

# BROEN

VALVE TECHNOLOGIES

## BROEN BALLOMAX<sup>®</sup> MONOBLOCK AND SHORT VALVES



**BROEN**  
BALLLOMAX<sup>®</sup>

*Designed to last*



**BROEN**  
VALVE TECHNOLOGIES

## Climate change is our common challenge

Energy efficiency is one of the greatest challenges of our times and for district energy BROEN delivers ready solutions to meet the globally rising demand for energy efficiency.

Based on the heritage from leading edge innovations in Danish District Heating, BROEN offers the most comprehensive range of proven valves for distribution and transmission of district heating in residential, commercial and industrial applications.

BROEN is your assurance of energy efficiency, reliability and low cost of ownership.

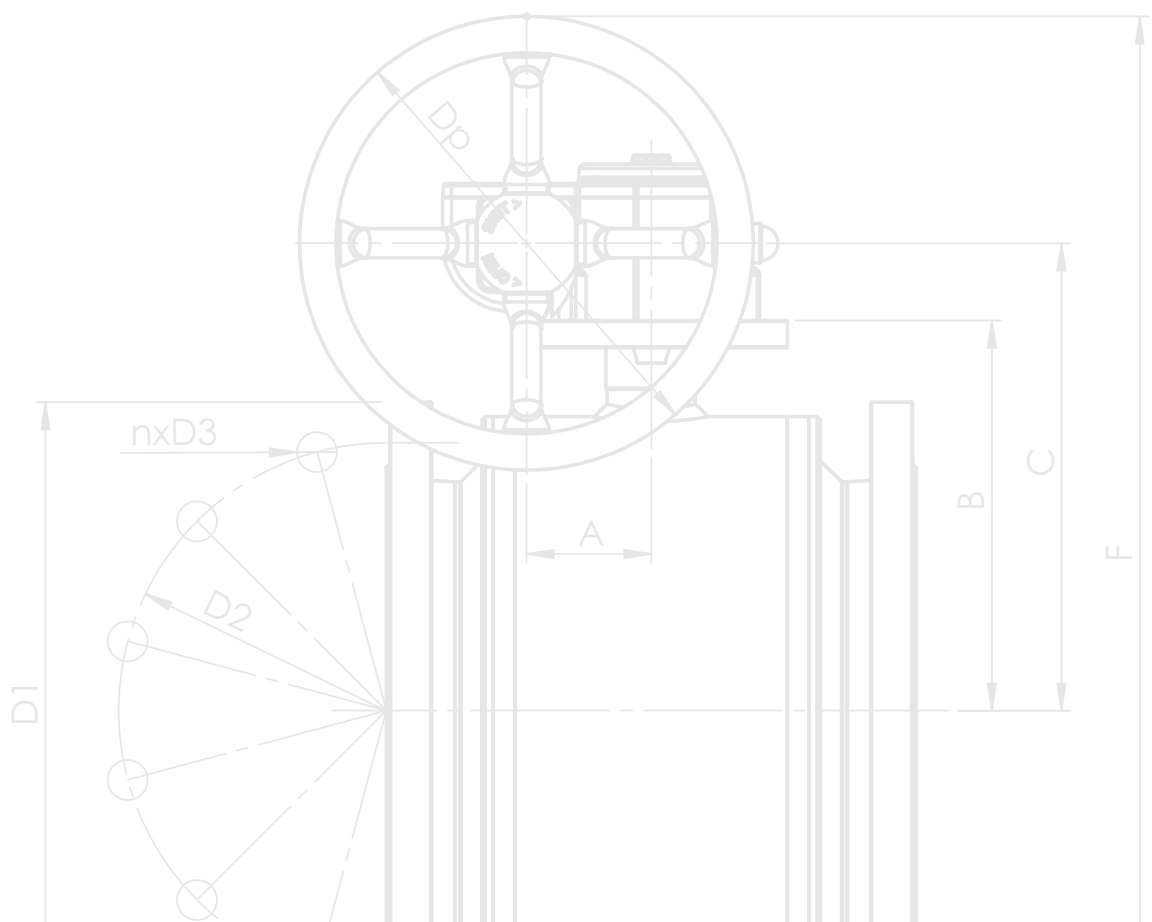
Our brand is our promise.

### ABOUT BROEN

In 1948 Poul Broen established the company BROEN, which was among the pioneers, when district heating took off in Denmark. In 1982 the BROEN BALLOMAX® ball valve for district heating was launched. We strive to develop and improve products, that use nature's resources as efficiently as possible.

### VISION AND VALUES

Our vision is simple: Be the best in valve technology. Strong values are the foundation for our business and with the same shared vision they link us together as one company across borders and time zones on 3 continents.



## BROEN BALLOMAX® – our response Monoblock and short valves

BROEN BALLOMAX® monoblock and short valves offers a safe and modern construction for district heating networks, air conditioning and industrial installations with water, air, steam and gas.

The monoblock and short valves are suitable for tight spaces fitting narrow build-in requirements when re-configuring or renovating pipelines.

The valve is tested and subjected to a 100% quality control before leaving the factory and it therefore requires minimal service for the rest of its life.

Both the ball and the spindle are made from stainless steel.

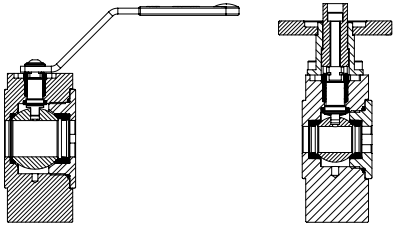


- All CE-marked valves are approved according to PED 2014/68/EU - module H
- Highest Class A tightness - EN 12266
- Double sealing : O-ring (EPDM), VITON,
- Temperature compensation (linear)
- Double bearing spindle system, diameter  $\geq$  DN 65
- Operating temperature from -20°C to +200°C

DN15 - DN200

PN16 - PN25 - PN40

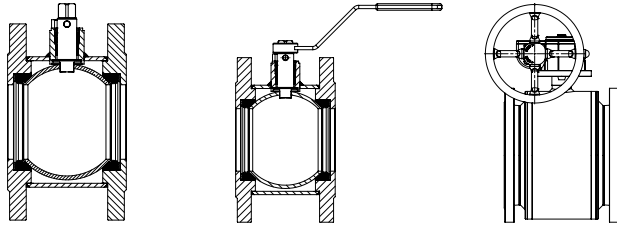
Heating - Cooling - Steam



BROEN BALLOMAX® monoblock ball valves with handle and ISO-flange acc. to EN ISO 5211.

Connection flange according to EN 10025-2.

**DN15-32 | PN40**

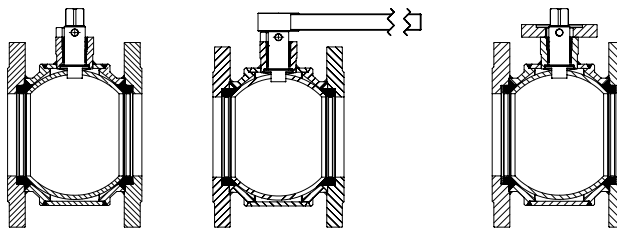


BROEN BALLOMAX® short ball valves without handle, with handles and with ISO-flange acc. to EN ISO 5211.

Connection flange according to EN 10025-2.

**DN40-50 | PN16**

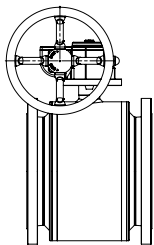
Together with our comprehensive range of BROEN valves, actuators, gears, extensions and hot tapping tools, BROEN offers complete solutions for district energy.



BROEN BALLOMAX® short ball valves without handles, with handles and with ISO-flange acc. to EN ISO 5211.

Connection flange according to EN 10025-2.

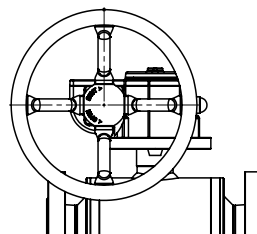
**DN65-200 | PN16**



BROEN BALLOMAX® block and short ball valves with gear.

Connection flange according to EN 10025-2.

**DN100-200 | PN16**



Gear for BROEN BALLOMAX® monoblock and short ball valves.

Tmax: -20°C to +200°C

## Monoblock ball valve DN15-32

### 1. Ball material

SA351Gr CF8 acc. to ASME

### 2. Valve body

S355J2C Steel acc. to EN 100025-2

## Short ball valve DN40-50

### 1. Ball material

1.4306 (AISI 304) acc. to EN 10217-7

### 2. Valve body

P235GH acc. to EN 10217-2 /  
EN 10216-2

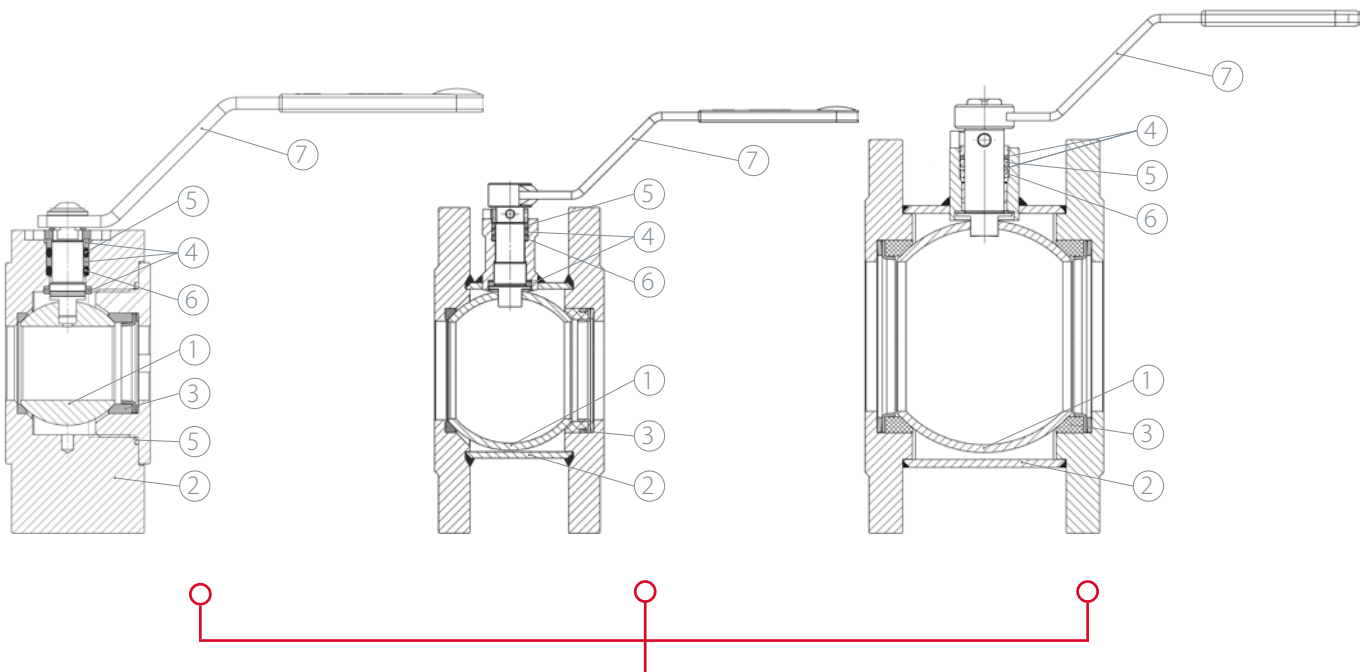
## Short ball valve DN65-200

### 1. Ball material

1.4306 (AISI 304) acc. to EN 10217-7

### 2. Valve body

Steel P235GH acc. to EN 102017-2 /  
EN 10216-2



### 3. Ball sealing

PTFE + Carbon

### 4. O-ring - PTFE+C

### 5. O-ring - EPDM

### 6. O-ring - FKM (Viton)

### 7. Operation

Handle, no handle, ISO-flange  
acc. to ISO 5211



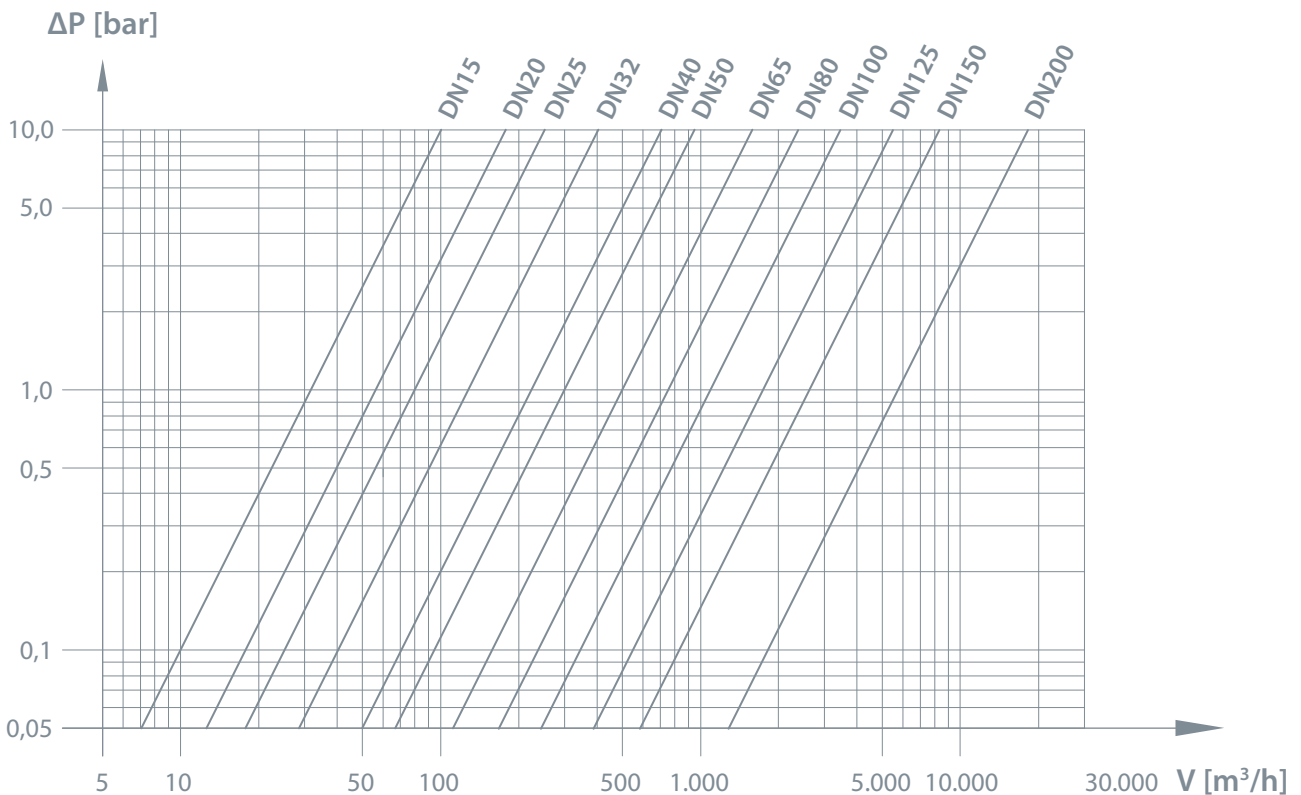
# BROEN BALLOMAX®

## – block and short valves

### Kv values and Build-in length dimension

DN [mm]	15	20	25	32	40	50	65	80	100	125	150	200
Kvs [m <sup>3</sup> /h]	32	57	81	133	229	295	498	754	1.159	1.841	2.652	5.720
Build-in length dimension mm	40	46	49	67	77	86	106	121	160	186	236	292

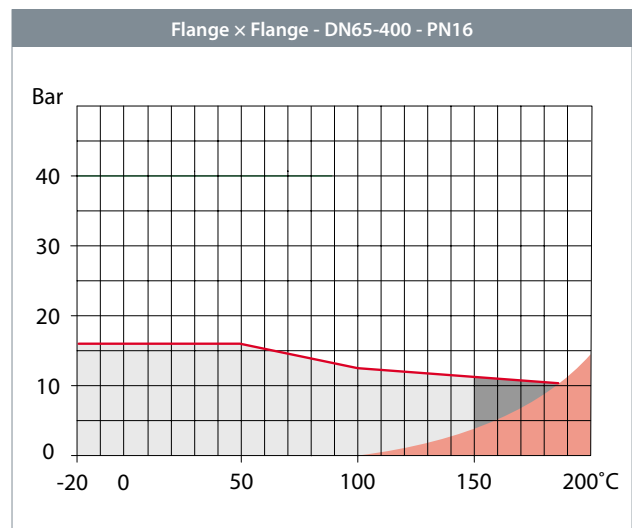
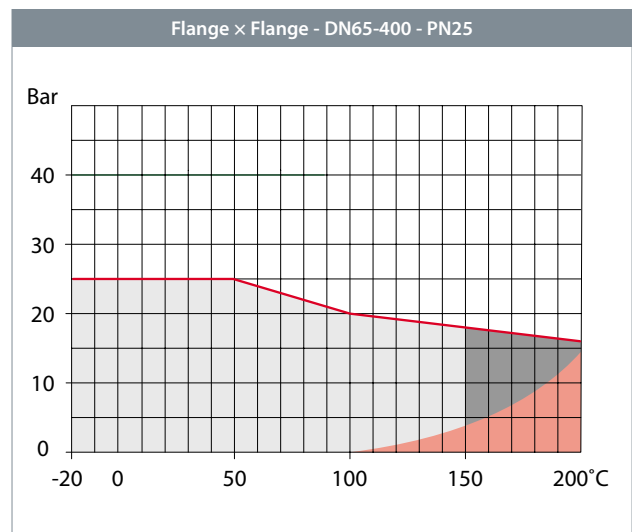
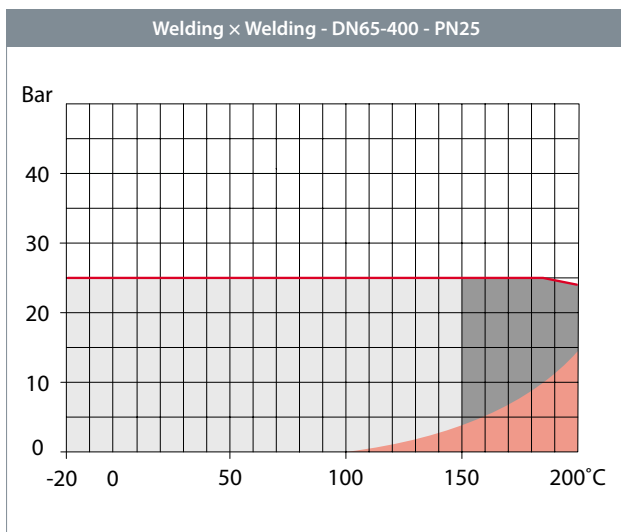
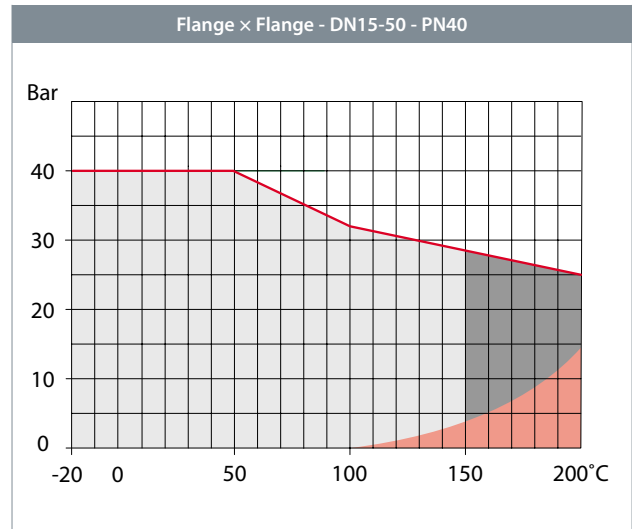
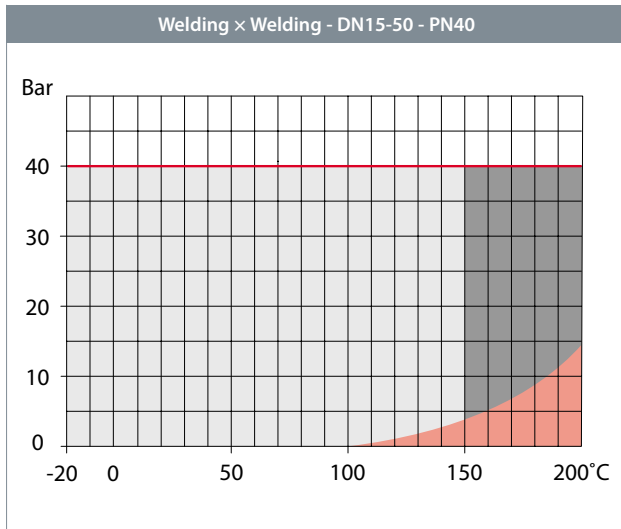
### ΔP-V GRAPH Pressure losses on valve, depending on medium flow speed and valve diameter



# BROEN BALLOMAX®

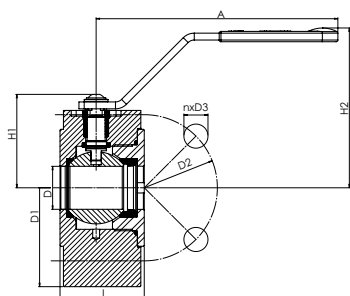
## Pressure and temperature graph – DN15-400 – PN40/25/16

### Full flow

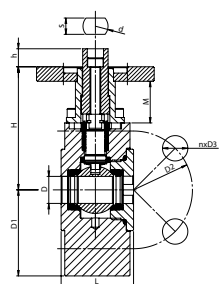


- Normal working area
- Short-term working area
- Steam area  
(see high temperature valves  
- section 8)

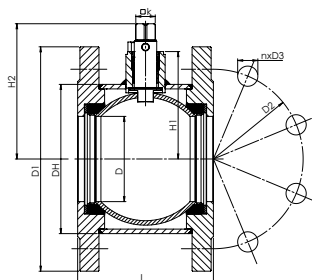
## BROEN BALLOMAX® – block and short valves



DN	PN	BROEN Nr.	D mm	L mm	D1 mm	D2 mm	D3 mm	n	A mm	H1 mm	H2 mm	Weight kg		
15	16/25/40	9410340015WZ	15	40	95	65	14	4	140	46	85	1,8		
20	16/25/40	9410340020WZ	20	46	105	75	14	4	140	50	88	2,5		
25	16/25/40	9410340025WZ	25	49	115	85	14	4	140	54	93	3,2		
32	16/25/40	9410340032WZ	32	62	140	100	18	4	167	71	109	5,5		

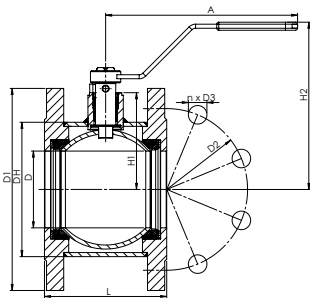


DN	PN	BROEN Nr.	D mm	L mm	D1 mm	D2 mm	D3 mm	n	d/s mm	h mm	H mm	M mm		Weight kg
15	16/25/40	9410340015WZ 90	15	40	95	65	14	4	14/10	10	68	23	F5	1,9
20	16/25/40	9410340020WZ 90	20	46	105	75	14	4	14/10	10	71	23	F5	2,6
25	16/25/40	9410340025WZ 90	25	49	115	85	14	4	14/10	10	76	23	F5	3,3
32	16/25/40	9410340032WZ 90	32	62	140	100	18	4	16/11	10	91	23	F5	5,9

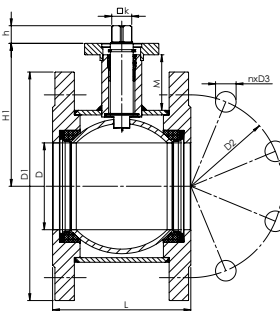


DN	PN	BROEN Nr.	D mm	L mm	DH mm	D1 mm	D2 mm	D3 mm	n	k mm	H1 mm	H2 mm	Weight kg	
40	16	9410316040WZ	39	77	76	150	110	18	4	11	70	87	4,3	
50	16	9410316050WZ	49	86	89	165	125	18	4	11	77	94	5,6	
65	16	9410316065WZ	63	106	114	185	145	18	8	14	88	113	7,6	
80	16	9410316080WZ	76	121	133	200	160	18	8	14	96	121	9,2	

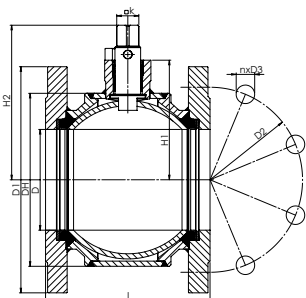
# BROEN BALLOMAX® – block and short valves



DN	PN	BROEN Nr.	D mm	L mm	DH mm	D1 mm	D2 mm	D3 mm	n	k mm	H1 mm	H2 mm	Weight kg
40	16	9410316040WZ 01	39	77	76	150	110	18	4	177	70	127	4,5
50	16	9410316050WZ 01	49	86	89	165	125	18	4	177	77	134	5,7
65	16	9410316065WZ 01	63	106	114	185	145	18	8	190	88	158	8,0
80	16	9410316080WZ 01	76	121	133	200	160	18	8	190	96	166	9,6

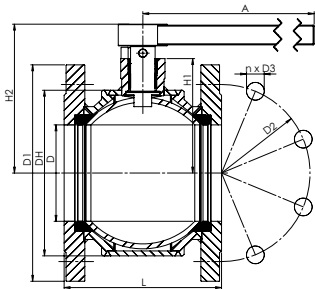


DN	PN	BROEN Nr.	D mm	L mm	D1 mm	D2 mm	D3 mm	n	k mm	h mm	H mm	M mm	Weight kg
40	16	9410316040WZ 90	39	77	150	110	18	4	11	11,5	100	52	F5, 4,6
50	16	9410316050WZ 90	49	86	165	125	18	4	11	11,5	108	53	F5, 5,9
65	16	9410316065WZ 90	63	106	185	145	18	8	14	15,5	118	50	F5, 7,9
80	16	9410316080WZ 90	76	121	200	160	18	8	14	15,5	125	49	F5, 9,5

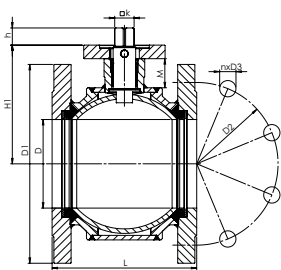


DN	PN	BROEN Nr.	D mm	L mm	DH mm	D1 mm	D2 mm	D3 mm	n	k mm	H1 mm	H2 mm	Weight kg
100	16	9410316100WZ	98	160	168	220	180	18	8	17	117,0	151,0	14,6
125	16	9410316125WZ	125	186	219	250	210	18	8	17	147,0	183,0	22,6
150	16	9410316150WZ	150	236	267	285	240	22	8	22	167,5	203,5	35,2

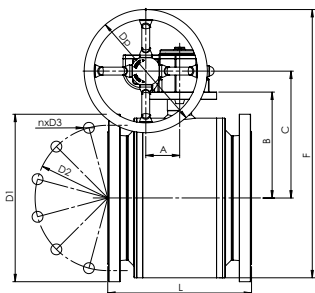
# BROEN BALLOMAX® – block and short valves



DN	PN	BROEN Nr.	D mm	L mm	DH mm	D1 mm	D2 mm	D3 mm	n	A mm	H1 mm	H2 mm	Weight kg
100	16	9410316100WZ 01	98	160	168	220	180	18	8	500	117	151	16,0
125	16	9410316125WZ 01	125	186	219	250	210	18	8	500	147	183	24,1
150	16	9410316150WZ 01	150	236	267	285	240	22	8	600	168	204	37,2



DN	PN	BROEN Nr.	D mm	L mm	D1 mm	D2 mm	D3 mm	n	k mm	h mm	H mm	M mm	Weight kg	
100	16	9410316100WZ 90	98	160	220	180	18	8	17	22	128	34	F7	15,0
125	16	9410316125WZ 90	125	186	270	220	18	8	17	20	163	39	F12	24,4
150	16	9410316150WZ 90	150	236	285	240	22	8	22	21	203	35	F12	36,9
200	16	9410316200WZ 90	195	292	340	295	22	12	22	21	237	40	F12	93,5



DN	PN	BROEN Nr.	D mm	L mm	D1 mm	D2 mm	D3 mm	n	DP mm	A mm	B mm	C mm	F mm	
100	16	9410316100WZ 99	98	160	220	180	18	8	160	53	132	165	329	F7
125	16	9410316125WZ 99	125	186	270	220	18	8	250	69	162	205	439	F12
150	16	9410316150WZ 99	150	236	285	240	22	8	250	69	182	225	484	F12
200	16	9410316200WZ 99	195	292	340	295	22	12	250	69	215	258	545	F12

Ever since BROEN was established  
our passion for valve technology has been  
a major part of our core competences.

Our brand is our promise.

*Our brand is our promise*

**BROEN**  
VALVE TECHNOLOGIES

## **BROEN Valve Technologies**

BROEN is a leading international manufacturer of valve technology and we operate on three continents across the world with key markets in Europe, China and USA.

For more than 75 years BROEN has been the global leader in the development and production of valve technology for the control of water, air and gas. BROEN delivers complete solutions for HVAC building installations and is a leading supplier of district energy valves and valve technology for natural gas.

We know application and valve technology in depth and in close dialogue with our customers and partners all over the world we create value and reliability with proven valves offering full quality assurance.

Read more at: [www.broen.com](http://www.broen.com)

### **Sales- and productions sites ●**

BROEN A/S, Assens (DK)  
BROEN POLAND, Dzierżoniów (PL)  
BROEN POLAND, Rogoźno (PL)  
BROEN INC., Houston (US)  
BROEN Clorius, Dzierżoniów (PL)

### **Sales companies and offices ○**

BROEN Assens (DK)  
BROEN Helsinki (FI)  
BROEN SEI, Bucharest (RO)  
BROEN Beijing (CN)  
BROEN Clorius, Shanghai (CN)

