

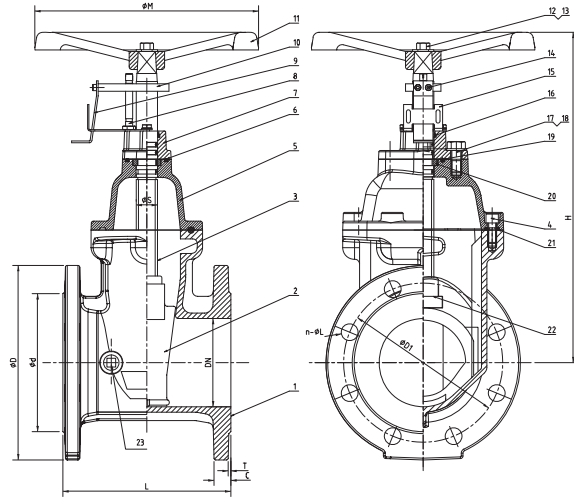


Non-Rising Stem (NRS) BS5163 Gate Valve - Flanged

NRF5

Technical Features

- **Sizes available (Nominal) :** DN50/2", DN65/2 1/2", DN80/3", DN100/4", DN125/5", DN150/6", DN200/8", DN250/10", DN300/12" & DN350/14"
- **Working Pressure :** 16 bar (232 psi)
- **Working Temperature :** 0.0°C to 70°C
- **Seat type :** Resilient wedge, EPDM encapsulated
- **Finish :** Fusion bonded epoxy coated internal & external
- **Connections :** Flange diameter and thickness according to EN1092-2 PN16, ASME B16.1 CL125 or EN1092-2 PN10
- **Specifications :** Design in accordance with BS 5163; Face to face dimension in accordance with EN 558-1, basic series 3.
- **Supervision :** Integral bracket allows monitoring of valve position using supervisory switch, P/N 880214



Control Valves

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Physical Data

Nominal Pipe Size		PN	Dimensions (mm)								Reference*			Weight (kg)	
Metric	inch		L	H	D	D1	d	C	T	n-d	ANSI	PN10	PN16		
DN50	2"	10/16	178	282	165	125	99	19	3	4-Ø19	NRF5-0200	NRF5-0200PN		10.6	
DN65	2 1/2"	10/16	190	290	185	145	118	19	3	4-Ø19	NRF5-0250	NRF5-0250PN		12.6	
DN80	3"	10/16	203	331	200	160	132	19	3	8-Ø19	NRF5-0300	NRF5-0300PN		16.7	
DN100	4"	10/16	229	366	220	180	156	19	3	8-Ø19	NRF5-0400	NRF5-0400PN		21.3	
DN125	5"	10/16	254	437	250	210	184	19	3	8-Ø19	NRF5-0500	NRF5-0500PN		38.4	
DN150	6"	10/16	267	490	285	240	211	19	3	8-Ø23	NRF5-0600W			42.5	
DN200	8"	10/16	292	560	340	295	266	20	3	8-Ø23	NRF5-0800	NRF5-0800PN10	NRF5-0800PN16	62.6	
		12-Ø23													
DN250	10"	10/16	330	706	405	350/355	319	22	3	12-Ø23/12-Ø28	NRF5-1000	NRF5-1000PN10	NRF5-1000PN16	117.1	
DN300	12"	10/16	356	802	460	400/410	370	24.5	4	12-Ø23/12-Ø28	NRF5-1200	NRF5-1200PN10	NRF5-1200PN16	164.9	
DN350**	14"	10/16	381	1005	520	460/470	429	26.5	4	16-Ø23/16-Ø28	NRF5-1400	NRF5-1400PN10	NRF5-1400PN16	316.1	
* Valve flange drilling (size and location of bolt holes and pitch circle diameter) allows mating with the following flange types :												** DN350/14" is not WRAS approved			
ANSI = ANSI B16.1 Class 125			PN10 = DIN 2501, BS 4504, EN 1092 - PN10					PN16 = DIN 2501, BS 4504, EN 1092 - PN16							

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ANSI = ANSI B16.1 Class 125 PN10 = DIN 2501, BS 4504, EN 1092 - PN10 PN16 = DIN 2501, BS 4504, EN 1092 - PN16

** DN350/14" is not WRAS approved

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Materials List

Item	Description	Material	Specification	Item	Description	Material	Specification
1	Valve Body	Ductile Iron	EN-GJS-450-10	13	Flat Washer	Carbon Steel	Zinc Plated
2	Wedge Disc	Ductile Iron	EN-GJS-450-10 & EPDM	14	Bolt	Carbon Steel	Zinc Plated
3	Stem	Stainless Steel	SS420	15	Fixed Plate	Stainless Steel	SS316
4	Bolt	Carbon Steel	Zinc Plated	16	Ring Wiper	EPDM	Commercial
5	Bonnet	Ductile Iron	EN-GJS-450-10	17	Bolt	Carbon Steel	Zinc Plated
6	O-Ring	NBR	Commercial	18	Flat Washer	Carbon Steel	Zinc Plated
7	Gland	Ductile Iron	EN-GJS-450-10	19	O-Ring	EPDM	Commercial
8	Position Fixing Spindle	Stainless Steel	SS316	20	Thrust Washer	Brass	HPb59-1
9	Limit Plate	Stainless Steel	SS316	21	Bonnet Gasket	EPDM	Commercial
10	Position Fixing Plate	Stainless Steel	SS316	22	Wedge Nut	Brass	HPb59-1
11	Handwheel	Ductile Iron	EN-GJS-450-10	23	1/2" Plug	Bronze	ASTM B584 C83600
12	Bolt	Carbon Steel	Zinc Plated	24	Switch bracket for NRF5 Valve - Part Number: NRF-SB		



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Installation

1. Piping systems and valves should be thoroughly cleaned and free from ingress of foreign materials.
2. Visually inspect the valve seating and ports for cleanliness immediately prior to installation.
3. All valves should be independently supported against movement and stress from the connected piping system.
4. Ensure that the valve pressure rating is compatible with service conditions.
5. Operate the valve at least once from the open to closed position.
6. Gate valves are not suitable for throttling applications.
7. Gate valves should be installed in the vertical position on horizontal pipework and in the horizontal position on vertical pipework.

Operation

Gate valves are manually operated multi-turn valves and are opened by a handwheel or other operating device, generally in a counter clockwise direction and then closed clockwise.

Closing Torque for Gate Valve Handwheel		
Size		Closing Torque Nm
2"	DN50	27
2½"	DN65	38
3"	DN80	71
4"	DN100	102
5"	DN125	122
6"	DN150	149
8"	DN200	203
10"	DN250	251
12"	DN300	305
14"	DN350	306

Inspection and Maintenance

1. Valves should be inspected periodically and should be cycled to prevent buildup of foreign materials in the piping system and valve body.

