8нж) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	780	810
БПУ Р 100-160-01	50с13нж3	SPPK5P 100-160-01 (17с8нж4) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					779	809
БПУ Р 100-160 лс	50лс13нж	SPPK5P 100-160 лс (17лс8нж) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ	780	810
БПУ Р 100-160-01 лс	50лс13нж1	SPPK5P 100-160-01 лс (17лс8нж4) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					779	809
БПУ Р 100-160-Н лс	50лс13нж6	SPPK5P 100-160-Н лс (17лс8нж9) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					780	810
БПУ Р 100-160-01Н лс	50лс13нж8	SPPK5P 100-160-01Н лс (17лс7нж9) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					779	809
БПУ Р 100-160 нж	50нж13нж2	SPPK5P 100-160 нж (17нж8нж) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ	780	810

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 100-160-01 нж	50нж13нж3	SPPK5P 100-160-01 нж (17нж8нж4) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)	100/150	160/40	Between -60 and 600	12Х18Н9ТЛ	779	809
БПУ РС 100-160	50с13нж4	SPPK5PC 100-160 (17с8нж1) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)			Between -40 and 450	20Л	790	820
БПУ РС 100-160 лс	50лс13нж5	SPPK5PC 100-160 лс (17лс8нж1) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-160-Н лс	50лс13нж11	SPPK5PC 100-160-Н лс (17лс8нж11) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)						
БПУ РС 100-160 нж	50нж13нж7	SPPK5PC 100-160 нж (17нж8нж1) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-160 нж1	50нж13нж9	SPPK5PC 100-160 нж1 (28нж23нж1) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 100-250	Information available on request	Information available on request		250/63	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 100-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 100-250-Н лс								
БПУ 100-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-250					Between -40 and 450	20Л		
БПУ С 100-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 100-250-Н лс								
БПУ С 100-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 100-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 100-250					Between -40 and 450	20Л		
БПУ Р 100-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 100-250-Н лс								
БПУ Р 100-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-250					Between -40 and 450	20Л		
БПУ РС 100-250 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 100-250-Н лс								
БПУ РС 100-250 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 100-250 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 150-16	50с14нж	SPPK4 150-16 (17с7нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)	150/200	16/6	Between -40 and 450	20Л	630	648
БПУ 150-16 лс	50лс14нж	SPPK4 150-16 лс (17лс7нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-16-Н лс	50лс14нж6	SPPK4 150-16-Н лс (17лс5нж9) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)						
БПУ 150-16 нж	50нж14нж	SPPK4 150-16 нж (17нж7нж) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-16	50с14нж5	SPPK4C 150-16 (17с7нж4) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	635	653

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ С 150-16 лс	50лс14нж4	SPPK4C 150-16 лс (17лс7нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)	150/200	16/6	Between -60 and 450	20ГЛ/20ГМЛ	635	653
БПУ С 150-16-Н лс	50лс14нж9	SPPK4C 150-16-Н лс (17лс5нж10) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)						
БПУ С 150-16 нж	50нж14нж4	SPPK4C 150-16 нж (17нж7нж1) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-16 нж1	50нж14нж2	SPPK5C 150-16 нж1 (28нж20нж) ПУ 150-16-05 нж1 (23нж16нж3) ПУ 200-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 150-16	50с14нж2	SPPK4P 150-16 (17с6нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	635	653
БПУ Р 150-16 лс	50лс14нж2	SPPK4P 150-16 лс (17лс6нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-16-Н лс	50лс14нж7	SPPK4P 150-16-Н лс (17лс5нж8) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)						
БПУ Р 150-16 нж	50нж14нж1	SPPK4P 150-16 нж (17нж6нж) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-16	50с14нж4	SPPK4PC 150-16 (17с6нж2) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	638	656
БПУ РС 150-16 лс	50лс14нж5	SPPK4PC 150-16 лс (17лс6нж2) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 150-16-Н лс	50лс14нж8	SPPK4PC 150-16-Н лс (17лс5нж11) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)						
БПУ РС 150-16 нж	50нж14нж	SPPK4PC 150-16 нж (17нж6нж2) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-16 нж1	50нж14нж3	SPPK5PC 150-16 нж1 (28нж20нж) ПУ 150-16-05 нж1 (23нж16нж3) ПУ 200-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 150-16М1	50с14нж1	SPPK4 150-16М1 (17с7нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	630	648
БПУ 150-16М1 лс	50лс14нж1	SPPK4 150-16М1 лс (17лс7нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 150-16М1	50с14нж6	SPPK4C 150-16М1 (17с7нж1) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	635	653
БПУ С 150-16М1 лс	50лс14нж10	SPPK4C 150-16М1 лс (17лс7нж1) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-16М1	50с14нж3	SPPK4P 150-16М1 (17с6нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	635	653

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 150-16М1 лс	50лс14нж3	SPPK4P 150-16M1 лс (17лс6нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)	150/200	16/6	Between -60 and 450	20ГЛ/20ГМЛ	635	653
БПУ РС 150-16М1	50с14нж7	SPPK4PC 150-16M1 (17с6нж1) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			Between -40 and 450	20Л	638	656
БПУ РС 150-16М1 лс	50лс14нж11	SPPK4PC 150-16M1 лс (17лс6нж1) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-25	Information available on request	Information available on request		25/16	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 150-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-25-Н лс								
БПУ 150-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-25					Between -40 and 450	20Л		
БПУ С 150-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 150-25-Н лс								
БПУ С 150-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-25 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 150-25					Between -40 and 450	20Л		
БПУ Р 150-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-25-Н лс								
БПУ Р 150-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-25					Between -40 and 450	20Л		
БПУ РС 150-25 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 150-25-Н лс								
БПУ РС 150-25 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-25 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 150-40	50с15нж	SPPK4 150-40 (17с23нж) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)		40/16	Between -40 and 450	20Л	680	706.5
БПУ 150-40 лс	50лс15нж	SPPK4 150-40 лс (17лс23нж) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-40-Н лс	50лс15нж4	SPPK4 150-40-Н лс (17лс22нж8) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)						
БПУ 150-40 нж	50нж15нж	SPPK4 150-40 нж (17нж23нж) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-40	50с15нж3	SPPK4C 150-40 (17с23нж3) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)			Between -40 and 450	20Л	680	711.5
БПУ С 150-40 лс	50лс15нж2	SPPK4C 150-40 лс (17лс23нж) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ	680	711.5
БПУ С 150-40-Н лс	50лс15нж6	SPPK4C 150-40-Н лс (17лс22нж10) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)						
БПУ С 150-40 нж	50нж15нж4	SPPK4C 150-40 нж (17нж23нж1) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-40 нж1	50нж15нж2	SPPK5C 150-40 нж1 (28нж21нж) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)			Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 150-40	50с15нж1	SPPK4P 150-40 (17с21нж) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)	150/200	40/16	Between -40 and 450	20Л	685	711.5
БПУ Р 150-40 лс	50лс15нж1	SPPK4P 150-40 лс (17лс21нж) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-40-Н лс	50лс15нж5	SPPK4P 150-40-Н лс (17лс21нж9) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)						
БПУ Р 150-40 нж	50нж15нж1	SPPK4P 150-40 нж (17нж21нж) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-40	50с15нж2	SPPK4PC 150-40 (17с21нж1) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)			Between -40 and 450	20Л	688	714.5
БПУ РС 150-40 лс	50лс15нж3	SPPK4PC 150-40 лс (17лс21нж1) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 150-40-Н лс	50лс15нж7	SPPK4PC 150-40-Н лс (17лс21нж7) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)						
БПУ РС 150-40 нж	50нж15нж5	SPPK4PC 150-40 нж (17нж21нж1) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-40 нж1	50нж15нж3	SPPK5PC 150-40 нж1 (28нж21нж1) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 150-63	Information available on request	Information available on request	150/200	150/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 150-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-63-Н лс								
БПУ 150-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-63					Between -40 and 450	20Л		
БПУ С 150-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 150-63-Н лс								
БПУ С 150-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-63 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 150-63					Between -40 and 450	20Л		
БПУ Р 150-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-63-Н лс								
БПУ Р 150-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-63					Between -40 and 450	20Л		
БПУ РС 150-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 150-63-Н лс								
БПУ РС 150-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-63 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 150-100				100/63	Between -40 and 450	20Л		
БПУ 150-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 150-100-Н лс								
БПУ 150-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 150-100					Between -40 and 450	20Л		
БПУ С 150-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 150-100-Н лс								
БПУ С 150-100 нж					Between -60 and 600	12Х18Н9ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ С 150-100 нж1	Information available on request	Information available on request	150/200	100/63	Between -60 and 350	12Х18Н12М3ТЛ	Information available on request	Information available on request
БПУ Р 150-100					Between -40 and 450	20Л		
БПУ Р 150-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 150-100-Н лс								
БПУ Р 150-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-100					Between -40 and 450	20Л		
БПУ РС 150-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 150-100-Н лс								
БПУ РС 150-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 150-100 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 200-16	50с16нж	SPPK4 200-16 (17с13нж) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)	200/300	16/6	Between -40 and 450	20Л	1091	1119
БПУ 200-16 лс	50лс16нж	SPPK4 200-16 лс (17лс13нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 200-16-Н лс	50лс16нж6	SPPK4 200-16-Н лс (17лс80нж9) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ	1091	1119
БПУ 200-16 нж	50нж16нж	SPPK4 200-16 нж (17нж13нж) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-16	50с16нж4	SPPK4C 200-16 (17с17нж2) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			Between -40 and 450	20Л	1100	1128
БПУ С 200-16 лс	50лс16нж4	SPPK4C 200-16 лс (17лс13нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 200-16-Н лс	50лс16нж8	SPPK4C 200-16-Н лс (17лс80нж10) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)						
БПУ С 200-16 нж	50нж16нж4	SPPK4C 200-16 нж (17нж13нж1) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-16 нж1	50нж16нж2	SPPK5C 200-16 нж1 (28нж20нж) ПУ 200-16-02 нж1(23нж16нж1) ПУ 300-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 200-16	50с16нж2	SPPK4P 200-16 (17с17нж) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			Between -40 and 450	20Л	1093	1121
БПУ Р 200-16 лс	50лс16нж2	SPPK4P 200-16 лс (17лс17нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 200-16-Н лс	50лс16нж7	SPPK4P 200-16-Н лс (17лс22нж9) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)						
БПУ Р 200-16 нж	50нж16нж1	SPPK4P 200-16 нж (17нж17нж) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-16	50с16нж5	SPPK4PC 200-16 (17с17нж1) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			Between -40 and 450	20Л	1102	1130

Principal Parameters of Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ РС 200-16 лс	50лс16нж5	SPPK4PC 200-16 лс (17лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)	200/300	16/6	Between -60 and 450	20ГЛ/20ГМЛ	1102	1130
БПУ РС 200-16-Н лс	50лс16нж9	SPPK4PC 200-16-Н лс (17лс22нж11) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)						
БПУ РС 200-16 нж	50нж16нж5	SPPK4PC 200-16 нж (17нж17нж1) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-16 нж1	50нж16нж3	SPPK5PC 200-16 нж1 (28нж20нж1) ПУ 200-16-02 нж1(23нж16нж1) ПУ 300-6-02 нж1 (23нж18нж1)			Between -60 and 350	12Х18Н12М3ТЛ	1102	1130
БПУ 200-16М	50с16нж1	SPPK4 200-16М (17с13нж) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			Between -40 and 450	20Л	1099	1127
БПУ 200-16М лс	50лс16нж1	SPPK4 200-16М лс (17лс13нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 425	20ГЛ/20ГМЛ		
БПУ Р 200-16М	50с16нж3	SPPK4P 200-16М (17с17нж) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			Between -40 and 450	20Л	1101	1129
БПУ Р 200-16М лс	50лс16нж3	SPPK4P 200-16М лс (17лс17нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			Between -60 and 425	20ГЛ/20ГМЛ		
БПУ 200-63	Information available on request	Information available on request	200/300	63/40	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ 200-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 200-63-Н лс								
БПУ 200-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-63					Between -40 and 450	20Л		
БПУ С 200-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 200-63-Н лс								
БПУ С 200-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-63 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 200-63					Between -40 and 450	20Л		
БПУ Р 200-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 200-63-Н лс								
БПУ Р 200-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-63					Between -40 and 450	20Л		
БПУ РС 200-63 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 200-63-Н лс								
БПУ РС 200-63 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-63 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ 200-100			200/300	100/63	Between -40 and 450	20Л		
БПУ 200-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 200-100-Н лс								
БПУ 200-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-100					Between -40 and 450	20Л		
БПУ С 200-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 200-100-Н лс								
БПУ С 200-100 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-100 нж1					Between -60 and 350	12Х18Н12М3ТЛ		

Principal Parameters of Safety Valve Assemblies with Switching Devices (Conclusion)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ Р 200-100	Information available on request	Information available on request	200/300	100/63	Between -40 and 450	20Л	Information available on request	Information available on request
БПУ Р 200-100 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 200-100-Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 200-100 нж					Between -40 and 450	20Л		
БПУ РС 200-100					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 200-100 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-100-Н лс					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 200-100 нж					Between -40 and 450	20Л		
БПУ РС 200-100 нж1					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 200-100-01					Between -60 and 600	12Х18Н9ТЛ		
БПУ 200-100-01 лс					Between -40 and 450	20Л		
БПУ 200-100-01Н лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ 200-100-01 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-100-01					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ С 200-100-01 лс					Between -40 and 450	20Л		
БПУ С 200-100-01Н лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ С 200-100-01 нж					Between -60 and 600	12Х18Н9ТЛ		
БПУ С 200-100-01 нж1					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ Р 200-100-01					Between -40 and 450	20Л		
БПУ Р 200-100-01 лс					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ Р 200-100-01Н лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ Р 200-100-01 нж					Between -40 and 450	20Л		
БПУ РС 200-100-01					Between -60 and 450	20ГЛ/20ГМЛ		
БПУ РС 200-100-01 лс					Between -60 and 600	12Х18Н9ТЛ		
БПУ РС 200-100-01Н лс					Between -60 and 350	12Х18Н12М3ТЛ		
БПУ РС 200-100-01 нж								
БПУ РС 200-100-01 нж1								

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6Р 25-40	50с19нж	SPPK6P 25-40 (28с31нж) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)	25/50	40/16	-40 and up and 300	20Л	132	135.5
БПУ6 25-40	50с19нж1	SPPK6 25-40 (28с31нж) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)					124.6	128.1
БПУ6РС 25-40	50с19нж2	SPPK6PC 25-40 (28с31нж1) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)			-40 and up and 450		137.8	141.3
БПУ6С 25-40	50с19нж3	SPPK6C 25-40 (28с31нж1) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)					131.2	134.7
БПУ6РСО 25-40	50с19нж4	SPPK6PCO 25-40 (28с31нж2) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)					143.6	147.1

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6СО 25-40	50с19нж5	SPPK6CO 25-40 (28с31нж2) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)	25/50	40/16	-40 and up and 450	20Л	136.2	139.7
БПУ6РВ 25-40	50с19нж6	SPPK6PB 25-40 (28с31нж3) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)					138.2	141.7
БПУ6В 25-40	50с19нж7	SPPK6B 25-40 (28с31нж3) ПУ 25-40 (23с17нж) ПУ 50-16 (23с16нж)					130.8	134.3
БПУ6Р 25-40-01	50с19нж8	SPPK6P 25-40-01 (28с31нж4) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)		40/40	-40 and up and 300		134	137.5
БПУ 25-40-01	50с19нж9	SPPK6 25-40-01 (28с31нж4) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)					126.6	130.1
БПУ6РС 25-40-01	50с19нж10	SPPK6PC 25-40-01 (28с31нж5) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)			-40 and up and 450		139.8	143.3
БПУ6С 25-40-01	50с19нж11	SPPK6C 25-40-01 (28с31нж5) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)					133.2	136.7
БПУ6РСО 25-40-01	50с19нж12	SPPK6PCO 25-40-01 (28с31нж6) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)					145.6	149.1
БПУ6СО 25-40-01	50с19нж13	SPPK6CO 25-40-01 (28с31нж6) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)					138.2	141.7
БПУ6РВ 25-40-01	50с19нж14	SPPK6PB 25-40-01 (28с31нж7) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)		40/40	-40 and up and 450	20Л	140.2	143.7
БПУ6В 25-40-01	50с19нж15	SPPK6B 25-40-01 (28с31нж7) ПУ 25-40 (23с17нж) ПУ 50-40 (23с17нж)					132.8	136.3
БПУ6Р 25-40 лс	50лс19нж	SPPK6P 25-40 лс (28лс31нж) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)		40/16	-60 and up and 300	20ГЛ/20ГМЛ	132	135.5
БПУ 25-40 лс	50лс19нж1	SPPK6 25-40 лс (28лс31нж) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					124.6	128.1
БПУ6РС 25-40 лс	50лс19нж2	SPPK6PC 25-40 лс (28лс31нж1) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)			-60 and up and 450		137.8	141.3
БПУ6С 25-40 лс	50лс19нж3	SPPK6C 25-40 лс (28лс31нж1) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					131.2	134.7
БПУ6РСО 25-40 лс	50лс19нж4	SPPK6PCO 25-40 лс (28лс31нж2) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					143.6	147.1
БПУ6СО 25-40 лс	50лс19нж5	SPPK6CO 25-40 лс (28лс31нж2) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					136.2	139.7
БПУ6РВ 25-40 лс	50лс19нж6	SPPK6PB 25-40 лс (28лс31нж3) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					138.2	141.7
БПУ6В 25-40 лс	50лс19нж7	SPPK6B 25-40 лс (28лс31нж3) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-16-06 ХЛ1 (23лс16нж)					130.8	134.3

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6Р 25-40 лс-01	50лс19нж8	SPPK6P 25-40 лс-01 (28лс31нж4) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)	25/50	40/40	-60 and up and 300	20ГЛ/20ГМЛ	134	137.5
БПУ 25-40 лс-01	50лс19нж9	SPPK6 25-40 лс-01 (28лс31нж4) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)					126.6	130.1
БПУ6РС 25-40 лс-01	50лс19нж10	SPPK6PC 25-40 лс-01 (28лс31нж5) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)			-60 and up and 450		139.8	143.3
БПУ6С 25-40 лс -01	50лс19нж11	SPPK6C 25-40 лс-01 (28лс31нж5) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)					133.2	136.7
БПУ6РСО 25-40 лс-01	50лс19нж12	SPPK6PCO 25-40 лс-01 (28лс31нж6) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)			-60 and up and 450	20ГЛ/20ГМЛ	145.6	149.1
БПУ6СО 25-40 лс-01	50лс19нж13	SPPK6CO 25-40 лс-01 (28лс31нж6) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)					138.2	141.7
БПУ6РВ 25-40 лс-01	50лс19нж14	SPPK6PB 25-40 лс-01 (28лс31нж7) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)					140.2	143.7
БПУ6В 25-40 лс-01	50лс19нж15	SPPK6B 25-40 лс-01 (28лс31нж7) ПУ 25-40-03 ХЛ1 (23лс17нж) ПУ 50-40-06 ХЛ1 (23лс17нж)					132.8	136.3
БПУ6Р 25-40 нж	50нж19нж	SPPK6P 25-40 нж (28нж31нж) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)		40/16	-60 and up and 300	12Х18Н9ТЛ	131	134.5
БПУ 25-40 нж	50нж19нж1	SPPK6 25-40 нж (28нж31нж) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)					124.6	128.1
БПУ6РС 25-40 нж	50нж19нж2	SPPK6PC 25-40 нж (28нж31нж1) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			-60 and up and 425		137.8	141.3
БПУ6С 25-40 нж	50нж19нж3	SPPK6C 25-40 нж (28нж31нж1) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)					131.2	134.7
БПУ6РСО 25-40 нж	50нж19нж4	SPPK6PCO 25-40 нж (28нж31нж2) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)			-60 and up and 600		143.6	147.1
БПУ6СО 25-40 нж	50нж19нж5	SPPK6CO 25-40 нж (28нж31нж2) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)					136.2	139.7
БПУ6РВ 25-40 нж	50нж19нж6	SPPK6PB 25-40 нж (28нж31нж3) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)					138.2	141.7
БПУ6В 25-40 нж	50нж19нж7	SPPK6B 25-40 нж (28нж31нж3) ПУ 25-40-01 нж (23нж17нж) ПУ 50-16-02 нж (23нж16нж)					130.8	134.3
БПУ6Р 25-40 нж-01	50нж19нж8	SPPK6P 25-40 нж-01 (28нж31нж4) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)		40/40	-60 and up and 300		134	137.5
БПУ 25-40 нж-01	50нж19нж9	SPPK6 25-40 нж-01 (28нж31нж4) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)					126.6	130.1
БПУ6РС 25-40 нж-01	50нж19нж10	SPPK6PC 25-40 нж-01 (28нж31нж5) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)			-60 and up and 425	12Х18Н9ТЛ	139.8	143.3

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6С 25-40 нж-01	50нж19нж11	SPPK6C 25-40 нж-01 (28нж31нж5) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)	25/50	40/40	-60 and up and 425	12Х18Н9ТЛ	133.2	136.7
БПУ6РСО 25-40 нж-01	50нж19нж12	SPPK6PCO 25-40 нж-01 (28нж31нж6) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)			-60 and up and 600		145.6	149.1
БПУ6СО 25-40 нж-01	50нж19нж13	SPPK6CO 25-40 нж-01 (28нж31нж6) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)					138.2	141.7
БПУ6РВ 25-40 нж-01	50нж19нж14	SPPK6PB 25-40 нж-01 (28нж31нж7) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)					140.2	143.7
БПУ6В 25-40 нж-01	50нж19нж15	SPPK6B 25-40 нж-01 (28нж31нж7) ПУ 25-40-01 нж (23нж17нж) ПУ 50-40-02 нж (23нж17нж)					132.8	136.3
БПУ6РС 25-40 нж1	50нж19нж16	SPPK6PC 25-40 нж1 (28нж31нж8) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-16-04 нж1 (23нж16нж2)		40/16	-60 and up and 350	12Х18Н12М3ТЛ	137.8	142.8
БПУ6С 25-40 нж1	50нж19нж17	SPPK6C 25-40 нж1 (28нж31нж8) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-16-04 нж1 (23нж16нж2)					131.2	136.2
БПУ6РС 25-40 нж1-01	50нж19нж18	SPPK6PC 25-40 нж1-01 (28нж31нж9) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-40-04 нж1 (23нж17нж2)		40/40			139.8	144.8
БПУ6С 25-40 нж1-01	50нж19нж19	SPPK6C 25-40 нж1-01 (28нж31нж9) ПУ 25-40-02 нж1 (23нж17нж1) ПУ 50-40-04 нж1 (23нж17нж2)					133.2	138.2
БПУ6Р 25-100	50с20нж	SPPK6P 25-100 (28с48нж) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)		100/40	-40 and up and 300	20Л	164.5	169.5
БПУ6 25-100	50с20нж1	SPPK6 25-100 (28с48нж) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					157.5	162.5
БПУ6РС 25-100	50с20нж2	SPPK6PC 25-100 (28с48нж1) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			-40 and up and 450		171.5	176.5
БПУ6С 25-100	50с20нж3	SPPK6C 25-100 (28с48нж1) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					163.5	168.5
БПУ6РСО 25-100	50с20нж4	SPPK6PCO 25-100 (28с48нж2) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			-40 and up and 450	20Л	163.5	168.5
БПУ6СО 25-100	50с20нж5	SPPK6CO 25-100 (28с48нж2) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					177.5	182.5
БПУ6РВ 25-100	50с20нж6	SPPK6PB 25-100 (28с48нж3) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					171.5	176.5
БПУ6В 25-100	50с20нж7	SPPK6B 25-100 (28с48нж3) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					164.5	169.5
БПУ6Р 25-100 лс	50лс20нж	SPPK6P 25-100 лс (28лс48нж) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			-60 and up and 300	20ГЛ/20ГМЛ	164.5	169.5
БПУ6 25-100 лс	50лс20нж1	SPPK6 25-100 лс (28лс48нж) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					157.5	162.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 25-100 лс	50лс20нж2	SPPK6PC 25-100 лс (28лс48нж1) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)	25/50	100/40	-60 and up and 450	20ГЛ/20ГМЛ	171.5	176.5
БПУ6С 25-100 лс	50лс20нж3	SPPK6C 25-100 лс (28лс48нж1) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					163.5	168.5
БПУ6РСО 25-100 лс	50лс20нж4	SPPK6PCO 25-100 лс (28лс48нж2) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					163.5	168.5
БПУ6СО 25-100 лс	50лс20нж5	SPPK6CO 25-100 лс (28лс48нж2) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					177.5	182.5
БПУ6РВ 25-100 лс	50лс20нж6	SPPK6PB 25-100 лс (28лс48нж3) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					171.5	176.5
БПУ6В 25-100 лс	50лс20нж7	SPPK6B 25-100 лс (28лс48нж3) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					164.5	169.5
БПУ6Р 25-100 нж	50нж20нж	SPPK6P 25-100 нж (28нж48нж) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			-60 and up and 300	12Х18Н9ТЛ	164.5	169.5
БПУ6 25-100 нж	50нж20нж1	SPPK6 25-100 нж (28нж48нж) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					157.5	162.5
БПУ6РС 25-100 нж	50нж20нж2	SPPK6PC 25-100 нж (28нж48нж1) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			-60 and up and 600	12Х18Н9ТЛ	171.5	176.5
БПУ6С 25-100 нж	50нж20нж3	SPPK6C 25-100 нж (28нж48нж1) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					163.5	168.5
БПУ6РСО 25-100 нж	50нж20нж4	SPPK6PCO 25-100 нж (28нж48нж2) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					163.5	168.5
БПУ6СО 25-100 нж	50нж20нж5	SPPK6CO 25-100 нж (28нж48нж2) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					177.5	182.5
БПУ6РВ 25-100 нж	50нж20нж6	SPPK6PB 25-100 нж (28нж48нж3) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					171.5	176.5
БПУ6В 25-100 нж	50нж20нж7	SPPK6B 25-100 нж (28нж48нж3) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					164.5	169.5
БПУ6РС 25-100 нж1	50нж20нж8	SPPK6PC 25-100 нж1 (28нж48нж4) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)			-60 and up and 350	12Х18Н12М3ТЛ	171.5	176.5
БПУ6С 25-100 нж1	50нж20нж9	SPPK6C 25-100 нж1 (28нж48нж4) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)					163.5	168.5
БПУ6Р 25-160	50с21нж	SPPK6P 25-160 (28нж47нж) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)		160/40	-40 and up and 300	20Л	164.5	169.5
БПУ6 25-160	50с21нж1	SPPK6 25-160 (28нж47нж) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					157.5	162.5
БПУ6РС 25-160	50с21нж2	SPPK6PC 25-160 (28нж47нж1) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			-40 and up and 450		171.5	176.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6С 25-160	50с21нж3	SPPK6C 25-160 (28нж47нж1) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)	25/50	160/40	-40 and up and 450	20Л	163.5	168.5
БПУ6РСО 25-160	50с21нж4	SPPK6PCO 25-160 (28нж47нж2) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					163.5	168.5
БПУ6СО 25-160	50с21нж5	SPPK6CO 25-160 (28нж47нж2) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					177.5	182.5
БПУ6РВ 25-160	50с21нж6	SPPK6PB 25-160 (28нж47нж3) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)			-40 and up and 450		171.5	176.5
БПУ6В 25-160	50с21нж7	SPPK6B 25-160 (28нж47нж3) ПУ 25-100 (23с21нж) ПУ 50-40-01 (23с17нж1)					164.5	169.5
БПУ6Р 25-160 лс	50лс21нж	SPPK6P 25-160 лс (28лс47нж) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			-60 and up and 300	20ГЛ/20ГМЛ	164.5	169.5
БПУ6 25-160 лс	50лс21нж1	SPPK6 25-160 лс (28лс47нж) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					157.5	162.5
БПУ6РС 25-160 лс	50лс21нж2	SPPK6PC 25-160 лс (28лс47нж1) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)			-60 and up and 450		171.5	176.5
БПУ6С 25-160 лс	50лс21нж3	SPPK6C 25-160 лс (28лс47нж1) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					163.5	168.5
БПУ6РСО 25-160 лс	50лс21нж4	SPPK6PCO 25-160 лс (28лс47нж2) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					163.5	168.5
БПУ6СО 25-160 лс	50лс21нж5	SPPK6CO 25-160 лс (28лс47нж2) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					177.5	182.5
БПУ6РВ 25-160 лс	50лс21нж6	SPPK6PB 25-160 лс (28лс47нж3) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					171.5	176.5
БПУ6В 25-160 лс	50лс21нж7	SPPK6B 25-160 лс (28лс47нж3) ПУ 25-100 лс (23лс21нж) ПУ 50-40-07 лс (23лс17нж1)					164.5	169.5
БПУ6Р 25-160 нж	50нж21нж	SPPK6P 25-160 нж (28нж47нж) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			-60 and up and 300	12Х18Н9ТЛ	164.5	169.5
БПУ6 25-160 нж	50нж21нж1	SPPK6 25-160 нж (28нж47нж) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					157.5	162.5
БПУ6РС 25-160 нж	50нж21нж2	SPPK6PC 25-160 нж (28нж47нж1) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			-60 and up and 425		171.5	176.5
БПУ6С 25-160 нж	50нж21нж3	SPPK6C 25-160 нж (28нж47нж1) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					163.5	168.5
БПУ6РСО 25-160 нж	50нж21нж4	SPPK6PCO 25-160 нж (28нж47нж2) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)			-60 and up and 600	12Х18Н9ТЛ	163.5	168.5
БПУ6СО 25-160 нж	50нж21нж5	SPPK6CO 25-160 нж (28нж47нж2) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					177.5	182.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6РВ 25-160 нж	50нж21нж6	SPPK6PB 25-160 нж (28нж47нж3) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)	25/50	160/40	-60 and up and 600	12Х18Н9ТЛ	171.5	176.5
БПУ6В 25-160 нж	50нж21нж7	SPPK6B 25-160 нж (28нж47нж3) ПУ 25-100 нж (23нж21нж) ПУ 50-40-03 нж (23нж17нж1)					164.5	169.5
БПУ6РС 25-160 нж1	50нж21нж8	SPPK6PC 25-160 нж1 (28нж47нж4) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)			-60 and up and 350	12Х18Н12М3ТЛ	171.5	176.5
БПУ6С 25-160 нж1	50нж21нж9	SPPK6C 25-160 нж1 (28нж47нж4) ПУ 25-100 нж1 (23нж21нж1) ПУ 50-40-05 нж1 (23нж17нж3)					163.5	168.5
БПУ6В 50-16	50с22нж	SPPK6B 50-16 (28с44нж) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)	50/80	16/6	-40 and up and 450	20Л	177	182.5
БПУ6РВ 50-16	50с22нж1	SPPK6PB 50-16 (28с44нж) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)					185	190.5
БПУ6С 50-16	50с22нж2	SPPK6C 50-16 (28с44нж1) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)					179	184.5
БПУ6РС 50-16	50с22нж3	SPPK6PC 50-16 (28с44нж1) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)					188	193.5
БПУ6 50-16	50с22нж4	SPPK6 50-16 (28с44нж2) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)			-40 and up and 300		170	175.5
БПУ6Р 50-16	50с22нж5	SPPK6P 50-16 (28с44нж2) ПУ 50-16-01 (23с16нж1) ПУ 80-6 (23с18нж)					179	184.5
БПУ6В 50-16-01	50с22нж6	SPPK6B 50-16-01 (28с44нж3) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)		16/16	-40 and up and 450		178	183.5
БПУ6РВ 50-16-01	50с22нж7	SPPK6PB 50-16-01 (28с44нж3) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)					186.8	192.3
БПУ6С 50-16-01	50с22нж8	SPPK6C 50-16-01 (28с44нж4) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)		16/16	-40 and up and 450	20Л	180	185.5
БПУ6РС 50-16-01	50с22нж9	SPPK6PC 50-16-01 (28с44нж4) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)					188.8	194.3
БПУ6 50-16-01	50с22нж10	SPPK6 50-16-01 (28с44нж5) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)			-40 and up and 300		170.2	175.7
БПУ6Р 50-16-01	50с22нж11	SPPK6P 50-16-01 (28с44нж5) ПУ 50-16-01 (23с16нж1) ПУ 80-16 (23с16нж)					180	185.5
БПУ6В 50-16 нж	50нж22нж	SPPK6B 50-16 нж (28нж44нж) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)		16/6	-60 and up and 600	12Х18Н9ТЛ	177	182.5
БПУ6РВ 50-16 нж	50нж22нж1	SPPK6PB 50-16 нж (28нж44нж) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)					186	191.5
БПУ6СО 50-16 нж	50нж22нж2	SPPK6CO 50-16 нж (28нж44нж1) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)					172	177.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РСО 50-16 нж	50нж22нж3	SPPK6PCO 50-16 нж (28нж44нж1) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)	50/80	16/6	-60 and up and 600	12Х18Н9ТЛ	183	188.5
БПУ6 50-16 нж	50нж22нж4	SPPK6 50-16 нж (28нж44нж2) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			-60 and up and 300		170	175.5
БПУ6Р 50-16 нж	50нж22нж5	SPPK6P 50-16 нж (28нж44нж2) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)					179	184.5
БПУ6С 50-16 нж	50нж22нж6	SPPK6C 50-16 нж (28нж44нж3) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)			-60 and up and 480		179	184.5
БПУ6РС 50-16 нж	50нж22нж7	SPPK6PC 50-16 нж (28нж44нж3) ПУ 50-16-03 нж (23нж16нж1) ПУ 80-6-01 нж (23нж18нж)					188	193.5
БПУ6В 50-16 нж-01	50нж22нж8	SPPK6B 50-16 нж-01 (28нж44нж4) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)		16/16	-60 and up and 600		178	183.5
БПУ6РВ 50-16 нж-01	50нж22нж9	SPPK6PB 50-16 нж-01 (28нж44нж4) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)					187	192.5
БПУ6СО 50-16 нж-01	50нж22нж10	SPPK6CO 50-16 нж-01 (28нж44нж5) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)			-60 and up and 600	12Х18Н9ТЛ	173	178.5
БПУ6РСО 50-16 нж-01	50нж22нж11	SPPK6PCO 50-16 нж-01 (28нж44нж5) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)					184	189.5
БПУ6С 50-16 нж-01	50нж22нж12	SPPK6C 50-16 нж-01 (28нж44нж6) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)			-60 and up and 480		170.8	176.3
БПУ6РС 50-16 нж-01	50нж22нж13	SPPK6PC 50-16 нж-01 (28нж44нж6) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)					180	185.5
БПУ6 50-16 нж-01	50нж22нж14	SPPK6 50-16 нж-01 (28нж44нж7) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)			-60 and up and 300		170.8	176.3
БПУ6Р 50-16 нж-01	50нж22нж15	SPPK6P 50-16 нж-01 (28нж44нж7) ПУ 50-16-03 нж1 (23нж16нж1) ПУ 80-16-02 нж1 (23нж16нж)					180	185.5
БПУ6В 50-16 лс	50лс22нж	SPPK6B 50-16 лс (28лс44нж) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)		16/6	-60 and up and 450	20ГЛ/20ГМЛ	177	182.5
БПУ6РВ 50-16 лс	50лс22нж1	SPPK6PB 50-16 лс (28лс44нж) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)					186	191.5
БПУ6С 50-16 лс	50лс22нж2	SPPK6C 50-16 лс (28лс44нж1) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)					179	184.5
БПУ6РС 50-16 лс	50лс22нж3	SPPK6PC 50-16 лс (28лс44нж1) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)					188	193.5
БПУ6 50-16 лс	50лс22нж4	SPPK6 50-16 лс (28лс44нж2) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)			-60 and up and 300		170	175.5
БПУ6Р 50-16 лс	50лс22нж5	SPPK6P 50-16 лс (28лс44нж2) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-6-03 ХЛ1 (23лс18нж)					179	184.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6В 50-16 лс-01	50лс22нж6	SPPK6B 50-16 лс-01 (28лс44нж3) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)	50/80	16/16	-60 and up and 450	20ГЛ/20ГМЛ	178	183.5
БПУ6РВ 50-16 лс-01	50лс22нж7	SPPK6PB 50-16 лс-01 (28лс44нж3) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					186.8	192.3
БПУ6С 50-16 лс-01	50лс22нж8	SPPK6C 50-16 лс-01 (28лс44нж4) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			-60 and up and 450	20ГЛ/20ГМЛ	180	185.5
БПУ6РС 50-16 лс-01	50лс22нж9	SPPK6PC 50-16 лс-01 (28лс44нж4) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					188.8	194.3
БПУ6 50-16 лс-01	50лс22нж10	SPPK6 50-16 лс-01 (28лс44нж5) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			-60 and up and 300		170.2	175.7
БПУ6Р 50-16 лс-01	50лс22нж11	SPPK6P 50-16 лс-01 (28лс44нж5) ПУ 50-16-07 ХЛ1 (23лс16нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					180	185.5
БПУ6С 50-16 нж1	50нж22нж16	SPPK6C 50-16 нж1 (28нж44нж8) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-6-02 нж1 (23нж18нж1)		16/6	-60 and up and 350	12Х18Н12М3ТЛ	179	184.5
БПУ6РС 50-16 нж1	50нж22нж17	SPPK6PC 50-16 нж1 (28нж44нж8) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-6-02 нж1 (23нж18нж1)					188	193.5
БПУ6С 50-16 нж1-01	50нж22нж18	SPPK6C 50-16 нж1-01 (28нж44нж9) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-16-04 нж1 (23нж16нж2)		16/16			179.8	185.3
БПУ6РС 50-16 нж1-01	50нж22нж19	SPPK6PC 50-16 нж1-01 (28нж44нж9) ПУ 50-16-05 нж1 (23нж16нж3) ПУ 80-16-04 нж1 (23нж16нж2)					188.8	194.3
БПУ6В 50-40	50с23нж	SPPK6B 50-40 (28с40нж) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)		40/16	-40 and up and 450	20Л	181	188.5
БПУ6РВ 50-40	50с23нж1	SPPK6PB 50-40 (28с40нж) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)					190	197.5
БПУ6С 50-40	50с23нж2	SPPK6C 50-40 (28с40нж1) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)					183	190.5
БПУ6РС 50-40	50с23нж3	SPPK6PC 50-40 (28с40нж1) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)					192	199.5
БПУ6 50-40	50с23нж4	SPPK6 50-40 (28с40нж2) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)			-40 and up and 300		174	181.5
БПУ6Р 50-40	50с23нж5	SPPK6P 50-40 (28с40нж2) ПУ 50-40-01 (23с17нж1) ПУ 80-16 (23с16нж)					183	190.5
БПУ6В 50-40-01	50с23нж6	SPPK6B 50-40-01 (28с40нж3) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)		40/40	-40 and up and 450	20Л	182	189.5
БПУ6РВ 50-40-01	50с23нж7	SPPK6PB 50-40-01 (28с40нж3) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)					190.8	198.3
БПУ6С 50-40-01	50с23нж8	SPPK6C 50-40-01 (28с40нж4) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)					184	191.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 50-40-01	50с23нж9	SPPK6PC 50-40-01 (28с40нж4) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)	50/80	40/40	-40 and up and 450	20Л	192.8	200.3
БПУ6 50-40-01	50с23нж10	SPPK6 50-40-01 (28с40нж5) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)			-40 and up and 300		175.2	182.7
БПУ6Р 50-40-01	50с23нж11	SPPK6P 50-40-01 (28с40нж5) ПУ 50-40-01 (23с17нж1) ПУ 80-40 (23с17нж)					184	191.5
БПУ6В 50-40 нж	50нж23нж	SPPK6B 50-40 нж (28нж40нж) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)		40/16	-60 and up and 600	12Х18Н9ТЛ	181	188.5
БПУ6РВ 50-40 нж	50нж23нж1	SPPK6PB 50-40 нж (28нж40нж) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)					190	197.5
БПУ6СО 50-40 нж	50нж23нж2	SPPK6CO 50-40 нж (28нж40нж1) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)					176	183.5
БПУ6РСО 50-40 нж	50нж23нж3	SPPK6PCO 50-40 нж (28нж40нж1) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)					187	194.5
БПУ6 50-40 нж	50нж23нж4	SPPK6 50-40 нж (28нж40нж2) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)			-60 and up and 300		174	181.5
БПУ6Р 50-40 нж	50нж23нж5	SPPK6P 50-40 нж (28нж40нж2) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)					183	190.5
БПУ6С 50-40 нж	50нж23нж6	SPPK6C 50-40 нж (28нж40нж3) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)			-60 and up and 480		192	199.5
БПУ6РС 50-40 нж	50нж23нж7	SPPK6PC 50-40 нж (28нж40нж3) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-16-02 нж (23нж16нж1)					182	189.5
БПУ6В 50-40 нж-01	50нж23нж8	SPPK6B 50-40 нж-01 (28нж40нж4) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)		40/40	-60 and up and 600	12Х18Н9ТЛ	191	198.5
БПУ6РВ 50-40 нж-01	50нж23нж9	SPPK6PB 50-40 нж-01 (28нж40нж4) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)					177	184.5
БПУ6СО 50-40 нж-01	50нж23нж10	SPPK6CO 50-40 нж-01 (28нж40нж5) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)					188	195.5
БПУ6РСО 50-40 нж-01	50нж23нж11	SPPK6PCO 50-40 нж-01 (28нж44нж5) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)					174.8	182.3
БПУ6С 50-40 нж-01	50нж23нж12	SPPK6C 50-40 нж-01 (28нж40нж6) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)			-60 and up and 300		181	188.5
БПУ6РС 50-40 нж-01	50нж23нж13	SPPK6PC 50-40 нж-01 (28нж40нж6) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)					174.8	182.3
БПУ6 50-40 нж-01	50нж23нж14	SPPK6 50-40 нж-01 (28нж40нж7) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)			-60 and up and 480		184	191.5
БПУ6Р 50-40 нж-01	50нж23нж15	SPPK6P 50-40 нж-01 (28нж40нж7) ПУ 50-40-03 нж (23нж17нж1) ПУ 80-40-02 нж (23нж17нж)					181	188.5

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6В 50-40 лс	50лс23нж	SPPK6B 50-40 лс (28лс40нж) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)	50/80	40/16	-60 and up and 450	20ГЛ/20ГМЛ	181	188.5
БПУ6РВ 50-40 лс	50лс23нж1	SPPK6PB 50-40 лс (28лс40нж) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					190	197.5
БПУ6С 50-40 лс	50лс23нж2	SPPK6C 50-40 лс (28лс40нж1) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					183	190.5
БПУ6РС 50-40 лс	50лс23нж3	SPPK6PC 50-40 лс (28лс40нж1) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					192	199.5
БПУ6 50-40 лс	50лс23нж4	SPPK6 50-40 лс (28лс40нж2) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)			-60 and up and 300		174	181.5
БПУ6Р 50-40 лс	50лс23нж5	SPPK6P 50-40 лс (28лс40нж2) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-16-06 ХЛ1 (23лс16нж)					183	190.5
БПУ6В 50-40 лс-01	50лс23нж6	SPPK6B 50-40 лс-01 (28лс40нж3) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)		40/40	-60 and up and 450	20ГЛ/20ГМЛ	182	189.5
БПУ6РВ 50-40 лс-01	50лс23нж7	SPPK6PB 50-40 лс-01 (28лс40нж3) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)					190.8	198.3
БПУ6С 50-40 лс-01	50лс23нж8	SPPK6C 50-40 лс-01 (28лс40нж4) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)					184	191.5
БПУ6РС 50-40 лс-01	50лс23нж9	SPPK6PC 50-40 лс-01 (28лс40нж4) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)					192.8	200.3
БПУ6 50-40 лс-01	50лс23нж10	SPPK6 50-40 лс-01 (28лс40нж5) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)			-60 and up and 300		174.8	182.3
БПУ6Р 50-40 лс-01	50лс23нж11	SPPK6P 50-40 лс-01 (28лс40нж5) ПУ 50-40-07 ХЛ1 (23лс17нж1) ПУ 80-40-06 ХЛ1 (23лс17нж)					184	191.5
БПУ6С 50-40нж1	50нж23нж16	SPPK6C 50-40 нж1 (28нж40нж8) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-16-04 нж1 (23нж16нж2		40/16	-60 and up and 350	12Х18Н12М3ТЛ	183	190.5
БПУ6РС 50-40 нж1	50нж23нж17	SPPK6PC 50-40 нж1 (28нж40нж8) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-16-04 нж1 (23нж16нж2					192	199.5
БПУ6С 50-40 нж1-01	50нж23нж18	SPPK6C 50-40 нж1-01 (28нж40нж9) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-40-04 нж1 (23нж17нж2)		40/40			183.8	191.3
БПУ6РС 50-40 нж1-01	50нж23нж19	SPPK6PC 50-40 нж1-01 (28нж40нж9) ПУ 50-40-05 нж1 (23нж17нж3) ПУ 80-40-04 нж1 (23нж17нж2)					192.8	200.3
БПУ6В 100-16	50с30нж	SPPK6B 100-16 (28с30нж) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)	100/150	16/6	-40 and up and 450	20Л	467	482
БПУ6РВ 100-16	50с30нж1	SPPK6PB 100-16 (28с30нж) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)					473	488
БПУ6С 100-16	50с30нж2	SPPK6C 100-16 (28с30нж1) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)					475	490

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 100-16	50с30нж3	SPPK6PC 100-16 (28с30нж1) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)	100/150	16/6	-40 and up and 450	20Л	481	496
БПУ6 100-16	50с30нж4	SPPK6 100-16 (28с30нж2) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)			-40 and up and 300		449	464
БПУ6Р 100-16	50с30нж5	SPPK6P 100-16 (28с30нж2) ПУ 100-16-01 (23с16нж1) ПУ 150-6 (23с16нж2)					459	474
БПУ6В 100-16-01	50с30нж6	SPPK6B 100-16-01 (28с30нж3) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)		16/16	-40 and up and 450		475	490
БПУ6РВ 100-16-01	50с30нж7	SPPK6PB 100-16-01 (28с30нж3) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)					481	496
БПУ6С 100-16-01	50с30нж8	SPPK6C 100-16-01 (28с30нж4) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)					483	498
БПУ6РС 100-16-01	50с30нж9	SPPK6PC 100-16-01 (28с30нж4) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)					489	504
БПУ6 100-16-01	50с30нж10	SPPK6 100-16-01 (28с30нж5) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)			-40 and up and 300		449	464
БПУ6Р 100-16-01	50с30нж11	SPPK6P 100-16-01 (28с30нж5) ПУ 100-16-01 (23с16нж1) ПУ 150-16 (23с16нж)					463	478
БПУ6В 100-16 нж	50нж30нж	SPPK6B 100-16 нж (28нж30нж) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)		16/6	-60 and up and 600	12Х18Н9ТЛ	467	482
БПУ6РВ 100-16 нж	50нж30нж1	SPPK6PB 100-16 нж (28нж30нж) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)					473	488
БПУ6СО 100-16 нж	50нж30нж2	SPPK6CO 100-16 нж (28нж30нж1) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)					471	486
БПУ6РСО 100-16 нж	50нж30нж3	SPPK6PCO 100-16 нж (28нж30нж1) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)					477	492
БПУ6 100-16 нж	50нж30нж4	SPPK6 100-16 нж (28нж30нж2) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)			-60 and up and 300		449	464
БПУ6Р 100-16 нж	50нж30нж5	SPPK6P 100-16 нж (28нж30нж2) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)					459	474
БПУ6С 100-16 нж	50нж30нж6	SPPK6C 100-16 нж (28нж30нж3) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)		16/6	-60 and up and 480	12Х18Н9ТЛ	479	494
БПУ6РС 100-16 нж	50нж30нж7	SPPK6PC 100-16 нж (28нж30нж3) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-6-02 нж (23нж16нж4)					485	500
БПУ6В 100-16 нж-01	50нж30нж8	SPPK6B 100-16 нж-01 (28нж30нж4) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)		16/16	-60 and up and 600		475	490
БПУ6РВ 100-16 нж-01	50нж30нж9	SPPK6PB 100-16 нж-01 (28нж30нж4) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)					481	496

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6СО 100-16 нж-01	50нж30нж10	SPPK6CO 100-16 нж-01 (28нж30нж5) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)	100/150	16/16	-60 and up and 600	12Х18Н9ТЛ	479	494
БПУ6РСО 100-16 нж-01	50нж30нж11	SPPK6PCO 100-16 нж-01 (28нж30нж5) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)					485	500
БПУ6С 100-16 нж-01	50нж30нж12	SPPK6C 100-16 нж-01 (28нж30нж6) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			-60 and up and 480		487	502
БПУ6РС 100-16 нж-01	50нж30нж13	SPPK6PC 100-16 нж-01 (28нж30нж6) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)					493	508
БПУ6 100-16 нж-01	50нж30нж14	SPPK6 100-16 нж-01 (28нж30нж7) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)			-60 and up and 300		457	472
БПУ6Р 100-16 нж-01	50нж30нж15	SPPK6P 100-16 нж-01 (28нж30нж7) ПУ 100-16-03 нж (23нж16нж1) ПУ 150-16-02 нж (23нж16нж)					467	482
БПУ6В 100-16 лс	50лс30нж	SPPK6B 100-16 лс (28лс30нж) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)		16/6	-60 and up and 300	20ГЛ/20ГМЛ	467	482
БПУ6РВ 100-16 лс	50лс30нж1	SPPK6PB 100-16 лс (28лс30нж) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)					473	488
БПУ6С 100-16 лс	50лс30нж2	SPPK6C 100-16 лс (28лс30нж1) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)					475	490
БПУ6РС 100-16 лс	50лс30нж3	SPPK6PC 100-16 лс (28лс30нж1) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)					481	496
БПУ6 100-16 лс	50лс30нж4	SPPK6 100-16 лс (28лс30нж2) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)		16/6	-60 and up and 300	20ГЛ/20ГМЛ	446	461
БПУ6Р 100-16 лс	50лс30нж5	SPPK6P 100-16 лс (28лс30нж2) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-6-06 ХЛ1 (23лс16нж2)					459	474
БПУ6В 100-16 лс-01	50лс30нж6	SPPK6B 100-16 лс-01 (28лс30нж3) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)		16/16	-60 and up and 300		475	490
БПУ6РВ 100-16 лс-01	50лс30нж7	SPPK6PB 100-16 лс-01 (28лс30нж3) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					481	496
БПУ6С 100-16 лс-01	50лс30нж8	SPPK6C 100-16 лс-01 (28лс30нж4) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					483	498
БПУ6РС 100-16 лс-01	50лс30нж9	SPPK6PC 100-16 лс-01 (28лс30нж4) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					489	504
БПУ6 100-16 лс-01	50лс30нж10	SPPK6 100-16 лс-01 (28лс30нж5) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			-60 and up and 300		457	472
БПУ6Р 100-16 лс-01	50лс30нж11	SPPK6P 100-16 лс-01 (28лс30нж5) ПУ 100-16-07 ХЛ1 (23лс16нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					463	478
БПУ6С 100-16 нж1	50нж30нж16	SPPK6C 100-16 нж1 (28нж30нж8) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-6-04 нж1 (23нж16нж5)		16/6	-60 and up and 350	12Х18Н12М3ТЛ	467	482

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 100-16 нж1	50нж30нж17	SPPK6PC 100-16 нж1 (28нж30нж8) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-6-04 нж1 (23нж16нж5)	100/150	16/6	-60 and up and 350	12Х18Н12М3ТЛ	473	488
БПУ6С 100-16 нж1-01	50нж30нж18	SPPK6C 100-16 нж1-01 (28нж30нж9) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-16-04 нж1 (23нж16нж2)		16/16			475	490
БПУ6РС 100-16 нж1-01	50нж30нж19	SPPK6PC 100-16 нж1-01 (28нж30нж9) ПУ 100-16-05 нж1 (23нж16нж3) ПУ 150-16-04 нж1 (23нж16нж2)					481	496
БПУ6В 100-40	50с31нж	SPPK6B 100-40 (28с34нж) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)		40/16	-40 and up and 450	20Л	513	530
БПУ6РВ 100-40	50с31нж1	SPPK6PB 100-40 (28с34нж) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)					519	536
БПУ6С 100-40	50с31нж2	SPPK6C 100-40 (28с34нж1) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)		40/16	-40 and up and 450	20Л	521	538
БПУ6РС 100-40	50с31нж3	SPPK6PC 100-40 (28с34нж1) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)					527	544
БПУ6 100-40	50с31нж4	SPPK6 100-40 (28с34нж2) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)			-40 and up and 300		495	512
БПУ6Р 100-40	50с31нж5	SPPK6P 100-40 (28с34нж2) ПУ 100-40-01 (23с17нж1) ПУ 150-16 (23с16нж)					505	522
БПУ6В 100-40-01	50с31нж6	SPPK6B 100-40-01 (28с34нж3) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)		40/40	-40 and up and 450		517	534
БПУ6РВ 100-40-01	50с31нж7	SPPK6PB 100-40-01 (28с34нж3) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)					523	540
БПУ6С 100-40-01	50с31нж8	SPPK6C 100-40-01 (28с34нж4) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)					525	542
БПУ6РС 100-40-01	50с31нж9	SPPK6PC 100-40-01 (28с34нж4) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)					531	548
БПУ6 100-40-01	50с31нж10	SPPK6 100-40-01 (28с34нж5) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)			-40 and up and 300		499	516
БПУ6Р 100-40-01	50с31нж11	SPPK6P 100-40-01 (28с34нж5) ПУ 100-40-01 (23с17нж1) ПУ 150-40 (23с17нж)					505	522
БПУ6В 100-40 нж	50нж31нж	SPPK6B 100-40 нж (28нж34нж) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)		40/16	-60 and up and 600	12Х18Н9ТЛ	513	530
БПУ6РВ 100-40 нж	50нж31нж1	SPPK6PB 100-40 нж (28нж34нж) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)					519	536
БПУ6СО 100-40 нж	50нж31нж2	SPPK6CO 100-40 нж (28нж34нж1) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)					517	534
БПУ6РСО 100-40 нж	50нж31нж3	SPPK6PCO 100-40 нж (28нж34нж1) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)					523	540

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6 100-40 нж	50нж31нж4	SPPK6 100-40 нж (28нж34нж2) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)	100/150	40/16	-60 and up and 300	12Х18Н9ТЛ	495	512
БПУ6Р100-40 нж	50нж31нж5	SPPK6P100-40 нж (28нж34нж2) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)					505	522
БПУ6С 100-40 нж	50нж31нж6	SPPK6C 100-40 нж (28нж34нж3) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)			-60 and up and 480		525	542
БПУ6РС 100-40 нж	50нж31нж7	SPPK6PC 100-40 нж (28нж34нж3) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-16-02 нж (23нж16нж)					531	548
БПУ6В 100-40 нж-01	50нж31нж8	SPPK6B 100-40 нж-01 (28нж34нж4) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)		40/40	-60 and up and 600		517	534
БПУ6РВ 100-40 нж-01	50нж31нж9	SPPK6PB 100-40 нж-01 (28нж34нж4) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)					523	540
БПУ6СО 100-40 нж-01	50нж31нж10	SPPK6CO 100-40 нж-01 (28нж34нж5) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)					521	538
БПУ6РСО 100-40 нж-01	50нж31нж11	SPPK6PCO 100-40 нж-01 (28нж34нж5) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)					527	544
БПУ6С 100-40 нж-01	50нж31нж12	SPPK6C 100-40 нж-01 (28нж34нж6) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 480		529	546
БПУ6РС 100-40 нж-01	50нж31нж13	SPPK6PC 100-40 нж-01 (28нж34нж6) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)					535	552
БПУ6 100-40 нж-01	50нж31нж14	SPPK6 100-40 нж-01 (28нж34нж7) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 300		499	516
БПУ6Р 100-40 нж-01	50нж31нж15	SPPK6P 100-40 нж-01 (28нж34нж7) ПУ 100-40-03 нж (23нж17нж1) ПУ 150-40-02 нж (23нж17нж)					509	526
БПУ6В 100-40 лс	50лс31нж	SPPK6B 100-40 лс (28лс34нж) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)		40/16	-60 and up and 450	20ГЛ/20ГМЛ	513	530
БПУ6РВ 100-40 лс	50лс31нж1	SPPK6PB 100-40 лс (28лс34нж) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					519	536
БПУ6С 100-40 лс	50лс31нж2	SPPK6C 100-40 лс (28лс34нж1) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)		40/16	-60 and up and 450	20ГЛ/20ГМЛ	521	538
БПУ6РС 100-40 лс	50лс31нж3	SPPK6PC 100-40 лс (28лс34нж1) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					527	544
БПУ6 100-40 лс	50лс31нж4	SPPK6 100-40 лс (28лс34нж2) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)			-60 and up and 300		495	512
БПУ6Р 100-40 лс	50лс31нж5	SPPK6P 100-40 лс (28лс34нж2) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс16нж)					505	522
БПУ6В 100-40 лс-01	50лс31нж6	SPPK6B 100-40 лс-01 (28лс34нж3) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)		40/40	-60 and up and 450		517	534

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РВ 100-40 лс-01	50лс31нж7	SPPK6PB 100-40 лс-01 (28лс34нж3) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)	100/150	40/40	-60 and up and 450	20ГЛ/20ГМЛ	523	540
БПУ6С 100-40 лс-01	50лс31нж8	SPPK6C 100-40 лс-01 (28лс34нж4) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)					525	542
БПУ6РС 100-40 лс-01	50лс31нж9	SPPK6PC 100-40 лс-01 (28лс34нж4) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)					531	548
БПУ6 100-40 лс-01	50лс31нж10	SPPK6 100-40 лс-01 (28лс34нж5) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)			-60 and up and 300		499	516
БПУ6Р 100-40 лс-01	50лс31нж11	SPPK6P 100-40 лс-01 (28лс34нж5) ПУ 100-40-07 ХЛ1 (23лс17нж1) ПУ 150-16-06 ХЛ1 (23лс17нж)					505	522
БПУ6С 100-40 нж1	50нж31нж16	SPPK6C 100-40 нж1 (28нж34нж8) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-16-04 нж1 (23нж16нж2)		40/16	-60 and up and 350	12Х18Н12М3ТЛ	513	530
БПУ6РС 100-40 нж1	50нж31нж17	SPPK6PC 100-40 нж1 (28нж34нж8) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-16-04 нж1 (23нж16нж2)					519	536
БПУ6С 100-40 нж1-01	50нж31нж18	SPPK6C 100-40 нж1-01 (28нж34нж9) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-40-04 нж1 (23нж17нж2)		40/40			517	534
БПУ6РС 100-40 нж1-01	50нж31нж19	SPPK6PC 100-40 нж1-01 (28нж34нж9) ПУ 100-40-05 нж1 (23нж17нж3) ПУ 150-40-04 нж1 (23нж17нж2)					523	540
БПУ6В 100-63	50с32нж	SPPK6B 100-63 (28с42нж) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)		63/40	-40 and up and 450	20Л	908.4	933.9
БПУ6РВ 100-63	50с32нж1	SPPK6PB 100-63 (28с42нж) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					937	962.5
БПУ6С 100-63	50с32нж2	SPPK6C 100-63 (28с42нж1) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					942	967.5
БПУ6РС 100-63	50с32нж3	SPPK6PC 100-63 (28с42нж1) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					970.6	996.1
БПУ6 100-63	50с32нж4	SPPK6 100-63 (28с42нж2) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)			-40 and up and 300		868.6	894.1
БПУ6Р 100-63	50с32нж5	SPPK6P 100-63 (28с42нж2) ПУ 100-63 (23с20нж) ПУ 150-40 (23с17нж)					897.2	922.7
БПУ6В 100-63 нж	50нж32нж	SPPK6B 100-63 нж (28нж42нж) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 600	12Х18Н9ТЛ	908.4	933.9
БПУ6РВ 100-63 нж	50нж32нж1	SPPK6PB 100-63 нж (28нж42нж) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					937	962.5
БПУ6СО 100-63 нж	50нж32нж2	SPPK6CO 100-63 нж (28нж42нж1) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					919	944.5
БПУ6РСО 100-63 нж	50нж32нж3	SPPK6PCO 100-63 нж (28нж42нж1) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					947.6	973.1

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6 100-63 нж	50нж32нж4	SPPK6 100-63 нж (28нж42нж2) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)	100/150	63/40	-60 and up and 300	12Х18Н9ТЛ	868.6	894.1
БПУ6Р 100-63 нж	50нж32нж5	SPPK6P 100-63 нж (28нж42нж2) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					897.2	922.7
БПУ6С 100-63 нж	50нж32нж6	SPPK6C 100-63 нж (28нж42нж3) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 500		942	967.5
БПУ6РС 100-63 нж	50нж32нж7	SPPK6PC 100-63 нж (28нж42нж3) ПУ 100-63-01 нж (23нж20нж) ПУ 150-40-02 нж (23нж17нж)					970.6	996.1
БПУ6В 100-63 лс	50лс32нж	SPPK6B 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 450	20ГЛ/20ГМЛ	908.4	933.9
БПУ6РВ 100-63 лс	50лс32нж1	SPPK6PB 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					937	962.5
БПУ6С 100-63 лс	50лс32нж2	SPPK6C 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					942	967.5
БПУ6РС 100-63 лс	50лс32нж3	SPPK6PC 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					970.6	996.1
БПУ6 100-63 лс	50лс32нж4	SPPK6 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 300		868.6	894.1
БПУ6Р 100-63 лс	50лс32нж5	SPPK6P 100-63 лс (28лс42нж) ПУ 100-63-03 ХЛ1 (23лс20нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					897.2	922.7
БПУ6С 100-63 нж1	50нж32нж8	SPPK6C 100-63 нж1 (28нж42нж4) ПУ 100-63-02 нж1 (23нж20нж1) ПУ 150-40 -04 нж1(23нж17нж2)			-60 and up and 350	12Х18Н12М3ТЛ	942	967.5
БПУ6РС 100-63 нж1	50нж32нж9	SPPK6PC 100-63 нж1 (28нж42нж4) ПУ 100-63-02 нж1 (23нж20нж1) ПУ 150-40 -04 нж1(23нж17нж2)					970.6	996.1
БПУ6В 100-160	50с33нж	SPPK6B 100-160 (28с43нж) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)		160/40	-40 and up and 450	20Л	923.4	954
БПУ6РВ 100-160	50с33нж1	SPPK6PB 100-160 (28с43нж) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					952	982.6
БПУ6С 100-160	50с33нж2	SPPK6C 100-160 (28с43нж1) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					957	987.6
БПУ6РС 100-160	50с33нж3	SPPK6PC 100-160 (28с43нж1) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					985.6	1016.2
БПУ6 100-160	50с33нж4	SPPK6 100-160 (28с43нж2) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)			-40 and up and 300		883.6	914.2
БПУ6Р 100-160	50с33нж5	SPPK6P 100-160 (28с43нж2) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					912.2	942.8
БПУ6С 100-160-01	50с33нж6	SPPK6C 100-160-01 (28с43нж3) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)		160/40	-40 and up and 350	20Л	921	951.6

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 100-160-01	50с33нж7	SPPK6PC 100-160-01 (28с43нж3) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)	100/150	160/40	-40 and up and 350	20Л	949.6	980.2
БПУ6 100-160-01	50с33нж8	SPPK6 100-160-01 (28с43нж4) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)			-40 and up and 300		885.2	915.8
БПУ6Р 100-160-01	50с33нж9	SPPK6P 100-160-01 (28с43нж4) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					913.8	944.4
БПУ6С 100-160-02	50с33нж10	SPPK6C 100-160-02 (28с43нж5) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					920	950.6
БПУ6РС 100-160-02	50с33нж11	SPPK6PC 100-160-02 (28с43нж5) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					948.8	979.4
БПУ6 100-160-02	50с33нж12	SPPK6 100-160-02 (28с43нж6) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					884.4	915
БПУ6Р 100-160-02	50с33нж13	SPPK6P 100-160-02 (28с43нж6) ПУ 100-160 (23с19нж) ПУ 150-40 (23с17нж)					913	943.6
БПУ6В 100-160 нж	50нж33нж	SPPK6B 100-160 нж (28нж43нж) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 600	12Х18Н9ТЛ	923.4	954
БПУ6РВ 100-160 нж	50нж33нж1	SPPK6PB 100-160 нж (28нж43нж) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					952	982.6
БПУ6СО 100-160 нж	50нж33нж2	SPPK6CO 100-160 нж (28нж43нж1) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					934	964.6
БПУ6РСО 100-160 нж	50нж33нж3	SPPK6PCO 100-160 нж (28нж43нж1) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					962.6	993.2
БПУ6 100-160 нж	50нж33нж4	SPPK6 100-160 нж (28нж43нж2) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 300		883.6	914.2
БПУ6Р 100-160 нж	50нж33нж5	SPPK6P 100-160 нж (28нж43нж2) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					912.2	942.8
БПУ6С 100-160 нж	50нж33нж6	SPPK6C 100-160 нж (28нж43нж3) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 500	12Х18Н9ТЛ	957	987.6
БПУ6РС 100-160 нж	50нж33нж7	SPPK6PC 100-160 нж (28нж43нж3) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					985.6	1016.2
БПУ6В 100-160-01 нж	50нж33нж8	SPPK6B 100-160-01 нж (28нж43нж4) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					919.4	950
БПУ6РВ 100-160-01 нж	50нж33нж9	SPPK6PB 100-160-01 нж (28нж43нж4) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					948	978.6
БПУ6СО 100-160-01 нж	50нж33нж10	SPPK6CO 100-160-01 нж (28нж43нж5) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					898	928.6
БПУ6РСО 100-160-01 нж	50нж33нж11	SPPK6PCO 100-160-01 нж (28нж43нж5) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					926.6	957.2

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6 100-160-01 нж	50нж33нж12	SPPK6 100-160-01 нж (28нж43нж6) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)	100/150	160/40	-60 and up and 300	12Х18Н9ТЛ	921	951.6
БПУ6Р 100-160-01 нж	50нж33нж13	SPPK6P 100-160-01 нж (28нж43нж6) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					949.6	980.2
БПУ6С 100-160-01 нж	50нж33нж14	SPPK6C 100-160-01 нж (28нж43нж7) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					885.2	915.8
БПУ6РС 100-160-01 нж	50нж33нж15	SPPK6PC 100-160-01 нж (28нж43нж7) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					913.8	944.4
БПУ6СО 100-160-02 нж	50нж33нж16	SPPK6CO 100-160-02 нж (28нж43нж8) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					897	927.6
БПУ6РСО 100-160-02 нж	50нж33нж17	SPPK6PCO 100-160-02 нж (28нж43нж8) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					925.6	956.2
БПУ6С 100-160-02 нж	50нж33нж18	SPPK6C 100-160-02 нж (28нж43нж9) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)			-60 and up and 300	12Х18Н9ТЛ	920	950.6
БПУ6РС 100-160-02 нж	50нж33нж19	SPPK6PC 100-160-02 нж (28нж43нж9) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					948.6	979.2
БПУ6 100-160-02 нж	50нж33нж20	SPPK6 100-160-02 нж (28нж43нж10) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					884.4	915
БПУ6Р 100-160-02 нж	50нж33нж21	SPPK6P 100-160-02 нж (28нж43нж10) ПУ 100-160-01 нж (23нж19нж) ПУ 150-40-02 нж (23нж17нж)					913	943.6
БПУ6В 100-160 лс	50лс33нж	SPPK6B 100-160 лс (28лс43нж) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 450	20ГЛ/20ГМЛ	923.4	954
БПУ6РВ 100-160 лс	50лс33нж1	SPPK6PB 100-160 лс (28лс43нж) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					952	982.6
БПУ6С 100-160 лс	50лс33нж2	SPPK6C 100-160 лс (28лс43нж1) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					957	987.6
БПУ6РС 100-160 лс	50лс33нж3	SPPK6PC 100-160 лс (28лс43нж1) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					985.6	1016.2
БПУ6 100-160 лс	50лс33нж4	SPPK6 100-160 лс (28лс43нж2) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 300		883.6	914.2
БПУ6Р 100-160 лс	50лс33нж5	SPPK6P 100-160 лс (28лс43нж2) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					912.2	942.8
БПУ6С 100-160-01 лс	50лс33нж6	SPPK6C 100-160-01 лс (28лс43нж3) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 350		921	951.6
БПУ6РС 100-160-01 лс	50лс33нж7	SPPK6PC 100-160-01 лс (28лс43нж3) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					949.6	980.2
БПУ6 100-160-01 лс	50лс33нж8	SPPK6 100-160-01 лс (28лс43нж4) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)			-60 and up and 300		885.2	915.8

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6Р 100-160-01 лс	50лс33нж9	SPPK6P 100-160-01 лс (28лс43нж4) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)	100/150	160/40	-60 and up and 300	20ГЛ/20ГМЛ	913.8	944.4
БПУ6С 100-160-02 лс	50лс33нж10	SPPK6C 100-160-02 лс (28лс43нж5) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					920	950.6
БПУ6РС 100-160-02 лс	50лс33нж11	SPPK6PC 100-160-02 лс (28лс43нж5) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					948.6	979.2
БПУ6 100-160-02 лс	50лс33нж12	SPPK6 100-160-02 лс (28лс43нж6) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					884.4	915
БПУ6Р 100-160-02 лс	50лс33нж13	SPPK6P 100-160-02 лс (28лс43нж6) ПУ 100-160-03 ХЛ1 (23лс19нж) ПУ 150-40-06 ХЛ1 (23лс17нж)					913	943.6
БПУ6С 100-160 нж1	50нж33нж22	SPPK6C 100-160 нж1 (28нж43нж11) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)			-60 and up and 350	12Х18Н12М3ТЛ	957	987.6
БПУ6РС 100-160 нж1	50нж33нж23	SPPK6PC 100-160 нж1 (28нж43нж11) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)					985.6	1016.2
БПУ6С 100-160-01 нж1	50нж33нж24	SPPK6C 100-160-01 нж1 (28нж43нж12) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)					921	951.6
БПУ6РС 100-160-01 нж1	50нж33нж25	SPPK6PC 100-160-01 нж1 (28нж43нж12) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)					985.6	1016.2
БПУ6С 100-160-02 нж1	50нж33нж26	SPPK6C 100-160-02 нж1 (28нж43нж13) ПУ 100-160-02 нж1 (23нж19нж1) ПУ 150-40-04 нж1 (23нж17нж2)					920	950.6
БПУ6В 150-16	50с34нж	SPPK6B 150-16 (28с27нж2) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)	150/200	16/6	-40 and up and 450	20Л	1011	1031
БПУ6РВ 150-16	50с34нж1	SPPK6PB 150-16 (28с27нж2) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)					1057	1077
БПУ6С 150-16	50с34нж2	SPPK6C 150-16 (28с27нж1) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)					1011	1031
БПУ6РС 150-16	50с34нж3	SPPK6PC 150-16 (28с27нж1) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)					1031	1051
БПУ6 150-16	50с34нж4	SPPK6 150-16 (28с27нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)			-60 and up and 300	20Л	981	1001
БПУ6Р 150-16	50с34нж5	SPPK6P 150-16 (28с27нж) ПУ 150-16-01 (23с16нж1) ПУ 200-6 (23с18нж)					1003	1023
БПУ6В 150-16 нж	50нж34нж	SPPK6B 150-16 нж (28нж27нж2) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			-60 and up and 600	12Х18Н9ТЛ	1011	1031
БПУ6РВ 150-16 нж	50нж34нж1	SPPK6PB 150-16 нж (28нж27нж2) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)					1057	1077
БПУ6СО 150-16 нж	50нж34нж2	SPPK6CO 150-16 нж (28нж27нж3) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)					983	1003

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6РСО 150-16 нж	50нж34нж3	SPPK6PCO 150-16 нж (28нж27нж3) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)	150/200	16/6	-60 and up and 600	12Х18Н9ТЛ	1003	1023
БПУ6 150-16 нж	50нж34нж4	SPPK6 150-16 нж (28нж27нж) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			-60 and up and 300		981	1001
БПУ6Р 150-16 нж	50нж34нж5	SPPK6P 150-16 нж (28нж27нж) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)					1003	1023
БПУ6С 150-16 нж	50нж34нж6	SPPK6C 150-16 нж (28нж27нж4) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)			-60 and up and 480		1011	1031
БПУ6РС 150-16 нж	50нж34нж7	SPPK6PC 150-16 нж (28нж27нж4) ПУ 150-16-03 нж (23нж16нж1) ПУ 200-6-01 нж (23нж18нж)					1031	1051
БПУ6В 150-16 лс	50лс34нж	SPPK6B 150-16 лс (28лс27нж1) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			-60 and up and 450	20ГЛ/20ГМЛ	1011	1031
БПУ6РВ 150-16 лс	50лс34нж1	SPPK6PB 150-16 лс (28лс27нж1) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)					1057	1077
БПУ6С 150-16 лс	50лс34нж2	SPPK6C 150-16 лс (28лс27нж2) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)					1011	1031
БПУ6РС 150-16 лс	50лс34нж3	SPPK6PC 150-16 лс (28лс27нж2) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)					1031	1051
БПУ6 150-16 лс	50лс34нж4	SPPK6 150-16 лс (28лс27нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)			-60 and up and 300		981	1001
БПУ6Р 150-16 лс	50лс34нж5	SPPK6P 150-16 лс (28лс27нж) ПУ 150-16-07 ХЛ1 (23лс16нж1) ПУ 200-6-03 ХЛ1 (23лс18нж)					1003	1023
БПУ6С 150-16 нж1	50нж34нж8	SPPK6C 150-16 нж1 (28нж27нж1) ПУ 150-16-05 нж1 (23нж16нж3) ПУ 200-6-02 нж1 (23нж18нж1)			-60 and up and 350	12Х18Н12М3ТЛ	1011	1031
БПУ6РС 150-16 нж1	50нж34нж9	SPPK6PC 150-16 нж1 (28нж27нж1) ПУ 150-16-05 нж1 (23нж16нж3) ПУ 200-6-02 нж1 (23нж18нж1)					1031	1051
БПУ6В 150-40	50с35нж	SPPK6B 150-40 (28с26нж2) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)		40/16	-40 and up and 450	20Л	1026	1053
БПУ6РВ 150-40	50с35нж1	SPPK6PB 150-40 (28с26нж2) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1072	1099
БПУ6С 150-40	50с35нж2	SPPK6C 150-40 (28с26нж3) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1026	1053
БПУ6РС 150-40	50с35нж3	SPPK6PC 150-40 (28с26нж3) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1046	1073
БПУ6 150-40	50с35нж4	SPPK6 150-40 (28с26нж) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)			-40 and up and 300		996	1023
БПУ6Р 150-40	50с35нж5	SPPK6P 150-40 (28с26нж) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1018	1045

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6В 150-40-01	50с35нж6	SPPK6B 150-40-01 (28с26нж4) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)	150/200	40/16	-40 and up and 450	20Л	1024	1051
БПУ6РВ 150-40-01	50с35нж7	SPPK6PB 150-40-01 (28с26нж4) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1070	1097
БПУ6С 150-40-01	50с35нж8	SPPK6C 150-40-01 (28с26нж5) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1024	1051
БПУ6РС 150-40-01	50с35нж9	SPPK6PC 150-40-01 (28с26нж5) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1044	1071
БПУ6 150-40-01	50с35нж10	SPPK6 150-40-01 (28с26нж1) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)			-40 and up and 300	20Л	994	1021
БПУ6Р 150-40-01	50с35нж11	SPPK6P 150-40-01 (28с26нж1) ПУ 150-40-01 (23с17нж1) ПУ 200-16 (23с16нж)					1016	1043
БПУ6В 150-40 нж	50нж35нж	SPPK6B 150-40 нж (28нж26нж4) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 600	12Х18Н9ТЛ	1026	1053
БПУ6РВ 150-40 нж	50нж35нж1	SPPK6PB 150-40 нж (28нж26нж4) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1072	1099
БПУ6СО 150-40 нж	50нж35нж2	SPPK6CO 150-40 нж (28нж26нж5) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					998	1025
БПУ6РСО 150-40 нж	50нж35нж3	SPPK6PCO 150-40 нж (28нж26нж5) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1018	1045
БПУ6 150-40 нж	50нж35нж4	SPPK6 150-40 нж (28нж26нж) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 300		996	1023
БПУ6Р 150-40 нж	50нж35нж5	SPPK6P 150-40 нж (28нж26нж) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1018	1045
БПУ6С 150-40 нж	50нж35нж6	SPPK6C 150-40 нж (28нж26нж6) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 480		1026	1053
БПУ6РС 150-40 нж	50нж35нж7	SPPK6PC 150-40 нж (28нж26нж6) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1046	1073
БПУ6В 150-40 нж-01	50нж35нж8	SPPK6B 150-40 нж-01 (28нж26нж7) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 600		1024	1051
БПУ6РВ 150-40 нж-01	50нж35нж9	SPPK6PB 150-40 нж-01 (28нж26нж7) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1070	1097
БПУ6СО 150-40 нж-01	50нж35нж10	SPPK6CO 150-40 нж-01 (28нж26нж8) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					996	1023
БПУ6РСО 150-40 нж-01	50нж35нж11	SPPK6PCO 150-40 нж-01 (28нж26нж8) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1016	1043
БПУ6 150-40 нж-01	50нж35нж12	SPPK6 150-40 нж-01(28нж26нж1) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 300	12Х18Н9ТЛ	1024	1051

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6Р 150-40 нж-01	50нж35нж13	SPPK6P 150-40 нж-01 (28нж26нж1) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)	150/200	40/16	-60 and up and 300	12Х18Н9ТЛ	1044	1071
БПУ6С 150-40 нж-01	50нж35нж14	SPPK6C 150-40 нж-01 (28нж26нж9) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)			-60 and up and 480		994	1021
БПУ6РС 150-40 нж-01	50нж35нж15	SPPK6PC 150-40 нж-01 (28нж26нж9) ПУ 150-40-03 нж (23нж17нж1) ПУ 200-16-01 нж (23нж16нж)					1016	1043
БПУ6В 150-40 лс	50лс35нж	SPPK6B 150-40 лс (28лс26нж2) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			-60 and up and 450	20ГЛ/20ГМЛ	1026	1053
БПУ6РВ 150-40 лс	50лс35нж1	SPPK6PB 150-40 лс (28лс26нж2) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1072	1099
БПУ6С 150-40 лс	50лс35нж2	SPPK6C 150-40 лс (28лс26нж3) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1026	1053
БПУ6РС 150-40 лс	50лс35нж3	SPPK6PC 150-40 лс (28лс26нж3) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1046	1073
БПУ6 150-40 лс	50лс35нж4	SPPK6 150-40 лс (28лс26нж) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			-60 and up and 300		996	1023
БПУ6Р 150-40 лс	50лс35нж5	SPPK6P 150-40 лс (28лс26нж) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1018	1045
БПУ6В 150-40 лс-01	50лс35нж6	SPPK6B 150-40 лс-01 (28лс26нж4) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			-60 and up and 450		1024	1051
БПУ6РВ 150-40 лс-01	50лс35нж7	SPPK6PB 150-40 лс-01 (28лс26нж4) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1070	1097
БПУ6С 150-40 лс-01	50лс35нж8	SPPK6C 150-40 лс-01 (28лс26нж5) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1024	1051
БПУ6РС 150-40 лс-01	50лс35нж9	SPPK6PC 150-40 лс-01 (28лс26нж5) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1044	1071
БПУ6 150-40 лс-01	50лс35нж10	SPPK6 150-40 лс-01 (28лс26нж1) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)			-60 and up and 300	20ГЛ20ГМЛ	994	1021
БПУ6Р 150-40 лс-01	50лс35нж11	SPPK6P 150-40 лс-01 (28лс26нж1) ПУ 150-40-07 ХЛ1 (23лс17нж1) ПУ 200-16-03 ХЛ1 (23лс16нж)					1016	1043
БПУ6С 150-40 нж1	50нж35нж16	SPPK6C 150-40 нж1 (28нж26нж2) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)			-60 and up and 350	12Х18Н12М3ТЛ	1026	1053
БПУ6РС 150-40 нж1	50нж35нж17	SPPK6PC 150-40 нж1 (28нж26нж2) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)					1046	1073
БПУ6С 150-40 нж1-01	50нж35нж18	SPPK6C 150-40 нж1-01 (28нж26нж3) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)					1024	1051
БПУ6РС 150-40 нж1-01	50нж35нж19	SPPK6PC 150-40 нж1-01 (28нж26нж3) ПУ 150-40-05 нж1 (23нж17нж3) ПУ 200-16-02 нж1 (23нж16нж1)					1044	1071

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1. (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6В 200-16	50с36нж	SPPK6B 200-16 (28с39нж2) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)	200/300	16/16	-40 and up and 450	20Л	1379	1409
БПУ6РВ 200-16	50с36нж1	SPPK6PB 200-16 (28с39нж2) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)					1411	1441
БПУ6С 200-16	50с36нж2	SPPK6C 200-16 (28с39нж3) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)					1359	1389
БПУ6РС 200-16	50с36нж3	SPPK6PC 200-16 (28с39нж3) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)					1389	1419
БПУ6 200-16	50с36нж4	SPPK6 200-16 (28с39нж) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)			-40 and up and 300		1347	1377
БПУ6Р 200-16	50с36нж5	SPPK6P 200-16 (28с39нж) ПУ 200-16 (23с16нж) ПУ 300-16 (23с18нж1)					1375	1405
БПУ6В 200-16-01	50с36нж6	SPPK6B 200-16-01 (28с39нж4) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)		16/6	-40 and up and 450		1338	1368
БПУ6РВ 200-16-01	50с36нж7	SPPK6PB 200-16-01 (28с39нж4) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)					1370	1400
БПУ6С 200-16-01	50с36нж8	SPPK6C 200-16-01 (28с39нж5) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			-40 and up and 450	20Л	1318	1348
БПУ6РС 200-16-01	50с36нж9	SPPK6PC 200-16-01 (28с39нж5) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)					1348	1378
БПУ6 200-16-01	50с36нж10	SPPK6 200-16-01 (28с39нж1) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)			-40 and up and 300		1306	1336
БПУ6Р 200-16-01	50с36нж11	SPPK6P 200-16-01 (28с39нж1) ПУ 200-16 (23с16нж) ПУ 300-6 (23с18нж)					1334	1364
БПУ6В 200-16 нж	50нж36нж	SPPK6B 200-16 нж (28нж39нж4) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)			-60 and up and 600	12Х18Н9ТЛ	1379	1409
БПУ6РВ 200-16 нж	50нж36нж1	SPPK6PB 200-16 нж (28нж39нж4) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)					1411	1441
БПУ6СО 200-16 нж	50нж36нж2	SPPK6CO 200-16 нж (28нж39нж5) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)					1329	1359
БПУ6РСО 200-16 нж	50нж36нж3	SPPK6PCO 200-16 нж (28нж39нж5) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)					1359	1389
БПУ6 200-16 нж	50нж36нж4	SPPK6 200-16 нж (28нж39нж) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)			-60 and up and 300		1347	1377
БПУ6Р 200-16 нж	50нж36нж5	SPPK6P 200-16 нж (28нж39нж) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)					1375	1405
БПУ6С 200-16 нж	50нж36нж6	SPPK6C 200-16 нж (28нж39нж6) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)			-60 and up and 480		1359	1389

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6РС 200-16 нж	50нж36нж7	SPPK6PC 200-16 нж (28нж39нж6) ПУ 200-16-01 нж (23нж16нж) ПУ 300-16-01 нж (23нж18нж2)	200/300	16/6	-60 and up and 480	12Х18Н9ТЛ	1389	1419
БПУ6В 200-16 нж-01	50нж36нж8	SPPK6B 200-16 нж-01 (28нж39нж7) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			-60 and up and 600		1338	1368
БПУ6РВ 200-16 нж-01	50нж36нж9	SPPK6PB 200-16 нж-01 (28нж39нж7) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)					1370	1400
БПУ6СО 200-16 нж-01	50нж36нж10	SPPK6CO 200-16 нж-01 (28нж39нж8) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			-60 and up and 600	12Х18Н9ТЛ	1288	1318
БПУ6РСО 200-16 нж-01	50нж36нж11	SPPK6PCO 200-16 нж-01 (28нж39нж8) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)					1318	1348
БПУ6 200-16 нж-01	50нж36нж12	SPPK6 200-16 нж-01 (28нж39нж1) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			-60 and up and 300		1318	1348
БПУ6Р 200-16 нж-01	50нж36нж13	SPPK6P 200-16 нж-01 (28нж39нж1) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)					1348	1378
БПУ6С 200-16 нж-01	50нж36нж14	SPPK6C 200-16 нж-01 (28нж39нж9) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)			-60 and up and 480		1306	1336
БПУ6РС 200-16 нж-01	50нж36нж15	SPPK6PC 200-16 нж-01 (28нж39нж9) ПУ 200-16-01 нж (23нж16нж) ПУ 300-6-01 нж (23нж18нж)					1334	1364
БПУ6В 200-16 лс	50лс36нж	SPPK6B 200-16 лс (28лс39нж2) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)		16/16	-60 and up and 450	20ГЛ/20ГМЛ	1379	1409
БПУ6РВ 200-16 лс	50лс36нж1	SPPK6PB 200-16 лс (28лс39нж2) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)					1411	1441
БПУ6С 200-16 лс	50лс36нж2	SPPK6C 200-16 лс (28лс39нж3) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)					1359	1389
БПУ6РС 200-16 лс	50лс36нж3	SPPK6PC 200-16 лс (28лс39нж3) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)					1389	1419
БПУ6 200-16 лс	50лс36нж4	SPPK6 200-16 лс (28лс39нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)			-60 and up and 300		1347	1377
БПУ6Р 200-16 лс	50лс36нж5	SPPK6P 200-16 лс (28лс39нж) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-16-03 ХЛ1 (23лс18нж1)					1375	1405
БПУ6В 200-16 лс-01	50лс36нж6	SPPK6B 200-16 лс-01(28лс39нж4) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)		16/6	-60 and up and 450		1338	1368
БПУ6РВ 200-16 лс-01	50лс36нж7	SPPK6PB 200-16 лс-01 (28лс39нж4) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)					1370	1400
БПУ6С 200-16 лс-01	50лс36нж8	SPPK6C 200-16 лс-01 (28лс39нж5) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)			-60 and up and 450	20ГЛ/20ГМЛ	1318	1348
БПУ6РС 200-16 лс-01	50лс36нж9	SPPK6PC 200-16 лс-01 (28лс39нж5) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)					1348	1378

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6 200-16 лс-01	50лс36нж10	SPPK6 200-16 лс-01 (28лс39нж1) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)	200/300	16/6	-60 and up and 300	20ГЛ/20ГМЛ	1306	1336
БПУ6Р 200-16 лс-01	50лс36нж11	SPPK6P 200-16 лс-01 (28лс39нж1) ПУ 200-16-03 ХЛ1 (23лс16нж) ПУ 300-6-03 ХЛ1 (23лс18нж)					1334	1364
БПУ6С 200-16 нж1	50нж36нж16	SPPK6C 200-16 нж1 (28нж39нж2) ПУ 200-16-02 нж1 (23нж16нж1) ПУ 300-16-02 нж1 (23нж18нж3)		16/16	-60 and up and 350	12Х18Н12М3ТЛ	1359	1389
БПУ6РС 200-16 нж1	50нж36нж17	SPPK6PC 200-16 нж1 (28нж39нж2) ПУ 200-16-02 нж1 (23нж16нж1) ПУ 300-16-02 нж1 (23нж18нж3)					1389	1419
БПУ6С 200-16 нж1-01	50нж36нж18	SPPK6C 200-16 нж1-01 (28нж39нж3) ПУ 200-16-02 нж1 (23нж16нж1) ПУ 300-6-02 нж1 (23нж18нж1)		16/6			1318	1348
БПУ6РС 200-16 нж1-01	50нж36нж19	SPPK6PC 200-16 нж1-01 (28нж39нж3) ПУ 200-16-02 нж1 (23нж16нж1) ПУ 300-6-02 нж1 (23нж18нж1)					1348	1378
БПУ6В 200-25	50с37нж	Information available on request		25/16	-40 and up and 450	20Л	Information available on request	Information available on request
БПУ6РВ 200-25	50с37нж1				-40 and up and 300			
БПУ6С 200-25	50с37нж2			25/25	-40 and up and 450			
БПУ6РС 200-25	50с37нж3				-40 and up and 300			
БПУ6 200-25	50с37нж4							
БПУ6Р 200-25	50с37нж5							
БПУ6В 200-25-01	50с37нж6			25/16	-60 and up and 600	12Х18Н9ТЛ		
БПУ6РВ 200-25-01	50с37нж7				-60 and up and 300			
БПУ6С 200-25-01	50с37нж8				-60 and up and 480	12Х18Н9ТЛ		
БПУ6РС 200-25-01	50с37нж9			25/25	-60 and up and 600			
БПУ6 200-25-01	50с37нж10				-60 and up and 300			
БПУ6Р 200-25-01	50с37нж11				-60 and up and 480			
БПУ6В 200-25 нж	50нж37нж			25/16	-60 and up and 450	20ГЛ/20ГМЛ		
БПУ6РВ 200-25 нж	50нж37нж1				-60 and up and 300			
БПУ6СО 200-25 нж	50нж37нж2							
БПУ6РСО 200-25 нж	50нж37нж3							
БПУ6 200-25 нж	50нж37нж4							
БПУ6Р 200-25 нж	50нж37нж5							
БПУ6С 200-25 нж	50нж37нж6							
БПУ6РС 200-25 нж	50нж37нж7							
БПУ6В 200-25 нж-01	50нж37нж8							
БПУ6РВ 200-25 нж-01	50нж37нж9							
БПУ6СО 200-25 нж-01	50нж37нж10							
БПУ6РСО 200-25 нж-01	50нж37нж11							
БПУ6 200-25 нж-01	50нж37нж12							
БПУ6Р 200-25 нж-01	50нж37нж13							
БПУ6С 200-25 нж-01	50нж37нж14							
БПУ6РС 200-25 нж-01	50нж37нж15							
БПУ6В 200-25 лс	50лс37нж							
БПУ6РВ 200-25 лс	50лс37нж1							
БПУ6С 200-25 лс	50лс37нж2							
БПУ6РС 200-25 лс	50лс37нж3							
БПУ6 200-25 лс	50лс37нж4							
БПУ6Р 200-25 лс	50лс37нж5							

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6В 200-25 лс-01	50лс37нж6	Information available on request	200/300	25/25	-60 and up and 450	20ГЛ/20ГМЛ	Information available on request	Information available on request
БПУ6РВ 200-25 лс-01	50лс37нж7							
БПУ6С 200-25 лс-01	50лс37нж8				-60 and up and 300			
БПУ6РС 200-25 лс-01	50лс37нж9							
БПУ6 200-25 лс-01	50лс37нж10							
БПУ6Р 200-25 лс-01	50лс37нж11							
БПУ6С 200-25 нж1	50нж37нж16			25/16	-60 and up and 350	12Х18Н12М3ТЛ		
БПУ6РС 200-25 нж1	50нж37нж17							
БПУ6С 200-25 нж1-01	50нж37нж18			25/25				
БПУ6РС 200-25 нж1-01	50нж37нж19							
БПУ6 200-40	50с38нж			40/16	-40 and up and 350	20Л		
БПУ6Р 200-40	50с38нж1							
БПУ6С 200-40	50с38нж2							
БПУ6РС 200-40	50с38нж3							
БПУ6 200-40-01	50с38нж4							
БПУ6Р 200-40-01	50с38нж5							
БПУ6С 200-40-01	50с38нж6							
БПУ6РС 200-40-01	50с38нж7							
БПУ6 200-40 лс	50лс38нж				-60 and up and 350	20ГЛ/20ГМЛ		
БПУ6Р 200-40 лс	50лс38нж1							
БПУ6С 200-40 лс	50лс38нж2		200/300	40/16	-60 and up and 350	20ГЛ/20ГМЛ		
БПУ6РС 200-40 лс	50лс38нж3							
БПУ6 200-40-01 лс	50лс38нж4							
БПУ6Р 200-40-01 лс	50лс38нж5							
БПУ6С 200-40-01 лс	50лс38нж6							
БПУ6РС 200-40-01 лс	50лс38нж7							
БПУ6 200-40-04	50с38нж8			40/40	-40 and up and 350	20Л		
БПУ6Р 200-40-04	50с38нж9							
БПУ6С 200-40-04	50с38нж10							
БПУ6РС 200-40-04	50с38нж11							
БПУ6 200-40-05	50с38нж12							
БПУ6Р 200-40-05	50с38нж13							
БПУ6С 200-40-05	50с38нж14							
БПУ6РС 200-40-05	50с38нж15							
БПУ6 200-40-04 лс	50лс38нж8				-60 and up and 350	20ГЛ/20ГМЛ		
БПУ6Р 200-40-04 лс	50лс38нж9							
БПУ6С 200-40-04 лс	50лс38нж10							
БПУ6РС 200-40-04 лс	50лс38нж11							
БПУ6 200-40-05 лс	50лс38нж12							
БПУ6Р 200-40-05 лс	50лс38нж13							
БПУ6С 200-40-05 лс	50лс38нж14							
БПУ6РС 200-40-05 лс	50лс38нж15							
БПУ6В 250-16	50с39нж		250/350	16/6	-40 and up and 450	20Л		
БПУ6РВ 250-16	50с39нж1							
БПУ6С 250-16	50с39нж2							
БПУ6РС 250-16	50с39нж3				-40 and up and 300			
БПУ6 250-16	50с39нж4							
БПУ6Р 250-16	50с39нж5							
БПУ6В 250-16-01	50с39нж6			16/16	-40 and up and 450			
БПУ6РВ 250-16-01	50с39нж7							
БПУ6С 250-16-01	50с39нж8							

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Continued)

Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges, kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1, (kgf/cm^2)				
БПУ6РС 250-16-01	50с39нж9	Information available on request	250/350	16/16	-40 and up and 300	20Л	Information available on request	Information available on request
БПУ6 250-16-01	50с39нж10							
БПУ6Р 250-16-01	50с39нж11							
БПУ6В 250-16 нж	50нж39нж			16/6	-60 and up and 600	12Х18Н9ТЛ		
БПУ6РВ 250-16 нж	50нж39нж1							
БПУ6СО 250-16 нж	50нж39нж2			16/6	-60 and up and 600	12Х18Н9ТЛ		
БПУ6РСО 250-16 нж	50нж39нж3							
БПУ6 250-16 нж	50нж39нж4				-60 and up and 300			
БПУ6Р 250-16 нж	50нж39нж5							
БПУ6С 250-16 нж	50нж39нж6				-60 and up and 480			
БПУ6РС 250-16 нж	50нж39нж7							
БПУ6В 250-16 нж-01	50нж39нж8			16/16	-60 and up and 600			
БПУ6РВ 250-16 нж-01	50нж39нж9							
БПУ6СО 250-16 нж-01	50нж39нж10				-60 and up and 300			
БПУ6РСО 250-16 нж-01	50нж39нж11							
БПУ6 250-16 нж-01	50нж39нж12				-60 and up and 480			
БПУ6Р 250-16 нж-01	50нж39нж13							
БПУ6С 250-16 нж-01	50нж39нж14			16/6	-60 and up and 450	20ГЛ/20ГМЛ		
БПУ6РС 250-16 нж-01	50нж39нж15							
БПУ6В 250-16 лс	50лс39нж				-60 and up and 300			
БПУ6РВ 250-16 лс	50лс39нж1			16/16	-60 and up and 450			
БПУ6С 250-16 лс	50лс39нж2							
БПУ6РС 250-16 лс	50лс39нж3				-60 and up and 300			
БПУ6 250-16 лс	50лс39нж4							
БПУ6Р 250-16 лс	50лс39нж5			16/6	-60 and up and 350	12Х18Н12М3ТЛ		
БПУ6В 250-16 лс-01	50лс39нж6							
БПУ6РВ 250-16 лс-01	50лс39нж7			16/16				
БПУ6С 250-16 лс-01	50лс39нж8							
БПУ6РС 250-16 лс-01	50лс39нж9							
БПУ6 250-16 лс-01	50лс39нж10							
БПУ6Р 250-16 лс-01	50лс39нж11							
БПУ6С 250-16 нж1	50нж39нж16			16/6	-60 and up and 350			
БПУ6РС 250-16 нж1	50нж39нж17							
БПУ6С 250-16 нж1-01	50нж39нж18			16/16				
БПУ6РС 250-16 нж1-01	50нж39нж19							
БПУ6В 300-16	50с40нж		300/400	16/6	-40 and up and 450	20Л		
БПУ6РВ 300-16	50с40нж1							
БПУ6С 300-16	50с40нж2				-40 and up and 300			
БПУ6РС 300-16	50с40нж3							
БПУ6 300-16	50с40нж4							
БПУ6Р 300-16	50с40нж5							
БПУ6В 300-16-01	50с40нж6			16/16	-40 and up and 450			
БПУ6РВ 300-16-01	50с40нж7							
БПУ6С 300-16-01	50с40нж8							
БПУ6РС 300-16-01	50с40нж9							
БПУ6 300-16-01	50с40нж10			16/16	-40 and up and 300	20Л		
БПУ6Р 300-16-01	50с40нж11							
БПУ6В 300-16 нж	50нж40нж			16/6	-60 and up and 600	12Х18Н9ТЛ		
БПУ6РВ 300-16 нж	50нж40нж1							
БПУ6СО 300-16 нж	50нж40нж2							
БПУ6РСО 300-16 нж	50нж40нж3							

Principal Parameters of 6-th Generation Safety Valve Assemblies with Switching Devices (Conclusion)

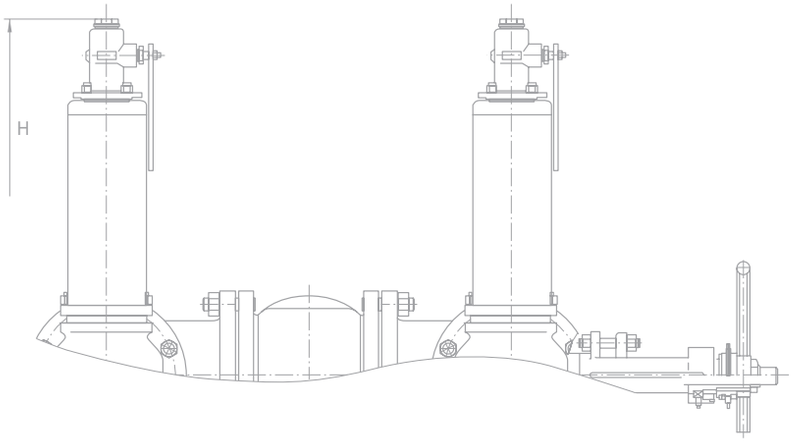
Item Designation	Table of Figures	Designations of Safety Valves and Switching Devices in Assembly	Inlet/Outlet Stubs		Fluid Temperature. °C	Body Component Materials	Weight. not to	Weight with matching flanges. kg
			Nominal Diameter. DN/DN_1, (mm)	Pressure rating. PN/PN_1. (kgf/cm^2)				
БПУ6 300-16 нж	50нж40нж4	Information available on request	300/400	16/6	-60 and up and 300	12Х18Н9ТЛ	Information available on request	Information available on request
БПУ6Р 300-16 нж	50нж40нж5							
БПУ6С 300-16 нж	50нж40нж6				-60 and up and 480			
БПУ6РС 300-16 нж	50нж40нж7			16/16	-60 and up and 600			
БПУ6В 300-16 нж-01	50нж40нж8							
БПУ6РВ 300-16 нж-01	50нж40нж9							
БПУ6СО 300-16 нж-01	50нж40нж10							
БПУ6РСО 300-16 нж-01	50нж40нж11							
БПУ6 300-16 нж-01	50нж40нж12				-60 and up and 300			
БПУ6Р 300-16 нж-01	50нж40нж13							
БПУ6С 300-16 нж-01	50нж40нж14				-60 and up and 480			
БПУ6РС 300-16 нж-01	50нж40нж15							
БПУ6В 300-16 лс	50лс40нж			16/6	-60 and up and 450	20ГЛ/20ГМЛ		
БПУ6РВ 300-16 лс	50лс40нж1							
БПУ6С 300-16 лс	50лс40нж2				-60 and up and 300			
БПУ6РС 300-16 лс	50лс40нж3							
БПУ6 300-16 лс	50лс40нж4			16/16	-60 and up and 450			
БПУ6Р 300-16 лс	50лс40нж5							
БПУ6В 300-16 лс-01	50лс40нж6				-60 and up and 300			
БПУ6РВ 300-16 лс-01	50лс40нж7							
БПУ6С 300-16 лс-01	50лс40нж8							
БПУ6РС 300-16 лс-01	50лс40нж9							
БПУ6 300-16 лс-01	50лс40нж10				-60 and up and 300			
БПУ6Р 300-16 лс-01	50лс40нж11							
БПУ6С 300-16 нж1	50нж40нж16			16/6	-60 and up and 350	12Х18Н12М3ТЛ		
БПУ6РС 300-16 нж1	50нж40нж17							
БПУ6С 300-16 нж1-01	50нж40нж18			16/16				
БПУ6РС 300-16 нж1-01	50нж40нж19							

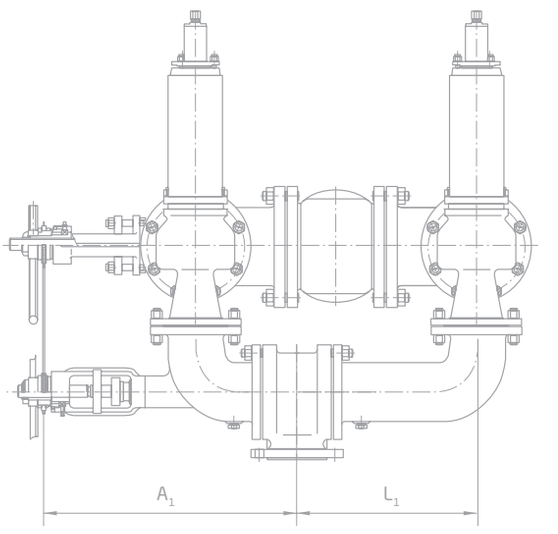
Principal Component Materials

Item No.	Description	Product component materials		
		U1	U1; XL1; UXL1	U1; XL1; UXL1
1	Switching device: inlet (body)	Steel 20Л	12Х18Н9ТЛ or 12Х18Н12М3ТЛ	Steel 20ГЛ
2	Switching device: outlet (body)	Steel 20Л	12Х18Н9ТЛ or 12Х18Н12М3ТЛ	Steel 20ГЛ
3	Safety valve (body)	Steel 20Л	12Х18Н9ТЛ or 12Х18Н12М3ТЛ	Steel 20ГЛ
4	Adapter (if any)	Steel 20Л	12Х18Н9ТЛ or 12Х18Н12М3ТЛ	Steel 20ГЛ
5, 6	Bushing	Steel 20	Steel 40Х	Steel 40Х
7, 8	Sprocket bushing	Steel 30Х13	Steel 30Х13	Steel 30Х13
9, 10	Sprocket	Steel 45	Steel 45	Steel 45
11, 12	Special nut	Steel 20	Steel 35Х	Steel 35Х
13, 14, 15	Gasket	ПУТГ ТУ 5728-006-93978201-2008	ПУТГ ТУ 5728-006-93978201-2008	ПУТГ ТУ 5728-006-93978201-2008
16, 17, 18	Nut	40Х.0,19*	12Х18Н10Т	40Х*
19, 20, 21	Pin	40Х.0,19*	12Х18Н10Т;45Х14Н14В2М (PN 160 kgf/cm²)	40Х*
22	Roller drive chain	PP 12,7-18,2-1 PP 15,875-23-1	PP 12,7-18,2-1 PP 15,875-23-1	PP 12,7-18,2-1 PP 15,875-23-1

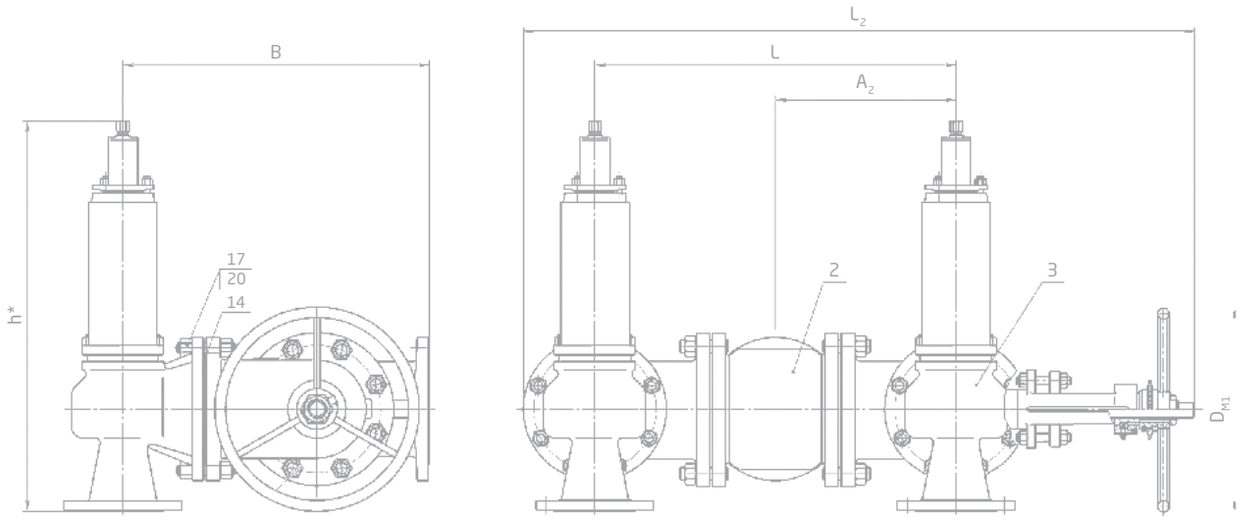
* Fasteners with zinc chrome-plated coating. No-coating version available upon request.

Safety valves with actuation assembly: option for left-side flywheel installation

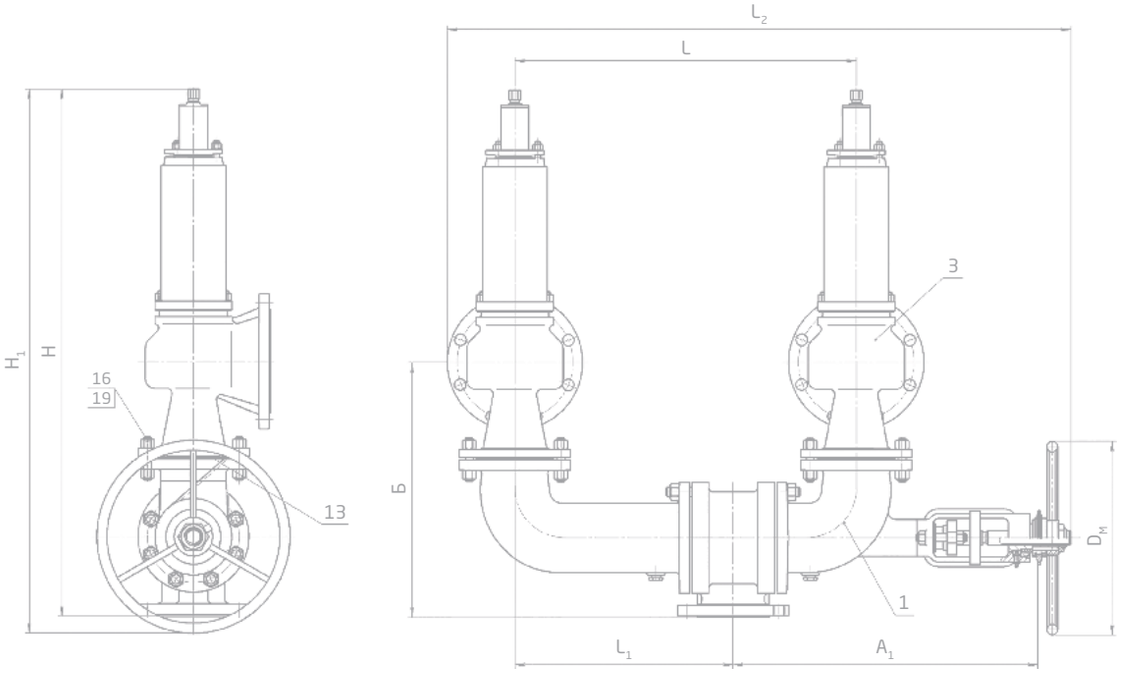




Option without switching device at safety valve assembly inlet

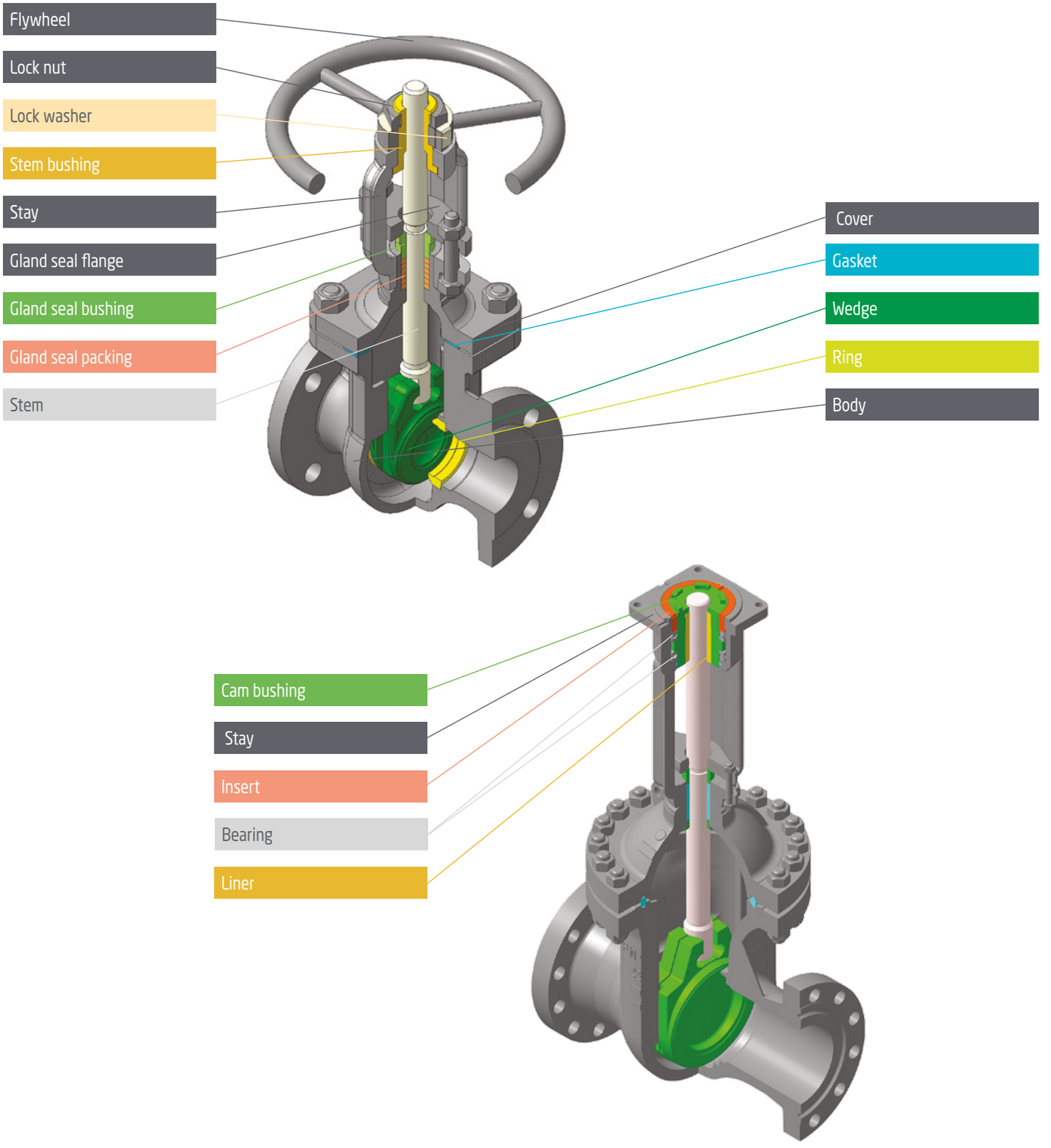


Option without switching device at safety valve assembly outlet



* Note: Dimension h* is the heigh of a safety valve (H; H1) from the safety valve section at Page 070.

Wedge valves



Gate valves are shutoff devices in which the port is closed by translating the closure in a direction that is normal to the fluid flow.

Gate valves are used to shut off the flow of gases or liquids in pipelines with various pressures and design (nominal) bores. The gates' low resistance to flow makes gates especially valuable for use in lines carrying a continuous high-speed fluid flow. As far as body construction, gate valves are normally manufactured with a full bore, i. e. their seat bore diameters have no constriction.

Gate valves are manufactured with a rising stem (spindle thread and stem nut are on the outside).

Valve control can be manual (flywheel or gear box) or electric from an actuator of general industrial or explosion proof construction.

Available for delivery upon customer request: flanges, pins, nuts, gaskets, a matching flange set for attachment to the pipelines, end caps, swivel end caps.

There is no requirement with respect to install position on a vertical line.
Valves must be installed stem up on a horizontal line with a 90° title from the vertical in any direction being allowed.

When electrically actuated valves are positioned at an angle or horizontally, an additional support must be provided for the valve's yoke assembly.

For wedge design with construction options, please see Page 137.

PN 16.0 MPa (160 kgf/cm^2) are available:
- suitable for a flanged pipeline connection matching dimensions being per GOST 33259, Row 1 (upon customer request, per GOST 12821, Row 2, or GOST R 54432, Row 1)
- suitable for a butt weld (Св);
- suitable for a vented connection (D).

Rising-stem valves PN 25.0 MPa (250 kgf/cm^2) are available:
- suitable for a flanged connection per GOST 9399 (body seal designed for a lens ring gasket);
- suitable for a flanged connection per GOST 28919 (Construction 1, Type 1 flanged connection, Po = 35.0 MPa);
- suitable for a butt weld (Св);
- suitable for a vented connection (D).

Factory length shall be per GOST 3706, Row 1, Row 2, Row 3.

Closure seal class A per GOST 9544, stem to be equipped with a gland seal. In topmost position, the stem has a seal around the cover's tapered surface. Fluid flow direction: any main flange side.

When ordering, please specify:
- product name;
- product spec reference;
- fluid properties (max. and min. temperatures, etc.);
- nominal diameter (design bore), DN;
- pressure rating (design), PN, kgf/cm^2;
- product designation;
- construction material;
- additional testing requirements;
- weldable and vented valves: diameter, pipe wall gage, and factory length.

Upon customer request, body main flanges may be manufactured with other sealing surfaces per the information specified at Page 229.

Valves designed for gaseous, explosive, flammable, and toxic fluids as well as hazardous liquids are to undergo additional testing with air following hydraulic testing.
When ordering please put GAS.

When making an order, the need to equip valves with matching flanges, gaskets, pins, and nuts must be mentioned explicitly valve delivery with attached matching flanges or separate delivery), end caps, or swivel end caps.

AO BAZ reserves the right to use other materials that are permitted by the relevant requirements.
Gate valves are shutoff fixtures and may not be used as regulators.

Part number structure for valves manufactured per TU 3741-006-07533604-01, TU 28-14-13-036-07533604-2017, and TU 3741-010-07533604-2014

ZKL2(P) 150-40 Св ЛС РД С U1 TU XXX-XXX-XXXXXXXX-XXXX

Weather class:
U1: temperate climate; XL1: cold climate;
UXL1: temperate and cold climate.

Seismic class:
CO: non-seismic (up to 6 points);
C: seismic (between 7 and 9 points);
PC: seismic (up to 10 points).

Actuator type (if any):
No designator: flywheel (for ZKL2);
РД –with gearbox (for ZKL2);
Р/Рд – scored for gearbox installation (for ZKL2);
ЭР: electric actuator (for ZKLP);
score for an electric actuator information (for ZKLP).

Body materials:
No designator: carbon steel;
ЛС: alloyed steel (resistant to cold down to -60 °C);
ЛС1: alloyed steel (heat resistant);
НЖ: corrosion-resistant steel (stainless);
НЖ1: corrosion-resistant steel (stainless with molybdenum);

Type of pipeline connection:
No designator: flanged; Св: welded;
В: vented (combination).

Pressure rating, PN, kgf/cm²

Nominal Diameter DN, mm

Cast wedge gate:
ZKL2: with manual actuator (flywheel or gearbox);
ZKLP: scored for an electric actuator.

Part number structure for valves manufactured per TU 3741-001-07533604-2008 and TU 3741-029-07533604-2015 shall be per ОТТ-23.060.30-КТН-135-16 (PAO Transneft) and ETT P1-01.05 M-0082 (PAO Rosneft OC) respectively.

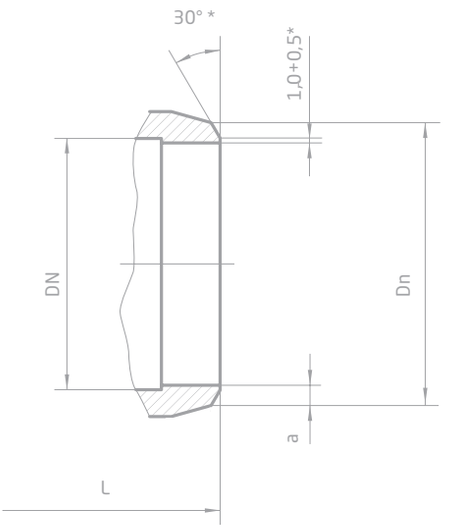
Wedge Construction

Description	Wedge Type
ZKL2(ZKLP) DN 50 PN 16, 25, 40, 63, 80, 100, 160, 250 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 80 PN 16, 25, 40, 63, 80, 100, 160, 250 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 100 PN 16, 25, 40, 63, 80, 100, 160, 250 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 125 PN 16 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 150 PN 16 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 150 PN 25, 40, 63 kgf/cm^2	Dual disc
	stiff*, split-wedge elastic*
ZKL2(ZKLP) DN 150 PN 80, 100, 160, 250 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 200 PN 16, 25, 40, 63 kgf/cm^2	Dual disc
	stiff*, split-wedge elastic*
ZKL2(ZKLP) DN 200 PN 80, 100, 160, 250 kgf/cm^2	stiff, split-wedge elastic*
ZKL2(ZKLP) DN 250 PN 16, 25 kgf/cm^2	Dual disc
	stiff wedge*, split-wedge elastic*
ZKL2(ZKLP) DN 250 PN 40 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 250 PN 63 kgf/cm^2	elastic welded, elastic casting*
ZKL2(ZKLP) DN 250 PN 80, 100, 160, 250 kgf/cm^2	split-wedge elastic, stiff*
ZKL2(ZKLP) DN 300 PN 16, 25, 40, 80, 100, 160 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 300 PN 63 kgf/cm^2	Dual disc with cage
	elastic casting*
ZKL2(ZKLP) DN 300 PN 250 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 350 PN 16 kgf/cm^2	Dual disc with cage
	elastic casting*
ZKL2(ZKLP) DN 350 PN 25, 40, 80, 63, 100, 250 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 400 PN 16, 25, 40 kgf/cm^2	Dual disc with cage
	elastic casting*
ZKL2(ZKLP) DN 400 PN 63, 80, 100, 160 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 500 PN 16 kgf/cm^2	elastic-wedge welded, elastic casting*
ZKL2(ZKLP) DN 500 PN 25, 40 kgf/cm^2	Dual disc with cage
	elastic casting*
ZKL2(ZKLP) DN 500 PN 63, 80, 100, 160 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 600 PN 16, 25, 40 kgf/cm^2	Dual disc with cage
	elastic casting*
ZKL2(ZKLP) DN 600 PN 63, 80, 100 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 700 PN 16 kgf/cm^2	Dual-disc wedge with cage
	elastic casting*
ZKL2(ZKLP) DN 700 PN 25, 40 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 800 PN 16 kgf/cm^2	Dual-disc wedge with cage
	elastic casting*
ZKL2(ZKLP) DN 800 PN 25 kgf/cm^2	elastic casting
ZKL2(ZKLP) DN 900 PN 16 kgf/cm^2	elastic casting

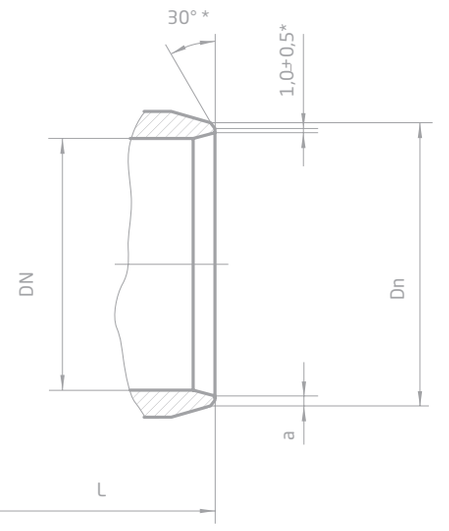
* Available option.

Options for Dressing Pipe to Attach Weldable and Vented Valves

Dressing of Pipe with Smaller OD Than Nominal Valve Size



Dressing of Pipe with Larger OD Than Nominal Valve Size

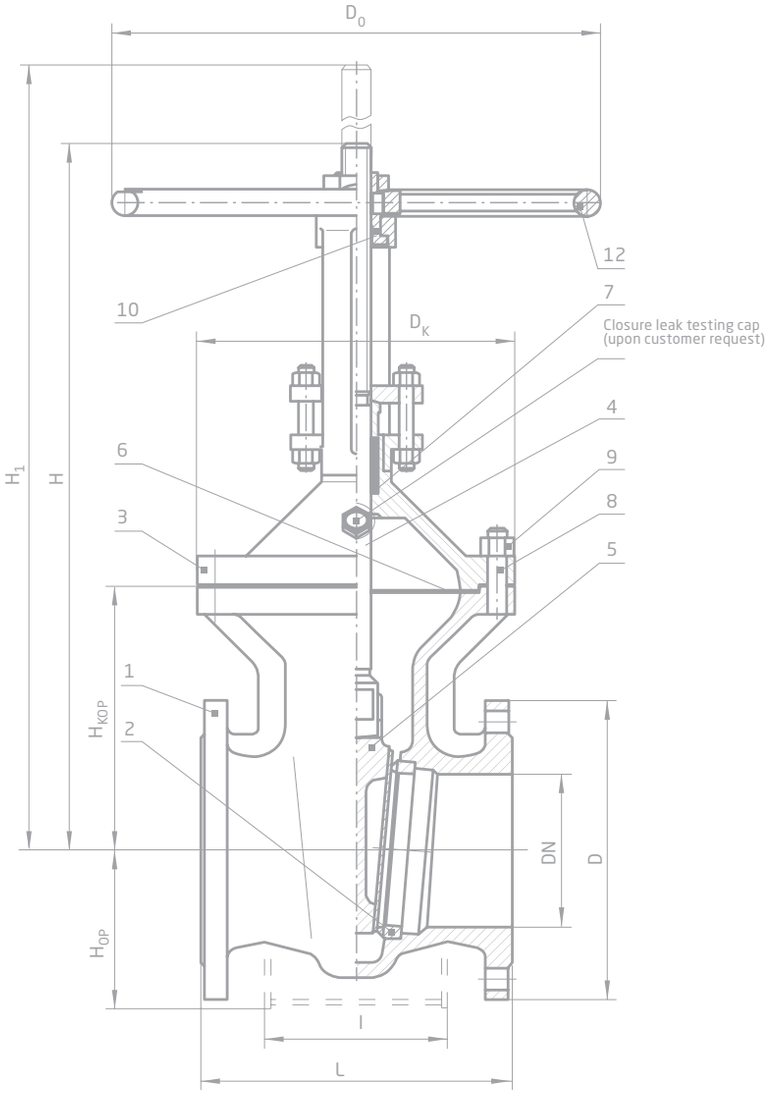


* Dressing specification may be modified upon customer request.

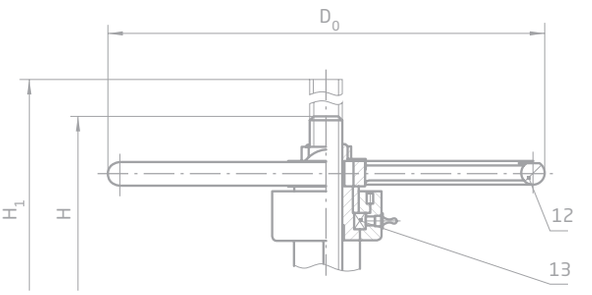
ZKL2 wedge valves PN 1.6 MPa (16 kgf/cm²)
ZKLP electrically actuated wedge valves PN 1.6 MPa (16 kgf/cm²)

Manufacture and delivery per TU 3741-006-07533604-01, TU 3741-001-07533604-2008*, TU 3741-010-07533604-2014**, TU 3741-029-07533604-2015***, TU 28-14-13-036-07533604-2017*****

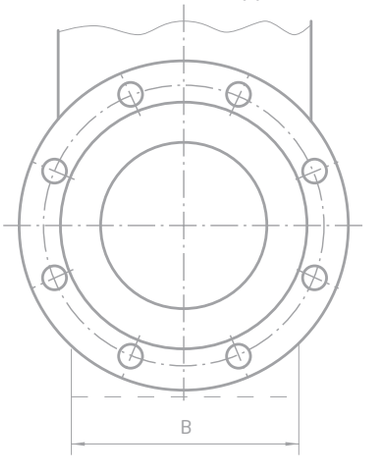
ZKL2 DN 50, 80, 100, 125, PN 1.6 MPa (16 kgf/cm²)
(flywheel-controlled)



ZKL2 DN 150, 200, 250, 300, PN 1.6 MPa (16 kgf/cm²)
(flywheel-controlled)

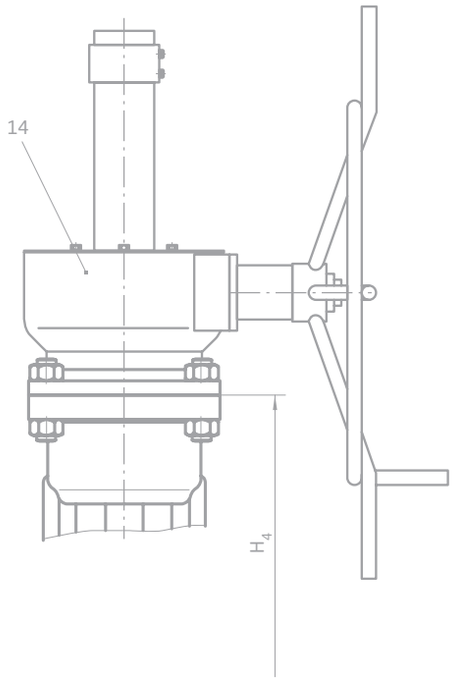


Left view with support****

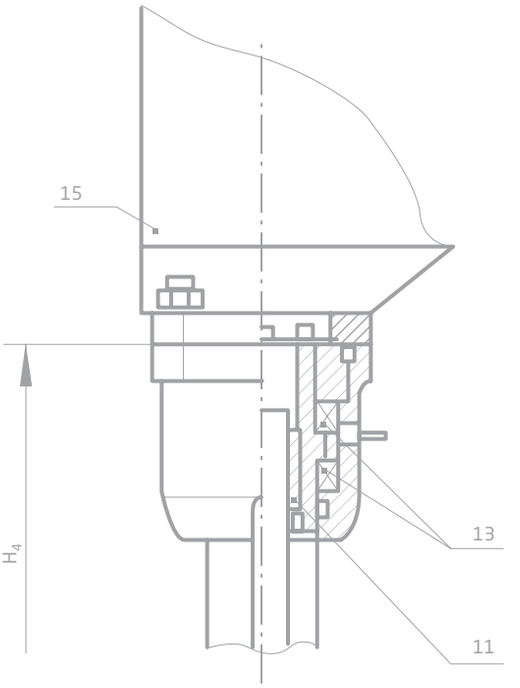


* Per OTT-23.060.30-KTH-135-16 (PAO Transneft).
** Per Gazprom Corporate Standard STO 2-4.1-212-2008.
*** Per ETT P1-01.05 M-0082 (PAO Rosneft OC).
**** Support is to be installed for DN ≥ 300 (support may be installed for DN < 300 at customer request).
***** To be declared as described in 5Д ТР ТС 010/2011.

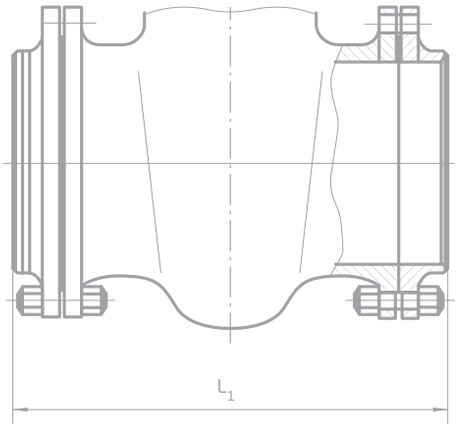
ZKL2 DN 300... 900, PN 1.6 MPa (16 kgf/cm²)
(manual actuation via gearbox flywheel)



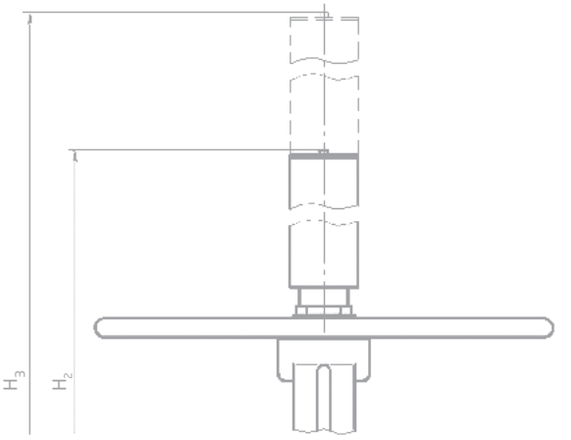
ZKLP DN 50-900, PN 1.6 MPa (16 kgf/cm²)
(electrically actuated)



Flanged construction with accessories (set of matching flanges)



Position indicator option available upon customer request
(for flywheel-actuated ZKL2)



Range of Valves DN 50, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, PN 1.6 MPa (16 kgf/cm²)***

Item Designation	Type Designation (Table of Figures)	DN, mm	Actuation Method	Body Material	Fluid Temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-16 ZKL2 DN-16 Св ZKL2 DN-16 В	30с41нж	50-300	Flywheel	Steel 20Л (25Л*)	-40 and up and +425	U1	Water, air, steam, natural gas, petroleum, petroleum derivatives gases and liquids, fluids with hydrogen sulfide, ammonia, chlorine**, foaming agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm/year.
	30с541нж	300-900	Gearbox				
ZKLP DN-16 ZKLP DN-16 Св ZKLP DN-16 В	30с941нж	50-900	Electric actuator				
ZKL2 DN-16 ЛС ZKL2 DN-16 Св ЛС ZKL2 DN-16 В ЛС	30лс41нж	50-300	Flywheel	Steel 20ГЛ Steel 20ХНЗЛ* Steel 20ГМЛ*	-70 and up and +425	XL1, UXL1* U1*	
	30лс541нж	300-900	Gearbox				
ZKLP DN-16 ЛС ZKLP DN-16 Св ЛС ZKLP DN-16 В ЛС	30лс941нж	50-900	Electric actuator				
ZKL2 DN-16 ЛС1 ZKL2 DN-16 Св ЛС1 ZKL2 DN-16 В ЛС1	30лс41нж1	50-300	Flywheel	Steel 20Х5МЛ	-40 and up and +550	U1	
	30лс541нж1	300-900	Gearbox				
ZKLP DN-16 ЛС1 ZKLP DN-16 Св ЛС1 ZKLP DN-16 В ЛС1	30лс941нж1	50-900	Electric actuator				
ZKL2 DN-16 НЖ ZKL2 DN-16 Св НЖ ZKL2 DN-16 В НЖ	30нж41нж	50-300	Flywheel	Steel 12Х18Н9ТЛ	-60 and up and +565	UXL1, XL1* U1*	
	30нж541нж	300-900	Gearbox				
ZKLP DN-16 НЖ ZKLP DN-16 Св НЖ ZKLP DN-16 В НЖ	30нж941нж	50-900	Electric actuator				
ZKL2 DN-16 НЖ1 ZKL2 DN-16 Св НЖ1 ZKL2 DN-16 В НЖ1	30нж41нж1	50-300	Flywheel	Steel 12Х18Н12М3ТЛ	-60 and up and +565		
	30нж541нж1	300-900	Gearbox				
ZKLP DN-16 НЖ1 ZKLP DN-16 Св НЖ1 ZKLP DN-16 В НЖ1	30нж941нж1	50-900	Electric actuator				

* Available construction types.
** Liquid chlorine per GOST 6718-93 and gaseous chlorine with a moisture content not exceeding 0.04% (for Dn 50 through 500).
*** Range of products available to order is shown in Page 007.

ZKL2 (ZKLP) PN 1.6 MPa (16 kgf/cm²), support dimensions, mm

DN	300	300Св	350	400	400Св	450	500	600	700	800	900
l	310		260	310		upon request	270	490	540	560	upon request
B	300		350	400			400	560	600	900	
H_{OP}	245		280	300			360	450	480	550	

ZKL2 (ZKLP), PN 1.6 MPa (16 kgf/cm²), principal dimensions, mm

DN	L. mm	L_1	D, mm	Dk, mm	Dimensions for edges****		H, mm	H_1, mm	H_2, mm	H_3, mm	H_4, mm	Do, mm	Flanges, GOST 33259, raw 1	Connection Type
					Dn , mm	a, mm								
50	180	280	160	130	-	-	345	425	453	533	356	240	Constr. B*	Plane/Plane**
80	210	320	195	205	-	-	450	550	583	683	458	320		Plane/Plane
100	229	339	215	220	-	-	534	654	692	812	558			
125	255	391	245	260	-	-	575	710	748	883	460	400		Male/Female
150	267		280	315	-	-	751	935	964	1139	768			
150Св	350	-	-		159	4.5 - 8							-	
200	330	456	335	380	-	-	860	1082	1123	1345	870		Constr. B*	
200Св	419	-	-		219	5 - 7							-	
250	330	480	405	470	-	-	1054	1343	1377	1666	1058		Constr. B*	
250Св	450	-	-		273	6 - 13							-	
300	500	644	460	545	-	-	1190*	1500*	1565*	1880*	1207	600	Constr. B*	
300Св		-	-		325	6 – 8							-	
350	381	533	520	590	-	-	-	-	-	-	1236	-	Constr. B*	
400	600	762	580	660	-	-	-	-	-	-	1415			
400Св		-	-		426	6 – 10							-	
450	upon request													
500	457	657	710	409/ 755	-	-	-	-	-	-	1598	-	Constr. B*	Raised face – Raised face***
600	800	986	840	860	-	-	-	-	-	-	1910			Male/Female
700	900	1104	910	1020	-	-	-	-	-	-	2309			
800	1000	1204	1020	1180	-	-	-	-	-	-	2718			
900	upon request													

* Constructions F and E (non-standard factory length) are available.
** square flange with non-round gasket.
*** non-round flange.
**** See sketch in Page 138. Weldable edge dimensions available upon customer request.

ZKL2 (ZKLP) PN 1.6 MPa (16 kgf/cm²), mass, kg

Type of actuation	DN																			
	50	80	100	125	150	150Св	200	200Св	250	250Св	300	300Св	350	400	400Св	450	500	600	700	800	900
Manual (flywheel)	21	38	46	72	105	130	158	138	244	237	385	345	–			upon request	–				upon request
Manual (flywheel) with matching flange set	28	48	59	90	128	–	191	–	294	–	447	–	–				–				
scored for actuator	22	40	47	70	112	137	158	141	241	234	395	355	410	600	556		740	1440	2140	3062	
scored for actuator with matching flange set	28	50	60	87	135	–	193	–	291	–	457	–	497	717	–		937	1727	2461	3433	
manual actuator (gearbox)	–										420	380	435	625	581		765	1486	2146	3127	
manual actuator (gearbox) with matching flange set	–										482	–	522	742	–		962	1773	2467	3498	

Principal Component Materials: PN 1.6 MPa (16 kgf/cm²)

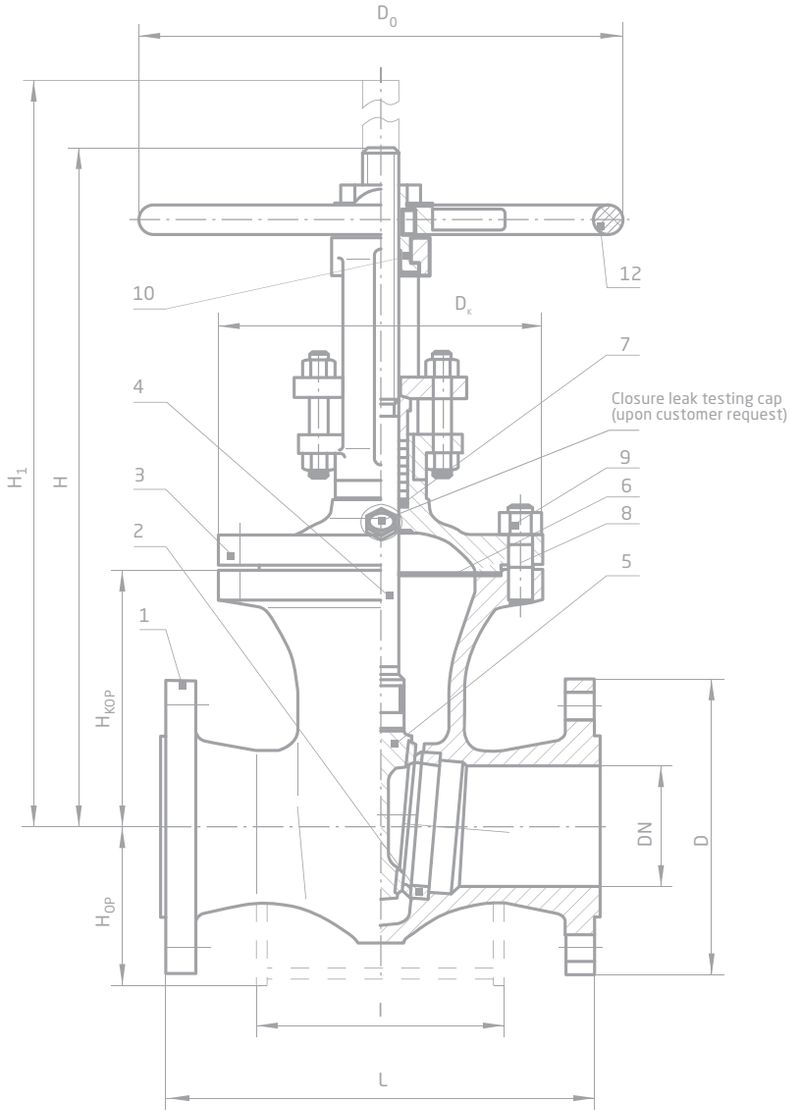
Item No.	Component Name	30с41нж 30с541нж 30с941нж	30лс41нж 30лс541нж 30лс941нж	30лс41нж1 30лс541нж1 30лс941нж1	30нж41нж 30нж541нж 30нж941нж	30нж41нж1 30нж541нж1 30нж941нж1
		Principal Component Materials				
1	Body	Steel 20Л Steel 25Л*	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Steel 20Х5МЛ	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
2	Ring	Steel 20 09Г2С* 12Х18Н10Т* 10Х17Н13М2Т*	09Г2С 12Х18Н10Т* 10Х17Н13М2Т*	15Х5М	12Х18Н10Т	10Х17Н13М2Т
3	Cover	Steel 20 20Л 25Л*	09Г2С Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	15Х5М Steel 20Х5МЛ	12Х18Н10Т Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ 10Х17Н13М2Т
4	Stem	30Х13 14Х17Н2* 12Х18Н10Т* 10Х17Н13М2Т*	14Х17Н2 30Х13 12Х18Н10Т* 10Х17Н13М2Т*	12Х18Н10Т	12Х18Н10Т	10Х17Н13М2Т
5	Wedge (Disc)	30Х13 Steel 20 (with weld overlay)* 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	30Х13 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	15Х5М (with weld overlay)	12Х18Н10Т (with weld overlay)	10Х17Н13М2Т (with weld overlay)
6	Gasket	ТИИР-752 (РДД-2) ТРГ*	ТРГ	ТРГ	ТРГ	ТРГ
7	Gland seal packing	ТРГ	ТРГ	ТРГ	ТРГ	ТРГ
8	Pin	40Х.019**	40Х.019**	25Х1МФ ***	12Х18Н10Т	12Х18Н10Т
9	Nut	40Х.019**	40Х.019**	30ХМА ***	12Х18Н10Т	12Х18Н10Т
10	Bushing	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5
11	Liner					
12	Flywheel	09Г2С, Steel 20Л, 20ГЛ, 20	09Г2С, Steel 20ГЛ	09Г2С, Steel 20ГЛ	09Г2С, Steel 20ГЛ	09Г2С, Steel 20ГЛ
Weld overlay	On body (ring)	Type 20Х13 ЦН-6Л*	Type 20Х13 ЦН-6Л*	ЦН-12М 04Х19Н11М3	ЦН-6Л, 04Х19Н11М3	ЦН-6Л 04Х19Н11М3
	On wedge (disc)	Type 20Х13 ЦН-12М*	Type 20Х13 ЦН-12М*	ЦН-12М	ЦН-12М	ЦН-12М
13	Bearing	Thrust bearing per GOST 7872				
14	Gearbox	Bevel Gearbox				
15	Electric actuator	Upon customer request (see Page 163-189)				

* Available construction types.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.
*** At fluid temperatures of up to 425 °C, 40Х.019 fasteners are to be installed.

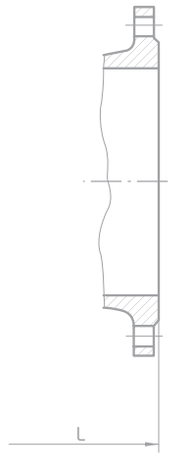
Wedge valves (ZKL2), PN 2.5; 4.0 MPa (25, 40 kgf/cm²).
Electrically actuated wedge valves (ZKLP), PN 2.5; 4.0 MPa (25, 40 kgf/cm²)

Manufacture and delivery per TU 3741-006-07533604-01, TU 3741-001-07533604-2008*, TU 3741-010-07533604-2014, TU 3741-029-07533604-2015***, TU 28-14-13-036-07533604-2017*****

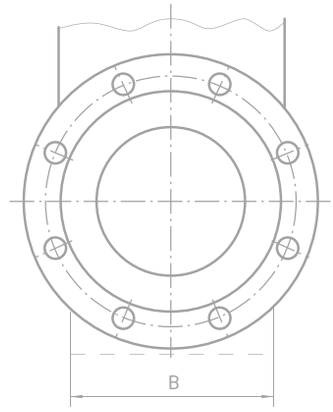
ZKL2 DN 50, 80, 100, PN 2.5; 4.0 MPa (25, 40 kgf/cm²)
(flywheel-controlled)



Matching dimensions for DN 200, 250, 300, 350, 400, 450, 500, 600, 700, 800 PN 2.5 MPa (25 kgf/cm²)

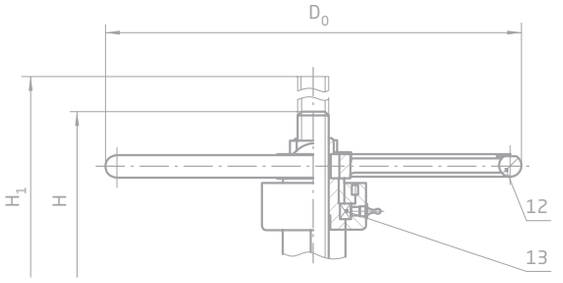


Left view with support***

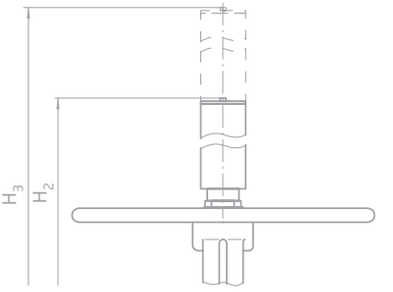


* Per OTT-23.060.30-KTH-135-16 (PAO Transneft).
** Per Gazprom Corporate Standard STO 2-4.1-212-2008.
*** Per ETT P1-01.05 M-0082 (PAO Rosneft OC).
**** Support is to be installed for DN ≥ 300 (support may be installed for DN < 300 at customer request).
***** To be declared as described in 5Д ТР ТС 010/2011

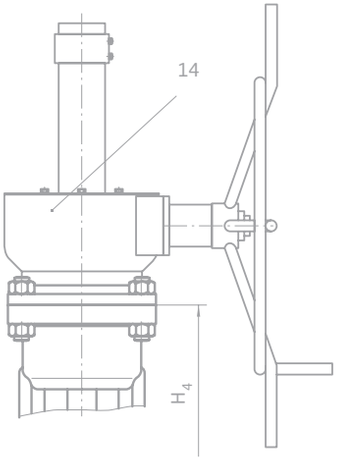
ZKL2 DN 150, 200, PN 2.5; 4.0 MPa (25, 40 kgf/cm²); DN 250 PN 2.5 MPa (25 kgf/cm²)
(flywheel-controlled)



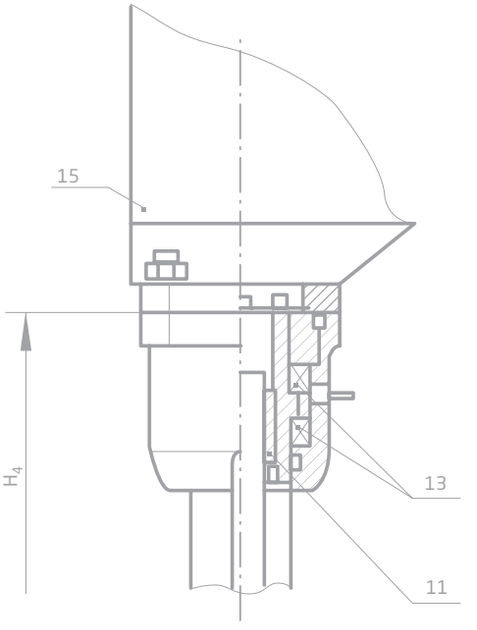
Position indicator option available upon customer request
(for flywheel-actuated ZKL2)



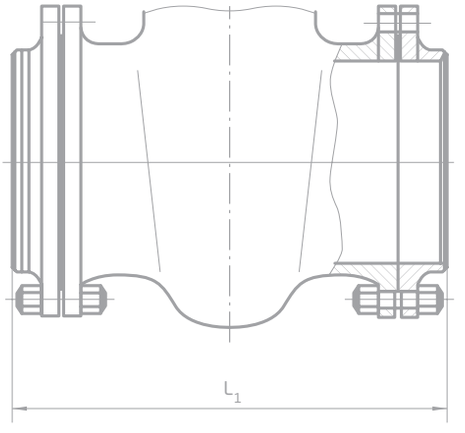
ZKL2 DN 250, PN 4.0 MPa (40 kgf/cm²); DN 300, 400, 450, 500, 600, 700, 800 PN 2.5; 4.0 MPa (25, 40 kgf/cm²)
(manual actuation via gearbox flywheel)



ZKLP DN 50-800, PN 2.5; 4.0 MPa (25, 40 kgf/cm²)
(electrically actuated)



Flanged construction with accessories (set of matching flanges)



ZKL2 (ZKLP), PN 2.5 MPa (25 kgf/cm²), principal dimensions, mm

DN	L	L_1	D	Dk	Welding edge dimensions***		H	H_1	H_2	H_3	H_4	Do	Flanges per GOST 33259, Row 1	Connection Type Body w/Integrated Cover
					Dn	a								
50	216	316	160	195	-	-	340	420	448	528	376	240	Constr.	Male/Female
80	283	403	195	215	-	-	446	540	581	673	460	320		
100	305		230	240	-	-	534	654	692	812	563			
100Св			-		108	4 - 8							-	
					114	6								
150	403	552	300	348	-	-	755	925	968	1138	770	400	Constr. B**	
200	400	560	360	420	-	-	860	1082	1123	1345	870			
250	450	610	425	485	-	-	1048	1338	1371	1653	1080	600		
300	502	674	485	575	-	-	-	-	-	-	1205	-		
350	762	934	550	555	-	-	-	-	-	-	1271			
400	600	812	610	660	-	-	-	-	-	-	1415			
450	upon request													
500	700	912	730	810	-	-	-	-	-	-	1700		Constr. B**	Male/Female
600	800	1044	845	860	-	-	-	-	-	-	1910			
700	upon request													
800														

* Construction B or construction F are available
** Constructions F and E (non-standard factory length) are available.
*** See sketch in Page 138. Weldable edge dimensions available upon customer request.

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 400, 450, 500, 600, 700, 800, PN 2.5 MPa (25 kgf/cm²)***

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-25 ZKL2 DN-25 Св ZKL2 DN-25 В	30с15нж	50-250	Flywheel	Steel 20Л (25Л*)	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, chlorine**, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm/year.
	30с515нж	300-800	Gearbox				
ZKLP DN-25 ZKLP DN-25 Св ZKLP DN-25 В	30с915нж	50-800	Electric actuator				
ZKL2 DN-25 ЛС ZKL2 DN-25 Св ЛС ZKL2 DN-25 В ЛС	30лс15нж	50-250	Flywheel	Steel 20ГЛ Steel 20ХНЗЛ* Steel 20ГМЛ*	Between -60 and +425	U1* down to -40°C;	
	30лс515нж	300-800	Gearbox				
ZKLP DN-25 ЛС ZKLP DN-25 Св ЛС ZKLP DN-25 В ЛС	30лс915нж	50-800	Electric actuator				
ZKL2 DN-25 ЛС1 ZKL2 DN-25 Св ЛС1 ZKL2 DN-25 В ЛС1	30лс15нж1	50-250	Flywheel	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
	30лс515нж1	300-800	Gearbox				
ZKLP DN-25 ЛС1 ZKLP DN-25 Св ЛС1 ZKLP DN-25 В ЛС1	30лс915нж1	50-800	Electric actuator				
ZKL2 DN-25 НЖ ZKL2 DN-25 Св НЖ ZKL2 DN-25 В НЖ	30нж15нж	50-250	Flywheel	Steel 12Х18Н9ТЛ	Between -60 and +565	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	30нж515нж	300-800	Gearbox				
ZKLP DN-25 НЖ ZKLP DN-25 Св НЖ ZKLP DN-25 В НЖ	30нж915нж	50-800	Electric actuator				
ZKL2 DN-25 НЖ1 ZKL2 DN-25 Св НЖ1 ZKL2 DN-25 В НЖ1	30нж15нж1	50-250	Flywheel	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
	30нж515нж1	300-800	Gearbox				
ZKLP DN-25 НЖ1 ZKLP DN-25 Св НЖ1 ZKLP DN-25 В НЖ1	30нж915нж1	50-800	Electric actuator				

* Available construction types.
** Liquid chlorine per GOST 6718 and gaseous chlorine with a moisture content not exceeding 0.04% (for Dn 50 through 500).
*** Range of products available to order is shown in Page 007.

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, PN 4.0 MPa (40 kgf/cm²)**

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-40 ZKL2 DN-40 Св ZKL2 DN-40 В	30с15нж	50-200	Flywheel	Steel 20Л (25Л*)	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm/year.
	30с515нж	250-800	Gearbox				
ZKLP DN-40 ZKLP DN-40 Св ZKLP DN-40 В	30с915нж	50-800	Electric actuator				
ZKL2 DN-40 ЛС ZKL2 DN-40 Св ЛС ZKL2 DN-40 В ЛС	30лс15нж	50-200	Flywheel	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Between -60 and +425	XL1, UXL1* down to -60 °C U1* down to -40°C;	
	30лс515нж	250-800	Gearbox				
ZKLP DN-40 ЛС ZKLP DN-40 Св ЛС ZKLP DN-40 В ЛС	30лс915нж	50-800	Electric actuator				
ZKL2 DN-40 ЛС1 ZKL2 DN-40 Св ЛС1 ZKL2 DN-40 В ЛС1	30лс15нж1	50-250	Flywheel	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
	30лс515нж1	250-800	Gearbox				
ZKLP DN-40 ЛС1 ZKLP DN-40 Св ЛС1 ZKLP DN-40 В ЛС1	30лс915нж1	50-800	Electric actuator				
ZKL2 DN-40 НЖ ZKL2 DN-40 Св НЖ ZKL2 DN-40 В НЖ	30нж15нж	50-200	Flywheel	Steel 12Х18Н9ТЛ	Between -60 and +565	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	30нж515нж	250-800	Gearbox				
ZKLP DN-40 НЖ ZKLP DN-40 Св НЖ ZKLP DN-40 В НЖ	30нж915нж	50-800	Electric actuator				
ZKL2 DN-40 НЖ1 ZKL2 DN-40 Св НЖ1 ZKL2 DN-40 В НЖ1	30нж15нж1	50-200	Flywheel	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
	30нж515нж1	250-800	Gearbox				
ZKLP DN-40 НЖ1 ZKLP DN-40 Св НЖ1 ZKLP DN-40 В НЖ1	30нж915нж1	50-800	Electric actuator				

* Available construction types.
** Range of products available to order is shown in Page 007.

ZKL2 (ZKLP) PN 2.5 MPa (25 kgf/cm²), mass, kg

Actuation Type	DN													
	50	80	100	150	200	250	300	350	400	450	500	600	700	800
Manual (flywheel)	27	44	65	145	220	310	-	-	-	upon request	-	-	upon request	
Manual (flywheel) with matching flange set	34	56	84	180	271	384	-	-	-		-	-		
scored for actuator	28	44	66	146	220	310	455	737	670		1340	1455		
scored for actuator with matching flange set	35	56	85	181	271	384	553	875	844		1609	1794		
manual actuator (gearbox)	-	-	-	-	-	-	480	757	695		1380	1495		
manual actuator (gearbox) with matching flange set	-	-	-	-	-	-	578	895	869		1924	2179		

ZKL2 (ZKLP), PN 4.0 MPa (40 kgf/cm²), principal dimensions, mm

DN	L	L_1	D	Dk	Welding edge dimensions**		H	H_1	H_2	H_3	H_4	Do	Flanges per GOST 33259, Row 1	Connection Type Body w/Integrated Cover
					Dn	a								
50	216	316	160	195	-	-	340	420	448	528	376	240	Constr. E*	Male/Female
80	283	406	195	215	-	-	446	540	581	673	460	320		
100	305	444	230	240	-	-	534	654	692	812	563			
100СВ			-		108	4 - 8							-	
					114	6								
150	403	552	300	348	-	-	755	925	968	1138	770	400	Constr. E	
200	419	602	375	420	-	-	860	1082	1123	1345	870			
250	457	657	445	495	-	-	-	-	-	-	1065	-		
300	502	739	510	575	-	-	-	-	-	-	1205			
350	762	1070	570	555							1271			
450	upon request													
400	838	1126	660	695	-	-	-	-	-	-	1428	-		
500	991	1277	755	810	-	-	-	-	-	-	1700			
600	1143	1443	890	905	-	-	-	-	-	-	1963			
700	upon request													
800														

* Construction F is available
** See sketch in Page 138. Weldable edge dimensions available upon customer request.

ZKL2 (ZKLP) PN 4.0 MPa (40 kgf/cm²), mass, kg

Actuation Type	DN													
	50	80	100	100СВ	150	200	250	300	350	400	450	500	600	700	800
Manual (flywheel)	27	44	65	54	145	222	-				upon request	-		upon request	
Manual (flywheel) with matching flange set	34	57	86	-	182	294	-					-			
scored for actuator	28	44	66	55	146	222	385	540	760	1003		1490	1960		
scored for actuator with matching flange set	35	57	87	-	183	294	492	698	946	1292		1903	2569		
manual actuator (gearbox)	-						110	565	780	1049		1536	2017		
manual actuator (gearbox) with matching flange set	-						517	723	976	1338		1949	2626		

ZKL2 (ZKLP) PN 2.5 MPa (25 kgf/cm²), support dimension, mm

DN	300	350	400	450	500	600	700	800
l	270	330	310	upon request	380	490	upon request	
B	300	280	400		450	450		
H_{oP}	270	305	315		400	450		

ZKL2 (ZKLP) PN 4.0 MPa (40 kgf/cm²), support dimension, mm

DN	300	350	400	450	500	600	700	800
l	270	330	470	upon request	440	540	upon request	
B	300	280	400		500	560		
H_{oP}	275	305	340		405	450		

Principal Component Materials: PN 2.5 MPa (25 kgf/cm²), PN 4.0 MPa (40 kgf/cm²)

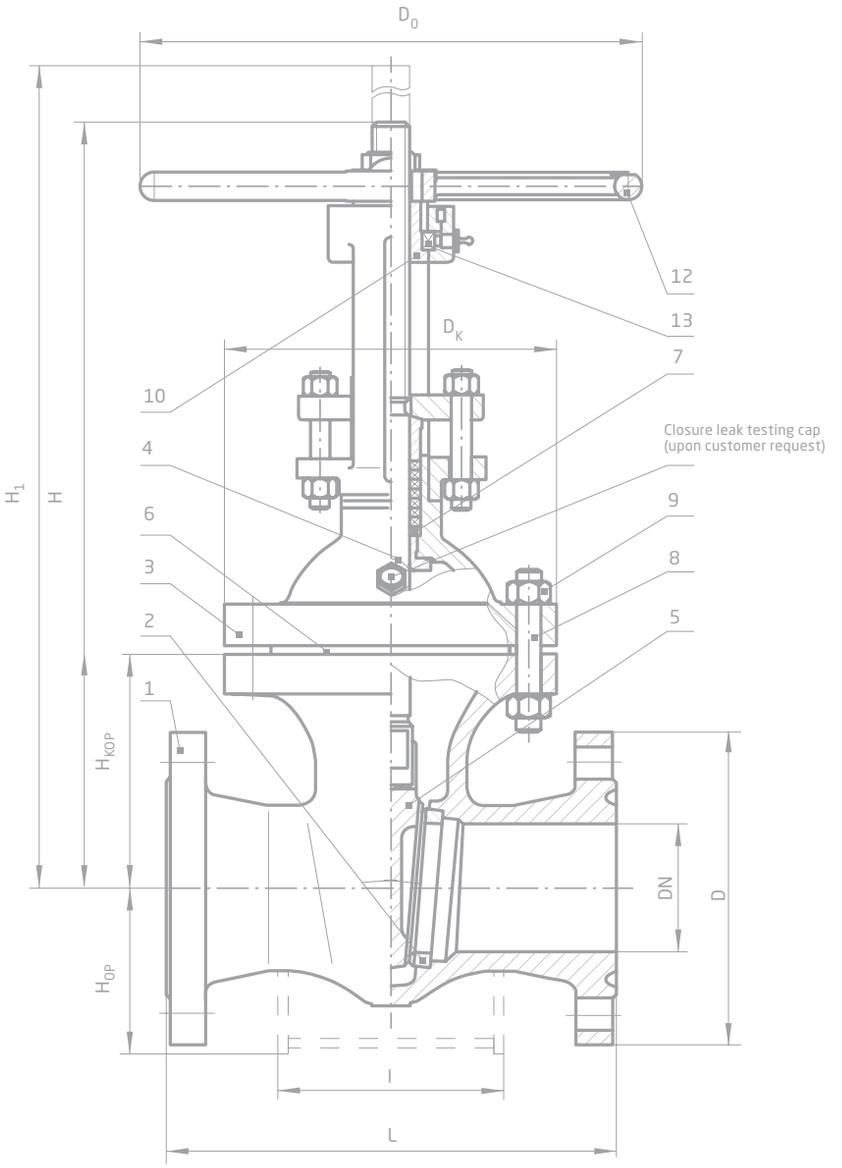
Item No.	Component Name	30с15нж 30с515нж 30с915нж	30лс15нж 30лс515нж 30лс915нж	30лс15нж1 30лс515нж1 30лс915нж1	30нж15нж 30нж515нж 30нж915нж	30нж15нж1 30нж515нж1 30нж915нж1
		Principal Component Materials				
1	Body	Steel 20Л Steel 25Л*	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Steel 20Х5МЛ	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
2	Ring	Steel 20 09Г2С* 12Х18Н10Т* 10Х17Н13М2Т*	09Г2С 12Х18Н10Т* 10Х17Н13М2Т*	15Х5М	12Х18Н10Т	10Х17Н13М2Т
3	Cover	Steel 20 Steel 20Л Steel 25Л*	09Г2С Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	15Х5М Steel 20Х5МЛ	12Х18Н10Т Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ 10Х17Н13М2Т
4	Stem	30Х13 14Х17Н2* 12Х18Н10Т* 10Х17Н13М2Т*	14Х17Н2 30Х13 12Х18Н10Т* 10Х17Н13М2Т*	12Х18Н10Т	12Х18Н10Т	10Х17Н13М2Т
5	Wedge (Disc)	30Х13 Steel 20 (with weld overlay)* 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	30Х13 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	15Х5М (with weld overlay)	12Х18Н10Т (with weld overlay)	10Х17Н13М2Т (with weld overlay)
6	Gasket	ТИИР-752 (РДД-2) ТРГ*	ТРГ	ТРГ	ТРГ	ТРГ
7	Gland seal packing	ТРГ	ТРГ	ТРГ	ТРГ	ТРГ
8	Pin	40Х.019**	40Х.019**	25Х1МФ ***	12Х18Н10Т	12Х18Н10Т
9	Nut	40Х.019**	40Х.019**	30ХМА ***	12Х18Н10Т	12Х18Н10Т
10	Bushing	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5
11	Liner					
12	Flywheel	09Г2С, Steel 20Л, 20ГЛ, 20	09Г2С, Steel 20ГЛ	09Г2С, Steel 20ГЛ	09Г2С, 20ГЛ	09Г2С, 20ГЛ
Weld overlay	On body (ring)	Type 20Х13 ЦН-6Л*	Type 20Х13 ЦН-6Л*	ЦН-12М 04Х19Н11М3	ЦН-6Л, 04Х19Н11М3	ЦН-6Л 04Х19Н11М3
	On wedge (disc)	Type 20Х13 ЦН-12М*	Type 20Х13 ЦН-12М*	ЦН-12М	ЦН-12М	ЦН-12М
13	Bearing	Thrust bearing per GOST 7872				
14	Gearbox	Bevel Gearbox				
15	Electric actuator	Upon customer request (see Page 163-189)				

* Available construction types.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.
*** At fluid temperatures of up to 425 °C, 40Х.019 fasteners are to be installed.

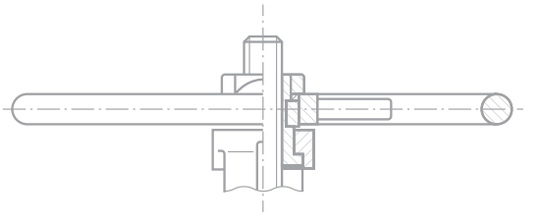
Wedge valves ZKL2, PN 6.3; 8.0; 10.0; 16.0 MPa (63, 80, 100, 160 kgf/cm²)
Electrically actuated wedge valves ZKLP, PN 6.3; 8.0; 10.0; 16.0 MPa (63, 80, 100, 160 kgf/cm²)

Manufacture and delivery per TU 3741-006-07533604-01, TU 3741-001-07533604-2008*, TU 3741-010-07533604-2014, TU 3741-029-07533604-2015***, TU 28-14-13-036-07533604-2017*****

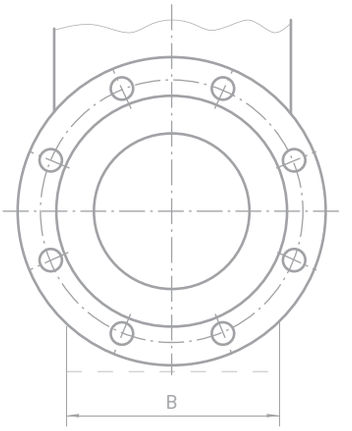
ZKL2 DN 50, 80, PN 16.0 MPa (160 kgf/cm²)
DN 100, PN 6.3; 16.0 MPa (63, 160 kgf/cm²)
DN 150, 200, PN 6.3 MPa (63 kgf/cm²)
ZKL2 DN 50, 80, 100, 150, PN 8.0 MPa (80 kgf/cm²)
ZKL2 DN 50, 80, 100, 150, PN 10.0 MPa (100 kgf/cm²)
(flywheel-controlled)



ZKL2 DN 50, 80, PN 6.3 MPa (63 kgf/cm²)
(flywheel-controlled)

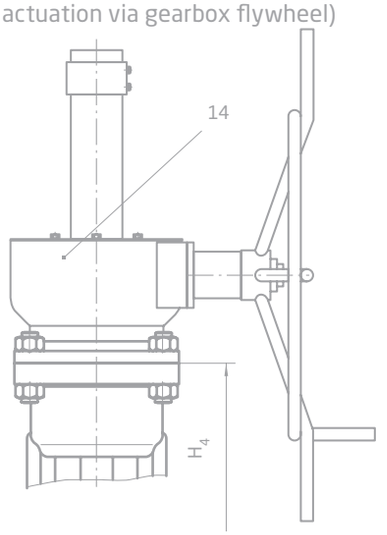


Left view with support**

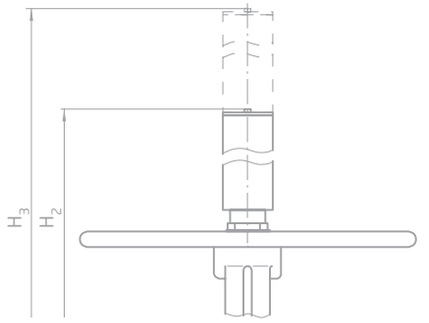


* Per OTT-23.060.30-KTH-135-16 (PAO Transneft).
** Per Gazprom Corporate Standard STO 2-4.1-212-2008.
*** Per ETT P1-01.05 M-0082 (PAO Rosneft OC).
**** Support is to be installed for DN ≥ 300 (support may be installed for DN < 300 at customer request).
***** To be declared as described in 5Д ТР ТС 010/2011.

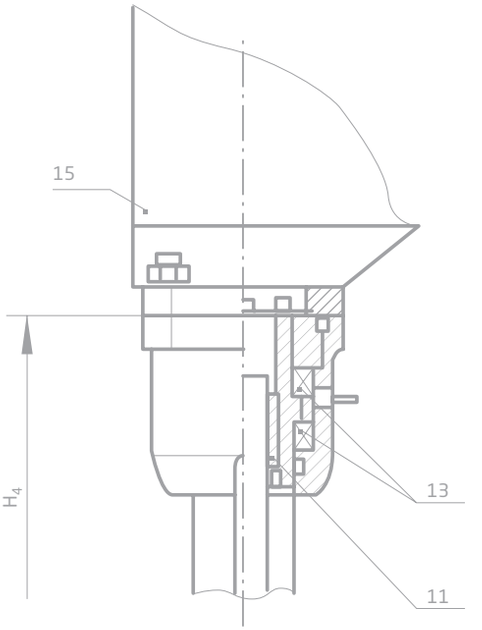
ZKL2 DN 150-500, PN 16.0 MPa (160 kgf/cm²),
DN 250-600, PN 6.3 MPa (63 kgf/cm²);
ZKL2 200-600, PN 8.0 MPa (80 kgf/cm²),
ZKL2 200-600, PN 10.0 MPa (100 kgf/cm²)
(manual actuation via gearbox flywheel)



Position indicator is available upon customer request
(for flywheel-actuated ZKL2)



ZKLP DN 50-600, PN 6.3 MPa (63 kgf/cm²)
DN 50-600, PN 8.0 MPa (80 kgf/cm²)
DN 50-600, PN 10.0 MPa (100 kgf/cm²)
DN 50-500, PN 16.0 MPa (160 kgf/cm²)
(electrically actuated)



Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, PN 6.3 MPa (63 kgf/cm²)**

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-63 ZKL2 DN-63 Св ZKL2 DN-63 В	30с76нж	50-200	Flywheel	Steel 20Л (Steel 25Л*)	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm per year.
	30с576нж	250-600	Gearbox				
ZKLP DN-63 ZKLP DN-63 Св ZKLP DN-63 В	30с976нж	50-600	Electric actuator				
ZKL2 DN-63 ЛС ZKL2 DN-63 Св ЛС ZKL2 DN-63 В ЛС	30лс76нж	50-200	Flywheel	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Between -60 and +425	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	30лс576нж	250-600	Gearbox				
ZKLP DN-63 ЛС ZKLP DN-63 Св ЛС ZKLP DN-63 В ЛС	30лс976нж	50-600	Electric actuator				
ZKL2 DN-63 ЛС1 ZKL2 DN-63 Св ЛС1 ZKL2 DN-63 В ЛС1	30лс76нж1	50-200	Flywheel	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
	30лс576нж1	250-600	Gearbox				
ZKLP DN-63 ЛС1 ZKLP DN-63 Св ЛС1 ZKLP DN-63 В ЛС1	30лс976нж1	50-600	Electric actuator				

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, PN 6.3 MPa (63 kgf/cm²)** (Conclusion)

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-63 НЖ ZKL2 DN-63 Св НЖ ZKL2 DN-63 В НЖ	30нж76нж	50-200	Flywheel	Steel 12Х18Н9ТЛ	Between -60 and +565	UXL1, XL1* down to -60 °C U1* down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm per year.
	30нж576нж	250-600	Gearbox				
ZKLP DN-63 НЖ ZKLP DN-63 Св НЖ ZKLP DN-63 В НЖ	30нж976нж	50-600	Electric actuator				
ZKL2 DN-63 НЖ1 ZKL2 DN-63 Св НЖ1 ZKL2 DN-63 В НЖ1	30нж76нж1	50-200	Flywheel	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
	30нж576нж1	250-600	Gearbox				
ZKLP DN-63 НЖ1 ZKLP DN-63 Св НЖ1 ZKLP DN-63 В НЖ1	30нж976нж1	50-600	Electric actuator				

* Available construction types.
** Range of products available to order is shown in Page 007.

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, PN 8.0 MPa, 10.0 MPa (80, 100 kgf/cm2)**

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-80/100 ZKL2 DN-80/100 Св ZKL2 DN-80/100 В	31с16нж	50 - 150	Flywheel	Steel 20Л(25Л*)	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm per year.
	31с516нж	200-600	Gearbox				
ZKLP DN-80/100 ZKLP DN-80/100 Св ZKLP DN-80/100 В	31с916нж	50 - 600	Electric actuator				
ZKL2 DN-80/100 ЛС ZKL2 DN-80/100 Св ЛС ZKL2 DN-80/100 В ЛС	31лс16нж	50 - 150	Flywheel	Steel 20ГЛ(20ГМЛ*) Steel 20ХНЗЛ*	Between -60 and +425	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	31лс516нж	200-600	Gearbox				
ZKLP DN-80/100 ЛС ZKLP DN-80/100 Св ЛС ZKLP DN-80/100 В ЛС	31лс916нж	50 - 600	Electric actuator				
ZKL2 DN-80/100 ЛС1 ZKL2 DN-80/100 Св ЛС1 ZKL2 DN-80/100 В ЛС1	31лс16нж1	50 - 150	Flywheel	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
	31лс516нж1	200-600	Gearbox				
ZKLP DN-80/100 ЛС1 ZKLP DN-80/100 Св ЛС1 ZKLP DN-80/100 В ЛС1	31лс916нж1	50 - 600	Electric actuator				
ZKL2 DN-80/100 НЖ ZKL2 DN-80/100 Св НЖ ZKL2 DN-80/100 В НЖ	31нж16нж	50 - 150	Flywheel	Steel 12Х18Н9ТЛ	Between -60 and +565	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	31нж516нж	200-600	Gearbox				
ZKLP DN-80/100 НЖ ZKLP DN-80/100 Св НЖ ZKLP DN-80/100 В НЖ	31нж916нж	50 - 600	Electric actuator				
ZKL2 DN-80/100 НЖ1 ZKL2 DN-80/100 Св НЖ1 ZKL2 DN-80/100 В НЖ1	31нж16нж1	50 - 150	Flywheel	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
	31нж516нж1	200-600	Gearbox				
ZKLP DN-80/100 НЖ1 ZKLP DN-80/100 Св НЖ1 ZKLP DN-80/100 В НЖ1	31нж916нж1	50 - 600	Electric actuator				

* - available construction types.
** - range of products available to order is shown in Page 007.

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 400, 450, 500, PN 16.0 MPa (160 kgf/cm²)**

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-160 ZKL2 DN-160 Св ZKL2 DN-160 В	31с45нж	50-100	Flywheel	Steel 20Л Steel 25Л*	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foam agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm per year.
	31с545нж	150-500	Gearbox				
ZKLP DN-160 ZKLP DN-160 Св ZKLP DN-160 В	31с949нж	50-500	Electric actuator				
ZKL2 DN-160 ЛС ZKL2 DN-160 Св ЛС ZKL2 DN-160 В ЛС	31лс45нж	50-100	Flywheel	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Between -60 and +425	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	31лс545нж	150-500	Gearbox				
ZKLP DN-160 ЛС ZKLP DN-160 Св ЛС ZKLP DN-160 В ЛС	31лс949нж	50-500	Electric actuator				
ZKL2 DN-160 ЛС1 ZKL2 DN-160 Св ЛС1 ZKL2 DN-160 В ЛС1	31лс45нж1	50-100	Flywheel	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
	31лс545нж1	150-500	Gearbox				
ZKLP DN-160 ЛС1 ZKLP DN-160 Св ЛС1 ZKLP DN-160 В ЛС1	31лс949нж1	50-500	Electric actuator				
ZKL2 DN-160 НЖ ZKL2 DN-160 Св НЖ ZKL2 DN-160 В НЖ	31нж45нж	50-100	Flywheel	Steel 12Х18Н9ТЛ	Between -60 and +565	UXL1, XL1* down to -60 °C U1* down to -40°C;	
	31нж545нж	150-500	Gearbox				
ZKLP DN-160 НЖ ZKLP DN-160 Св НЖ ZKLP DN-160 В НЖ	31нж949нж	50-500	Electric actuator				
ZKL2 DN-160 НЖ1 ZKL2 DN-160 Св НЖ1 ZKL2 DN-160 В НЖ1	31нж45нж1	50-100	Flywheel	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
	31нж545нж1	150-500	Gearbox				
ZKLP DN-160 НЖ1 ZKLP DN-160 Св НЖ1 ZKLP DN-160 В НЖ1	31нж949нж1	50-500	Electric actuator				

* Available construction types.
** Range of products available to order is shown in Page 007.

ZKL2 (ZKLP), PN 6.3 MPa (63 kgf/cm²), principal dimensions, mm

DN	L	D	Dk	Welding edge dimensions**		H	H_1	H_2	H_3	H_4	Do	Flanges per GOST 33259, Row 1	Connection Type Body w/Integrated Cover
				Dn	a								
50	270	175	225	-	-	425	500	533	608	446	320	Constr. J	Male/Female
80	321	210	265	-	-	450	545	583	678	460	400		
80Св	310	-		89	3,5 - 6							-	
100	359	250	265	-	-	611	736	769	895	605		Constr. J	
100В	350	250		108	4 - 8								
100Св		-		114	6							-	
125	upon request												
150	447	340	380	-	-	770	940	983	1152	770	400	Constr. J	
150В	559			159	4 - 10								
150Св		-										-	
200	536	405	460	-	-	860	1082	1123	1345	870	600	Constr. J	
250	625	470	515	-	-	-	-	-	-	1025	-		
300	714	530	612	-	-	-	-	-	-	1272			
350	upon request												
400	994	670	688	-	-	-	-	-	-	1497	-		
450	Ро заРросу												
500	1200	800	846	-	-	-	-	-	-	1861	-	**	
600	upon request												

* See sketch in Page 138. Weldable edge dimensions available upon customer request.
** flange per GOST 33259, Row 1 (with sealing surface per ISO 7005-1:1992 suitable for octagonal gasket R73 ISO 7483:1991).

ZKL2 (ZKLP) PN 6.3 MPa (63 kgf/cm²), mass, kg

Actuation Type	DN																	
	50	80	80Св	100	100В	100Св	125	150	150В	150Св	200	250	300	350	400	450	500	600
Manual (flywheel)	52	73	59	91	81	71	upon request	186	180	163	322	-				upon request	-	upon request
Manual (flywheel) with matching flange set	65	94	-	124	114	-		259	253	-	433	-					-	
Scored for actuator	54	73	59	92	82	72		187	180	163	325	450	705	upon request	1145		1935	
Scored for actuator with matching flange set	67	94	-	125	115	-		260	253	-	436	612	1138		1570		2551	
With manual actuator (gearbox)	-											475	730		1165		1970	
Manual actuator (gearbox) with matching flange set	-											637	954		1781		2581	

ZKL2 (ZKLP), PN 6.3; 8.0/10.0; 16.0 MPa (63, 80/100, 160 kgf/cm²), support dimensions, mm

DN - PN (kgf/cm²)	300 - 80/100 300 - 80/100/160Св	300 - 63	350-63	400 - 63	500 - 63	400-160
l	400	410	upon request	530	690	upon request
B	300	300		400	500	
H_{oP}	330	285		380	420	

ZKL2 (ZKLP), PN 8.0/10.0 MPa (80/100 kgf/cm²), principal dimensions, mm

DN	L. mm	D, mm	Dk, mm	H, mm	H_1, mm	H_4, mm	Do, mm	Flanges, GOST 33259, Row 1	Connection Type Body w/Integrated Cover
50	295	195	225	484	554	512	400	Constr. J	Male/Female
80	359	230	265	600	701	606			
100	435	265	265	740	872	840			
150	562	350	405	887	1095	891	600		
200	663	430	505	-	-	1116	-		
250	790	500	610	-	-	1330			
300	841	585	684	-	-	1248			
300Св	750	-	684	-	-	1248			
350	892	655	725	-	-	1422			
400	upon request								
450									
500									
600									

ZKL2 (ZKLP) PN 8.0/10.0 MPa (80/100 kgf/cm²), mass, kg

Actuation Type	DN												
	50	80	100	150	200	250	300	300СВ	350	400	450	500	600
Manual (flywheel)	57	85	102	262	-	-	-	-	-	upon request			
Manual (flywheel) with matching flange set	75	117	148	362	-	-	-	-	-				
Scored for actuator	55	85	96	259	511	858	1092	982	1340				
Scored for actuator with matching flange set	73	117	142	359	676	1087	1474	-	1873				
With manual actuator (gearbox)	-	-	-	-	539	892	1127	1017	1368				
Manual actuator (gearbox) with matching flange set	-	-	-	-	704	1121	1509	-	1901				

ZKL2 (ZKLP) PN 16.0 MPa (160 kgf/cm²)*, principal dimensions, mm

DN	L	D	Dk	Welding edge dimensions*		H,	H_1	H_2	H_3	H_4	Do	Flanges, GOST 33259, Row 1	Connection Type Body w/Integrated Cover
				Dn	a								
50	300	195	247	-	-	515	590	623	698	525	400	Constr. J	Male/Female
80	390	230	300	-	-	550	640	583	773	554			
100	432	265	280	-	-	611	736	769	894	605			
100СВ	356	-		108 114	6 - 10 12							-	
150	559	350	405	-	-	-	-	-	-	796	-	Constr. J	Suitable for oblong gasket
200	660	430	470	-	-	-	-	-	-	1078			Suitable for octogonal gasket
250	787	500	610	-	-	-	-	-	-	1339			
300	838	585	684	-	-	-	-	-	-	1248	-		
300СВ	914	-	684	325	16-25	-	-	-	-	1248	-	-	
400	upon request												
450													
500													

* See sketch in Page 138. Weldable edge dimensions available upon customer request.

ZKL2 (ZKLP) PN 16.0 MPa (160 kgf/cm²), mass, kg

Manual \ DN	50	80	100	100СВ	150	200	250	300	300СВ	400	450	500
Manual (flywheel)	75	105	110	82	-					upon request		
Manual (flywheel) with matching flange set	94	138	157	-	-							
scored for actuator	75	108	110	82	315	564	928	1133	1023			
scored for actuator with matching flange set	94	141	157	-	420	743	1180	1552	-			
with manual actuator (gearbox)	-				340	621	985	1168	1058			
manual actuator (gearbox) with matching flange set	-				445	800	1237	1589	-			

Principal component materials: PN 6.3 MPa (63 kgf/cm²), PN 8.0/10.0 MPa (80/100 kgf/cm²), PN 16.0 MPa (160 kgf/cm²)

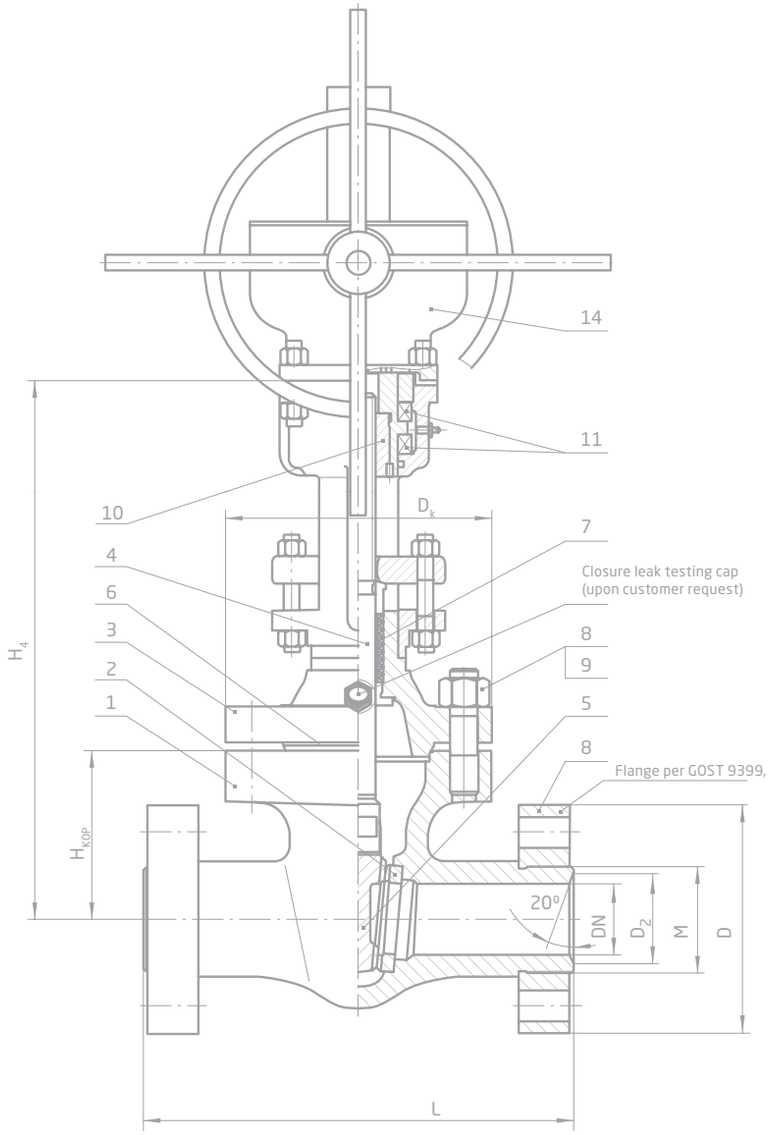
Item No.	Component Name	30с76нж 30с576нж 30с976нж	31с16нж 31с516нж 31с916нж	30лс76нж 30лс576нж 30лс976нж	31лс16нж 31лс516нж 31лс916нж	30лс76нж1 30лс576нж1 30лс976нж1	31лс16нж 31лс516нж 31лс916нж	30нж76нж 30нж576нж 30нж976нж	31нж16нж 31нж516нж 31нж916нж	30нж76нж1 30нж576нж1 30нж976нж1	31нж16нж1 31нж516нж1 31нж916нж1
		Principal Component Materials									
1	Body	Steel 20Л Steel 25Л*		Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*		Steel 20Х5МЛ		Steel 12Х18Н9ТЛ		Steel 12Х18Н12М3ТЛ	
2	Ring	Steel 20, 09Г2С* 12Х18Н10Т* 10Х17Н13М2Т*		09Г2С 12Х18Н10Т* 10Х17Н13М2Т*		15Х5М		12Х18Н10Т		10Х17Н13М2Т	
3	Cover	Steel 20 Steel 20Л Steel 25Л*		09Г2С Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*		15Х5М Steel 20Х5МЛ		12Х18Н10Т Steel 12Х18Н9ТЛ		Steel 12Х18Н12М3ТЛ 10Х17Н13М2Т	
4	Stem	30Х13, 14Х17Н2* 12Х18Н10Т* 10Х17Н13М2Т*		14Х17Н2, 30Х13 12Х18Н10Т* 10Х17Н13М2Т*		12Х18Н10Т 08Х15Н24В4ТР		12Х18Н10Т		10Х17Н13М2Т	
5	Wedge (Disc)	30Х13, Steel 20 (with weld overlay)* 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*		30Х13 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*		15Х5М (with weld overlay)		12Х18Н10Т (with weld overlay)		10Х17Н13М2Т (with weld overlay)	
6	Gasket	ТИИР-752 (РДД-2) ТРГ*		ТРГ		ТРГ		ТРГ		ТРГ	
7	Gland seal packing	ТРГ		ТРГ		ТРГ		ТРГ		ТРГ	
8	Pin	40Х.019**		40Х.019**		Steel 25Х1МФ ***		Steel 12Х18Н10Т		Steel 15Х14Н14В2Т	
9	Nut	40Х.019**		40Х.019**		Steel 30ХМА ***		Steel 12Х18Н10Т			
10	Bushing	ЛС-59-1, БрАЖМц10-3-1,5		ЛС-59-1, БрАЖМц10-3-1,5		ЛС-59-1, БрАЖМц10-3-1,5		ЛС-59-1, БрАЖМц10-3-1,5		ЛС-59-1, БрАЖМц10-3-1,5	
11	Liner										
12	Flywheel	09Г2С, Steel 20Л, Steel 20ГЛ, Steel 20		09Г2С, Steel 20ГЛ		09Г2С, Steel 20ГЛ		09Г2С, Steel 20ГЛ		09Г2С, Steel 20ГЛ	
Weld overlay	On body (ring)	Type 20Х13 ЦН-6Л*		Type 20Х13 ЦН-6Л*		ЦН-12М 04Х19Н11М3		ЦН-6Л, 04Х19Н11М3		ЦН-6Л 04Х19Н11М3	
	On wedge (disc)	Type 20Х13 ЦН-12М*		Type 20Х13 ЦН-12М*		ЦН-12М		ЦН-12М		ЦН-12М	
13	Bearing	Thrust bearing per GOST 7872									
14	Gearbox	Bevel Gearbox									
15	Electric Actuator	Upon customer request (see Page 191-217)									

* Available construction types.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.
*** At fluid temperatures of up to 425 °C, 40Х.019 fasteners are to be installed.

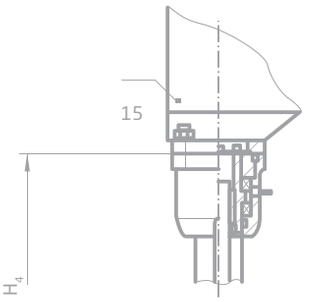
ZKL2 wedge valves PN 25.0 MPa (250 kgf/cm²)
ZKLP electrically actuated wedge valves PN 25.0 MPa (250 kgf/cm²)

Manufacture and delivery per TU 3741-006-07533604-01, TU 3741-010-07533604-2014*, TU 3741-029-07533604-2015, TU 28-14-036-07533604-2017*****

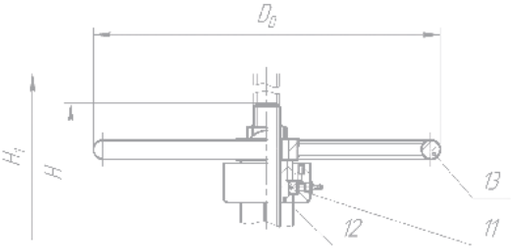
ZKL2 DN 50... 350
PN 25.0 MPa (250 kgf/cm²)
(manual actuation via gearbox flywheel)



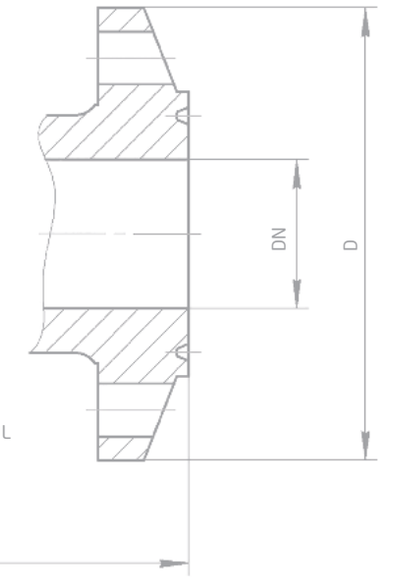
ZKL2 DN 50-350
PN 25.0 MPa (250 kgf/cm²)
(electrically actuated)



ZKL2 DN 50-100, PN 25.0 MPa (250 kgf/cm²)
(flywheel-controlled)



Flange per GOST 28919, Type 1, Construction 1
PN 35.0 MPa (350 kgf/cm²)



* Per Gazprom Corporate Standard STO 2-4.1-212-2008.
** Per ETT P1-01.05 M-0082 (PAO Rosneft OC).
*** To be declared as described in 5Д ТР ТС 010/2011.

Range of Valves DN 50, 80, 100, 150, 200, 250, 300, 350, PN 25.0 MPa (250 kgf/cm²)**

Product Designation (Size)	Type Designation (Table of Figures)	DN	Actuation Method	Body Material	Fluid temperature, °C	Service conditions are per GOST 15150	Fluids
ZKL2 DN-250 ZKL2 DN-250 Св ZKL2 DN-250 В	31с77нж	50-100	Flywheel	Steel 20Л (25Л*)	Between -40 and +425	U1 down to -40°C;	Water, air, steam, natural gas, petroleum derivative gases and liquids, fluids containing hydrogen sulfide, ammonia, foaming agent solutions. Other fluids causing corrosion in components in contact with the fluid at rates not exceeding 0.1 mm per year.
ZKL2 DN-250 ZKL2 DN-250 Св ZKL2 DN-250 В	31с577нж		Gearbox				
ZKLP DN-250 ZKLP DN-250 Св ZKLP DN-250 В	31с977нж		Electric actuator				
ZKL2 DN-250 ЛС ZKL2 DN-250 Св ЛС ZKL2 DN-250 В ЛС	31лс577нж	100-350	Gearbox	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Between -60 and +425	XL1, UXL1* down to -60 °C U1* down to -40°C	
ZKLP DN-250 ЛС ZKLP DN-250 Св ЛС ZKLP DN-250 В ЛС	31лс977нж		Electric actuator				
ZKL2 DN-250 ЛС ZKL2 DN-250 Св ЛС ZKL2 DN-250 В ЛС	31лс577нж1		Gearbox	Steel 20Х5МЛ	Between -40 and +550	U1 down to -40°C;	
ZKLP DN-250 ЛС ZKLP DN-250 Св ЛС ZKLP DN-250 В ЛС	31лс977нж1		Electric actuator				
ZKL2 DN-250 НЖ ZKL2 DN-250 Св НЖ ZKL2 DN-250 В НЖ	31нж577нж		Gearbox	Steel 12Х18Н9ТЛ	Between -60 and +565	XL1, UXL1* down to -60 °C U1* down to -40°C	
ZKLP DN-250 НЖ ZKLP DN-250 Св НЖ ZKLP DN-250 В НЖ	31нж977нж		Electric actuator				
ZKL2 DN-250 НЖ1 ZKL2 DN-250 Св НЖ1 ZKL2 DN-250 В НЖ1	31нж577нж1		Gearbox	Steel 12Х18Н12М3ТЛ	Between -60 and +565		
ZKLP DN-250 НЖ1 ZKLP DN-250 Св НЖ1 ZKLP DN-250 В НЖ1	31нж977нж1		Electric actuator				

* Available construction types.
** Range of products available to order is shown in Page 007.

ZKL2 (ZKLP), PN 25.0 MPa (250 kgf/cm²), principal dimensions, mm

DN	L	D	Dk	Welding edge dimensions*		H	H_1	H_4	M	D_2	D_0	Flanged connection	Connection Type Body w/Integrated Cover
				Dn	a								
50	350	215	291	-	-	609	700	607	-	-	400	Flange 50x35**	Male/Female
80	upon request											Flange 80x35**	
100***	550	310	338	-	-	693	825	700	-	-	400	Flange 100x35**	
150***	750	395	416	-	-	-	-	797	-	-	-	Flange 180x35**	
200***	832	482	522	-	-	-	-	1136	-	-	-	Flange 230x35**	
200		460	470	-	-	-	-	1069	240x6	220	-	Threaded flanges 240x6 per GOST 9399-81	Suitable for a lens ring gasket
200В				219	14 - 22								
200Св		-											
250***	991	585	630	-	-	-	-	1317	-	-	-	Flange 280x35**	Male/Female
250Св	991	-	580	273	16 - 22	-	-	1242	-	-	-	-	Gasket-free joint
300	upon request												
350													

* See sketch in Page 138. Weldable edge dimensions available upon customer request.
** GOST 28919, Construction 1, Flanged connection type 1, Po = 35 MPa.
*** for constructions involving materials 20Л, 20ГЛ.

ZKL2 (ZKLP) PN 25.0 MPa (250 kgf/cm²), mass, kg

Manual \ DN	50	80	100*	150*	200*	200Св	200В	250*	250Св	300	350
scored for actuator	upon request		200	420	845	570	655	1396	986	upon request	
scored for actuator with matching flange set			308	650	1265	-	861	1998	-		
with manual actuator (gearbox)			215	439	879	627	712	1430	1043		
manual actuator (gearbox) with matching flange set			323	677	1223	-	918	2040	-		
Manual (flywheel)			190	-	-	-	-	-	-		
manual (flywheel) with matching flange set			298	-	-	-	-	-	-		

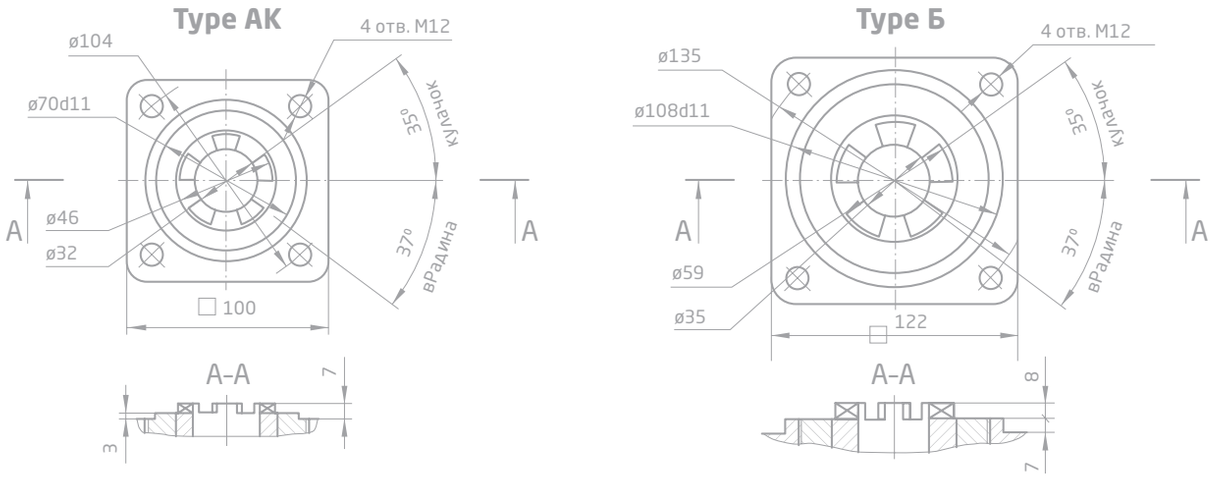
* for constructions in 20Л and 20ГЛ (for constructions in 12Х18Н9ТЛ and 12Х18Н12М3ТЛ).

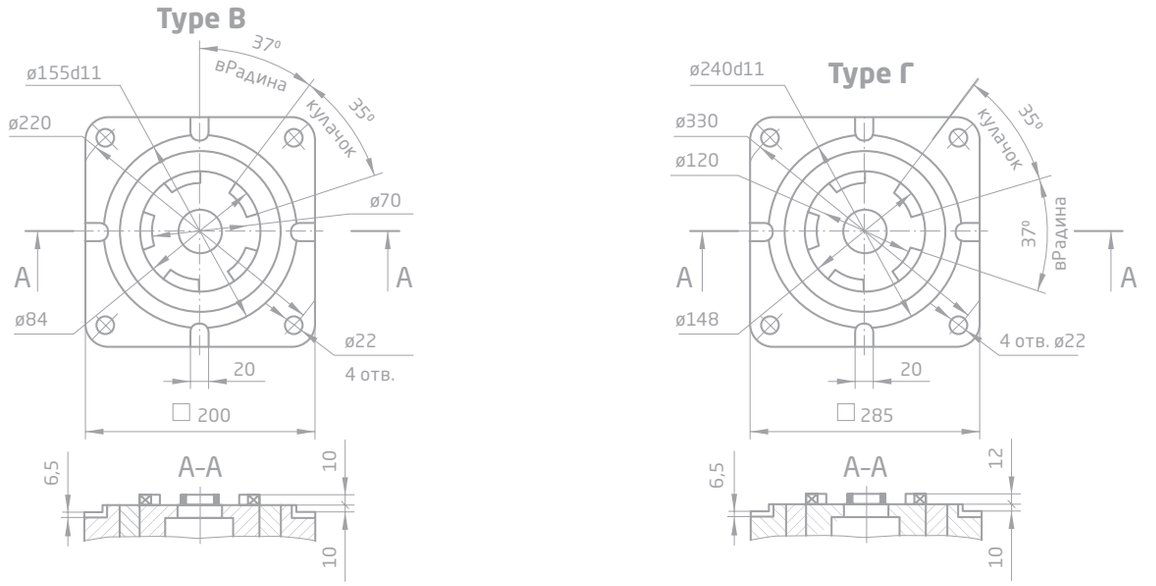
Principal Component Materials: PN 25.0 MPa (250 kgf/cm²)

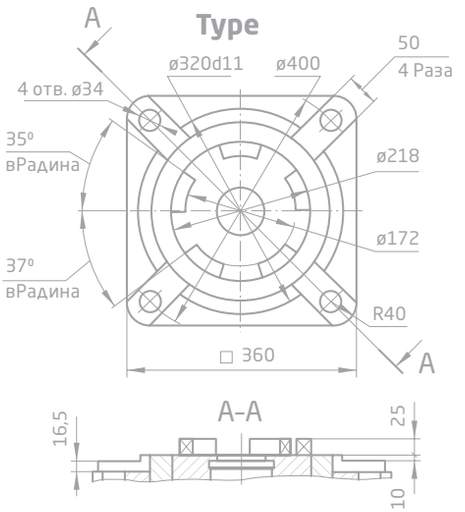
Item No.	Component Name	31с577нж 31с977нж	31лс577нж 31лс977нж	31лс577нж1 31лс977нж1	31нж577нж 31нж977нж	31нж577нж1 31нж977нж1
		Principal Component Materials				
1	Body	Steel 20Л Steel 25Л*	Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	Steel 20Х5МЛ	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
2	Ring	Steel 20 09Г2С* 12Х18Н10Т* 10Х17Н13М2Т*	09Г2С 12Х18Н10Т* 10Х17Н13М2Т*	15Х5М	12Х18Н10Т	10Х17Н13М2Т
3	Cover	Steel 20 Steel 20Л Steel 25Л*	09Г2С Steel 20ГЛ Steel 20ГМЛ* Steel 20ХНЗЛ*	15Х5М Steel 20Х5МЛ	12Х18Н10Т Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ 10Х17Н13М2Т
4	Stem	30Х13 14Х17Н2* 12Х18Н10Т*	14Х17Н2 30Х13	12Х18Н9Т 08Х15Н24В4ТР	12Х18Н10Т	10Х17Н13М2Т
5	Wedge (Disc)	30Х13 Steel 20 (with weld overlay)* 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	30Х13 09Г2С (with weld overlay)* 12Х18Н10Т (with weld overlay)* 10Х17Н13М2Т (with weld overlay)*	15Х5М (with weld overlay)	12Х18Н10Т (with weld overlay)	10Х17Н13М2Т (with weld overlay)
6	Gasket	Steel 08КР Steel 10*	Steel 08КР Steel 10*	08Х18Н10Т	08Х18Н10Т	10Х17Н13М2Т
7	Gland seal packing	ТРГ	ТРГ	ТРГ	ТРГ	ТРГ
8	Pin	40Х.019**	40Х.019**	25Х1МФ ***	45Х14Н14В2М	45Х14Н14В2М
9	Nut	40Х.019**	40Х.019**	30ХМА ***	12Х18Н10Т	12Х18Н10Т
10	Liner	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5	ЛС-59-1, БрАЖМц10-3-1,5
Weld overlay	On body (ring)	Type 20Х13 ЦН-6Л*	Type 20Х13 ЦН-6Л*	ЦН-12М 04Х19Н11М3	ЦН-6Л, 04Х19Н11М3	ЦН-6Л 04Х19Н11М3
	On wedge (disc)	Type 20Х13 ЦН-12М*	Type 20Х13 ЦН-12М*	ЦН-12М	ЦН-12М	ЦН-12М
11	Bearing	Thrust bearing per GOST 7872				
12	Flywheel	09Г2С, 20ГЛ Steel 20, 20Л	09Г2С, 20ГЛ	09Г2С, 20ГЛ Steel 20, 20Л	20ГЛ 09Г2С	09Г2С, 20 ГЛ
13	Bushing	ЛС-59-1				
14	Gearbox	Bevel Gearbox				
15	Electric Actuator	Upon customer request (see Page 163-189)				

* Available construction types.
** Fasteners with zinc chrome-plated coating. No-coating version available upon request.
*** At fluid temperatures of up to 425 °C, 40Х.019 fasteners are to be installed.

Matching dimensions of valves scored for electric and manual (gearbox) actuators per GOST 55510
(for type of valve connection, see tables in Pages 163-189)







Cast wedge valve datasheet No. _____

Customer:		Location:
Project Reference:		Address:
Facility:		Phone, Fax
1	Item No.	
2	Arrangement	
3	Product Name	
4	Table of Figures	
5	Nominal Diameter (Design Bore), DN	
6	Pressure rating (Theoretical), PN, kgf/cm2	
7	Application.	
8	Fluid temperature	between °C and °C
9	Minimum ambient air temperature	°C
10	Fluid chemistry, state	
11	Body component materials	
12	Service conditions are per GOST 15150	
13	Connection to pipeline is flanged, vented (combination, with welded connection) referencing standards and sealing surface types	
14	Actuator Type	
15	Supplemental Data 1) Mass particulate concentration _____% 2) Fluids with hydrogen sulfide contents: hydrogen sulfide and moisture percentage (mass) concentration H_2S _____% 3) Chlorine: moisture percentage (mass) concentration H_2O _____%	
16	Additional Requirements [ ] [ ] [ ] [ ]	1. Impact bending test at a temperature of _____°C 2. Intergranular corrosion test 3. Seismic resistance (over 6 points) 4. Others _____
17	Supplemental delivery	1. Flanges 2. Pins 3. Nuts 4. Gaskets 5. Others _____

ЭлектроРриводы Рроизводства ЗАО «ТулаэлектроРривод»

Designation	DN	PN. kgf/cm²	Full opening or closing response time. sec	Electric actuator (TU 26-07-015-89)						Electric motor	
				Legend	Reference to principal design document	Torque at output shaft. kgf · m	Output shaft rpm	Explosion class	Weight. kg Not to Exceed	Designation	Power. kW
ZKLP 50-16	50	16	40	В-А2-05К (Н-А2-05К)	ТЭ099.059-05М (ТЭ099.058-05М1)	2.5-6	24	IExdIIBT4 (общее назначение)	40 (17)	АИМ-А63А2 (АИР56В2)	0.37 (0.25)
ZKLP 50-25		25	42								
ZKLP 50-40		40	40								
ZKLP 80-16	80	16	50	В-А2-11К (Н-А2-11К)	ТЭ099.059-11М (ТЭ099.058-11М1)	6-10			40 (17)	АИМ-А63А2 (АИР63А4)	0.37 (0.25)
ZKLP 100-16	100		60								
ZKLP 80-25	80	25	50								
ZKLP 80-40		40									
ZKLP 100-40	100		60								
ZKLP 100-25		25									
ZKLP 125-16	125	16	68								
ZKLP 150-16	150	16	36	В-Б1-05 (Н-Б1-05)	Б099.099-05М1 (Б099.098-05М1	10-30	50		67 (53)	АИМ-А80В4 (АИРС80В4)	1.5 (1.7)
ZKLP 150-25		25	32								
ZKLP 150-40		40									
ZKLP 200-16	200	16	43	В-Б1-06 (Н-Б1-06)	Б099.099-06М1 (Б099.098-06М1)				67 (53)		
ZKLP 200-40		40	44								
ZKLP 200-25		25									
ZKLP 250-25	250		58	В-В-06 (Н-В-06)	Б099.101-06М (Б099.100-06М)	25-63	48		143 (102)	АИМ100L4 (АИРС100L4)	4.0 (4.25)
ZKLP 50-63	50	63	40	В-А2-11К (Н-А2-11К)	ТЭ099.059-11М (ТЭ099.058-11М1)	6-10	24		40 (17)	АИМ-А63А2 (АИР63А4)	0.37 (0.25)
ZKLP 80-63	80		45								
ZKLP 100-63	100		26	В-Б1-05 (Н-Б1-05)	Б099.099-05М1 (Б099.098-05М1)	10-30	50		67 (53)	АИМ-А80В4 (АИРС80В4)	1.5 (1.7)
ZKLP 500-25	500	25	98	В-Г-06 (Н-Г-06)	Б099.103-06М (Б099.102-06М)	100-250	40		250 (210)	АИМ132МА4 (АИРС132S4)	7.5 (8.5)
ZKLP 500-40		40	98								
ZKLP 600-16	600	16	145								
ZKLP 600-25		25	114								
ZKLP 600-40		40	95								
ZKLP 700-16	700	16	111								
ZKLP 800-16	800	16	318	В-Д-09 (Н-Д-15)	Б099.105-09М (Б099.104-15М)	250-500	10		370 (370)	АИМ100L4 (АИРС100L4)	4.0 (4.25)

Electric actuators from ZAO Tulaelectroprivod (Continued)

Designation	DN	PN. kgf/cm²	Full opening or closing response time. sec	Electric actuator (TU 26-07-015-89)						Electric motor	
				Legend	Reference to principal design document	Torque at output shaft. kgf · m	Output shaft rpm	Explosion class	Weight. kg Not to Exceed	Designation	Power. kW
ZKLP 150-63	150	63	34	В-Б1-05 (Н-Б1-05)	Б099.099-05М1 (Б099.098-05М1)	10-30	50	1ExdIIBT4 (общее назначение)	67 (53)	АИМ-А80В4 (АИРС80В4)	1.5 (1.7)
ZKLP 50-160	50	160	15								
ZKLP 80-160	80		17								
ZKLP 100-160	100		26								
ZKLP 150-160	150		39	В-В-11 (Н-В-18)	Б099.101-11М (Б099.100-18М)	63-100	48		143 (102)	АИМ100L4 (АИРС100L4)	4.0 (4.25)
ZKLP 200-63	200	63	46	В-В-06 (Н-В-06)	Б099.101-06М (Б099.100-08М)	25-63					
ZKLP 250-16	250	16	58	В-Б1-06 (Н-Б1-06)	Б099.099-06М1 (Б099.098-06М1)	10-30	50		67 (53)	АИМ-А80В4 (АИРС80В4)	1.5 (1.7)
ZKLP 300-16	300		68	В-В-06 (Н-В-06)	Б099.101-06М (Б099.100-06М)	25-63	48		143 (102)	АИМ100L4 (АИРС100L4)	4.0 (4.25)
ZKLP 350-16	350		78								
ZKLP 400-16	400		89								
ZKLP 250-40	250	40	60								
ZKLP 300-25	300	25	72								
ZKLP 500-16	500	16	83	В-В-12 (Н-В-19)	Б099.101-12М (Б099.100-19М)	63-100					
ZKLP 300-40	300	40	71								
ZKLP 300-63	300	63	52								
ZKLP 400-25	400	25	89								
ZKLP 400-40		40	81	В-Г-06 (Н-Г-06)	Б099.103-06М (Б099.102-06М)	100-250	40		252 (210)	АИМ132МА4 (АИРС132S4)	7.5 (8.5)
ZKLP 200-160	200	160	33								
ZKLP 250-63	250	63	45	В-В-11 (Н-В-18)	Б099.101-11М (Б099.100-18М)	63-100	48		143 (102)	АИМ100L4 (АИРС100L4)	4.0 (4.25)
ZKLP 100-250	100	250	19								
ZKLP 150-250	150		35	В-Г-05 (Н-Г-05)	Б099.103-05М (Б099.102-05М)	100-250	40		252 (210)	АИМ132МА4 (АИРС132S4)	7.5 (8.5)
ZKLP 200-250	200		41								
ZKLP 250-250	250		41	В-Г-08 (Н-Г-08)	Б099.103-08М (Б099.102-08М)						
ZKLP 250-160	250	160	50								

Note: depending on service both general-purpose and explosion-proof electric actuators may be used.

The data i parenthesis apply to non-explosion-proof electric actuators. Any valves not listed in the table will be selected upon request.

Electric actuator manufacturer: ZAO Tulaelectroprivod, 1 Zavodskaya street, block A, Plekhanovo Township, Leninsky District, Tula Region, 301114, Russia Phone: (4876) 796715, 796573. Fax: (4876) 796717, 796418.
E-mail: privod@tula.net; www.tulaprivod.ru

EVIM electric actuators from AO Ufa Instrument Manufacturer Production Association

Valve parameters								Electric actuator parameters			
Designation	DN	PN. MPa	Required torque. N x m	Thread diameter	Spindle rpm	Spindle stroke. mm	Matching dimensions by type	Opening/ closing time. sec	Designation	Output shaft rpm	Motor power rating. kW
ZKLP 50-16	50	1.6	60	Tr 18x4	16	64	A	40	ЭВИМ РВ.2А ХХХ	24	0.37
ZKLP 50-25		2.5									
ZKLP 50-40		4.0									
ZKLP 50-63		6.3	65	Tr 24x5	16	80					
ZKLP 50-160		16.0	150	Tr 30x6	11.5	69	Б	15	ЭВИМ 5.4Б ХХХ	48	1.5
ZKLP 80-16	80	1.6	65	Tr 20x4	25	100	A	50	ЭВИМ РВ.2А ХХХ	24	0.37
ZKLP 80-25		2.5	70	Tr 24x5	20						
ZKLP 80-40		4.0	70								
ZKLP 80-63		6.3	75		18	90		45			
ZKLP 80-160		16.0	230	Tr 30x6	14	84	Б	18	ЭВИМ 5.4Б ХХХ		1.5
ZKLP 100-16	100	1.6	65	Tr 24x5	24	120	A	60	ЭВИМ РВ.2А ХХХ	24	0.37
ZKLP 100-25		2.5	70								
ZKLP 100-40		4.0	70								
ZKLP 100-63		6.3	190	Tr 30x6	21	126	Б	27	ЭВИМ 5.4Б ХХХ	48	1.5
ZKLP 100-160		16.0	280		20	120		25			
ZKLP 100-250		25.0	880	Tr 44x8	15	121	В	45	ЭВИМ 11.25В ХХХ	20	4.0
ZKLP 125-16	125	1.6	70	Tr 24x5	27	135	A	68	ЭВИМ РВ.2А ХХХ	24	0.37
ZKLP 150-16	150	1.6	100	Tr 30x6	30	175	Б	38	ЭВИМ 5.4Б ХХХ	48	1.5
ZKLP 150-25		2.5	140		27	162		34			
ZKLP 150-40		4.0	140								
ZKLP 150-63		6.3	220		28	168		35			
ZKLP 150-160		16.0	700	Tr 40x6	31	185	В	47	ЭВИМ 11.26В ХХХ	40	4.0
ZKLP 150-250		25.0	2240	Tr 60x8	23	181	Г	99	ЭВИМ 13.2Г ХХХ	14	5.5
ZKLP 200-16	200	1.6	130	Tr 30x6	36	216	Б	45	ЭВИМ 5.4Б ХХХ	48	1.5
ZKLP 200-25		2.5	150		37	222		47			
ZKLP 200-40		4.0	290								
ZKLP 200-63		6.3	460	Tr 40x6			В	47 (или 94)	ЭВИМ 5.13В ХХХ	48 (или 24)	2.2 (или 1.5)
ZKLP 200-160		16.0	2050	Tr 60x8	22	215	Г	95	ЭВИМ 13.2Г ХХХ	14	5.5
ZKLP 200-250		25.0	2410		27	218		116			

Electric actuator manufacturer:
AO Ufa Instrument Manufacturer Production Association (AO UPPO), 30 50-Let SSSR street, Ufa, Republic of Bashkortostan, 450071, Russia
Any valves not listed in the table will be selected upon request.

Phone: +7 (347) 293-75-09
Fax: +7 (347) 293-75-33
Email: uppo@uppo.ru
Manufacturer's Website: www.uppo.ru

EVIM electric actuators from AO Ufa Instrument Manufacturer Production Association (Conclusion)

Valve parameters								Electric actuator parameters			
Designation	DN	PN. MPa	Required torque. N x m	Thread diameter	Spindle rpm	Spindle stroke. mm	Matching dimensions by type	Opening/ closing time. sec	Designation	Output shaft rpm	Motor power rating. kW
ZKLP 250-16	1.6	250	170	Tr 30x6	48	288	Б	60	ЭВИМ 5.4Б XXX	48	1.5
ZKLP 250-25	2.5		300	Tr 40x6			В	60 (или 120)	ЭВИМ 5.13В XXX	48 (или 24)	2.2 (или 1.5)
ZKLP 250-40	4.0		510					72	ЭВИМ 11.26В XXX	40 20	4.0
ZKLP 250-63	6.3		850	Tr 44x8	36	288		108	ЭВИМ 11.25В XXX		
ZKLP 250-160	16.0		2440	Tr 65x10	33	330	Г	142	ЭВИМ 13.2Г XXX	14	5.5
ZKLP 250-250	25.0		2410		27	266		135	ЭВИМ 13.2Г XXX	14	5.5
ZKLP 300-16	1.6	300	350	Tr 40x6	54	324	В	68 (или 136)	ЭВИМ 5.13В XXX	48 (или 24)	2.2 (или 1.5)
ZKLP 300-25	2.5		530		55	340		83	ЭВИМ 11.26В XXX	40	4.0
ZKLP 300-40	4.0		780		55	340					
ZKLP 300-63	6.3		800	Tr 50x8	42	335		126	ЭВИМ 11.25В XXX	20	
ZKLP 350-16	1.6	350	450	Tr 40x6	63	376		79 (или 158) / 95	ЭВИМ 5.13В XXX / 11.26В XX	48 (или 24) / 40	2.2 (или 1.5) / 4.0
ZKLP 400-16	1.6	400	480		71	426		89 (или 178) / 107			
ZKLP 400-25	2.5		800					107	ЭВИМ 11.2В XXX	40	5.5
ZKLP 400-40	4.0		1460	Tr 50x8	54	435	Г	155	ЭВИМ 13.3Г XXX	21	5.5
ZKLP 500-16	1.6	500	990		66	530	В	198	ЭВИМ 11.25В XXX	20	4.0
ZKLP 500-25	2.5		1200	Tr 60x8	63	505	Г	180	ЭВИМ 13.3Г XXX	21	5.5
ZKLP 500-40	4.0		1500								
ZKLP 600-16	1.6	600	1300		76	610		218			
ZKLP 600-25	2.5		1400								
ZKLP 600-40	4.0		2000	Tr 65x10	62	613		266	ЭВИМ 13.2Г XXX	14	5.5
ZKLP 700-16	1.6	700	1500	Tr 65x10	74	737		318			
ZKLP 800-16	1.6	800	1600	Tr 80x16	58	840	Д	290	ЭВИМ 11.6Г XXX	12	5.5

Where XXX refers to the control or switching unit designator; К: with a switching mechanism;
Э: with an electronic limit switch box;
ТЭ: with an electronic control box and a built in frequency converter;
МПХ.У: with a built-in local control panel

where X refers to the equipment complement of the local control panel with respect to control signals and the connection diagram;
1: with built-in initiator and 24 VDC control signal;
2: with built-in initiator and 220 VDC control signal;
3: no initiator, with connections for opening and closing limit switches
4: no initiator, with connections for opening and closing limit and torque switches

where Y refers whether the actuator is equipped with a connection block:
1: a switching mechanism;
3: an electronic limit switch box;

Any valves not listed in the table will be selected upon request.

Electric Actuators from OAO "ABS-ZEiM Avtimatizatsiya"

Designation	Max. Torque, (N × m)	Output shaft rpm	Thread diame-ter	Spindle revolu-tions	Spin-dle stroke, mm	Com-plete opening/ closing time, sec	Matching dimen-sions by type	General-Purpose Actua-tor Type	Explosion-Proof Actuator Type	Power, kW
ZKLP 50-16	60	24	Tr 18x4	16	64	40	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	0.18
ZKLP 80-16	65		Tr 20x4	25	100	50	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	
ZKLP 100-16	65		Tr 24x5	24	120	60	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	
ZKLP 125-16	70		Tr 24x5	27	135	68	Type A	РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	0.25
ZKLP 150-16	100	50	Tr 30x6	28	165	34	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	1.1
ZKLP 200-16	130		Tr 30x6	36	216	44	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	
ZKLP 250-16	170		Tr 30x6	48	288	60	Type Б	РЭМ-Б7М	РЭМ-Б7-IIВТ4, РЭМ2-Б7-IIВТ4	
ZKLP 300-16	350	48	Tr 40x6	54	324	68	Type B	РЭМ-В14 630 50 216 М РЭМ-В15 630 50 216 У	РЭМ2-В7 630 50 216 М IIВТ4	4
ZKLP 400-16	480		Tr 40x6	71	426	90	Type B	РЭМ-В14 630 50 216М РЭМ-В15 630 50 216 У	РЭМ2-В7 630 50 216 М IIВТ4	
ZKLP 500-16	990		Tr 50x8	66	530	83	Type B	РЭМ-В46 1000 50 216М РЭМ-В47 1000 50 216 У	РЭМ2-В15 1000 50 216 М IIВТ4	
ZKLP 50-25	60	24	Tr 20x4	17	68	40	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	0.18
ZKLP 80-25	70		Tr 24x5	20	100	50	Type A	РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	0.25
ZKLP 100-25	70		Tr 24x5	24	120	60	Type A	РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	
ZKLP 150-25	140	50	Tr 30x6	27	162	32	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	1.1
ZKLP 200-25	150		Tr 30x6	37	222	44	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	
ZKLP 250-25	300	48	Tr 40x6	48	288	60	Type B	РЭМ-В14 630 50 216М РЭМ-В15 630 50 216 У	РЭМ2-В7 630 50 216 М IIВТ4	4
ZKLP 300-25	530		Tr 40x6	55	340	69	Type B	РЭМ-В14 630 50 216М РЭМ-В15 630 50 216 У	РЭМ2-В7 630 50 216 М IIВТ4	
ZKLP 300-63	800		Tr 50x8	41	328	50	Type B	РЭМ-В46 1000 50 216М РЭМ-В47 1000 50 216 У	РЭМ2-В15 1000 50 216 М IIВТ4	
ZKLP 400-25	800		Tr 40x6	71	426	90	Type B			
ZKLP 50-40	60	24	Tr 20x4	16	64	40	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	0.18
ZKLP 80-40	70		Tr 24x5	20	100	50	Type A	РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	0.25
ZKLP 100-40	70		Tr 24x5	24	120	60	Type A	РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	
ZKLP 150-40	140	50	Tr 30x6	27	162	32	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	1.1
ZKLP 200-40	290		Tr 30x6	37	222	44	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	

Electric Actuators from OAO "ABS-ZEiM Avtimatizatsiya" (Conclusion)

Designation	Max. Torque, (N × m)	Output shaft rpm	Thread diameter	Spindle revolutions	Spindle stroke, mm	Complete opening/ closing time, sec	Matching dimensions by type	General-Purpose Actuator Type	Explosion-Proof Actuator Type	Power, kW
ZKLP 250-40	510	48	Tr 40x6	48	288	60	Type B	РЭМ-В14 630 50 216М РЭМ-В15 630 50 216 У	РЭМ2-В7 630 50 216 М IIВТ4	4
ZKLP 300-40	780		Tr 40x6	57	340	69		РЭМ-В46 1000 50 216М РЭМ-В47 1000 50 216 У	РЭМ2-В15 1000 50 216 М IIВТ4	
ZKLP 50-63	65	24	Tr 24x5	16	80	40	Type A	РЭМ-А3М	РЭМ-А3-IIВТ4, РЭМ2-А3-IIВТ4	0.18
ZKLP 80-63	75		Tr 24x5	18	90	45		РЭМ-А11М	РЭМ-А11-IIВТ4, РЭМ2-А11-IIВТ4	0.25
ZKLP 100-63	190	50	Tr 30x6	21	126	25	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	1.1
ZKLP 150-63	220		Tr 30x6	28	168	34				
ZKLP 200-63	460	48	Tr 40x6	37	222	44	Type B	РЭМ-В14 630 50 216М РЭМ-В15 630 50 216У	РЭМ2-В7 630 50 216 М IIВТ4	4
ZKLP 250-63	850			36	288	45				
ZKLP 350-16	450			63	376	79				
ZKLP 50-160	150	50	Tr 30x6	11,5	69	15	Type Б	РЭМ-Б5М	РЭМ-Б5-IIВТ4, РЭМ2-Б5-IIВТ4	1.1
ZKLP 80-160	230			14	84	18				
ZKLP 100-160	280			20	120	24				
ZKLP 150-160	700	48	Tr 40x6	30	180	39	Type B	РЭМ-В42 1000 50 36М РЭМ-В43 1000 50 36 У	РЭМ2-В13 1000 50 36 М IIВТ4	4
ZKLP 100-250	880			15	121	19				

Note: depending on service, both general-purpose and explosion-proof electric actuators may be used.

By default, actuators with a single opening switch are supplied.

Any valves not listed in the table will be selected upon request.

Electric actuator manufacturer: OAO ABS Avtomatizatsiya, 1 I. Yakovlev dr., Cheboksary, 428020, Russia Phone: (8352) 305269, 305221, Phone/Fax: (8352) 305111, 201549
E-mail: pavlov@zeim.ru; ops@zeim.ru; www.zeim.ru

Electric actuators with electronic modules from OAO ABS-ZEiM Avtomatizatsia

Designation of wedge valve	Max spindle torque, H x м	Number of spindle bushing revolutions to full opening/ closure	Thread diameter	Spindle stroke to full opening/ closure, mm	Actuator connection	Модель (взрывозащ. / обще- пром.)	Torque, N x m	Actuator output shaft rpm	Opening/ closing time, sec	Power requirement, Pn, kW	Max. current, Imax., A
ZKLP 50-16	60	16	Tr 18x4	64	Type A	РЭМ-А100-ХХЦА2*-IIBT4** (РЭМ-А100-ХХЦА2*)	40-100	7	137	0.20	0.50
								12	80	0.32	0.80
								22	44	0.50	1.30
								48	20	0.82	1.90
								96	10	1.04	4.00
ZKLP 80-16	65	25	Tr 20x4	100				7	171	0.20	0.50
								12	100	0.32	0.80
								22	55	0.50	1.30
								48	25	0.82	1.90
								96	13	1.04	4.00
ZKLP 100-16	65	24	Tr 24x5	120				7	206	0.20	0.50
								12	120	0.32	0.80
								22	65	0.50	1.30
								48	30	0.82	1.90
								96	15	1.04	4.00
ZKLP 125-16	70	27	Tr 24x5	135				7	231	0.20	0.50
								12	135	0.32	0.80
								22	74	0.50	1.30
								48	34	0.82	1.90
								96	17	1.04	4.00
ZKLP 150-16	75	30	Tr 30x6	175	Type Б	РЭМ-А100-ХХЦА2*-IIBT4** (РЭМ-А100-ХХЦА2*) / А-Б	40-100	7	257	0.20	0.50
								12	150	0.32	0.80
								24	75	0.50	1.30
								48	38	0.82	1.90
								96	19	1.04	4.00
ZKLP 200-16	130	36	Tr 30x6	216		РЭМ-Б250-ХХЦА2*-IIBT4** (РЭМ-Б250-ХХЦА2*)	100-250	6	360	0.39	1.00
								12	180	0.66	1.60
								24	90	1.04	2.30
								48	45	1.80	4.00
								96	23	5.80	11.00
ZKLP 250-16	170	48	Tr 30x6	288				6	480	0.39	1.00
								12	240	0.66	1.60
								24	120	1.04	2.30
								48	60	1.80	4.00
								96	30	5.80	11.00
ZKLP 300-16	350	54	Tr 40x6	324	Type B	РЭМ-В630-ХХЦА2*-IIBT4** (РЭМ-В630-ХХЦА2*)	250-630	25	130	3.20	6.30
								50	65	4.60	8.50
ZKLP 350-16	450	63	Tr 40x6	376				25	151	3.20	6.30
								50	76	4.60	8.50

Electric actuators with electronic modules from OAO ABS-ZEiM Avtomatizatsia (Continued)

Designation of wedge valve	Max spindle torque, H x м	Number of spindle bushing revolutions to full opening/ closure	Thread diameter	Spindle stroke to full opening/ closure, mm	Actuator connection	Модель (взрывозащ. / обще- пром.)	Torque, N x m	Actuator output shaft rpm	Opening/ closing time, sec	Power requirement, Pn, kW	Max. current, Imax., A
ZKLP 400-16	480	71	Tr 40x6	426	Type B	РЭМ-В630-ХХЦА2*-IIBT4** (РЭМ-В630-ХХЦА2*)	250-630	25	170	3.20	6.30
								50	85	4.60	8.50
ZKLP 500-16	990	66	Tr 50x8	526		РЭМ-В1000-ХХЦА2*-IIBT4** (РЭМ-В1000-ХХЦА2*)	500-1000	25	158	4.40	8.70
								50	79	8.50	16.00
ZKLP 600-16	1300	77	Tr 60x8	610	Type Г	РЭМ-В1500-ХХЦА2*-IIBT4** (РЭМ-В1500-ХХЦА2*) / В-Г	900-1500	25	185	8.50	16.00
ZKLP 700-16	1500	74	Tr 65x10	737				25	178	8.50	16.00
ZKLP 800-16	1600	53	Tr 65x10	840	Type Д	РЭМ-В1500-ХХЦА2*-IIBT4** (РЭМ-В1500-ХХЦА2*) / В-Д	900-1500	25	127	8.50	16.00
ZKLP 50-25	60	17	Tr 20x4	68	Type A	РЭМ-А100-ХХЦА2*-IIBT4** (РЭМ-А100-ХХЦА2*)	40-100	7	146	0.20	0.50
								12	85	0.32	0.80
								22	46	0.50	1.30
								48	21	0.82	1.90
								96	11	1.04	4.00
ZKLP 80-25	70	20	Tr 24x4	100				7	171	0.20	0.50
								12	100	0.32	0.80
								22	55	0.50	1.30
								48	25	0.82	1.90
								96	13	1.04	4.00
ZKLP 100-25	70	24	Tr 24x4	120				7	206	0.20	0.50
								12	120	0.32	0.80
								22	65	0.50	1.30
								48	30	0.82	1.90
								96	15	1.04	4.00
ZKLP 150-25	140	27	Tr 30x6	162	Type Б	РЭМ-Б250-ХХЦА2*-IIBT4** (РЭМ-Б250-ХХЦА2*)	100-250	6	270	0.39	1.00
								12	135	0.66	1.60
								24	68	1.04	2.30
								48	34	1.80	4.00
								96	17	5.80	11.00
ZKLP 200-25	125	37	Tr 30x6	222				6	370	0.39	1.00
								12	185	0.66	1.60
								24	93	1.04	2.30
								48	46	1.80	4.00
								96	23	5.80	11.00
ZKLP 250-25	300	48	Tr 40x6	288	Type B	РЭМ-В630-ХХЦА2*-IIBT4** (РЭМ-В630-ХХЦА2*)	250-630	25	115	3.20	6.30
								50	58	4.60	8.50
ZKLP 300-25	530	58	Tr 40x6	340				25	139	3.20	6.30
								50	70	4.60	8.50

Electric actuators with electronic modules from OAO ABS-ZEiM Avtomatizatsia (Continued)

Designation of wedge valve	Max spindle torque, H x м	Number of spindle bushing revolutions to full opening/ closure	Thread diameter	Spindle stroke to full opening/ closure, mm	Actuator connection	Модель (взрывозащ. / обще- пром.)	Torque, N x m	Actuator output shaft rpm	Opening/ closing time, sec	Power requirement, Pn, kW	Max. current, Imax., A
ZKLP 400-25	800	71	Tr 40x6	426	Type B	РЭМ-В1000-ХХЦА2*-IIВТ4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	170	4.40	8.70
								50	85	8.50	16.00
ZKLP 500-25	1200	65	Tr 60x8	515	Type Г	РЭМ-В1500-ХХЦА2*-IIВТ4** (РЭМ-В1500-ХХЦА2*) / В-Г	900-1500	25	156	8.50	16.00
ZKLP 600-25	1400	76	Tr 60x8	610				25	182	8.50	16.00
ZKLP 50-40	60	16	Tr 20x4	64	Type A	РЭМ-А100-ХХЦА2*-IIВТ4** (РЭМ-А100-ХХЦА2*)	40-100	7	137	0.20	0.50
								12	80	0.32	0.80
								22	44	0.50	1.30
								48	20	0.82	1.90
								96	10	1.04	4.00
ZKLP 80-40	70	20	Tr 24x4	100				7	171	0.20	0.50
								12	100	0.32	0.80
								22	55	0.50	1.30
								48	25	0.82	1.90
								96	13	1.04	4.00
ZKLP 100-40	70	24	Tr 24x4	120				7	206	0.20	0.50
								12	120	0.32	0.80
								22	65	0.50	1.30
								48	30	0.82	1.90
								96	15	1.04	4.00
ZKLP 150-40	140	27	Tr 30x6	162	Type Б	РЭМ-Б250-ХХЦА2*-IIВТ4** (РЭМ-Б250-ХХЦА2*)	100-250	6	270	0.39	1.00
								12	135	0.66	1.60
								24	68	1.04	2.30
								48	34	1.80	4.00
								96	17	5.80	11.00
ZKLP 200-40	290	37	Tr 30x6	222				6	370	0.39	1.00
								12	185	0.66	1.60
								24	93	1.04	2.30
								48	46	1.80	4.00
								96	23	5.80	11.00
ZKLP 250-40	510	48	Tr 40x6	288	Type B	РЭМ-В630-ХХЦА2*-IIВТ4** (РЭМ-В630-ХХЦА2*)	250-630	25	115	3.20	6.30
								50	58	4.60	8.50
ZKLP 300-40	780	57	Tr 40x6	340		РЭМ-В1000-ХХЦА2*-IIВТ4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	137	4.40	8.70
								50	68	8.50	16.00
ZKLP 400-40	1460	54	Tr 50x8	435	Type Г	РЭМ-В1500-ХХЦА2*-IIВТ4** (РЭМ-В1500-ХХЦА2*) / В-Г	900-1500	25	130	8.50	16.00

Electric actuators with electronic modules from OAO ABS-ZEiM Avtomatizatsia (Continued)

Designation of wedge valve	Max spindle torque, H x м	Number of spindle bushing revolutions to full opening/ closure	Thread diameter	Spindle stroke to full opening/ closure, mm	Actuator connection	Модель (взрывозащ. / обще- пром.)	Torque, N x m	Actuator output shaft rpm	Opening/ closing time, sec	Power requirement, Pn, kW	Max. current, Imax., A
ZKLP 500-40	1300	65	Tr 60x8	515	Type Г	РЭМ-В1500-ХХЦА2*-IIВТ4** (РЭМ-В1500-ХХЦА2*) / В-Г	960-2500	25	156	8.50	16.00
ZKLP 600-40	2000	62	Tr 65x10	613		РЭМ-В630-ХХЦА2*-IIВТ4** / РЭАМ-С-2500 (РЭМ-В630-ХХЦА2 / РЭАМ-С-2500)	1300-2500	50	581	4.60	8.50
ZKLP 50-63	65	16	Tr 24x5	80	Type А	РЭМ-А100-ХХЦА2*-IIВТ4** (РЭМ-А100-ХХЦА2*)	40-100	7	137	0.20	0.50
								12	80	0.32	0.80
								22	44	0.50	1.30
								48	20	0.82	1.90
								96	10	1.04	4.00
ZKLP 80-63	75	18	Tr 24x5	90				7	154	0.20	0.50
								12	90	0.32	0.80
								22	49	0.50	1.30
								48	23	0.82	1.90
								96	11	1.04	4.00
ZKLP 100-63	190	21	Tr 30x6	126	Type Б	РЭМ-Б250-ХХЦА2*-IIВТ4** (РЭМ-Б250-ХХЦА2*)	100-250	6	210	0.39	1.00
								12	105	0.66	1.60
								24	53	1.04	2.30
								48	26	1.80	4.00
								96	13	5.80	11.00
ZKLP 150-63	220	28	Tr 30x6	168				6	280	0.39	1.00
								12	140	0.66	1.60
								24	70	1.04	2.30
								48	35	1.80	4.00
								96	18	5.80	11.00
ZKLP 200-63	460	37	Tr 40x6	222	Type В	РЭМ-В630-ХХЦА2*-IIВТ4** (РЭМ-В630-ХХЦА2*)	250-630	25	89	3.20	6.30
								50	44	4.60	8.50
ZKLP 250-63	850	36	Tr 44x8	288		РЭМ-В1000-ХХЦА2*-IIВТ4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	86	4.40	8.70
								50	43	8.50	16.00
ZKLP 300-63	800	42	Tr 50x8	334		РЭМ-В1000-ХХЦА2*-IIВТ4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	101	4.40	8.70
									50	8.50	16.00
ZKLP 50-160	150	12	Tr 30x6	69	Type Б	РЭМ-Б250-ХХЦА2*-IIВТ4** (РЭМ-Б250-ХХЦА2*)	100-250	6	120	0.39	1.00
								12	60	0.66	1.60
								24	30	1.04	2.30
								48	15	1.80	4.00
								96	8	5.80	11.00

Electric actuators with electronic modules from OAO ABS-ZEiM Avtomatizatsia (Conclusion)

Designation of wedge valve	Max spindle torque, H x м	Number of spindle bushing revolutions to full opening/ closure	Thread diameter	Spindle stroke to full opening/ closure, mm	Actuator connection	Модель (взрывозащ. / обще- пром.)	Torque, N x m	Actuator output shaft rpm	Opening/ closing time, sec	Power requirement, Pn, kW	Max. current, Imax., A
ZKLP 80-160	230	14	Tr 30x6	84	Type Б	РЭМ-Б250-ХХЦА2*-IIBT4** (РЭМ-Б250-ХХЦА2*)	100-250	6	140	0.39	1.00
								12	70	0.66	1.60
								24	35	1.04	2.30
								48	18	1.80	4.00
								96	9	5.80	11.00
ZKLP 100-160	280	22	Tr 30x6	123				6	220	0.39	1.00
								12	110	0.66	1.60
								24	55	1.04	2.30
								48	28	1.80	4.00
								96	14	5.80	11.00
ZKLP 150-160	700	31	Tr 40x6	185	Type В	РЭМ-В1000-ХХЦА2*-IIBT4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	74	4.40	8.70
								50	37	8.50	16.00
ZKLP 200-160	2050	22	Tr 60x8	215	Type Г	РЭМ-Б250-ХХЦА2*-IIBT4** / РЭАМ-С-2500 (РЭМ-Б250-ХХЦА2 / РЭАМ-С-2500)	960-2500	48	507	1.80	4.00
								96	253	5.80	11.00
ZKLP 250-160	2440	33	Tr 65x10	330				48	761	1.80	4.00
									380	5.80	11.00
ZKLP 100-250	880	15	Tr 44x8	121	Type В	РЭМ-В1000-ХХЦА2*-IIBT4** (РЭМ-В1000-ХХЦА2*)	400-1000	25	36	4.40	8.70
								50	18	8.50	16.00
ZKLP 150-250	2240	23	Tr 60x8	181	Type Г	РЭМ-Б250-ХХЦА2*-IIBT4** / РЭАМ-С-2500 (РЭМ-Б250-ХХЦА2 / РЭАМ-С-2500)	960-2500	48	530	1.80	4.00
								96	265	5.80	11.00
ZKLP 200-250	2410	27	Tr 60x8	218				48	623	1.80	4.00
								96	311	5.80	11.00
ZKLP 250-250	2410	27	Tr 65x10	266	Type Д	РЭМ-Б250-ХХЦА2*-IIBT4** / РЭАМ-С-2500 (РЭМ-Б250-ХХЦА2 / РЭАМ-С-2500)	960-2500	48	623	1.80	4.00
									311	5.80	11.00

All electric actuators have a torque margin of 1.3
* Electric actuator complete with a position transducer assembly БД (ЦА2).
An electric actuator cam also have an intelligent control unit: either КИМ2(Е2) or КИМ3(Е3)
Е2(3)Д: discrete signal control, Е2(3)А: analog signal control (positioning unit), Е2(3)С: digital signal control (Modbus, Profibus)
Е2(3)Т: discrete and digital signal control, Е3Р: control using an analog PID controller.
** An electric actuator may have an explosion-proof rating of 1Exd IICT4 Gb
Any valves not listed in the table will be selected upon request.

Electric actuators from AUMA Riester GmbH & Co. KG.

Valve parameters								Electric actuator parameters						
Designation	DN	PN, MPa	Required torque, N x m	Thread diameter	Spindle rpm	Spindle stroke, mm	Matching dimensions by type	Opening/ closing time, sec	Output shaft rpm	Max. torque, N x m	Model (general-purpose / explosion-proof)	Actuator weight	Motor power rating, kW	Max. current, A
ZKLP 50-16	50	1,6	45	Tr 18x4	16	64	A	Depending on actuator speed and number of revolutions in valve stroke	4-180	60	SA 07.6/ SAEx 07.6	Up to 24 kg	Depending on actuator speed and type. between 0.09 and 7.5 kW	Depending on actuator speed and type between 0.4 and 45 A
ZKLP 80-16	80			Tr 20x4	25	100								
ZKLP 100-16	100		65	Tr 24x5	24	120				120	SA 10.2/ SAEx 10.2	Up to 28 kg		
ZKLP 125-16	125		70		27	135								
ZKLP 150-16	150		75	Tr 30x6	28	165	Б			250	SA 14.2/ SAEx 14.2	Up to 52 kg		
ZKLP 200-16	200		130		36	216								
ZKLP 250-16	250		170		48	288								
ZKLP 300-16	300		350	Tr 40x6	54	324	B			500	SA 14.6/ SAEx 14.6	Up to 56 kg		
ZKLP 350-16	350		450		63	376				1000	SA 16.2/ SAEx 16.2	Up to 88 kg		
ZKLP 400-16	400		480		71	426								
ZKLP 500-16	500		800	Tr 50x8	66	530								
ZKLP 50-25	50	2,5	60	Tr 20x4	17	68	A			120	SA 10.2/ SAEx 10.2	Up to 28 kg		
ZKLP 80-25	80		70	Tr 24x5	20	100								
ZKLP 100-25	100				24	120								
ZKLP 150-25	150		140	Tr 30x6	27	162	Б			250	SA 14.2/ SAEx 14.2	Up to 52 kg		
ZKLP 200-25	200		170		37	222								
ZKLP 250-25	250		300	Tr 40x6	48	288	B			500	SA 14.6/ SAEx 14.6	Up to 56 kg		
ZKLP 300-25	300		530		55	340				1000	SA 16.2/ SAEx 16.2	Up to 88 kg		
ZKLP 400-25	400		800		71	426								

Electric actuators from AUMA Riester GmbH & Co. KG. (Continued)

Valve parameters								Electric actuator parameters						
Designation	DN	PN, MPa	Re-quired torque, N x m	Thread diame-ter	Spindle rpm	Spindle stroke, mm	Match-ing dimen-sions by type	Opening/ closing time, sec	Output shaft rpm	Max. torque, N x m	Model (gener-al-purpose / explosion-proof)	Actuator weight	Motor pow-er rating, kW	Max. cur-rent, A
ZKLP 500-25	500	2,5	1200	Tr 60x8	63	505	Г	Depend-ing on actuator speed and number of revolu-tions in valve stroke	4-90 (up to 32)	2000	SA 25.1 / SAEx 25.1 или (SA 14.6 + GK 25.2 / SAEX 14.6 + GK 25.2)	Up to 165 kg (up to 116 kg)	Depending on actuator speed and type. be-tween 0.09 and 7.5 kW	Depending on actuator speed and type be-tween 0.4 and 45 A
ZKLP 50-40	50	4,0	60	Tr 20x4	16	64	А		4-180	120	SA 10.2/ SAEx 10.2	Up to 28 kg		
ZKLP 80-40	80		70	Tr 24x5	20	100								
ZKLP 100-40	100				24	120								
ZKLP 150-40	150		140		27	162	Б			250	SA 14.2/ SAEx 14.2	Up to 52 kg		
ZKLP 200-40	200		290	Tr 30x6	37	222				500	SA 14.6 / SAEx 14.6	Up to 56 kg		
ZKLP 250-40	250		510	Tr 40x6	48	288	В			1000	SA 16.2 / SAEx 16.2	Up to 88 kg		
ZKLP 300-40	300		780		57	340								
ZKLP 400-40	400		1460	Tr 50x8	54	435	Г		4-90 (up to 32)	2000	SA 25.1 / SAEx 25.1 или (SA 14.6 + GK 25.2 / SAEX 14.6 + GK 25.2)	Up to 165 kg (up to 116 kg)		
ZKLP 500-40	500		1500	Tr 60x8	65	515			4-90 (up to 22.5)	1500				
ZKLP 50-63		6,3	65	Tr 24x5	16	80	А		4-180	120	SA 10.2/ SAEx 10.2	Up to 28 kg		
ZKLP 80-63	80		75		18	90								
ZKLP 100-63	100		190	Tr 30x6	21	126	Б			250	SA 14.2/ SAEx 14.2	Up to 52 kg		
ZKLP 150-63	150		220		28	168								
ZKLP 200-63	200		460	Tr 40x6	37	222	В			1000	SA 16.2 / SAEx 16.2	Up to 88 kg		
ZKLP 250-63	250		850	Tr 44x8	36	288								
ZKLP 300-63	300	6,3	800	Tr 50x8	42	328								

Electric actuators from AUMA Riester GmbH & Co. KG. (conclusion)

Valve parameters								Electric actuator parameters						
Designation	DN	PN, MPa	Required torque, N x m	Thread diameter	Spindle rpm	Spindle stroke, mm	Matching dimensions by type	Opening/ closing time, sec	Output shaft rpm	Max. torque, N x m	Model (general-purpose / explosion-proof)	Actuator weight	Motor power rating, kW	Max. current, A
ZKLP 50-160	50	16,0	150	Tr 30x6	11.5	69	Б	Depending on actuator speed and number of revolutions in valve stroke	4-180	250	SA 14.2/ SAEx 14.2	Up to 52 kg	Depending on actuator speed and type. between 0.09 and 7.5 kW	Depending on actuator speed and type between 0.4 and 45 A
ZKLP 80-160	80		230		14	84								
ZKLP 300-63	300	6,3	800	Tr 50x8	12	336	В			1000	SA 16.2/ SAEx 16.2	Up to 52 kg		
ZKLP 100-160	100	16,0	280	Tr 30x6	20	120	Б			500	SA 14.6 / SAEx 14.6	Up to 56 kg		
ZKLP 150-160	150		700	Tr 40x6	31	185	В			1000	SA 16.2 / SAEx 16.2	Up to 88 kg		
ZKLP 200-160	200		2050	Tr 60x8	29	230	Г		4-90 (up to 22.5)	4000	SA 30.1 / SAEx 30.1 или (SA 14.6 + GK 30.2 / SAEX 14.6 + GK 30.2)	Up to 265 kg (up to 166 kg)		
ZKLP 250-160	250		2450	Tr 65x10	33	330								
ZKLP 100-250	100	25,0	880	Tr 44x8	15	121	В		4-180	1000	SA 16.2 / SAEx 16.2	Up to 88 kg		
ZKLP 150-250	150		2240	Tr 60x8	23	181	Г		4-90 (up to 22.5)	4000	SA 30.1 / SAEx 30.1 или (SA 14.6 + GK 30.2 / SAEX 14.6 + GK 30.2)	Up to 265 kg (up to 166 kg)		
ZKLP 200-250	200		2410		27	218								
ZKLP 250-250	250		2410	Tr 65x10		266	Г							
ZKLP 600-40	600	4,0	2000		62	613			4-90 (up to 32)	2000	SA 25.1 / SAEx 25.1 или (SA 14.6 + GK 25.2 / SAEX 14.6 + GK 25.2)	Up to 165 kg (up to 116 kg)		
ZKLP 600-16		1,6	1300	Tr 60x8	76	610	Г							
ZKLP 600-25		2,5	1400											
ZKLP 700-16	700	1,6	1500	Tr 65x10	74	737								
ZKLP 800-16	800	1,6	1600	Tr 80x16	53	840	Д							

Actuator weight shown without control box Control unit weight up to 12 kg. Actuators supplied by AUMA in the Russian Federation and by ООО Privod Service in the Republic of Belarus.
2016 Karl Marx avenue, Ste 23, Oktyabrsky District, Samara, Samara Region, 43080. Phone: (846) 993-52-84, 993-52-85 Manufacturer's Website: www.auma.com/cms/Priwody/ru/
Any valves not listed in the table will be selected upon request.

Electric Actuators from OOO NPO Sibirsky Mashinostroitel

DN, mm	PN, MPa	Designation	Connection Type per OST	Max. Torque, (N × m)	Spindle rpm	Electric Actuator Model	Max. Torque, (N × m)	Output link rpm	Motor Power Rating, kW (rpm)	Electric Motor Current Rating, A	Closing Response Time, sec
50	1.6	ZKLP 50-16	А	60	16	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	34
	2.5	ZKLP 50-25			17	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	36
	4.0	ZKLP 50-40			16	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	34
	6.3	ZKLP 50-63		65	16	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	34
	16.0	ZKLP 50-160	Б	150	12	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55(1.1)/1500	1.7/2.6	21 (10)
80	1.6	ZKLP 80-16	А	65	25	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	43
	2.5	ZKLP 80-25		70	20	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	43
	4.0	ZKLP 80-40		70	20	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	43
	6.3	ZKLP 80-63		75	18	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	39
	16.0	ZKLP 80-160	Б	230	14	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55(1.1)/1500	0.9	24
100	1.6	ZKLP 100-16	А	65	24	ГУСАР М.В.И12.72.28.XXX.XX	72	28	0.18/1500	0.9	51
	2.5	ZKLP 100-25		70	24	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	51
	4.0	ZKLP 100-40		70	24	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	51
	6.3	ZKLP 100-63	Б	190	21	ТОМРРИН Б.230.35(70).М4XXX.XX	230	35 (70)	0.55/1500 (1.1/3000)	1.7/2.6	36 (18)
	16.0	ZKLP 100-160		280	22	ТОМРРИН Б.300.35(70).XXX.XX	300	35 (70)	1.1/1500 (1.5/3000)	2.8/3.3	38
	25.0	ZKLP 100-250	В	880	15	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	7.9	18
125	1.6	ZKLP 125-16	А	70	27	ГУСАР М.В.И12.100.28.XXX.XX	100	28	0.25/1500	1.1	58
150	1.6	ZKLP 150-16	Б	100	30	ТОМРРИН Б.115.70.XXX.XX	115	70	0.55/3000	1.4	36
	2.5	ZKLP 150-25		140	27	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55/1500 (1.1/3000)	1.7/2.6	46 (23)
	4.0	ZKLP 150-40		140	27	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55/1500 (1.1/3000)	1.7/2.6	46 (23)
	6.3	ZKLP 150-63		220	28	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55/1500 (1.1/3000)	1.7/2.6	46 (23)
	16.0	ZKLP 150-160	В	700	31	ТОМРРИН В.700.25.XXX.XX	700	25	1.5/1500	3.7	74
	25.0	ZKLP 150-250	Г	2240	23	ТОМРРИН Г.2800.40.XXX.XX	2800	40	7.5/3000	14.8	35

Electric Actuators from OOO NPO Sibirsky Mashinostroitel (continued)

DN, mm	PN, MPa	Designation	Connection Type per OST	Max. Torque, (N × m)	Spindle rpm	Electric Actuator Model	Max. Torque, (N × m)	Output link rpm	Motor Power Rating, kW (rpm)	Electric Motor Current Rating, A	Closing Response Time, sec
200	1.6	ZKLP 200-16	Б	130	36	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55(1.1)/1500	1.7/2.6	62 (36)
	2.5	ZKLP 200-25		150	37	ТОМРРИН Б.230.35(70).XXX.XX	231	35 (70)	0.55(1.1)/1500	1.7/2.6	63 (36)
	4.0	ZKLP 200-40		290	37	ТОМРРИН Б.300.35(70).XXX.XX	300	35 (70)	1.1/1500 (1.5/3000)	2.8/3.3	63 (36)
	6.3	ZKLP 200-63	В	460	37	ТОМРРИН В.600.25(50).XXX.XX	600	25 (50)	1.1/1500 (2.2/3000)	2.8 (4.6)	89 (45)
	16.0	ZKLP 200-160	Г	2050	22	ТОМРРИН Г.2800.40.XXX.XX	2800	40	7.5/3000	14.8	33
	25.0	ZKLP 200-250		2410	27	ТОМРРИН Г.2800.40.XXX.XX	2800	40	7.5/3000	14.8	41
250	1.6	ZKLP 250-16	Б	170	48	ТОМРРИН Б.230.35(70).XXX.XX	230	35 (70)	0.55/1500 (1.1/3000)	1.7/2.6	82
	2.5	ZKLP 250-25	В	300	48	ТОМРРИН В.400.50.XXX.XX	400	50	1.5/3000	3.3	58
	4.0	ZKLP 250-40		510	48	ТОМРРИН В.600.25(50).XXX.XX	600	25 (50)	1.1/1500 (2.2/3000)	2.8 (4.6)	115 (67)
	6.3	ZKLP 250-63		850	36	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	4.0	43
	16.0	ZKLP 250-160	Г	2440	33	ТОМРРИН Г.2800.40.XXX.XX	2800	40	7.5/3000	14.8	50
	25.0	ZKLP 250-250		2410	27	ТОМРРИН Г.2800.40.XXX.XX	2800	40	7.5/3000	14.8	41
300	1.6	ZKLP 300-16	В	350	54	ТОМРРИН В.400.50.XXX.XX	400	50	1.5/3000	3.3	65
	2.5	ZKLP 300-25		530	58	ТОМРРИН В.600.25(50).XXX.XX	600	25 (50)	1.1/1500 (2.2/3000)	2.8 (4.6)	139 (70)
	4.0	ZKLP 300-40		780	57	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	4.0	68
	6.3	ZKLP 300-63		800	42	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	4.0	50
350	1.6	ZKLP 350-16	В	450	63	ТОМРРИН В.600.25(50).XXX.XX	600	25 (50)	1.1/1500 (2.2/3000)	2.8	151 (75)
400	1.6	ZKLP 400-16	В	480	71	ТОМРРИН В.600.25(50).XXX.XX	600	25 (50)	1.1/1500 (2.2/3000)	2.8	170 (85)
	2.5	ZKLP 400-25		800	71	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	4.0	85
	4.0	ZKLP 400-40	Г	1460	54	ТОМРРИН Г.1500.40.XXX.XX	1500	40	4.0/3000	7.9	81

Electric Actuators from OOO NPO Sibirsky Mashinostroitel (Conclusion)

DN, mm	PN, MPa	Designation	Connection Type per OST	Max. Torque, (N × m)	Spindle rpm	Electric Actuator Model	Max. Torque, (N × m)	Output link rpm	Motor Power Rating, kW (rpm)	Electric Motor Current Rating, A	Closing Response Time, sec
500	1.6	ZKLP 500-16	В	990	66	ТОМРРИН В.1000.50.XXX.XX	1000	50	4.0/3000	4.0	79
	2.5	ZKLP 500-25	Г	1200	65	ТОМРРИН Г.1500.40.XXX.XX	1500	40	4.0/3000	7.9	98
	4.0	ZKLP 500-40		1500	65	ТОМРРИН Г.1500.40.XXX.XX	1500	40	4.0/3000	7.9	98
600	1.6	ZKLP 600-16	Г	1300	77	ТОМРРИН Г.1500.40.XXX.XX	1500	40	4.0/3000	7.9	116
	2.5	ZKLP 600-25		1400	76	ТОМРРИН Г.1500.40.XXX.XX	1500	40	4.0/3000	7.9	114
	4.0	ZKLP 600-40		2000	62	ТОМРРИН Г.2000.40.XXX.XX	2000	40	5.5/3000	10.7	93
700	1.6	ZKLP 700-16	Г	1500	74	ТОМРРИН Г.2000.40.XXX.XX	2000	40	5.5/3000	10.7	111
800	1.6	ZKLP 800-16	Д	1600	53	ТОМРРИН Г.2000.40.XXX.XX	2000	40	5.5/3000	10.7	80

Manufacturer's Website: www.nposibmach.ru
Any valves not listed in the table will be selected upon request.

Electric actuators from OOO NPP Tomskaya Electronnaya Companiya

Designation	Type	Maximum Torque, (N × m)	Spindle stroke, mm/ revolutions	Thread diameter, pitch, mm	Electric actuator model / closing time, sec
ZKLP 50-16	A	60	64/16	Tr18x4	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/14 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/19
ZKLP 80-16	A	65	100/25	Tr20x4	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/17 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/23
ZKLP 100-16	A	65	120/24	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/17 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/23
ZKLP 150-16	Б	100	175/30	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/32 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/24 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/24
ZKLP 200-16	Б	130	216/36		
ZKLP 250-16	Б	170	288/48	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/96 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/72 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/72
ZKLP 300-16	B	350	324/54	Tr40x6	РэмТЭК-01.В.500.40.Х.V.ХХ.УХЛ1/81 РэмТЭК-03.В.500.40.Х.Х.ХХ.УХЛ1/81
ZKLP 350-16	B	45	376/63	Tr40x6	РэмТЭК-01.В.500.40.Х.V.ХХ.УХЛ1/81 РэмТЭК-03.В.500.40.Х.Х.ХХ.УХЛ1/81
ZKLP 400-16	B	480	426/71	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/213 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/213
ZKLP 500-16	B	99	530/66	Tr50x8	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/198 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/198
ZKLP 50-25	A	60	68/17	Tr20x4	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/15 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/20
ZKLP 80-25	A	70	100/20	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/17 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/23
ZKLP 100-25	A	70	120/24	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/21 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/28
ZKLP 150-25	Б	140	162/27	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/54 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/41 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/41
ZKLP 200-25	Б	150	222/37	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/74 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/56 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/56
ZKLP 250-25	B	300	288/48	Tr40x6	РэмТЭК-01.В.500.40.Х.V.ХХ.УХЛ1/72 РэмТЭК-03.В.500.40.Х.Х.ХХ.УХЛ1/72
ZKLP 300-25	B	530	340/55	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/165 РэмТЭК-03.В.1000.40.Х.Х.ХХ.УХЛ1/165
ZKLP 400-25	B	800	426/72	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/216 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/216

Electric actuators from OOO NPP Tomskaya Electronnaya Companiya (continued)

Designation	Type	Maximum Torque, (N × m)	Spindle stroke, mm/revolutions	Thread diameter, pitch, mm	Electric actuator model / closing time, sec
ZKLP 50-40	A	60	64/16	Tr20x4	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/14 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/19
ZKLP 80-40	A	70	100/20	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/17 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/23
ZKLP 100-40	A	70	120/24	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/21 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/28
ZKLP 150-40	Б	140	162/27	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/54 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/41 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/41
ZKLP 200-40	Б	290	222/37	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/74 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/56 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/56
ZKLP 250-40	В	510	288/48	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/144 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/144
ZKLP 300-40	В	780	340/55	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/165 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/165
ZKLP 400-40	Г	1460	435/55	Tr50x8	РэмТЭК-03.Г.4000.15.Х.Х.ХХ.УХЛ1/220 РэмТЭК-01.Г.4000.15.Х.V.ХХ.УХЛ1/220
ZKLP 50-63	F	65	80/16	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/14 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/19
ZKLP 80-63	A	75	90/18	Tr24x5	РэмТЭК-02.А.120.70.Х.R.26.УХЛ1/15 РэмТЭК-02.А.120.52.Х.V.ХХ.УХЛ1/21
ZKLP 100-63	Б	190	126/21	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/42 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/32 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/32
ZKLP 150-63	Б	170	138/23	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/46 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/35 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/35
ZKLP 200-63	В	460	222/37	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/111 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/111
ZKLP 50-160	Б	150	69/11,5	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/23 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/17 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/17
ZKLP 80-160	Б	230	84/14	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/25 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/21 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/21
ZKLP 100-160	Б	280	120/120	Tr30x6	РэмТЭК-03.Б.300.30.Х.Х.ХХ.УХЛ1/25 РэмТЭК-01.Б.300.40.Х.V.ХХ.УХЛ1/17 РэмТЭК-03.Б.300.40.Х.Х.ХХ.УХЛ1/17

Electric actuators from OOO NPP Tomskaya Electronnaya Companiya (conclusion)

Designation	Type	Maximum Torque, (N × m)	Spindle stroke, mm/ revolutions	Thread diameter, pitch, mm	Electric actuator model / closing time, sec
ZKLP 150-160	В	700	185/31	Tr40x6	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/75 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/75
ZKLP 200-160	Г	2050	230/29	Tr60x8	РэмТЭК-03.Г.4000.15.Х.Х.ХХ.УХЛ1/116 РэмТЭК-01.Г.4000.15.Х.V.ХХ.УХЛ1/116
ZKLP 100-250	В	880	121/15	Tr44x8	РэмТЭК-01.В.1000.20.Х.V.ХХ.УХЛ1/216 РэмТЭК-03.В.1000.20.Х.Х.ХХ.УХЛ1/216
ZKLP 250-63		850	288/36	Tr44x8	
ZKLP 300-63		980	328/41	Tr50x8	
ZKLP 150-250	Г	2240	181/23	Tr60x8	РэмТЭК-03.Г.4000.15.Х.Х.ХХ.УХЛ1/116 РэмТЭК-01.Г.4000.15.Х.V.ХХ.УХЛ1/116
ZKLP 200-250		2410	218/27	Tr60x8	РэмТЭК-03.Г.4000.15.Х.Х.ХХ.УХЛ1/116 РэмТЭК-01.Г.4000.15.Х.V.ХХ.УХЛ1/116
ZKLP 250-250	Д	2410	266/27	Tr65x10	РэмТЭК-03.Д.10000.6.Х.Х.ХХ.УХЛ1/270 РэмТЭК-01.Д.10000.12.Х.V.ХХ.УХЛ1/135
ZKLP 800-16	Г	1600	840/53	Tr80x16	РэмТЭК-03.Г.4000.15.Х.Х.ХХ.УХЛ1/116 РэмТЭК-01.Г.4000.15.Х.V.ХХ.УХЛ1/116
ZKLP 500-25		1200	505/63	Tr60x8	
ZKLP 500-40		1500	505/63	Tr60x8	
ZKLP 600-16		1300	610/76	Tr60x8	
ZKLP 600-25		1400	610/76	Tr60x8	
ZKLP 600-40		2000	613/62	Tr65x10	
ZKLP 700-16		1500	737/74	Tr65x10	
ZKLP 250-160		2440	333/33	Tr65x10	

Note: X.XX: Construction type and version
with respect to interface signals (defined by customer)
Any valves not listed in the table will be selected upon request.

Manufacturer: OOO NPO Tomskaya Elektronnaya Companiya, 33 Vysotskiy street,
Tonsk, 634040, Russia
Phone: (3822) 63-38-37, 63-39-54, т./ф.: (3822) 63-38-41, 63-39-63.
Manufacturer's Website: www.npptec.ru

Electric Actuators from ROTORK Controls

Valve parameters					Rotork Electric Actuator Parameters					
Designation	Maximum Torque, (N x m)	Thread diame-ter	Spindle rpm	Matching dimen-sions by type	Designation	Torque, N x m	ISO Connection Type	Actuator rpm	Electric motor power (kW)	Weight, kg
ZKLP 50-16	60	Tr 18x4	16	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 80-16	65	Tr 20x4	25	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 100-16	65	Tr 24x5	24	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 125-16	70	Tr 24x5	27	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 150-16	100	Tr 30x6	30	Type Б	IQ12B1	81	F10	36	0.21	32
ZKLP 200-16	130	Tr 30x6	36	Type Б	IQ20B1	142	F14	96	0.8	52
ZKLP 250-16	170	Tr 30x6	48	Type Б	IQ20B1	176	F14	72	0.76	52
ZKLP 300-16	350	Tr 40x6	54	Type B	IQ25B1	400	F14	24	0.78	52
ZKLP 350-16	450	Tr 40x6	63	Type B	IQ35B1	542	F16	36	1.42	75
ZKLP 400-16	480	Tr 40x6	71	Type B	IQ35B1	542	F16	36	1.42	75
ZKLP 500-16	990	Tr 50x8	66	Type B	IQ40 (IQ20B4/IB6 6:1)	1020(1040)	F25 (F14)	24(48)	1.42(0.8)	190(80)
ZKLP 50-25	60	Tr 20x4	17	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 80-25	70	Tr 24x5	20	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 100-25	70	Tr 24x5	24	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 150-25	140	Tr 30x6	27	Type Б	IQ20B1	142	F14	96	0.8	52
ZKLP 200-25	150	Tr 30x6	37	Type Б	IQ20B1	176	F14	72	0.76	52
ZKLP 250-25	300	Tr 40x6	48	Type B	IQ25B1	400	F14	24	0.78	52
ZKLP 300-25	530	Tr 40x6	55	Type B	IQ35B1	542	F16	36	1.42	75
ZKLP 400-25	800	Tr 40x6	71	Type B	IQ40 (IQ20B4/IB6 6:1)	845(898)	F25 (F14)	36(72)	1.42(0.76)	190(80)
ZKLP 500-25	1200	Tr 60x8	63	Type Г	IQ35B4/IB8 4:1	1612	F16	72	1.06	130
ZKLP 50-40	60	Tr 20x4	16	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 80-40	70	Tr 24x5	20	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 100-40	70	Tr 24x5	24	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 150-40	140	Tr 30x6	27	Type Б	IQ20B1	142	F14	96	0.8	52
ZKLP 200-40	290	Tr 30x6	37	Type Б	IQ25B1	298	F14	36	0.78	52
ZKLP 250-40	510	Tr 40x6	48	Type B	IQ35B1	542	F16	36	1.42	75
ZKLP 300-40	780	Tr 40x6	57	Type B	IQ40 (IQ25B4/IB6 4:1)	845(783)	F25 (F14)	36(96)	1.42(1.29)	190(80)
ZKLP 400-40	1460	Tr 50x8	54	Type Г	IQ70B1	1491	F25	24	2.91	215
ZKLP 500-40	1500	Tr 60x8	65	Type Г	IQ95B1	2981	F30	24	5.81	230

Electric Actuators from ROTORK Controls (conclusion)

Valve parameters					Rotork Electric Actuator Parameters					
Designation	Maximum Torque, (N x m)	Thread diameter	Spindle rpm	Matching dimen-sions by type	Designation	Torque, N x m	ISO Connection Type	Actuator rpm	Electric motor power (kW)	Weight, kg
ZKLP 50-63	65	Tr 24x5	16	Type A	IQ12B1	68	F10	48	0.21	32
ZKLP 80-63	75	Tr 24x5	18	Type A	IQ12B1	81	F10	36	0.21	32
ZKLP 100-63	190	Tr 30x6	21	Type Б	IQ20B1	176	F14	72	0.76	52
ZKLP 150-63	220	Tr 30x6	28	Type Б	IQ25B1	244	F14	48	1.29	52
ZKLP 200-63	460	Tr 40x6	37	Type B	IQ35B1	474	F16	72	2.06	75
ZKLP 250-63	840	Tr 44x8	35	Type B	IQ40 (IQ20B4/IB6 6:1)	845(898)	F25(F14)	36(72)	1.42(0.76)	190(80)
ZKLP 300-63	800	Tr 50x8	42							
ZKLP 50-160	150	Tr 30x6	11.5	Type Б	IQ20B1	176	F14	72	0.76	52
ZKLP 80-160	230	Tr 30x6	14	Type Б	IQ25B1	244	F14	48	1.29	52
ZKLP 100-160	280	Tr 30x6	20	Type Б	IQ25B1	298	F14	36	0.78	52
ZKLP 150-160	700	Tr 40x6	30	Type B	IQ40 (IQ20B4/IB4 4:1)	848(691)	F25(F10)	36(48)	1.42(0.64)	190(68)
ZKLP 200-160	2050	Tr 60x8	29	Type Г	Q95B1	2981	F30	24	5.81	230
ZKLP 250-160	2440	Tr 65x10	35	Type Г	Q95B1	2981	F30	24	5.81	230
ZKLP 100-250	880	Tr 44x8	15	Type B	IQ40 (IQ20B4/IB6 6:1)	1020(898)	F14	24(72)	(1.42) 0.76	80
ZKLP 150-250	2240	Tr 60x8	23	Type Г	Q95B1	2981	F30	24	5.81	230
ZKLP 250-63	850	Tr 44x8	36	Type B	IQ40 (IQ20B4/IB6 6:1)	1020(898)	F14	24(72)	(1.42) 0.76	80
ZKLP 200-250	2410	Tr 60x8	27	Type Г	Q95B1	2981	F30	24	5.81	230
ZKLP 250-250	3800	Tr 65x10	27	Type Д	IQ40B4/IB12 8:1	4607	F30	72	2.94	372
ZKLP 600-16	1300	Tr 60x8	76	Type Г	Q70B1	1491	F25	24	2.91	215
ZKLP 600-25	1400	Tr 60x8	76	Type Г	Q95B1	2981	F30	24	5.81	230
ZKLP 600-40	2000	Tr 65x10	62	Type Г	IQ40B4/IB12 8:1	4607	F30	72(9)	2.94	372
ZKLP 700-16	1500	Tr 65x10	74	Type Г	Q90B1	2030	F20	24	5.81	230
ZKLP 800-16	1600	Tr 80x16	53	Type Д	Q90B1	2981	F30	24	5.81	230

ROTORK Electric Actuator Supplier in Russia: OOO RotorK-Rus, 2B Otrad-naya street, bldg. 3, Moscow 127273
Phone: (495) 645-21-47, 234-91-25, 956-23-29
Manufacturer's Website: www.rotork.com/ru
Any valves not listed in the table will be selected upon request.

Electric actuators from OAO Tomsky Electromekhanichesky Zavod

Gate characteristics					Electric actuator characteristics						
DN, mm	PN, kgf/cm²	Connection per GOST R 55510-2013	Closing torque on output shaft, N x m	Number of revolutions to close (X)	Electric actuator designation, explosion class designation	Torque on output shaft, N x m	Output shaft rpm (W)	Closing time (T = X x 60 / W)*, sec	Ambient temperature (explosion-proof), °C	Power, kW	
										Maximum	Running
200	16	Б	100	36	ЗЭР1-Б300.50	30 ÷ 300	50	44	-62... +45	1.8	0.8
250	16	Б	170	48	ЗЭР1-Б300.50	30 ÷ 300	50	58	-62... +45	1.8	1.36
300	16	В	350	54	ЗЭР1-Б1000.50	100 ÷ 1000	50	65	-62... +45	5.5	2.81
350	16	В	450	63	ЗЭР1-Б1000.50	100 ÷ 1000	50	76	-62... +45	5.5	3.61
400	16	В	480	71	ЗЭР1-Б1000.50	100 ÷ 1000	50	86	-62... +45	5.5	3.85
500	16	В	990	66	ЗЭР1-Б1000.50	100 ÷ 1000	50	80	-62... +45	5.5	5.5
600	16	Г	1440	76	ЗЭР1-Г2500.50	250 ÷ 2500	50	92	-62... +45	13	7.54
700	16	Г	1980	74	ЗЭР1-Г2500.50	250 ÷ 2500	50	64	-62... +45	13	10.36
800	16	Д	1600	53	ЗЭР1-В1000.50+Ц-В5Г(Д)	500 ÷ 5000	10	318	-62... +45	5.5	3.29
					ЗЭР1-Д5000.25		25	128	-62... +45	13	4.18
150	25	Б	140	27	ЗЭР1-Б300.50	30 ÷ 300	50	33	-62... +45	1.8	1.12
200	25	Б	170	37	ЗЭР1-Б300.50	30 ÷ 300	50	45	-62... +45	1.8	1.36
250	25	В	300	48	ЗЭР1-Б300.50	30 ÷ 300	50	58	-62... +45	1.8	2.41
300	25	В	530	55	ЗЭР1-Б1000.50	100 ÷ 1000	50	66	-62... +45	5.5	4.25
400	25	В	800	71	ЗЭР1-Б1000.50	100 ÷ 1000	50	86	-62... +45	5.5	7.64
500	25	Г	1500	63	ЗЭР1-Г2500.50	250 ÷ 2500	50	78	-62... +45	13	7.85
600	25	Г	2160	76	ЗЭР1-Г2500.50	250 ÷ 2500	50	92	-62... +45	13	11.3
150	40	Б	140	27	ЗЭР1-Б300.50	30 ÷ 300	50	33	-62... +45	1.8	1.12
200	40	Б	290	37	ЗЭР1-Б300.50	30 ÷ 300	50	45	-62... +45	1.8	2.32
250	40	В	510	48	ЗЭР1-Б1000.50	100 ÷ 1000	50	58	-62... +45	5.5	4.1
300	40	В	780	57	ЗЭР1-Б1000.50	100 ÷ 1000	50	69	-62... +45	5.5	5.5
400	40	Г	1460	54	ЗЭР1-Г2500.50	250 ÷ 2500	50	65	-62... +45	13	7.64
500	40	Г	2430	63	ЗЭР1-Г2500.50	250 ÷ 2500	50	78	-62... +45	13	12.72
600	40	Г	3060	62	ЗЭР1-Д5000.25	500 ÷ 5000	25	25	-62... +45	13	8.0
100	63	Б	165	21	ЗЭР1-Б300.50	30 ÷ 300	50	26	-62... +45	1.8	1.32
150/125	63	Б	170	23	ЗЭР1-Б300.50	30 ÷ 300	50	28	-62... +45	1.8	1.36

Electric actuators from OAO Tomsky Electromekhanichesky Zavod (conclusion)

Gate characteristics					Electric actuator characteristics						
DN, mm	PN, kgf/cm²	Connection per GOST R 55510-2013	Closing torque on output shaft, N x m	Number of revolutions to close (X)	Electric actuator designation, explosion class designation	Torque on output shaft, N x m	Output shaft rpm (W)	Closing time (T = X x 60 / W)*, sec	Ambient temperature (explosion-proof), °C	Power, kW	
										Maximum	Running
150	63	Б	220	28	ЗЭР1-Б300.50	30 ÷ 300	50	34	-62... +45	1.8	1.76
200	63	В	460	37	ЗЭР1-Б1000.50	100 ÷ 1000	50	45	-62... +45	5.5	3.7
250	63	В	850	36	ЗЭР1-Б1000.50	100 ÷ 1000	50	44	-62... +45	5.5	5.5
100	100	Б	165	21	ЗЭР1-Б300.50	30 ÷ 300	50	26	-62... +45	1.8	1.32
150/125	63	Б	170	23	ЗЭР1-Б300.50	30 ÷ 300	50	28	-62... +45	1.8	1.36
150	100	Б	220	28	ЗЭР1-Б300.50	30 ÷ 300	50	34	-62... +45	1.8	1.76
200	100	В	460	37	ЗЭР1-Б1000.50	100 ÷ 1000	50	45	-62... +45	5.5	3.7
250	100	В	850	36	ЗЭР1-Б1000.50	100 ÷ 1000	50	44	-62... +45	5.5	5.5
50	160	Б	150	11,5	ЗЭР1-Б300.50	30 ÷ 300	50	14	-62... +45	1.8	1.2
80	160	Б	230	14	ЗЭР1-Б300.50	30 ÷ 300	50	17	-62... +45	1.8	1.85
100	160	Б	280	20	ЗЭР1-Б300.50	30 ÷ 300	50	24	-62... +45	1.8	2.25
150/125	63	Б	170	23	ЗЭР1-Б300.50	30 ÷ 300	50	28	-62... +45	1.8	1.36
150	160	В	700	30	ЗЭР1-Б1000.50	100 ÷ 1000	50	36	-62... +45	5.5	5.5
200	160	Г	2050	22	ЗЭР1-В1000.50+ЦВ5Г	500 ÷ 5000	10	132	-62... +45	5.5	3.29
250	160	Г	2440	33	ЗЭР1-В1000.50+ЦВ5Г	500 ÷ 5000	10	198	-62... +45	5.5	3.93
100	250	В	880	15	ЗЭР1-Б1000.50	100 ÷ 1000	50	18	-62... +45	5.5	5.5
150	250	Г	2240	23	ЗЭР1-В1000.50+ЦВ5Г	500 ÷ 5000	10	138	-62... +45	5.5	3.6
					ЗЭР1-Г2500.50	250 ÷ 2500	10	28	-62... +45	13	11.72
200	250	Г	2410	27	ЗЭР1-В1000.50+ЦВ5Г	500 ÷ 5000	50	162	-62... +45	5.5	3.87
					ЗЭР1-Г2500.50	250 ÷ 2500	10	32	-62... +45	13	12.61
250	250	Д	3800	27	ЗЭР1-В1000.50+ЦВ5Г(Д)	500 ÷ 5000	10	162	-62... +45	5.5	5.5
					ЗЭР1-Д5000.25	500 ÷ 5000	25	65	-62... +45	13	9.94

* ЗЭП1 series actuators are capable of selecting any output rpm setting while maintaining the output torque. Consequently, closing time T for the specific valve W output shaft rpm is calculated using the formula in the table. This formula is only applicable for a preliminary calculation since the total time is made up of the toque break time, idle time, and closure. See the ЗЭП1 РЭ Operating Manual.
Any valves not listed in the table will be selected upon request.

Electric actuator manufacturer: OAO Tomsky Elektromekhanicheskiy Zavod, 28 Leinin street, Tomsk, 634050, Russia
Phone: +7 (3822) 42-08-56, 42-08-60, 42-08-25 / Fax: +7 (3822) 42-40-56
Email: droganov@temz.tomsk.ru
Manufacturer's Website: www.temz.tomsk.ru

Electric actuators from BERNARD CONTROLS

Valve parameters								Electric actuator parameters					
Designation	DN	PN, MPa	Required torque, N*m	Thread diameter	Spindle revolutions	Spindle stroke, mm	Matching dimensions by type	Model (general-purpose/explosion-proof)	Max. torque, N*m (general-purpose/ explosion-proof)	Output shaft rpm (general-purpose / explosion-proof)	Actuator weight (general-purpose / explosion-proof)	Motor power rating, kW	Max. current, A
ZKLP 50-16	50	1,6	60	Tr 18x4	16	64	А	ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг	Depending on actuator speed and type, between 0.05 and and 4.1 kW	Depending on actuator speed and type, between 0.85 and 77 А
ZKLP 80-16	80		65	Tr 20x4	25	100		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 100-16	100		65		24	120		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 125-16	125		70		27	135		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 150-16	150		100	Tr 30x6	30	165	Б	ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 200-16	200		130		36	216		ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 250-16	250		170		48	288		ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 300-16	300		350	Tr 40x6	54	324	В	ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг		
ZKLP 350-16	350		450		63	376		ST14 + P3AM-C-1000(5,3/8) / STX20 + P3AM-C-1000(5,3/8)	742 / 848	15 / 15-24	up to 56 кг / up to 60 кг		
ZKLP 400-16	400		480		71	426		ST14 + P3AM-C-1000(5,3/8) / STX20 + P3AM-C-1000(5,3/8)	742 / 848	15 / 15-24	up to 56 кг / up to 60 кг		
ZKLP 500-16	500		990	Tr 50x8	66	530		ST30 + P3AM-C-2500(5,2/8) / STX40 + P3AM-C-2500(5,2/8)	1560 / 1560	15 / 15	up to 96 кг / up to 92 кг		
ZKLP 600-16	600		1300	Tr 60x8	76	610	Г	ST30 + P3AM-C-2500(5,2/8) / STX40 + P3AM-C-2500(5,2/8)	1560 / 1560	15 / 15	up to 96 кг / up to 92 кг		
ZKLP 700-16	700		1500	Tr 65x10	74	737		ST70 + P3AM-C-2500(6,4/10) / STX40 + P3AM-C-2500(6,4/10)	2500 / 1856	19 / 19	up to 108 кг / up to 92 кг		
ZKLP 800-16	800		1600	Tr 80x16	58	840	Д	ST70 + P3AM-C-2500(6,4/10) / STX61 + P3AM-C-2500(6,4/10)	2500 / 2500	19 / 19	up to 126 кг / up to 122 кг		
ZKLP 50-25	50	2,5	60	Tr 20x4	16	68	А	ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг	Depending on actuator speed and type, between 0,05 up to 2,7 kW	Depending on actuator speed and type, between 0,85 up to 47 А
ZKLP 80-25	80		70	Tr 24x5	20	100		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 100-25	100		70		24	120		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 150-25	150		140	Tr 30x6	27	162	Б	ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 200-25	200		150		37	222		ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 250-25	250		300	Tr 40x6	48	288	В	ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг		
ZKLP 300-25	300		530		55	340		ST14 + P3AM-C-1000(5,3/8) / STX20 + P3AM-C-1000(5,3/8)	742 / 848	15 / 15	up to 56 кг / up to 60 кг		

Electric actuators from BERNARD CONTROLS (continued)

Valve parameters								Electric actuator parameters					
Designation	DN	PN, MPa	Required torque, N*m	Thread diameter	Spindle revolutions	Spindle stroke, mm	Matching dimensions by type	Model (general-purpose/explosion-proof)	Max. torque, N*m (general-purpose/ explosion-proof)	Output shaft rpm (general-purpose / explosion-proof)	Actuator weight (general-purpose / explosion-proof)	Motor power rating, kW	Max. current, A
ZKLP 400-25	400	2,5	800	Tr 40x6	71	426	В	ST14 + P3AM-C-1000(6,8/12) / STX20 + P3AM-C-1000(6,8/12)	952 / 1000	10 / 10	up to 56 кг / up to 60 кг	Depending on actuator speed and type, between 0.05 and 2.7 kW	Depending on actuator speed and type, between 0.85 and 47 A
ZKLP 500-25	500		1200	Tr 60x8	63	505	Г	ST30 + P3AM-C-2500(5,2/8) / STX40 + P3AM-C-2500(5,2/8)	1560 / 1560	15 / 15	up to 96 кг / up to 92 кг		
ZKLP 600-25	600		1400		76	610		ST70 + P3AM-C-2500(6,4/10) / STX40 + P3AM-C-2500(6,4/10)	2500 / 1856	19 / 19	up to 108 кг / up to 92 кг		
ZKLP 50-40	50	4	60	Tr 20x4	16	64	А	ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг	Depending on actuator speed and type, between 0.05 and 4.1 kW	Depending on actuator speed and type, between 0.85 and 77 A
ZKLP 80-40	80		70	Tr 24x5	20	100		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 100-40	100		70		24	120		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 150-40	150		140	Tr 30x6	27	162	Б	ASM6 + P3AM-C-500(4,2;6) / STX20	252 / 200	20 / 16-46	up to 29 кг / up to 45 кг		
ZKLP 200-40	200		290		37	222		ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг		
ZKLP 250-40	250		510	Tr 40x6	48	288	В	ST14 + P3AM-C-1000(5,3/8) / STX20 + P3AM-C-1000(5,3/8)	742 / 848	15 / 15	up to 56 кг / up to 60 кг		
ZKLP 300-40	300		780		55	340		ST14 + P3AM-C-1000(6,8/12) / STX20 + P3AM-C-1000(6,8/12)	952 / 1000	10 / 10	up to 56 кг / up to 60 кг		
ZKLP 400-40	400		1460	Tr 50x8	54	435	Г	ST70 + P3AM-C-2500(6,4/10) / STX40 + P3AM-C-2500(6,4/10)	2500 / 1856	19 / 19	up to 108 кг / up to 92 кг		
ZKLP 500-40	500		1500	Tr 60x8	63	505		ST70 + P3AM-C-2500(6,4/10) / STX40 + P3AM-C-2500(6,4/10)	2500 / 1856	19 / 19	up to 108 кг / up to 92 кг		
ZKLP 600-40	600		2000	Tr 65x10	62	613		ST70 + P3AM-C-2500(6,4/10) / STX61 + P3AM-C-2500(6,4/10)	2500 / 2500	19 / 19	up to 126 кг / up to 122 кг		
ZKLP 50-63	50	6,3	65	Tr 24x5	16	80	А	ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг	Depending on actuator speed and type, between 0.05 and 2.7 kW	Depending on actuator speed and type, between 0.85 and 47 A
ZKLP 80-63	80		75		18	90		ASM10 / STX10	100 / 100	5-51 / 16-120	up to 25 кг / up to 45 кг		
ZKLP 100-63	100		190	Tr 30x6	21	126	Б	ASM6 + P3AM-C-500(4,2;6) / STX6 + P3AM-C-500(4,2;6)	252 / 252	20 / 20	up to 29 кг / up to 43 кг		
ZKLP 150-63	150		220		28	168		ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг		
ZKLP 200-63	200		460	Tr 40x6	37	222	В	ST14 + P3AM-C-1000(5,3/8) / STX20 + P3AM-C-1000(5,3/8)	742 / 848	15 / 15	up to 56 кг / up to 60 кг		
ZKLP 250-63	250		850	Tr 44x8	36	288		ST30 + P3AM-C-2500(5,2/8) / STX40 + P3AM-C-2500(5,2/8)	1560 / 1560	15 / 15	up to 96 кг / up to 92 кг		
ZKLP 300-63	300		800	Tr 50x8	42	328		ST14 + P3AM-C-1000(6,8/12) / STX20 + P3AM-C-1000(6,8/12)	952 / 1000	10 / 10	up to 56 кг / up to 60 кг		
ZKLP 50-160	50	16	150	Tr 30x6	11,5	69	Б	ASM6 + P3AM-C-500(4,2;6) / STX6 + P3AM-C-500(4,2;6)	252 / 252	20 / 20	up to 29 кг / up to 43 кг		

Electric actuators from BERNARD CONTROLS (conclusion)

Valve parameters								Electric actuator parameters					
Designation	DN	PN, MPa	Required torque, N*m	Thread diameter	Spindle revolutions	Spindle stroke, mm	Matching dimensions by type	Model (general-purpose/explosion-proof)	Max. torque, N*m (general-purpose/ explosion-proof)	Output shaft rpm (general-purpose / explosion-proof)	Actuator weight (general-purpose / explosion-proof)	Motor power rating, kW	Max. current, A
ZKLP 80-160	80		230	Tr 30x6	14	84	Б	ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг	Depending on actuator speed and type, between 0.05 and 2.7 kW	Depending on actuator speed and type, between 0.85 and 47 A
ZKLP 100-160	100		280		20	120		ST14 + P3AM-C-500(4,2;6) / STX20 + P3AM-C-500 (4,2;6)	500 / 500	15-20 / 15-20	up to 49 кг / up to 56 кг		
ZKLP 150-160	150		700	Tr 40x6	31	185	В	ST14 + P3AM-C-1000(6,8/12) / STX20 + P3AM-C-1000(5,3/8)	952 / 848	10 / 15	up to 56 кг / up to 60 кг		
ZKLP 200-160	200		2050	Tr 60x8	22	215	Г	ST30 + SB-V3-1SM(11,7/12,7) / STX40 + SB-V3-1SM(11,7/12,7)	2500 / 2500	9 / 9-15	up to 125 кг / up to 121 кг		
ZKLP 250-160	250		2440	Tr 65x10	33	330		ST30 + SB-V35-1 SM(15,5/16,5)/ STX40 + SB-V35-1 SM(15,5/16,5)	3500 / 3500	7 / 7-12	up to 163 кг / up to 159 кг		
ZKLP 100-250	100	25	880	Tr 44x8	15	121	В	ST30 + P3AM-C-2500(5,2/8) / STX40 + P3AM-C-2500(5,2/8)	1560 / 1560	15 / 15	up to 96 кг / up to 92 кг	Depending on actuator speed and type, between 2.0 and 2.7 kW	Depending on actuator speed and type, between 31 and 47 A
ZKLP 150-250	150		2240	Tr 60x8	23	181	Г	ST30 + SB-V35-1 SM(15,5/16,5)/ STX40 + SB-V35-1 SM(15,5/16,5)	3500 / 3500	7 / 7-12	up to 163 кг / up to 159 кг		
ZKLP 200-250	200		2410		27	218		ST30 + SB-V35-1 SM(15,5/16,5)/ STX40 + SB-V35-1 SM(15,5/16,5)	3500 / 3500	7 / 7-12	up to 163 кг / up to 159 кг		
ZKLP 250-250	250		2410	Tr 65x10	27	266		ST30 + SB-V35-1 SM(15,5/16,5)/ STX40 + SB-V35-1 SM(15,5/16,5)	3500 / 3500	7 / 7-12	up to 163 кг / up to 159 кг		

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Any valves not listed in the table will be selected upon request.

Valves for Cryogenic Service

Wedge (ЗКЛХ), PN 4.0 MPa (40 kgf/cm²)
Manufacture and delivery TU 3741-006-07533604-01

Valves are manufactured with a rising stem and with a flanged pipeline connection; matching dimensions shall be per GOST 33259, Row 1, Construction E.

Valve will be manually controlled by flywheel. The flywheel has an extension to remove it from the vicinity of low temperatures.

The valves are designed for service as pipeline shut-off devices in process equipment carrying liquefied hydrocarbon gas at temperatures down to -196 °C.

Closure seal class is A per GOST 9544.

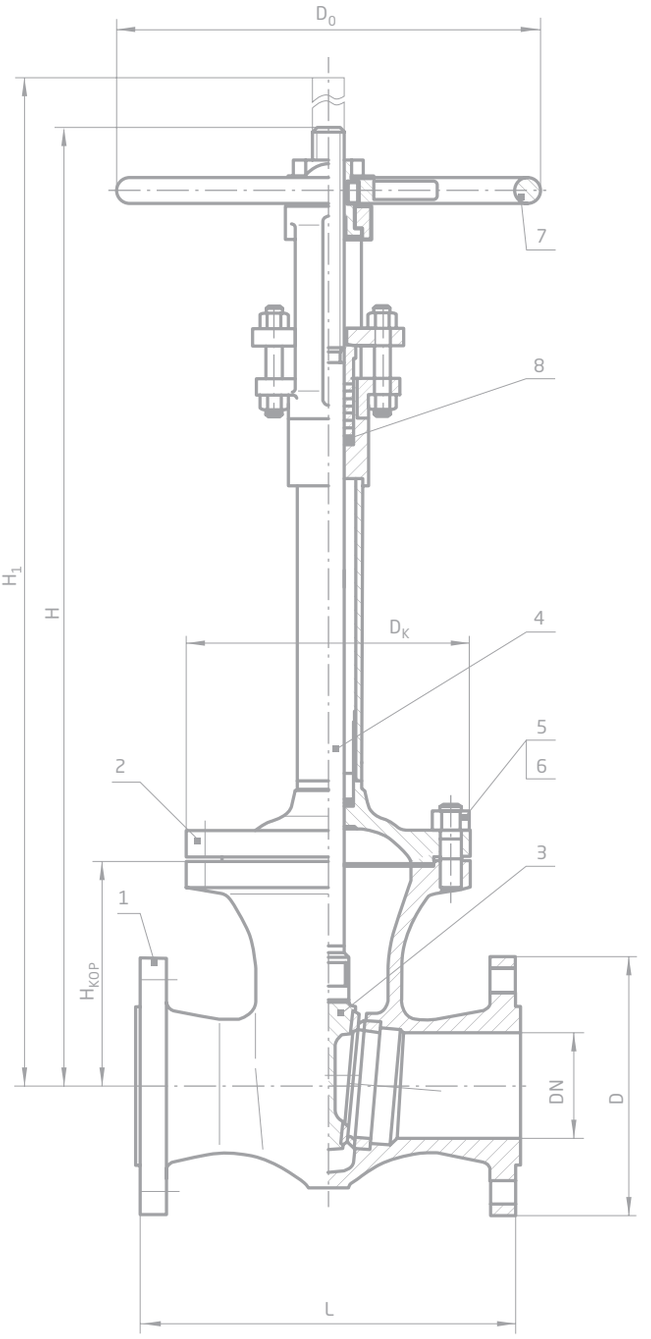
An example designation in an order (and other documents) of valve DN 50, PN 40 kgf/cm² of steel 12Х18Н9ТЛ: ЗКЛХ Wedge Valve, 50-40 DN 50, PN 40 kgf/cm² 30нж9нж.

Upon customer request, body main flanges may be manufactured with other sealing surfaces per the information specified at Page 229.

When making an order, the need to equip valves with matching flanges, gaskets, pins, and nuts must be mentioned explicitly.

Upon request, pipeline flanges of valve housings may be manufactured with sealing surfaces per GOST 12815, Row 2 or GOST R 54432-2011, Row 1.

АО BAZ reserves the right to use other materials that are permitted by the relevant requirements.



Principal Component Materials

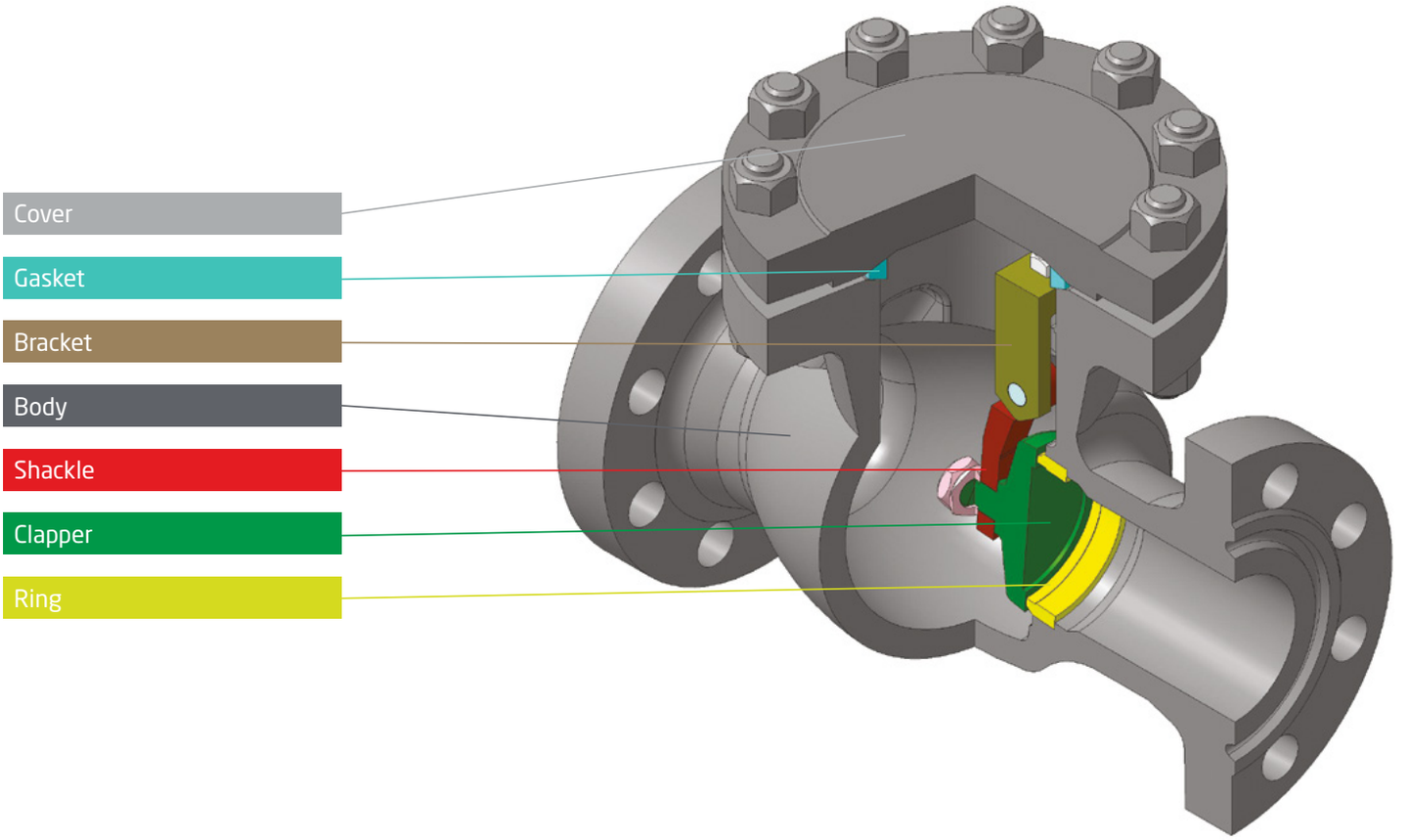
Item No.	Component Name	Materials
1	Body	12Х18Н9ТЛ, weld overlay ЦН-6
2	Cover	12Х18Н10Т
3	Wedge	12Х18Н10Т, weld overlay ЦН-12М
4	Stem	12Х18Н10Т
5	Nut	12Х18Н10Т
6	Pin	45Х14Н14В2М
7	Flywheel	09Г2С
8	Gland seal packing	ТРГ

ЗКЛХ PN 40 kgf/cm², principal dimensions, mm

Designation	DN	L	D	D_k	H	H_1	H_{KOP}	D_0	Weight, kg
ЗКЛХ 50-40, 30нж9нж	50	216	160	195	860	930	130	240	34
ЗКЛХ 80-40, 30нж9нж	80	283	195	212	925	1025	172	320	56
ЗКЛХ 100/80-40, 30нж9нж	100	350	230	240	1003	1115	185		88
ЗКЛХ 150-40, 30нж9нж	150	403	300	348	1210	1380	276	400	152
ЗКЛХ 200-40, 30нж9нж	200	419	375	420	1310	1415	310		249

Other valve sizes are available.

Check valves



Check valves are designed automatically to prevent fluid backflow in pipelines

Check valves are not designed for shut-off.

Operational closure position on a horizontal line is cover up; on a vertical line with the housing arrow up. Fluid flow direction should be towards the clapper disc (to coincide with the housing arrow).

Factory lengths are per GOST 3326.

Checks valves are made with flanged pipeline connections and matching dimensions per GOST 33259-2015, Row 1, with sealing surfaces selected based on the information listed in Page 230.

Closure seal is from corrosion-resistant steel.

Unless otherwise specified, closure leakage class for all customers shall be per GOST 9544: Class F for PN < 40 kgf/cm2, Class EE for PN ≥ 40 kgf/cm^2.

Closure leak class for PAO Transneft installations shall be per OTT-75.180.00-KTH-352-09.

Closure leakage class for PAO Gazprom installations shall be per Gazprom Corporate Standard STO 2-4.1-212-2008.

Closure leak class for PAO Rosneft OC installations shall be per ETT P4-06M-0117.

When ordering, please specify:

- product name;
- product spec reference;
- nominal diameter, DN;
- pressure rating, PN, kgf/cm^2
- product designation;
- construction material;
- Fluid Parameters,

An example designation in an order (and other documents) of check valve DN 50, PN 40 kgf/cm^2 of steel 20Л:

КОП 50-40 DN 50, PN 40 kgf/cm^2 19с53нж.

Upon customer request, valves may be delivered complete with flanges, pins, nuts, gaskets for connection to pipeline.

Check valves designed for gaseous, explosive, flammable, and toxic fluids as well as steam shall be tested with air following hydraulic testing.

When ordering the following mention has to be made: "gas".

AO BAZ reserves the right to use other materials that are permitted by the relevant requirements.

Application parameters

Type Designation (Table of Figures)	PN 16 PN 40 PN 63 PN 160	19с76нж, 19с53нж, 19с38нж, 19с19нж	19нж76нж, 19нж53нж, 19нж38нж, 19нж19нж	19нж76нж1, 19нж53нж1, 19нж38нж1, 19нж19нж1	19лс76нж, 19лс53нж, 19лс38нж, 19лс19нж
Product Designation (Size)		КОП DN-PN	КОП DN-PN нж	КОП DN-PN нж1	КОП DN-PN XL1
Body Material		Steel 20Л	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ	Steel 20ГЛ, 20ГМЛ*, 20Х5МЛ*, 20ХНЗЛ*
Fluids		Water, air, steam, ammonia, natural gas, petroleum, petroleum derivatives, hydrocarbon liquids and gases, and other fluids causing steel 20Л to corrode at no more than 0.1 mm/year	Water, air, steam, ammonia, natural gas, fluids containing hydrogen sulfide[1], petroleum, petroleum derivatives, hydrocarbon liquids and gases, and other fluids causing steel 12Х18Н9ТЛ to corrode at no more than 0.1 mm per year.	Water, air, steam, ammonia, natural gas, fluids containing hydrogen sulfide[1], petroleum, petroleum derivatives, hydrocarbon liquids and gases, and other fluids causing steel 12Х18Н12М3ТЛ to corrode at no more than 0.1 mm/year	Water, air, steam, ammonia, natural gas, petroleum, petroleum derivatives, hydrocarbon liquids and gases, and other fluids which are not corrosive to steels 20ГЛ, 20ГМЛ, 20Х5МЛ, 20ХНЗЛ. Corrosion rate for steel 20ГЛ at no more than 0.1 mm/year
Fluid Temperature, °c		Between -40 and +450	Between -60 and +600	Between -60 and +600	Between -70 and +550
Service conditions are per GOST 15150		U1	XL1, U1, UXL1	XL1, U1, UXL1	XL1, U1, UXL1
Ambient air minimum temperature during operation is		-40°C;	UXL1, XL1 -60 °C U1 -40 °C	UXL1, XL1 -60 °C U1 -40 °C	UXL1, XL1 -60 °C U1 -40 °C

[1] When ordering, please specify as a supplemental requirement on the data sheet.
* Available construction types.

Principal Component Materials

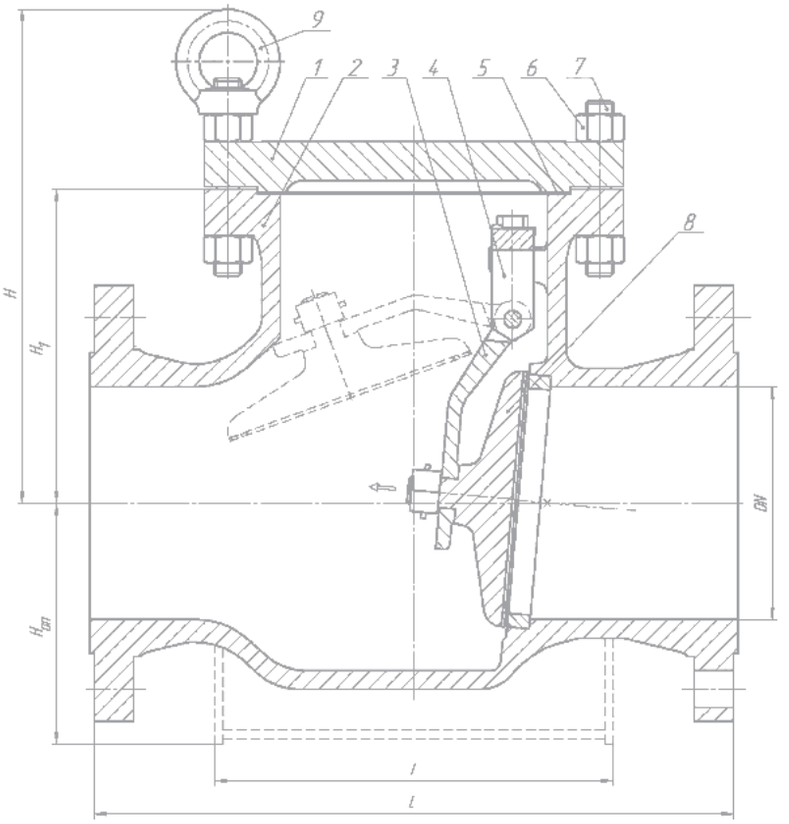
Item No.	Component Name	19с76нж 19с38нж 19с53нж 19с19нж	19лс76нж 19лс38нж 19лс53нж 19лс19нж	19нж76нж 19нж38нж 19нж53нж 19нж19нж	19нж76нж1 19нж38нж1 19нж53нж1 19нж19нж1
1	Cover	Steel 20	09Г2С	12Х18Н10Т	10Х17Н13М2Т
2	Body	Steel 20Л	Steel 20ГЛ, 20ГМЛ**, 20ХНЗЛ**, 20Х5МЛ**	Steel 12Х18Н9ТЛ	Steel 12Х18Н12М3ТЛ
3	Shackle	Steel 20	09Г2С	12Х18Н10Т	10Х17Н13М2Т
4	Bracket	Steel 20	09Г2С	12Х18Н10Т	10Х17Н13М2Т
5	Gasket	ТИИР-752, spiral wound Type 3, steel for PN 63, 100, 160 kgf/cm^2	ТРГ, spiral wound Type 3, steel for PN 63, 100, 160 kgf/cm^2	ТРГ, spiral wound Type 3, steel for PN 63, 100, 160 kgf/cm^2	ТРГ, spiral wound Type 3, steel for PN 63, 100, 160 kgf/cm^2
6	Nut	40Х.019*	40Х.019*	12Х18Н10Т	12Х18Н10Т
7	Pin	40Х.019*	40Х.019*	12Х18Н10Т; 45Х14Н14В2М (PN 160 kgf/cm^2)	12Х18Н10Т; 45Х14Н14В2М (PN 160 kgf/cm^2)
8	Clapper	30Х13	30Х13	12Х18Н10Т with weld overlay	10Х17Н13М2Т with weld overlay
	Weld overlay on housing ring	Type 20Х13	Type 20Х13	ЦН-6	ЦН-6
	Clapper weld overlay	-	-	ЦН-12М	ЦН-12М

* Fasteners with zinc chrome-plated coating. No-coating version available upon request.
** Available construction types.

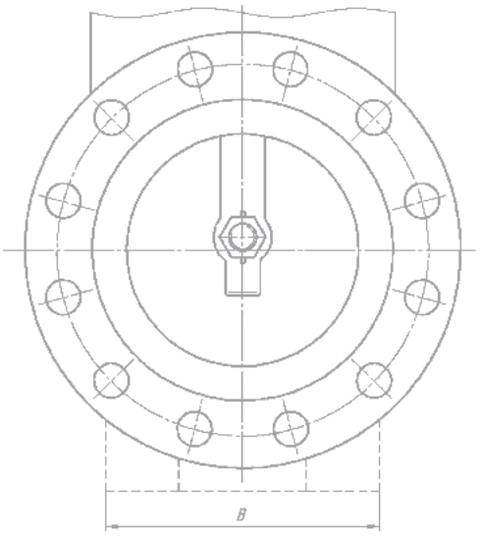
Check valves
(КОП) PN 1.6; 4.0; 6.3; 10.0; 16.0 MPa (16, 40, 63, 100, 160 kgf/cm²)

Manufacture and delivery per TU 3742-017-07533604-2013, TU 3742-027-07533604-2015*,
TU 3742-009-07533604-2009**, TU 3742-033-07533604-2015***

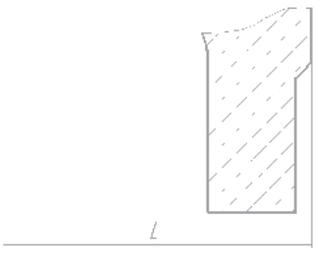
КОП PN 2.5, 4.0 MPa (25, 40 kgf/cm²)



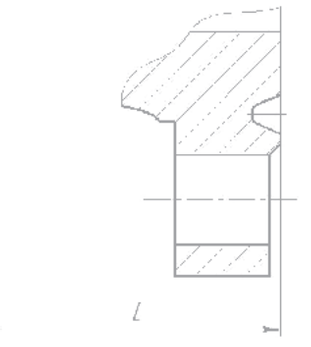
Left view with support****



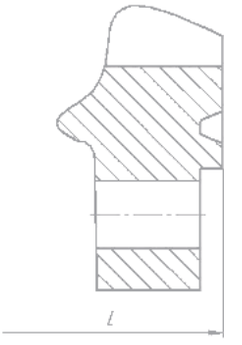
КОП PN 1.6 MPa (16 kgf/cm²)



КОП PN 6.3; 10.0; 16.0 MPa (63, 100, 160 kgf/cm²)



КОП PN 25.0 MPa (250 kgf/cm²)



* Per OTT-75.180.00-KTH-352-09 (PAO Transneft).
** Per Gazprom Corporate Standard STO 2-4.1-212-2008.
*** Per ETT П4-06M-0117 (PAO Rosneft OC).
****Support to be installed for DN 400.

Principal technical parameters and dimensions КОП DN 50, 80, 100, 150, 200, 250, 300, 350, 400 PN 16, 25, 40, 63, 80, 100, 160, 250 kgf/cm²

DN	PN MPa (kgf/cm²)	Dimensions, mm			Weight (max), kg	Weight with matching flanges (max), kg
		L	H	H_1		
50	1.6 (16)	230	229	132	22	28
80		310	238	138	38	48
100		350	260	160	42	55
150		480	370	225	110	133
200		550	400	270	125	158
250		650	465	306	235	285
300		750	460	350	310	372
400		950	563	430	780	897
50	2.5 (25)	230	229	132	785	32
80		310	240	140	25	54
100		350	258	158	41	77
150		480	370	225	56	153
200		550	425	270	116	252
250		650	466	307	180	372
300		750	466	350	265	588
400		950	563	430	785	956
50	4.0 (40)	230	229	132	25	32
80		310	240	140	41	54
100		350	258	158	56	77
150		480	370	225	116	153
200		550	425	270	180	252
250		650	466	307	265	372
300		750	466	350	430	588
350		850	715	400	590	750
400		950	563	430	795	1084
50	6.3 (63)	300	258	165	53	66
80		380	281	187	75	96
100		430	284	190	100	133
150		550	365	260	196	269
200		650	412	245	250	361
250		775	450	307	390	552
50	8.0 (80)	300	258	165	61	79
80		380	281	187	89	120
100		430	284	190	110	156
150		550	360	260	230	331
200		650	400	245	340	508
300		900	575	379	875	1257
50	10.0 (100)	300	258	165	61	79
80		380	281	187	89	120
100		430	284	190	110	156
150		550	360	260	230	331
200		650	400	245	340	508
300		900	575	379	875	1257
400		1150	607	455	1540	2156
50	16.0 (160)	300	258	165	61	80
80		380	281	187	89	122
100		430	284	190	110	157
150		550	360	260	235	340
200		650	400	245	345	525
300		900	450	379	875	1294
400		1150	607	455	1540	2186
50	25.0 (250)	350	375	195	81,5	120
80		450	477	255	136	210
100		520	407	230	260	408

PIF SIZES NOT MENTIONED IN TABLES, DATA WILL BE PROVIDED UPON REQUEST.

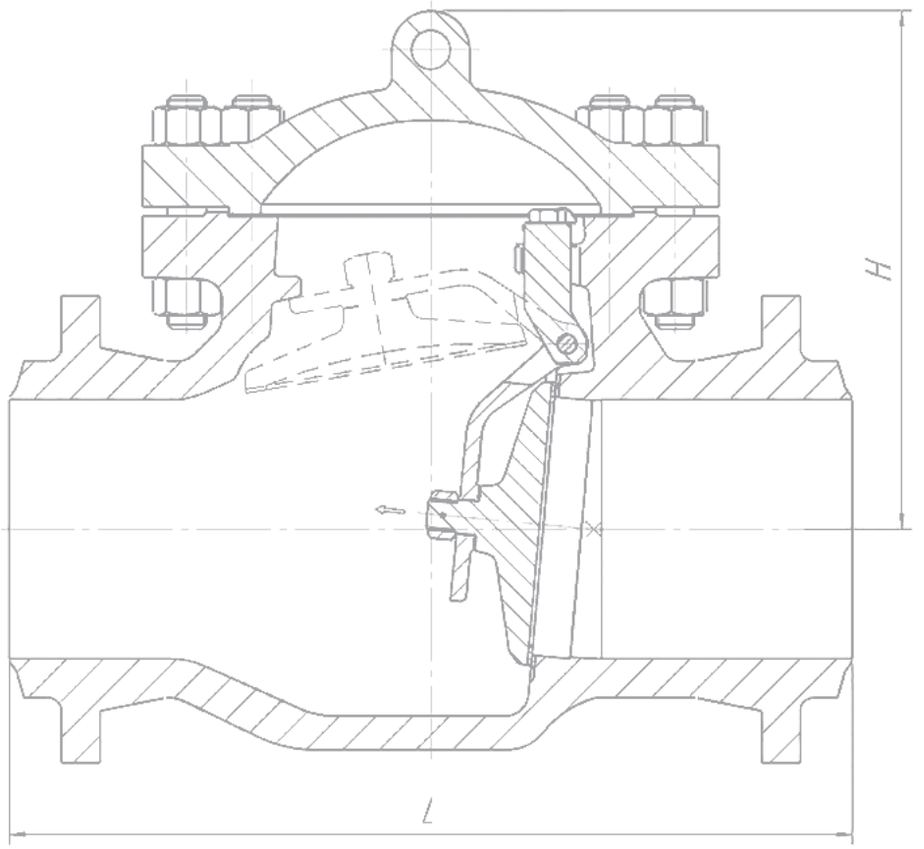
КОП DN 400 PN 4.0 MPa (40 kgf/cm²), support dimensions, mm

L	B	H_{oP}
620	400	340

КОП DN 400 PN PN 10.0; 16.0 MPa (100, 160 kgf/cm²), support dimensions, mm

L	B	H_{oP}
650	420	386

Check valves 30
per OTT--75.180.00-KTH-352-09 (PAO Transneft)



Check valve principal parameters and characteristics ЗО DN 50-400, PN 1.6-25.0 MPa (16-250 kgf/cm²)

Item Designation	Design Drawing Legends	Nominal diameter (design bore) DN	Pressure rating PN, MPa (kgf/cm²)	Weather class shall be per GOST 15150	Dimensions, mm		Body Material	Weight, kg Not to Exceed
					L	H		
ЗО-50-1,6-Б-Ф-С0-У1	ЗО 50-16	50	1.6-(16)	У1	230	150	20Л	22
ЗО-50-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 50-16-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-1,6-Б-Св-С0-У1	ЗО 50-16-02			У1			20Л	19
ЗО-50-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 50-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-1,6-Б-Ф-С0-У1	ЗО 80-16	80		У1	310	180	20Л	38
ЗО-80-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 80-16-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-1,6-Б-Св-С0-У1	ЗО 80-16-02		1.6-(16)	У1			20Л	36
ЗО-80-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 80-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-1,6-Б-Ф-С0-У1	ЗО 100-16	100		У1	350	210	20Л	42
ЗО-100-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 100-16-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-1,6-Б-Св-С0-У1	ЗО 100-16-02			У1			20Л	38
ЗО-100-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 100-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-1,6-Б-Ф-С0-У1	ЗО 150-16	150		У1	480	312	20Л	106
ЗО-150-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 150-16-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-1,6-Б-Св-С0-У1	ЗО 150-16-02			У1			20Л	96
ЗО-150-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 150-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-1,6-Б-Ф-С0-У1	ЗО 200-16	200		У1	550	340	20Л	178
ЗО-200-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 200-16-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-1,6-Б-Св-С0-У1	ЗО 200-16-02			У1			20Л	138
ЗО-200-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 200-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-1,6-Б-Ф-С0-У1	ЗО 250-16	250		У1	650	365	20Л	280
ЗО-250-1,6-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 250-16-01			ХЛ1, УХЛ1			20ГЛ	280
ЗО-250-1,6-Б-Св-С0-У1	ЗО 250-16-02			У1			20Л	220
ЗО-250-1,6-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 250-16-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-2,5-Б-Ф-С0-У1	ЗО 50-25	50	2.5-(25)	У1	230	210	20Л	25
ЗО-50-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 50-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-2,5-Б-Св-С0-У1	ЗО 50-25-02			У1			20Л	23
ЗО-50-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 50-25-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-2,5-Б-Ф-С0-У1	ЗО 80-25	80		У1	310	220	20Л	41
ЗО-80-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 80-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-2,5-Б-Св-С0-У1	ЗО 80-25-02			У1			20Л	35
ЗО-80-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 80-25-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-2,5-Б-Ф-С0-У1	ЗО 100-25	100		У1	350	240	20Л	56
ЗО-100-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 100-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-2,5-Б-Св-С0-У1	ЗО 100-25-02			У1			20Л	48
ЗО-100-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 100-25-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-2,5-Б-Ф-С0-У1	ЗО 150-25	150		У1	480	310	20Л	116
ЗО-150-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 150-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-2,5-Б-Св-С0-У1	ЗО 150-25-02			У1			20Л	98
ЗО-150-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 150-25-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-2,5-Б-Ф-С0-У1	ЗО 200-25	200		У1	550	365	20Л	180
ЗО-200-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 200-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-2,5-Б-Св-С0-У1	ЗО 200-25-02			У1			20Л	140
ЗО-200-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 200-25-03			ХЛ1, УХЛ1			20ГЛ	

Check valve principal parameters and characteristics ЗО DN 50-400, PN 1.6-25.0 MPa (16-250 kgf/cm²) (Continued)

Item Designation	Design Drawing Legends	Nominal diameter (design bore) DN	Pressure rating PN, MPa (kgf/cm²)	Weather class shall be per GOST 15150	Dimensions, mm		Body Material	Weight, kg Not to Exceed
					L	H		
ЗО-250-2,5-Б-Ф-С0-У1	ЗО 250-25	250	2.5-(25)	У1	650	365	20Л	384
ЗО-250-2,5-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 250-25-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-2,5-Б-Св-С0-У1	ЗО 250-25-02			У1			20Л	300
ЗО-250-2,5-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 250-25-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-4,0-Б-Ф-С0-У1	ЗО 50-40	50	4-(40)	У1	230	210	20Л	25
ЗО-50-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 50-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-4,0-Б-Св-С0-У1	ЗО 50-40-02			У1			20Л	23
ЗО-50-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 50-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-4,0-Б-Ф-С0-У1	ЗО 80-40	80		У1	310	220	20Л	41
ЗО-80-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 80-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-4,0-Б-Св-С0-У1	ЗО 80-40-02			У1			20Л	35
ЗО-80-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 80-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-4,0-Б-Ф-С0-У1	ЗО 100-40	100		У1	350	240	20Л	56
ЗО-100-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 100-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-4,0-Б-Св-С0-У1	ЗО 100-40-02			У1			20Л	48
ЗО-100-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 100-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-4,0-Б-Ф-С0-У1	ЗО 150-40	150		У1	480	310	20Л	116
ЗО-150-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 150-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-4,0-Б-Св-С0-У1	ЗО 150-40-02			У1			20Л	98
ЗО-150-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 150-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-4,0-Б-Ф-С0-У1	ЗО 200-40	200		У1	550	365	20Л	180
ЗО-200-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 200-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-4,0-Б-Св-С0-У1	ЗО 200-40-02			У1			20Л	140
ЗО-200-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 200-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-4,0-Б-Ф-С0-У1	ЗО 250-40	250		У1	650		20Л	384
ЗО-250-4,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 250-40-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-4,0-Б-Св-С0-У1	ЗО 250-40-02			У1			20Л	300
ЗО-250-4,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 250-40-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-6,3-Б-Ф-С0-У1	ЗО 50-63	50	6.3-(63)	У1	300	197	20Л	36
ЗО-50-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 50-63-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-6,3-Б-Св-С0-У1	ЗО 50-63-02			У1			20Л	30
ЗО-50-6,3-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 50-63-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-6,3-Б-Ф-С0-У1	ЗО 80-63	80		У1	380	231	20Л	68
ЗО-80-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 80-63-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-6,3-Б-Св-С0-У1	ЗО 80-63-02			У1			20Л	59
ЗО-80-6,3-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 80-63-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-6,3-Б-Ф-С0-У1	ЗО 100-63	100		У1	430	281	20Л	111
ЗО-100-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 100-63-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-6,3-Б-Св-С0-У1	ЗО 100-63-02			У1			20Л	95
ЗО-100-6,3-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 100-63-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-6,3-Б-Ф-С0-У1	ЗО 150-63	150		У1	550	362	20Л	230
ЗО-150-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 150-63-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-6,3-Б-Св-С0-У1	ЗО 150-63-02			У1			20Л	206
ЗО-150-6,3-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 150-63-03			ХЛ1, УХЛ1			20ГЛ	

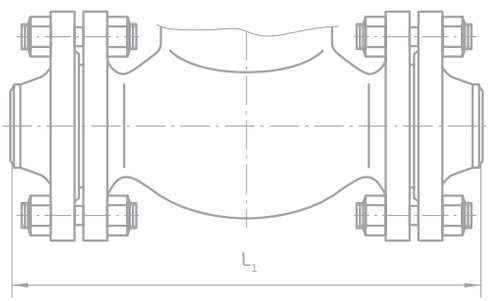
Check valve principal parameters and characteristics 30 DN 50-400, PN 1.6-25.0 MPa (16-250 kgf/cm²) (Continued)

Item Designation	Design Drawing Legends	Nominal diameter (design bore) DN	Pressure rating PN, MPa (kgf/cm²)	Weather class shall be per GOST 15150	Dimensions, mm		Body Material	Weight, kg Not to Exceed
					L	H		
30-200-6,3-Б-Ф-С0-У1	30 200-63	200	6.3-(63)	У1	650	437	20Л	416
30-200-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	30 200-63-01			ХЛ1, УХЛ1			20ГЛ	
30-200-6,3-Б-Св-С0-У1	30 200-63-02			У1			20Л	389
30-200-6,3-Б-Св-С0-ХЛ1(УХЛ1)	30 200-63-03			ХЛ1, УХЛ1			20ГЛ	
30-250-6,3-Б-Ф-С0-У1	30 250-63	250		У1	775	790	20Л	673
30-250-6,3-Б-Ф-С0-ХЛ1(УХЛ1)	30 250-63-01			ХЛ1, УХЛ1			20ГЛ	
30-250-6,3-Б-Св-С0-У1	30 250-63-02			У1			20Л	625
30-250-6,3-Б-Св-С0-ХЛ1(УХЛ1)	30 250-63-03			ХЛ1, УХЛ1			20ГЛ	
30-50-8,0-Б-Ф-С0-У1	30 50-80	50	8-(80)	У1	300	240	20Л	69
30-50-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 50-80-01			ХЛ1, УХЛ1			20ГЛ	
30-50-8,0-Б-Св-С0-У1	30 50-80-02			У1			20Л	62
30-50-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 50-80-03			ХЛ1, УХЛ1			20ГЛ	62
30-80-8,0-Б-Ф-С0-У1	30 80-80	80		У1	380	260	20Л	93
30-80-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 80-80-01			ХЛ1, УХЛ1			20ГЛ	
30-80-8,0-Б-Св-С0-У1	30 80-80-02			У1			20Л	82
30-80-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 80-80-03			ХЛ1, УХЛ1			20ГЛ	
30-100-8,0-Б-Ф-С0-У1	30 100-80	100		У1	430	320	20Л	145
30-100-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 100-80-01			ХЛ1, УХЛ1			20ГЛ	
30-100-8,0-Б-Св-С0-У1	30 100-80-02			У1			20Л	133
30-100-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 100-80-03			ХЛ1, УХЛ1			20ГЛ	
30-150-8,0-Б-Ф-С0-У1	30 150-80	150		У1	550	382	20Л	259
30-150-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 150-80-01			ХЛ1, УХЛ1			20ГЛ	
30-150-8,0-Б-Св-С0-У1	30 150-80-02			У1			20Л	248
30-150-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 150-80-03			ХЛ1, УХЛ1			20ГЛ	
30-200-8,0-Б-Ф-С0-У1	30 200-80	200		У1	650	500	20Л	565
30-200-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 200-80-01			ХЛ1, УХЛ1			20ГЛ	
30-200-8,0-Б-Св-С0-У1	30 200-80-02			У1			20Л	517
30-200-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 200-80-03			ХЛ1, УХЛ1			20ГЛ	
30-250-8,0-Б-Ф-С0-У1	30 250-80	250		У1	775	530	20Л	730
30-250-8,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 250-80-01			ХЛ1, УХЛ1			20ГЛ	
30-250-8,0-Б-Св-С0-У1	30 250-80-02			У1			20Л	692
30-250-8,0-Б-Св-С0-ХЛ1(УХЛ1)	30 250-80-03			ХЛ1, УХЛ1			20ГЛ	
30-50-10,0-Б-Ф-С0-У1	30 50-100	50	10 -(100)	У1	300	240	20Л	69
30-50-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 50-100-01			ХЛ1, УХЛ1			20ГЛ	
30-50-10,0-Б-Св-С0-У1	30 50-100-02			У1			20Л	61
30-50-10,0-Б-Св-С0-ХЛ1(УХЛ1)	30 50-100-03			ХЛ1, УХЛ1			20ГЛ	
30-80-10,0-Б-Ф-С0-У1	30 80-100	80		У1	380	260	20Л	93
30-80-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 80-100-01			ХЛ1, УХЛ1			20ГЛ	
30-80-10,0-Б-Св-С0-У1	30 80-100-02			У1			20Л	82
30-80-10,0-Б-Св-С0-ХЛ1(УХЛ1)	30 80-100-03			ХЛ1, УХЛ1			20ГЛ	
30-100-10,0-Б-Ф-С0-У1	30 100-100	100		У1	430	320	20Л	145
30-100-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 100-100-01			ХЛ1, УХЛ1			20ГЛ	
30-100-10,0-Б-Св-С0-У1	30 100-100-02			У1			20Л	132
30-100-10,0-Б-Св-С0-ХЛ1(УХЛ1)	30 100-100-03			ХЛ1, УХЛ1			20ГЛ	
30-150-10,0-Б-Ф-С0-У1	30 150-100	150		У1	550	382	20Л	259
30-150-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	30 150-100-01			ХЛ1, УХЛ1			20ГЛ	
30-150-10,0-Б-Св-С0-У1	30 150-100-02			У1			20Л	248
30-150-10,0-Б-Св-С0-ХЛ1(УХЛ1)	30 150-100-03			ХЛ1, УХЛ1			20ГЛ	

Check valve principal parameters and characteristics ЗО DN 50-400, PN 1.6-25.0 MPa (16-250 kgf/cm²) (Conclusion)

Item Designation	Design Drawing Legends	Nominal diameter (design bore) DN	Pressure rating PN, MPa (kgf/cm²)	Weather class shall be per GOST 15150	Dimensions, mm		Body Material	Weight, kg Not to Exceed
					L	H		
ЗО-200-10,0-Б-Ф-С0-У1	ЗО 200-100	200	10 -(100)	У1	650	500	20Л	340
ЗО-200-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 200-100-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-10,0-Б-Св-С0-У1	ЗО 200-100-02			У1			20Л	275
ЗО-200-10,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 200-100-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-10,0-Б-Ф-С0-У1	ЗО 250-100	250		У1	775	530	20Л	752
ЗО-250-10,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 250-100-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-10,0-Б-Св-С0-У1	ЗО 250-100-02			У1			20Л	709
ЗО-250-10,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 250-100-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-16,0-Б-Ф-С0-У1	ЗО 50-160	50	16 -(160)	У1	300	310	20Л	69
ЗО-50-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 50-160-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-50-16,0-Б-Св-С0-У1	ЗО 50-160-02			У1			20Л	61
ЗО-50-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 50-160-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-16,0-Б-Ф-С0-У1	ЗО 80-160	80		У1	380	330	20Л	140
ЗО-80-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 80-160-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-80-16,0-Б-Св-С0-У1	ЗО 80-160-02			У1			20Л	112
ЗО-80-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 80-160-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-100-16,0-Б-Ф-С0-У1	ЗО 100-160	100		У1	430	355	20Л	232
ЗО-100-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 100-160-01			ХЛ1, УХЛ1			20ГЛ	232
ЗО-100-16,0-Б-Св-С0-У1	ЗО 100-160-02			У1			20Л	198
ЗО-100-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 100-160-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-16,0-Б-Ф-С0-У1	ЗО 150-160	150		У1	550	400	20Л	490
ЗО-150-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 150-160-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-150-16,0-Б-Св-С0-У1	ЗО 150-160-02			У1			20Л	475
ЗО-150-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 150-160-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-16,0-Б-Ф-С0-У1	ЗО 200-160	200		У1	650	530	20Л	345
ЗО-200-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 200-160-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-200-16,0-Б-Св-С0-У1	ЗО 200-160-02			У1			20Л	275
ЗО-200-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 200-160-03			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-16,0-Б-Ф-С0-У1	ЗО 250-160	250		У1	775	560	20Л	774
ЗО-250-16,0-Б-Ф-С0-ХЛ1(УХЛ1)	ЗО 250-160-01			ХЛ1, УХЛ1			20ГЛ	
ЗО-250-16,0-Б-Св-С0-У1	ЗО 250-160-02			У1			20Л	698
ЗО-250-16,0-Б-Св-С0-ХЛ1(УХЛ1)	ЗО 250-160-03			ХЛ1, УХЛ1			20ГЛ	

IF SIZES NOT MENTIONED IN TABLES, DATA WILL BE PROVIDED UPON REQUEST



Dimensions and Weight of Check Valve with Matching Flanges

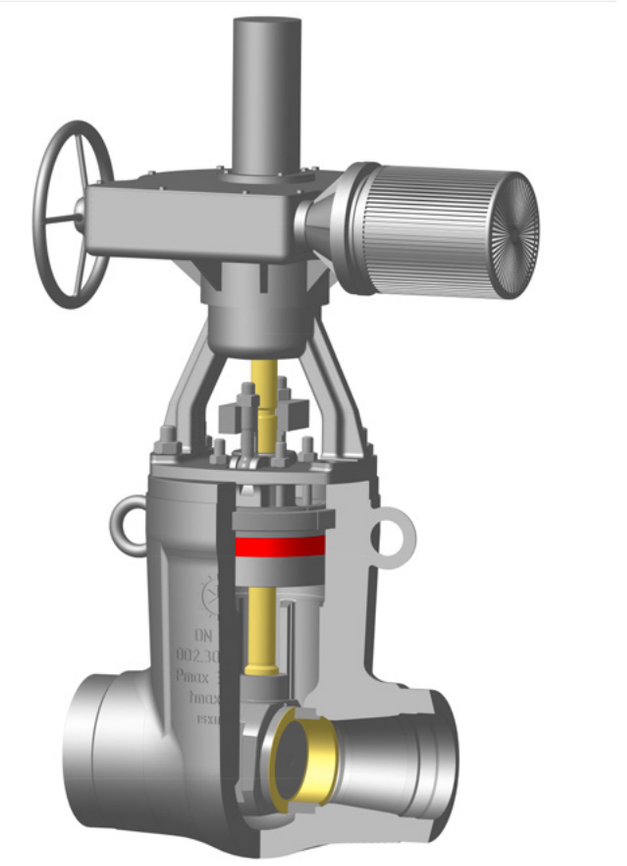
DN	PN MPa (kgf/cm²)	Dimensions, mm L_1	Weight with matching flanges (max), kg
50	1.6 (16)	326	28
80		416	48
100		454	55
150		590	133
200		674	158
250	1.6 (16)	790	285
300		906	372
400		1120	897
50	2.5 (25)	326	32
80		420	54
100		480	77
150		622	153
200		706	252
250		806	372
300		918	588
400		1158	956
50	4.0 (40)	326	32
80		426	54
100		486	77
150		622	153
200		726	252
250		852	372
300		982	588
350		1090	750
400		1228	1084
50	6.3 (63)	440	66
80		620	96
100		590	133
150		766	269
200		876	361
250		1011	552
50	8.0 (80)	442	79
80		620	120
100		630	156
150		806	331
200		936	508
300		1268	1257
50	10.0 (100)	442	79
80		620	120
100		630	156
150		806	331
200		936	508
300		1268	1257
400		1558	2156
50	16.0 (160)	474	80
80		620	122
100		636	157
150		816	340
200		946	525
300		1278	1294
400		1568	2186

PIF SIZES NOT MENTIONED IN TABLES, DATA WILL BE PROVIDED UPON REQUEST.

Check Valve Datasheet No. _____

Customer:		Location:
Project Reference:		Address:
Facility:		Phone, Fax
1	Item No.	
2	Arrangement	
3	Product Name	
4	Table of Figures	
5	Nominal Diameter (Design Bore), DN	
6	Pressure rating (Theoretical), PN, kgf/cm2	
7	Application.	
8	Fluid temperature	between °C and °C
9	Minimum ambient air temperature	°C
10	Fluid chemistry, state	
11	Body component materials	
12	Service conditions are per GOST 15150	
13	Flanged connection to pipeline referencing standards and sealing surface types	
14	Supplemental Data 1) Mass particulate concentration _____% 2) Fluids with hydrogen sulfide contents: hydrogen sulfide and moisture percentage (mass) concentration H_2S _____% 3) Chlorine: moisture percentage (mass) concentration H_2O _____%	
15	Additional Requirements [ ] [ ] [ ] [ ]	1. Impact bending test at a temperature of _____°C 2. Intergranular corrosion test 3. Seismic resistance (over 6 points) 4. Others _____
16	Supplemental delivery	1. Flanges 2. Pins 3. Nuts 4. Gaskets 5. Others

TPP valves



Series 002 Wedge Valve

Shut-off valves for super- and subcritical heat and power generation plants at high single-unit power generation units of up to 1,200 MW serve to seal off water and steam lines in a power plant's primary process networks.

Used only to activate or deactivate pipelines. These valves may not be used as regulators.

When valves are used in pipelines that will be subjected to heating with the valve closed and the inside space filled with water, such valves are to be equipped with a relief mechanism. Such a mechanism could be in the form of a pipe connecting the valve's inside space to the pipeline on the fluid delivery side with a DN 20 manual valve or a through orifice with a diameter of 5 mm in the wedge poppet on the fluid supply side.

Things to note are the use of a protective coating on spindle, poppet, and seat wear surfaces; improved spindle/retainer connector design preventing spindle shear at the connection point.

When making an order for gate valves, explicit mention must be made of the need to supply valves complete with an electric actuator (type, make).

Pipeline connection: suitable for a butt weld. Fluid flow direction: any.

Manufacture and delivery TU 3741-009-07533604-2008.

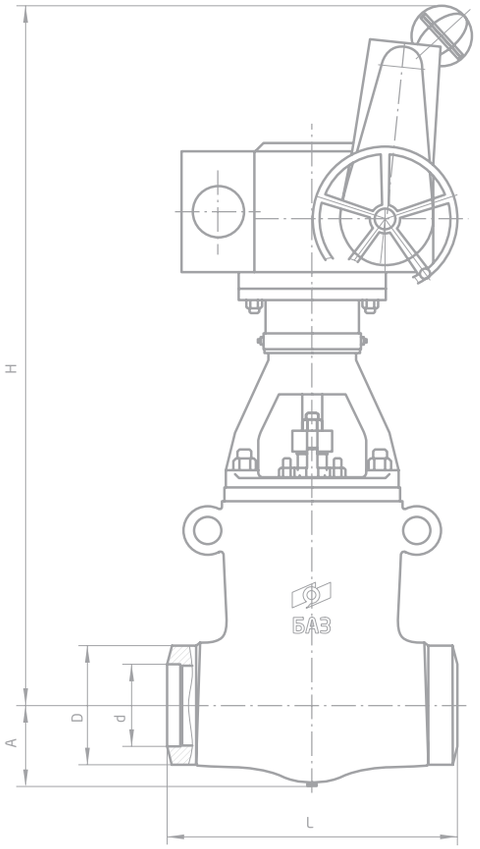
Valve Technical Characteristics

Item Designation	ChEZM equivalent	DN	Fluid	Fluid Parameters,		Body Material
				Pressure, MPa	Temperature, °C	
002.100.0300	881-100	100	Steam	25.0	545	15Х1М1ФЛ
002.100.1700	1123-100	100	Steam	13.7	560	15Х1М1ФЛ
002.150.0500	881-150	150	Steam	25.0	545	15Х1М1ФЛ
002.175.1900	1013-175	175	Steam	13.7	560	15Х1М1ФЛ
002.200.0700	881-200	200	Steam	25.0	545	15Х1М1ФЛ
002.200.1500	1013-200	200	Steam	13.7	560	15Х1М1ФЛ
002.225.1100	885-225	225	Steam	9.8	540	20ХМФЛ
002.250.0400	882-250	250	Water	23.5	250	20ГСЛ
002.250.1300	883-250	250	Steam	13.7	560	15Х1М1ФЛ
002.300.0100	883-300	300	Steam	13.7	560	15Х1М1ФЛ

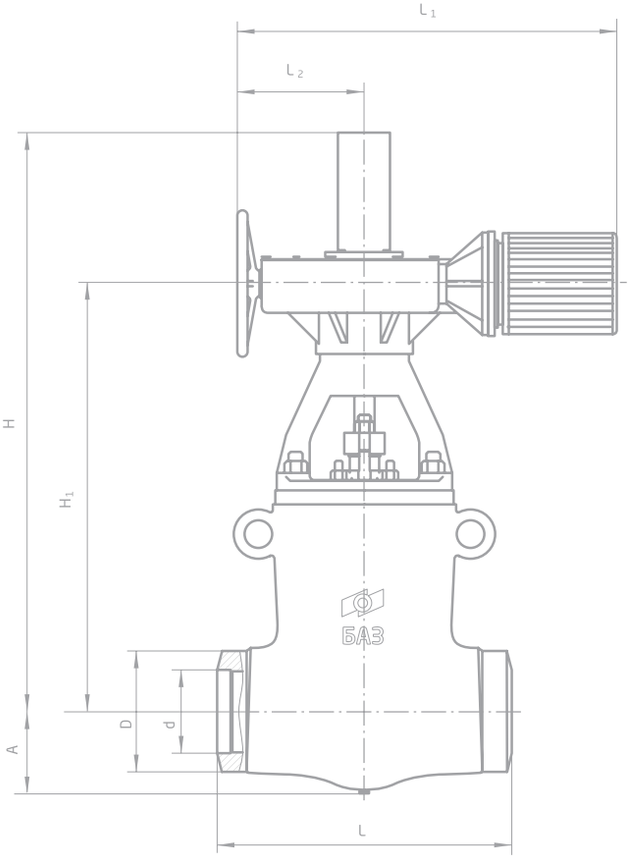
Valve Technical Characteristics

Item Designation	Hydraulic resistance coefficient	Stroke, mm	Spindle bushing torque, N-m	Spindle full stroke revolutions	Weight, kg
002.100.0300	0.20	160	950	20	454
002.100.1700	0.40	110	270	18	160
002.150.0500	0.60	180	1600	23.75	902
002.175.1900	0.24	180	1150	22.5	720
002.200.0700	0.40	245	3900	24.5	1950
002.200.1500	0.46	230	1000	28.75	763
002.225.1100	0.90	230	1100	28.75	935
002.250.0400	1.85	230	1600	28.75	975
002.250.1300	0.24	290	2900	29.0	1800
002.300.0100	0.65	290	2900	29.0	2200

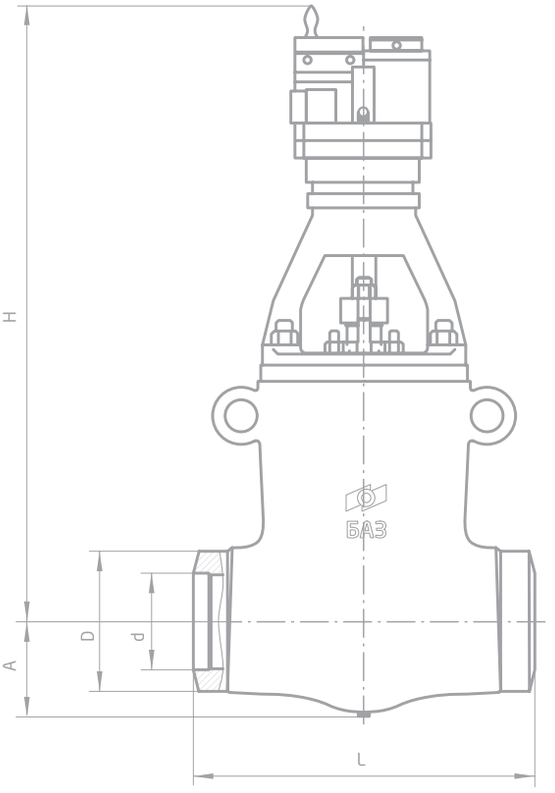
Valves with electric actuators from ZAO Tulalelektroptivod



Valves with electric actuators from ZAO Energomash (Chekhov) - ChEZM



Valves with electric actuators from OAO BEMZ Tulalelektroptivod



Principal dimensions of valves with electric actuators from ZAO Tulalelektroptivod

Item Designation	Matching and Overall Dimensions				
	H	A	L	d	D
002.100.0300	1333	178	550	97	172
002.100.1700	1155	128	400	94	146
002.150.0500	1690	225	750	151	262
002.175.1900	1690	193	650	156	235
002.200.0700	2380	278	900	208	345
002.200.1500	1690	218	800	203	290
002.225.1100	1829	222	800	230	290
002.250.0400	1829	228	900	271	340
002.250.1300	2430	263	900	251	345
002.300.0100	2430	273	1000	281	400

Characteristics of valves with electric actuators from ZAO Tulalelektroptivod

Item Designation	Electric actuator designation	Closure stroke time, sec	Electric motor power rating, kW	Weight, kg
002.100.0300	Н-В-21 У1	45	3.2	548
002.100.1700	Н-В-08 У1	46	3.2	256
002.150.0500	Н-Г-11 У1	72	4.25	1067
002.175.1900	Н-Г-11 У1	72	4.25	925
002.200.0700	Н-Д-17 У1	147	4.3	2320
002.200.1500	Н-Г-11 У1	86	4.25	968
002.225.1100	Н-Г-11 У1	86	4.25	1101
002.250.0400	Н-Г-11 У1	86	4.25	1180
002.250.1300	Н-Д-17 У1	174	4.3	2263
002.300.0100	Н-Д-17 У1	174	4.3	2663

Principal dimensions of valves with electric actuators from ZAO Energomash (Chekhov) - ChEZM

Item Designation	Matching and Overall Dimensions							
	H	H_1	A	L	L_1	L_2	d	D
002.100.0300	1027	812	178	550	1125	420	97	172
002.100.1700	855	670	128	400	925	410	94	146
002.150.0500	1260	990	225	750	1162	474	151	262
002.175.1900	1392	990	193	650	1202	474	156	235
002.200.0700	1357	1355	278	900	1462	554	208	345
002.200.1500	1410	1138	218	800	1162	474	203	290
002.225.1100	1410	1138	222	800	1162	474	230	290
002.250.0400	1540	1133	228	900	1162	458	271	340
002.250.1300	1735	1435	263	900	1462	554	251	345
002.300.0100	1735	1435	273	1000	1462	554	281	400

Characteristics of valves with electric actuators from ZAO Energomash (Chekhov) - ChEZM

Item Designation	Electric actuator designation	Closure stroke time, sec	Electric motor power rating, kW	Weight, kg
002.100.0300	793-Э-0	55	3.2	550
002.100.1700	792-Э-0	55	1.32	246
002.150.0500	795-Э-0	74	4.3	1050
002.175.1900	795-Э-0-II	35	5.6	847
002.200.0700	797-Э-0	39	11.8	2398
002.200.1500	795-Э-0	81	4.25	967
002.225.1100	795-Э-0-V	88	3.2	1063
002.250.0400	795-Э-0	81	4.25	996
002.250.1300	797-Э -0	47	11.8	2195
002.300.0100	797-Э-0	47	11.8	2560

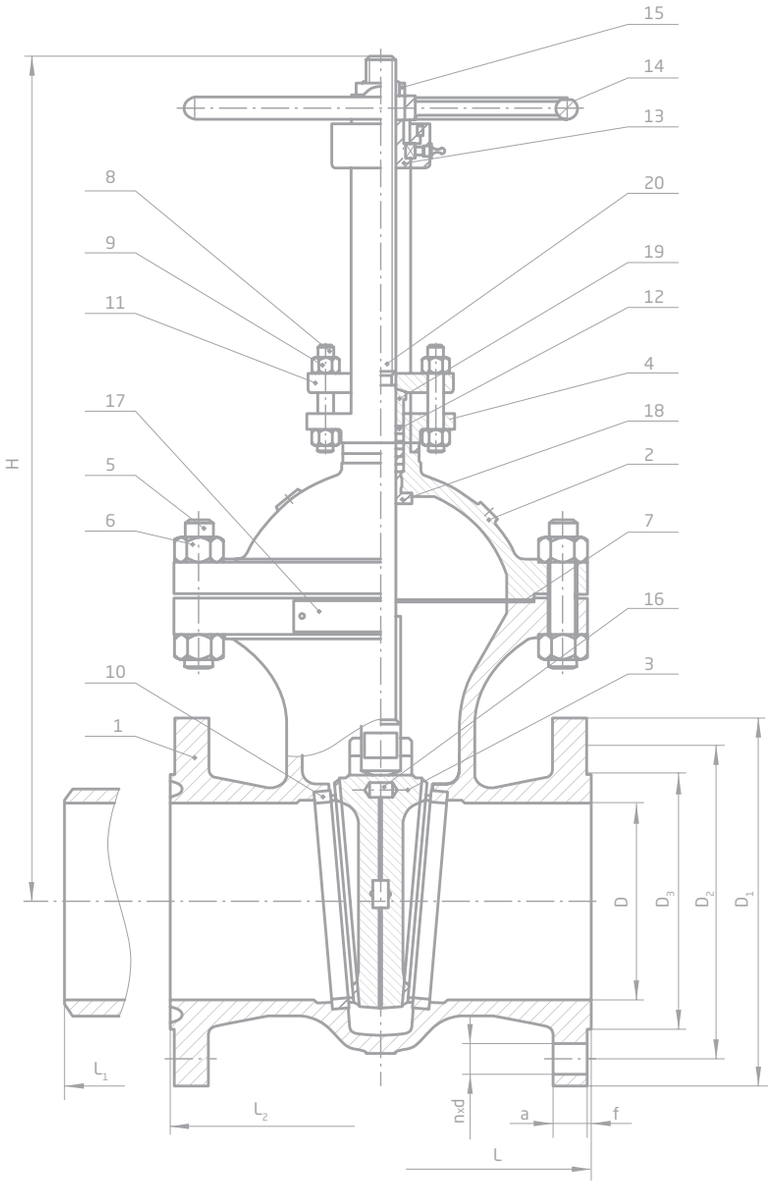
Principal dimensions of valves with electric actuators from OAO BEZM

Item Designation	Matching and Overall Dimensions				
	H	A	L	d	D
002.100.1700	1006	128	400	94	146
002.150.0500	1545	225	750	151	262
002.175.1900	1545	193	650	156	235
002.200.1500	1545	218	800	203	290
002.225.1100	1690	222	800	230	290
002.250.0400	1690	228	900	271	340

Characteristics of valves with electric actuators from OAO BEZM

Item Designation	Electric actuator designation	Closure stroke time, sec	Electric motor power rating, kW	Weight, kg
002.100.1700	ЭР-3-300-25-Б1-О-А	44	0.75	200
002.150.0500	ГИЮМ. 303344.001	72	3.2	1010
002.175.1900	ГИЮМ. 303344.001	72	3.2	791
002.200.1500	ГИЮМ. 303344.001	86	3.2	838
002.225.1100	ГИЮМ. 303344.001	86	3.2	1041
002.250.0400	ГИЮМ. 303344.001	86	3.2	1080

API 6D wedge valves



Wedge valves are designed for service as shut-off valves to cut-off gas and liquid flows in pipelines of various diameters operating at various pressures. Valves are made with a rising stem and have a closure that moves in a plane perpendicular to the fluid flow. Depending on valve type and dimensions as well as customer requirements, the closure may be a solid stiff wedge or a dual-disc wedge, an elastic wedge or a dual disc wedge with a retainer. The design of the valves is full-bore.

Valves may be controlled manually (via a flywheel or an gearbox) or using an electric, hydrauli, or pneumatic actuator.

Install position on a pipeline must be vertical with the control facing up or slanted (inclined from the vertical by no more than 90o). When valves are positioned at an angle or horizontally, an additional support must be provided for the valve's electric actuator.

- Fluid flow direction: any.
- Wedge valve are compliant with the requirements of API 6D.

Wedge valves can be designed and manufactured with the following properties:

Design, inspection, and testing	is per API 6D (inspection and testing scope are to be defined with customer approval).
The design standard (design and analysis of components providing isolation from the external environment)	is per ASME B 16.34; API 600[1]
Pressure Class:	150, 300, 600, 900, 1500 (see Tables 1-5)
Nominal diameter (NPS)	2", 3", 4", 6", 8", 10", 12", 16", 20", 24" (see Tables 1-5)
Fluid properties (parametric series of pressure and temperature)	are per ASME B 16.34;
Construction materials	are defined with customer approval depending on the fluid composition and properties and service conditions
Factory length	is per API 6D (ASME B 16.10)[2]
Flanges	are per ASME B 16.53
Welding pups	are per ASME B 31.44
Fluid	is water, steam, gas, petroleum and petroleum derivatives, non-aggressive fluids
Fluid temperature	is defined based on the materials used and the fluid

Note:
[1] Other design standards may be used with customer approval. Then, allowable fluid properties will be defined by the design standard.
[2] Valves with a factory length defined with customer approval are also available.
[3] Valves with flanges to other standards are available with customer approval.
[4] Other standards may be used with customer approval to dress pup edges for welding.
When ordering wedge valves, the Order Approval Sheet in Annex A is to be used.

Table 1. Principal dimensions of Class 150 wedge valves

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	L_2, mm	H*, mm	Weight*, kg
150	2"	51	150	121	92	15	2	4	19	178	216	191	345	22
	3"	77	190	152	127	16	2	4	19	203	283	216	450	30
	4"	102	230	191	157	23	2	8	19	229	305	241	534	46
	6"	153	280	241	216	24	2	8	22	267	403	279	751	76
	8"	204	345	299	270	27	2	8	22	292	419	305	860	147
	10"	254	405	362	324	29	2	12	25	330	457	343	1054	216
	12"	305	485	432	381	31	2	12	25	356	502	368	1185	288
	16"	388	595	540	470	35	2	16	28.5	406	610	419	1415	570
	20"	489	700	635	584	42	2	20	32	457	711	470	1598	780
	24"	591	815	749	692	47	2	20	35	508	813	521	2055	1190

Table 2. Principal dimensions of Class 300 wedge valves

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	L_2, mm	H*, mm	Weight*, kg
300	2"	51	165	127	92	21	2	8	19	216	216	232	340	27
	3"	77	210	168	127	27	2	8	22	283	283	298	448	44
	4"	102	255	200	157	31	2	8	22	305	305	321	534	65
	6"	153	320	270	216	35	2	12	22	403	403	419	755	149
	8"	204	380	330	270	40	2	12	25	419	419	435	865	239
	10"	254	445	387	324	47	2	16	28.5	457	457	473	1080	385
	12"	305	520	451	381	50	2	16	32	502	502	518	1205	543
	16"	388	650	572	470	56	2	20	35	838	838	854	1432	1003
	20"	483	775	686	584	62	2	24	35	991	991	1010	1680	1660
	24"	585	915	813	692	69	2	24	41	1143	1143	1165	1963	2600

Table 3. Principal dimensions of Class 600 wedge valves

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	L_2, mm	H*, mm	Weight*, kg
600	2″	51	165	127	92	26	7	8	19	292	292	295	425	41
	3″	77	210	168	127	32	7	8	22	356	356	359	450	64
	4″	102	275	216	157	39	7	8	25	432	432	435	611	120
	6″	153	355	292	216	48	7	12	28.5	559	559	562	770	300
	8″	200	420	349	270	56	7	12	32	660	660	664	890	440
	10″	248	510	432	324	64	7	16	35	787	787	791	1080	775

Table 4. Principal dimensions of Class 900 wedge valves

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	L_2, mm	H*, mm	Weight*, kg
900	2″	48	215	165	92	39	7	8	25	368	368	371	515	93
	3″	73	240	191	127	39	7	8	25	381	381	384	550	114
	4″	99	290	235	157	46	7	8	32	457	457	460	611	182
	6″	147	380	318	216	56	7	12	32	610	610	613	796	382
	8″	191	470	394	270	64	7	12	38	737	737	740	1069	968
	10″	238	545	470	324	70	7	16	40	838	838	841	1340	1450

Table 5. Principal dimensions of Class 1500 wedge valves

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	L_2, mm	H*, mm	Weight*, kg
1500	4″	92	310	241	157	54	7	8	32	546	546	549	683	260
	6″	137	395	318	216	83	7	12	38	705	705	711	1012	595
	8″	178	485	394	270	93	7	12	44	832	832	841	1062	1100
	10″	223	585	483	324	108	7	12	51	991	991	1000	1400	1790

* Product weight and Dimension H may vary depending on valve control, customer design requirements as well as during product upgrades.

Table 6. Standard construction materials for wedge valves**

Item No.	Component	Materials			
		WCB Trim No. 8, 12	LCB Trim № 8, 12	CF8 Trim № 15, 10	CF8M Trim № 10, 12
1	Body	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
2	Cover	ASTM A105; ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8; ASTM A182 F304H	ASTM A351 CF8M; ASTM A182 F316
3	Wedge	ASTM A105 + weld overlay; ASTM A216 WCB +weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A350 LF2 + weld overlay; ASTM A352 LCB +weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A351 CF8 + weld overlay; ASTM A182 F304 + weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A351 CF8M; ASTM A182 F316
4	Post/yoke	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
5,6	Cover attach-ment to housing	ASTM A 193 B7; ASTM A 194 2H	ASTM A320 gr. L7; ASTM A194 gr. 4	ASTM A193 B8M; ASTM A194 8M	ASTM A193 B8M; ASTM A194 8M
8,9	Gland seal flange fasteners	ASTM A307 gr.B или эквивалентный	ASTM A307 gr.B или эквивалентный	ASTM A 193 gr.B8; ASTM A 194 gr. 8	ASTM A 193 gr.B8; ASTM A 194 gr. 8

Table 6. Standard construction materials for wedge valves (Conclusion)**

Item No.	Component	Materials			
		WCB Trim No. 8, 12	LCB Trim № 8, 12	CF8 Trim № 15, 10	CF8M Trim № 10, 12
10	Ring	ASTM A105 +weld overlay; ASTM A182 F316 + weld overlay	ASTM A350 LF2 + weld overlay; ASTM A182 F316 + weld overlay	ASTM A182 F304 + weld overlay; ASTM A182 F316 + weld overlay	ASTM A182 F316 + weld overlay
11	Gland seal flange	ASTM A 105	ASTM A 350 LF2	ASTM A 182 F304	ASTM A 182 F316
13	Stem bushing	Copper alloy	Copper alloy	Copper alloy	Copper alloy
14	Flywheel	Carbon steel	Low-alloy steel	Low-alloy steel	Low-alloy steel
15	Lock nut	Carbon steel	Stainless steel	Stainless steel	Stainless steel
16	Shaft (for dual-disc wedge)	Stainless steel	Stainless steel	Stainless steel	Stainless steel
17	Nameplate	Stainless steel	Stainless steel	Stainless steel	Stainless steel

** Other materials may be used with customer approval.

Table 7. Trim materials per API 600**

Item No.	Trim	15	8	10	12
3	Wedge sealing surface	Stellite 6 weld overlay	13 Cr weld overlay	316 weld overlay	316 weld overlay
10	Ring sealing surface	Stellite 6 weld overlay	Stellite 6 weld overlay	316 weld overlay	Stellite 6 weld overlay
20	Stem	ASTM A276 T304	ASTM A276 T410 or T420	ASTM A276 T410 or T420	ASTM A276 T316
18	Top seal bushing	ASTM A351 CF8; ASTM A182 F304	ASTM A182 F6a; ASTM A217 CA15	ASTM A182 F316; ASTM A351 CF8M	ASTM A182 F316; ASTM A351 CF8M
19	Gland seal bushing	ASTM A182 F304	ASTM A182 F6a	ASTM A 182 F316	ASTM A 182 F316

** Other materials may be used with customer approval.

Table 8. Sealing material**

Item No.	Description	Class	Seal Material and Type
7	Joint seal Body w/Integrated Cover	150, 300	Flat graphite gasket, helical graphite/steel gasket
		600, 900, 1500	RTJ rings
12	Gland seal packing	150-1500	Compressed graphite rings, braided graphite cord

** Other materials may be used with customer approval.

Annex A
API 6D wedge valve order approval sheet No. _____

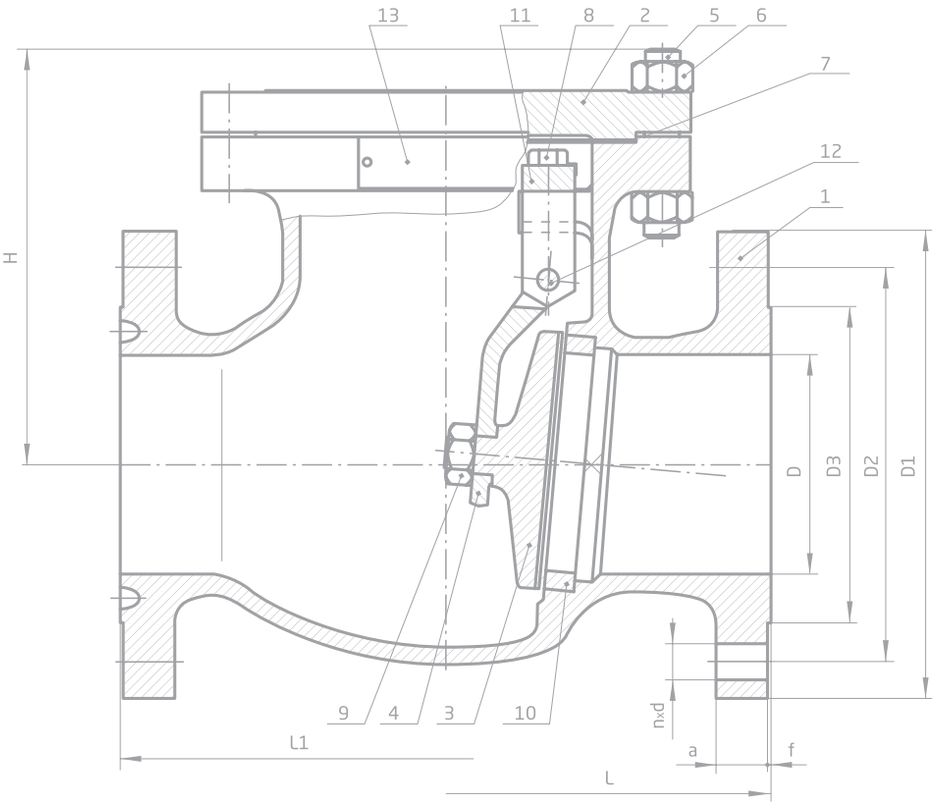
Customer	
Project (Reference)	
Description of valve installation site	
Site location	
Address (of customer)	
Phone/Fax (of customer)	

Valve Requirements		
Item No.	List of Requirements	Customer Requirements
1. General Requirements		
1.1	Structural Materials	
1.2	Valve location and service	
1.3	Valve nominal diameter (DN) (nominal pipe size, NPS)	
1.4	Maximum operating pressure	
1.5	Maximum pressure for test at install location	
1.6	Maximum pressure differential across closure	
1.7	Valve pressure class (if analytical (design) pressure and temperature are different from standard values, specify)	
1.8	Maximum operating temperature	
1.9	Minimum operating temperature	
1.10	Fluid (liquid/gas)	
1.11	Fluid composition at commissioning (in operation)	
1.12	Special requirements (valve design requirements to enable centralized pipe cleaning, fluid particulate content, etc.)	
2. Valve Type Requirements		
2.1	Design (design standard)	
2.2	Full/partial bore	
2.3	Minimum valve trim diameter	
2.4	Factory length (specify if there are special factory length or factory length tolerance requirements)	
3. Type of Pipeline Connection		
3.1. Flanged		
3.1.1	ASME B16.5 flange type:	
3.1.1.1	RF (raised flange)	
3.1.1.2	LM (large male)	
3.1.1.3	LF (large female)	
3.1.1.4	SM (small male)	
3.1.1.5	SF (small female)	
3.1.1.6	LT (large tongue)	

3.1.1.7	LG (large groove)	
3.1.1.8	ST (small tongue)	
3.1.1.9	SG (small groove)	
3.1.1.10	RTJ (oblong or octagonal ring-type joint)	
3.1.1.11	Gasket type (gasket not included in valve delivery)	
3.1.2	Flanges to other standards (specify standard and type)	
3.2. Welded		
3.2.1	Pipe Upstream of Valve	
3.2.1.1	outside diameter	
3.2.1.2	inside diameter	
3.2.1.3	pipe material	
3.2.1.4	pipe material minimum ultimate yield	
3.2.1.5	special chemistry requirements for welded ends	
3.2.2	Pipe Downstream of Valve	
3.2.2.1	outside diameter	
3.2.2.2	inside diameter	
3.2.2.3	welding edge dressing standard	
3.3. Other Type of Valve Pipeline Connection		
3.3.1	Other connection type (specify standard, type, and other requirements)	
4. Valve Operating Requirements		
4.1	Actuation Type	
4.1.1	Manual (specify additional requirements if needed)	
4.1.2	Gearbox (specify additional requirements if needed)	
4.1.3	Electric actuator (specify detailed parameters)	
4.1.4	Stop, if any (specify type if used)	
4.1.5	Valve supports, if any	
4.1.6	Supplemental requirements for lifting points (specify, if any)	
5. Miscellaneous Requirements		
5.1	Supplemental structural material requirements (chemistry, testing, etc. constraints; specify, if any)	
5.2	Supplemental welding requirements (specify, if any)	
5.3	Supplemental requirements to correct forging and rolling defects using welding	
5.4	Requirements to correct casting defects using welding	
5.5	Supplemental impact toughness requirements	
5.6	Supplemental requirements on bolted/pin joints (hardness requirements, if hydrogen embrittlement is likely,	
5.7	etc., if any)	
5.8	Non-destructive testing requirements	

5.9	Allowable non-destructive testing of welding repair locations prior to heat treatment	
5.10	Quality specifications levels (QSLs) for valves are per API 6D/ISO 14313, Annex J	
5.11	Requirements on extended hydrostatic testing are defined in API 6D/ISO 14313, Annex I (if required, please specify: test durations; requirements on test report contents)	
5.12	Supplemental testing requirements (per API 6D/ISO 14313, Annex B)	
5.13	Supplemental testing requirements (per API 6D/ISO 14313, Annex C)	
5.14	Supplemental requirements of valve hydraulic test sequence	
5.15	Sealing method for valve pups for hydraulic testing (sealed with free end caps secured to valve flanges; sealing by clamping the valve between hydraulic test frame tables)	
5.16	Permissible use of lubricants on metal sealing surfaces of valve closure during leak testing	
5.17	Flame resistance testing (specify certification requirements)	
5.18	ISO 15156 material certificate (if required, specify mass percentage, % H2S, pH, mass concentration of chlorides, temperature)	
5.19	Pressure relief device (if required, specify special testing, etc. requirements)	
5.20	Vent ports/lines (if required, specify requirements, such as dimensions, thread type, design pressure, requirements on valves on vent line, etc.)	
5.21	Bypass ports/lines (if required, specify requirements, such as dimensions, thread type, design pressure, requirements on valves on bypass line, etc.)	
5.22	Third party involvement in manufacture/testing	
5.23	Painting/coating requirements	
5.24	Requirements on Markings	
5.25	Manufacturing paperwork archiving requirements	
5.26	Preservation requirements	
5.27	Packaging requirements	
5.28	Transportation requirements	
5.29	Warranty Requirements	
5.30	Service life and reliability requirements	
5.31	Product weight requirements	
5.32	Miscellaneous requirements	

API 6D check valves



Check valves (swivel check valves) are designed automatically to prevent fluid backflow in pipelines.

• Check valves are not designed for shut-off.

• Installation check valve position on a horizontal line must be cover up; on a vertical line with the housing arrow up. Fluid flow direction should be towards the clapper disc (to coincide with the housing arrow).

• Check valve are compliant with the requirements of API 6D.

Check valves can be designed and manufactured with the following properties:

Design, inspection, and testing	is per API 6D (inspection and testing scope are to be defined with customer approval).
The design standard (design and analysis of components providing isolation from the external environment)	are per ASME B 16.341
Pressure Class:	150, 300, 600, 900 (see Table 1)
Nominal diameter (NPS)	2", 3", 4", 6", 8" (see Table 1) [1]
Fluid properties (parametric series of pressure and temperature)	are per ASME B 16.341
Construction materials	are defined with customer approval depending on the fluid composition and properties and service conditions
Factory length	is per API 6D (ASME B 16.10)[2]
Flanges	are per ASME B 16.53
Fluid	is water, steam, gas, petroleum and petroleum derivatives, non-aggressive fluids
Fluid temperature	is defined based on the materials used and the fluid

Note:
[1] Other design standards may be used with customer approval. In this situation, fluid parameters (parametrized pressure and temperature series) will be defined by the design standard.
[2] Valves with a factory length defined with customer approval are also available.
[3] Valves with flanges to other standards are available with customer approval.
When ordering check valves, the Order Approval Sheet in Annex B is to be used.

Table 1. Check Valve (Swivel Check Valve) Principal Dimensions

Class	NPS	D, mm	D_1, mm	D_2, mm	D_3, mm	a, mm	f, mm	n, mm	d, mm	L, mm	L_1, mm	H*, mm	Weight*, kg
150	3"	77	190	152	127	16	2	4	19	241	254	185	38
	4"	102	230	191	157	23	2	8	19	292	305	205	48
300	2"	51	165	127	92	21	2	8	19	267	283	170	25
	3"	77	210	168	127	27	2	8	22	318	333	185	41
	4"	102	255	200	157	31	2	8	22	356	371	215	58
	6"	153	320	270	216	35	2	12	22	445	460	285	116
	8"	204	380	330	270	40	2	12	25	533	549	335	186
600	2"	51	165	127	92	26	7	8	19	292	295	230	34
	3"	77	210	168	127	32	7	8	22	356	359	260	55
	4"	102	275	216	157	39	7	8	25	432	435	260	110
	6"	153	355	292	216	48	7	12	28,5	559	562	360	230
900	2"	48	215	165	92	39	7	8	25	368	371	230	63
	3"	73	240	191	127	39	7	8	25	381	384	260	89
	4"	99	290	235	157	46	7	8	32	457	460	260	120
	6"	147	380	318	216	56	7	12	32	610	613	360	250

* Product weight may vary depending on customer design requirements as well as during product upgrades.

Table 2. Standard Materials for Check Valves (Swivel Check Valves)**

Item No.	Component	Materials			
		WCB Trim No. 8, 12	LCB Trim № 8, 12	CF8 Trim № 15, 10	CF8M Trim № 10, 12
1	Body	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
2	Cover	ASTM A105; ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8; ASTM A182 F304H	ASTM A351 CF8M; ASTM A182 F316
3	Clapper	ASTM A105 + weld overlay; ASTM A216 WCB + weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A350 LF2 + weld overlay; ASTM A352 LCB + weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A351 CF8 + weld overlay; ASTM A182 F304 + weld overlay; ASTM A351 CF8M; ASTM A182 F316	ASTM A351 CF8M; ASTM A182 F316
4	Shackle	ASTM A216 WCB; ASTM A105	ASTM A352 LCB; ASTM A352 LF2	ASTM A351 CF8; ASTM A182 F304	ASTM A351 CF8M; ASTM A182 F316
5,6	Cover attachment to housing	ASTM A 193 B7; ASTM A 194 2H	ASTM A320 gr. L7; ASTM A194 gr. 4	ASTM A193 B8M; ASTM A194 8M	ASTM A193 B8M; ASTM A194 8M
8	Bracket attach-ment to housing	Stainless steel	Stainless steel	Stainless steel	Stainless steel
9	Nut onto clapper	Stainless steel	Stainless steel	Stainless steel	Stainless steel
10	Ring	ASTM A105 + weld overlay	ASTM A350 LF2 + weld overlay	ASTM A182 F304 + weld overlay; ASTM A182 F316 + weld overlay	ASTM A182 F316 + weld overlay
11	Bracket	ASTM A216 WCB; ASTM A105	ASTM A352 LCB; ASTM A350 LF2	ASTM A351 CF8; ASTM A182 F304	ASTM A351 CF8M; ASTM A182 F316
12	Shaft	Stainless steel	Stainless steel	Stainless steel	Stainless steel
13	Nameplate	Stainless steel	Stainless steel	Stainless steel	Stainless steel

** Other materials may be used with customer approval.

Table 3. Trim materials per API 600**

Item No.	Trim	15	8	10	12
3	Clapper sealing surface	Stellite 6 weld overlay	13 Cr weld overlay	316 weld overlay	316 weld overlay
10	Ring sealing surface	Stellite 6 weld overlay	Stellite 6 weld overlay	316 weld overlay	Stellite 6 weld overlay

** Other materials may be used with customer approval.

Table 4. Sealing material**

Item No.	Description	Class	Seal Material and Type
7	Joint seal Body w/Integrated Cover	150, 300	Плоская Прокладка из графита, спиральная графито-Steelная Прокладка
		600, 900	RTJ кольца

** Other materials may be used with customer approval.

Annex B
Chck Valve (Swivel Check Valve) API 6D Order Approval Sheet No. _____

Customer	
Project (Reference)	
Description of valve installation site	
Site location	
Address (of customer)	
Phone/Fax (of customer)	

Valve Requirements		
Item No.	List of Requirements	Customer Requirements
1. General Requirements		
1.1	Structural Materials	
1.2	Valve location and service	
1.3	Valve nominal diameter	
1.4	Maximum operating pressure	
1.5	Maximum pressure for test at install location	
1.6	Maximum pressure differential across closure	
1.7	Valve pressure class (if analytical (design) pressure and temperature are different from standard values, specify)	
1.8	Maximum operating temperature	
1.9	Minimum operating temperature	
1.10	Fluid (liquid/gas)	
1.11	Fluid composition at commissioning/in operation	
1.12	Special requirements (valve design requirements to enable centralized pipe cleaning, fluid particulate content, etc.)	
2. Valve Type Requirements		
2.1	Design (design standard)	
2.2	Full/partial bore	
2.3	Minimum valve trim diameter	
2.4	Factory length (specify if there are special factory length or factory length tolerance requirements)	
3. Type of Pipeline Connection		
3.1 Flanged		
3.1.1	ASME B16.5 flange type:	
3.1.1.1	RF (raised flange)	
3.1.1.2	LM (large male)	

3.1.1.3	LF (large female)	
3.1.1.4	SM (small male)	
3.1.1.5	SF (small female)	
3.1.1.6	LT (large tongue)	
3.1.1.7	G (large groove)	
3.1.1.8	ST (small tongue)	
3.1.1.9	SG (small groove)	
3.1.1.10	RTJ (oblong or octagonal ring-type joint)	
3.1.1.11	Gasket type (gasket not included in valve delivery)	
3.1.2	Flanges to other standards (specify standard and type)	
3.2 Welded		
3.2.1	Pipe Upstream of Valve	
3.2.1.1	outside diameter	
3.2.1.2	inside diameter	
3.2.1.3	pipe material	
3.2.1.4	pipe material minimum ultimate yield	
3.2.1.5	special chemistry requirements for welded ends	
3.2.2	Pipe Downstream of Valve	
3.2.2.1	outside diameter	
3.2.2.2	inside diameter	
3.2.2.3	welding edge dressing standard	
3.3 Other Type of Valve Pipeline Connection		
3.3.1	Other connection type (specify standard, type, and other requirements)	
4. Valve Operating Requirementsы		
4.1	Valve supports, if any	
4.2	Stop, if any	
4.3	Supplemental requirements for lifting points (specify, if any)	
5. Miscellaneous Requirements		
5.1	Supplemental structural material requirements (chemistry, testing, etc. constraints; specify, if any)	
5.2	Supplemental welding requirements (specify, if any)	
5.3	Supplemental requirements to correct forging and rolling defects using welding	
5.4	Requirements to correct casting defects using welding	
5.5	Supplemental impact toughness requirements	
5.6	Supplemental requirements on bolted/pin joints (hardness requirements, if hydrogen embrit-tlement is likely,	
	etc., if any)	

5.7	Non-destructive testing requirements (per API 6D/ISO 14313, Annex A)	
5.8	Non-destructive requirements for welding repair locations	
5.9	Allowable non-destructive testing of welding repair locations prior to heat treatment	
5.10	Quality specifications levels (QSLs) for valves are per API 6D/ISO 14313, Annex J	
5.11	Requirements on extended hydrostatic testing are defined in API 6D/ISO 14313, Annex I (if required, please specify: - test durations; - requirements on test report contents)	
5.12	Supplemental testing requirements (per API 6D/ISO 14313, Annex B)	
5.13	Supplemental testing requirements (per API 6D/ISO 14313, Annex C)	
5.14	Supplemental requirements of valve hydraulic test sequence	
5.15	Sealing method for valve pups for hydraulic testing (sealed with free end caps secured to valve flanges; sealing by clamping the valve between hydraulic test frame tables)	
5.16	Permissible use of lubricants on metal sealing surfaces of valve closure during leak testing	
5.17	Flame resistance testing (specify certification requirements)	
5.18	ISO 15156 certificate (if required, specify mass percentage, % H2S, pH, mass concentration of chlorides, temperature)	
5.19	Vent ports/lines (if required, specify requirements, such as dimensions, thread type, design pressure, requirements on valves on vent line, etc.)	
5.20	Bypass ports/lines (if required, specify requirements, such as dimensions, thread type, design pressure, requirements on valves on bypass line, etc.)	
5.21	Third party involvement in manufacture/testing	
5.22	Painting/coating requirements	
5.23	Requirements on Markings	
5.24	Manufacturing paperwork archiving requirements	
5.25	Preservation requirements	
5.26	Packaging requirements	
5.27	Transportation requirements	
5.28	Warranty Requirements	
5.29	Service life and reliability requirements	
5.30	Product weight requirements	
5.31	Miscellaneous requirements	

Flanges

1. Steel butt weld franges per GOST 33259, Type 11, Row 1, Control Group IV.

Nominal bore, DN	Pressure rating, PN, kgf/cm²	Sealing surface construction	Weight, kg
80	6	B, E, F, C, D, L, M	2.76
100			3.35
200			9.35
300			14.80
40	16		1.85
50			2.28
80			4.21
100			4.90
125			6.76
150			8.30
200			11.80
250			17.40
300			22.80
350			33.10
400			43.00
500			71.00
600			99.30
700			106.00
800			131.00
50	25		2.78
80			4.48
100			6.58
150			12.60
200			17.40
250			25.70
300			33.30
400			64.80
500			89.00
600			124.00
25	40		1.19
40			2.19
50			2.81
80			4.81
100			7.40
150			13.20
200			24.40
250			37.60
300			57.10
350			70.30
400			107.00
500			132.30
600			195.00

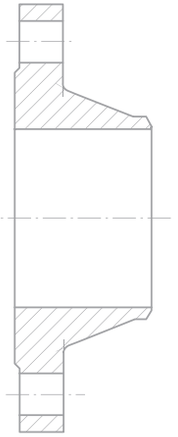
Nominal bore, DN	Pressure rating, PN, kgf/cm²	Sealing surface construction	Weight, kg
50	63	E, F, C, D, J	4.63
80			7.22
100			10.70
150			25.40
200			38.50
250			53.80
300			74.60
350			106.00
400			151.00
25	100 (80)		2.50
50			6.08
80			9.98
100			14.70
150			32.90
200			54.20
250			85.40
300			128.40
350			172.00
400			216.40
25	160		2.44
50			6.49
80			10.50
100			15.40
150			35.00
200			60.10
250			94.40
300			141.00
400			222.22

2. Weldable flat steep flanges per GOST 33259, Type 01
PN 6, 16, 25 kgf/cm^2
DN 25, 32, 40, 50, 80, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 700, 800

3. But weldable steel flanges per DIN 2633, 2635
PN 16, 40 kgf/cm^2
DN 15, 25, 32, 40, 50, 65, 80, 100, 125, 150, 200

Flanges are manufactures from steel of the following grades: steel 20, 09Г2С, 12Х18Н10Т, 10Х17Н13М2Т. Example of designation of a butt weldable flange: DN 50, PN 16 kgf/cm2, Type 11, Row 1, Construction B from Steel 20 per Control Group IV: Flange 50-16-11-1-В-Ст. 20-IV, GOST 33259.

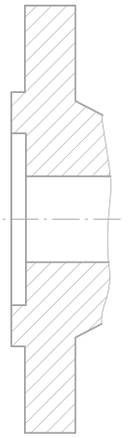
Construction B



Construction E

Construction F

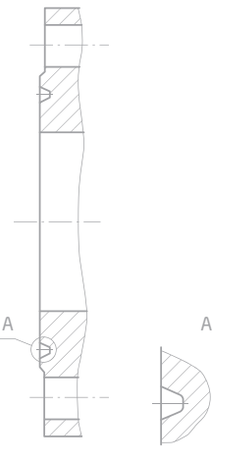
Construction L



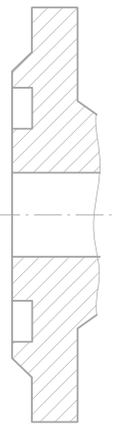
Construction C

Construction D

Construction J



Construction M



Allowable deviations of sealing surface types from the baseline specified in drawings for ЗКЛ, ZKLP

DN 50, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, PN 1.6 MPa (16 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	B	B
Available custom constructions	F	E
	D	C
		L

DN 80, 100, 150, PN 2.5; 4.0 MPa (25, 40 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	E (F)	F (E)
Available custom constructions	C (D)	D (C)
	L (M)	M (L)

DN 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, PN 4.0 MPa (40 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	E	F
Available custom constructions	C	D
	L	M

DN 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, PN 2.5 MPa (25 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	B	B
Available custom constructions	F	E
	D	C
		L

DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, PN 6.3 MPa (63 kgf/cm²), PN 8.0 MPa (80 kgf/cm²) PN 10.0 MPa (100 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	J	J
Available custom constructions	F	E
	D	C
		L

DN 50, 80, 100, 150, 200, 250, 300, 350, 400, 500, PN 16.0 MPa (160 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	J	J
Available custom constructions	F	E
	D	C
		L

DN 50, 80, 100, 150, 200, 250, 300, 350, PN 25.0 MPa (250 kgf/cm²): manufactured to AP BAZ design drawings

relative to matching flanges

DN 50, 80, 100, 150, 200, 250, 300, 350, 400, PN 1.6 MPa (16 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	B	B
Available custom constructions	F	E
	D	C
		L

DN 50, 80, 100, 150, 200, 250, 300, 350, 400, PN 2.5, 4.0 MPa (25, 40 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	E	F
Available custom constructions	F	E
	C	D
		M

DN 50, 80, 100, 150, 200, 250, 300, 350, 400, PN 6.3 MPa (63 kgf/cm²)
DN 50, 80, 100, 150, 200, 250, 300, 350, 400, PN 10.0, 16.0 MPa (100, 160 kgf/cm²)

	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259
Baseline construction	J	J
Available custom constructions	F	E
	D	C
		L

relative to SPPK, SPPKR, SPPKS, SPPKRS

DN 50, 80, 100, 150, 200, PN 1.6 MPa (16 kgf/cm²)

	Inlet		Outlet	
	Product	Set of Matching Flanges	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	B	B	B	B
Available custom constructions	F	E	F	E
	D	C	D	C
		L	M	L

DN 25, 50, 80, 100, 150, 200, PN 4.0 MPa (40 kgf/cm²)

	Inlet		Outlet	
	Product	Set of Matching Flanges	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	F	E	B	B
Available custom constructions	D	C	F	E
	M	L	D	C
			M	L

DN 25, 50, 80, 100, 150, 200, PN 6.3 MPa (63 kgf/cm²)

	Inlet		Outlet	
	Product	Set of Matching Flanges	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	F	E
Available custom constructions	F	E		
	D	C	D	C
		L	M	L

DN 25, 50, 80, 100, PN 16.0 MPa (160 kgf/cm²)

	Inlet		Outlet	
	Product	Set of Matching Flanges	Product	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	F	E
Available custom constructions	F	E	D	C
	D	C	M	L
		L		

relative to ПУ

DN 80, 100, 200, 300, PN 0.6 MPa (6 kgf/cm²)

	Product		Set of Matching Flanges
	Inlet	Outlet	
	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	B	B	B
Available custom constructions	E	E	F
	C	C	D
		L	M

DN 50, 80, 100, 150, 200, PN 1.6 MPa (16 kgf/cm²)

	Product		Set of Matching Flanges
	Inlet	Outlet	
	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	B	B	B
Available custom constructions	E	E	F
	C	C	D
		L	M

DN 25, 50, 80, 100, 150, 200, 300, PN 4.0 MPa (40 kgf/cm²)

	Product		Set of Matching Flanges
	Inlet	Outlet	
	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	E	E	F
Available custom constructions	C	C	D
	L	L	M

DN 50, 80, 100, 150, 200, 300, PN 6.3 MPa (63 kgf/cm²)

	Product		Set of Matching Flanges
	Inlet	Outlet	
	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	J
Available custom constructions	E	E	F
	C	C	D
		L	M

DN 25, 50, 80, 100, PN 16.0 MPa (160 kgf/cm²)

	Product		Set of Matching Flanges
	Inlet	Outlet	
	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	J
Available custom constructions	E	E	F
	C	C	D
		L	M

relative to SPPK assemblies with ПУ

DN 50, 80, 100, 150, 200, 300, PN 1.6 MPa (16 kgf/cm²)

	Inlet			Outlet		
	SPPK	ПУ	Set of Matching Flanges	SPPK	ПУ	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	B	B	B	B	B	B
Available custom constructions	F	E	F	F	E	F
	D	C	D	D	C	D
		L	M	M	L	M

DN 25, 50, 80, 100, 150, 200, PN 4.0 MPa (40 kgf/cm²)

	Inlet			Outlet		
	SPPK	ПУ	Set of Matching Flanges	SPPK	ПУ	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	F	E	F	B	B	B
Available custom constructions	D	C	D	F	E	F
	M	L	M	D	C	D
				M	L	M

DN 25, 50, 80, 100, 150, 200, PN 6.3 MPa (63 kgf/cm²)

	Inlet			Outlet		
	SPPK	ПУ	Set of Matching Flanges	SPPK	ПУ	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	J	F	E	F
Available custom constructions	F	E	F	D	C	D
	D	C	D	M	L	M
		L	M	E	F	E

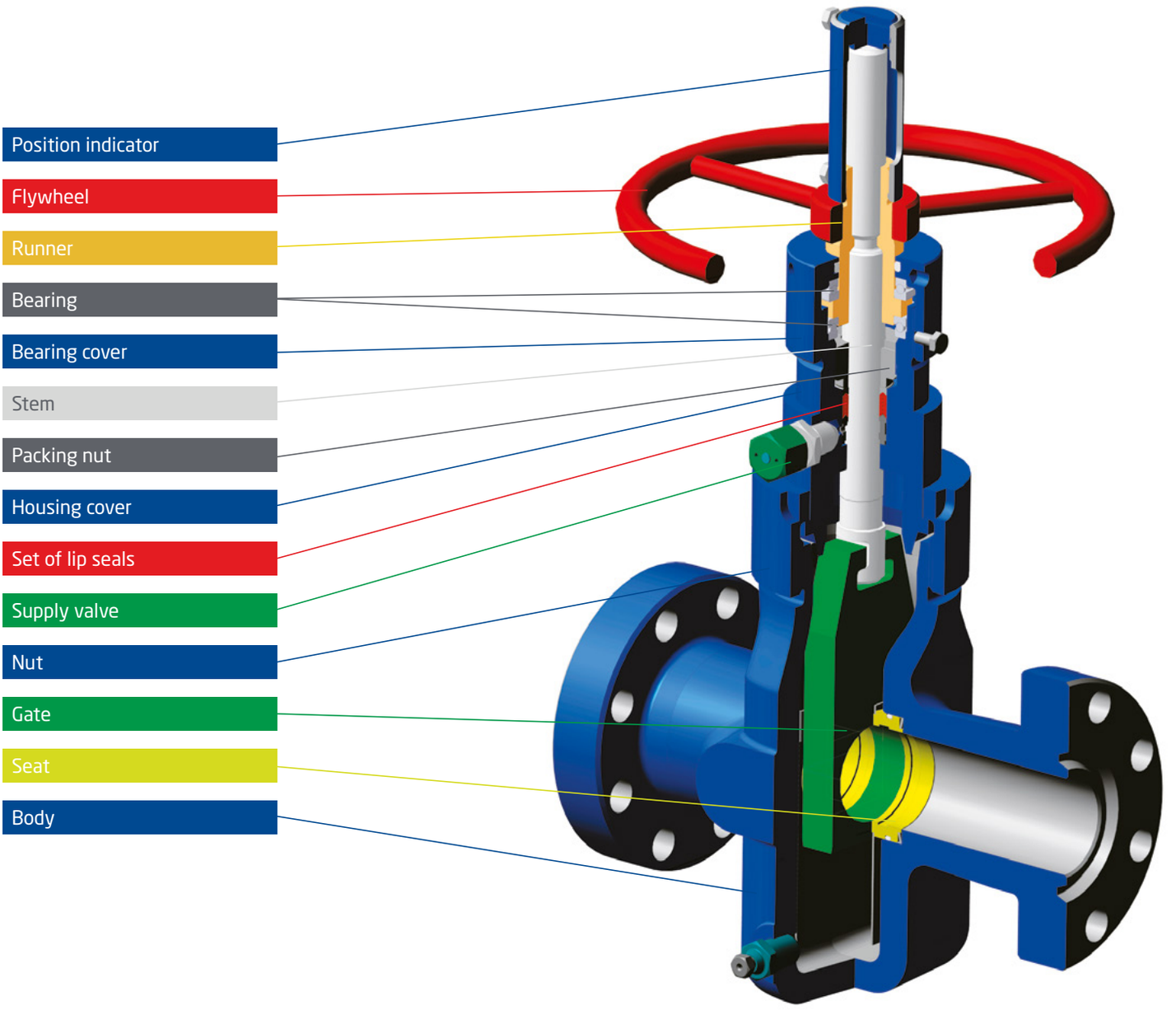
DN 25, 50, 80, 100, PN 16.0 MPa (160 kgf/cm²)

	Inlet			Outlet		
	SPPK	ПУ	Set of Matching Flanges	SPPK	ПУ	Set of Matching Flanges
	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259	per GOST 33259
Baseline construction	J	J	J	F	E	F
Available custom constructions	F	E	F	D	C	D
	D	C	D	M	L	M
		L	M	E	F	E

A surcharge is applied when other available constructions of product matching flanges are ordered.

IF SIZES NOT MENTIONED IN TABLES, DATA WILL BE PROVIDED UPON REQUEST.

Direct-flow gate valves



Direct flow gate valves are designed for use in wellhead production equipment and are used as shut-off devices to cut-off the flow of downhole fluid. Manufactured per TU 3665-018-07533604-2013.

- Downhole fluid: oil, gas, gas condensate containing up to 0.5% particulates, up to 90% produced water by volume.
- Valve service conditions per GOST 15150 correspond to Weather Class УХЛ, Location Category 1. Valves of Weather Class УХЛ per GOST 15150 may be used in Weather Provinces II10-II11 per GOST 16350.
- Delivery under the K1 corrosion resistance category per GOST 13846 is available.
- Closure seal Class A per GOST 9544.
- Connection to pipeline is via a flange per GOST 28919.
- Manual control.

Engineering Specification

Item Designation	DN	Operating Pressure, MPa	L, mm	D, mm	Body Material	Document Scope
3М(3МС) 50х14	50	14	295	165	20ГЛ*	Fluid temperature up to 120 °C, ambient air temperate at least -60 °C
65х14 Ф	65		350	195		
3М(3МС) 50х21	50	21	371	215		
65х21	65		422	245		
65х21 Ф	65		350	195		
80х21	80		435	245		
65х35	65	35	422	245	20ГЛ, 30ХМА**	
65х35 Ф	65		350	195		

* Manufacture from Steel 20ГМЛ available
** Stamped stock

Valve part number structure for ordering

ЗМ (ЗМС) XX x XX X УХЛ -X X М

Product code

Nominal bore, mm

Operating pressure, MPa

Construction:
1 for rising stem;
2 for no rising stem;
3 for dual-flange with rising stem;
4 for compact.

Valves suitable for ambient temperature range of
between -60 0C and +40 0C

Connection type:
- flanged per GOST 28919 (no designator);
Ф for flanges per GOST 28919 (RD).

Contamination class per GOST 13846:
- conventional, no corrosion resistance (CO_2 and H_2S under 0.003%) (no designator);
K1 for corrosion resistant (CO_2 up to 6%);

With installation components

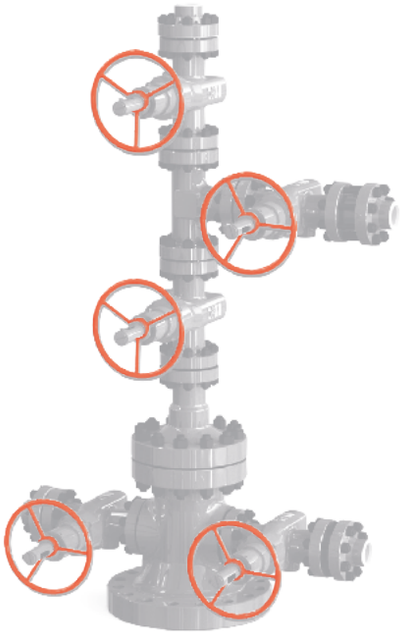
Example designation: ЗМ 65х21 1 УХЛ – Ф К1
ЗМ : direct-flow valve;
65 : nominal bore;
21 :operating pressure;
1 : no rising stem;
УХЛ : weather class;
Ф : with flanges per GOST 28919 (RD);
К1 : oil and gas service with CO_2 content of up to 6%.

Gate Valve Order Approval Sheet No. _____ _

Customer	
Project (Reference)	
Description of valve installation site	
Site location	
Address (of customer)	
Phone/Fax (of customer)	

VALVE REQUIREMENTS		
Item No.	List of Requirements	Customer Requirements
1	Nominal bore, mm (DN)	
2	Operating Pressure, MPa / kgf/cm² (PN)	
3	Valve construction (with/without rising stem)	
4	Matching flange dimensions per GOST 28919 (RD 26-16-40)	
5	Valve weather class per GOST 15150	
6	Closure seal class per GOST 9544.	
7	Technical requirement level	
8	Operating property level	
9	Factory Length, mm	
10	Fluid	
11	Minimum operating temperature, ˚C	
12	Maximum operating temperature, ˚C	
13	Hydrogen sulfide and carbon dioxide content, %	
14	Particulates, g/l	
15	Corrosion class per GOST 13846	
16	Painting/coating requirements	
17	Warranty Requirements	
18	Service life and reliability requirements	
19	Matching flanges (yes/no)	
20	Fasteners (yes/no)	
21	Spares (specify descriptions and quantity)	
22	Miscellaneous requirements	

Wellhead valves



Valves are designed to seal gas and oil wellheads, control operation, install and secure devices and assemblies for well surveys and process-related activities; manufactured per TU 3665-021-07533604-2014.

AFKE-type valves enables oil well operation using depth pumps. Valves are equipped with shut-off devices sich as direct-flow valves per TU 3665-018-07533604-2013.

- Fluid: downhole fluid, such as oil, gas, gas condensate containing up to 0.5% particulates, up to 90% produced water by volume.
- Service conditions per GOST 15150 correspond to Weather Class УХЛ, Location Category 1.
- Valves of Weather Class УХЛ per GOST 15150 may be used in Weather Provinces II10-II11 per GOST 16350-80.
- Delivery under the K1 corrosion resistance category per GOST 13846 is available.

Engineering Specification

Description	Nominal bore, DN, mm		Operating Pressure, MPa	Body Component Materials	Document Scope
	Wellbore	Lateral outlets			
BOP	50	50	21; 14	20ГЛ*, 30ХМА	Fluid temperature up to 120 °C, ambient air temperate at least -60 °C
	65	50, 65			
	65	65	35		
	80	80	21		
Supply valves	50	50	21; 14		
	65	50, 65			
	65	65	35		
		80	21		

* Manufacture from Steel 20ГМЛ available

Wellhead valve part number structure for ordering

X X X X -X / Xx -X -X -X

АФ:
BOP;
ЕФ:
X-mas tree;
АН: injection valves;
ЕН: injection tree

Code for well pipe hanging system:
- no designation for casing head;
K for casing head adapter

Designation of standard X-mas tree arrangement

Designation of shut-off control system:
- manual control;
D: remote control; A: for automatic control;
B: for remote and automatic controlм

Christmas Tree Trunk Nominal

Nominal bore of X-mas tree lateral outlets, mm
(not specified if same as wellbore nominal diameter)

Operating Pressure, MPa

Product construction based on service conditions
](downhole fluid) as defined in GOST 13846, Annex 4.

Code for model, upgrade (if required)

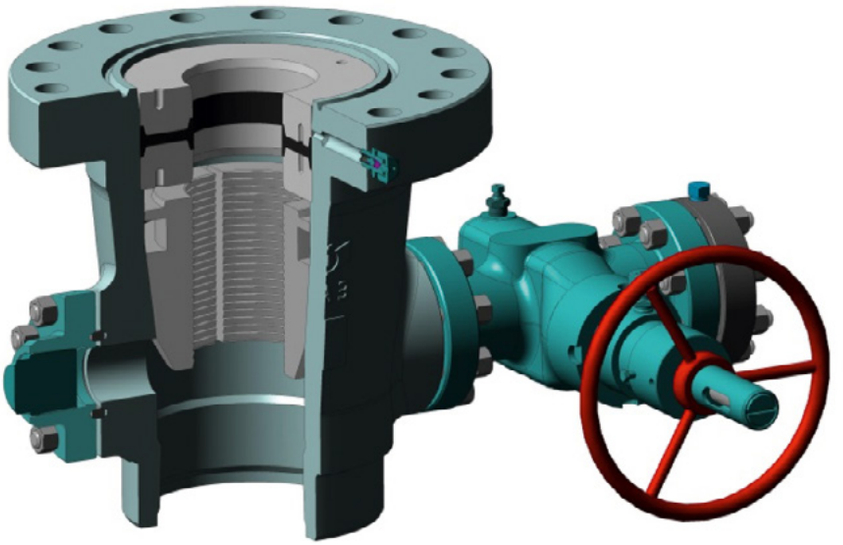
Example designation: АФК1 65х21 К1
AF : blow-out preventers;
K : wellhead pipe hung from casing head adapter;
65 : theoretical bore of X-mas tree and lateral outlets;
21 :operating pressure;
K1 : oil and gas service with CO_2 content of up to 6%.

BOP Order Approval Sheet No. _____

Customer	
Project (Reference)	
Description of valve installation site	
Site location	
Address (of customer)	
Phone/Fax (of customer)	

REQUIREMENT ON BLOWOUT PREVENTORS		
Item No.	List of Requirements	Customer Requirements
1	Diagram No. per GOST 13846	
2	Operating Pressure, MPa / kgf/cm² (PN)	
3	Christmas Tree Trunk Nominal Bore, mm	
4	Christmas Tree Branch Nominal Bore, mm	
5	Casing head bottom flange theoretical bore, mm	
6	Casing head upper flange theoretical bore, mm	
7	Shut-off type	
8	Matching flange dimensions per GOST 28919 (RD 26-16-40)	
9	Number of strings attached	
10	Attached pipe per GOST 633	
11	Pipe head construction (bottom flange per GOST 28919 / with box thread per GOST 632)	
12	Adapter construction (with thread for cable feedthrough per GOST 633 / without cable feedtrough)	
13	Valve weather class per GOST 15150	
14	Technical requirement level	
15	Operating property level	
16	Fluid	
17	Minimum operating temperature, ˚C	
18	Maximum operating temperature, ˚C	
19	Hydrogen sulfide and carbon dioxide content, %	
20	Particulates, g/l	
21	Corrosion class per GOST 13846	
22	Painting/coating requirements	
23	Warranty Requirements	
24	Service life and reliability requirements	
25	Fasteners (specify descriptions and quantity)	
26	Spares (specify descriptions and quantity)	
27	Equipment complement	

Wedge casing heads



Slip casing head (hereinafter, OKK) is designed as wellhead equipment for oil, gas, and gas condensate wells, as sealing for the annular space, and is manufactured per TU 3665-023-07533604-2014. OKK may be equipped with shut-off devices such as direct-flow valves per TU 3665-018-07533604-2013.

- Fluid: downhole fluid, such as oil, gas, gas condensate containing up to 0.5% particulates, up to 90% produced water by volume.

- Weather class UXL, Location Category I pER GOST 15150. Wellhead equipment constructed for UXL per GOST 15150 may be used in Weather Provinces II_{10}–II_{11} per GOST 16350.

- Delivery under the K1 corrosion resistance category per GOST 13846 is available.

Equipment designation structure

OKK X - X - X - X(x X x X) xX X X

Item Designation

Designation of number of casing strings

Operating Pressure, MPa

Production string diameter, mm

Service (intermediate) string diameter, mm

String conductor diameter, mm

Product construction based on service conditions (downhole fluid) as defined in GOST 13846, Annex 4.

Weather construction for -60 °C and +40 °C

Example order designation: OKK1-21-140x219 UXL U TU 3665-023-07533604-2014

Example designation of wellhead casing equipment with a single slip casing head for an operating pressure of 21 MPa and a production string diameter of 140 mm, a string conductor diameter of 219 mm for production in a conventional environment in areas with a moderate climate.

Example order designation: OKK2-14-146x273x426 K1 XL TU 3665-023-07533604-2014

Example designation of wellhead casing equipment with dual slip casing heads for an operating pressure of 14 MPa and a production string diameter of 146 mm, a service (intermediate) string diameter of 273 mm, a conductor diameter of 426 mm for production in a corrosive environment containing up to 6% CO_2 by volume in areas with a cold climate.

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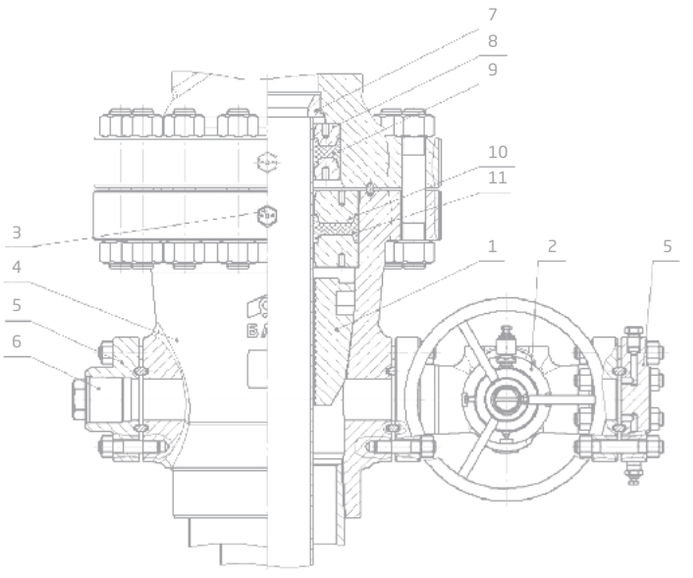

1 – Slip-type casing hanger;
2 – Direct-flow gate valve;
3 – Supply valve;
4 – Body;
5 – Tubing flange;
6 – Tubing end cap;
7 – Guide bushing;
8, 10 – Packer ring;
9, 11 – Packer seal.

Principal parameters of single-flange casing heads

Upper flange design bore Dy, mm	Operating Pressure, Po, MPa	Casing string per GOST 632 supporting casing head installed		Minimum principal bore Dc, mm	Nominal OD of pipes as prescribed by GOST 632 for a casing string secured in a hanger
		Nominal Diameter, mm	Wall Gage*, mm		
280	14	245	8.9	224	140-178
	21				

Principal parameters of dual-flange casing heads

Casing head flange				Casing string per GOST 632 sealed with a bottom seal		Principal bore Dc, mm at least	Nominal OD of pipes prescribed by GOST 632 for a casing string secured in a hanger
Top		Bottom		Nominal Diameter, mm	Wall Gage*, mm		
Nominal bore, D_y	Operating Pressure, Po, MPa	Nominal bore, D_y	Operating Pressure, Po, MPa				
280	14	280	14	178	5.9	164	114; 127
				194	7.6	176	114-140
		350		219	6.7	204	114-146
				245	8.9	224	114-178
				273		252	114-194
		425		299-351	-	-	
	21	280	21	178	6.9	162	114; 127
				194	7.6	176	114-140
		350	14	219	6.7	204	114-146
				245	8.9	224	114-178
				273	8.9	252	114-194
			21	219	8.9	199	114-146
				245	8.9	224	114-178
				273	8.9	252	114-194
		425	14	299-351	-	-	
			21	299-340			


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