

## FULL BORE BALL VALVE of carbon steel with welded ends / flanges **32000 and 32500 series**




### Description

Edition 11-10-2010

Ball valves series 32000 – 32500 are a tight on-off valves and suitable for liquid pipe systems. Such as District Heating systems, Heat Transfer piping, oil lines and oxygen-free water lines.

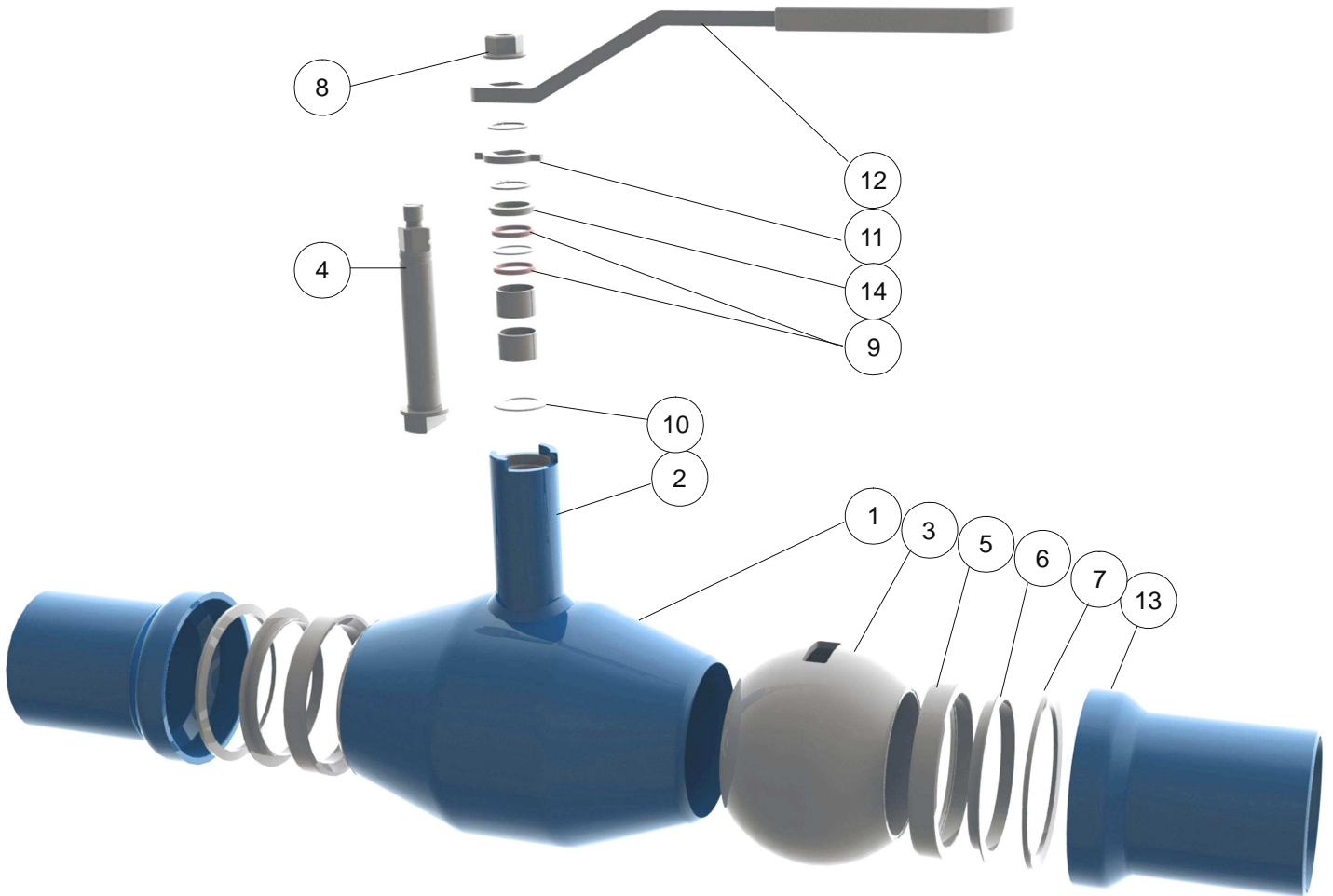
The valve has an all-welded body and is fitted with carbon-reinforced Teflon seals which are long-lasting against frequent operation, impurities and chemicals. A ground and polished stainless steel ball gives easy turning and reliable operation over many years. A floating ball construction is used. Bevel spring washers keep the seals pressed against the ball to ensure that the valve remains leak-tight regardless of pressure fluctuations.

The blow-out proof stem is sealed with 2 O-rings. In smaller valves, the upper one can be changed and in sizes 50 to 150 mm both can be changed. The Teflon thrust washer between the stem shoulder and stem housing also acts as a seal. Stem housings of 50 mm valves and above are fitted with stainless steel bearings.

Nominal dimensions:	32000TR-N – DN 15 - 350
	32500TR-N – DN 15 - 200
Nominal pressure	32000TR-N, DN 15 - 50 – PN40 bar, DN 65 - 350 – PN25 bar, DN 125 - 350 – PN16 bar
	32500TR-N, DN 15 - 50 – PN40 bar, DN 65 - 350 – PN16 or PN25 bar according to flanges drilling
Connection	32000TR-N series – welded ends, 32500TR-N series – flanges: EN1092-1
Tightness class ISO 5208, EN 12266-1	RATE A
Working temperature of liquid media	-20°C... +200°C - standard -40°C... +200°C - option
Safety	Conform to the requirements of the Council Directive 97/23/EC on Pressure Equipment.  0575



Exploded view

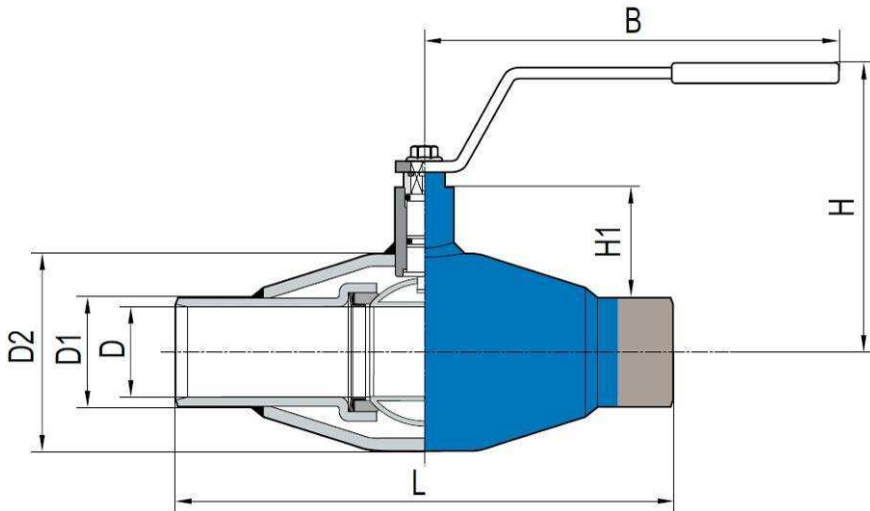


Parts list and standard materials

Part	Material	
1	Body	Carbon steel P235GH
2	Stem Housing	Carbon steel P355NH
3	Ball	Stainless steel 1.4301
4	Stem	Stainless steel 1.4305
5	Seal	Teflon PTFE+C
6	Bevel washer	Spring steel
7	Support ring	Stainless steel 1.4301
8	Screw	Steel
9	O-rings	Viton FPM
10	Thrust washer	Teflon PTFE
11	Stop	Stainless steel 1.4016 / 1.4404
12	Handle	Zinc-plated steel
13	End pipe	Carbon steel P235GH
14	Stem bushing	



Dimensions. 32000TR-N series valve



DN	L	D	D1	D2	H	H1	B	Weight, kg
15	230	15	21,3	42.4	103	26	144.5	0.9
20	230	20	26,9	48.3	117	37	144.5	1.3
25	260	25	33,7	60.3	121	37	144.5	1.9
32	260	32	42,4	70.0	121	46	188	2.4
40	300	40	48,3	88.9	127	49	188	3.7
50	300	50	60,3	101.6	160	70	277.5	5.0
65	300	65	76,1	121.0	171	74	277.5	7.8
80	325	80	88,9	146.0	218	114	277.5	11.2
100	325	100	114,3	177.8	252	114	400	15.2
125	360	125	139,7	219.1	270	122	600	25.0
150	390	150	168,3	273.0	300	148	900	43.3
200	520	200	219,1	355.6	345	149	1200	70.0

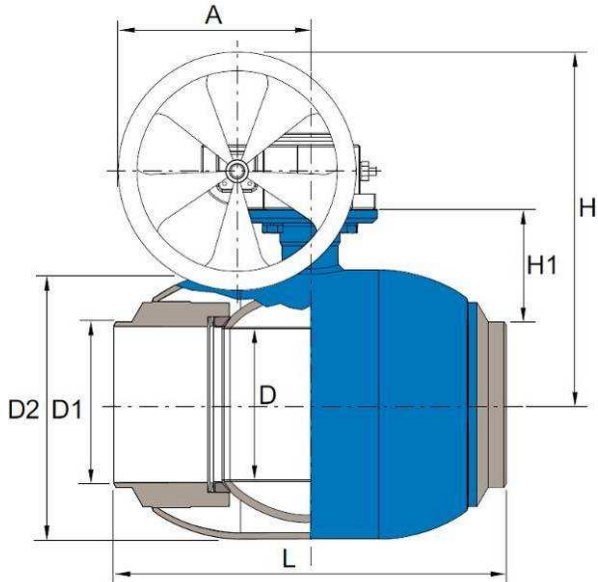
Sizes DN 15 - 200 can be operated with handlever. We recommend to use a manual gear from the size DN100 and larger.

The opening and closing of valves is stepless.

The valve is open when the handlever is in line with pipe.



## Manual gear



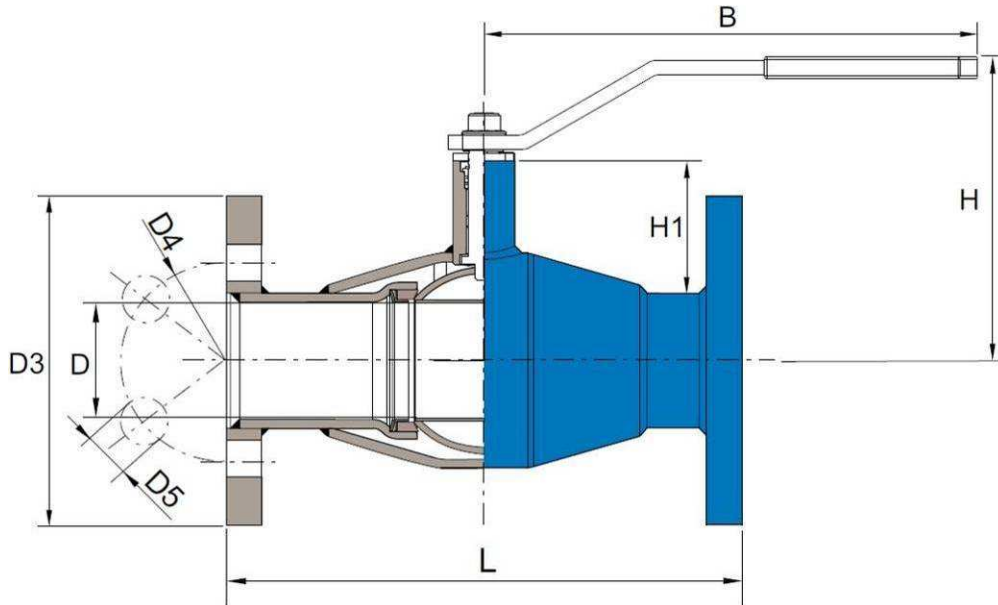
DN	L	A	D	D1	D2	H	H1	Weight, kg
100	325	152	100	114.3	177.8	315	124	20.0
125	360	152	125	139.7	219.1	337	132	30.0
150	390	195	150	168.3	273.0	400	149	53.4
200	520	254	200	291.1	355.6	467	150	86.0
250	635	338	250	273	406.4	570	179	172.0
350	762	475	350	406.3	559	792	253	342

Opening and closing of the valves from the hand wheel.

The position of ball can be seen on a position indicator on top of the gear.



**Dimensions. 32500TR-N series valve**



DN	L	D	D3			H	B	H1	Weight, kg	
			PN 40						PN 40	
15	130	15	95	65	14	103	145.5	26	1.3	
20	150	20	105	75	14	117	144.5	37	2.0	
25	160	25	115	85	14	121	144.5	37	3.0	
32	180	32	140	100	18	121	188	46	5.0	
40	200	40	150	110	18	127	188	49	7.0	
50	230	50	165	125	18	160	277.5	70	10.0	

DN	L	D	D3		D4		D5		H	B	H1	Weight, kg	
			PN 16	PN 25	PN 16	PN 25	PN 16	PN 25				PN 16	PN 25
			65	290	65	185	185	145				145	18
80	310	80	200	200	160	160	18	18	218	277.5	114	15.0	20.0
100	300	100	220	235	180	190	18	22	252	400	114	25.0	30.0
125	381	125	250	270	210	220	18	26	270	600	122	35.0	40.0
150	480	150	285	300	240	250	22	26	300	900	148	55.0	60.0
200	610	200	340	360	295	310	22	26	345	1200	149	90.0	100.0

Sizes DN 15 - 200 can be operated with handlever. We recommend to use a manual gear from the size DN100 and larger.

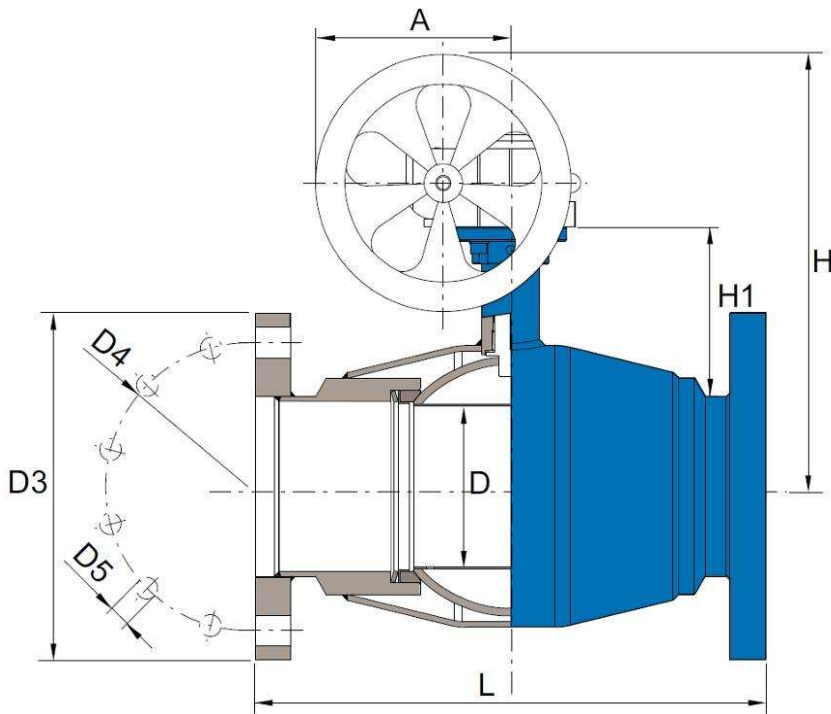
The opening and closing of valves is stepless.  
The valve is open when the handlever is in line with pipe.

**Flanges: EN1092-1**

**Face to face dimensions according to: EN558-1**



### Manual gear. 325TR-N



DN	L		A	D	D3		D4		D5		H	H1	Weight, kg	
	PN 16	PN 25			PN 16	PN 25	PN 16	PN 25	PN 16	PN 25			PN 16	PN 25
100	300	300	152	100	220	235	180	190	18	22	315	124	30	35
125	381	400	152	125	250	270	210	220	18	26	337	132	40	50
150	480	500	195	150	285	300	240	250	22	26	400	149	60	70
200	610	610	254	200	340	360	295	310	22	26	467	150	110	125
250	650	650	338	250	405	425	355	370	26	30	570	179	220	250
350	927	927	475	335	520	555	470	490	26	32.5	792	253	414	414

Opening and closing of the valves from the hand wheel.

The position of ball can be seen on a position indicator on top of the gear.

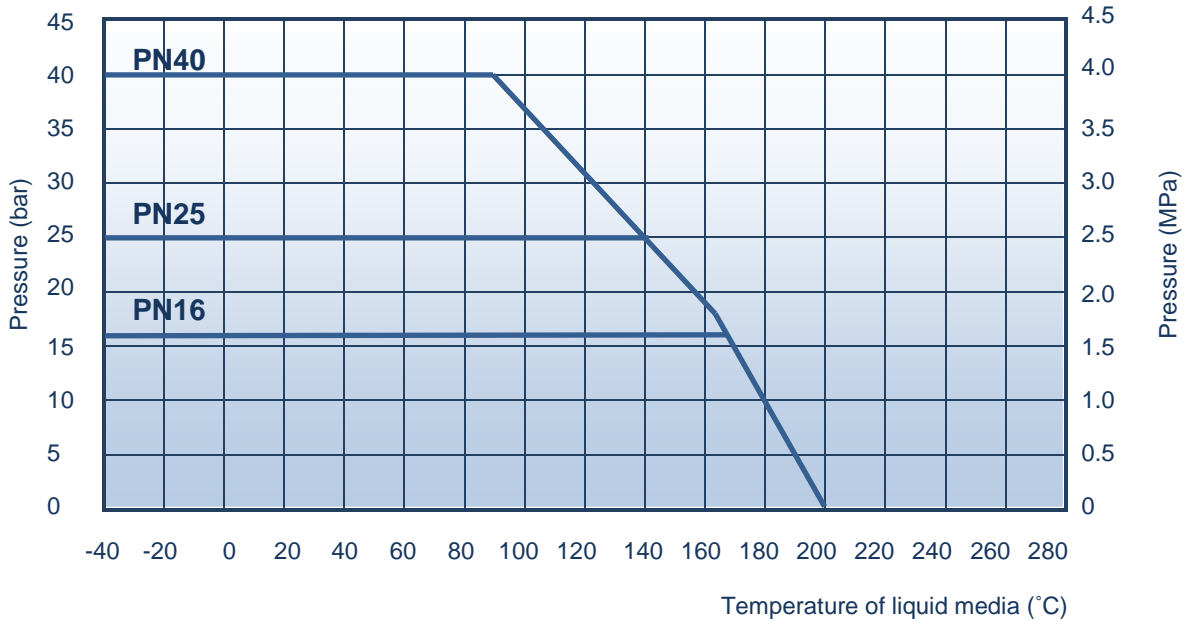
**Flanges:** EN 1092-1.

**Face to face dimensions according to:** EN558-1



### Pressure / Temperature Rating

The max pressure difference depends on the working temperature.



If working temperature below -20°C, it must be mentioned in order.

### Operation torque, Nm

PN \ DN	15	20	25	32	40	50	65	80	100	125	150	200	250	350
PN 16	15	19	25	39	50	68	98	150	270	520	820	2'050	4'400	11'400
PN 25	16	21	27	43	55	75	110	200	390	750	1'220	3'000	6'300	16'200
PN 40	18	24	30	47	60	-	-	-	-	-	-	-	-	-

### Operation

Högfors valves can be equipped with an actuator to your specification.

- bare shaft (not recommended),
- manual gear,
- hand lever,
- electric actuator,
- pneumatic or hydraulic actuator.