



# **BALLOMAX<sup>®</sup>**

DESIGNED TO LAST



**SECTION 4**  
**Steel ball valves**  
**Reduced bore**

# Steel ball valve - DN15-20, PN40

Type 61101 / 64101 - Reduced bore

**Female x Welding (long weldingend)**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

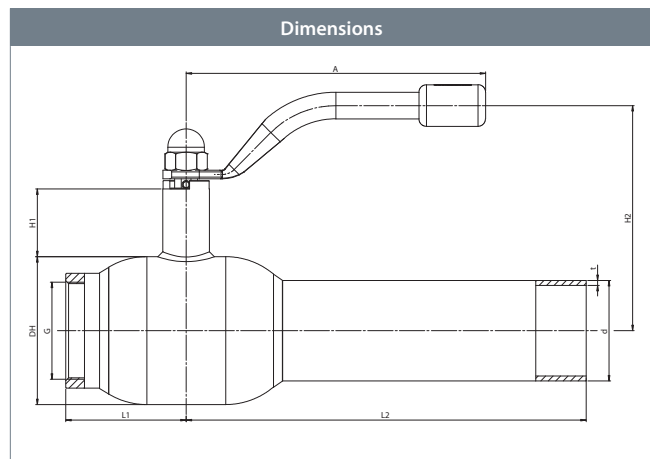
Eco-friendly protection finish against corrosion.

**Operation**

The standard handle is 180 degrees adjustable.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					G	DH	L1	d	t	L2	H1	H2	A
15	61101015S391801	10	8	0.7	½"	38	33	21.3	2.0	187	50	116	140
20	64101020S667101	15	15	0.8	¾"	42	38	26.9	2.3	189	47	115	140

## Steel ball valve - DN15-20, PN40

Type 61101 / 64101 - **Reduced bore**

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	3	Female	Steel - S355J2 / 1.0570 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	21	Cap nut	Steel - galvanized

Accessories	BROEN No.	Dimension	Description
	66050010 000 - gul	DN15-20	T-handles in three different colors - yellow, blue and red. Factory fitted T-handle on request.
	66050010 003 - blå		
	66050010 004 - rød		
	203245	DN15-20	ISO-flange.
	66160010 000	DN15-20	Hexagon for insertion key.

# Steel ball valve - DN15-25, PN40

Type 61105 / 64105 - Reduced bore

### Cap and Chain × Welding

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

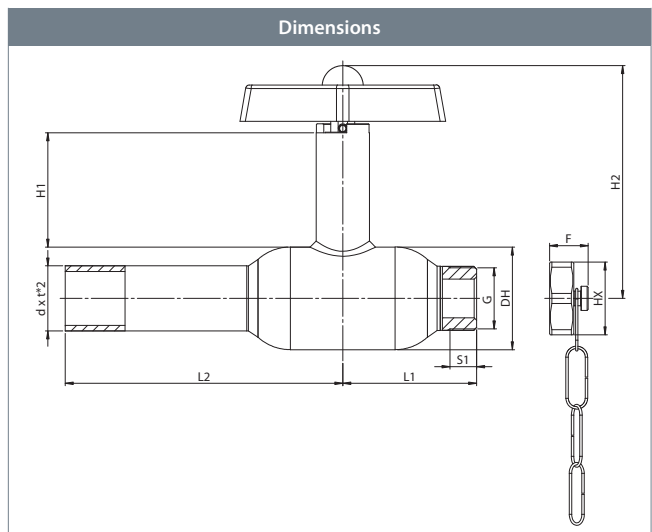
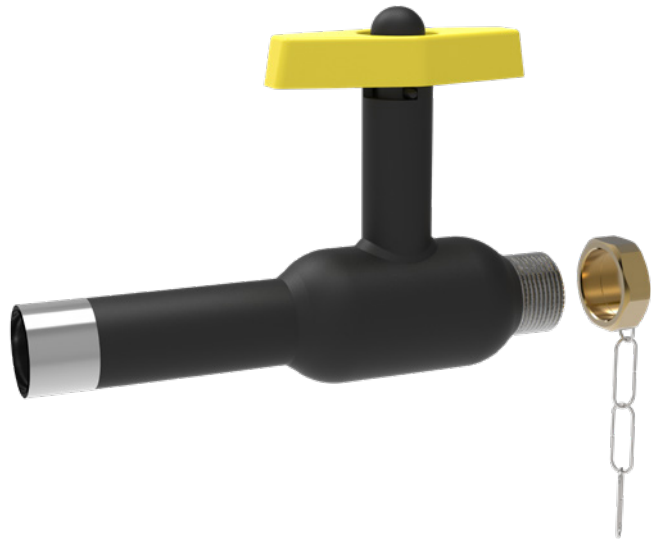
Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm										
					G	S1	DH	L1	d	t	L2	H1	H2	F	HX
15	61105015S268700	10	8	0.8	¾"	11	38	33	21.3	2.0	105	50	97.0	16	30
20	64105020S284900	15	15	0.9	¾"	11	42	55	26.9	2.3	115	47	97.0	16	30
25	64105025S268600	20	27	1.1	1"	14	51	65	33.7	2.6	115	47	119.6	16	36

## Steel ball valve - DN15-25, PN40

Type 61105 / 64105 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	4	Male	Steel - S355J2+N / 1.0570 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
19	Pin	Steel - hardenat	
21	Cap nut	Steel - galvanized	
32	T-handle	Steel - ZL5 ZnA14 CU1 / EN 1774	
33	Cap and chain end	Brass	

# Steel ball valve - DN65-150, PN25

## Type 64102 - Reduced bore

### Welding × Welding

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

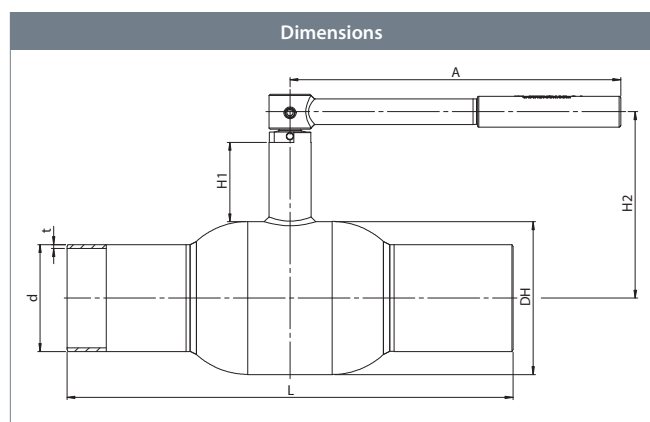
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

ISO-flange can be mounted on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm						
					DH	d	t	L	H1	H2	A
65	64102065 010	50	180	5.0	108	76.1	2.9	360	66	144	275
80	64102080 010	65	288	6.5	127	88.9	3.2	370	66	154	275
100	64102100 010	85	470	9.8	152	114.3	3.6	390	81	193	365
125	64102125 010	100	699	12.4	178	139.7	3.6	390	91	211	365
150	64102150 010	125	1046	21.1	219	168.3	4.0	390	101	249	650

## Steel ball valve - DN65-150, PN25

Type 64102 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	

# Steel ball valve - DN65-100, PN25

Type 64902 - **Reduced bore** - FLOWOPTIMIZED

**Welding × Welding**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

Eco-friendly protection finish against corrosion.

**Operation**

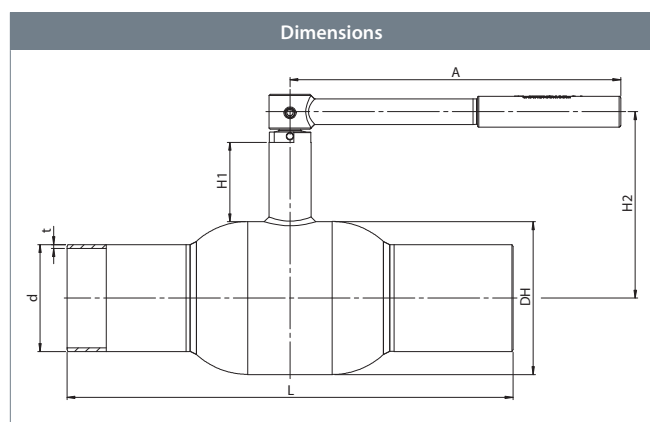
The standard handle is 180 degrees adjustable.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

**Notice**

ISO-flange can be mounted on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm						
					DH	d	t	L	H1	H2	A
65	64902065 010	50	180	5.0	108	76.1	2.9	360	66	144	275
80	64902080 010	65	288	6.5	127	88.9	3.2	370	66	154	275
100	64902100 010	85	470	9.8	152	114.3	3.6	390	81	193	365



## Steel ball valve - DN65-100, PN25

Type 64902 - Reduced bore - FLOWOPTIMIZED

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	

# Steel ball valve - DN125-200, PN25

## Type 61102 - Reduced bore

### Welding × Welding with ISO-flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

The following operating devices are available on request:

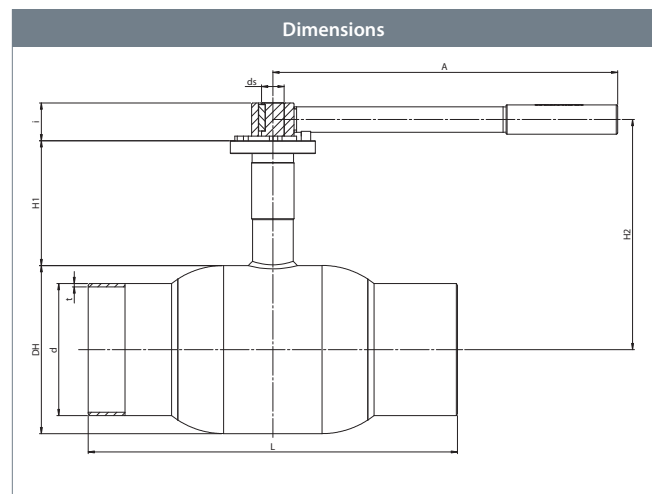
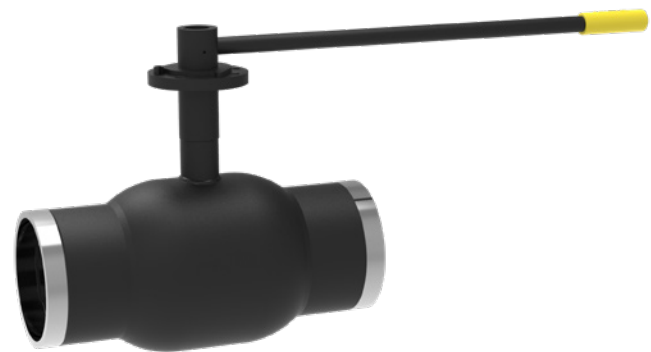
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm									
					DH	d	t	L	H1	H2	ds	i	A	ISO
125	61102125 010	100	699	14.3	178	139.7	3.6	390	132	221	24	40	365	F07
150	61102150 010	125	1046	26.0	219	168.3	4.0	390	135	245	30	50	650	F10
200	61102200 010	150	1500	43.4	267	219.1	4.5	390	155	289	30	60	900	F12

## Steel ball valve - DN125-200, PN25

Type 61102 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2 / 1.0570 / EN 10025-2
	12	Stem	Stainless steel / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel / 1.4305 / EN 10088-3
	19	Stop pin (Unbraco)	Steel - hardenat
	20	Handle	Steel
22	Bearing	Steel - PTFE	
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
24	Pin	Steel - hardenat	
25	Friction gasket	PTFE 20% Carbon	

Accessories	BROEN No.	Dimension	Description
	600584	DN125	BROEN-Gear.
	600585	DN150	
	600586	DN200	

# Steel ball valve - DN125-200, PN25

## Type 61102 - Reduced bore

### Welding × Welding with ISO-flange and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

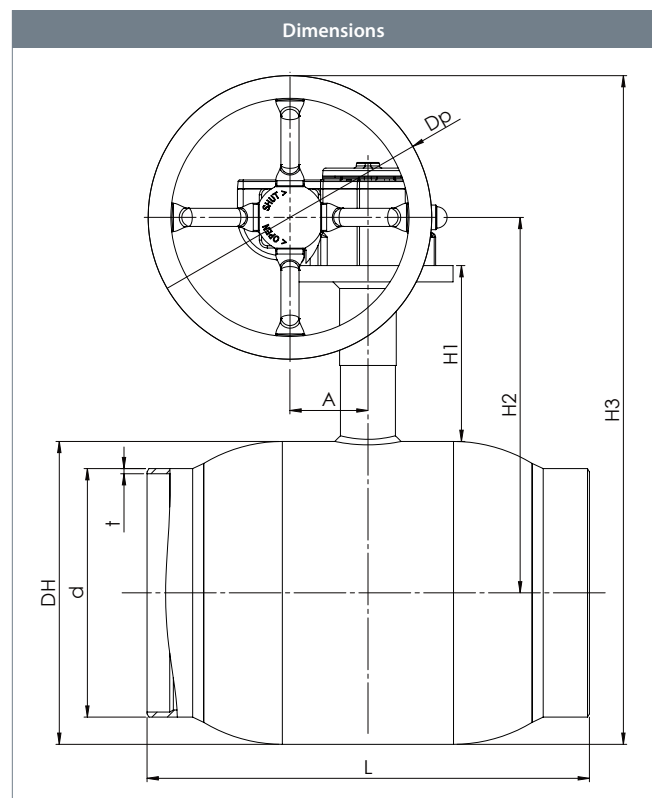
Eco-friendly protection finish against corrosion.

### Operation

Optional column extension.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



					All dimensions in mm								
DN	BROEN No.	Bore	Kvs	net Weight kg	DH	d	t	L	H1	H2	H3	Dp	A
125	6110225125 480	100	699	18.8	178	139.7	3.6	390	132	255	424	160	53
150	6110225150 480	125	1046	34.8	219	168.3	4.0	390	135	287	522	250	69
200	6110225200 480	150	1500	52.3	267	219.1	4.5	390	155	331	590	250	69

## Steel ball valve - DN125-200, PN25

Type 61102 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	22	Bearing	Steel - PTFE
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
25	Friction gasket	PTFE 20% Carbon	
30	Circlip	Steel	
47	Gear	-	

# Steel ball valve - DN250-500, PN25

## Type 85002 - Reduced bore

### Welding × Welding with low stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

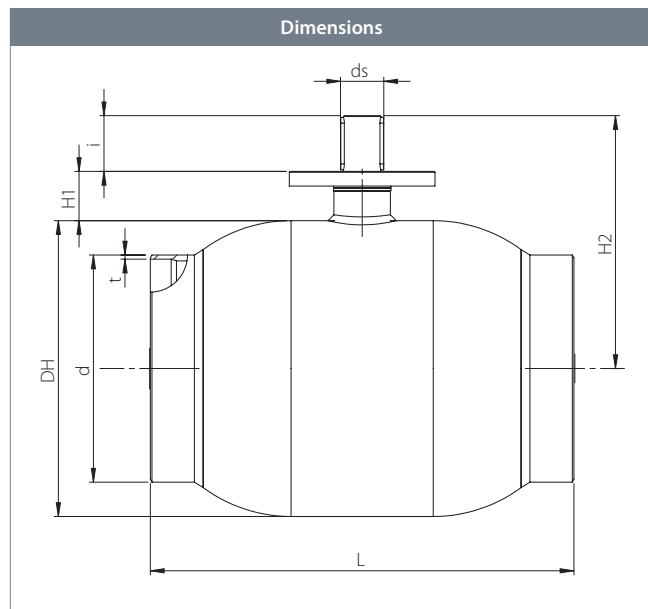
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	d	t	L	H1	H2	ds	i	ISO
250	8500225250 000	200	3200	66	356	273.0	5.0	509	59	304	45	67	F14
300	8500225300 000	250	4700	107	457	323.9	5.6	586	70	382	50	84	F16
350	8500225350 000	250	5500	125	457	355.6	5.6	662	70	382	50	84	F16
400	8500225400 000*	305	10600	187	508	406.4	6.3	734	83	437	60	100	F16
500	8500225500 000*	380	18150	368	660	508.0	6.3	889	105	547	80	112	F30

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85002 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

## Type 85002 - Reduced bore

### Welding × Welding with low stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

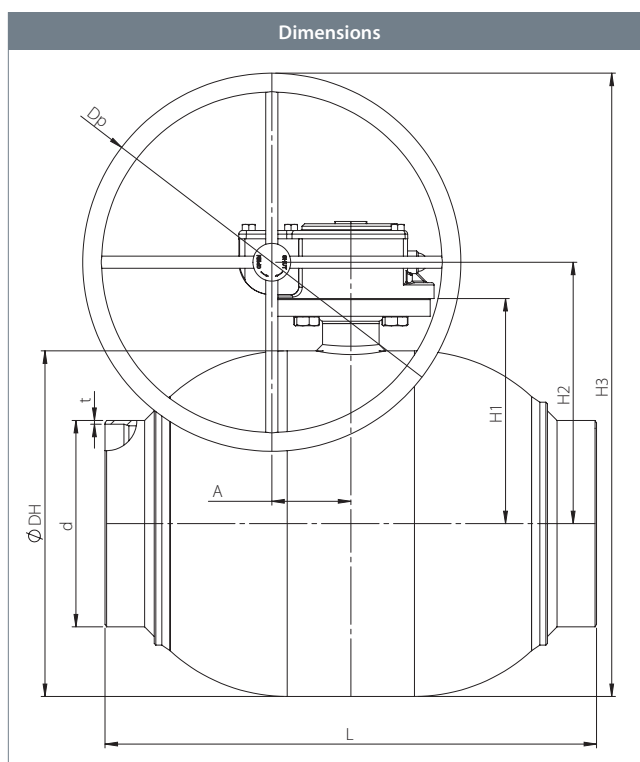
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	d	t	L	H1	H2	H3	Dp	A
250	8500225250 480	200	3200	68.5	356	273.0	5.0	509	59	275	500.0	450	68.8
300	8500225300 480	250	4700	111.9	457	323.9	5.6	586	70	346	596.0	500	104.5
350	8500225350 480	250	5500	130.6	457	355.6	5.6	662	70	346	596.0	500	104.5
400	8500225400 480*	305	10600	197.2	508	406.4	6.3	736	83	387	566.5	350	130.0
500	8500225500 480*	400	18150	435.9	660	508.0	6.3	889	105	494	719.0	450	182.0

\* DN400-500 - with ball flow guide.



## Steel ball valve - DN250-500, PN25

Type 85002 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3

# Steel ball valve - DN250-500, PN25

## Type 85012 - Reduced bore

### Welding × Welding with high stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

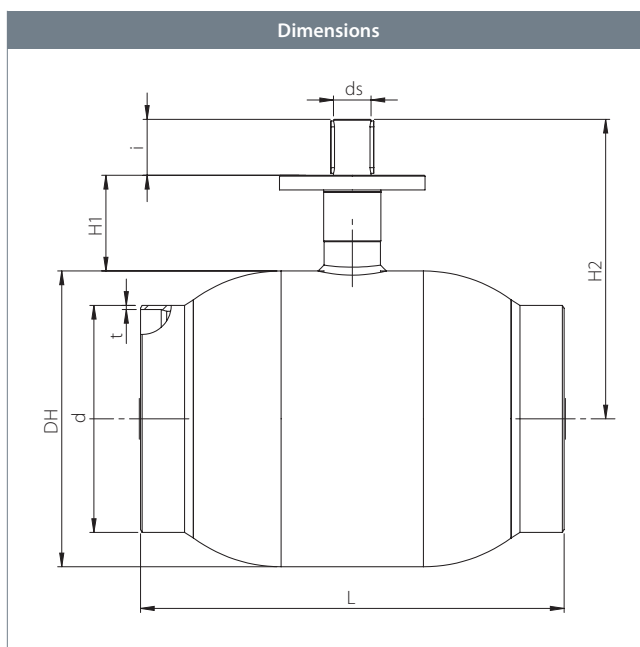
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	d	t	L	H1	H2	ds	i	ISO
250	8501225250 000	200	3200	68.0	356	273.0	5.0	509	115	349.8	45	67	F14
300	8501225300 000	250	4700	108.9	457	323.9	5.6	586	130	443.0	50	84	F16
350	8501225350 000	250	5500	127.8	457	355.6	5.6	662	130	443.0	50	84	F16
400	8501225400 000*	305	10600	192.2	508	406.4	6.3	734	155	506.5	60	100	F16
500	8501225500 000*	400	18150	374.0	660	508.0	6.3	889	180	622.0	80	112	F30

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85012 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
49	Bearing	PTFE coated steel	
50	Friction ring	Gunmetal	
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

## Type 85012 - Reduced bore

### Welding × Welding with high stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

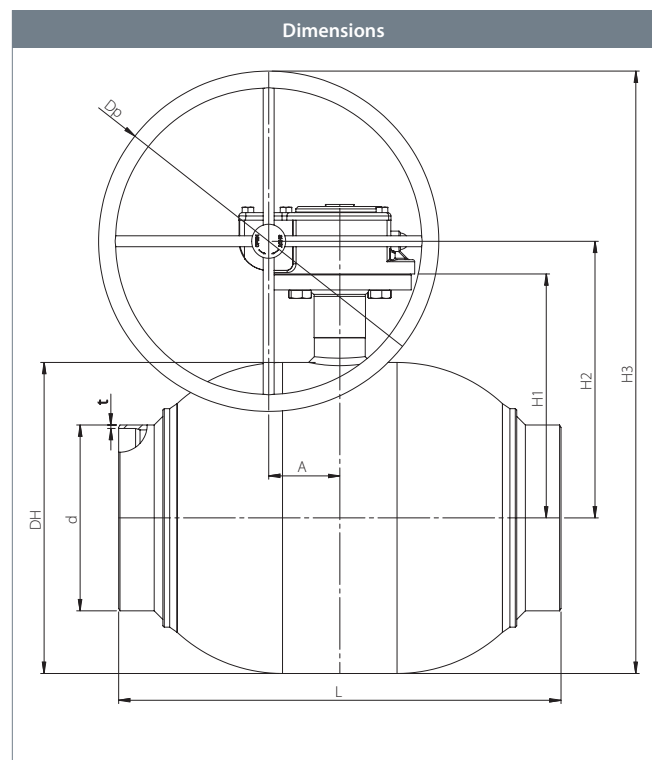
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	d	t	L	H1	H2	H3	Dp	A
250	8501225250 480	200	3200	70.1	356	273.0	5.0	509	115	330	555	450	68.8
300	8501225300 480	250	4700	114.0	457	323.9	5.6	586	130	407	657	500	104.5
350	8501225350 480	250	5500	132.7	457	355.6	5.6	662	130	407	657	500	104.5
400	8501225400 480*	305	10600	200.6	508	406.4	6.3	736	155	460	639	350	130.0
500	8501225500 480*	400	18150	442.2	660	508.0	6.3	889	180	569	794	450	182.0

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85012 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3

# Steel ball valve - DN250-500, PN25

Type 85112 - **Reduced bore** - **FLOWOPTIMIZED**

**Welding × Welding with high stem**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

Eco-friendly protection finish against corrosion.

**Operation**

The following operating devices are available on request:

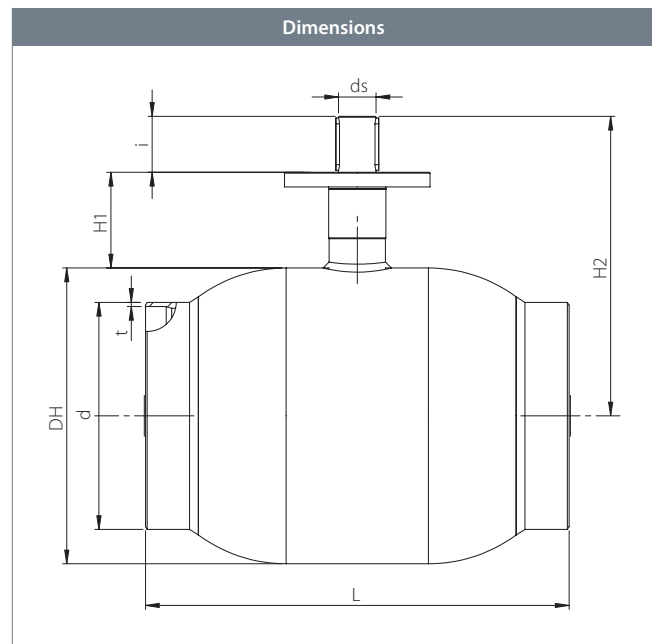
- BROEN-Gear.
- Electric actuator.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

**Notice**

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	d	t	L	H1	H2	ds	i	ISO
250	8511225250 000	200	5300	69.8	356	273.0	5.0	509	115	349.8	45	67	F14
300	8511225300 000	250	8200	111.7	457	323.9	5.6	586	130	443.0	50	84	F16
350	8511225350 000	250	8900	130.6	457	355.6	5.6	662	130	443.0	50	84	F16
400	8511225400 000	305	13700	194.0	508	406.4	6.3	734	155	506.5	60	100	F16
500	8511225500 000	400	20300	376.4	660	508.0	6.3	889	180	622.0	80	112	F30

## Steel ball valve - DN250-500, PN25

Type 85112 - Reduced bore - FLOWOPTIMIZED

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	
54	Flowguides	Steel	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

Type 85112 - **Reduced bore** - **FLOWOPTIMIZED**

**Welding × Welding with high stem and BROEN-Gear**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

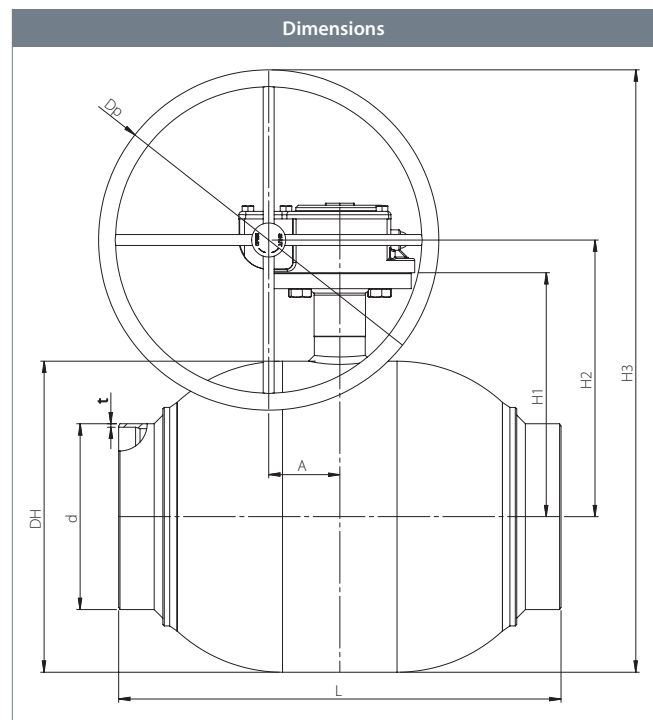
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

Eco-friendly protection finish against corrosion.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



					All dimensions in mm								
DN	BROEN No.	Bore	Kvs	net Weight kg	DH	d	t	L	H1	H2	H3	Dp	A
250	8511225250 480	200	5300	72.7	356	273.0	5.0	509	115	330	555	450	68.8
300	8511225300 480	250	8200	116.6	457	323.9	5.6	586	130	407	657	500	104.5
350	8511225350 480	250	8900	135.3	457	355.6	5.6	662	130	407	657	500	104.5
400	8511225400 480	305	13700	203.2	508	406.4	6.3	736	155	464	639	350	130.0
500	8511225500 480	400	20300	444.8	660	508.0	6.3	889	180	569	794	450	182.0



## Steel ball valve - DN250-500, PN25

Type 85112 - **Reduced bore** - FLOWOPTIMIZED

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	54	Flowguides	Steel

# Steel ball valve - DN20-50, PN40

## Type 64104 - Reduced bore

### Flange × Welding

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

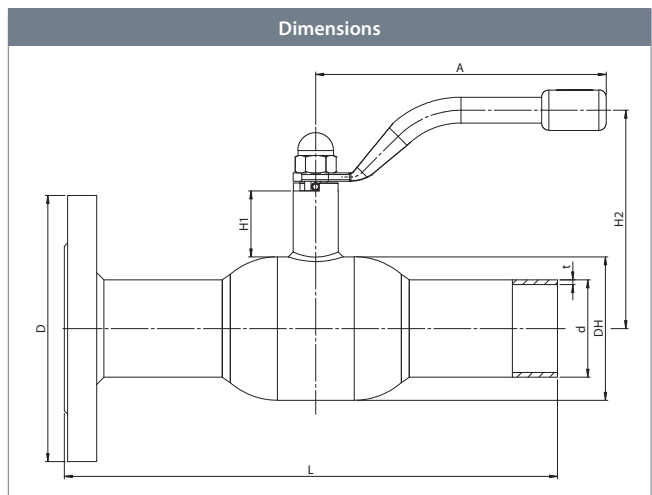
Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm							
					DH	D	d	t	L	H1	H2	A
20	64104020S356700	15	15	1.8	42.0	105	26.9	2.3	235.0	47	116.0	140
25	64104025S271000	20	27	2.4	51.0	115	33.7	2.6	235.0	47	119.5	140
32	64104032S271100	25	40	3.3	57.0	140	42.4	2.6	265.0	48	124.0	140
40	64104040S271200	32	69	4.4	76.1	150	48.3	2.6	265.0	41	129.0	180
50	64104050S271300	40	110	5.5	88.9	165	60.3	2.9	306.0	41	135.0	180

## Steel ball valve - DN20-50, PN40

Type 64104 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	21	Cap nut	Steel - galvanized

Accessories	BROEN No.	Dimension	Description
	66050010 000 - yellow	DN20-32	T-handles in three different colors - yellow, blue and red. Factory fitted T-handle on request.
	66050010 003 - blue		
	66050010 004 - red		
	66050040 000 - yellow	DN40-50	
	66050040 003 - blue		
	66050040 004 - red		
	203245	DN20-32	ISO-flange.
	208245	DN40-50	
	66160010 000	DN20-32	Hexagon for insertion key.
	66160040 000	DN40-50	

# Steel ball valve - DN65-100, PN25

**Type 64104 - Reduced bore**

**Flange × Welding**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

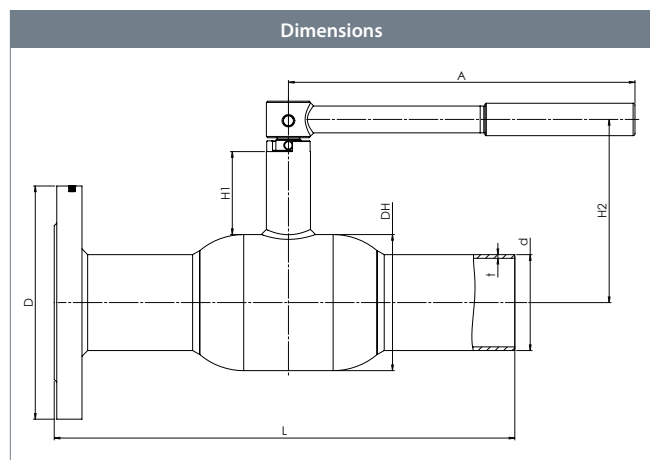
Eco-friendly protection finish against corrosion.

**Operation**

The standard handle is 180 degrees adjustable.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm							
					DH	D	d	t	L	H1	H2	A
65	64104065S271400	50	180	8.7	108.0	185	76.1	2.9	366.0	65.8	145.0	275
80	64104080S233010	65	288	11.3	127.0	200	88.9	3.2	377.5	66.0	153.0	275
100	64104100S271500	80	470	16.3	152.4	235	114.3	3.6	397.5	80.9	192.0	365

## Steel ball valve - DN65-100, PN25

Type 64104 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	
	66160065 000	DN65-80	Hexagon for insertion key.
	66164100 000	DN100	

# Steel ball valve - DN125-150, PN25

## Type 61104 - Reduced bore

### Flange × Welding with ISO-flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

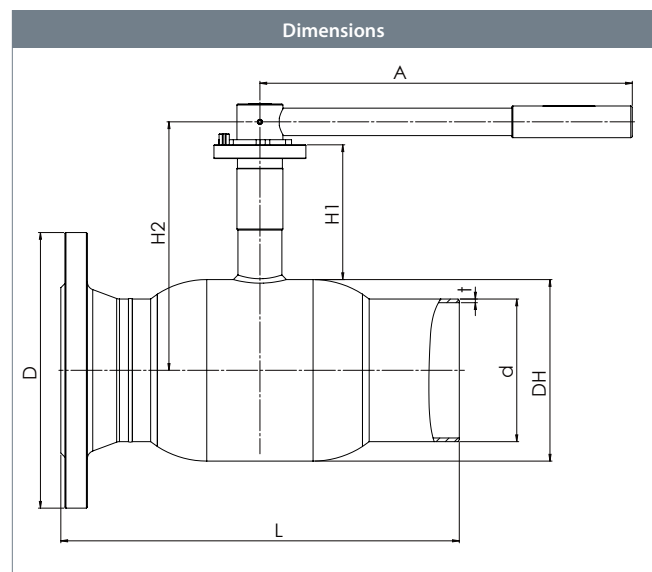
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear. Larger dimensions DN200-500, on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	d	t	L	H1	H2	A	ISO
125	61104125S188000	100	699	21.1	178	270	139.7	3.6	390	132	243	365	F07
150	61104150S188100	125	1046	31.2	219	300	168.3	4.0	390	135	276	650	F10

## Steel ball valve - DN125-150, PN25

Type 61104 - Reduced bore

Technical drawing	Material description		
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	20	Handle	Steel
	22	Bearing	Steel - PTFE
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2

Accessories	BROEN No.	Dimension	Description
	600584	DN125	BROEN-Gear.
	600585	DN150	
	66161100 000	DN125	Hexagon for insertion key.
	66161150 000	DN150	

# Steel ball valve - DN65-100, PN16

## Type 64104 - Reduced bore

### Flange × Welding

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

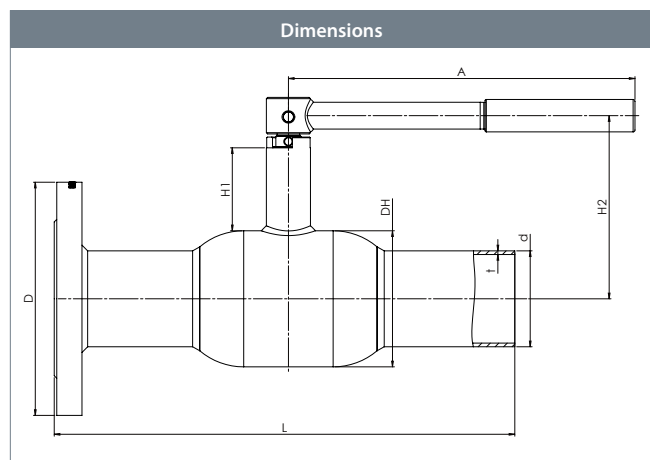
Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm							
					DH	D	d	t	L	H1	H2	A
65	64104065S342500	50	180	8.7	108.0	185	76.1	2.9	360.0	65.8	145.0	275
80	64104080S226500	65	288	11.3	127.0	200	88.9	3.2	377.5	66.0	153.0	275
100	64104100S226600	80	470	16.3	152.4	220	114.3	3.6	397.5	80.9	192.0	365



## Steel ball valve - DN65-100, PN16

Type 64104 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	
	66160065 000	DN65-80	Hexagon for insertion key.
	66164100 000	DN100	

# Steel ball valve - DN125-150, PN16

## Type 61104 - Reduced bore

### Flange × Welding with ISO-flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

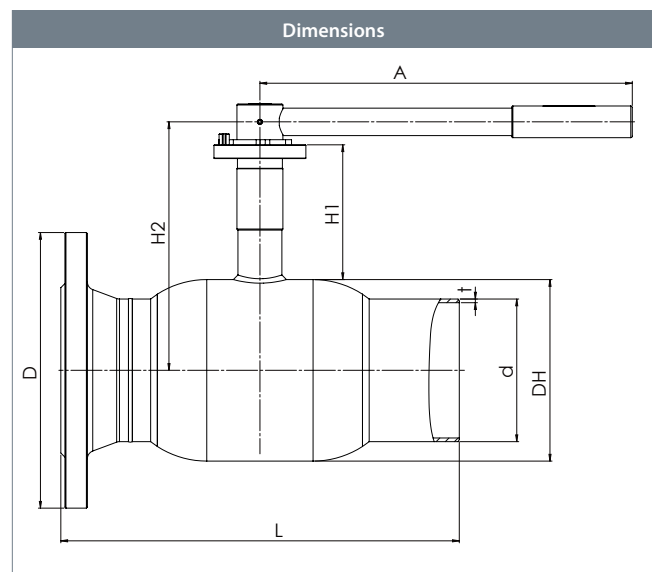
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear. Larger dimensions DN200-500, on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	d	t	L	H1	H2	A	ISO
125	61104125S226700	100	699	29.3	178	250	139.7	3.6	397.5	132	243	365	F07
150	61104150S208600	125	1046	32.5	219	285	168.3	4.0	338.0	135	276	650	F10

## Steel ball valve - DN125-150, PN16

Type 61104 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	20	Handle	Steel
	22	Bearing	Steel - PTFE
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2

Accessories	BROEN No.	Dimension	Description
	600584	DN125	BROEN-Gear.
	600585	DN150	
	66161100 000	DN125	Hexagon for insertion key.
	66161150 000	DN150	

# Steel ball valve - DN15-50, PN40

## Type 61103 / 64103 - Reduced bore

### Flange × Flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

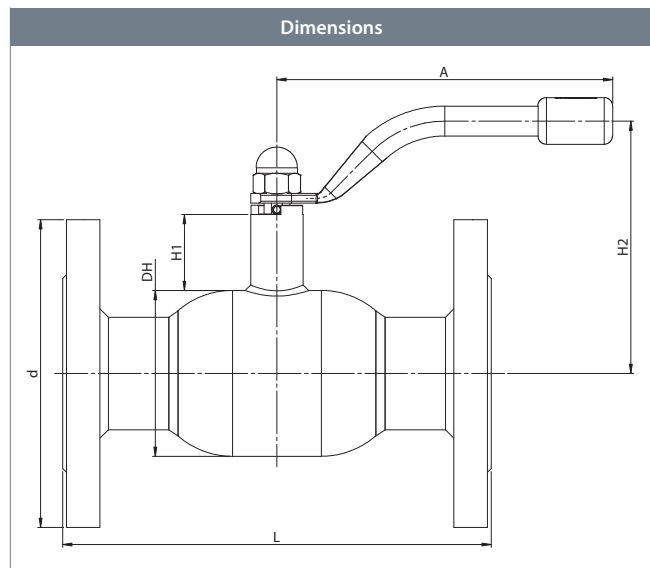
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

Other lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm					
					DH	d	L	H1	H2	A
15	61103015 010	10	8	1.5	38	95	130	50	116	140
20	64103020 010	15	15	2.9	42	105	150	47	85	140
25	64103025 010	20	27	3.5	51	115	160	47	89	140
32	64103032 010	25	40	4.8	57	140	180	48	93	140
40	64103040 010	32	69	6.2	76	150	200	41	108	180
50	64103050 010	40	110	8.2	89	165	230	41	114	180

## Steel ball valve - DN15-50, PN40

Type 61103 / 64103 - **Reduced bore**

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	21	Cap nut	Steel - galvanized

Accessories	BROEN No.	Dimension	Description
	66050010 000 - yellow	DN15-32	T-handles in three different colors - yellow, blue and red. Factory fitted T-handle on request.
	66050010 003 - blue		
	66050010 004 - red		
	66050040 000 - yellow	DN40-50	
	66050040 003 - blue		
	66050040 004 - red		
	203245	DN15-32	ISO-flange.
	208245	DN40-50	
	66160010 000	DN15-32	Hexagon for insertion key.
	66160040 000	DN40-50	

Special model: Minimum length - Flange x Flange - DN15-50:

DN	Standard length - mm	Minimum length - mm
15	130	On request
20	150	118
25	160	130
32	180	135
40	200	150
50	230	165

# Steel ball valve - DN65-150, PN25

## Type 64103 - Reduced bore

### Flange × Flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

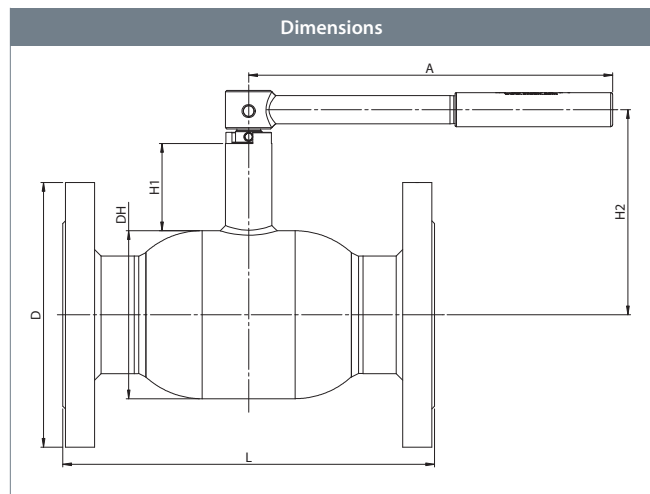
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

Other pressure levels, lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm					
					DH	D	L	H1	H2	A
65	6410325065 010	50	180	9,9	108	185	270	66	144	275
80	6410325080 010	65	288	13,2	127	200	280	66	154	275
100	6410325100 010	85	470	18,3	152	235	300	81	193	365
125	6410325125 010	100	699	27,1	178	270	325	91	211	365
150	6410325150 010	125	1046	36,2	219	300	350	101	249	650

## Steel ball valve - DN65-150, PN25

## Type 64103 - Reduced bore



Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	
	66160065 000	DN65-80	Hexagon for insertion key.
	66164100 000	DN100	
	66161100 000	DN125	
	66161150 000	DN150	

Special model: Minimum length - Flange x Flange - DN65-150:

DN	Standard length - mm	Minimum length - mm
65	270	206
80	280	224
100	300	244
125	-	-
150	-	-

# Steel ball valve - DN125-200, PN25

## Type 61103 - Reduced bore

### Flange × Flange with ISO-flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

The following operating devices are available on request

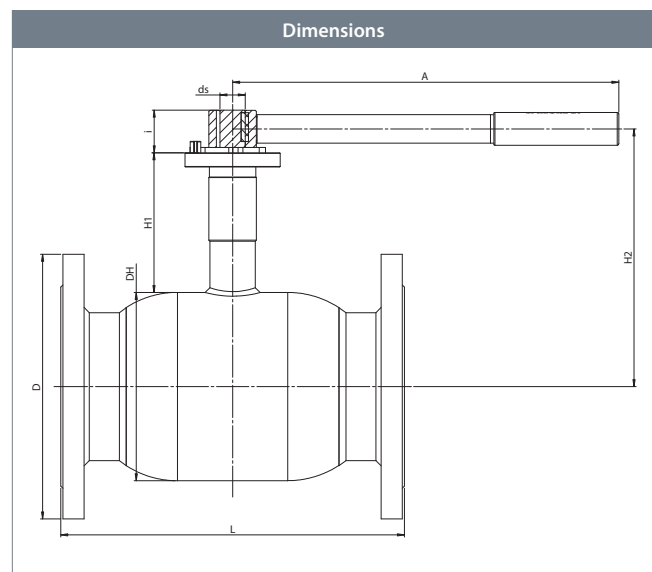
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear. Other pressure levels, lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	L	H1	H2	ds	i	A	ISO
125	6110325125 010	100	699	25.1	178	270	325	132	221	24	40	365	F07
150	6110325150 010	125	1046	38.2	219	300	350	135	245	30	50	650	F10
200	6110325200 010	150	1500	61.7	267	360	400	155	289	30	60	900	F12



## Steel ball valve - DN125-200, PN25

## Type 61103 - Reduced bore



Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	20	Handle	Steel
	22	Bearing	Steel - PTFE
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
25	Friction gasket	PTFE 20% Carbon	

Accessories	BROEN No.	Dimension	Description
	600584	DN125	BROEN-Gear.
	600585	DN150	
	600586	DN200	
	66161100 000	DN125	Hexagon for insertion key.
	66161150 000	DN150	

Special model: Minimum length - Flange x Flange - DN125-200:

DN	Standard length - mm	Minimum length - mm
125	325	272
150	350	300
200	400	385

# Steel ball valve - DN125-200, PN25

## Type 61103 - Reduced bore

### Flange × Flange with ISO-flange and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

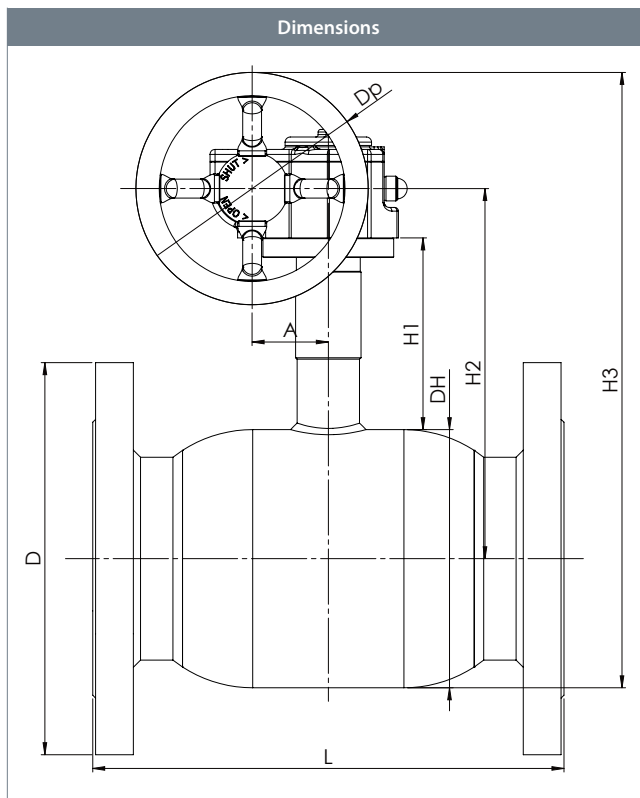
Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

Other pressure levels, lengths and special flanges available on request.



					All dimensions in mm							
DN	BROEN No.	Bore	Kvs	net Weight kg	DH	D	L	H1	H2	H3	Dp	A
125	6110325125 480	100	699	32.4	178	270	325	132	255	424	160	53
150	6110325150 480	125	1046	47.1	219	300	350	135	287	522	250	69
200	6110325200 480	150	1500	71.3	267	360	400	155	331	590	250	69

## Steel ball valve - DN125-200, PN25



## Type 61103 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3	
22	Bearing	Steel - PTFE	
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
47	Gear	-	

Special model: Minimum length - Flange x Flange - DN125-200:

DN	Standard length - mm	Minimum length - mm
125	325	272
150	350	300
200	400	385

# Steel ball valve - DN250-500, PN25

## Type 85004 - Reduced bore

### Flange × Flange with low stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

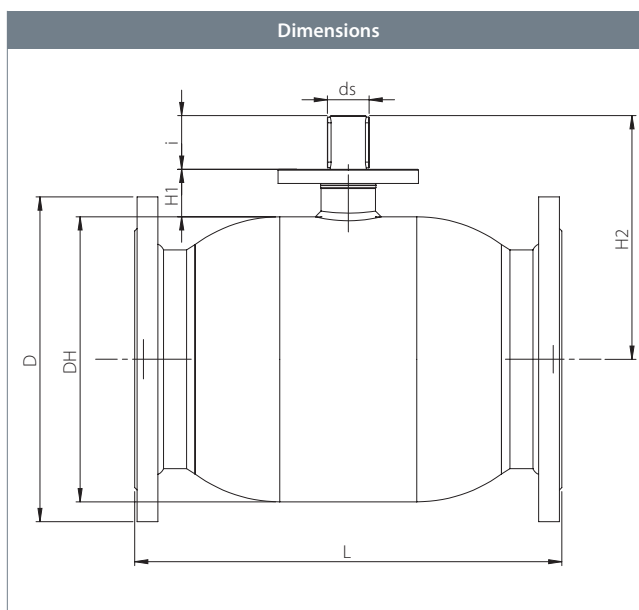
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8500425250 000	200	3200	92.8	356	405	-	533	60.2	304	45	67	F14
300	8500425300 000	250	4700	141.8	457	460	-	610	69.2	382	50	84	F16
350	8500425350 000	250	5500	178.7	457	520	-	686	69.2	382	50	84	F16
400	8500425400 000*	305	10600	297.8	508	620	-	762	82.5	437	60	100	F16
500	8500425500 000*	400	18150	535.0	660	730	-	914	105.0	547	80	112	F30

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85004 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

## Type 85004 - Reduced bore

### Flange × Flange with low stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

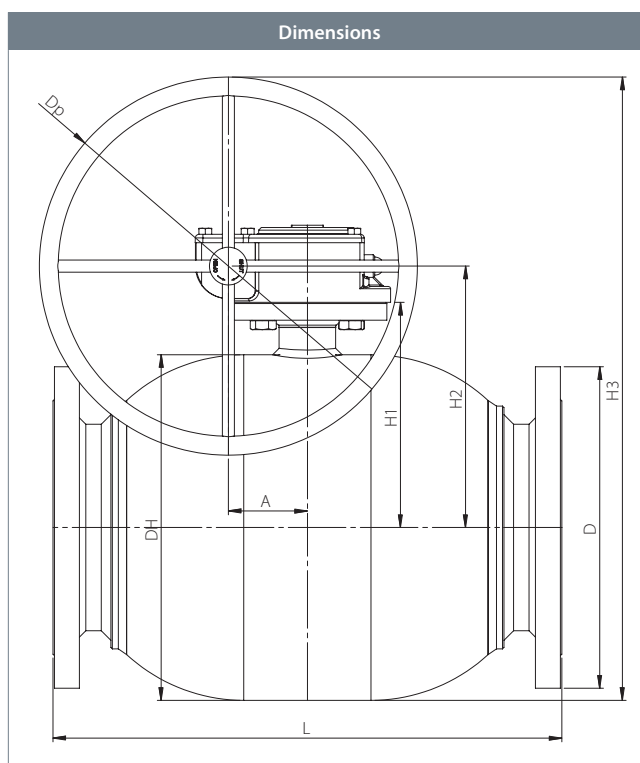
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8500425250 480	200	3200	107.2	356	405	-	533	60.2	275	500.0	450	68.8
300	8500425300 480	250	4700	147.0	457	460	-	610	69.2	346	596.0	500	104.5
350	8500425350 480	250	5500	183.7	457	520	-	686	69.2	346	596.0	500	104.5
400	8500425400 480*	305	10600	306.1	508	620	-	762	82.5	387	566.5	350	130.0
500	8500425500 480*	400	18150	603.1	660	730	-	914	105.0	494	719.0	450	182.0

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85004 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3

# Steel ball valve - DN250-500, PN25

## Type 85014 - Reduced bore

### Flange × Flange with high stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

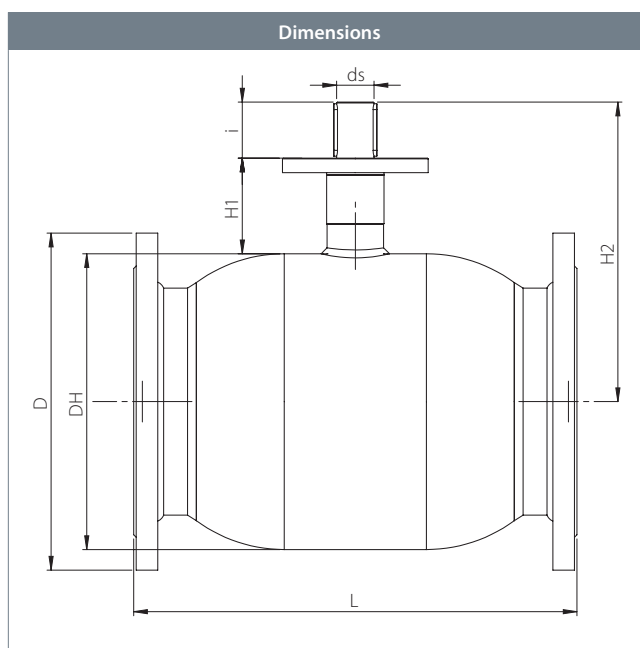
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8501425250 000	200	3200	94.4	356	405	-	533	115	360.0	45	67	F14
300	8501425300 000	250	4700	143.9	457	460	-	610	130	443.0	50	84	F16
350	8501425350 000	250	5500	180.8	457	520	-	686	130	443.0	50	84	F16
400	8501425400 000*	305	10600	301.1	508	620	-	762	155	506.5	60	100	F16
500	8501425500 000*	400	18150	541.2	660	730	-	914	180	622.5	80	112	F30

\* DN400-500 - with ball flow guide.



## Steel ball valve - DN250-500, PN25

Type 85014 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

## Type 85014 - Reduced bore

### Flange × Flange with high stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

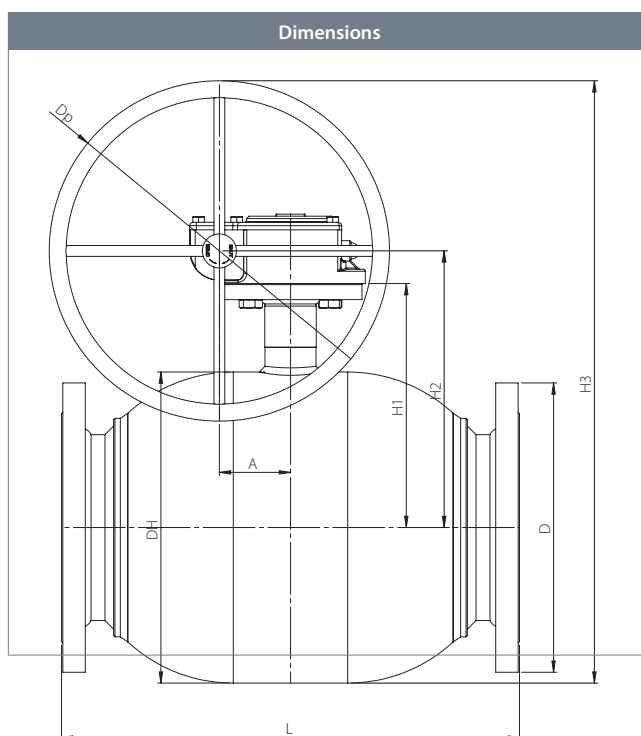
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8501425250 480	200	3200	96.5	356	405	-	533	115	330	555	450	68.8
300	8501425300 480	250	4700	149.1	457	460	-	610	130	407	657	500	104.5
350	8501425350 480	250	5500	185.8	457	520	-	686	130	407	657	500	104.5
400	8501425400 480*	305	10600	309.6	508	620	-	762	155	464	639	350	130.0
500	8501425500 480*	400	18150	609.4	660	730	-	914	180	569	794	450	182.0

\* DN400-500 - with ball flow guide.

## Steel ball valve - DN250-500, PN25

Type 85014 - Reduced bore

Technical drawing	Material description		
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

# Steel ball valve - DN250-500, PN25

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

### Flange × Flange with high stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

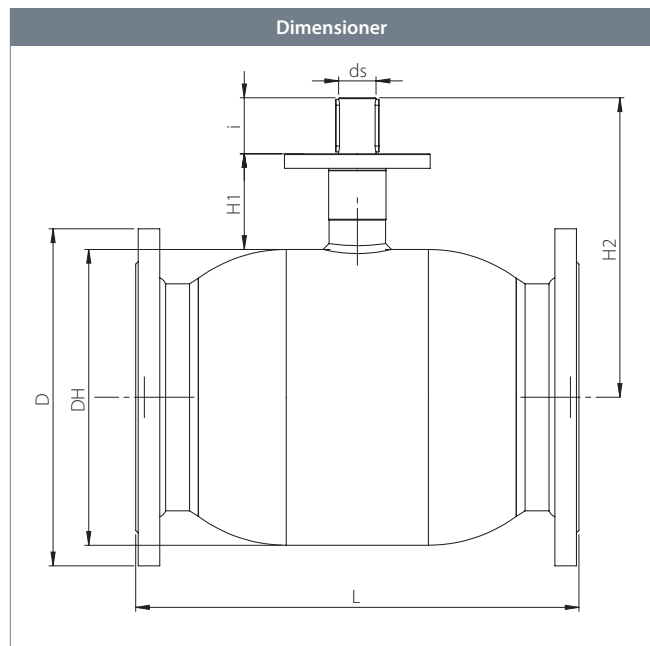
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8511425250 000	200	5300	96.2	356	405	-	533	115	360.0	45	67	F14
300	8511425300 000	250	8200	146.7	457	460	-	610	130	443.0	50	84	F16
350	8511425350 000	250	8900	183.6	457	520	-	686	130	443.0	50	84	F16
400	8511425400 000	305	13700	302.9	508	620	-	762	155	506.5	60	100	F16
500	8511425500 000	400	20300	543.6	660	730	-	914	180	622.5	80	112	F30

## Steel ball valve - DN250-500, PN25

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
49	Bearing	PTFE coated steel	
50	Friction ring	Gunmetal	
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	
54	Flowguides	Steel	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN25

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

**Flange × Flange with high stem and BROEN-Gear**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

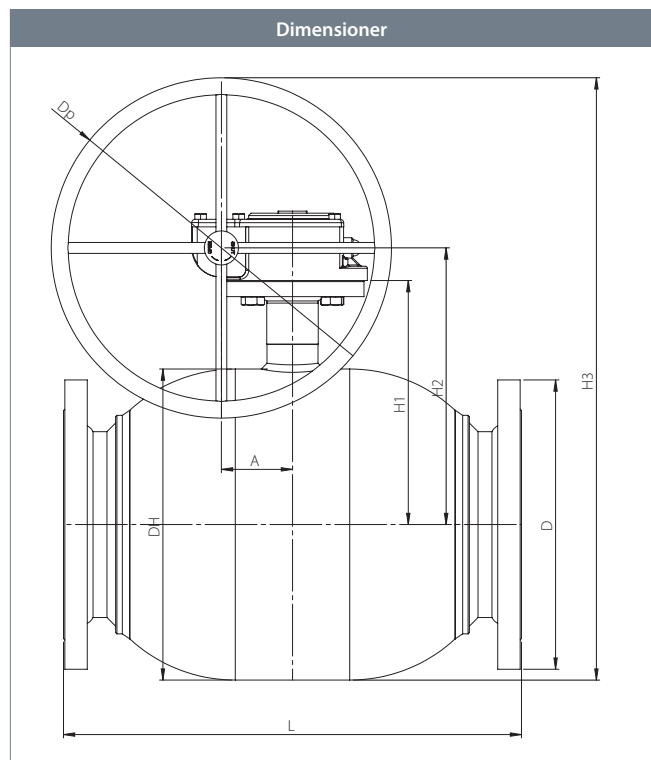
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

Eco-friendly protection finish against corrosion.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8511425250 480	200	5300	99.1	356	405	-	533	115	330	555	450	68.8
300	8511425300 480	250	8200	151.7	457	460	-	610	130	407	657	500	104.5
350	8511425350 480	250	8900	188.4	457	460	-	686	130	407	657	500	104.5
400	8511425400 480	305	13700	312.2	508	620	-	762	155	464	639	350	130.0
500	8511425500 480	400	20300	612.0	660	730	-	914	180	569	794	450	182.0

## Steel ball valve - DN250-500, PN25

Type 85114 - Reduced bore - FLOWOPTIMIZED

Technical drawing	Material description		
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	54	Flowguides	Steel

# Steel ball valve - DN65-150, PN16

## Type 64103 - Reduced bore

### Flange × Flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

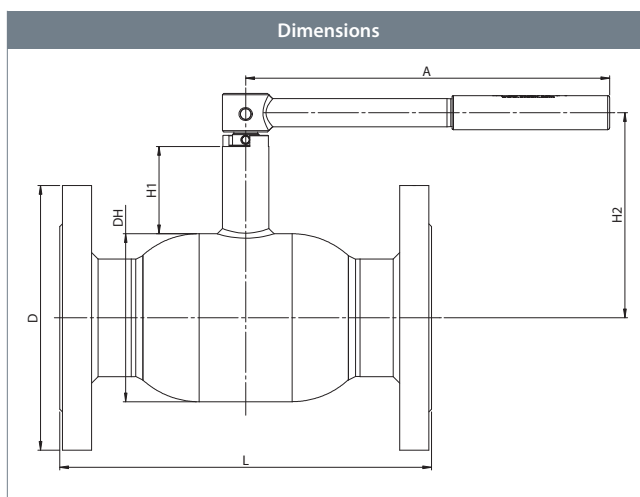
The standard handle is 180 degrees adjustable.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

Other pressure levels, lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm					
					DH	D	L	H1	H2	A
65	64103065 010	50	180	9.9	108.0	185	270	66	144	275
80	64103080 010	65	288	13.2	127.0	200	280	66	154	275
100	64103100 010	85	470	18.3	152.0	220	300	81	193	365
125	64103125 010	100	699	24.3	177.8	250	325	91	212	365
150	64103150 010	125	1046	32.2	219.1	285	350	90	250	650



## Steel ball valve - DN65-150, PN16

## Type 64103 - Reduced bore



Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	19	Pin	Steel - hardenat
	20	Handle	Steel
	22	Bearing	Steel - PTFE

Accessories	BROEN No.	Dimension	Description
	167245	DN65-80	ISO-flange.
	169245	DN100	
	66160065 000	DN65-80	Hexagon for insertion key.
	66164100 000	DN100	
	66161100 000	DN125	
	66161150 000	DN150	

Special model: Minimum length - Flange x Flange - DN65-150:

DN	Standard length - mm	Minimum length - mm
65	270	206
80	280	224
100	300	244
125	-	-
150	-	-

# Steel ball valve - DN125-200, PN16

## Type 61103 - Reduced bore

### Flange × Flange with ISO-flange

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The standard handle is 180 degrees adjustable.

The following operating devices are available on request:

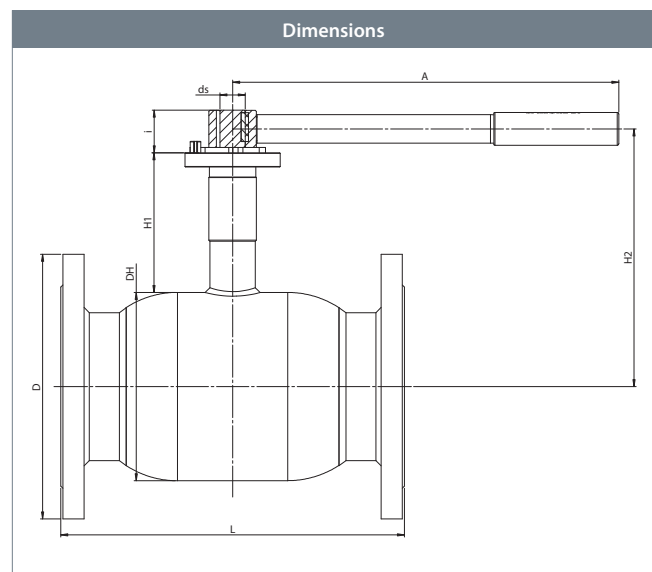
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear. Other pressure levels, lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	L	H1	H2	ds	i	A	ISO
125	61103125 010	100	699	25.1	178	250	325	132	221	24	40	365	F07
150	61103150 010	125	1046	38.2	219	285	350	135	245	30	50	650	F10
200	61103200 000	150	1500	61.7	267	340	400	155	289	30	60	900	F12

## Steel ball valve - DN125-200, PN16

Type 61103 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	17	O-ring	Rubber - FPM70
	18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3
	20	Handle	Steel
	22	Bearing	Steel - PTFE
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
25	Friction gasket	PTFE 20% Carbon	

Accessories	BROEN No.	Dimension	Description
	600584	DN125	BROEN-Gear.
	600585	DN150	
	600586	DN200	
	66161100 000	DN125	Hexagon for insertion key.
	66161150 000	DN150	

Special model: Minimum length - Flange x Flange - DN125-200:

DN	Standard length - mm	Minimum length - mm
125	325	272
150	350	300
200	400	385

# Steel ball valve - DN125-200, PN16

## Type 61103 - Reduced bore

### Flange × Flange with ISO-flange and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

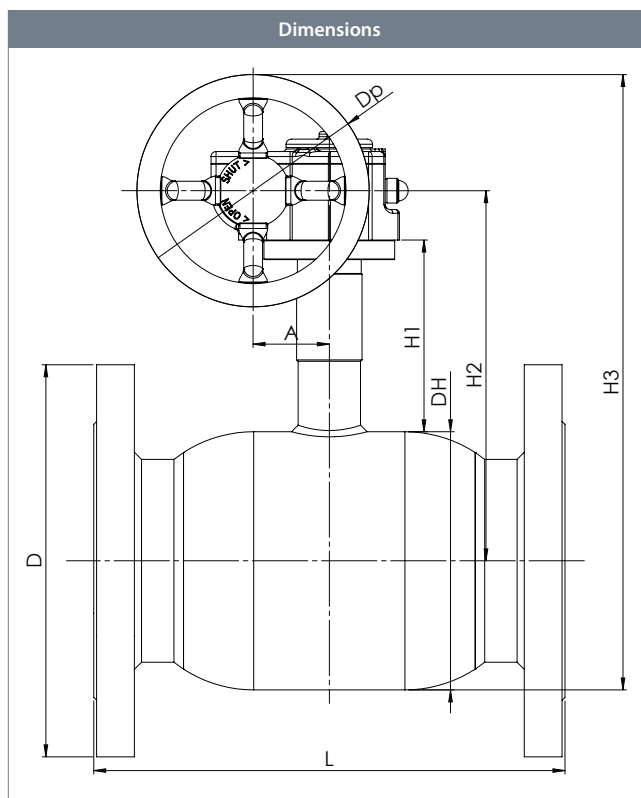
Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

Other pressure levels, lengths and special flanges available on request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm							
					DH	D	L	H1	H2	H3	Dp	A
125	6110316125 480	100	699	29.7	178	250	325	132	221	424	160	53
150	6110316150 480	125	1046	46.8	219	285	350	135	245	522	250	69
200	6110316200 480	150	1500	69.7	267	340	400	155	289	590	250	69

## Steel ball valve - DN125-200, PN16

Type 61103 - Reduced bore

Technical drawing		Material description	
	1	Welding	Steel - P235GH / 1.0345 / EN 10217-2
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	8	Back-up ring	Steel - DC01 / 1.0330 / EN 10130
	9	Disc spring	Steel - C75S / 1.1248 / EN 10132-4
	11	Stem guide	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	13	Stem washer	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	14	Friction washer	PTFE 20% Carbon
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
18	Intermediate ring	Stainless steel - AISI303 / 1.4305 / EN 10088-3	
22	Bearing	Steel - PTFE	
23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2	
47	Gear	-	

Special model: Minimum length - Flange x Flange - DN125-200:

DN	Standard length - mm	Minimum length - mm
125	325	272
150	350	300
200	400	385

# Steel ball valve - DN250-500, PN16

## Type 85004 - Reduced bore

### Flange × Flange with low stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

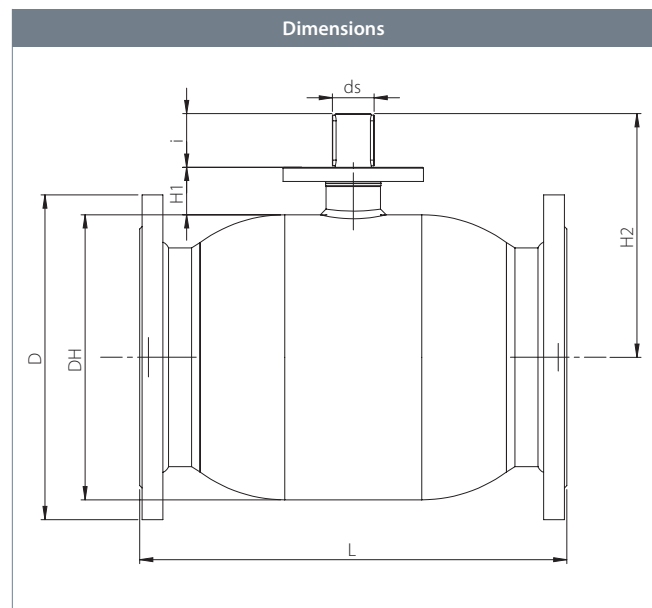
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8500416250 000	200	3200	92.8	356	405	-	533	60.2	304	45	67	F14
300	8500416300 000	250	4700	141.8	457	460	-	610	69.2	382	50	84	F16
350	8500416350 000	250	5500	178.7	457	520	-	686	69.2	382	50	84	F16
400	On request	305	10600	297.8	508	620	-	762	82.5	437	60	100	F16
500	On request	400	18150	535.0	660	730	-	914	105.0	547	80	112	F30

## Steel ball valve - DN250-500, PN16



## Type 85004 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN16

## Type 85004 - Reduced bore

### Flange × Flange with low stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

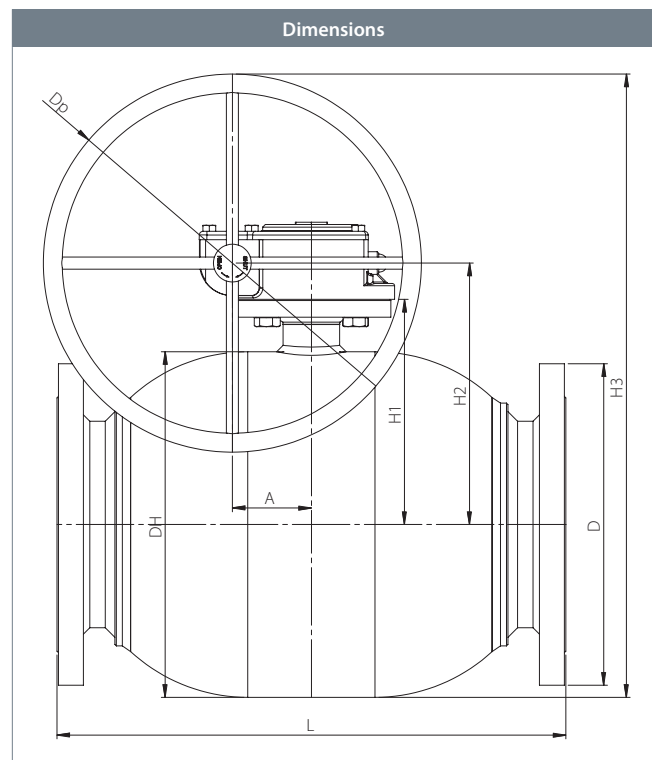
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8500416250 480	200	3200	94.9	356	405	-	533	60.2	275	500.0	450	68.8
300	8500416300 480	250	4700	147.0	457	460	-	610	69.2	346	596.0	500	104.5
350	8500416350 480	250	5500	183.7	457	520	-	686	69.2	346	596.0	500	104.5
400	8500416400 480	305	10600	302.8	508	620	-	762	82.5	387	566.5	350	130.0
500	8500416500 480	400	18150	597.5	660	730	-	914	105.0	494	719.0	450	182.0



## Steel ball valve - DN250-500, PN16

Type 85004 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3

# Steel ball valve - DN250-500, PN16

## Type 85014 - Reduced bore

### Flange × Flange with high stem

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Operation

The following operating devices are available on request:

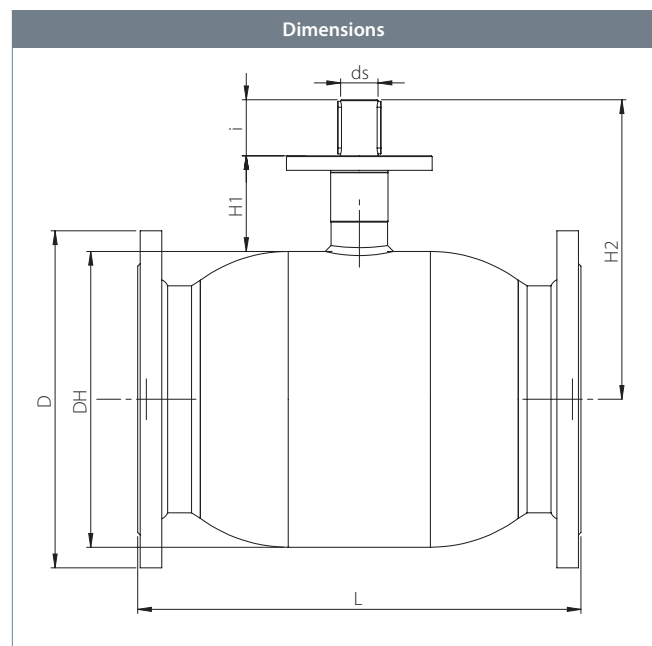
- BROEN-Gear.
- Electric actuator.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

### Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8501416250 000	200	3200	94.4	356	405	-	533	115	360.0	45	67	F14
300	8501416300 000	250	4700	143.9	457	460	-	610	130	443.0	50	84	F16
350	8501416350 000	250	5500	180.8	457	520	-	686	130	443.0	50	84	F16
400	8501416400 000	305	10600	301.1	508	620	-	762	155	506.5	60	100	F16
500	8501416500 000	400	18150	541.2	660	730	-	914	180	622.5	80	112	F30

## Steel ball valve - DN250-500, PN16

Type 85014 - Reduced bore

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
50	Friction ring	Gunmetal	
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN16

## Type 85014 - Reduced bore

### Flange × Flange with high stem and BROEN-Gear

Fully welded steel ball valve.

### Materials

See next page.

### Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

### Media

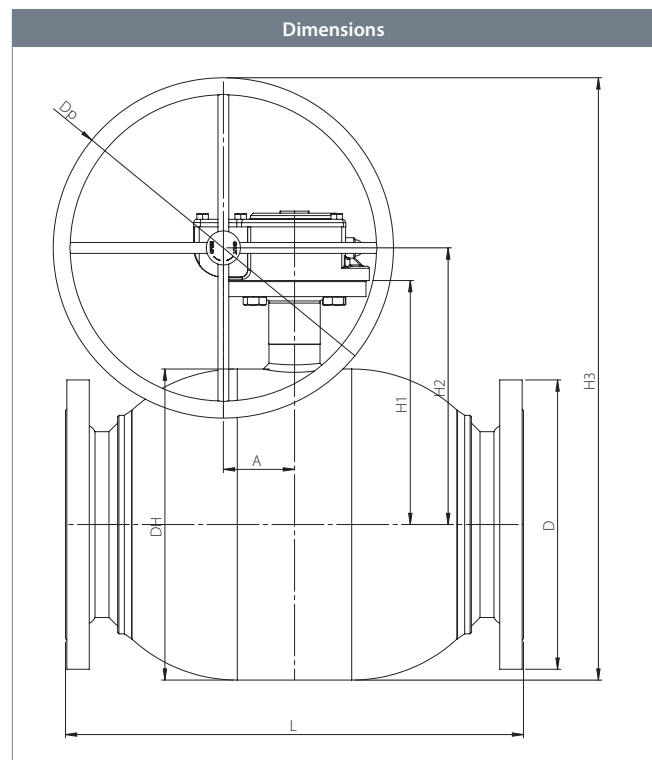
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

### Surface treatment

Eco-friendly protection finish against corrosion.

### Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8501416250 480	200	3200	96.5	356	405	-	533	115	330	555	450	68.8
300	8501416300 480	250	4700	149.1	457	460	-	610	130	407	657	500	104.5
350	8501416350 480	250	5500	185.8	457	520	-	686	130	407	657	500	104.5
400	8501416400 480	305	10600	309.6	508	620	-	762	155	464	639	350	130.0
500	8501416500 480	400	18150	609.4	660	730	-	914	180	569	794	450	182.0

## Steel ball valve - DN250-500, PN16

Type 85014 - Reduced bore

Technical drawing	Material description		
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3

# Steel ball valve - DN250-500, PN16

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

## Flange × Flange with high stem

Fully welded steel ball valve.

## Materials

See next page.

## Applications

Isolating valve for heating systems, district heating, cooling and industrial purpose.

## Media

Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

## Surface treatment

Eco-friendly protection finish against corrosion.

## Operation

The following operating devices are available on request:

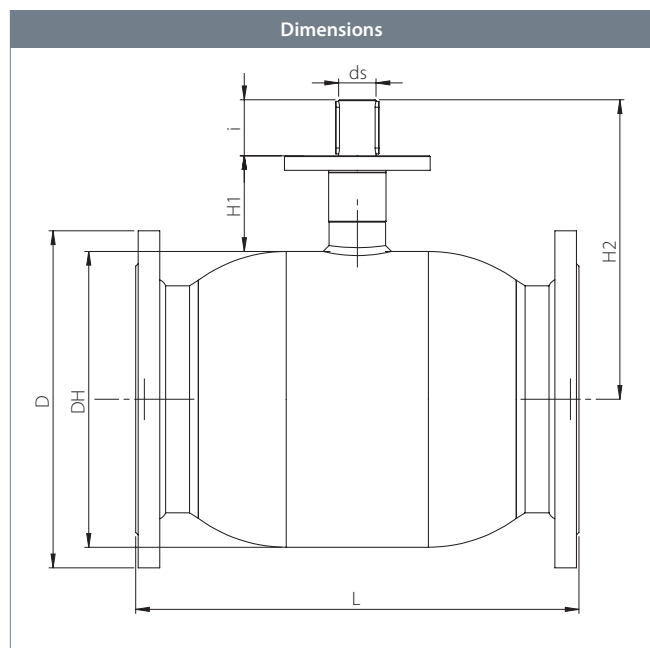
- BROEN-Gear.
- Electric actuator.

## Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.

## Notice

We recommend to add a BROEN-Gear.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	ds	i	ISO
250	8511416250 000	200	5300	96.2	356	405	-	533	115	360.0	45	67	F14
300	8511416300 000	250	8200	146.7	457	460	-	610	130	443.0	50	84	F16
350	8511416350 000	250	8900	183.6	457	520	-	686	130	443.0	50	84	F16
400	On request	305	13700	302.9	508	620	-	762	155	506.5	60	100	F16
500	On request	400	20300	543.6	660	730	-	914	180	622.5	80	112	F30

## Steel ball valve - DN250-500, PN16

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

Technical drawing		Material description	
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	10	Neck ring	Steel - S355J2+N / 1.0570 / EN 10025-2
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	16	Back-up ring	PTFE 20% Carbon
	17	O-ring	Rubber - FPM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	29	Key	Steel
	30	Circlip	Steel
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	49	Bearing	PTFE coated steel
	50	Friction ring	Gunmetal
51	Bottom end	Steel - S355J2H - EN 10210	
52	Back-up ring	Steel - S355J2H - EN 10210	
53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3	
54	Flowguides	Steel	

Accessories	BROEN No.	Dimension	Description
	600587	DN250	BROEN-Gear.
	600588	DN300	
	600588	DN350	
	600589	DN400	
	600590	DN500	

# Steel ball valve - DN250-500, PN16

Type 85114 - **Reduced bore** - FLOWOPTIMIZED

**Flange × Flange with high stem**

Fully welded steel ball valve.

**Materials**

See next page.

**Applications**

Isolating valve for heating systems, district heating, cooling and industrial purpose.

**Media**

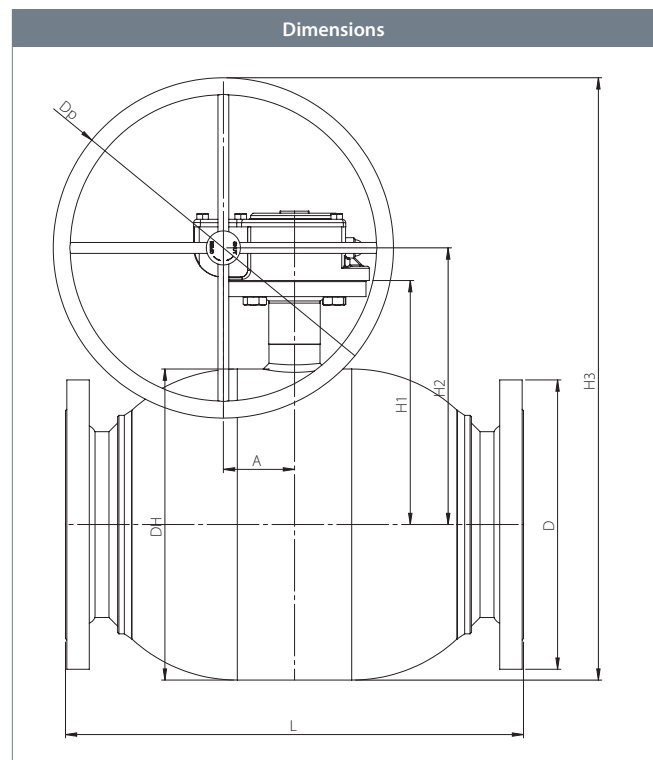
Water, air and other media not decomposing the steel. Not suitable for steam. If in doubt, please contact BROEN Ballomax® Sales Department.

**Surface treatment**

Eco-friendly protection finish against corrosion.

**Approvals and certificates**

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN Ballomax® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN40 are CE-marked. The 3.1 certificate is available upon request.



DN	BROEN No.	Bore	Kvs	net Weight kg	All dimensions in mm								
					DH	D	t	L	H1	H2	H3	Dp	A
250	8511416250 480	200	5300	99,1	356	405	-	533	115	330	555	450	68,8
300	8511416300 480	250	8200	151,7	457	460	-	610	130	407	657	500	104,5
350	8511416350 480	250	8900	188,4	457	460	-	686	130	407	657	500	104,5
400	8511416400 480	305	13700	312,2	508	620	-	762	155	464	639	350	130,0
500	8511416500 480	400	20300	612,0	660	730	-	914	180	569	794	450	182,0



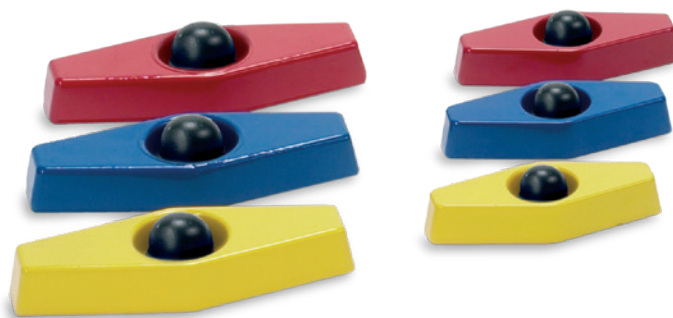
## Steel ball valve - DN250-500, PN16

Type 85114 - Reduced bore - FLOWOPTIMIZED

Technical drawing	Material description		
	2	Flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	5	Valve body	Steel - P235GH / 1.0345 / EN 10217-2
	6	Ball	Stainless steel - AISI304L / 1.4306 / EN 10217-7
	7	Seat ring	PTFE 20% Carbon
	12	Stem	Stainless steel - ASTM420 / 1.4021 / EN 10088-3
	15	O-ring	Rubber - EPDM70
	23	ISO-flange	Steel - S235JRG2 / 1.0038 / EN 10025-2
	27	O-ring	Rubber - EPDM70
	48	Stem guide	Steel - P235GH / 1.0345 / EN 10216-2
	50	Friction ring	Gunmetal
	51	Bottom end	Steel - S355J2H - EN 10210
	52	Back-up ring	Steel - S355J2H - EN 10210
	53	Springs	Stainless steel - AISI304 / 1.4301 / EN 10088-3
	54	Flowguides	Steel

# T-handle - DN10-50

Type 66050 - Reduced bore



DN	BROEN No.	Color	L - mm	B - mm
10-32	66050010 000	Yellow	85	34
10-32	66050010 003	Blue	85	34
10-32	66050010 004	Red	85	34
40-50	66050040 000	Yellow	120	44
40-50	66050040 003	Blue	120	44
40-50	66050040 004	Red	120	44

## Handle - DN10-200

Type 66060 / 66064 / 66061 - Reduced bore



DN	BROEN No.	L - mm
10-32	66060010	140
40-50	66060040	180
65-80	66060065	275
100	66064100	365
125	66061100	365
150	66061150	650
200	66061200	900

# ISO-flanges, mounting kit - DN10-100

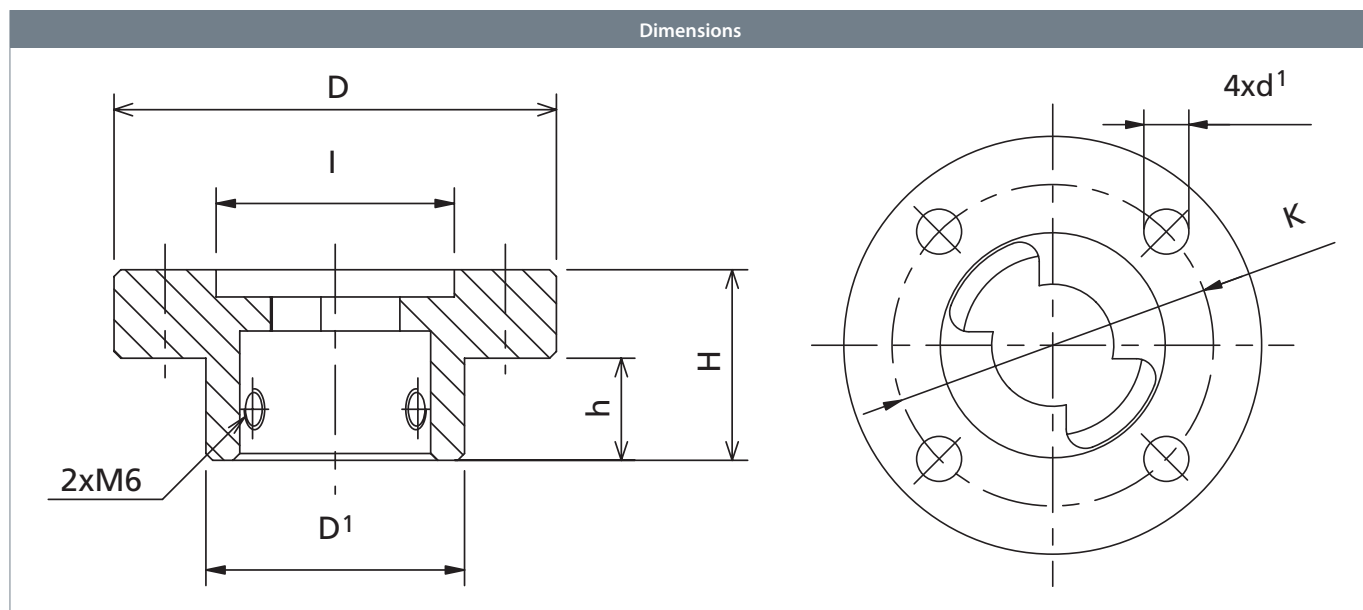
Type 203... / 208... / 167... / 169... - Reduced bore

## ISO-flanges, mounting kit

Mounting flange for later mounting of gear / actuator.  
No mounting facing downwards.



Dimensions



DN	BROEN No.	ISO-flange	All dimensions in mm						
			D	D'	H	h	I	K	d <sup>1</sup>
10-32	203245	F05	65	34	28	15	35	50	7
40-50	208245	F05	65	38	28	15	35	50	7
65-80	167245	F05	65	47	33	20	35	50	7
100	169245	F07	90	57	35	20	55	70	9

# Hexagon for insertion key - DN10-150

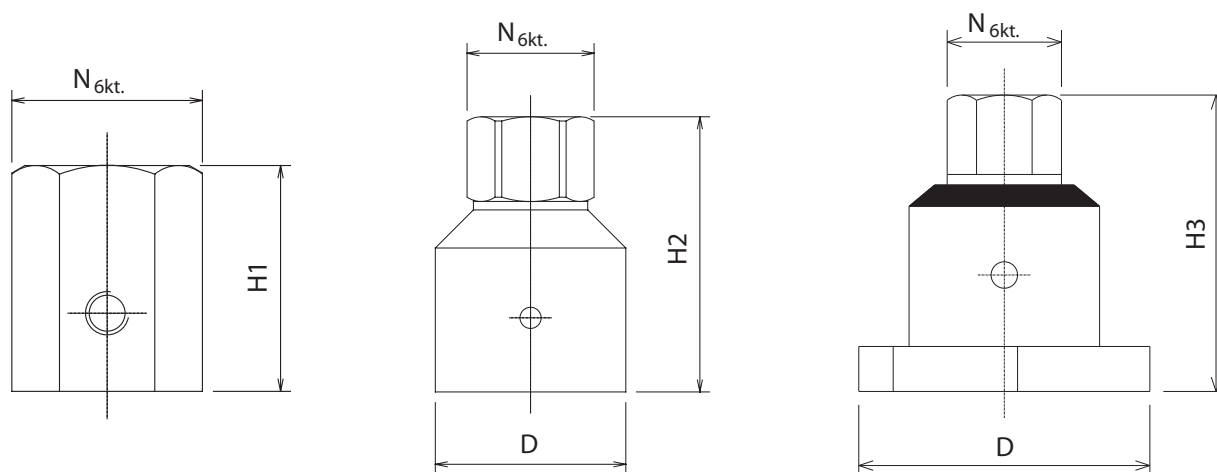
Type 66160 / 66164 / 66161 - Reduced bore

## Hexagon for insertions key

To make thread end of spindle to hexagon.



Dimensions



DN	BROEN No.	All dimensions in mm				
		D	H1	H2	H3	N hex.
10-32	66160010 000	-	26	-	-	19
40-50	66160040 000	-	26	-	-	19
65-80	66160065 000	28	-	52	-	19
100	66164100 000	45	-	65	-	27
125	66161100 000	80	-	-	75	27
150	66161150 000	112	-	-	85	27

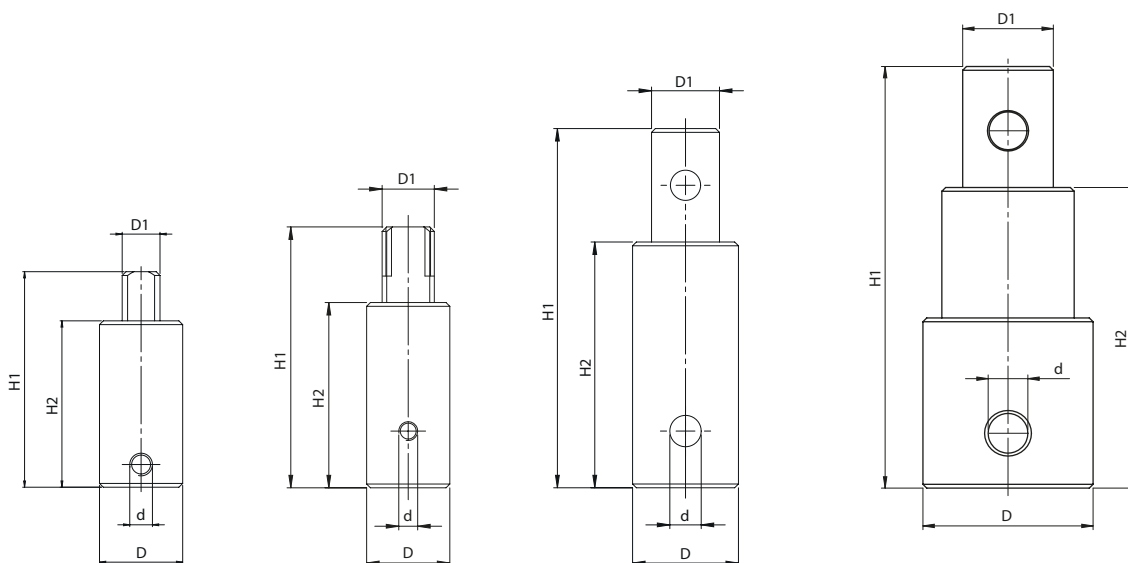
# Spindle extension - DN10-125

Type 084... / 251... - Reduced bore

Spindle extension for type 61-64 valves



Dimensions



DN	BROEN No.	All dimensions in mm				
		D	H1	H2	d	D1
10-32	084600	22	57.0	44.0	M 5 × 5	10
40-50	084500	22	69.0	49.0	M 5 × 5	14
65-80	084800	28	95.0	65.0	8.3	18
100-125	251300	45	111.5	79.5	10.5	24

## BROEN Ballomax® Repair set - DN10-500

Type 600... - Reduced bore



DN	BROEN No.	Type
10-32	600040	60-61-64
40-50	600041	60-61-64
65-80	600042	60-64
65-80	600043	61
100	600044	60-64
100	600045	61
125	600046	64
150	600048	64
150-200	600049	61
250	600050	40
300-350	600051	40
400	600052	40
450-500	600053	40
250	600568	85
300-350	600600	85
400	600601	85
500	600602	85

Repair set include tools and 5 gaskets for repair.

# BROEN-Gear - DN100-500

Type 500... / 300... - Reduced bore

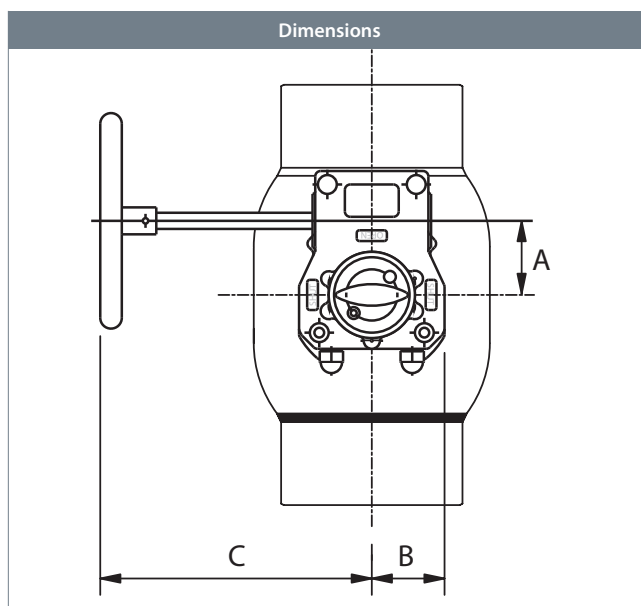
## BROEN-Gear

Hand-operated gearbox.

BROEN-Gear is a strong high quality hand-operated gearbox. The hand wheel is ergonomically designed.

## Operating torque

Operating torque of handwheel (Nm) - see below table.



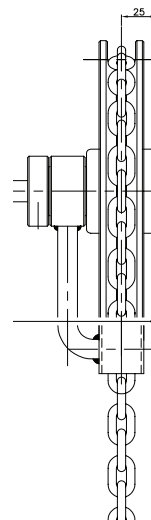
			All dimensions in mm				
DN	BROEN No.	net Weight kg*	A	B	C	Nm	Hand wheel
100	600583	2,5	41,3	40,0	145	650	200
125	600584	2,5	41,3	40,0	145	300	200
150	600585	7,8	68,8	67,5	240	1200	300
200	600586	8,6	68,8	67,5	245	1200	350
250	600587	9,5	68,8	67,5	275	1200	450
300-350	600588	26,0	104,5	110,0	346	3250	500
400	600589	42,0	130,0	142,5	387	7000	350
500	600590	67,9	182,0	185,0	470	17000	450

\* Weight gearbox with hand wheel.



## BROEN-Gear with chain - DN40-300

Type CW... - Full bore



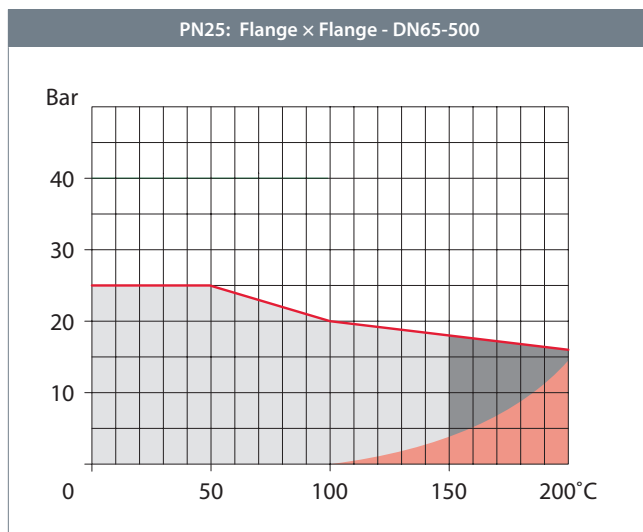
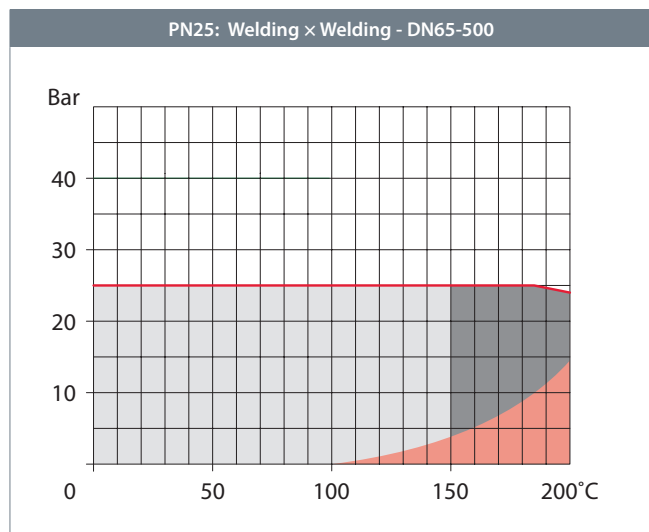
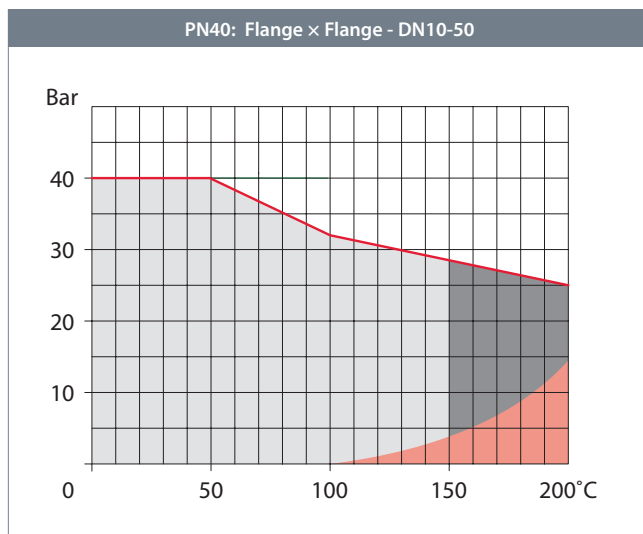
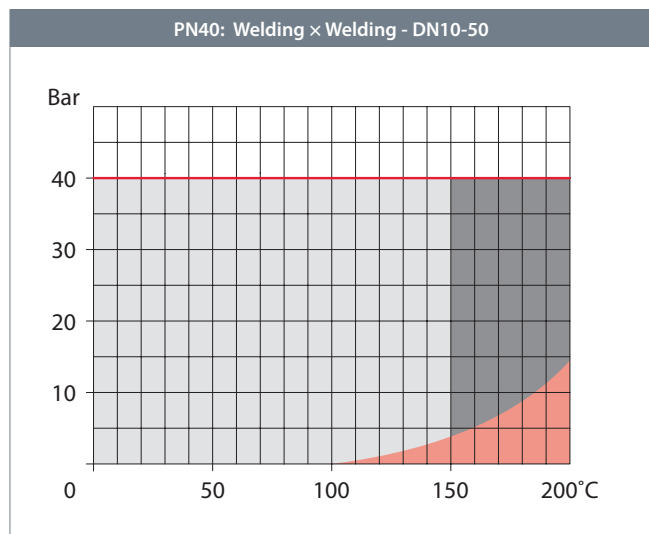
	Size	BROEN No.
	Ø15	CW 135
	Ø20	CW 215
	Ø25	CW 335
<b>Accessory:</b>		
<b>Gear chain</b>	1 meter - ZP chain (+ Splitlink)	
<b>Gear chain</b>	1 meter - SS chain (+ Splitlink)	

BROEN manual gear, mounting and adjustment are customers responsibility. Possible to operate with chain, for gear mounted high above ground. Galvanized chain, price per meter.

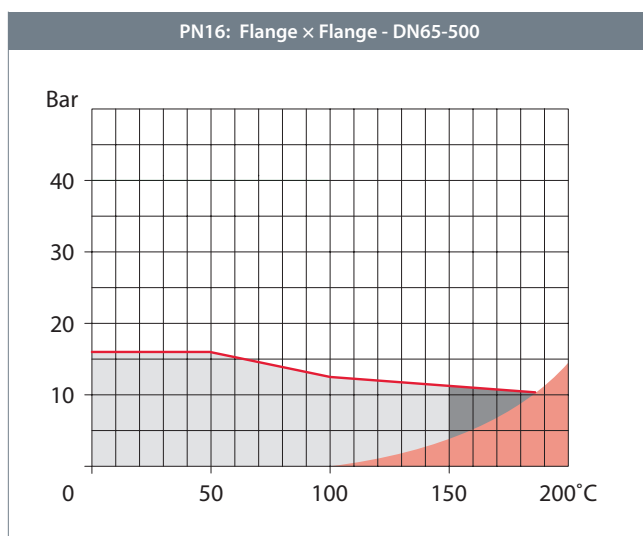
**NOTICE:** The length is the total length, not the height above ground of the gear.

# Pressure and temperature graph - DN10-500 - PN40/25/16

**Reduced bore**



- Normal working area
- Short-term working area
- Steam area  
(see high temperature valves - section 8)



# Pressure drop graph - DN10-500

**Reduced bore**

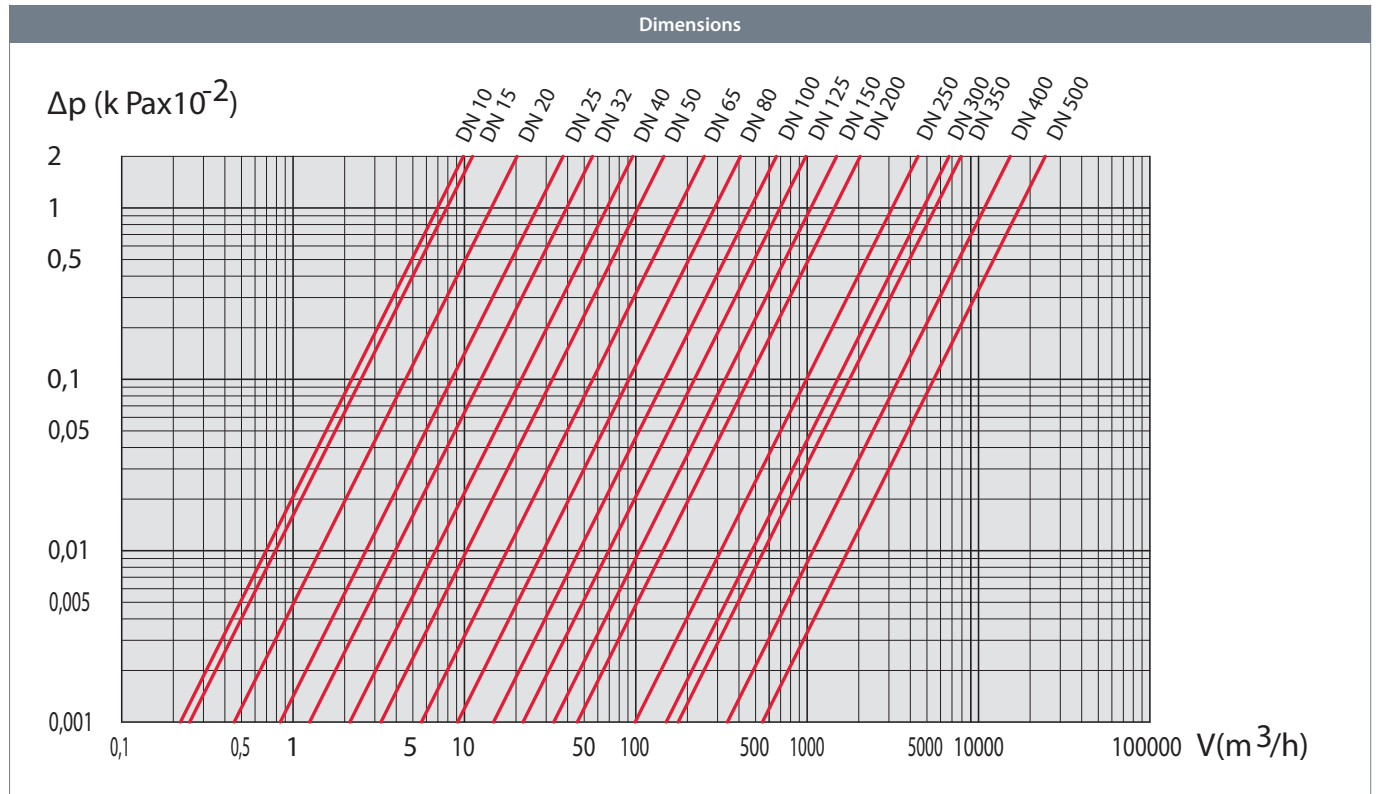
**Pressure drop graph**

Ball valve in fully open position.

Medium: water density in 1000 kg/m<sup>3</sup>

**Definitions**

Kvs: M<sup>3</sup> water per hour at pressure drop 1 bar.



DN	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
Kvs	7	8	15	27	40	69	110	180	288	470	699	1046	1500	5300	8200	8900	13700	20300

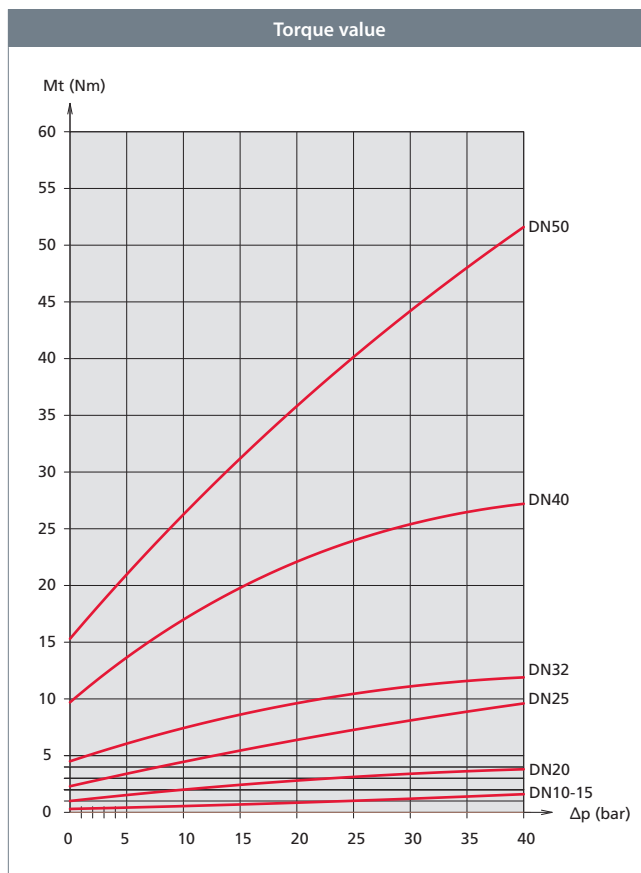
# Operating torque - DN10-50, PN40

## Reduced bore

### Operating torque

The torque stated is for guidance only; it has been obtained by measuring on new ball valves. The torque is to be understood as the pull-off torque applicable for a closed, but recently activated ball valve.

The value stated may rise to a factor of 1.5 after a long period of inactivity.



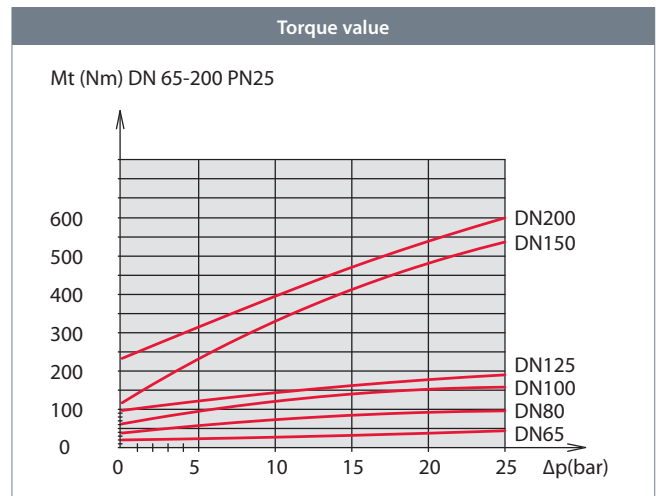
# Operating torque - DN65-500, PN25

## Reduced bore

### Operating torque

The torque stated is for guidance only; it has been obtained by measuring on new ball valves. The torque is to be understood as the pull-off torque applicable for a closed, but recently activated ball valve.

The value stated may rise to a factor of 1.5 after a long period of inactivity.



### Torque Nm

The value stated may rise to a factor of 2 after a long period of inactivity.

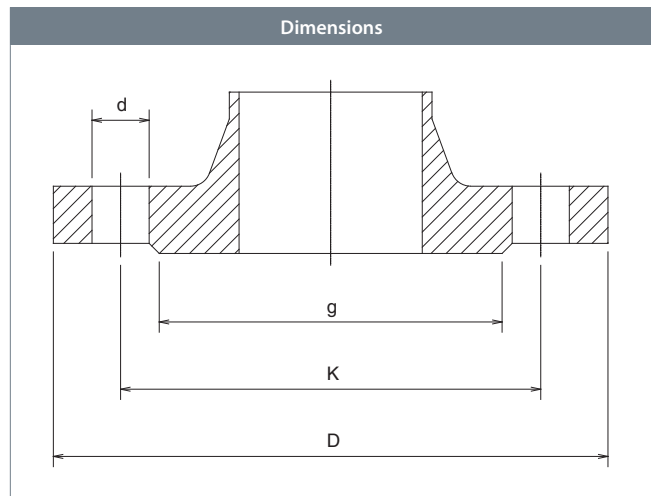
Torque Nm				
RB	DN250	DN300/350	DN400	DN500
Δ16 bar	570	1460	2670	5665
Δ25 bar	610	1620	3325	6205

# Connecting flange - DN15-50, PN40

EN 1092-1 - Reduced bore

**Description**

Flangestandard.



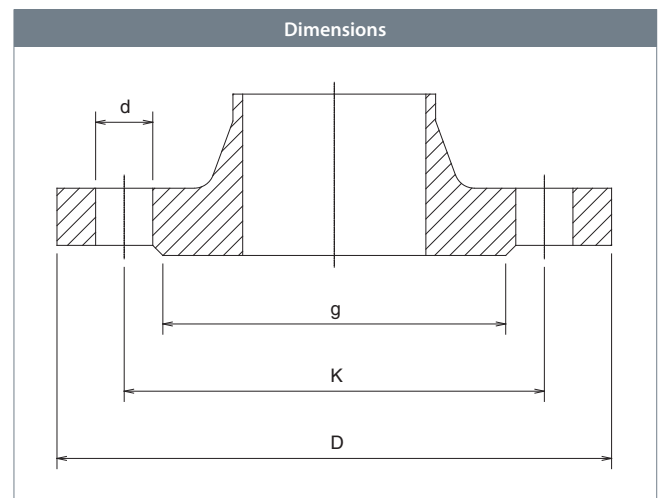
DN	All dimensions in mm				No. of bolt holes
	D	K	g	d	
15	95	65	45	14	4
20	105	75	58	14	4
25	115	85	68	14	4
32	140	100	78	18	4
40	150	110	88	18	4
50	165	125	102	18	4

## Connecting flange - DN15-500, PN25

EN 1092-1 - **Reduced bore**

### Description

Flangestandard.



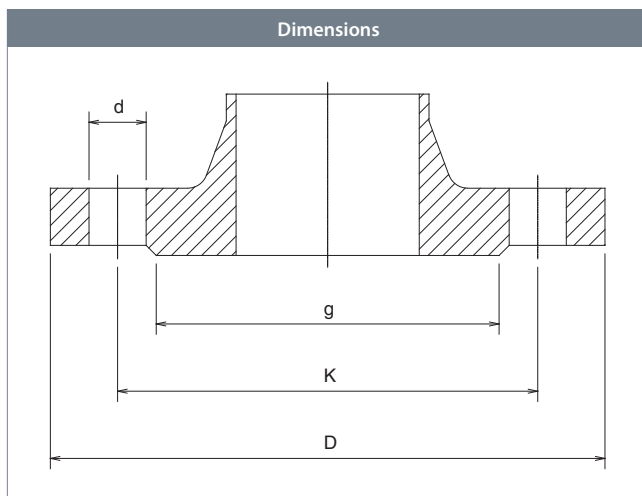
All dimensions in mm					
DN	D	K	g	d	No. of bolt holes
15	95	65	45	14	4
20	105	75	58	14	4
25	115	85	68	14	4
32	140	100	78	18	4
40	150	110	88	18	4
50	165	125	102	18	4
65	185	145	122	18	8
80	200	160	138	18	8
100	235	190	162	22	8
125	270	220	188	26	8
150	300	250	218	26	8
200	360	310	278	26	12
250	425	370	335	30	12
300	485	430	395	30	16
350	555	490	450	33	16
400	620	550	505	36	16
500	730	660	615	36	20

# Connecting flange - DN15-500, PN16

EN 1092-1 - Reduced bore

**Description**

Flangestandard.



DN	All dimensions in mm				No. of bolt holes
	D	K	g	d	
15	95	65	45	14	4
20	105	75	58	14	4
25	115	85	68	14	4
32	140	100	78	18	4
40	150	110	88	18	4
50	165	125	102	18	4
65	185	145	122	18	4
80	200	160	138	18	8
100	220	180	158	18	8
125	250	210	188	18	8
150	285	240	212	22	8
200	340	295	268	22	12
250	405	355	320	26	12
300	460	410	378	26	12
350	520	470	438	26	16
400	580	525	490	30	16
500	715	650	610	33	20

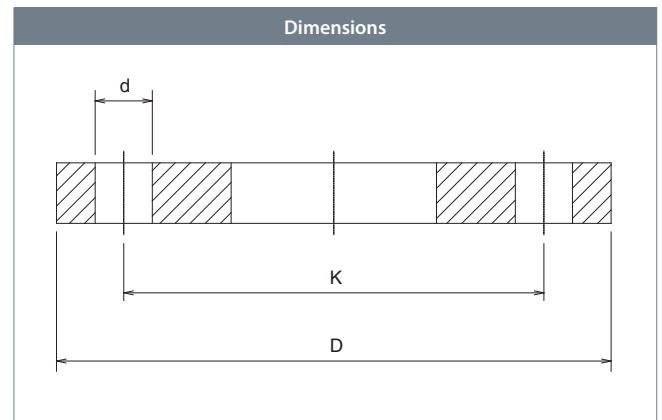


## Connecting flange - DN15-500, PN10

EN 1092-1 - **Reduced bore**

### Description

Flangestandard.



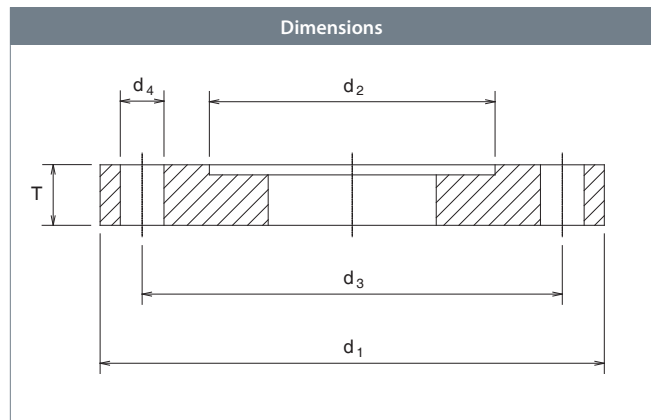
DN	All dimensions in mm			No. of bolt holes
	D	K	d	
15	95	65	14	4
20	105	75	14	4
25	115	85	14	4
32	140	100	18	4
40	150	110	18	4
50	165	125	18	4
65	185	145	18	4
80	200	160	18	8
100	220	180	18	8
125	250	210	18	8
150	285	240	22	8
200	340	295	22	8
250	395	350	22	12
300	445	400	22	12
350	505	460	22	16
400	565	515	26	16
500	670	620	26	20

# Valve actuator attachment - DN65-500, PN10

ISO 5210 / ISO 5211 - Reduced bore

**Description**

ISO-flange for gear.



		All dimensions in mm					
To be used with	Flange type	T	$d_1$	$d_2$	$d_3$	$d_4$	No. of bolt holes
DN65-80	F05	12.5	65	35	50	7	4
DN100-125	F07	13.5	90	55	70	9	4
DN150	F10	14.5	125	70	102	11	4
DN200	F12	14.5	150	85	125	13	4
DN250	F14	17.6	175	100	140	17	4
DN300	F16	23.5	210	130	165	21	4
DN350	F16	23.5	210	130	165	21	4
DN400	F25	27.5	300	200	254	17	8
DN500	F30	28.5	350	230	298	21	8