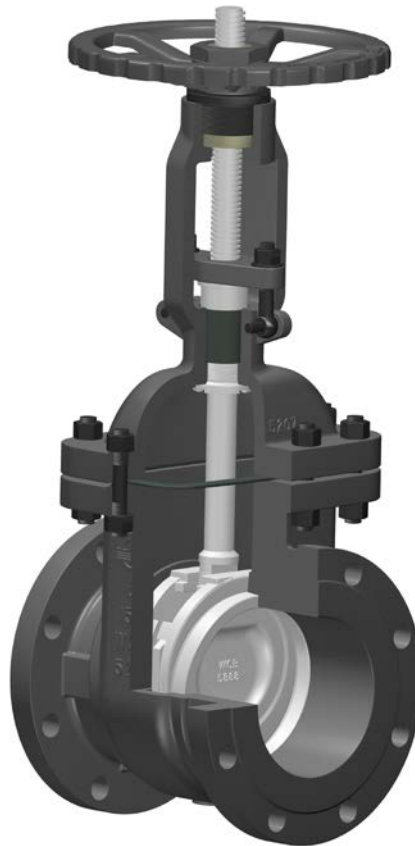


Series 90 DIN RANGE

Series 90 Gate Valves are linear motion valves devised for stopping the flow of the service fluid when necessary, not being suitable for regulating purpose. They are bolted bonnet, outside screw and yoke, rising stem, bidirectional, with metal sealing and full bore. The atmospheric sealing is achieved by flexible graphite rings. The two slightly sloped seats favor a tight shut off, being largely used in the power, chemical and oil industry sectors. The range is also comprehensive of a wide offer of different versions and options. The standard operation is achieved by handwheel or gear, depending on valve size and working pressure. Valves can also be arranged for automation with different kinds of actuators.



Precise machining of components for optimal performance

Outside screw and yoke,
rising stem

Back Seat feature

Seat surface can be hardened to increase wear resistance

Flexible Wedge,
favours the closure
even at low pressures

Ergonomic non-rising
handwheel

Marking for identification
and full traceability purpose

Great versatility in end connections, materials and configurations

Sloped valve seats, vertical shut off, flow assists closure

Full bore, minimum
pressure drop

Main Features / Reference Standards

Design: DIN EN 1984
Pressure Rating: PN10
Face to face length: DIN 3202 F4/F5
Valve end connections: Flanged RF to EN 1092-1 Type 21
Welded BW to EN12627
Marking: MSS SP-25
Inspections & Tests: EN12266-1/2
Bidirectional design
Primer painted grey color similar to RAL 7037 for protection during storage and transport (carbon steel body/bonnet)
Product compliant with Pressure Equipment Directive PED, up to category III for European territory

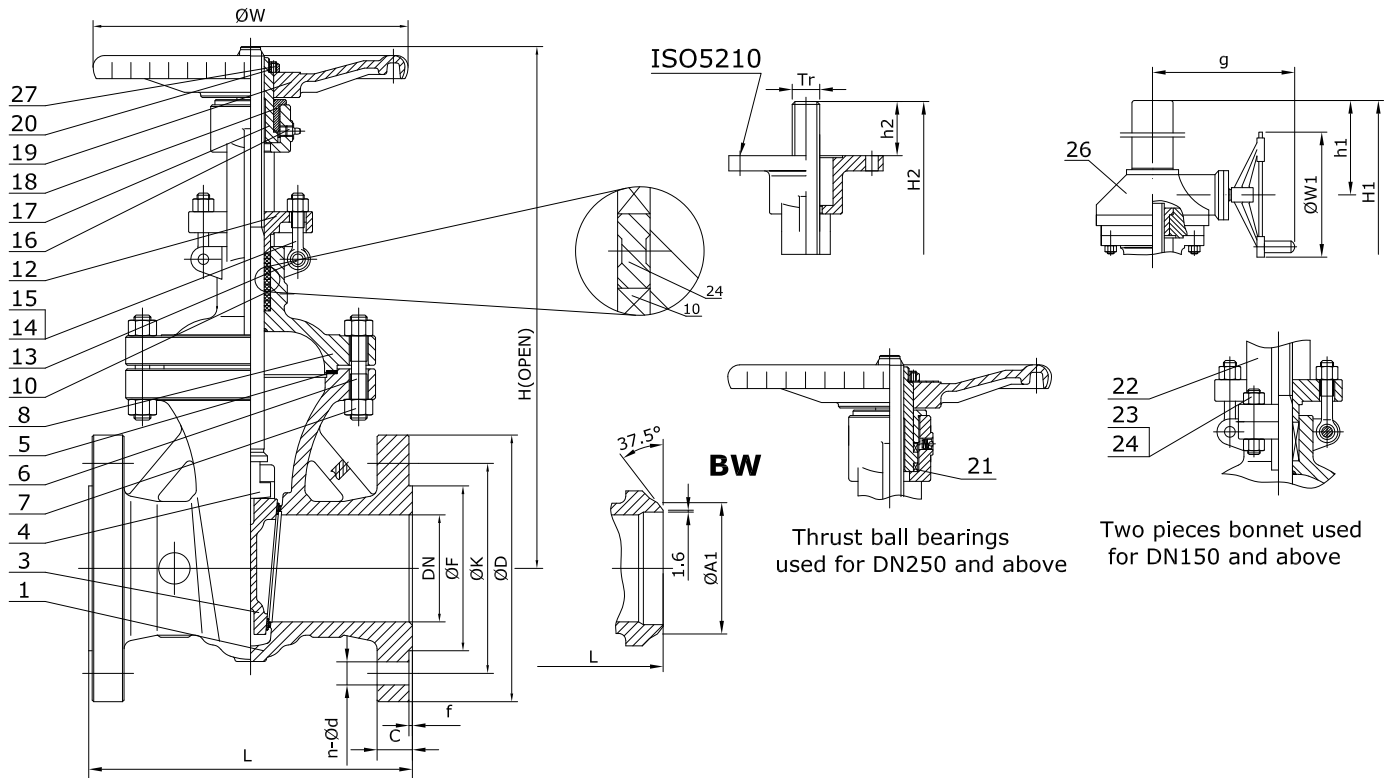
Main Duties / Limits of use

Fluids compatible with materials of construction
Pressure / Temperature Rating to EN 1092-1.
For PED compliant products, limits also acc. to PED Annex II Tables 6, 7, 8 & 9, gases and liquids of fluid groups 1 & 2, up to category III
Questions referring to chemical resistance, please consult us
For installation in horizontal pipelines with stem pointing upwards. For other positions, please consult us.

Options

Different body materials and trim combinations, different valve connections, extended bonnet, bellow seal, pressure seal, welded bonnet, lantern ring with double packing, live loaded packing, chained hand wheel, manual gear, pneumatic, electric or hydraulic actuation, limit switches, execution for aggressive atmosphere, etc. Please consult us

Main Parts and Materials



Nº	Part name	1.0619+N (90A0_)	1.4408 (90I0_)
1	Body	1.0619+N	1.4408
2	Wedge	1.0619+N	1.4408
3	Stem	A182 F6a	ASTM A182 F316
4	Nut	A194 2H	ASTM 194 8M
5	Bolt	A193 B7	ASTM 193 B8M
6	Gasket	St. Steel 304 + Graphite	St. steel 316 + Graphite
7	Bonnet	1.0619+N	1.4408
8	Packing	Flexible Graphite	
9	Pin	Carbon Steel	St. steel 304
10	Gland Eyebolt	A193 B7	ASTM A193 B8M
11	Nut	A194 2H	ASTM A194 8M
12	Gland	1.0619+N	1.4408
13	Grease Injector	Brass	Copper alloy
14	Stem Nut	A439 D2	Ductile Iron
15	Retaining Nut	Carbon Steel	AISI 1035
16	Handwheel	ASTM A536	Ductile Iron
17	Handwheel Nut	Carbon Steel	AISI 1035
18	Screw	Carbon Steel	AISI 1035
19	Bearings	Alloy Steel	Alloy steel
20	Yoke Nut	A194 2H	ASTM A194 8M
21	Yoke Bolt	A193 B7	ASTM A193 B8M
22	Yoke	1.0619+N	1.4408
23	Gear box	Assembly	
24	Lantern ring	ASTM A276 410	

Fig. 90A0	Seat Surface	Wedge Surface	Stem
TRIM #1 (90A01)	+13Cr	+13Cr	A182 F6a
TRIM #5 (90A05)	+HF	+HF	A182 F6a
TRIM #8 (90A08)	+HF	+13Cr	A182 F6a

Series 90 DIN RANGE

Main Valve Parameters - PN10

Nominal Size		DN	50	65	80	100	125	150	200	250
End connection	RF	L (F5)	250	270	280	300	325	350	400	450
		L (F4)	150	170	180	190	200	210	230	250
		ØD	165	185	200	220	250	285	340	395
		ØK	125	145	160	180	210	240	295	350
		ØF	102	122	138	158	188	212	268	320
		C	18	18	20	20	22	22	24	26
		f	3	3	3	3	3	3	3	3
		n-Ød	4-M16	4-M16	8-M16	8-M16	8-M16	8-M20	8-M20	12-M20
BW	ØA1	62	77	91	117	144	172	223	278	
Top works/operation	Hand-wheel	H (open)	393	430	500	580	655	750	950	1180
		H (close)	340	360	415	475	525	590	740	920
		ØW	200	200	220	250	280	300	350	400
	Gear with handwheel	H1	-	-	-	-	-	-	-	1180
		h1	-	-	-	-	-	-	-	335
		g	-	-	-	-	-	-	-	262
		ØW1	-	-	-	-	-	-	-	310
		With ISO 5210 mounting pad	H2 (open)	405	460	516	611	658	765	970
	H2 (close)		340	380	425	498	520	607	755	860
	h2		45	45	60	60	60	60	80	80
	ISO		F07	F07	F10	F10	F10	F10	F14	F14
	Tr		Tr20x4LH	Tr22x5LH	Tr24x5LH	Tr26x5LH	Tr28x5LH	Tr30x6LH	Tr32x6LH	Tr36x6LH
	Stroke		65	80	91	113	138	158	215	254
	No. of turns		17	16	19	23	28	27	36	43
	Torque		-	-	-	-	-	-	140	-
	Kvs-value		168	413	595	1089	1956	2597	4791	7488
Approx. Weight RF (F5)		20	28	32	45	62	85	125	188	

(1) To be specified by the purchaser

Dimensions in mm subject to manufacturing tolerance / Kvs-values in m³/h / Torques in Nm / Weights in kg

Nominal Size		DN	300	350	400	450	500	600	700
End connection	RF	L (F5)	500	550	600	650	700	800	900
		L (F4)	270	290	310	330	350	390	430
		ØD	445	505	565	615	670	780	895
		ØK	400	460	515	565	620	725	840
		ØF	370	430	482	532	585	685	800
		C	26	26	26	28	28	34	(a)
		f	4	4	4	4	4	5	5
		n-Ød	12-M20	16-M20	16-M24	20-M24	20-M24	20-M27	24-M27
BW	ØA1	329	362	413	464	516	619	721	
Top works/operation	Hand-wheel	H (open)	1335	1535	1670	1620	2135	2325	-
		H (close)	1025	1175	1260	1420	1620	1825	-
		ØW	450	500	500	600	600	700	-
	Gear with handwheel	H1	1320	1523	1770	1640	2189	2410	2865
		h1	385	443	493	525	598	630	788
		g	262	340	340	340	340	413	413
		ØW1	310	460	460	460	460	530	530
		With ISO 5210 mounting pad	H2 (open)	1353	1465	1741	-	2132	2550
	H2 (close)		1045	1125	1335	-	1625	1940	-
	h2		80	100	100	120	120	140	180
	ISO		F14	F16	F16	F25	F25	F30	F35
	Tr		Tr38x6LH	Tr42x8LH	Tr46x8LH	Tr50x8LH	Tr50x8LH	Tr55x8LH	Tr65×10LH
	Stroke		308	340	406	-	507	610	-
	No. of turns		52	43	51	-	64	77	-
	Torque		230	-	-	-	-	-	-
Kvs-value		11182	13632	18059	24056	29953	43694	62653	
Approx. Weight RF (F5)		260	374	438	618	804	1388	2178	

(1) To be specified by the purchaser

Dimensions in mm subject to manufacturing tolerance / Kvs-values in m³/h / Torques in Nm / Weights in kg

(2) It works with gear with handwheel