

**BALL VALVE**  
of carbon steel  
with welded ends / threaded ends / flanges  
**34000 - 34500 series**




**Description**

Edition 30-09-2010

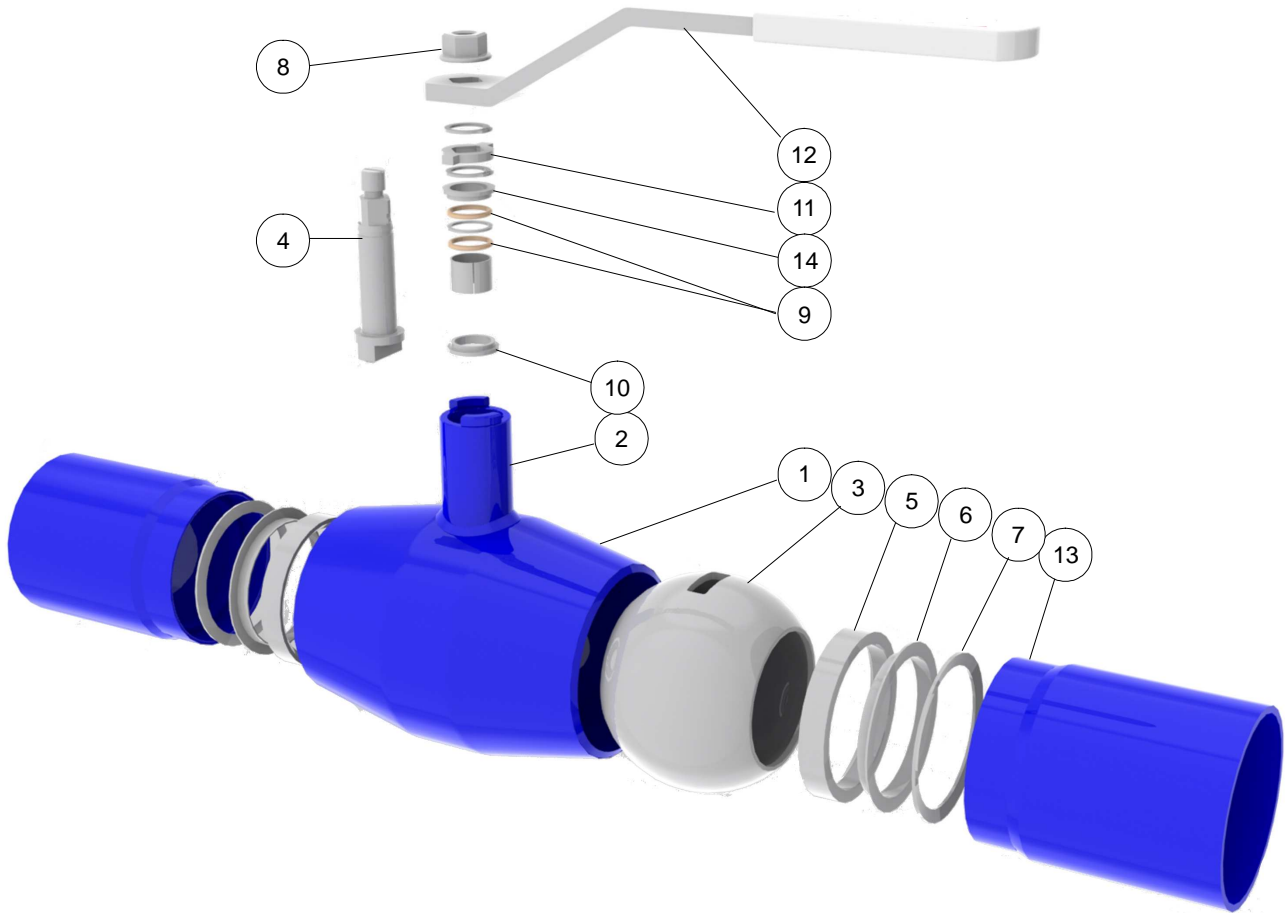
Ball valve series 34000 - 34500 is a tight on-off valve and suitable for liquid and air pipe systems. This valve is suitable for District Heating (CHP) installations, Heat Transfer piping, oil lines and oxygen-free water lines.

All-welded ball valve is made of carbon steel. Floating ball and blow-out proof stem are made of stainless steel. Ball sealing is of PTFE+C. Stem has O-rings.

Nominal dimensions:	34000TR-N – DN 10 - 600,
	34200TR-N, 34300TR-N – DN 10 - 50,
	34500TR-N – DN 15 - 600
Nominal pressure	34000TR-N, DN 10 - 50 – PN40 bar, DN 65 - 600 – PN25 bar, DN 125 - 600 – PN16 bar
	34200TR-N, DN 10 - 50 – PN40 bar
	34300TR-N, DN 10 - 50 – PN40 bar
Connection	34000TR-N series – welded ends, 34200TR-N series – threaded socket / welded end, 34300TR-N series – threaded ends, 34500TR-N series – flanges: EN1092-1
	34500TR-N, DN 15 - 50 – PN40 bar, DN 65 - 600 – PN16 or PN25 bar according to flanges drilling
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. 



### Exploded view



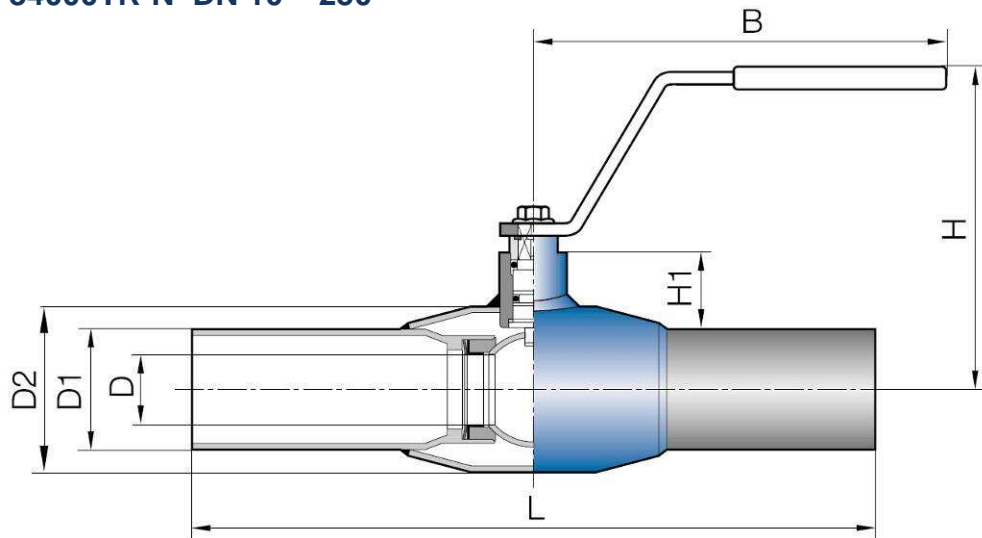
### Parts list and standard materials

	Part	Material	
		DN10-500	DN600
1	Body	Carbon steel P235GH	Carbon steel W1.0345
2	Stem Housing	Carbon steel P355NH	Carbon steel W1.0425
3	Ball	Stainless steel 1.4301	Stainless steel W1.4301
4	Stem	Stainless steel 1.4305	Stainless steel W1.4460
5	Seal	Teflon PTFE+C	Teflon PTFE+C
6	Bevel washer	Spring steel	Steel
7	Support ring	Stainless steel	Steel
8	Screw	Steel	
9	O-ring	FPM	EPDM
10	Thrust washer	PTFE	
11	Stop	Stainless steel 1.4016 / 1.4404	
12	Handle	Zinc-plated steel	
13	End pipe	Carbon steel P235GH	Carbon steel ASTM GWCC
14	Stem bushing		



## Dimensions. 34000TR-N series valve

## 34000TR-N DN 10 – 250



DN	L	D	D1	D2	H	B	H1	Weight, kg
10	230	10	17,2	33,7	98	145	22	0,5
15	230	10	21,3	33,7	98	145	22	0,5
20	230	15	26,9	42,4	103	145	23	0,7
25	230	20	33,7	48,3	118	145	34	1,0
32	260	25	42,4	60,3	121	145	33	1,4
40	260	32	48,3	70,0	120	188	43	1,8
50	300	40	60,3	88,9	127	188	44	2,6
65	300	50	76,1	101,6	159	277,5	62	4,4
80	300	65	88,9	121	171	277,5	68	5,6
100	325	80	114,3	146	218	278,5	101	8,4
125	325	100	139,7	177,8	252	400	101	13,4
150	350	125	168,3	219,1	272	600	107	18,0
200	390	150	219,1	273	300	900	123	36,3
250	520	200	273	355,6	345	1220	122	72,0

Sizes DN 25 - 250 can be operated with handlever. We recommend to use a manual gear from the size DN125 and larger.

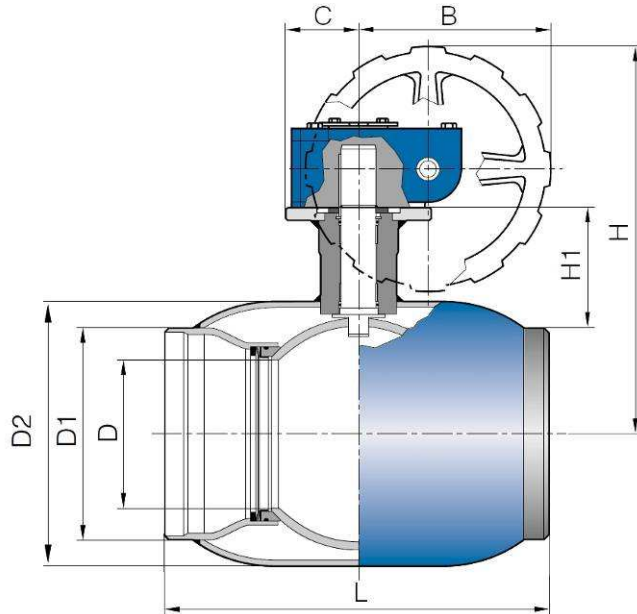
The opening and closing of valves is stepless.

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

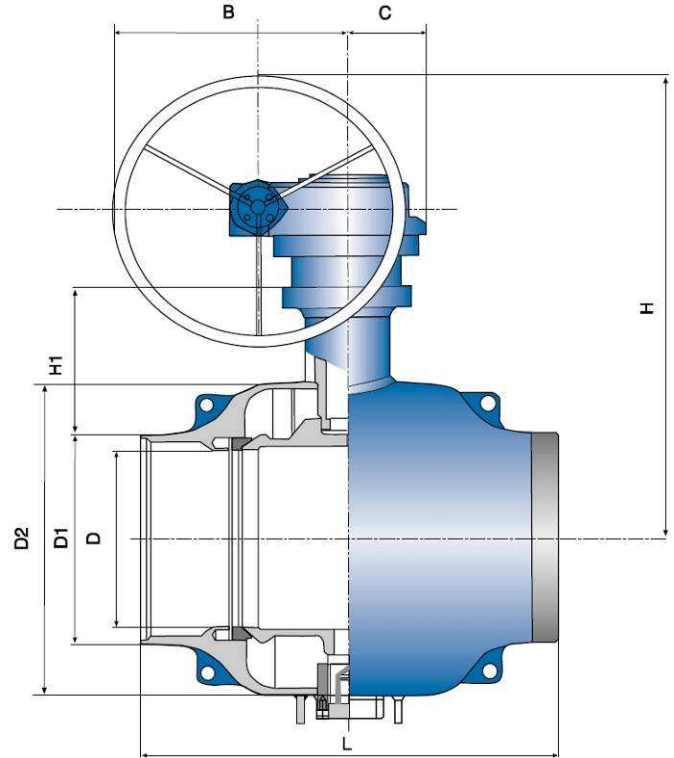


### Manual gear

#### 34000TR-N DN 125 – 500



#### 34000TR-N DN 600



DN	L	D	D1	D2	H	B	C	H1	Weight, kg	
									PN 16	PN 25
125	325	100	139,7	177,8	309	145	50	101	18	19
150	350	125	168,3	219,1	330	145	50	107	23	24
200	390	150	219,1	273	398	196	75	123	46	48
250	520	200	273	355,6	451	236	100	122	87	90
300	635	250	323,9	406,4	572	280	193	155	193	193
350 *	762	335	355,6	559	795	480	170	253	342	342
400	762	350	406,4	559	795	480	170	228	322	322
500	991	390	508	660	857	550	225	221	764	764
600	1067	500	610	1022	1043	480	130	259	1470	1470

\* Full bore valve.

Opening and closing of the valves from the hand wheel.

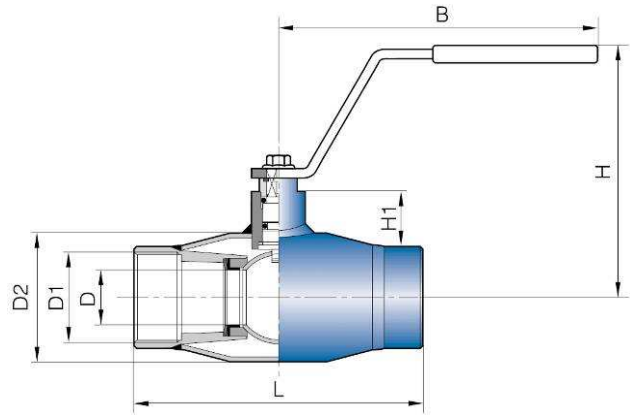
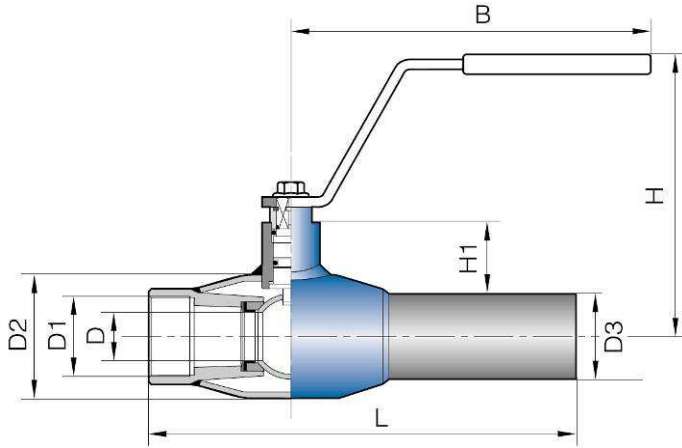
The position of ball can be seen on a position indicator on top of the gear.



Dimensions. 34200TR-N and 34300TR-N series valves

34200TR-N DN 10 – 50

34300TR-N DN 10 – 50



DN	L	D	D1	D2	D3	H	B	H1	kg
10	153	10	R 3/8	33,7	17,2	98	145	22	0,5
15	158	10	R 1/2	33,7	21,3	98	145	22	0,5
20	168	15	R 3/4	42,4	26,9	103	145	23	0,6
25	172	20	R 1	48,3	33,7	118	145	34	0,9
32	195	25	R1 1/4	60,3	42,4	121	145	33	1,2
40	205	32	R1 1/2	70,0	48,3	120	188	43	1,7
50	240	40	R 2	88,9	60,3	127	188	44	2,3

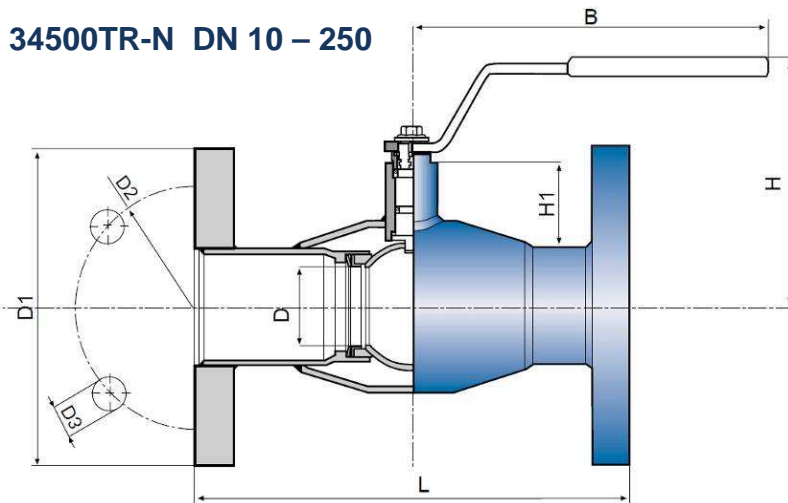
DN	L	D	D1	D2	H	B	H1	kg
10	75	10	R 3/8	33,7	98	145	22	0,5
15	85	10	R 1/2	33,7	98	145	22	0,5
20	100	15	R 3/4	42,4	103	145	23	0,5
25	115	20	R 1	48,3	118	145	34	0,7
32	130	25	R1 1/4	60,3	121	145	33	0,9
40	150	32	R1 1/2	70,0	120	188	43	1,5
50	180	40	R 2	88,9	127	188	44	2,1

The opening and closing of valves is stepless.

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



## Dimensions. 34500TR-N series valve



DN	L	D	D1		D2		D3		H	B	H1		Weight, kg	
			PN 40	PN 40	PN 40	PN 40	PN 40	PN 40			PN 40			
15	130	10	95	65	14	98	145	22	1,9					
20	150	15	105	75	14	103	145	23	2,7					
25	160	20	115	85	14	118	145	34	3,3					
32	180	25	140	100	18	121	145	33	5,0					
40	200	32	150	110	18	120	188	43	6,0					
50	230	40	165	125	18	127	188	44	7,9					

DN	L	D	D1		D2		D3		H	B	H1		Weight, kg	
			PN 16	PN 25	PN 16	PN 25	PN 16	PN 25			PN 16	PN 25	PN 16	PN 25
65	270	50	185	185	145	145	18	18	159	277,5	62	61	10,0	11,3
80	280	65	200	200	160	160	18	18	171	277,5	68	68	12,5	14,9
100	300	80	220	235	180	190	18	22	218	278,5	101	101	18,8	19,4
125	325	100	250	270	210	220	18	26	252	400	101	101	24,3	28,5
150	350	125	285	300	240	250	22	26	272	600	107	107	31,5	37,1
200	400	150	340	360	295	310	22	26	300	900	123	123	55,1	63,0
250	530	200	405	425	355	370	26	30	345	1220	122	122	97,8	108,6

Sizes DN 25 - 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.

**Flanges:**

DIN 2501, ISO 2084, SFS 2123, SS 335, EN 1092-1.

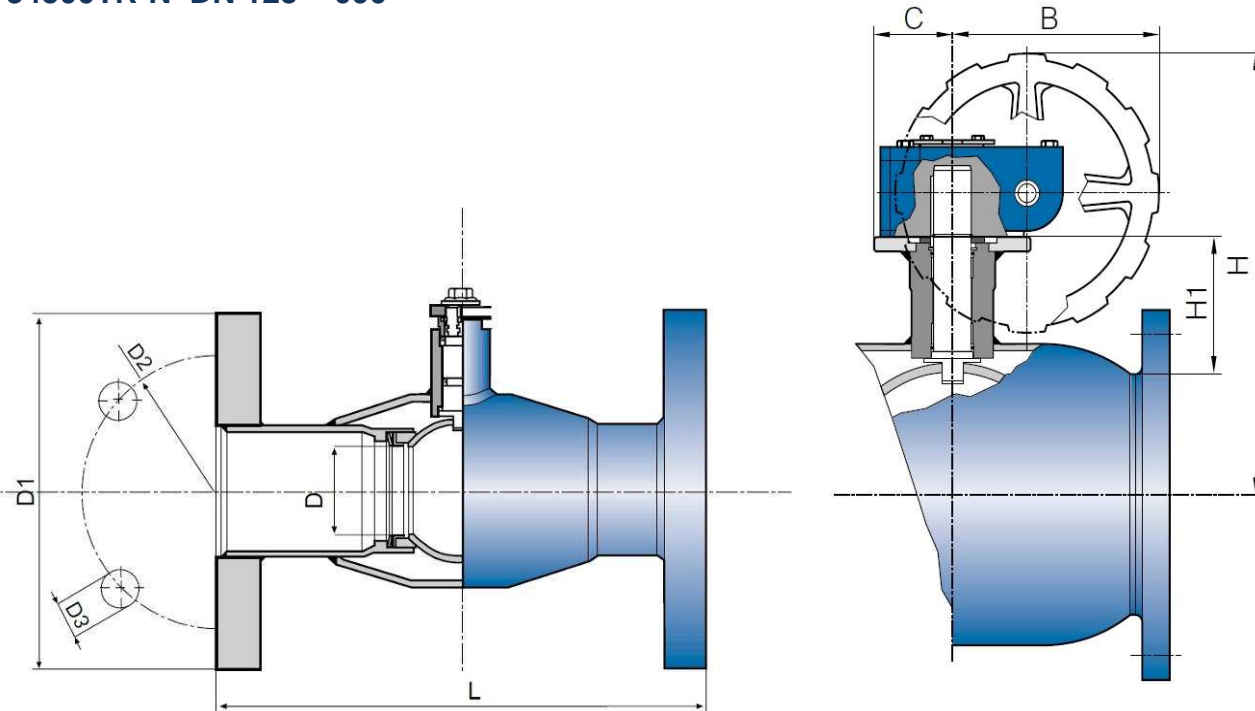
**Face to face dimensions according to:**

- DN 15-50 – DIN 3202/F1
- DN 65-200 – DIN 3202/F5
- DN 250-350 – DIN 3202/F15
- DN 400-500 – DIN 3202/F18
- DN 600 – DIN 3202/F6



## Manual gear

### 34500TR-N DN 125 – 600



DN	L	D	D1		D2		D3		H	B	C	H1	Weight, kg	
			PN 16	PN 25	PN 16	PN 25	PN 16	PN 25					PN 16	PN 25
125	325	100	250	270	210	220	18	26	309	145	50	101	29	33
150	350	125	285	300	240	250	22	26	330	145	50	107	36	42
200	400	150	340	360	295	310	22	26	398	196	75	123	65	72
250	530	200	405	425	355	370	26	30	451	236	100	122	113	124
300	630	250	460	485	410	430	26	30	572	280	193	155	229	272
350 *	927	335	520	555	470	490	26	33	795	480	170	253	414	414
400	762	350	580	620	525	550	30	36	795	480	170	228	464	464
500	1016	390	715	730	650	660	33	36	857	550	225	221	914	914
600	1300	500	840	845	770	770	36	39	1043	480	130	259	1644	1745

\* Full bore valve.

Opening and closing of the valves from the hand wheel.

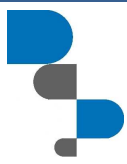
The position of ball can be seen on a position indicator on top of the gear.

#### Flanges:

DIN 2501, ISO 2084, SFS 2123, SS 335, EN 1092-1.

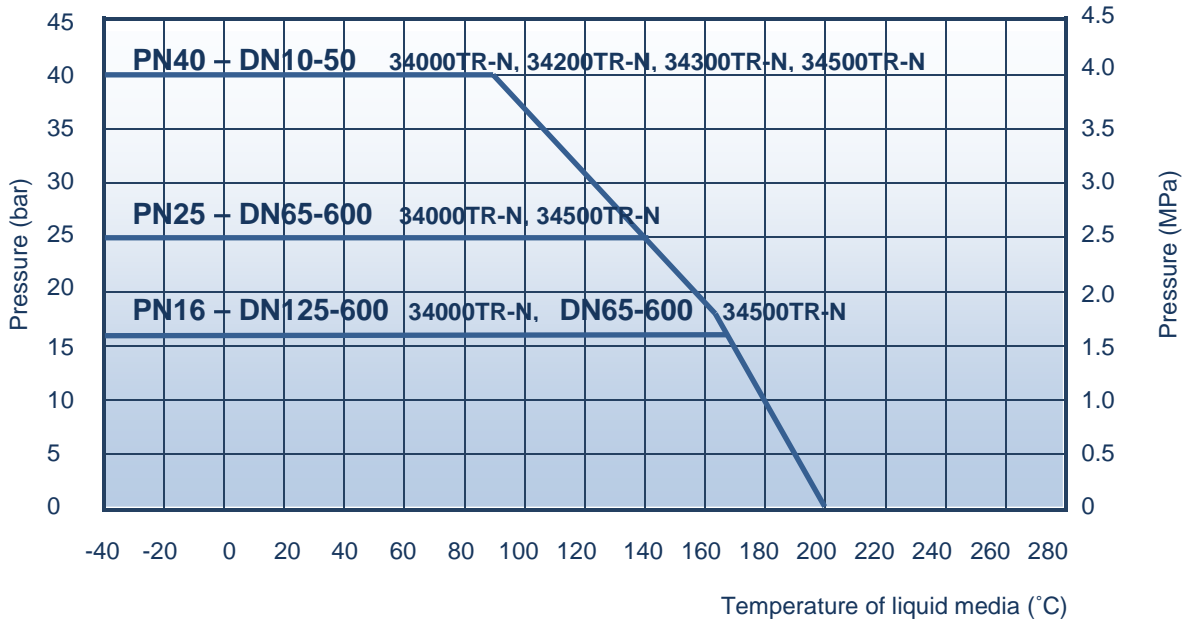
#### Face to face dimensions according to:

DN 15-50 –	DIN 3202/F1
DN 65-200 –	DIN 3202/F5
DN 250-350 –	DIN 3202/F15
DN 400-500 –	DIN 3202/F18
DN 600 –	DIN 3202/F6



### Pressure / Temperature Rating

The max pressure difference depends on the working temperature.



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

### Operation torque, Nm

PN \ DN	10, 15	20	25	32	40	50	65	80	100	125	150	200	250	300	350, 400, 600	500
PN 16	12	15	19	25	39	50	68	98	150	270	520	820	2'050	4'400	11'400	18'500
PN 25	13	16	21	27	43	55	75	110	200	390	750	1'220	3'000	6'300	16'200	26'000
PN 40	15	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.



**BLUE LINE****BALL VALVE  
of carbon steel**

Valves

**34000, 34200, 34300, 34500 series**

30-09-2010

## Table of recommended actuators

DN	Pneumatic actuator RC spring return			Pneumatic actuator RC double action			Electric actuator AUMA		
	PN 40	PN 25	PN 16	PN 40	PN 25	PN 16	PN 40	PN 25	PN 16
10	RC210-SR			RC205-DA			SG04.3		
15	RC210-SR			RC205-DA			SG04.3		
20	RC210-SR			RC210-DA			SG04.3		
25	RC220-SR			RC210-DA			SG04.3		
32	RC220-SR			RC210-DA			SG04.3		
40	RC230-SR			RC220-DA			SG04.3		
50	RC230-SR			RC220-DA			SG04.3		
65		RC240-SR			RC230-DA			SG05.1	SG05.1
80		RC240-SR			RC230-DA			SG05.1	SG05.1
100		RC250-SR			RC240-DA			SG07.1	SG07.1
125			RC260-SR			RC250-DA		SG10.1	SG07.1
150			RC270-SR			RC260-DA		SG12.1	SG10.1
200			RC270-SR			RC260-DA		SG12.1	SG12.1
250			RC280-SR			RC270-DA		SA10.1-GS125.3	SA07.5-GS100.3
300						RC280-DA		SA07.5-GS160.3	SA07.5-GS160.3
350								SA07.5-GS200.3	SA07.5-GS200.3
400									SA07.5-GS200.3
500								SA10.1-GS250.3	SA10.1-GS250.3
600									SA07.5-GS200.3

## How to order

		3	4	000	TR-N	M
Body material:	3 - Carbon steel					
Valve type:	4 - ball valve					
Connection:	000 - welded end 200 - welded end / threaded 300 - threaded 500 - flanged					
Design features	TR-N – stainless steel ball					
Operation:	( _ ) - handlever, ( Z ) - bare shaft, ( M ) - manual gear					

## Product codes

	Ball valve series 34000-34500
Handlever	34000TR-N _ _
Bare shaft	34000TR-N _ _ Z
Manual gear	34000TR-N _ _ M