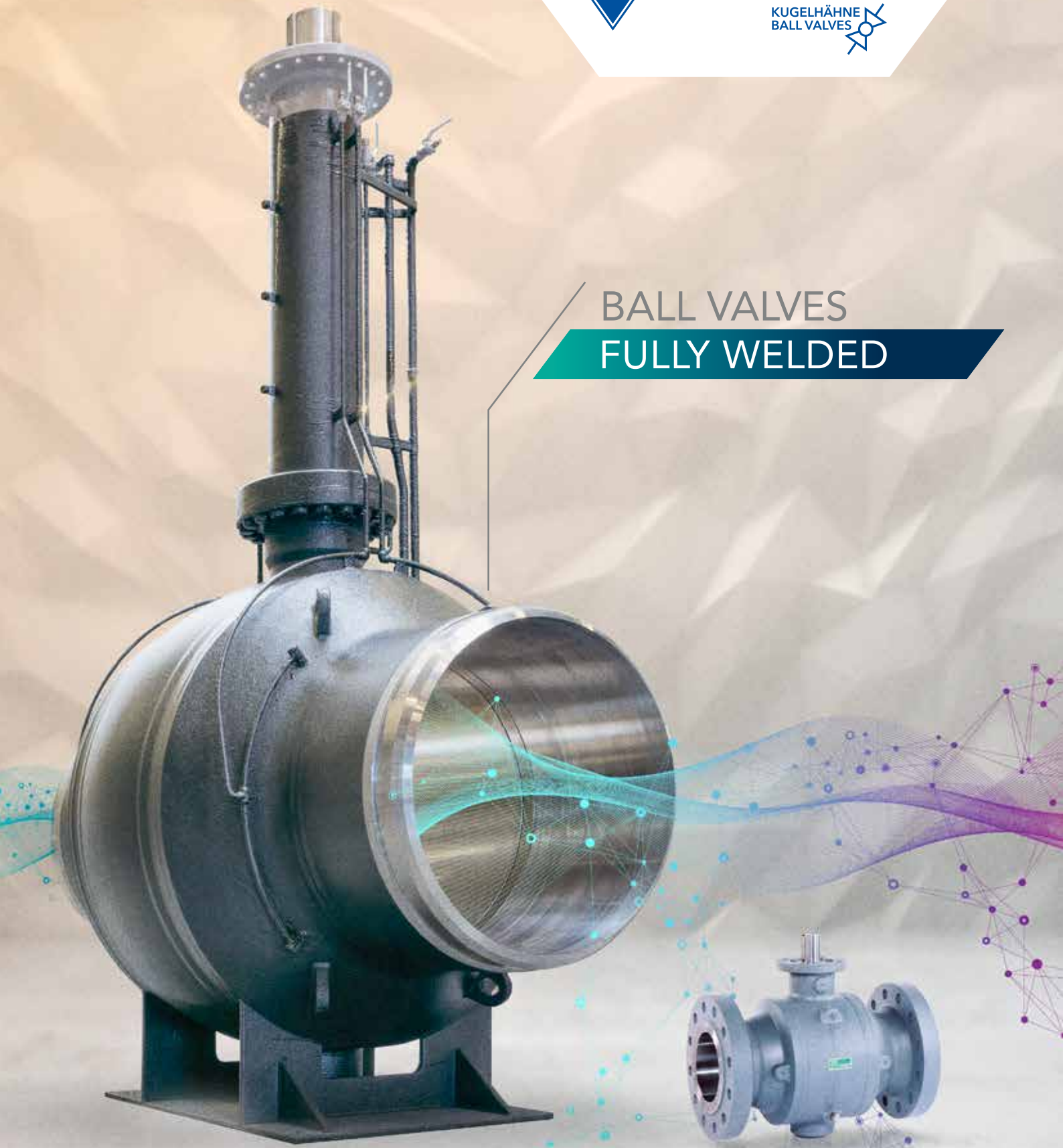
BÖHMER

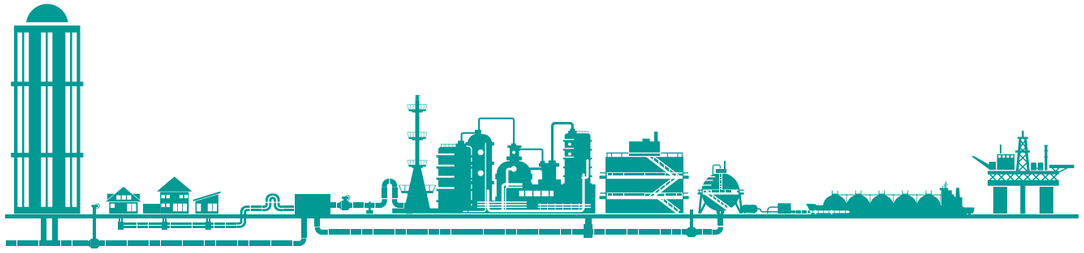
KUGELHÄHNE
BALL VALVES

BALL VALVES
FULLY WELDED



www.boehmer.de

PERFORMANCE FROM START TO FINISH



Ensuring the safety of the entire pipeline system requires the valves for oil and gas applications to be able to meet the most challenging demands.

The design is optimised for each specific field of application and complies with the latest standards and regulations. Böhmer-Ball Valves are a guarantee for long lasting reliability.

Renowned oil and gas companies trust in our quality.





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EXPERIENCE, EXPERTISE, PERFORMANCE.

WE ARE BÖHMER!

We have been a reliable ball valve manufacturer since 1956. More than 300 highly qualified employees and modern machinery are the components of our success.

Our ball valves set standards because our products are designed for the most demanding conditions. The various applications for which our ball valves were designed require maximum durability and performance.

Generally our ball valves can be used wherever gases, liquids and solids are transported.

Decades of research and development enable us to manufacture a wide variety of ball valves for diverse applications. Our product range extends up to a nominal diameter of DN 1400 / 56" and pressure ratings of Class 2500 or higher.

Main Factory Sprockhövel





Branch Factory Hattingen

Thanks to our modular design system, we can always react flexibly to market needs. Needless to say, we offer special designs for individual customer requirements.

Our large warehousing capacity enables us to meet even short-term deadlines. On-time deliveries are standard for us. Today we are proud to have facilities located on 23,000 m² of production and administration floorspace in our main factory and 13,500 m² in our branch factory in Hattingen.

Furthermore we are present outside of Europe with production facilities in Asia and the USA.



Schweißstand



Test bench for ball valves up to DN1400

Certifications

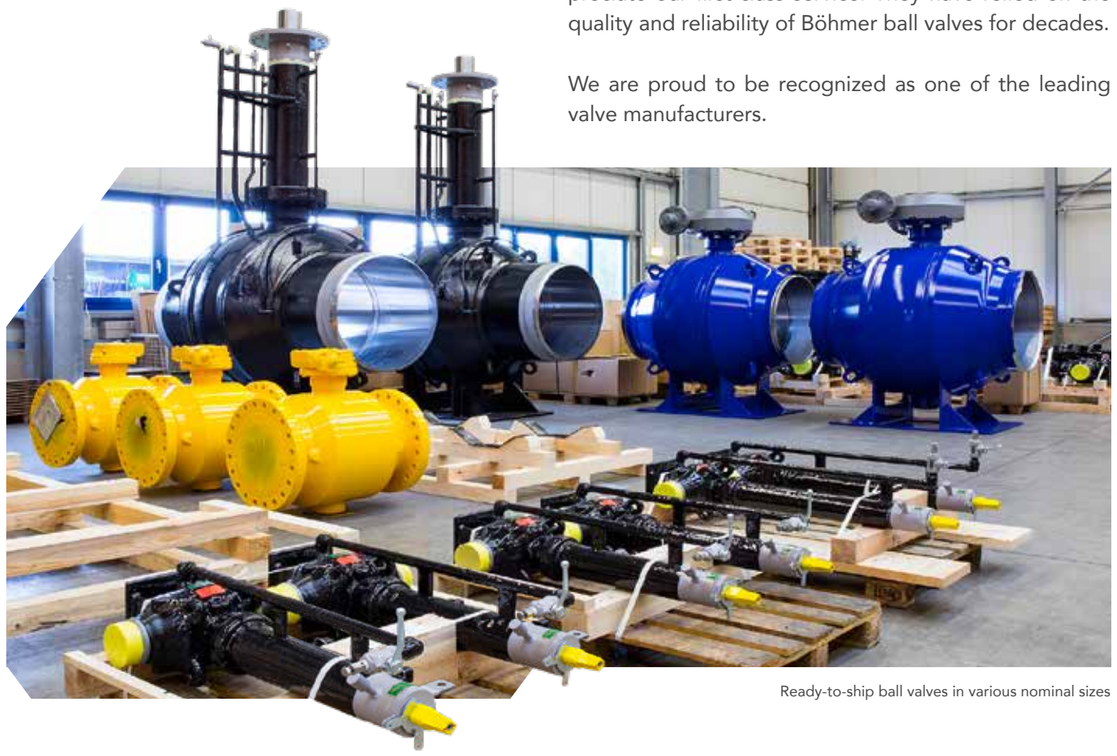
// API 6D (Cert.-Nr.: 6D-0292)
// API 6DSS (Cert.-Nr.: 6DSS-0014)
// ATEX 94/9/EG
// BS 5351
// DGRL 2014/68/EU
// DIN EN ISO 9001
// DIN EN ISO 14001
// DIN EN ISO 15156
// DIN-DVGW
// EAC
// EN 13774
// EN 14141
// EN 16668
// Fire Safe acc. to API6FA, API607, BS6755, ISO 10497
// H2-Ready
// TA-Luft / ISO 15848
// BAM (structural component approvals)
// Type approvals (VdTÜV)

The standards that our ball valves now fulfill are the highest on the market. But we go a step further.

Our team of highly qualified engineers and designers takes special care to further develop our ball valves with maximum quality of design and material as well as cost-effectiveness.

Our regular customers are demanding and therefore appreciate our first-class service. They have relied on the quality and reliability of Böhmer ball valves for decades.

We are proud to be recognized as one of the leading valve manufacturers.



Ready-to-ship ball valves in various nominal sizes



PRECISELY DESIGNED AND FIELD-PROVEN

As simple as the basic task of a ball valve is, its operating conditions are just as varied. Böhmer has the expertise to offer the right solution for almost any application.

Stem Sealing

The sealing of the stem to the atmosphere is achieved by three independent sealing systems. The stem sealing design ensures the anti-blow-out function, too. Therefore, certain stem sealings are easily replaceable under full line pressure in open or closed position.

Sealing system in the passage

Fully welded ball valves are equipped with soft, metallic or PMSS (Primary Metal Secondary Soft) seat rings for specific applications. Our ball valves also have spring-loaded seat rings as standard, which ensure a tight seal even with the lowest line pressures.

Trunnion Mounted Ball

The standard design of Böhmer ball valves provides a trunnion mounted ball for the nominal sizes 3 inch and higher. The maintenance-free bearings for stem and trunnion are self-lubricating, thus ensuring a lower torque especially for high pressure ratings.

Anti-Static Device

The ball valve design includes an electric conductive connection between the internal parts of the ball valve and the body, providing the anti-static function.

Fire Protection

The design ensures the fire safe requirements in accordance with the international standards as ISO 10497, API 6FA, API 607 and BS 6755 P 2.

Emergency Sealing

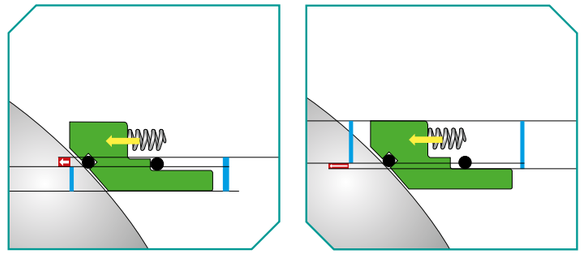
As an option, Böhmer ball valves can be delivered with an additional emergency sealant injection for the seat-rings and stem sealing.

Double Block and Bleed

This enables the verification of the tightness of the ball valve under full working pressure.

The upstream and downstream seat rings ensure the tight shut off to the cavity in closed and open position as well.

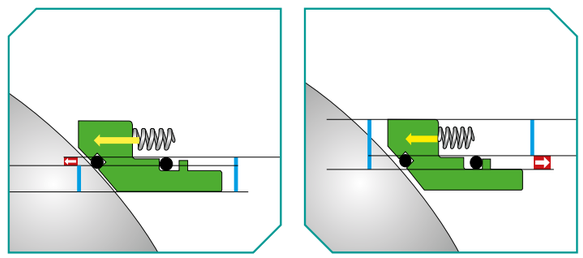
For the leak test, the cavity is emptied through a vent valve. If no medium flows in after draining, the tightness has been verified.



Double-Piston-Effect

(Bi-directional Seating System)

With this design the seat rings tighten independently of the actual pressure relations. A redundant sealing system is created. Self relieving of the cavity does not happen in closed position (optional in open position as well).



Single-Piston-Effect

(Self-relieving Seat Design)

This seat system is designed to automatically vent any excessive build-up pressure in the body cavity.

The floating seat design allows for relieving the overpressure into the pipeline.

THE INNER VALUES

Temperature, pressure, viscosity, abrasive or corrosive properties - each medium places its own requirements on the seals of a valve. Böhmer ball valves are therefore equipped with different sealing systems to ensure the optimum solution for the respective requirement.

Soft Seals

The sealing function is ensured by sealing rings made of plastic.

A multitude of available materials (PTFE, PA, PEEK, etc.) enable a wide spectrum of applications and suitability for various fluids. Ball valves with plastic seals also feature low torques.

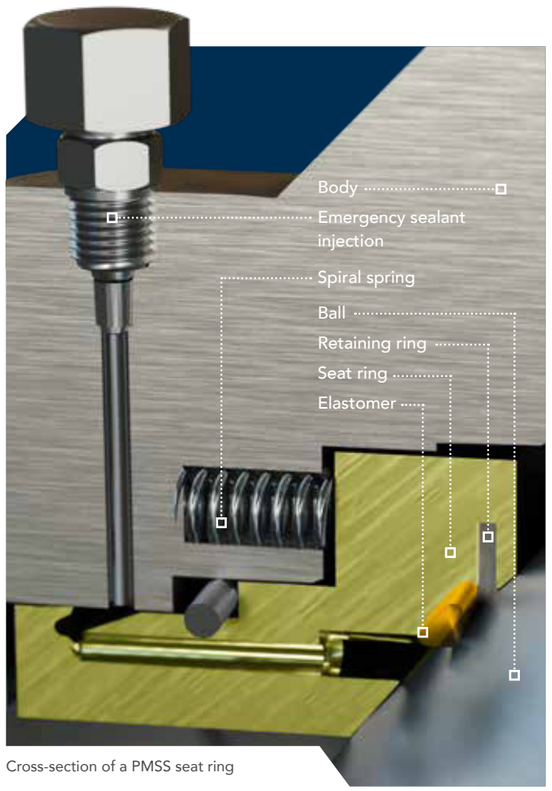
Böhmer installs soft seat rings for specific applications, but recommends alternative sealing systems for large nominal diameters and pressures, as well as for shutting off abrasive media.

Metal Seat Rings

Metal to metal sealing solutions are very suitable for very high pressure and temperature requirements. Metal seat rings offer high wear resistance and resistance to dirt and deposits. Depending on the material, they are also suitable for applications with caustic or corrosive media.

Metal seat rings must make 100% contact with the ball; even the slightest deviations impair the sealing function. For this reason, the seat rings are individually ground into the installed ball for each unit.

This makes the construction of ball valves with metal seats relatively complex and time-consuming.



Cross-section of a PMSS seat ring

PMSS (Primary Metal - Secondary Soft)

PMSS seat rings are metallic seat rings with elastomer inserts.

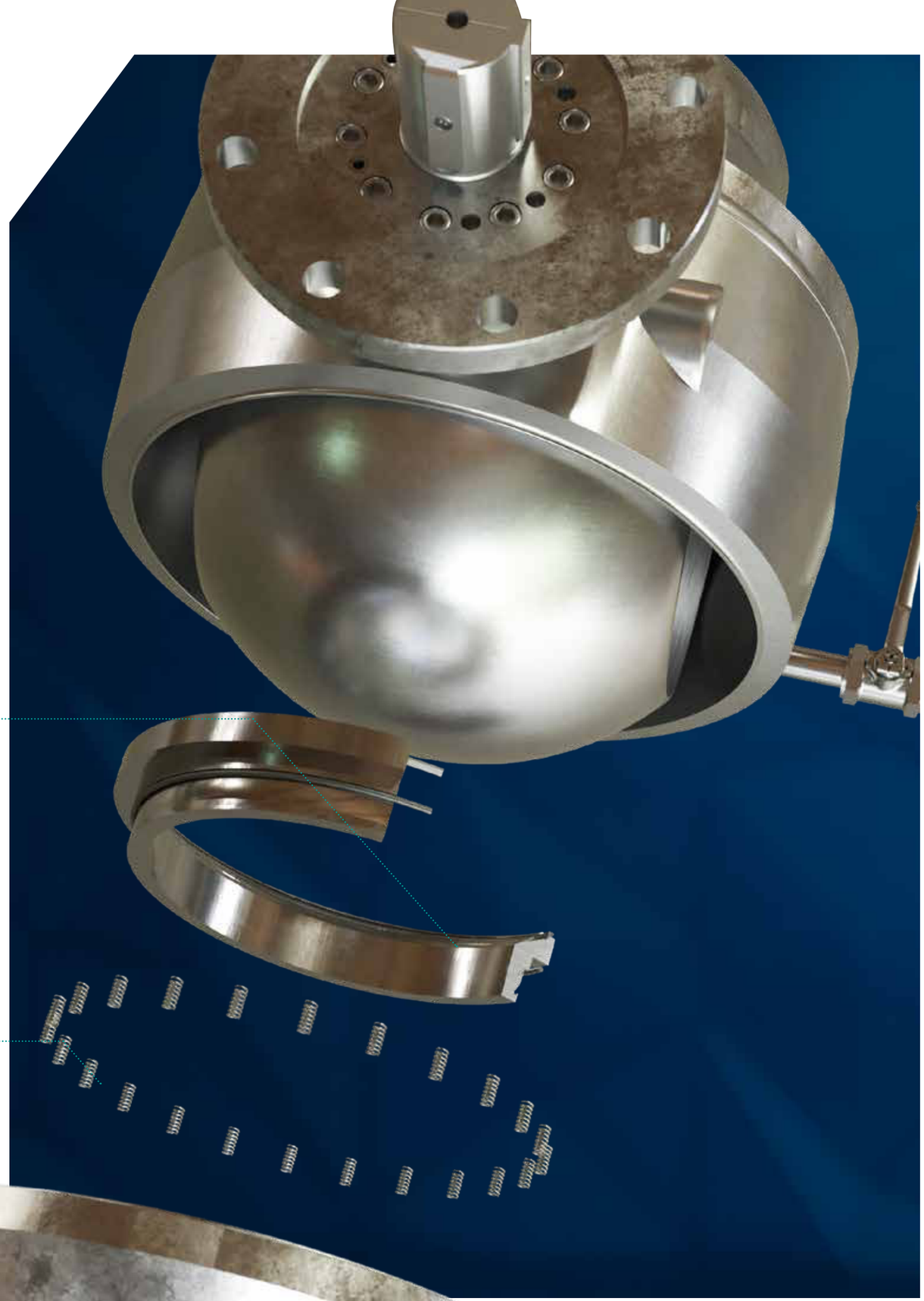
The metal seat ring rests on the ball and is supported by an elastomer delta ring; elastomers are insensitive to dirt and wear. This combination therefore allows a very wide range of applications comparable to that of purely metallic seat rings.

However, the assembly of PMSS seat rings is less complex and PMSS seat rings are therefore usually the more economical solution.

Spiral springs

The Böhmer ball valves provide spring supported seats as a standard. The seats are pressed against the ball surface by the spring elements and ensure a tight shut-off at low line pressure. In addition the sealing effect is assisted by the pressure in line.

So the total sealing force is the sum of the spring force and the force resulting from the pressure which increases proportionally with the line pressure.



FOUND EVERYWHERE

Ball valves from Böhmer can be found around the globe and in almost all branches of industry. We have the right solution for almost every medium: whether gases or liquids, suspensions or pure solids, our ball valves are proven for almost every industry.

1 Gas transportation and supply

Thanks to the uncompromising safety and maintenance-free operation of our fully welded ball valves, we are a market-leading manufacturer in the operation of above-ground and underground pipelines for natural gas, in pressure control and distribution stations.

2 Hydrogen

Our products have been proving their leak-tightness and absolute reliability for many years in all applications relating to the transportation and storage of hydrogen.

3 Gas storage

Böhmer ball valves are used in above-ground and underground gas storage facilities to shut off the pipes.

4 Factories and Power Plants

Böhmer ball valves ensure the safe operation of power stations, factories and plants in a wide range of industrial sectors.

5 LNG-Terminals

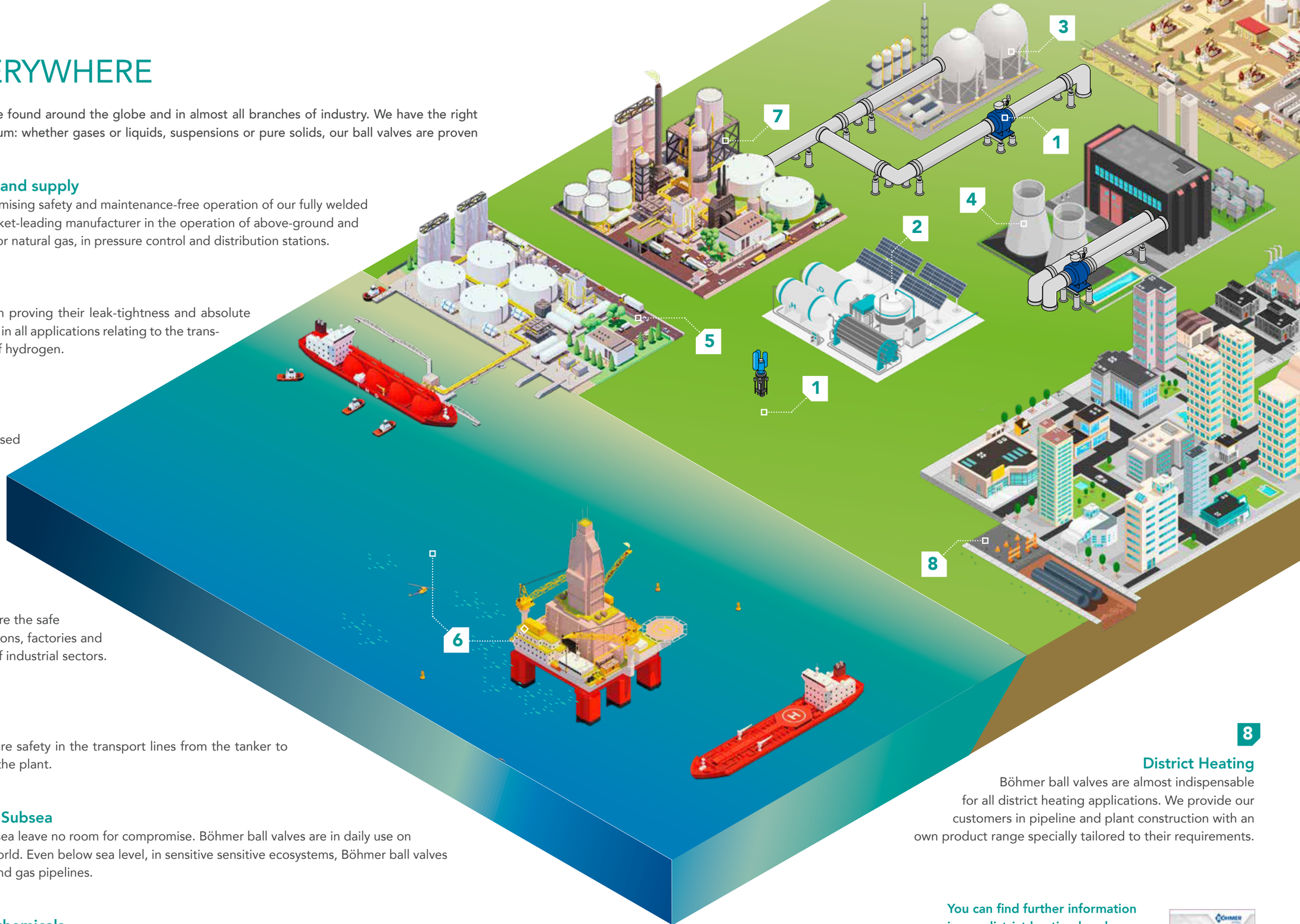
Böhmer ball valves ensure safety in the transport lines from the tanker to the terminal and within the plant.

6 On- and Offshore / Subsea

The harsh conditions at sea leave no room for compromise. Böhmer ball valves are in daily use on platforms all over the world. Even below sea level, in sensitive sensitive ecosystems, Böhmer ball valves are used to shut off oil and gas pipelines.

7 Refinery and Petrochemicals

Our ball valves operate reliably in pipelines for products such as ethylene, propylene, propane, and butane, but also in the control of cracking processes.



8 District Heating

Böhmer ball valves are almost indispensable for all district heating applications. We provide our customers in pipeline and plant construction with an own product range specially tailored to their requirements.

You can find further information in our district heating brochure



TIGHT AND TIGHTLY PACKED

An impressive number of different ball valves leave the halls of our factories every day in boxes, on pallets, in crates or on low-loaders. Each valve is as individual as its application. How the application profile affects the design of our products can be clearly seen on these pages.

Pipeline Ball Valve
DN 1200 | PN 100

PUR-coated ball valves are used worldwide in underground pipelines.

The attached secondary lines are used for leak testing, venting and draining as well as for injecting sealant in the event of damage to the sealing system.

Pipeline Ball Valve
DN 1200 | PN 100

Since 2023, ball valves of this model have been controlling the flow of media in a pipeline that crosses the whole of Canada.

Safety Shut-off Valve (SSV)
DN 700 | PN 105

This special ball valve is used as a safety shut-off device in accordance with EN 14382.

In an emergency, the 2t heavy ball is completely closed within just 4 seconds.

GREATER THAN THE SUM OF ITS PARTS

Steel and stainless steel form the basis of our products. Böhmer relies exclusively on materials of consistent, first-class quality for its ball valves. In combination with numerous optional add-on parts and extensions, your individually manufactured ball valve is created from the basic product. Our engineering and sales experts will be happy to help you find the perfect valve solution for your application.

STANDARD-MATERIALS

Body

ASTM A 350 LF 2
ASTMA 694
P 250 GH
P355
ASTM A 106 / P 235

Ball & Seat Rings

ASTM A 350 LF 2
ASTM A182
ASTM A 694
+ ENP / Hartchrome

O-Rins & Seat Ring Inserts

FKM, EPDM, PTFE / PTFE filled
HNBR, PEEK,
Devlon,
Nylon

OPTIONS

Weld Ends or Flanges
acc. to DIN or ANSI

Overlays
CRA overlay (SS316 or Inconel 625) for seat ring area, seat pockets or complete passage

Sealing Systems
DIB-1- or DIB-2-Function

Emergency Sealing
in the Ball area

Draining and Bypass Lines
in different versions

PUR-Coating
ex works incl. voltage tests



Actuators
manual gearboxes or automated with hydraulic, pneumatic and electric drives

Stem Extensions
for underground installation; shaft length up to 3m

Extended Lines
for drain, vent and emergency sealing injection

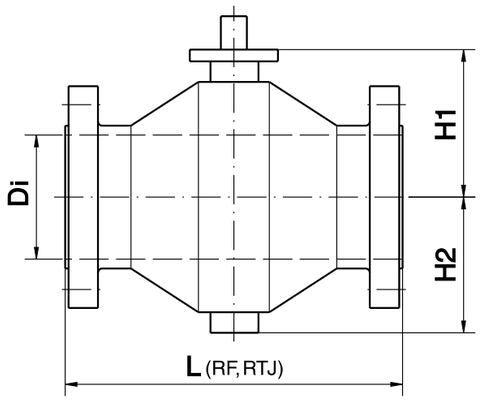
Emergency Sealing
in the stem-area

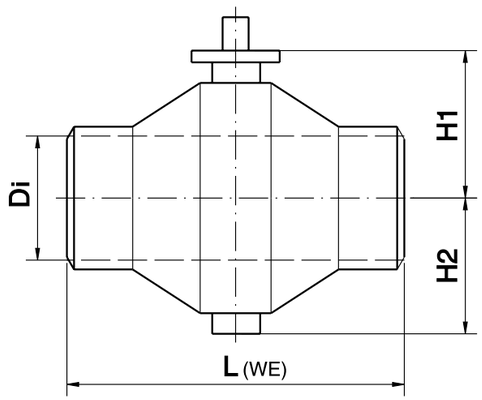
Cavity Relief
to reduce the torque and duration of the closing process

Variable overall lengths

DIMENSIONS

On the following pages you will find the basic dimensions of our ball valves, sorted by pressure rating. The values are intended as a rough guide. Special designs and attachments are not included in the tables. We are also happy to provide you with 3D objects for your planning on request.





ANSI CLASS 150 | PN 16*

Nominal Size		Diameter	Face-to-face length						Weight	
DN [mm]	[inch]	DI* [mm]	L (RF) [mm]	L (RTJ) [mm]	L (PN*) [mm]	L (WE) [mm]	H1* [mm]	H2* [mm]	Flange* [kg]	Weld End* [kg]
25	1	25	127	-	-	216	35	27	4.5	2
50	2	51	178	191	150	241	63	45	12	6
80	3	78	203	216	180	283	100	70	28	20
100	4	102	229	241	190	305	113	86	45	32
150	6	152	394	406	350	400	166	157	85	59
200	8	203	457	470	400	460	201	192	130	90
250	10	254	533	546	650	600	283	249	295	265
300	12	305	610	622	750	700	325	313	505	450
350	14	336	686	699	850	800	353	340	680	610
400	16	387	762	775	950	900	435	406	850	750
450	18	438	864	876	1050	1000	470	450	1180	1050
500	20	489	914	927	1150	1090	512	488	1660	1400
550	22	540	1016	1028,7	-	1130	649	551	2100	1800
600	24	591	1067	1080	1350	1150	688	594	2500	2300
700	28	686	1245	-	1550	1295	742	661	3100	2800
750	30	736	1295	-	-	1346	785	711	3680	3250
800	32	781	1372	-	-	1397	852	774	4830	4400
900	36	876	1524	-	-	1499	912	830	6650	6050
1000	40	978	1948	-	-	2010	1110	978	8900	8250
1050	42	1020	2015	-	-	2085	1163	1026	9900	9150
1200	48	1166	2145	-	-	2210	1322	1192	16000	14900
1400	56	1360	2360	-	-	2445	1530	1348	20500	19300

* DIN constructions: possibly lower values / DIN face-to-face dimensions are deliverable as well.

ANSI CLASS 300 | PN 25/40*

Nominal Size		Diameter	Face-to-face Length						Weight	
DN [mm]	[inch]	DI* [mm]	L (RF) [mm]	L (RTJ) [mm]	L (PN*) [mm]	L (WE) [mm]	H1* [mm]	H2* [mm]	Flange* [kg]	Weld End* [kg]
25	1	25	140	-	-	216	35	27	4,5	2
50	2	51	216	232	150	241	63	45	12	6
80	3	78	283	298	180	283	100	95	28	20
100	4	102	305	321	190	305	113	108	45	32
150	6	152	403	419	350	400	198	165	89	59
200	8	203	502	518	400	460	233	201	135	90
250	10	254	568	584	650	600	283	249	310	265
300	12	305	648	664	750	700	325	313	520	450
350	14	336	762	778	850	800	353	340	710	610
400	16	387	838	854	950	900	435	406	890	750
450	18	438	914	930	1050	1000	470	450	1210	1050
500	20	489	991	1010	1150	1090	512	488	1710	1450
550	22	540	1092	1114	-	1130	649	551	2100	1850
600	24	591	1143	1165	1350	1150	688	594	2580	2300
700	28	686	1346	1372	1550	1295	742	661	3190	2840
750	30	736	1397	1422	-	1346	785	711	3800	3350
800	32	781	1524	1553	-	1397	852	774	4950	4500
900	36	876	1727	1756	-	1499	912	830	6900	6200
1000	40	978	2048	-	-	2010	1110	978	9200	8400
1050	42	1020	2112	-	-	2085	1163	1026	10700	9800
1200	48	1166	2257	-	-	2210	1322	1192	16600	15500
1400	56	1360	2470	-	-	2445	1530	1348	21300	19700

* DIN constructions: possibly lower values / DIN face-to-face dimensions are deliverable as well.

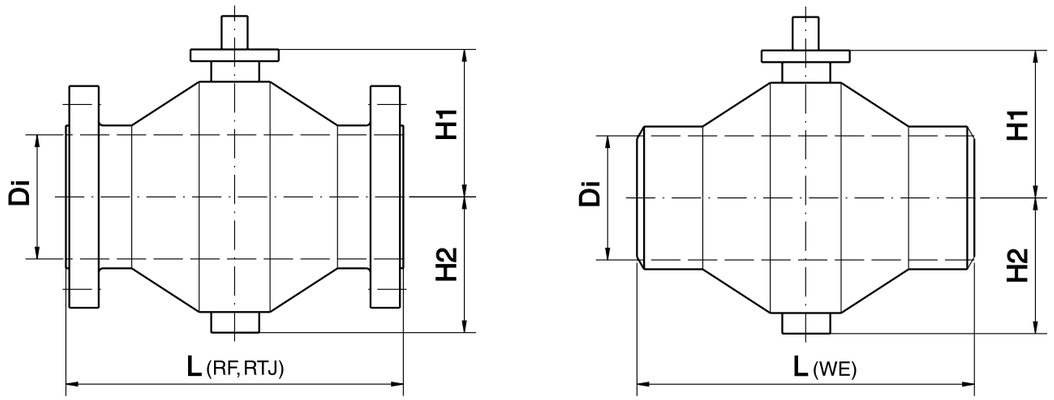
ANSI CLASS 600 | PN 100*

Nominal Size		Diameter	Face-to-face Length					Weight	
DN [mm]	[inch]	DI* [mm]	L (RF) [mm]	L (RTJ) [mm]	L (WE) [mm]	H1* [mm]	H2* [mm]	Flange* [kg]	Weld End* [kg]
25	1	25	216	216	216	55	29	6	3
50	2	51	292	295	292	78	61	17	10
80	3	78	356	359	356	160	116	41	32
100	4	102	432	435	432	192	135	72	56
150	6	152	559	562	559	228	178	157	115
200	8	203	660	663	660	295	224	300	225
250	10	254	787	791	787	343	275	455	365
300	12	305	838	841	838	403	320	690	590
350	14	336	889	892	889	451	363	980	830
400	16	387	991	994	991	492,5	400	1310	1080
450	18	438	1092	1095	1030	548	458	1770	1490
500	20	489	1194	1200	1090	603,5	504	2210	1830
550	22	540	1295	1305	1130	649	551	2720	2250
600	24	591	1397	1407	1245	688	594	3400	2950
700	28	686	1549	1562	1295	742	661	4580	3850
750	30	736	1651	1664	1346	785	711	5750	4890
800	32	781	1778	1794	1397	852	774	7000	6000
900	36	876	2083	2099	1499	912	830	8800	7500
1000	40	978	2165	2194	2010	1110	978	10600	9300
1050	42	1020	2240	2269	2085	1163	1026	11700	10400
1200	48	1166	2385	2414	2210	1322	1192	18900	16800
1400	56	1360	2710	2739	2445	1530	1348	26800	23800

* DIN constructions: possibly lower values / DIN face-to-face dimensions are deliverable as well.

All information subject to change and error

DIMENSIONS



ANSI CLASS 900 | PN 160*

Nominal Size		Diameter	Face-to-face Length					Weight	
DN		DI*	L (RF)	L (RTJ)	L (WE)	H1*	H2*	Flange*	Weld End*
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]
25	1	25	216	216	216	55	29	7	3
50	2	51	368	372	292	78	61	23	10
80	3	78	381	384	356	160	116	49	32
100	4	102	457	460	432	192	135	83	56
150	6	152	610	613	559	228	178	185	115
200	8	203	737	740	660	295	224	395	230
250	10	254	838	841	787	343	275	620	405
300	12	305	965	968	838	413	330	920	670
350	14	324	1029	1038	889	461	373	1280	920
400	16	375	1130	1140	991	505	412,5	1620	1210
450	18	425	1219	1232	1030	563	471	2100	1650
500	20	473	1321	1334	1190	621,5	519	2680	2040
550	22	524	1422	1435	1130	671	566	3420	2750
600	24	572	1549	1568	1295	708	615	4290	3320
700	28	667	1549	1562	1359	772	685	6100	4950
750	30	714	1880	1902	1422	820	740	7800	6500
800	32	762	1778	1794	1486	887	805	9750	7800
900	36	857	2286	2315	1625	945	865	13900	10400
1000	40	956	2225	2254	2010	1120	995	17800	14700
1050	42	1006	2285	2314	2085	1187	1055	19600	16300
1200	48	1149	2460	2489	2210	1380	1215	28500	24500

* DIN face-to-face dimensions are deliverable as well.

ANSI CLASS 1500 | PN 250

Nominal Size		Diameter	Face-to-face Length					Weight	
DN		DI*	L (RF)	L (RTJ)	L (WE)	H1*	H2*	Flange*	Weld End*
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]
25	1	25	254	257	254	60	35	21	13
50	2	51	368	372	368	85	70	35	18
80	3	78	470	473	410	175	131	73	48
100	4	102	546	549	470	212	155	126	88
150	6	146	705	711	580	253	203	255	165
200	8	194	832	841	710	330	254	625	410
250	10	241	991	1000	820	388	310	845	650
300	12	289	1130	1146	940	463	382	1430	1120
350	14	318	1257	1276	1075	527	433	1900	1430
400	16	362	1384	1407	1200	575	482,5	2400	1750
450	18	406	1537	1559	1254	533	474	3100	2100
500	20	454	1664	1686	1295	743	612	3900	2850
600	24	546	1950	1972	1390	849	753	5600	4500
700	28	641	-	1990	1497	1001	859	7900	6600
750	30	686	-	-	1575	1078	910	10000	8500
800	32	730	-	-	1610	1120	965	12800	11000
900	36	819	-	-	1770	1235	1080	17400	15000

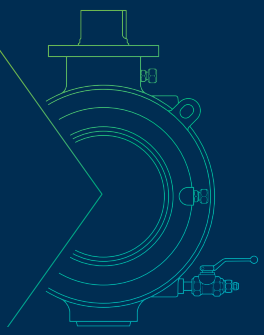
ANSI CLASS 2500 / PN 420

Nominal Size		Diameter	Face-to-face Length					Weight	
DN		DI*	L (RF)	L (RTJ)	L (WE)	H1*	H2*	Flange*	Weld End*
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]
25	1	25	254	257	254			37	20
50	2	42	451	454	368	145	105	82	36
80	3	62	578	584	410	195	155	175	80
100	4	87	673	683	490	232	180	340	185
150	6	131	914	927	610	285	234	770	380
200	8	179	1022	1038	870	363	290	1250	720
250	10	223	1270	1292	995	415	345	2000	1050
300	12	265	1422	1445	1145	498	415	2700	1400

All information subject to change and error

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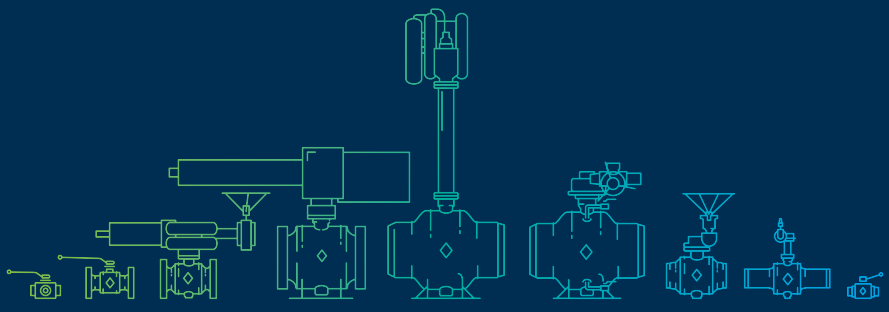
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