



BALL
VALVES



Distributor:

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COMPANY PROFILE

"Temper" LLC is a Russian manufacturer of steel ball valves of brand TEMPER.

The manufacture of ball valves is based on the technology of production of ball valves manufactured since 1993 by the Estonian company OÜ Temper - European manufacturer of pipe fittings for industrial use.

Temper's production plant is located in the city of Kurgan, Siberia where the factory has land surface area of about three hectares. The interior production area is 3500 m². The machinery consists of more than 50 pieces of different equipment. The number of employees is more than 130 people. Production takes place in two shifts.

The production process is organized on advanced, high-tech equipment with numerical control.

Raw materials (pipes and metal-roll products) are purchased from the Ural metallurgical enterprises.

Manufacturing of main parts, welding of the body, painting and other production steps are carried out in an automated way.

Temper has organized a multilevel Quality control system covering the whole production cycle. Temper has a production capacity of more than 300 000 pieces of ball valves per year.

In 2013 Temper started active marketing of its products to the Russian market by opening its own sales office in St. Petersburg. During 2014 Temper formed an effective dealer network covering all regions of Russia, from Kaliningrad to Vladivostok. The launch of the products to European market started in 2016.

ABOUT THE PRODUCT

TEMPER ball valves are manufactured in accordance with PED 97 | 23EC.

The quality management system is certified by Bureau Veritas in accordance with ISO 9001.

TECHNICAL CHARACTERISTICS

TEMPER ball valves are designed for application in district heating and natural gas transportation pipelines as well as for heat supply industry and many other various operating systems.

OPERATING CONDITIONS

- Working medium: DH water, natural gas, petroleum products, combustible and lubricating materials as well as other fluids free from abrasive contaminants.
- Working mediums for stainless steel valves must be non-aggressive towards valve materials.
- Diameter range: 15 mm to 500 mm
- Working pressure: 1.6 MPa to 4.0 MPa
- Temperature of working medium: -60°C to +200°C
- Ambient temperature -60°C to +60°C
- Connection types: Female threads, Welded, Flanged and their combinations, fully welded construction.
- Versions for regulation, insulation and underground installation of the valve.

CONTROLS

Temper ball valves may be operated with handle, gearbox, pneumatic or electric actuator directly or remotely. Ball valves of DN 125 - 500 are equipped with ISO flange for actuator.

ADVANTAGES

- High quality seamless steel.
- Serial valves for cold climatic performance.
- Powder painted for additional corrosion protection.
- Long service life verified by multiple tests and operational experience.
- Extended valve stem for easy insulation of the valve.
- No maintenance, suspenders or lubrication required.
- Maximum tightness class throughout the range of operating temperatures.
- Ball valves of above DN 125 - 500 are equipped with ISO flange for actuator.

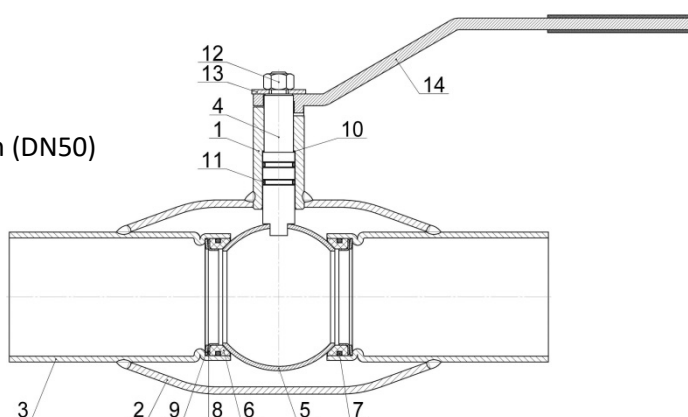
Configurations	Connection types		Materials	Nominal diameters
	Standard bore	Full bore		
2 – Main type (basic stem) 4 – Extended stem 5 – Extended stem with hard insulation of Protegol 6 – Ball valves for regulation	80 – Female threads 81 – Female threads / Welded 82 – Welded 83 – Flanged 84 – Flanged Pn25 85 – Choke-nipple 86 – Flanged (short length) 87 – Flanged PN25 (short length) 88 – Flanged PN25 / Welded 89 – Flanged / Welded	90 – Female threads 91 – Female threads / Welded 92 – Welded 93 – Flanged 94 – Flanged PN25 98 – Flanged PN25 / Welded 99 – Flanged / Welded	20 – Carbon steel 45 – Alloy P235GH 66 – Stainless steel	DN15 – DN500

CONFIGURATIONS OF TEMPER BALL VALVES

2 82 45 050



Nominal diameter: DN, mm (DN50)
Material (Alloy P235GH)
Connection type
 (welded, standard bore)
Configuration



MATERIAL OF KEY COMPONENTS

No	Component	20 (Carbon steel)	45 (Alloy)	66 (Stainless steel)
1	Neck	1.1151	P235GH	1.4541
2	Body	1.1151	P235GH	1.4541
3	Welding ends	1.1151	P235GH	1.4541
4	Stem	1.4021	1.4021	1.4541
5	Ball	1.4301	1.4301	1.4541
6	Seat	PTFE+C	PTFE+C	PTFE+C
7	Round profile O-ring	FVMQ	FVMQ	FVMQ
8	L – Supporting ring	1.4301	1.4301	1.4541
9	Plate spring	66Mn4	66Mn4	1.4541
10	O-Ring	PTFE+C	PTFE+C	PTFE+C
11	Neck assembly seal	FVMQ	FVMQ	FVMQ
12	Nut	Steel	Steel	Steel
13	Spacer	Steel	Steel	Steel
14	Handle	Steel	Steel	Steel

FLOW RATE VALUES OF TEMPER BALL VALVE, KV, M³/H

Standard bore ball valves

DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
15	20	25	32	40	50	65	80	100	125	150	200	250	300	400	500
8	14	25	41	68	107	183	317	471	832	1150	1760	3200	4610	13350	18780

Full bore ball valves

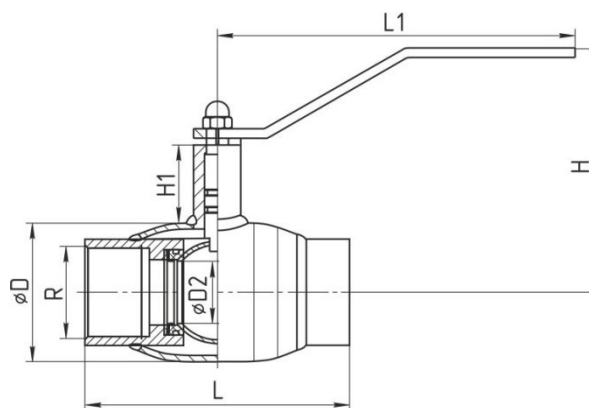
DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	
15	20	25	32	40	50	65	80	100	125	150	200	250	300	
20	42	67	87	138	212	356	532	965	1477	2150	3880	5640	25470	48700

STANDARD BORE

BALL VALVE

280

FEMALE THREADS CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

Min. temperature (T) °C.: -60

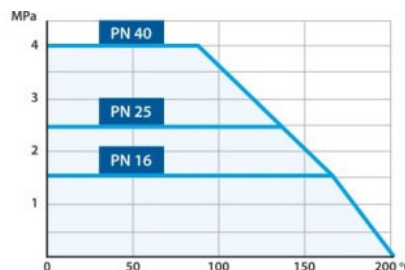
Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**

«(PRESSURE-TEMPERATURE) DIAGRAM»



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	R	D2
15	40	28020015	135	148	132	49	38	1/2	10
20	40	28020020	135	148	135	50	42	3/4	15
25	40	28020025	135	148	138	50	48	1	20
32	40	28020032	135	148	142	50	57	1 1/4	25
40	40	28020040	155	235	145	44	76	1 1/2	32
50	40	28020050	170	235	154	46	89	2	40
65	25	28020065	190	235	162	42	108	2 1/2	50
80	25	28020080	200	283	200	66	133	3	65
100	25	28020100	240	283	209	63	159	4	80

* It is also possible to manufacture Temper ball valves of the following connection type: FEMALE THREADS / WELDED - 281 type.

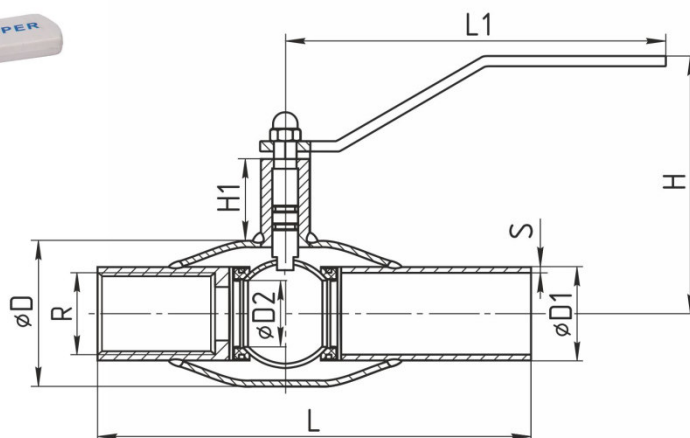
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

281

FEMALE THREADS / WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

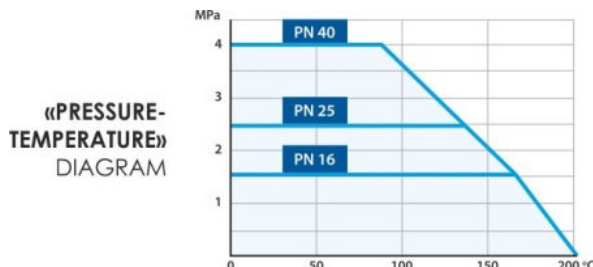
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	S	R
15	40	28120015	183	148	132	49	38	21,3	10	2,0	1/2
20	40	28120020	183	148	135	50	42	26,9	15	2,3	3/4
25	40	28120025	183	148	138	50	48	33,7	20	2,6	1
32	40	28120032	198	148	142	50	57	42,4	25	2,6	1 1/4
40	40	28120040	208	235	145	44	76	48,3	32	2,6	1 1/2
50	40	28120050	235	235	154	46	89	60,3	40	2,9	2
65	25	28120065	245	235	159	42	108	76,1	50	2,9	2 1/2
80	25	28120065	250	283	200	66	133	88,9	65	3,2	3
100	25	28120100	283	283	209	63	159	114,3	80	3,6	4

* It is also possible to manufacture Temper ball valves of the following connection types: FLANGED PN 25 / WELDED - 288 type and FLANGED / WELDED - 289 type.

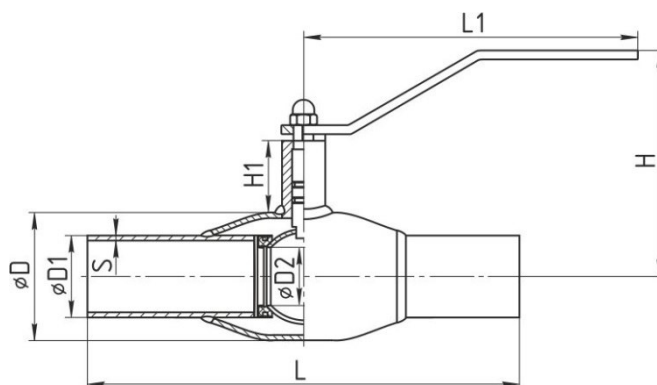
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

282

WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

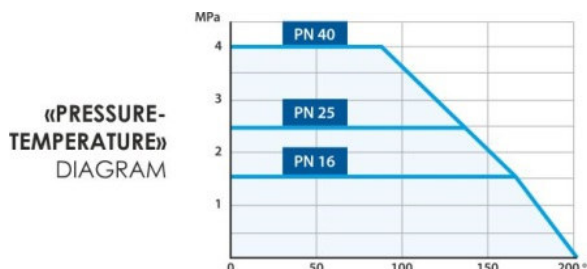
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	S
15	40	28220015	230	148	132	49	38	21,3	10	2,0
20	40	28220020	230	148	135	50	42	26,9	15	2,3
25	40	28220025	230	148	138	50	48	33,7	20	2,6
32	40	28220032	260	148	142	50	57	42,4	25	2,6
40	40	28220040	260	235	145	44	76	48,3	32	2,6
50	40	28220050	300	235	154	46	89	60,3	40	2,9
65	25	28220065	300	235	159	42	108	76,1	50	2,9
80	25	28220065	300	283	200	66	133	88,9	65	3,2
100	25	28220100	325	283	209	63	159	114,3	80	3,6

* It is also possible to manufacture Temper ball valves of the following connection types: FEMALE THREADS / WELDED - 281 type, FLANGED PN 25 / WELDED - 288 type and FLANGED / WELDED - 289 type.

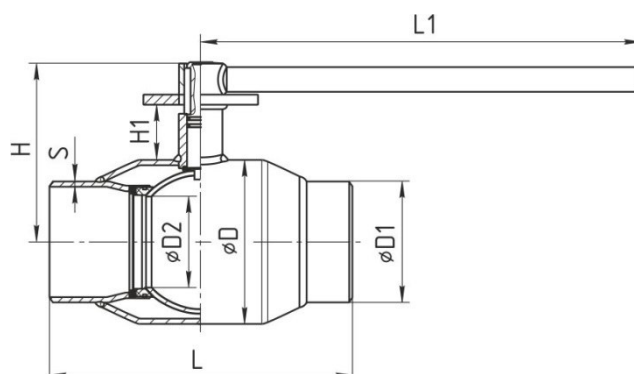
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

282 (equipped with ISO flange for actuator)

WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

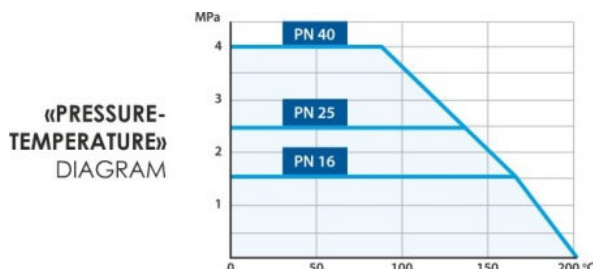
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	S
125	25	28220125	325	525	195	51	180	139,7	100	4,0
150	25	28220150	350	525	210	58	219	168,3	125	4,5
200	25	28220200	400	625	225	55	273	219,1	150	4,5
250	25	28220250	530	625	270	51	351	273,0	200	5,0
300***	16	28220300	730	-	329	98	426	325	250	5,6
400***	16	28220400	860	-	373	98	530	406,4	300	7,0
500***	16	28220500	970	-	435	98	630	508,0	390	7,0

* It is also possible to manufacture Temper ball valves of the following connection types: FEMALE THREADS / WELDED - 281 type, FLANGED PN 25 / WELDED - 288 type and FLANGED / WELDED - 289 type.

** Subject to the rules of operation

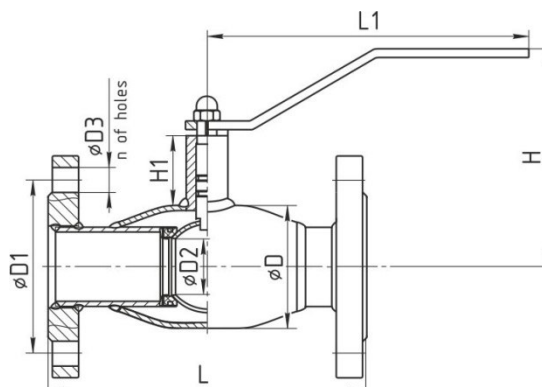
*** Construction height and weight are given with a gear

STANDARD BORE

BALL VALVE

283

FLANGED CONNECTION*



Working medium

District heating networks, petroleum products, combustibles and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

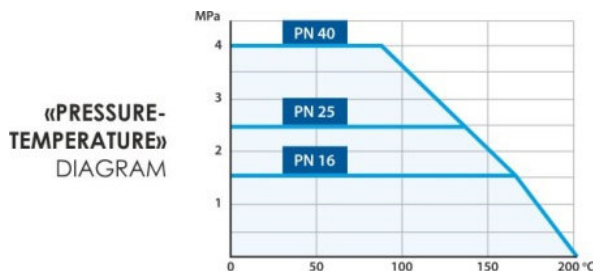
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
15	40	28320015	130	148	132	49	38	65	10	14	4
20	40	28320020	150	148	135	50	42	75	15	14	4
25	40	28320025	160	148	138	50	48	85	20	14	4
32	40	28320032	180	148	142	50	57	100	25	18	4
40	40	28320040	200	235	145	44	76	110	32	18	4
50	40	28320050	230	235	154	46	89	125	40	18	4
65	16	28320065	270	235	159	42	108	145	50	18	8
80	16	28320080	280	283	200	66	133	160	65	18	8
100	16	28320100	300	283	209	63	159	180	80	18	8

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED / WELDED - 289 type.

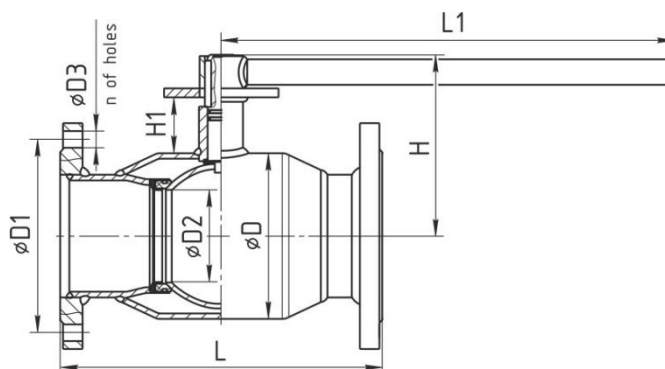
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

283 (equipped with ISO flange for actuator)

FLANGED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

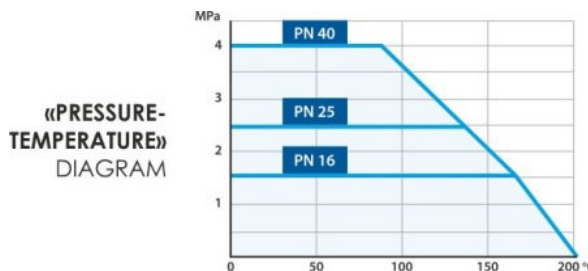
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
125	16	28320125	325	525	195	51	180	210	100	18	8
150	16	28320150	350	525	210	58	219	240	125	22	8
200	16	28320200	400	625	225	55	273	295	150	22	12
250	16	28320250	500	625	270	51	351	355	200	26	12
300***	16	28320300	750	-	329	98	426	410	250	26	12
400***	16	28320400	880	-	373	98	530	515	300	30	16
500***	16	28320500	990	-	435	98	630	620	390	33	20

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED / WELDED - 289 type.

** Subject to the rules of operation

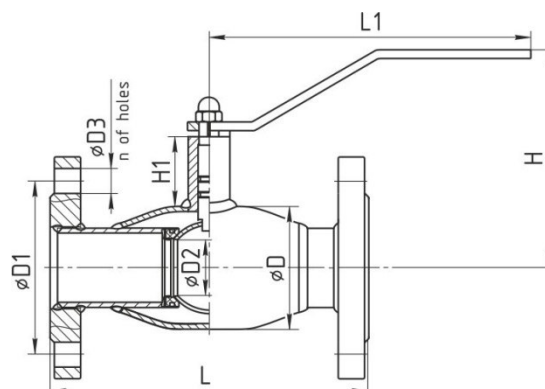
*** Construction height and weight are given with gear

STANDARD BORE

BALL VALVE

284*

FLANGED CONNECTION* PN25



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

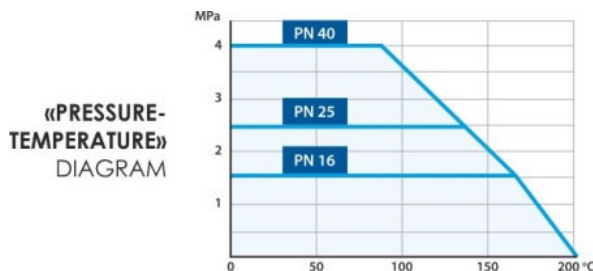
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
65	25	28420065	270	235	159	42	108	145	50	18	4
80	25	28420080	280	283	200	66	133	160	65	18	8
100	25	28420100	300	283	209	63	159	190	80	22	8

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED PN 25 / WELDED - 288 type.

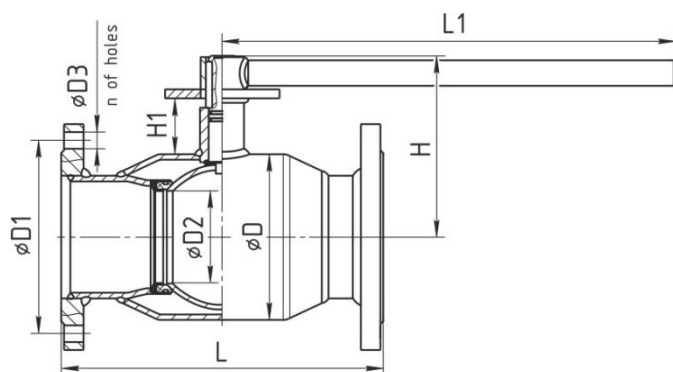
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

284* (equipped with ISO flange for actuator)

FLANGED CONNECTION* PN25



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

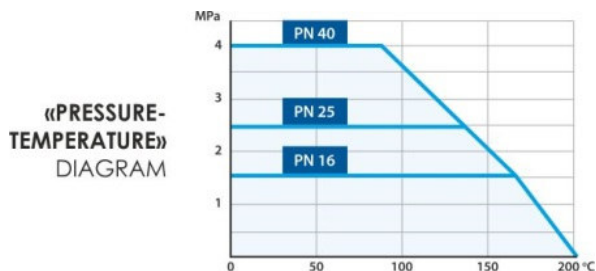
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
125	25	28420125	350	525	195	51	180	220	100	26	8
150	25	28420150	380	525	210	58	219	250	125	26	8
200	25	28420200	450	625	225	55	273	310	150	26	12
250	25	28420250	530	625	270	51	351	370	200	30	12

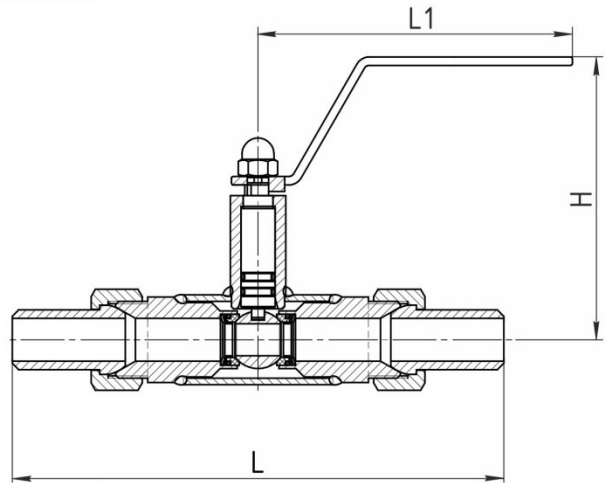
* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED PN 25 / WELDED - 288 type.

** Subject to the rules of operation

STANDARD BORE
BALL VALVE

285

CHOKE-NIPPLE CONNECTION*

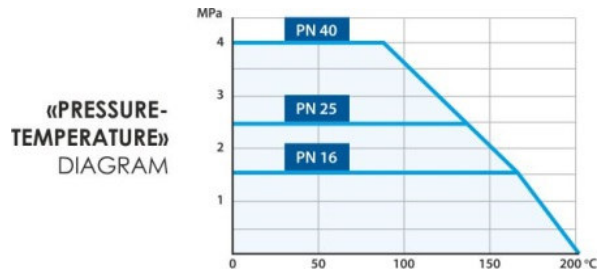


Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.
Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200
Min. temperature (T) °C.: -60
Body materials: 1.1151 / P235GH / 1,4541
Valve gate tightness rating: Class "A"
Warranty period: 3 years or 10 000 cycles**
Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H
15	40	28520015	220	148	132
20	40	28520020	230	148	135
25	40	28520025	250	148	138
32	40	28520032	260	148	142
40	40	28520040	320	235	145
50	40	28520050	350	235	154

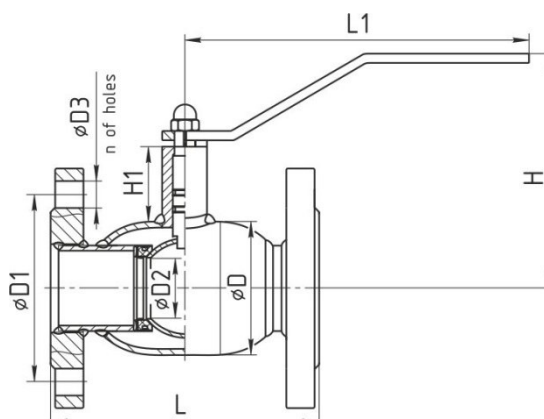
* It is also possible to manufacture Temper ball valves of the following connection types: FEMALE THREADS / WELDED - 281 type, FLANGED PN 25 / WELDED - 288 type and FLANGED / WELDED - 289 type.

** Subject to the rules of operation

STANDARD BORE
BALL VALVE (SHORT LENGTH)

286*

FLANGED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

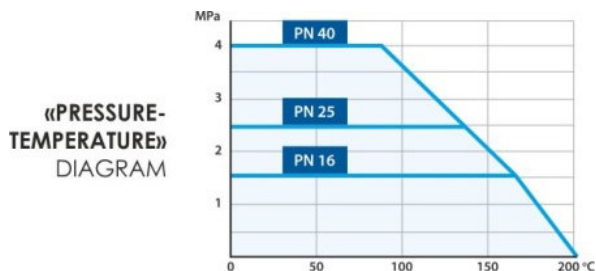
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
40	40	28620040	165	235	145	44	76	110	32	18	4
50	40	28620050	180	235	154	46	89	125	40	18	4
65	16	28620065	200	235	159	42	108	145	50	18	4
80	16	28620080	210	283	200	66	133	160	65	18	4
100	16	28620100	230	283	209	63	159	180	80	18	8
125	16	28620125	254	525	195	51	180	210	100	18	8
150	16	28620150	280	525	210	58	219	240	125	22	8

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED (SHORT LENGTH) - 287 type.

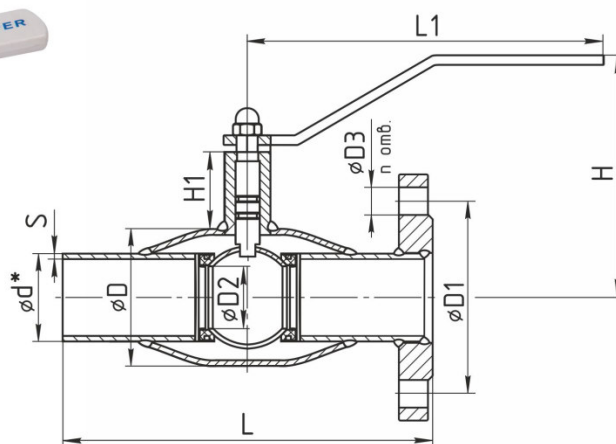
** Subject to the rules of operation

STANDARD BORE

BALL VALVE

289

FLANGED / WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustibles and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

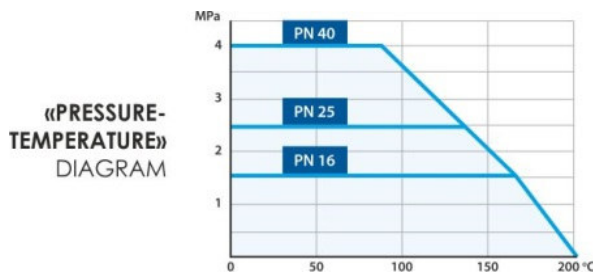
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	S	d*	D	D1	D2	D3	n of holes
15	40	28320015	180	148	132	49	2,0	2,0	38	65	10	14	4
20	40	28320020	190	148	135	50	2,3	2,3	42	75	15	14	4
25	40	28320025	195	148	138	50	2,6	2,6	48	85	20	14	4
32	40	28320032	220	148	142	50	2,6	2,6	57	100	25	18	4
40	40	28320040	230	235	145	44	2,6	2,6	76	110	32	18	4
50	40	28320050	265	235	154	46	2,9	2,9	89	125	40	18	4
65	16	28320065	285	235	159	42	2,9	2,9	108	145	50	18	8
80	16	28320080	290	283	200	66	3,2	3,2	133	160	65	18	8
100	16	28320100	313	283	209	63	3,6	3,6	159	180	80	18	8

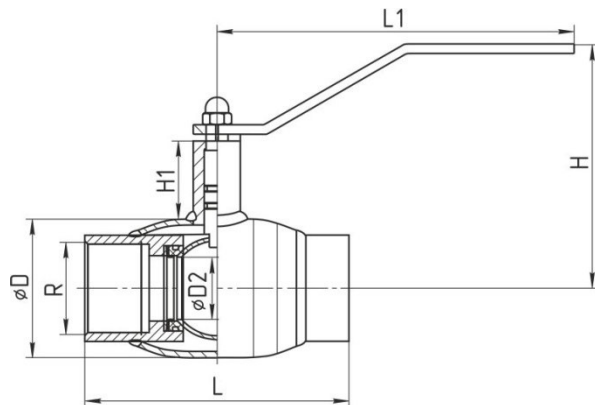
* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED / WELDED - 289 type.

** Subject to the rules of operation

FULL BORE
BALL VALVE

290*

FEMALE THREADS CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

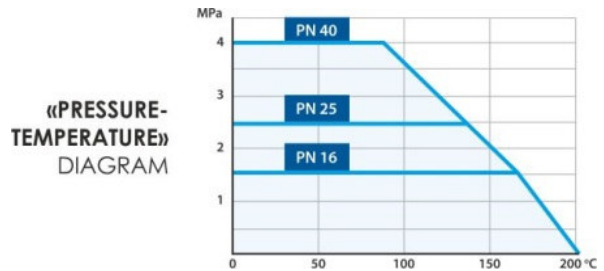
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	R	D2
15	40	29020015	135	148	135	50	42	1/2	15
20	40	29020020	135	148	138	50	48	3/4	20
25	40	29020025	135	148	142	50	57	1	25
32	40	29020032	155	235	145	44	76	1 1/4	32
40	40	29020040	170	235	154	46	89	1 1/2	40
50	40	29020050	190	235	159	42	108	2	50
65	25	29020065	200	283	200	66	133	2 1/2	65
80	25	29020080	240	283	209	63	159	3	80

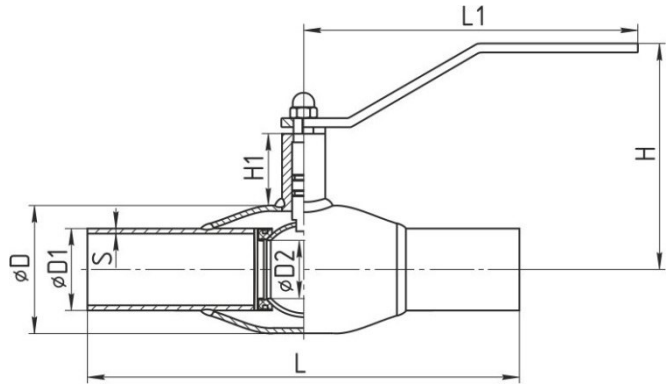
* It is also possible to manufacture Temper ball valves of the following connection type: FEMALE THREADS / WELDED - 291 type.

** Subject to the rules of operation

FULL BORE
BALL VALVE

292*

WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

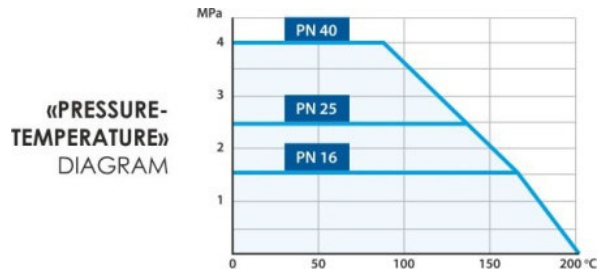
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	S
15	40	29220015	210	148	135	50	42	21,3	15	3
20	40	29220020	230	148	138	50	48	26,9	20	3,5
25	40	29220025	230	148	142	50	57	33,7	25	3,5
32	40	29220032	260	235	145	44	76	42,4	32	4
40	40	29220040	260	235	154	46	89	48,3	40	4
50	40	29220050	300	235	159	42	108	60,3	50	4
65	25	29220065	360	283	200	66	133	76,1	65	4
80	25	29220080	370	283	209	63	159	88,9	80	5

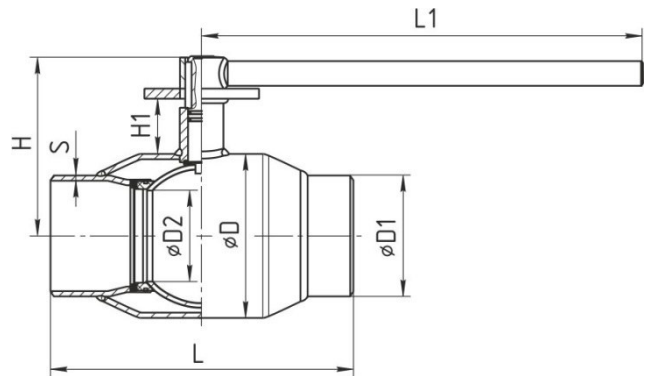
* It is also possible to manufacture Temper ball valves of the following connection types: FEMALE THREADS / WELDED - 291 type, FLANGED PN 25 / WELDED - 298 type and FLANGED / WELDED - 299 type.

** Subject to the rules of operation

FULL BORE
BALL VALVE

292* (equipped with ISO flange for actuator)

WELDED CONNECTION*



Working medium

District heating networks, petroleum products, combustibles and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

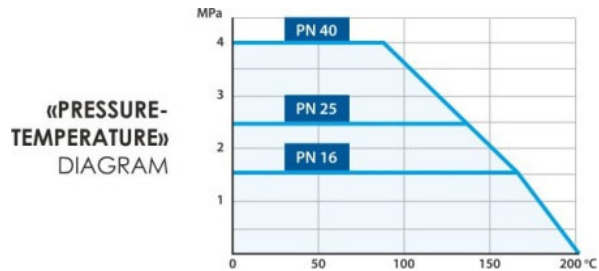
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	S
100	25	29220100	330	525	195	51	180	114,3	100	6
125	25	29220125	360	525	210	51	180	139,7	125	6
150	25	29220150	430	525	225	58	219	168,3	150	8
200	25	29220200	510	625	270	55	273	219,1	200	8
250***	16	29220250	730	-	329	98	426	273	250	8
300***	16	29220300	730	-	373	98	530	323,9	300	8
400***	16	29220400	970	-	435	98	630	406.4	390	10

* It is also possible to manufacture Temper ball valves of the following connection types: FEMALE THREADS / WELDED - 291 type, FLANGED PN 25 / WELDED - 298 type and FLANGED / WELDED - 299 type.

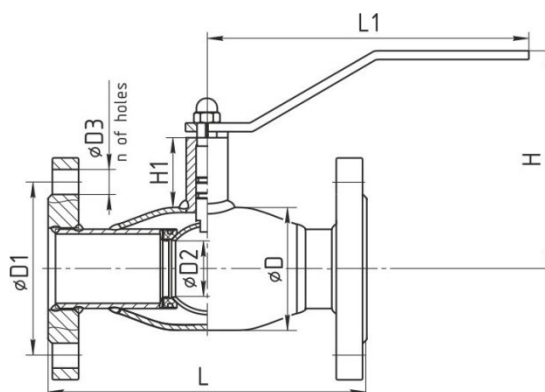
** Subject to the rules of operation

*** Construction height and weight are given with gear

FULL BORE
BALL VALVE

293*

FLANGED CONNECTION*



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

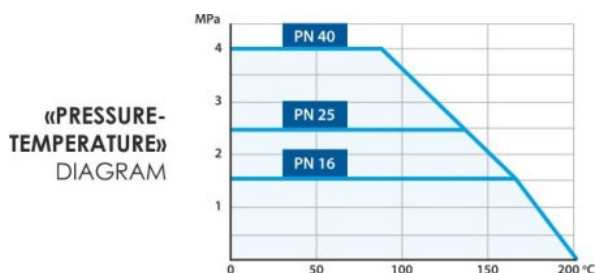
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**

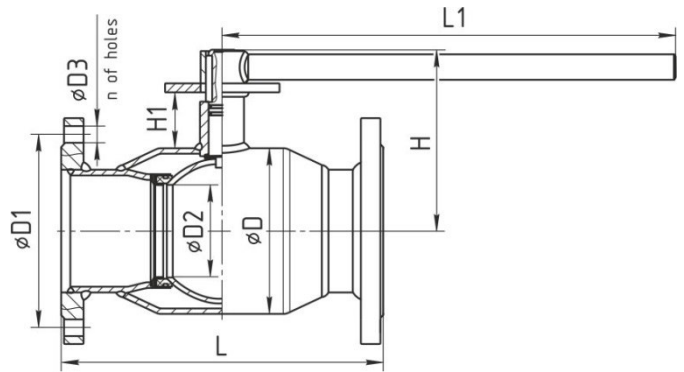


DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
15	40	29320015	130	148	132	49	38	65	15	14	4
20	40	29320020	150	148	135	50	42	75	20	14	4
25	40	29320025	160	148	138	50	48	85	25	14	4
32	40	29320032	180	148	142	50	57	100	32	18	4
40	40	29320040	200	235	145	44	76	110	40	18	4
50	40	29320050	250	235	154	46	89	125	50	18	4
65	16	29320065	270	235	159	42	108	145	65	18	4
80	16	29320080	290	283	200	66	133	160	80	18	8

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED / WELDED - 299 type.

** Subject to the rules of operation

FULL BORE
 BALL VALVE
293* (equipped with ISO flange for actuator)
 FLANGED CONNECTION*

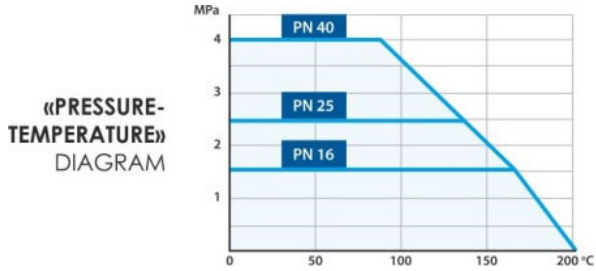


Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.
 Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200
 Min. temperature (T) °C.: -60
 Body materials: 1.1151 / P235GH / 1,4541
 Valve gate tightness rating: Class "A"
 Warranty period: 3 years or 10 000 cycles**
 Service life: At least 25 years**



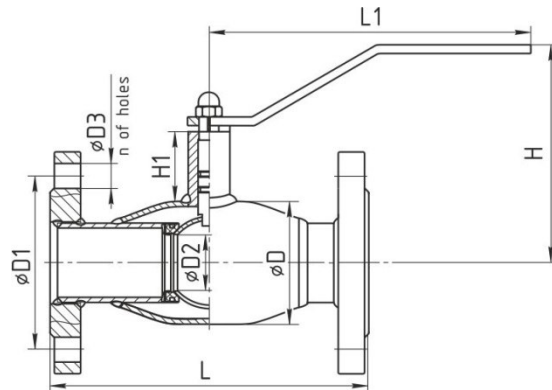
DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
100	16	29320100	350	525	195	51	180	180	100	18	8
125	16	29320125	380	525	210	51	180	210	125	22	8
150	16	29320150	410	525	225	58	219	240	150	22	12
200	16	29320200	530	625	270	55	273	295	200	26	12
250***	16	29320250	750	-	329	98	426	355	250	26	12
300***	16	29320300	750	-	373	98	530	400	300	26	12
400***	16	29320400	990	-	435	98	630	515	390	30	16

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED / WELDED - 299 type.
 ** Subject to the rules of operation
 *** Construction height and weight are given with gear

FULL BORE
BALL VALVE

294*

FLANGED CONNECTION* PN25



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

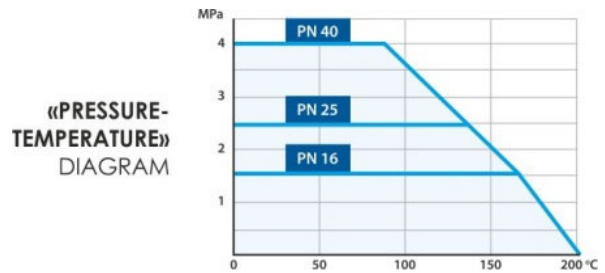
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
65	25	29420065	270	235	159	42	108	145	65	18	4
80	25	29420080	290	283	200	66	133	160	80	18	8

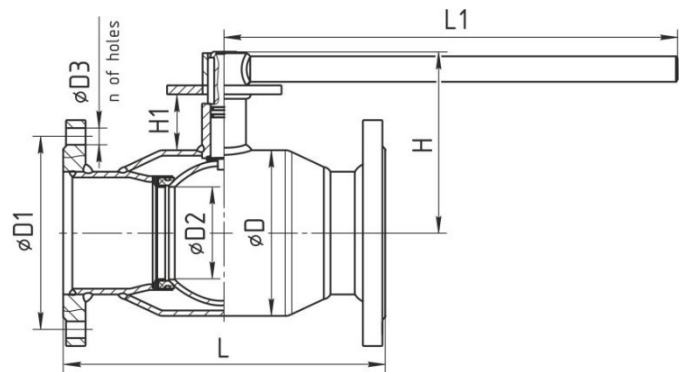
* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED PN 25 / WELDED - 298 type.

** Subject to the rules of operation

FULL BORE
BALL VALVE

294* (equipped with ISO flange for actuator)

FLANGED CONNECTION* PN25



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

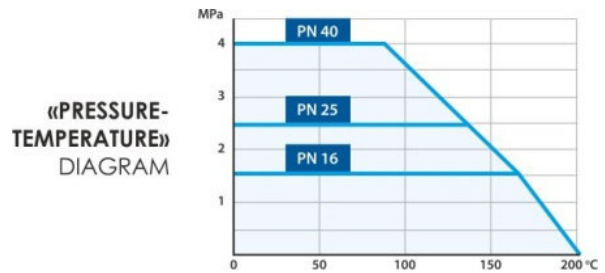
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles**

Service life: At least 25 years**



DN	PN	PRODUCT NUMBER	L	L1	H	H1	D	D1	D2	D3	n of holes
100	25	29420100	350	525	195	51	180	190	100	22	8
125	25	29420125	380	525	195	51	180	220	125	26	8
150	25	29420150	410	525	210	58	219	250	150	26	8
200	25	29420200	530	625	225	55	273	310	200	26	12

* It is also possible to manufacture Temper ball valves of the following connection type: FLANGED PN 25 / WELDED - 298 type.

** Subject to the rules of operation

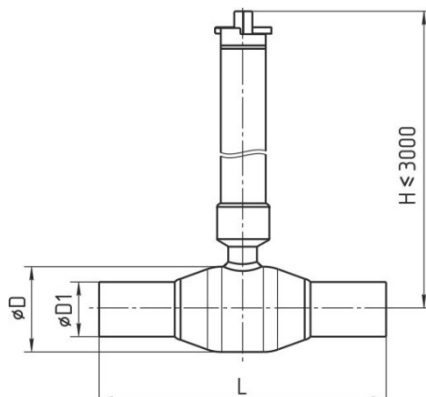
STANDARD BORE / FULL BORE

BALL VALVE

482/492 with extended stem for underground installation

WELDED

CONNECTION



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

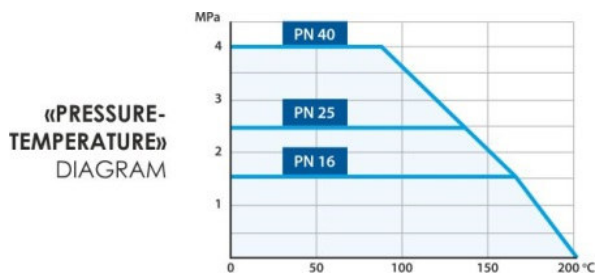
Min. temperature (T) °C.: -30

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles*

Service life: At least 25 years*



STANDARD BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	48220025	230	48	33,7	on request
32	40	48220032	260	57	42,4	on request
40	40	48220040	260	76	48,3	on request
50	40	48220050	300	89	60,3	on request
65	40	48220065	300	108	76,1	on request
80	25	48220080	300	133	88,9	on request
100	25	48220100	325	159	114,3	on request
125	25	48220125	325	180	139,7	on request
150	25	48220150	350	219	168,3	on request
200	25	48220200	400	273	219,1	on request
250	25	48220250	530	351	273	on request

FULL BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	49220025	230	57	33,7	on request
32	40	49220032	260	76	42,4	on request
40	40	49220040	260	89	48,3	on request
50	40	49220050	300	108	60,3	on request
65	25	49220065	360	133	76,1	on request
80	25	49220080	370	159	88,9	on request
100	25	49220100	330	180	114,3	on request
125	25	49220125	360	180	139,7	on request
150	25	49220150	390	219	168,3	on request
200	25	49220200	510	273	219,1	on request
250	16	49220250	730	426	273	on request

* Subject to the rules of operation

STANDARD BORE / FULL BORE

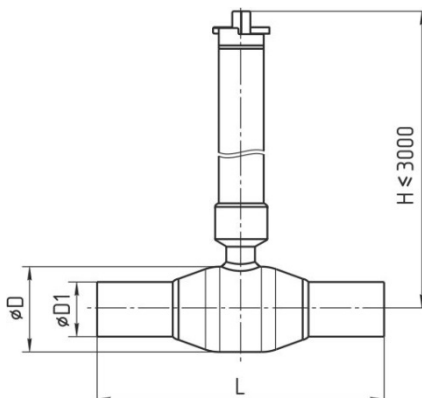
BALL VALVE

582/592 with extended stem for underground installation

WELDED
CONNECTION



With insulation
of reinforced type



Working medium

District heating networks, petroleum products, combustible and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

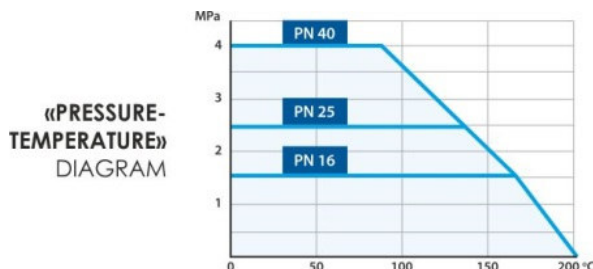
Min. temperature (T) °C.: -30

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles*

Service life: At least 25 years*



STANDARD BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	48220025	230	48	33,7	on request
32	40	48220032	260	57	42,4	on request
40	40	48220040	260	76	48,3	on request
50	40	48220050	300	89	60,3	on request
65	40	48220065	300	108	76,1	on request
80	25	48220080	300	133	88,9	on request
100	25	48220100	325	159	114,3	on request
125	25	48220125	325	180	139,7	on request
150	25	48220150	350	219	168,3	on request
200	25	48220200	400	273	219,1	on request
250	25	48220250	530	351	273	on request

FULL BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	49220025	230	57	33,7	on request
32	40	49220032	260	76	42,4	on request
40	40	49220040	260	89	48,3	on request
50	40	49220050	300	108	60,3	on request
65	25	49220065	360	133	76,1	on request
80	25	49220080	370	159	88,9	on request
100	25	49220100	330	180	114,3	on request
125	25	49220125	360	180	139,7	on request
150	25	49220150	390	219	168,3	on request
200	25	49220200	510	273	219,1	on request
250	16	49220250	730	426	273	on request

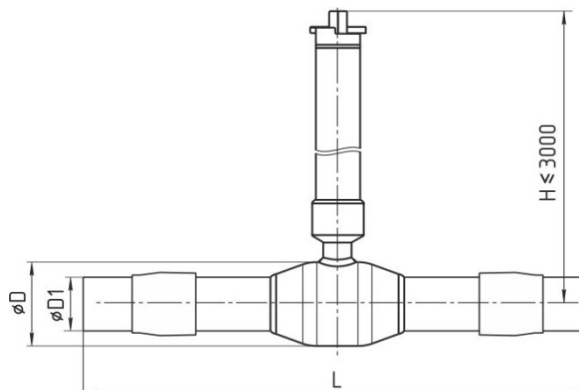
* Subject to the rules of operation

STANDARD BORE / FULL BORE

BALL VALVE

582/592 with extended stem and FITTINGS FOR POLYETHYLENE for underground installation

WELDED
CONNECTION



Working medium

District heating networks, petroleum products, combustibles and lubricating materials, other fluids free from abrasive contaminants.

Natural gas, liquefied petroleum gas, gaseous media, non aggressive towards valve materials.

Technical characteristics

Max. temperature (T) °C.: +200

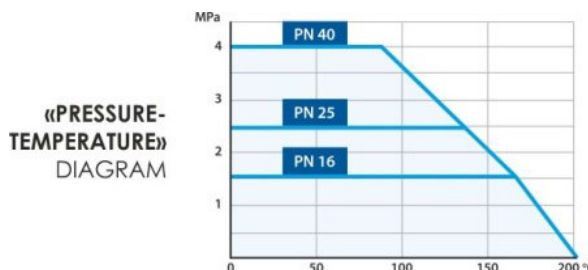
Min. temperature (T) °C.: -60

Body materials: 1.1151 / P235GH / 1,4541

Valve gate tightness rating: Class "A"

Warranty period: 3 years or 10 000 cycles*

Service life: At least 25 years*



STANDARD BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	48220025	1410	48	32	on request
32	40	48220032	1440	57	38	on request
40	40	48220040	1380	76	48	on request
50	40	48220050	1440	89	57	on request
65	40	48220065	1520	108	76	on request
80	25	48220080	1570	133	89	on request
100	25	48220100	1630	159	108	on request
125	25	48220125	1890	180	133	on request
150	25	48220150	1920	219	159	on request
200	25	48220200	1950	273	219	on request
250	25	48220250	2230	351	273	on request
300**	16	48220300	2750	426	323,9	on request
400**	16	48220400	3000	530	406,4	on request
500**	16	48220500	3200	630	530	on request

FULL BORE

DN	PN	PRODUCT NUMBER	L	D	D1	H
25	40	49220025	1410	57	32	on request
32	40	49220032	1440	76	38	on request
40	40	49220040	1380	89	48	on request
50	40	49220050	1440	108	57	on request
65	25	49220065	1520	133	76	on request
80	25	49220080	1570	159	89	on request
100	25	49220100	1630	180	108	on request
125	25	49220125	1890	180	133	on request
150	25	49220150	1920	219	159	on request
200	25	49220200	1950	273	219	on request
250**	16	49220250	2230	426	273	on request
300**	16	49220300	2750	530	323,9	on request
400**	16	49220400	3000	630	406,4	on request

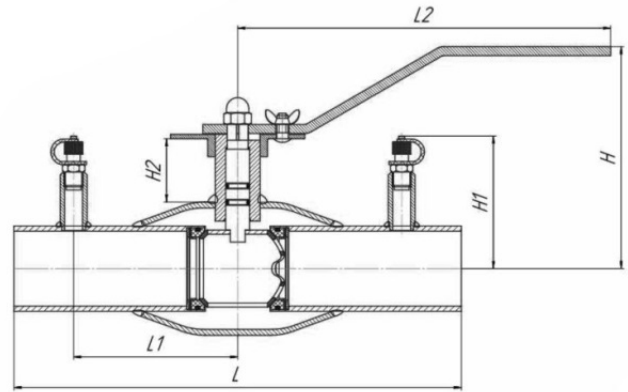
* Subject to the rules of operation

** Construction height and weight are given with gear

BALANCING BALL VALVE

682/692

WELDED CONNECTION*



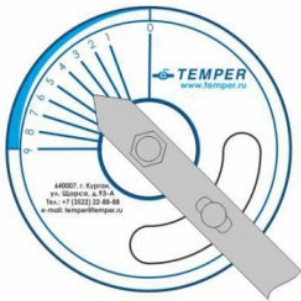
Temper balancing ball valves are designed for regulation (balancing) of the working fluid flow in heating, cold supply and ventilation systems. The ball has a special orifice and the valve is equipped with a scale of values. Regulation is carried out by turning the handle with the pointer. The selected position of the handle is fixed with a bolt and a nut-butterfly.

Two types of regulating ball valves:

1) With measuring nipples (see the picture and the drawing on the page). All the measurements could be measured by a flow meter.

2) Without measuring nipples. Flow adjustment is made only by a handle with index.

BALANCING BALL VALVE DIMENSIONS



DN	PN	PRODUCT NUMBER	L	L1	L2	H	H1	H2
20	40	68220020	230	65	175	135	74	45
25	40	68220025	230	65	175	138	76	45
32	40	68220032	260	80	175	140	79	45
40	40	68220040	260	90	250	148	84	43
50	40	68220050	300	110	250	148	88	40
65	25	68220065	360	120	250	152	98	36
80	25	68220080	370	135	300	186	138	49
100	25	68220100	390	135	300	194	148	43
125**	25	68220125	330	115	-	-	158	51
150**	25	68220150	360	125	-	-	168	58

RATE VALUES OF TEMPER BALANCING BALL VALVE, KV, M³/H

The value of the valve scale	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
1	-	-	-	0,42	0,57	1,30	2,45	3,38	6,55	8,75	14,30
2	0,16	0,16	0,50	0,79	1,50	2,76	4,82	7,45	12,62	18,50	26,14
3	0,40	0,40	1,20	1,50	2,65	4,45	8,10	12,95	20,20	31,10	45,14
4	0,82	0,82	1,90	2,23	4,10	6,80	11,80	19,20	28,76	45,80	66,47
5	1,19	1,19	2,80	3,50	5,85	9,78	16,25	27,62	42,92	65,84	98,30
6	1,90	1,90	4,60	5,20	8,50	14,20	26,10	39,10	61,20	98,60	145,20
7	3,10	3,10	6,50	7,12	12,41	20,10	33,72	54,20	91,10	143,20	243,00
8	4,30	4,30	9,10	9,88	17,20	26,70	46,15	76,12	134,20	206,10	341,10
9	5,72	5,72	12,20	13,20	22,30	34,40	61,40	106,70	214,25	289,80	458,20

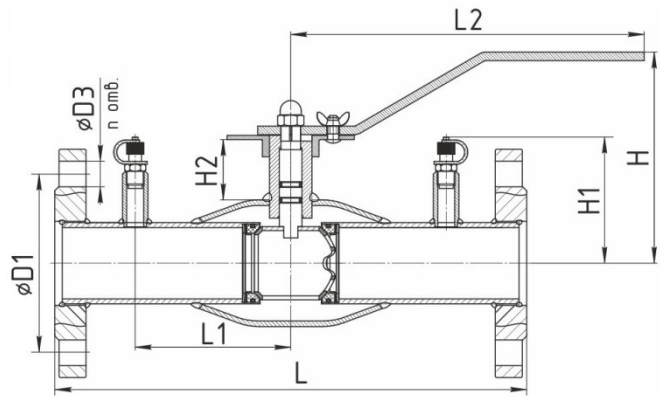
* It is also possible to manufacture Temper regulating ball valves of the following connection types: FEMALE THREADS / WELDED - 281 type, FLANGED - 683/693 and 684/694 types, or combined - 681/691, 688/698 and 689/699 types.

** These diameters are supplied with gearboxes

BALANCING BALL VALVE

683/693

FLANGED CONNECTION*

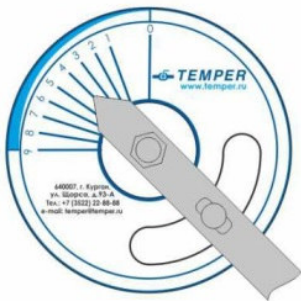


Temper balancing ball valves are designed for regulation (balancing) of the working fluid flow in heating, cold supply and ventilation systems. The ball has a special orifice and the valve is equipped with a scale of values. Regulation is carried out by turning the handle with the pointer. The selected position of the handle is fixed with a bolt and a nut-butterfly.

Two types of regulating ball valves:

- 1) With measuring nipples (see the picture and the drawing on the page). All the measurements could be measured by a flow meter.
- 2) Without measuring nipples. Flow adjustment is made only by a handle with index.

BALANCING BALL VALVE DIMENSIONS



DN	PN	PRODUCT NUMBER	L	L1	L2	H	H1	H2	D1	D3	n of holes
20	40	68320020	150	50	175	135	74	45	65	14	4
25	40	68320025	160	50	175	138	76	45	75	14	4
32	40	68320032	180	55	175	140	79	45	85	14	4
40	40	68320040	200	65	250	148	84	43	100	18	4
50	40	68320050	230	70	250	148	88	40	110	18	4
65	25	68320065	270	85	250	152	98	36	125	18	4
80	25	68320080	280	95	300	186	138	49	145	18	8
100	25	68320100	300	105	300	194	148	43	160	18	8
125**	25	68320125	350	115	-	-	158	51	210	18	8
150**	25	68320150	380	125	-	-	168	58	240	22	8

RATE VALUES OF TEMPER BALANCING BALL VALVE, KV, M³/H

The value of the valve scale	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
1	-	-	-	0,42	0,57	1,30	2,45	3,38	6,55	8,75	14,30
2	0,16	0,16	0,50	0,79	1,50	2,76	4,82	7,45	12,62	18,50	26,14
3	0,40	0,40	1,20	1,50	2,65	4,45	8,10	12,95	20,20	31,10	45,14
4	0,82	0,82	1,90	2,23	4,10	6,80	11,80	19,20	28,76	45,80	66,47
5	1,19	1,19	2,80	3,50	5,85	9,78	16,25	27,62	42,92	65,84	98,30
6	1,90	1,90	4,60	5,20	8,50	14,20	26,10	39,10	61,20	98,60	145,20
7	3,10	3,10	6,50	7,12	12,41	20,10	33,72	54,20	91,10	143,20	243,00
8	4,30	4,30	9,10	9,88	17,20	26,70	46,15	76,12	134,20	206,10	341,10
9	5,72	5,72	12,20	13,20	22,30	34,40	61,40	106,70	214,25	289,80	458,20

* It is also possible to manufacture Temper regulating ball valves of the following connection types: FEMALE THREADS / WELDED - 281 type and 684/694 types, or combined - 681/691, 688/698 and 689/699 types.

** These diameters are supplied with gearboxes

OPERATION MANUAL

1. During the operation TEMPER ball valves must be fully opened until it stops, or completely closed.
WARNING: It is prohibited to use TEMPER shut-off ball valves as control ball valves.
2. TEMPER shut-off ball valves are allowed to operate under conditions that do not exceed those specified in this data sheet. It is prohibited the use TEMPER ball valves for steam.
3. To avoid water hammer effect valve should be opened and closed smoothly without hitching.
4. It is prohibited to dismantle valves or tighten flanges while working medium is present and pipeline is pressurized.
5. It is prohibited to operate valve using any extensions of valve handle.
6. Do not mount the valve on working medium containing abrasive components.
7. Valves should not have loads of the pipeline such as bending, compression, tension, torsion, distortions, the uneven tightening fasteners. If necessary it shall be provided support or expansion joints relieving the load on the valve from the line.

INSTALLATION MANUAL

1. When welding valve on horizontal pipeline the valve should be fully opened.
2. Prior to welding of the valve to pipeline and the pipeline should be cleaned from any dirt, sand, scale, etc.
3. It shall be prohibited fixing and / or seizure of the handles, steering wheels or gears of the electric and pneumatic actuators when lifting and / or transporting the ball valves with mechanical lifting devices.
4. TEMPER ball valves should be connected to pipeline with electric welding. Gas welding can be used for small DN sizes.
5. While welding it is advised to avoid overheating of the valve body. The body is considered to be overheated if the surface temperature of the body in the seat of the valve for welding exceeds 100 ° C. It is advised to cool the valve body during the welding time. Do not open or close the valve after welding until it is cooled!
6. It is forbidden to decrease the length of the ball valve weld end as this length is specifically designed to avoid overheating of the seal of the ball during welding period.
7. When installing TEMPER threaded valves it is necessary to inspect the surface of the thread valve and mating pipe. On the thread should not be nicks, dents and burrs that prevent screwing the valve. When screwing the valve it is forbidden to use a non-standard tools.
8. The sealing surfaces of the flanges must be inspected before mounting. They should not have dents, cavities, burrs, and other surface defects. Assembling flanges should be made by the calculated torque wrenches. Tightening of the bolt flange connections should be made "crosswise" in three stages: 50%, 80% and 100% of torque of the key.
9. It is forbidden to remove distortions of pipe flanges by tightening of the flanges of the valve.
10. Tolerance of pipeline and valve sealing faces alignment is no more than 0.2 mm.
11. The valve body and the stem must be separated from the external environment in order to avoid corrosion of the outer wall surface of the valve when installing ball valves in wet areas, outside buildings or underground utilities on (rod).
12. Do not modify the structure of TEMPER ball valves without consulting the manufacturer.

SECURITY MEASURES

1. It is allowed to install the pipeline and service the valves only by qualified working staff.
2. It is prohibited to use shut of valves as regulating devices.
3. When installing valves for venting it is recommended to install the tube stubs.

MAINTENANCE

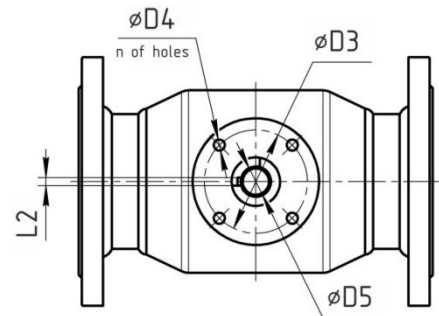
1. TEMPER ball valves are not required of special maintenance.
2. To prevent formation of deposits on ball surface (valve jamming)
2-3 open-close cycles should be performed once a year.

TORQUES, N*M

DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 400	DN 500
10	20	22	25	32	35	50	90	130	170	210	420	1100	2400	5000	12000

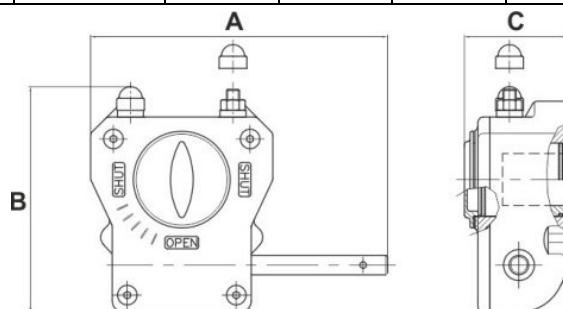
CONNECTING DIMENSIONS OF ISO FLANGE

DN	Designation ISO 5211	D3	D4	D5	n of holes	L2
125 standard bore, 100 full bore	F10	102	11	30	4	8
150 standard bore, 125 full bore	F10	102	11	30	4	8
200 standard bore, 150 full bore	F10	102	11	30	4	8
250 standard bore, 200 full bore	F12	125	13	35	4	10
300 standard bore, 250 full bore	F16	165	22	50	4	14
400 standard bore, 300 full bore	F25	254	22	50	4	14
500 standard bore, 400 full bore	F30	298	22	55	8	16



SELECTION OF GEARBOX* FOR TEMPER BALL VALVES

DN	Torque	Flange ISO 5211	Gearbox type -25 +110	Gearbox type -40 +110	Gearbox type -55 +110	Gearbox weight, kg	Dimensions (without handwheel), mm			Handwheel diameter, mm
							A	B	C	
125	200	F10	X-61	X-61 LT	Q-400 LLT	3	225	170,5	77	200
150	400	F10	X-61	X-61 LT	Q-800 LLT	3	225	170,5	77	200
200	600	F10	Q-800	Q-800 GGG 40	Q-800 LLT	7,9	380,5	187,5	90,5	200
250	1600	F12	Q-1500	Q-1500 GGG 40	Q-1500 LLT	14	292	206	97	300
300	4000	F16	Q-4000	Q-4000 GGG 40	Q-4000 LLT	33,7	441	326	128	300



Note: When placing an order on the ball valve with a gearbox, it is installed with a gearbox of temperature range from -25°C to +110°C by default. Lower temperature ranges (T = -40°C, -55°C) are installed on request.



Attention! The Company reserves the right to make design changes.

* Pro-Gear gearboxes (Pro-Gear GmbH, Germany) are used by default.

Manual installation of gearbox on TEMPER ball valve

1. Prior to installation of gearbox ensure that TEMPER valve stem head, flange faces, mounting holes and counterpart of gearbox are clean and free from burrs.
2. Set TEMPER ball valve in open position. In open position the indication mark on valve stem head or line between stem head dowels is positioned along the longitudinal axis.
3. Set the gearbox in "open" position - position indicator must be pointed towards the respective mark (OPEN).
4. Install coupling into gearbox. Apply small amount of oil or other lubricant on gearbox opening to facilitate engagement with coupling. In the course of installation avoid misalignment of coupling against the centerline of gearbox opening. Pre-tensioned installation of coupling in gearbox is allowed to reduce free play.
5. Set TEMPER ball valve stem in vertical position.
6. Apply small amount of oil or other lubricant on stem head to facilitate engagement.
7. Install gearbox on TEMPER ball valve matching the position indicator in "OPEN" state with longitudinal axis of valve.

In the course of installation avoid misalignment of gearbox against the plane of TEMPER ball valve connecting flange.

Avoid the dowel (if any) falling out of the stem slot. If necessary, apply grease below the dowel to prevent it from falling out in the course of gearbox engagement.

8. Fix the gearbox on the mating flange of TEMPER valve with bolts and flanges. For better gearbox engagement bolts should be tightened crosswise.

9. Fix the handwheel on the input shaft of gearbox using the steel spring pin (supplied with gearbox) with slot. In the event of critical over torque (e.g. in case of jamming) the pin collapses preventing damage of gearbox DO NOT

fix handwheel with solid pins, bolts, etc.

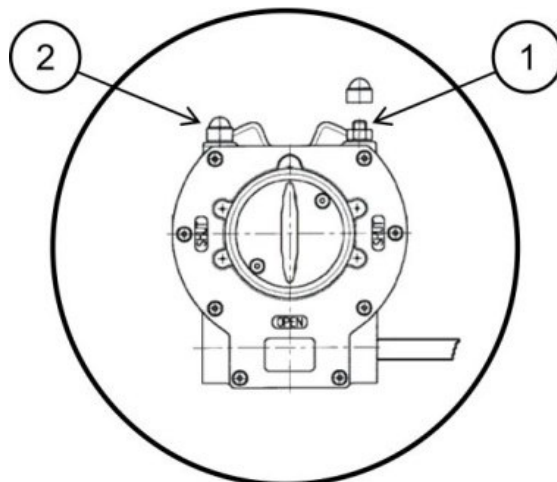
10. Adjustment of end limiting supports:

10.1 Remove protective cap from lock nut of end limiting support. Unscrew limiting supports 1 and 2.

10.2 Set TEMPER ball valve in "open" position and screw limiting support 1 till it contacts the gearbox square (until tight). Tighten the lock nut of limiting support without turning the support itself.

10.3 Set TEMPER ball valve in "closed" position and screw limiting support 2 till it contacts the gearbox square (until tight). Tighten the lock nut of limiting support without turning the support itself.

11. Perform test opening/closing of valve.



Gearbox in "CLOSED" position – position indicator axis perpendicular to valve axis (A)

Gearbox in "OPEN" position – indicator directed towards "OPEN" mark (B)

Certificates

TECHNICKÁ INŠPEKCIA, a.s.
CEOC INTERNATIONAL
SLOVENSKÁ REPUBLIKA

CERTIFICATE
no. 1083/4/2016

Technická inšpekcia, a. s., Trnavská cesta 56, 821 01 Bratislava
notified body: 1354,
on the basis of results from assessment of full quality assurance system

notifies, that

TEMPER LLC
Shchersa str. 93-A, Kurgan city, 640007, RUSSIA

implemented and applies system of full quality assurance (module H)
according to the European Directive 2014/68/EU on pressure equipment

Range of equipment:
Ball Valve, DN 25 - 300, PN 16 - 40, TS_{max} = 200 °C, TS_{min} = - 40 °C
made of carbon steel
(subgroup 1.1, 1.2 acc. to the CR ISO 15608)
(see Annex to the Certificate for details)

Audit Report no. 1083/4/2016

Manufacturer shall inform Technická inšpekcia, a. s. of any intended change of system of full quality assurance (module H).

Certificate is valid until 25th September 2019

The Certificate validity is conditioned with performing of surveillance by Technická inšpekcia, a. s. for minimum 1 periodic audit per 12 months. Performing of periodic audit is proved by Audit Report.

Date of initial notification: 26th September 2016

Bratislava, on 26th September 2016

Ing. Dušan Pernis
General Director

333047
CST4-190

TECHNICKÁ INŠPEKCIA, a.s.
CEOC INTERNATIONAL
SLOVENSKÁ REPUBLIKA

CERTIFICATE
no. 0297/4/2018

Technická inšpekcia, a. s. issues this Certificate according to the
EN ISO/IEC 17020:2012,

Name of equipment: welded steel ball valves

Inspection range: Type test acc. to the point 5.3 and A.2 of EN 488:2016

Type designation: TEMPER SK - 2 82 20 150
TEMPER SK - 2 82 20 300

Range of approval: DN 15 to DN 300 / PN 1.6 to PN 4

Drawing number: DN-300.20.282 DIN

Manufacturer: TEMPER LLC, Shchersa str. 93-A, Kurgan, 640011 RUSSIA

Applicant for certificate: TEMPER LLC, Shchersa str. 93-A, Kurgan, 640011 RUSSIA

Basis for the Certificate: Inspection Report no. 0207/4/2018

After evaluation of submitted documentation and test of the equipment in accordance with EN 488:2016, Technická inšpekcia, a. s. issues this

certificate

The equipment fulfills requirements for type test and it is in accordance with EN 488:2016.

Manufacturer will inform Technická inšpekcia, a. s. about every modification that can affect conformity of the equipment.

Certificate is valid until 2nd April 2023

Nitra, 3rd April 2018

Ing. Roman MIHALIK
Director of Regional office Nitra

341123

ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ
СИСТЕМА ДОБРОВОЛЬНОЙ СЕРТИФИКАЦИИ
«ФЕДЕРАЛЬНАЯ СИСТЕМА КАЧЕСТВА»
Reg. № РОСС RU.31322.04ЖУНО

Орган по сертификации:
FEI № FSK.RU.0002
Общество с ограниченной ответственностью
«ЕВРАЗИЙСКИЙ СОЮЗ СЕРТИФИКАЦИИ»
Адрес: 192289, г. Санкт-Петербург, ул. Олеко Дундича дом № 25, корпус 1, литер А, квартира 2-11 офис 4; тел: 8(812) 649-93-88 info@essert.ru

СЕРТИФИКАТ СООТВЕТСТВИЯ
№ FSK.RU.0002.F0006240
выдан

Обществу с ограниченной ответственностью «Темпер»
Адрес: 640011, Курганская область, город Курган, улица Шорса, 93А
ИНН 7841493237 ОГРН 1137847482915

Дата выдан: 15.11.2017 г. Срок действия до: 15.11.2020 г.

Настоящий сертификат удостоверяет:
Систему менеджмента качества производства и производству арматуры кранов и клапанов:

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ ГОСТ Р ИСО 9001-2015 (ISO 9001:2015)

Руководитель органа: Арендари А.В.
Эксперт: Акимов П.В.

EUROHEAT & POWER

CERTIFICATE NUMBER 09/01

PRODUCT Temper steel ball valves, for pre-insulated district heating and cooling valve assemblies. DN 10 - 300 mm.

LICENSEE TEMPER LLC

PRODUCTION PLANT TEMPER LLC
Schersa str. 93A,
Kurgan 940007
Russia

EUROHEAT & POWER
GUIDELINES: EHP/003
CERTIFICATE: 09/01

VALID UNTIL 17/08/2024

This certificate is granted in accordance with the Euroheat & Power Certification Guidelines for Quality Assessment of District Heating Steel Valves [003] and EN 488:2015

Name, Signature Peter Pribula
Date, Place 17.08.2018, Bratislava

TECHNICKÁ INŠPEKCIA, a.s.
Trnavská 56, 821 01 Bratislava
Slovakia
www.tisr.sk
p.pribula@tisr.sk

The production complies with the EN 488:2015 and EHP Certification Guidelines [003].

The licensee may use the Euroheat & Power Certification Board quality mark.

The certificate is valid only for the production plant mentioned in the certificate.

The valve types covered are contained in the Annex to this certificate.

The certificate is valid for 6 years subject to periodic surveillance.

Refer to the Euroheat & Power Certification Guidelines [003] for full requirements and conditions

c e r t i f i c a t e

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Planmix Oy

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Tel .: + 7-812-438-05-45, Cell: + 7-921-79-50-557

e-mail: yaa@temper.ru

www.temper.ru



TEMPER

SINCE 1993

BALL
VALVES