

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

CONTROL




**Description**

Edition 05-07-2016

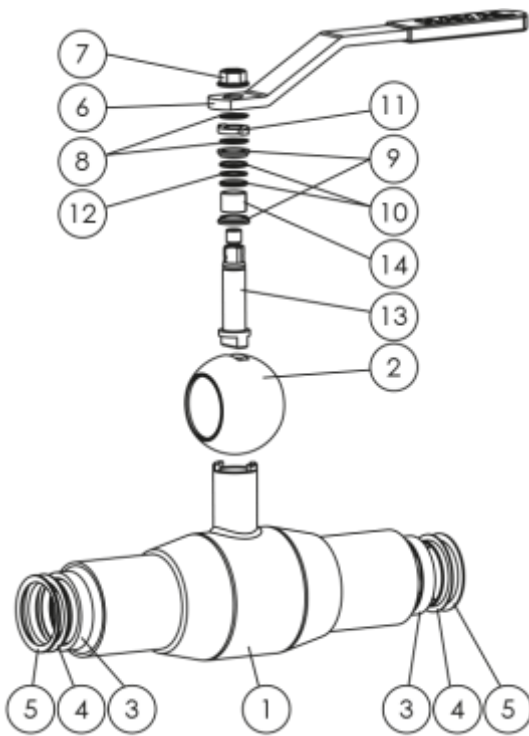
Ball valves series 32000 – 32500 are a tight on-off valves and suitable for liquid pipe systems. Such as District Heating systems, Heat Transfer piping, oil lines and oxygen-free water lines.

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.

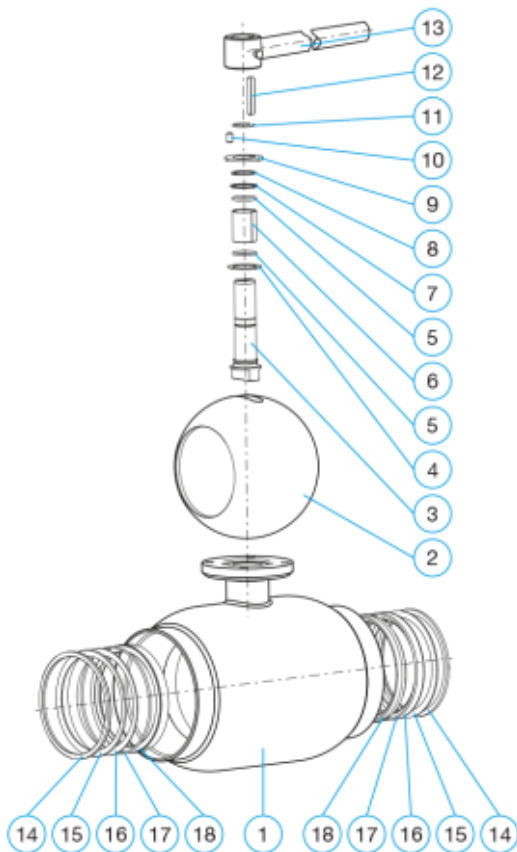
Nominal dimensions:	32000TR-N – DN 15 – 800
	32500TR-N – DN 15 – 400
Nominal pressure	32000TR-N, DN 15 - 50 – PN 40 bar DN 65 - 800 – PN 25 bar DN 125 - 150 – PN 16 bar
	32500TR-N, DN 15 - 50 – PN40 bar, DN 65 - 500 – PN16 or PN25 bar according to flanges drilling (Available PN 10,16,25,40)
Connection	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.  0496



### Exploded view, parts list

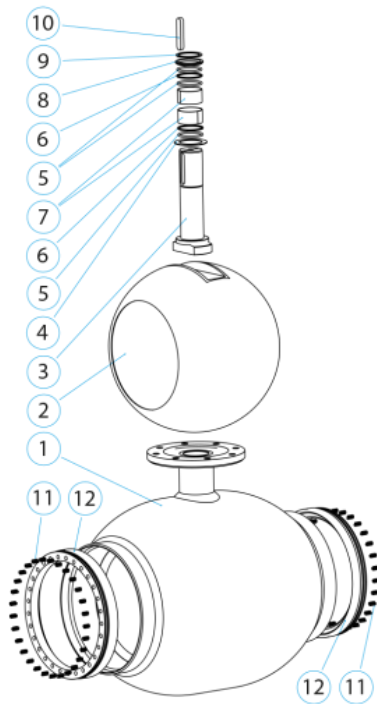


DN 15-150	
Part number	Part
1	Valve body
2	Ball
3	Ball seal
4	Support ring
5	Spring plate
6	Handle
7	Nut
8	Retaining ring
9	Bush
10	O-ring
11	Block stop
12	Distance plate
13	Stem
14	Bush



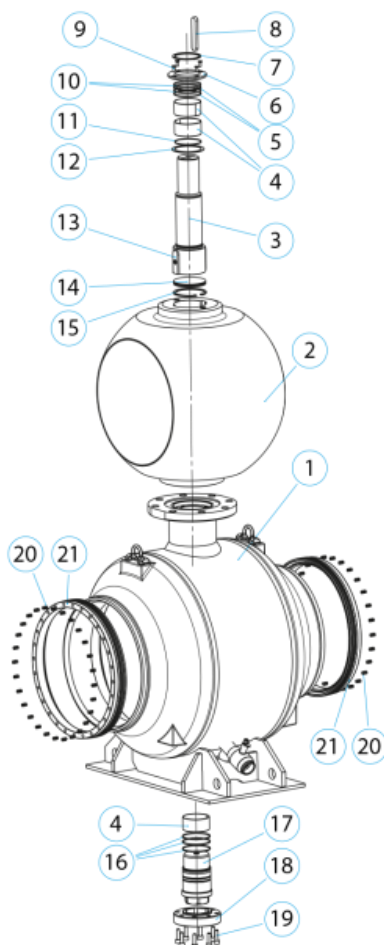
DN 200-250		
Part number	Part	Qty
1	Valve body	1
2	Ball	1
3	Stem	1
4	Sliding plate	1
5	O-ring	2
6	Sliding bearing	1
7	Top distance plate	1
8	Retaining ring	1
9	Block stop	1
10	Dowel pin	1
11	Retaining ring	1
12	Key	1
13	Handle *	1
14	Retaining ring	2
15	Spring plate	2
16	Support plate	2
17	O-ring	2
18	Ball seal	2

\* DN300 without handle



DN 300-400		
Part number	Part	Qty
1	Valve body	1
2	Ball	1
3	Stem	1
4	Sliding plate	1
5	O-ring	3
6	Distance plate	2
7	Sliding bearing	2
8	Stem sealing bush	1
9	Retaining ring	1
10	Key	1
11	Spring	n*
12	Ball seat	2

\*Depends on valve size



DN 500-800		
Part number	Part	Qty
1	Valve body	1
2	Ball	1
3	Operating stem	1
4	Sliding bearing	3
5	Distance plate	2
6	Stem sealing bush	1
7	Retaining ring	1
8	Key	1
9	Socket countersunk head screw	n*
10	O-ring	2
11	O-ring	1
12	Sliding plate	1
13	Key	2
14	Support plate	1
15	Retaining ring	1
16	O-ring	n*
17	Bearing stem	1
18	Blind flange	1
19	Hex socket head screw	n*
20	Spring	n*
21	Ball seat	2

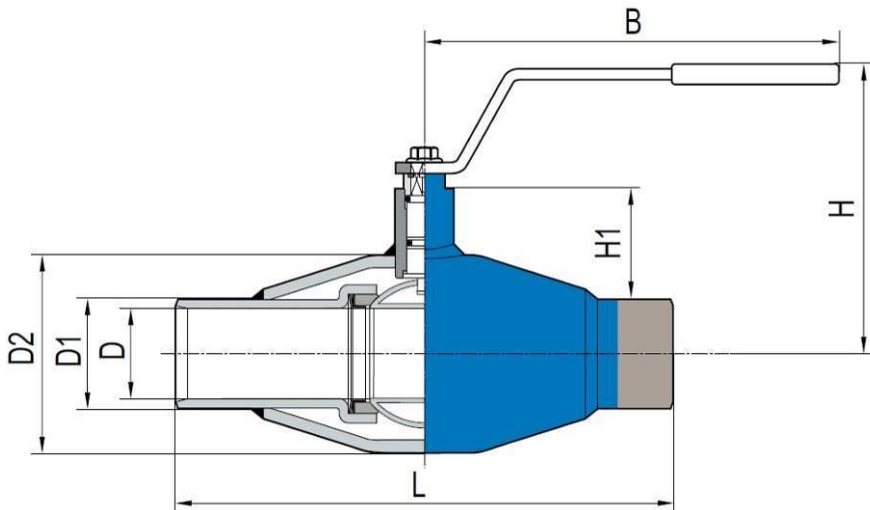
\*Depends on valve size



## Standard materials

	DN 15-400	DN 500-800
Body	Steel P235GH	Steel P355 NL1 / GP240GH
Ball	Stainless steel 1.4301	Steel ASTM A350 LF2 + Ni
Stem	Stainless steel 1.4305	Stainless steel 1.4305
Stem seals	FPM	FPM
Ball seals	PTFE+C	PTFE+C
Operation	DN 10 - 250 with galvanized steel handle. We recommend manual gear operation for sizes DN 125 and larger. DN 250 and larger without handle. Valves are available with manual gear, electric actuator or hydraulic actuator.	

## Dimensions. 32000TR-N series valve



DN	PN	L	D	D1	D2	H	H1	B	Weight kg
15	40	230	15	21,3	42,4	103	23	145	0,8
20	40	230	20	26,9	48,3	118	37	145	1,5
25	40	265	25	33,7	60,3	121	37	145	2,2
32	40	260	32	42,4	70	121	46	188	2,5
40	40	300	40	48,3	88,9	127	49	188	4
50	40	300	50	60,3	101,6	158	70	278	4,5
65	25	300	65	76,1	121	171	74	278	6,7
80	25	325	80	88,9	146	218	114	279	10,5
100	25	325	100	114,3	177,8	253	113	400	15,5
125	25	360	125	139,7	219,1	272	121	600	25
150	25	400	150	168,3	273	281	117	870	51



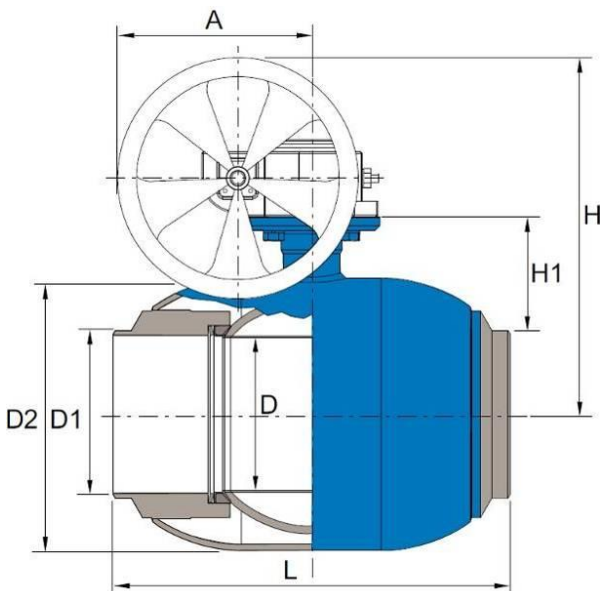
200	25	530	200	219,1	355,6	343	135	1200	95
250	25	550	250	273	457	-	158	-	126
300	25	686	290	315,7	508	-	206	-	177
350	25	762	340	355,6	610	-	267	-	258
400	25	1100	390	406	660	-	309	-	519
500	25	970	489	508	813	-	325	-	920
600	25	1065	589	610	965	-	388	-	2325
700	25	1205	684	712	1125	-	417	-	3450
800	25	1330	779	813,6	1290	-	448	-	5160

Sizes DN 15 - 250 can be operated with handlever. We recommend to use a manual gear from the size DN125 and larger.

The opening and closing of valves is stepless.

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

## Manual gear



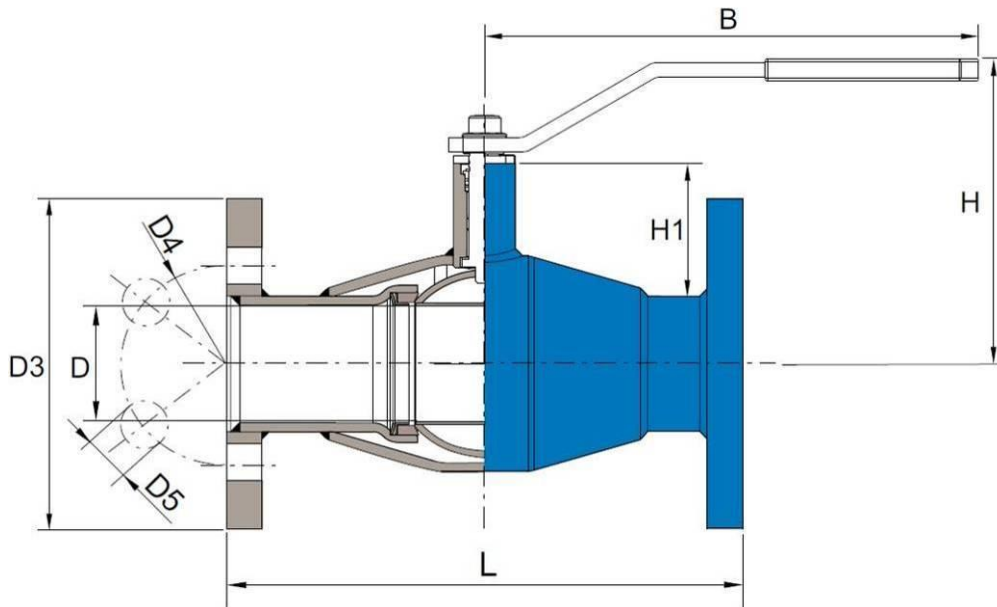
DN	PN	L	A	D	D1	D2	H	H1	Weight kg
100	25	325	153	100	114,3	177,8	316	124	20
125	25	360	153	125	139,7	219,1	336	132	29
150	25	400	194	150	168,3	273	369	117	51
200	25	530	247	200	219,1	355,6	444	135	113
250	25	550	367	250	273	457	593	158	164
300	25	686	367	290	323,9	508	668	206	216
350	25	762	388	340	355,6	610	750	267	305
400	25	1100	430	390	406	660	826	309	603
500	25	970	430	489	508	813	893	325	1130
600	25	1065	603	589	630	965	1128	387	2550
700	25	1205	603	684	720	1125	1208	417	3650
800	25	1330	640	779	820	1290	1343	449	5500

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	PN 40				PN 40	
15	245	15	95	65	14	103	147	26	1,3	
20	245	20	105	75	14	117	145	37	3	
25	275	25	115	85	14	121	145	37	3,5	
32	275	32	140	100	18	121	188	46	5,5	
40	320	40	150	110	18	127	188	49	7,5	

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
50	320	50	165	165	125	125	18	18	158	278	70	9,5	9,5
65	325	65	185	185	145	145	18	18	171	278	74	13,5	13
80	350	80	200	200	160	160	18	18	218	279	114	19	18
100	350	100	220	235	180	190	18	22	253	400	113	24	30
125	375	125	250	270	210	220	18	26	272	600	121	34	41
150	515	150	285	300	240	250	22	26	281	870	117	65	72
200	560	200	340	360	295	310	22	26	343	1200	135	120	130
250	595	250	405	425	355	370	26	30	-	-	158	160	170
300	716	290	460	485	410	430	26	30	-	-	206	220	230
350	802	340	520	555	470	490	26	33	-	-	267	350	374
400	1140	390	580	620	525	550	30	36	-	-	306	610	660
500	1016	489	715	730	650	660	33	36	-	-	308	1100	1150
600	1130	589	840	845	770	845	36	39	-	-	371	2520	2575
700	1245	684	910	960	840	960	36	42	-	-	416	3660	3840
800	1385	779	1025	1085	950	1085	39	48	-	-	421	5400	5400

Sizes DN 15 - 200 can be operated with handlever. We recommend to use a manual gear from the size DN125 and larger.

The opening and closing of valves is stepless.

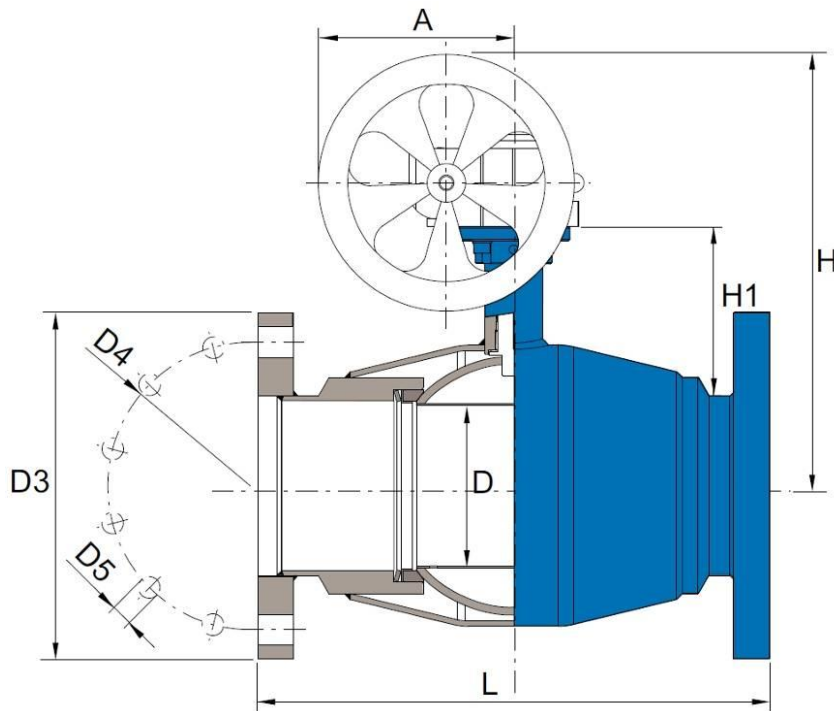
The valve is open when the handlever is in line with pipe.

Flanges: EN1092-1

Face to face dimensions according to: EN558-1



## Manual gear 32500TR-N



DN	L	A	D	D3		D4		D5		H	H1	Weight kg	
				PN16	PN25	PN16	PN25	PN16	PN25			PN16	PN25
100	350	153	100	220	235	180	190	18	22	316	124	31	34
125	375	153	125	250	270	210	220	18	26	336	132	39	45
150	515	194	150	285	300	240	250	22	26	369	117	67	75
200	560	247	200	340	360	295	310	22	26	444	135	120	130
250	595	368	250	405	425	355	370	26	30	593	158	165	176
300	716	368	290	460	485	410	430	26	30	668	206	260	266
350	802	388	340	520	555	470	490	26	33	750	266	360	385
400	1140	430	390	580	620	525	550	30	36	826	306	680	698
500	1016	430	489	715	730	650	660	33	36	893	308	1260	1280
600	1130	603	589	770	845	840	770	36	39	1128	371	2650	2760
700	1245	603	684	840	960	910	875	36	42	1208	406	3760	3860
800	1385	642	779	950	1085	1025	990	39	48	1343	448	5760	5870

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

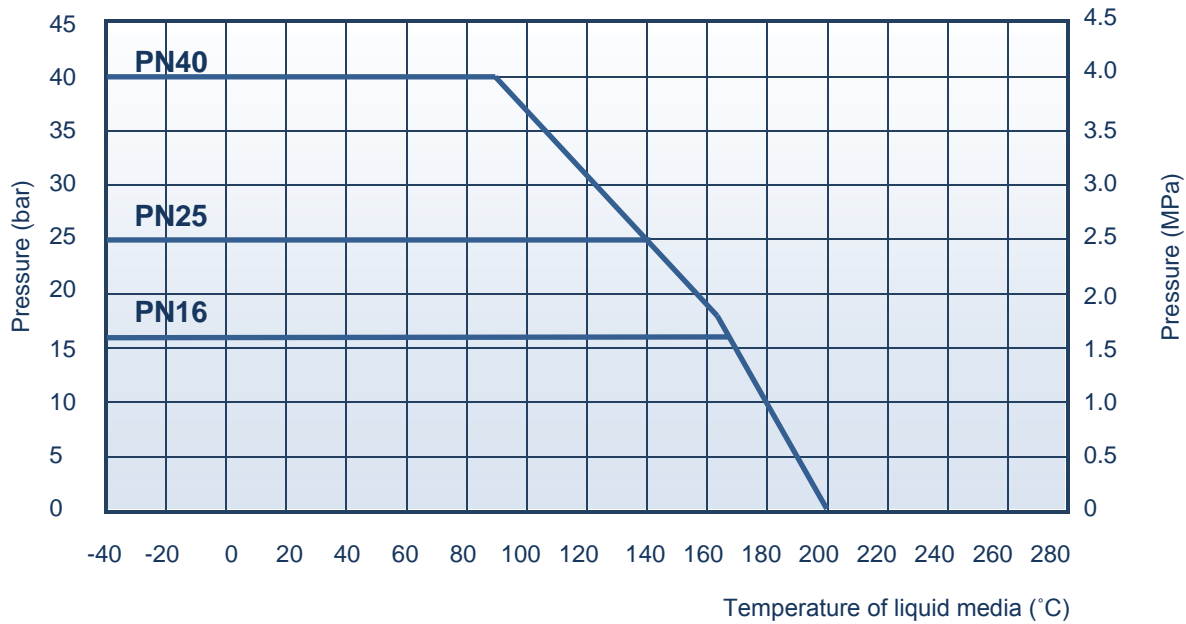
**Face to face dimensions according to:** EN558-1





### 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

DN	PN 16	PN 25	PN 40
10	12	13	15
15	15	16	18
20	19	21	24
25	25	27	30
32	39	43	43
40	50	55	60
50	68	75	-
65	98	110	-
80	150	250	-
100	270	390	-
125	520	750	-
150	900	1200	-
200	1900	2500	-
250	4000	4000	-
300	3700	4000	-
350	4500	6500	-
400	9000	12000	-
500	9000	12000	-
600	11250	15000	18000
700	17500	23350	28000
800	23400	31250	37500





## 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.

## Table of recommended actuators

DN	Pneumatic actuator RC spring return		Manual gear	Electric actuator AUMA	
	PN 40	PN 16		PN 40	PN 16
15	RC210-SR(RC210-DA)			SG04.3	
20	RC220-SR(RC210-DA)			SG04.3	
25	RC220-SR(RC210-DA)			SG04.3	
32	RC230-SR(RC220-DA)			SG04.3	
40	RC230-SR(RC220-DA)			SG04.3	
50	RC240-SR(RC230-DA)			SG05.1	
65		RC240-SR(RC230-DA)			SG07.1
80		RC250-SR(RC240-DA)			SG07.1
100		RC260-SR(RC250-DA)			SG07.1
125		RC270-SR(RC260-DA)			SG10.1
150		RC270-SR(RC260-DA)			SG12.1
200		RC280-SR(RC270-DA)	Q-2000S-W300/20	SA07.6-VZ4.3/GS100.	
250		(RC280-DA)	Q-4000S-W600	SA10.2-VZ4.3/GS125.3	
300			Q-4000S-W600	SA10.2-VZ4.3/GS125.3	
350			Q-6500S-W500/20	SA10.2-VZ4.3/GS125.3	
400			Q-12000S-W500/20	SA10.2-GZ160.3/GS160.3	
500			Q-12000S-W500/20	SA10.2-GZ160.3/GS160.3	
600			Q-24000S-W700/25	SA10.2-GZ200.3/GS200.3	
700			Q-32000S-W700/25	SA10.2-GZ250.3/GS250.3	
800			Q-50000S-W700/25	SA14.2-GZ250.3/GS250.3	



### How to order

		3	2	000	TR-N	M
Body material:	3 - Carbon steel					
Valve type:	2 - ball valve full bore					
Connection:	000 - welded end 500 - flanged					
Design features:	TR-N – ball made of acid proof steel					
Operation:	( _ ) - handlever, ( Z ) - bare shaft, ( M ) - manual gear					

### Product codes

	Ball valve series 32000-32500
Handlever	32000TR-N _ _
Bare shaft	32000TR-N _ _ Z
Manual gear	32000TR-N _ _ M