



STEEL VALVES

CONTENTS

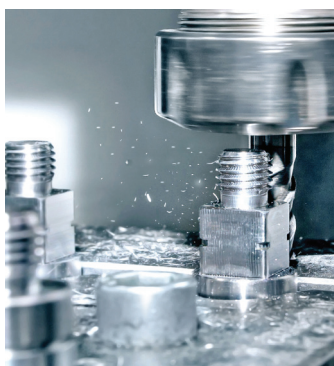
About us	1
Application and technical data	2
LD ball valve construction and materials of main parts	3
Shut off valves	4
Shut off ball valve reduced bore (flange/flange)	5
Shut off ball valve full bore (flange/flange)	6
Shut off ball valve reduced bore (welding/welding)	7
Shut off ball valve full bore (welding/welding)	8
Air release ball valve (combined)	9
Shut off ball valve reduced bore (thread/thread)	10
Shut off ball valve full bore (thread/thread)	11
Service ball valve (combined)	12
Shut off ball valve reduced bore (combined)	13
Shut off ball valve reduced bore with extended spindle (welding/welding)	14
Shut off ball valve full bore with extended spindle (welding/welding)	15
Shut off ball valve with manual gear	16
Technical data of MEOF	17
Technical data of AUMA	18
Control valves	19
Control ball valve Regula series	16
Installation instructions	17
CE Certificate (PED 2014/68/EU)	18
ISO 9001-2015	19



Established in 2002, the plant produces and distributes 1 100 000 items per year.

CHSGS Ltd. - as part of LD GROUP - is a leading Russian manufacturer of steel valves for district heating/cooling, natural gas, petroleum products and chemical industry.

Today, LD is a famous quality mark recognized not only in Russia and CIS countries but also in Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Finland, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldavia, Mongolia, Poland, Romania, Serbia, Slovakia, Sweden, Ukraine, Uzbekistan.



We comply with all necessary international requirements and standards, such as ISO 9001:2015, PED 2014/68/EU, EN 488.

In order to guarantee competitive price and high quality only domestically produced raw materials are used for production of LD ball valves. For timely delivery, warehouses in Saint-Petersburg, Moscow and Novosibirsk are at your convenience and service.

LD[®]
STEEL VALVES





1. Tightness A rate acc. to EN12266-1
2. Service life 30 years (10 000 cycles)
3. Warranty 3 years

LD BALL VALVE MAJOR FEATURES

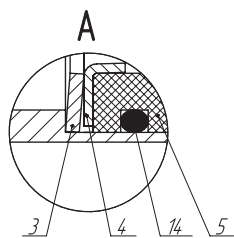
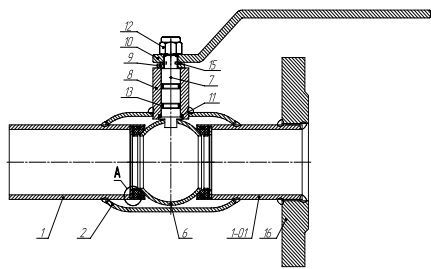
1. DN 15 – 800, PN up to 40 bar.
2. Working media temp. -40C (-60C) to +200C, ambient temp. -40C (-60C) to +80C.

MATERIALS

1. carbon steel (Steel 20, 1.1151) for district heating/cooling, oil and gas (climate class N).
2. alloyed steel (09G2S) for district heating/cooling, oil and gas (climate class NF).
3. stainless steel (AISI 321, 1.4541) for utility water, non-aggressive media.
4. stainless steel (AISI 321, 1.4541) for chemical industry (aggressive media).



LD BALL VALVE CONSTRUCTION



3 - Disc spring
4 - L-shaped back-up ring
5 - Ball seal
14 - Additional sealing by FVMQ ring

№		Climate class N		Climate class NF	
		Material code	02	03	01
		Steel grade	Carbon steel	Alloyed steel	Stainless steel
		Application	District heating/cooling, oil and oil products	District heating/cooling, oil and oil products	Utility water, non-aggressive media
1	Welding end	Carbon steel	Alloyed steel	Stainless steel	Stainless steel
1-01	Flange	Carbon steel	Alloyed steel	Stainless steel	Stainless steel
2	Body	Carbon steel	Alloyed steel	Stainless steel	Stainless steel
3	Disc spring	Zinc plated spring steel	Zinc plated spring steel	Zinc plated spring steel	AISI 321
4	L-shaped back-up ring	AISI 409	AISI 409	AISI 409	AISI 321
5	Ball seal	PTFE+C	PTFE+C	PTFE+C	PTFE+C
6	Ball	AISI 304, AISI 409	AISI 304, AISI 409	AISI 304, AISI 409	AISI 321
7	Stem	AISI 420	AISI 420	AISI 420	AISI 321
8	Stem shell	Carbon steel	Alloyed steel	Stainless Steel	Stainless Steel
9	Washer	PTFE	PTFE	Zinc plated steel	Zinc plated steel
10	Handle	Zinc plated steel	Zinc plated steel	Corrosion resistant steel with polymer	Corrosion resistant steel with polymer
11	Nut	Zinc-plated steel with polymer	Zinc-plated steel with polymer	PTFE	PTFE
12	Stem sealing ring	EPDM, FVMQ	EPDM, FVMQ	EPDM, FVMQ	FVMQ
13	O-ring	FVMQ	FVMQ	FVMQ	FVMQ
14	Retaining ring	Spring steel	Spring steel	Spring steel	Spring steel
15	Flange	Carbon steel	Alloyed steel	AISI 321	Stainless Steel
16	Working conditions and features	Working media temp. -40C to +200C	Working media temp. -60 to +200C Seamless pipe	Working media temp. -60C to +200C	Working media temp. -60C to +200C



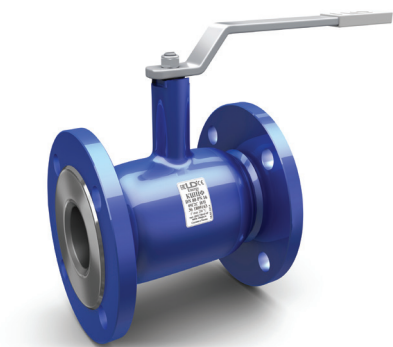
BALL VALVE REDUCED BORE
FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

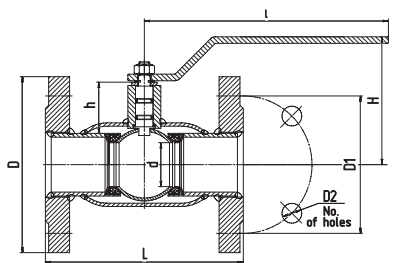
Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request	
DN 15-250	lever – painted carbon steel with polymer end
DN 200-250	ISO top flange for manual gear on default
DN 300-800	manual gearbox on default
Gearbox in horizontal arrangement on default	



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weidht, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE FULL BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

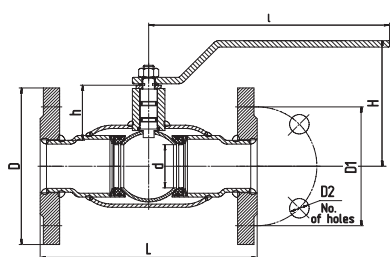
Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request	
DN 15-200	lever – painted carbon steel with polymer end
DN 150-200	ISO top flange for manual gear on default
DN 250-700	manual gearbox on default
Gearbox in horizontal arrangement on default	



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weidht, kg
15	40	115402	15	95	65	14	4	63	145	158	120	1,7
20	40	120402	18	105	75	14	4	63	148	158	140	2,4
25	40	125402	24	115	85	14	4	65	152	158	140	2,9
32	40	132402	30	140	100	18	4	48	108	220	165	4,3
40	40	140402	40	150	110	18	4	52	117	220	290	5,5
50	40	150402	48	165	125	18	4	52	122	220	300	7,4
65	16	165162	64	185	145	18	8	75	155	315	300	10,3
65	25	162252	64	185	145	18	8	75	155	315	300	9,9
80	16	180162	75	200	160	18	8	78	165	315	320	12,3
80	25	180252	75	200	160	18	8	78	165	315	320	12,0
100	16	1100162	100	220	180	18	8	108	197	525	350	19,9
100	25	1100252	100	235	190	22	8	108	197	525	350	22,3
125	16	1125162	125	250	210	18	8	111	214	525	380	26,5
125	25	1125252	125	270	220	26	8	111	214	525	380	30,3
150	16	1150162	148	285	240	22	8	124	239	525	410	39,0
150	25	1150252	148	300	250	26	8	124	239	525	410	44,0
200	16	1200162	200	340	295	22	12	128	274	1030	530	85,0
200	25	1200252	200	360	310	26	12	128	274	1030	530	91,0
250	16	1250162	240	405	355	26	12	193	330*	-	750	144,0
250	25	1250252	240	425	370	30	12	193	330*	-	750	153,0
300	16	1300162	300	460	410	26	12	221	384*	-	750	236,0
300	25	1300252	300	485	430	30	16	221	384*	-	750	249,0
350	16	1350162	390	520	470	26	16	247	436*	-	990	422,0
350	25	1350252	390	555	490	33	16	247	436*	-	990	449,0
400	16	1400162	390	580	525	30	16	223	436*	-	990	468,0
400	25	1400252	390	620	550	36	16	223	436*	-	990	496,0
500	16	1500162	500	715	650	33	20	264	530*	-	1017	878,0
500	25	1500252	500	730	660	36	20	264	530*	-	1017	899,0
600	16	1600162	600	840	770	39	20	330	645*	-	1173	1211,0
600	25	1600252	600	845	770	39	20	330	645*	-	1173	1233,0
700	16	1700162	700	910	840	36	24	430	790*	-	1376	2500,0
700	25	1700252	700	960	875	42	24	430	790*	-	1376	2550,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

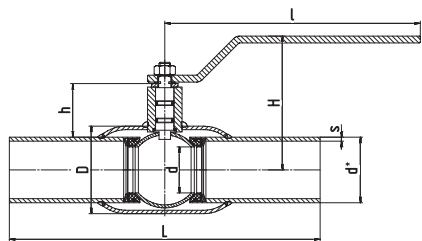
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

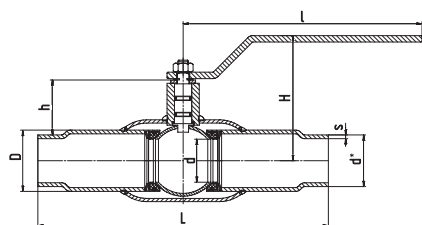
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

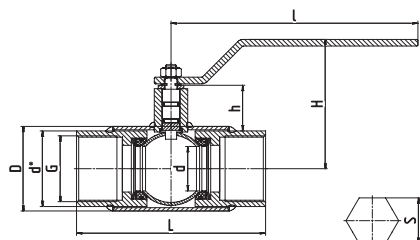
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

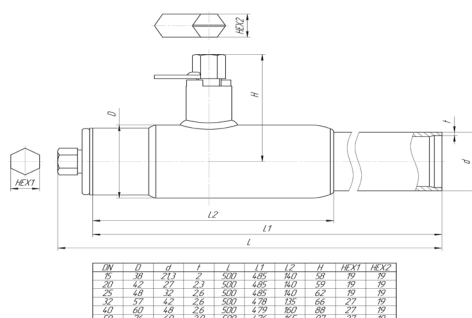
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

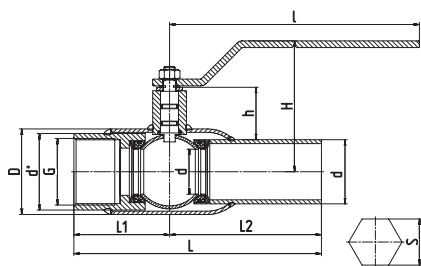
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
	40	1159402	10	95	65	14	4	60	142	158	130	1,6
	40	1209402	15	105	75	14	4	61	145	158	150	2,2
	40	1259402	18	115	85	14	4	61	148	158	160	2,7
	40	1329402	24	140	100	18	4	60	152	158	180	3,7
	40	1409402	30	150	110	18	4	43	108	220	200	4,7
	40	1509402	40	165	125	18	4	47	117	220	230	6,1
	16	1659162	49	185	145	18	8	43	122	220	270	8,4
	25	1659252	49	185	145	18	8	43	122	220	270	8,4
	16	1809162	63	200	160	18	8	68	155	315	280	11,0
	25	1809252	63	200	160	18	8	68	155	315	280	12,0
)	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

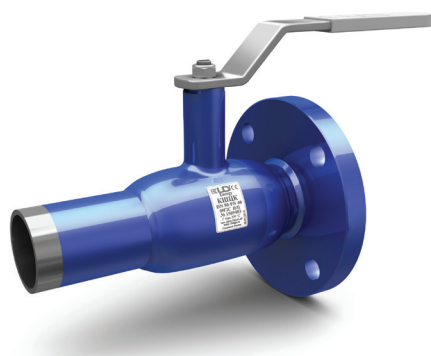
Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

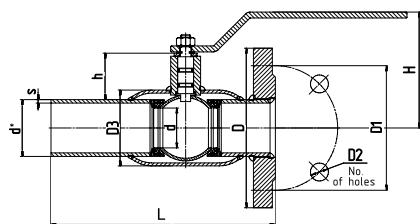
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

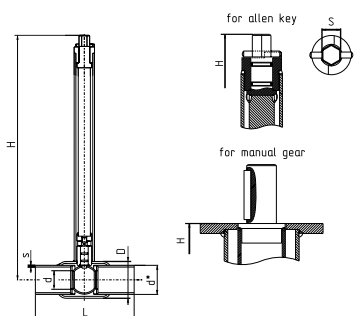
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

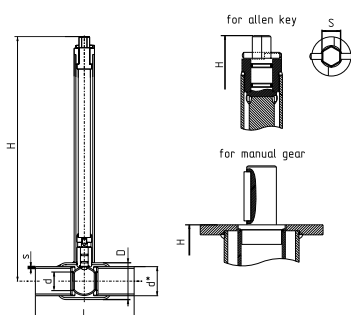
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

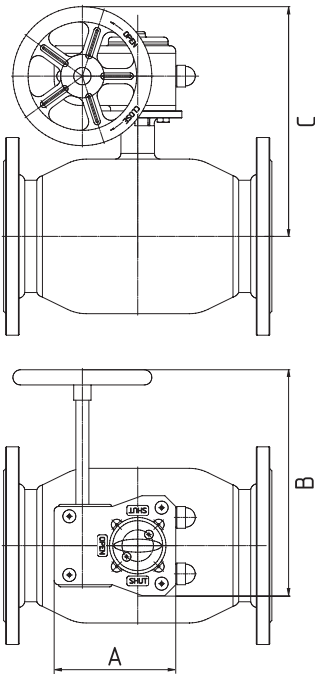
Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request	
DN 15-250	lever – painted carbon steel with polymer end
DN 200-250	ISO top flange for manual gear on default
DN 300-800	manual gearbox on default
Gearbox in horizontal arrangement on default	



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

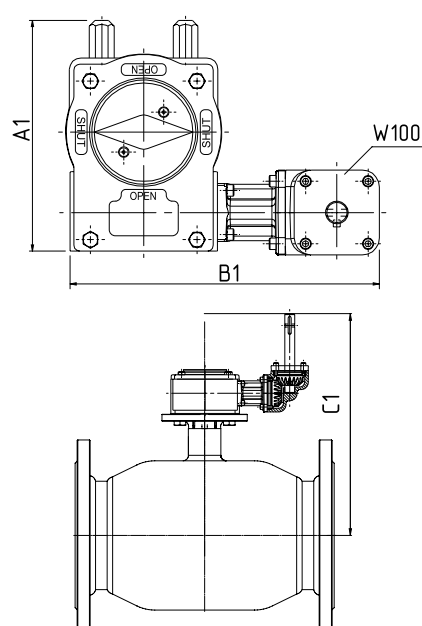
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

LD steel valve construction and materialS of main parts

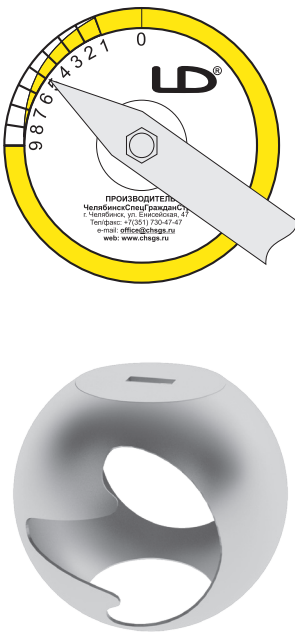
DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weidht, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0

DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weidht, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0

CONTROL BALL VALVES

APPLICATION

Control ball valves provide predictable and accurate control of flow rates in the pipeline, where the valve is mounted. The flow rate is controlled by means of a lever with a scale and flow rate control with linear relation. Special design of the ball with a figured groove allows to reduce noise and to increase control accuracy. The valve is installed on the pipeline according to the arrow specifying the direction of the working media.



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weidht, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

Body	carbon steel
Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
Ball sealing	PTFE+C with additional sealing made of FVMQ

OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

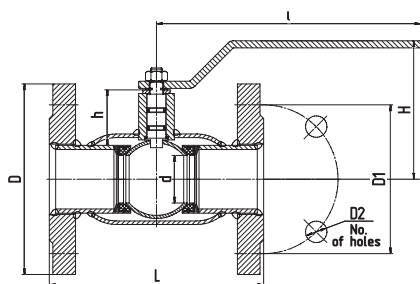
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	l	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

BALL VALVE REDUCED BORE

FLANGE/FLANGE

MATERIAL SPECIFICATION (MAT. CODE 02)

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Stem	stainless steel AISI 420 (X20Cr13)
Ball	stainless steel AISI 304, AISI 409
Stem sealing	EPDM, FVMQ
Stem sealing/ washer	PTFE+C, PTFE
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OPERATION

Connection dimensions acc. to DIN (EN) / GOST on request

DN 15-250 lever – painted carbon steel with polymer end

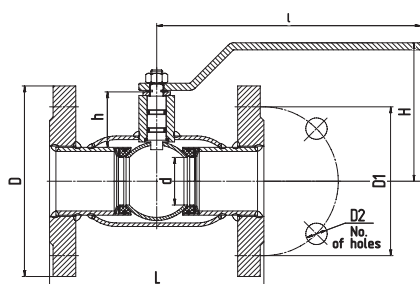
DN 200-250 ISO top flange for manual gear on default

DN 300-800 manual gearbox on default

Gearbox in horizontal arrangement on default



Design of DN 15-300



DN	PN	CODE	d	D	D1	D2	No. of holes	h	H	I	L***	Weight, kg
15	40	1159402	10	95	65	14	4	60	142	158	130	1,6
20	40	1209402	15	105	75	14	4	61	145	158	150	2,2
25	40	1259402	18	115	85	14	4	61	148	158	160	2,7
32	40	1329402	24	140	100	18	4	60	152	158	180	3,7
40	40	1409402	30	150	110	18	4	43	108	220	200	4,7
50	40	1509402	40	165	125	18	4	47	117	220	230	6,1
65	16	1659162	49	185	145	18	8	43	122	220	270	8,4
65	25	1659252	49	185	145	18	8	43	122	220	270	8,4
80	16	1809162	63	200	160	18	8	68	155	315	280	11,0
80	25	1809252	63	200	160	18	8	68	155	315	280	12,0
100	16	11009162	75	220	180	18	8	68	165	315	300	15,0
100	25	11009252	75	235	190	22	8	68	165	315	300	15,0
125	16	11259162	100	250	210	18	8	95	197	525	325	27,7
125	25	11259252	100	270	220	26	8	95	197	525	325	28,5
150	16	11509162	125	285	240	22	8	98	214	525	350	36,0
150	25	11509252	125	300	250	26	8	98	214	525	350	37,0
200	16	12009162	148	340	295	22	12	94	239	525	400	56,0
200	25	12009252	148	360	310	26	12	94	239	525	400	57,0
250	16	12509162	200	405	355	26	12	101	274	1030	530	93,0
250	25	12509252	200	425	370	30	12	101	274	1030	530	101,0
300	16	13009162	240	460	410	26	12	167	330*	-	750	156,0
300	25	13009252	240	485	430	30	16	167	330*	-	750	168,0
350	16	13509162	300	520	470	26	16	195	384*	-	750	235,0
350	25	13509252	300	555	490	33	16	195	384*	-	750	248,0
400	16	14009162	305	580	525	30	16	171	384*	-	880	300,0
400	25	14009252	305	620	550	36	16	171	384*	-	880	327,0
500	16	15009162	390	715	650	33	20	171	436*	-	990	462,0
500	25	15009252	390	730	660	36	20	171	436*	-	990	483,0
600	16	16009162	500	840	770	39	20	214	530*	-	1173	950,0
600	25	16009252	500	845	770	39	20	214	530*	-	1173	972,0
700	16	17009162	600	910	840	36	24	285	645*	-	1376	1160,0
700	25	17009252	600	960	875	42	24	285	645*	-	1376	1245,0
800	16	18009162	700	1025	950	39	24	380	790*	-	1376	2600,0
800	25	18009252	700	1085	990	48	24	380	790*	-	1376	2800,0

APPLICATION

LD ball valves should be used as stop valves on the pipelines. That means the valves should be fully opened or fully closed throughout the operation. Only REGULA series can be used for stream control!


APPLICATION

1. Valves can be installed on pipelines in any position providing ease of use and access to manual actuator.
2. All caps shall be removed from valve connections before installation.
3. During installation on horizontal pipelines, valve shall be fully opened.
4. During installation on vertical pipelines: a) valve shall be fully opened during the welding of the upper end (in order to avoid damage of ball surface and seat); b) valve shall be fully closed during the welding of the lower end (in order to avoid welding heat draught).
5. Before valve's installation, pipeline shall be cleared from dirt, sand, slag etc.
6. Use electric welding for connection of the valve to the pipeline.
7. During welding, avoid overheating of the valve body. The valve is considered to be overheated, if temperature of the valve body in the seat area exceeds 80°C during welding. Use wet rags to cool the valve seat area and avoid overheating.
8. It is prohibited to turn the ball immediately after welding (without prior cooling).
9. Reduction of end-to-end length of a welded ball valve is not acceptable as it is specially designed to avoid overheating of the ball seat during its installation on a pipeline.
10. During installation of LD flanged valves, inspection of flange sealing faces is necessary.
11. The bolts tightening on the flanged connections shall be equal along the whole perimeter using «criss-cross» method.
12. Parallelism of pipe and valve flange sealing faces within a tolerance of 0.2 mm is acceptable.
13. It is forbidden to eliminate distortions of the pipeline flanges using tensioning of valve's flanges.
14. The max. amplitude of the pipeline's vibration displacement shall not exceed 0.25 mm.
15. In order to avoid pressure shock in the pipeline, open and close the valve smoothly.
16. During installation and operation of the valve safety requirements shall be fulfilled in accordance with GOST-53672.
17. During lifting and/or transportation of valves by means of mechanical lifting devices it is prohibited to fasten and/or to grip the handles, gearbox wheels or parts of electric, pneumatic and hydraulic actuators.

ATTENTION!
When operating the ball valve DO NOT

1. Use the valves as regulating (In order to control flow rates use LD Regula Series);
2. Valve's dismantling, works on a tightening of flange joints in the presence of an operating medium and pressure in pipeline;
3. Operate the valve without a respectively executed certificate
4. Operate the valve using levers extending the handle arm;
5. Use the valve as a pipeline support.

PERMITTING DOCUMENT

ТАМОЖЕННЫЙ СОЮЗ		
СЕРТИФИКАТ СООТВЕТСТВИЯ		
№ ТС RU C-RU.A301.B.03788		
Серия RU № 0443559		
<p>ОРГАН ПО СЕРТИФИКАЦИИ Общество с ограниченной ответственностью «АЛЪЯНС ЮГО-ЗАПАД». Место нахождения: 117461, Россия, город Москва, улица Каховка, дом 30, помещение I, комната 13. Фактический адрес: 119049, Россия, город Москва, 1-й Добрынинский переулок, дом 15/7, помещение 27. Телефон: +7 (495) 268-13-26, факс: +7 (495) 268-13-26, адрес электронной почты: info@alliance-sw.ru. Аттестат аккредитации регистрационный № RA.RU.11A301 выдан 27.10.2015 года Федеральной службой по аккредитации</p>		
<p>ЗАЯВИТЕЛЬ Общество с ограниченной ответственностью «ЧелябинскСпецГражданСтрой». Основной государственный регистрационный номер: 1047423538315. Место нахождения: 454010, Российская Федерация, Челябинская область, город Челябинск, улица Енисейская, дом 47. Фактический адрес: 454010, Российская Федерация, Челябинская область, город Челябинск, улица Енисейская, дом 47. Телефон: 73517304747, факс: 73517963085, адрес электронной почты: office@chsgs.ru</p>		
<p>ИЗГОТОВИТЕЛЬ Общество с ограниченной ответственностью «ЧелябинскСпецГражданСтрой». Место нахождения: 454010, Российская Федерация, Челябинская область, город Челябинск, улица Енисейская, дом 47. Фактический адрес: 454010, Российская Федерация, Челябинская область, город Челябинск, улица Енисейская, дом 47</p>		
<p>ПРОДУКЦИЯ Арматура, работающая под избыточным давлением, предназначенная для рабочих сред группы 1, 2: краны шаровые «LD» DN 15 – 800. Продукция изготовлена в соответствии с ТУ 3742-001-45630744-2003 «Краны шаровые «LD», DN 15 – 800 Технические условия». Серийный выпуск</p>		
<p>КОД ТН ВЭД ТС 8481 80 819 9</p>		
<p>СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ Технического регламента Таможенного союза ТР ТС 032/2013 «О безопасности оборудования, работающего под избыточным давлением»</p>		
<p>СЕРТИФИКАТ ВЫДАН НА ОСНОВАНИИ протокола испытаний № 10090P-LAB09/16 от 27.09.2016 года, выданного испытательной лабораторией Общество с ограниченной ответственностью «Инвестиционная корпорация», аттестат аккредитации регистрационный № RA.RU.21M364 от 07.12.2015 года, срок действия - бессрочно; акта анализа состояния производства от 01.09.2016 года органа по сертификации Общества с ограниченной ответственностью «АЛЪЯНС ЮГО-ЗАПАД»; документации изготовителя (согласно приложению - бланк № 0308760).</p>		
<p>ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Условия хранения продукции согласно ГОСТ 15150-69 – 2С. Срок хранения 3 года, срок службы 25 лет. Категория оборудования 3 по ТР ТС 032/2013 «О безопасности оборудования, работающего под избыточным давлением».</p>		
	<p>27.09.2016</p>	<p>ПО 26.09.2021</p>
ВКЛЮЧИТЕЛЬНО		
<p>Руководитель (уполномоченное лицо) органа по сертификации</p> <p>Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы))</p>	<p><i>А.А. Звягин</i> (подпись)</p> <p><i>И.В. Михайлов</i> (подпись)</p>	<p>А.А. Звягин (инициалы, фамилия)</p> <p>И.В. Михайлов (инициалы, фамилия)</p>
<p><small>Бланк изготовлен ЗАО "ГОПЦАОНТ", www.gopcon.ru (лицензия № 05-05-09/003 ФНС РФ), тел. (495) 128-4742, Москва, 2013</small></p>		

PERMITTING DOCUMENT



СИСТЕМА ДОБРОВОЛЬНОЙ СЕРТИФИКАЦИИ
В ОБЛАСТИ ПРОМЫШЛЕННОЙ И ЭКОЛОГИЧЕСКОЙ
БЕЗОПАСНОСТИ

СЕРТПРОМБЕЗОПАСНОСТЬ

Регистрационный номер № РОСС RU.31020.04ЭПБ0

СЕРТИФИКАТ СООТВЕТСТВИЯ № С-ЭПБ.001.ТУ.00498

Орган по сертификации: Автономная некоммерческая организация сертификации продукции «АКАДЕММАШ», 115114, г. Москва, ул. Дербеневская, дом 20, строение 16, рег. № ЭПБ.ОС.001

Оборудование (техническое устройство, материал):
Краны шаровые «LD» DN 15 – 800 по ТУ 3742-001-45630744-2003
Серийный выпуск.

Код ОКП (ТН ВЭД ТС): 37 4200

Изготовитель (заявитель):
ООО «ЧелябинскСпецГражданСтрой» (Россия, 454010, г. Челябинск, ул. Енисейская, д.47)

Соответствует требованиям: ФНИП «Правила безопасности в нефтяной и газовой промышленности», ФНИП «Правила промышленной безопасности опасных производственных объектов, на которых используется оборудование, работающее под избыточным давлением», ФНИП «Правила безопасности для опасных производственных объектов магистральных трубопроводов»

Основание выдачи сертификата:
Заключение экспертизы промышленной безопасности № 351/12-16 от 01.12.2016 г. АНО сертификации продукции «АКАДЕММАШ» (лицензия № ДЭ-00-007219 от 28 марта 2007 г.)

Условия применения и дополнительная информация:
Схема сертификации 1. Условия применения технических устройств указаны в Приложении к сертификату

Срок действия сертификата: до 20.12.2021г.

Дата выдачи: 21.12.2016г.



Руководитель органа по сертификации

Эксперт



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