



NAVAL GAS BALL VALVES

Naval Gas ball valves is designed for shut-off applications in natural gas pipelines. All valves fulfil the requirements of European Pressure directive (97/23/EY) and are manufactured to category III.(module H). Naval Oy has acertified quality system ISO 9001 and certified environmental management system ISO 14001. Naval gas valves can upon request be manufactured in accordance with the EU ATEX-directives (94/9/EC), equipment group II. The ATEX-requirement shall always be mentioned in the inquiry and order.

DESIGN:

The valve has all-welded body and is fitted with carbon-reinforced Teflon seals which are long-lasting against frequent operation, impurities and chemicals.

A ground and polished stainless steel ball gives easy turning and reliable operation over many years.

A floating ball construction is used. Bevel spring washers keep the seals pressed against the ball to ensure that the valve remains leak-tight regardless of pressure fluctuations.

The blow-out proof stem is sealed with 2 O-rings. In smaller valves, the upper one can be changed and in sizes 65 to 300 both can be changed. The Teflon thrust washer between the stem shoulder and stem housing also acts as a seal.

Stem housings of DN65 valves and above are fitted with stainless steel bearings.

CHARACTERISTICS:

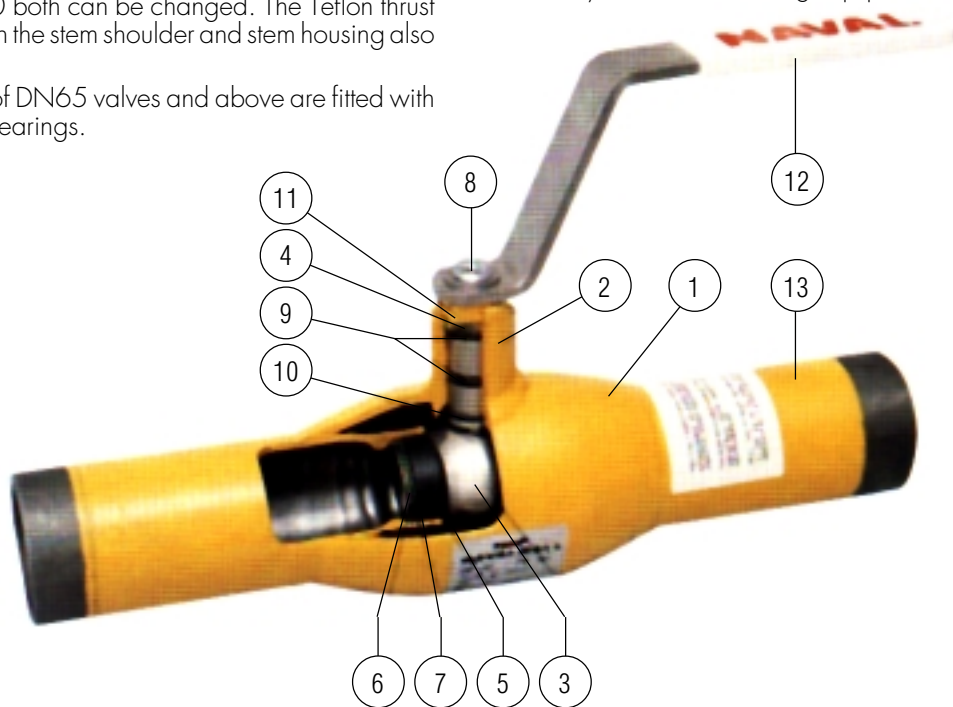
The valve needs no servicing - no adjustment or lubrication and is easy to install, long working life with low running costs.

It is easy to insulate because of the long, circular stem housing.

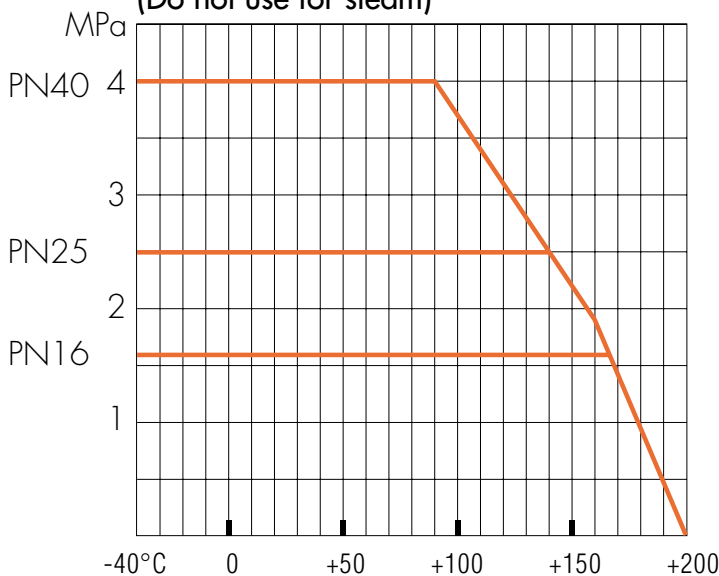
The operating lever is detachable and can be re-positioned at 180°

Heavy and unreliable cast components are not used in the construction of the valve body.

It is easy to retrofit actuating equipment.



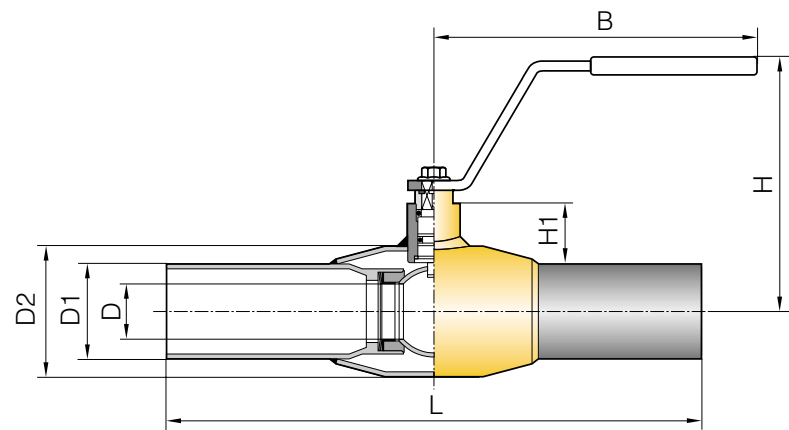
Pressure/temperature curves
(Do not use for steam)



For temperatures below -20°C, please mention separately when ordering.

MATERIAL SPECIFICATION

ITEM	DESCRIPTION	MATERIAL	
1.	Body	Carbon steel	St 37.8
2.	Stem Housing	Carbon steel	Fe 52 EP
3.	Ball	Stainless steel	AISI 304
4.	Stem	Stainless steel	AISI 303
5.	Seal	Teflon	PTFE+C
6.	Bevel washer	Spring steel	
7.	Support ring	Stainless steel	
8.	Screw	Steel	
9.	O-ring	Viton	FPM
10.	Thrust washer	Teflon	PTFE
11.	Stop	Casted steel	AISI 304
12.	Handle	Zinc-plated steel	
13.	End pipe	Carbon steel	ST 37.8

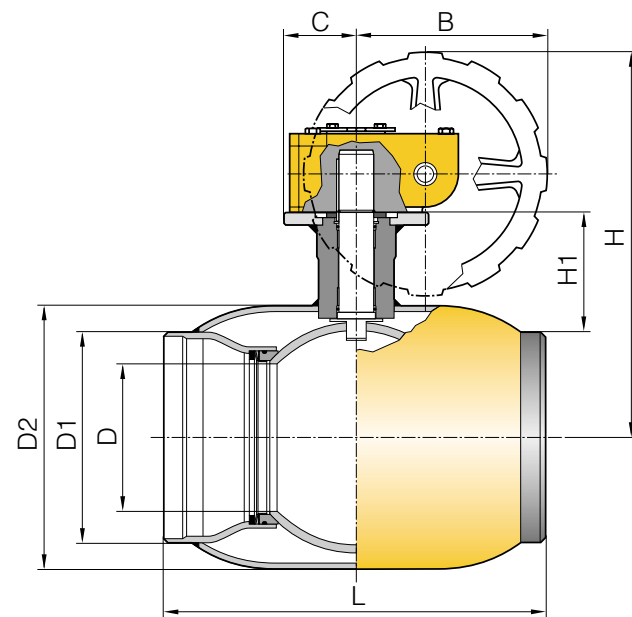


WITH BUTT WELD CONNECTIONS

DN	PN	NAVAL No	L	D	D1	D2	H	B	H1	Weight(kg)
10	40	280 402	230	10	17,2	33,7	98	145	22	0,5
15	40	280 403	230	10	21,3	33,7	98	145	22	0,5
20	40	280 405	230	15	26,9	42,4	103	145	23	0,7
25	40	280 406	230	20	33,7	48,3	118	145	34	1,0
32	40	280 407	260	25	42,4	60,3	121	145	33	1,4
40	40	280 408	260	32	48,3	70,0	120	190	43	1,8
50	40	280 409	300	40	60,3	88,9	127	190	44	2,6

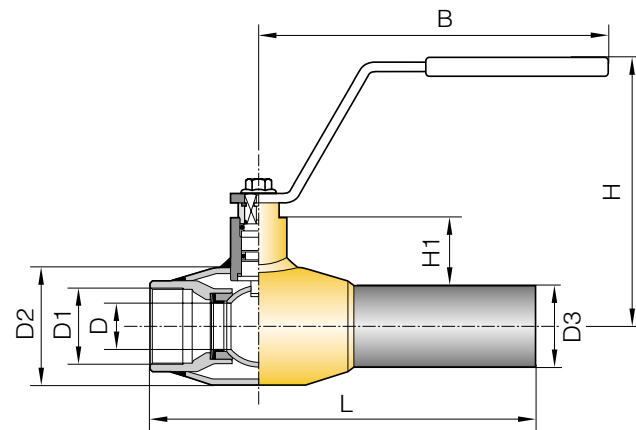
65	25	280 410	300	50	76,1	101,6	170	280	62	4,4
80	25	280 411	300	65	88,9	121,0	185	280	68	5,6
100	25	280 412	325	80	114,3	146,0	210	280	101	8,4
125	16	280 413	325	100	139,7	177,8	253	400	101	13,4
150	16	280 414	350	125	168,3	219,1	273	600	107	18,0
200	16	280 416	390	150	219,1	273,0	300	900	123	36,3
250	16	280 417	520	200	273,0	355,6	345	1200	122	72,0

We recommend gear operation for valves 125 mm and larger.



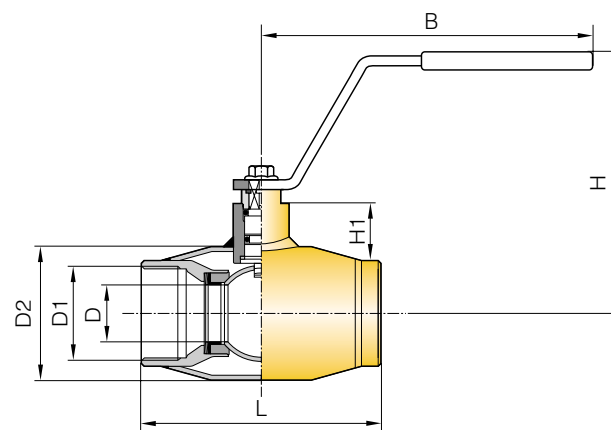
GEAR-OPERATED

DN	PN	NAVAL No	L	D	D1	D2	H	B	C	H1	Weight(kg)
125	16	280 433	325	100	139,7	177,8	309	145	50	101	18
150	16	280 434	350	125	168,3	219,1	330	145	50	107	23
200	16	280 436	390	150	219,1	273	398	196	75	123	46
250	16	280 437	520	200	273,0	355	451	236	100	122	87
300	16	280 438	635	250	323,9	406	572	280	193	155	193



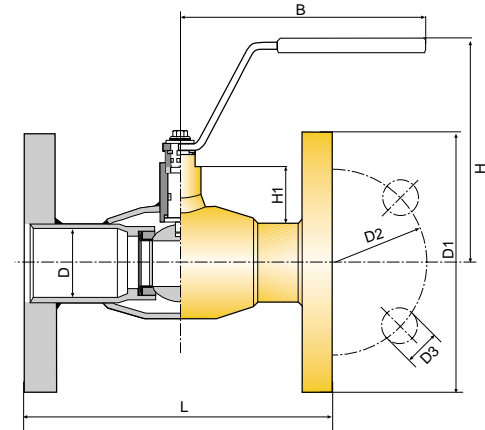
WITH BUTT WELD CONNECTION/FEMALE PIPE THREADS

DN	PN	NAVAL No	L	D	D1	D2	D3	H	B	H1	Weight(kg)
15	40	280 003	158	10	R 1/2	33,7	21,3	98	145	22	0,5
20	40	280 005	165	15	R 3/4	42,4	26,9	103	145	23	0,6
25	40	280 006	172	20	R 1	48,3	33,7	118	145	34	0,9
32	40	280 007	195	25	R 1 1/4	60,3	42,4	121	145	33	1,2
40	40	280 008	205	32	R 1 1/2	70,0	48,3	120	190	43	1,7
50	40	280 009	240	40	R 2	88,9	60,3	127	190	44	2,3



WITH FEMALE PIPE THREADS

DN	PN	NAVAL No	L	D	D1	D2	H	B	H1	Weight(kg)
15	40	280 153	85	10	R 1/2	33,7	98	145	22	0,5
20	40	280 155	100	15	R 3/4	42,4	103	145	23	0,5
25	40	280 156	115	20	R 1	48,3	118	145	34	0,7
32	40	280 157	130	25	R 1 1/4	60,3	121	145	33	0,9
40	40	280 158	150	32	R 1 1/2	70,0	120	190	43	1,5
50	40	280 159	180	40	R 2	88,9	127	190	44	2,1



WITH FLANGES

DN	PN	NAVAL No	L	D	D1	D2	D3	H	B	H1	Weight(kg)
15	40	280 503	130	10	95	65	14	98	145	22	1,9
20	40	280 505	150	15	105	75	14	103	145	23	2,7
25	40	280 506	160	20	115	85	14	118	145	34	3,3
32	40	280 507	180	25	140	100	18	121	145	33	5,0
40	40	280 508	200	32	150	110	18	120	190	43	6,0
50	40	280 509	230	40	165	125	18	127	190	44	7,9

65	16	280 510	270	50	185	145	18	170	280	62	10,0
80	16	280 511	280	65	200	160	18	185	280	68	12,5
100	16	280 512	300	80	220	180	18	210	280	101	18,8
125	16	280 513	325	100	250	210	18	253	400	101	24,3
150	16	280 514	350	125	285	240	22	273	600	107	31,5
200	16	280 516	400	150	340	295	22	300	900	123	55,1
250	16	280 517	530	200	405	355	26	345	1200	122	97,8

WITH FLANGES AND WITH GEAR

DN	PN	NAVAL No	L	D	D1	D2	D3	H	B	C	H1	Weight(kg)
125	16	280 533	325	100	250	210	18	309	145	50	101	29
150	16	280 534	350	125	285	240	22	330	145	50	107	36
200	16	280 536	400	150	340	295	22	398	196	75	123	65
250	16	280 537	530	200	405	355	26	451	236	100	122	113
300	16	280 538	630	250	460	406	26	572	280	193	155	229

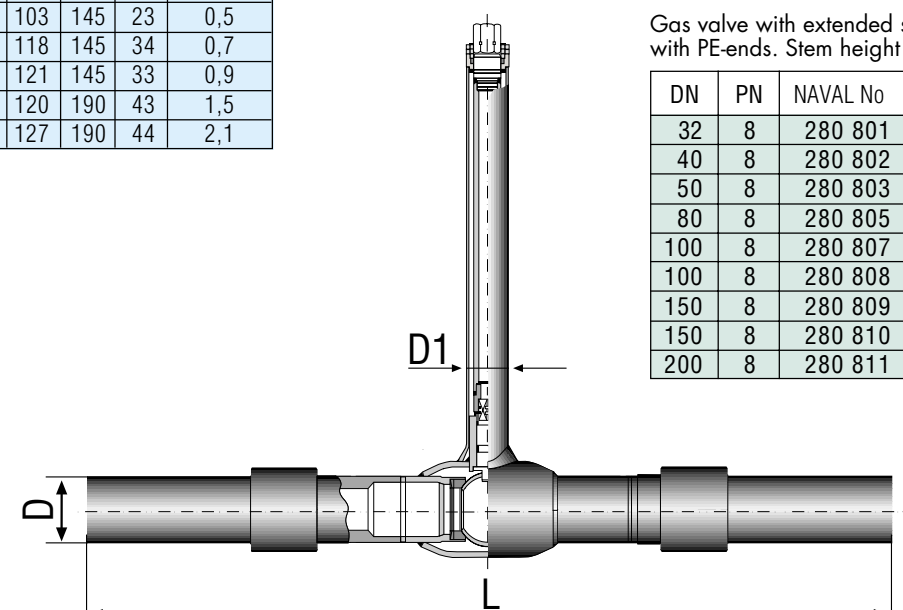
Flanges: SFS 2123, SS 335, DIN 2501, ISO 2084

Face to face dimensions

according to: DN15-50 DIN 3202/F1 DN250-300 DIN 3202/F15
DN65-200 DIN 3202/F5

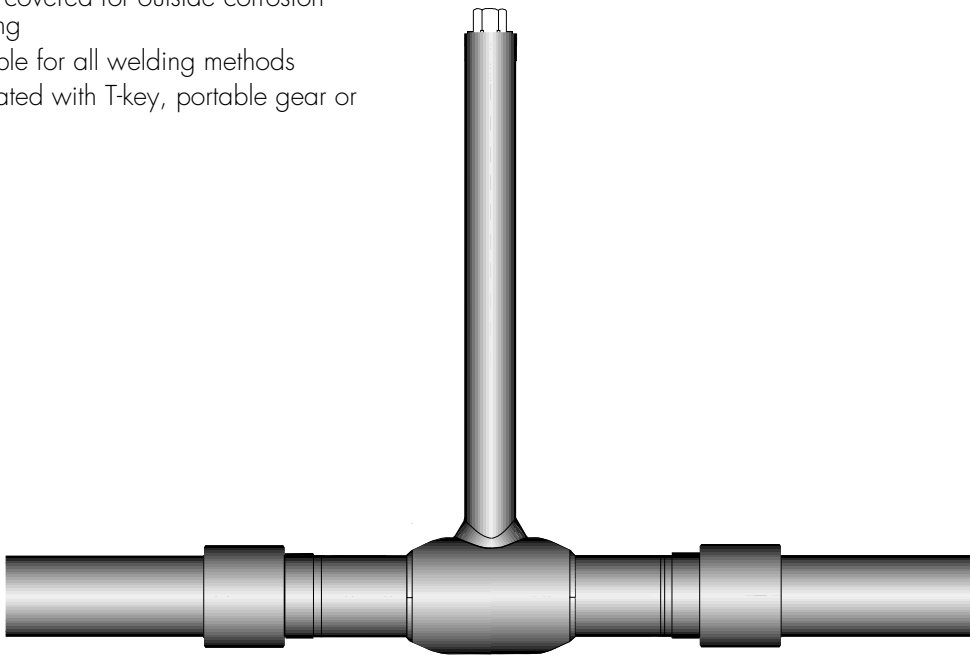
Gas valve with extended stem for underground services with PE-ends. Stem height according to specification.

DN	PN	NAVAL No	L	D	D1
32	8	280 801	1058	40	42,4
40	8	280 802	1084	50	48,3
50	8	280 803	1126	63	60,3
80	8	280 805	1100	90	88,9
100	8	280 807	1171	110	114,3
100	8	280 808	1181	125	114,3
150	8	280 809	1324	160	168,3
150	8	280 810	1356	180	168,0
200	8	280 811	1358	200	219,1



GAS VALVE FOR PE-PIPES

- All steel parts covered for outside corrosion with PE coating
- PE ends suitable for all welding methods
- Valve is operated with T-key, portable gear or worm gear



GAS- AND QUALITY APPROVALS

- ISO 9001
- PED
- GOST
- ATEX
- DVGW



SELECTION TABLE OF ACTUATORS

DN	PN	Pneumatic, spring return RC	Pneumatic, double acting RC	Electric actuator Auma	Electric actuator Bernard
10	40	RC210-SR	RC210-DA	SG03-11	OA3
15	40	RC210-SR	RC210-DA	SG03-11	OA3
20	40	RC210-SR	RC210-DA	SG03-11	OA3
25	40	RC220-SR	RC210-DA	SG03-11	OA3
32	40	RC220-SR	RC210-DA	SG03-11	OA3
40	40	RC230-SR	RC220-DA	SG04-11	OA6
50	40	RC230-SR	RC220-DA	SG04-11	OA6
65	25	RC240-SR	RC220-DA	SG05-11	OA8
80	25	RC240-SR	RC230-DA	SG05-11	OA15
100	25	RC250-SR	RC240-DA	SG07-22	AS18
125	16	RC260-SR	RC240-DA	SG07-22	AS25
150	16	RC270-SR	RC260-DA	SG10-45	AS50
200	16	RC270-SR	RC260-DA	SG12-63	BS100
250	16	RC280-SR	RC270-DA	SA07.1-GSM100.3/VZ4.3	SRA6 RS250
300	16		RC280-DA	SA07.5-GSM125.3/VZ4.3	SRC RS600

Electric actuators are available with one or three phase motors. The valve and actuator combination can upon request be manufactured in accordance with the EU ATEX-directives.



DN25 + Bernard OA3



DN80 + RC230-DA



DN200 + Auma SG12-63



Flow Control Division

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