

**BLAZE**

Resilient Seat NRS Gate Valve

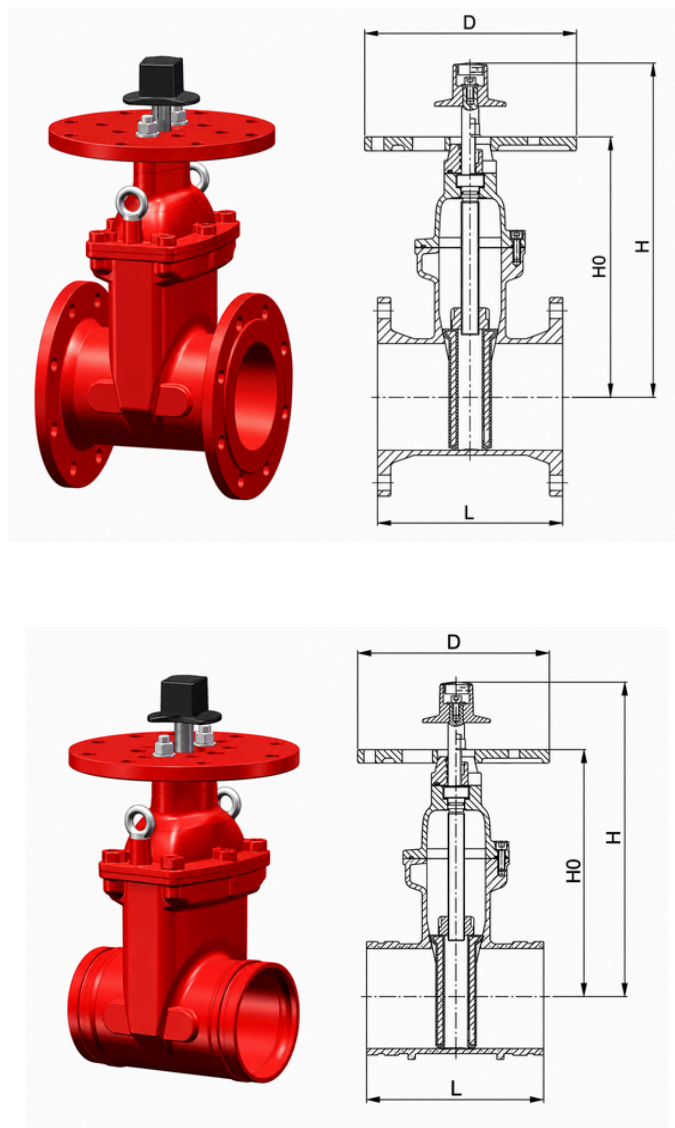
Model : BT 5101

Description:

The BT-5101 NRS (Non-Rising Stem) Gate Valve is a hand-operated, resilient-seated valve made primarily for on/off control within fire protection systems. Unlike OS&Y valves, the stem does not visibly extend when opened, making it suitable for installations where space is limited or where the use of a post indicator is preferred.

Specifications:

Size	DN50 - DN300 (2" - 12")
Maximum Working Pressure	20.7 bar (300 psi)
Approvals	UL 262 Listed
Design Standard	AWWA C515
End Connection	Standard Supply ANSI B16.42 Class 150 RF / Grooved Ends to AWWA C606 Standard. * ANSI B16.1 / PN16 RF Flange Optional
Face to Face Dimensions	ANSI/ASME B16.10, EN558-1 series 3
Temperature Range	0° C to 80°C (32°F to 176°F)
Stem	SS 304 as Standard. * Optional - Bronze / SS 316
Wedge	Ductile-Iron Wedge, EPDM Encapsulated.
Coating	Fusion Bonded Epoxy Coating in accordance with ANSI / AWWA C550. Average Coating Thickness 250 Microns



Dimensions :

Order Code	DN	INCH	L (mm/inch)	H0 (mm/inch)	H (mm/inch)	D (mm/inch)	Weight (Kg)		No of Turns to Open
							Flanged	Grooved	
BT-5101-050-300-RF / GG	50	2"	178/7.0	190/7.5	277/10.9	305/12.0	14	9	6.8
BT-5101-065-300-RF / GG	65	2½"	191/7.5	210/8.3	295/11.6	305/12.0	17	13	8.5
BT-5101-080-300-RF / GG	80	3"	203/8.0	240/9.4	336/13.2	305/12.0	22	16	10.5
BT-5101-100-300-RF / GG	100	4"	229/9.0	270/10.6	361/14.2	305/12.0	28	19	12.9
BT-5101-125-300-RF / GG	125	5"	254/10.0	330/13.0	432/17.0	305/12.0	40	30	15.9
BT-5101-150-300-RF / GG	150	6"	267/10.5	370/14.6	472/18.6	305/12.0	44	34	19.5
BT-5101-200-300-RF / GG	200	8"	292/11.5	465/18.3	570/22.4	305/12.0	66	54	25.6
BT-5101-250-300-RF / GG	250	10"	330/13.0	560/22.0	665/26.2	305/12.0	104	84	31.8
BT-5101-300-300-RF / GG	300	12"	356/14.0	640/25.2	747/29.4	305/12.0	138	112	38.1

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Resilient Seat NRS Gate Valve

Model : BT 5101

Installation:

The BT-5101 NRS Gate Valve is designed for versatile indoor and outdoor use. Its non-rising stem makes it especially effective in compact spaces or for underground service when paired with an indicator post.

Pre-Installation Requirements:

- Can be mounted in any position (horizontal or vertical) with bi-directional flow capability.
- Ensure the location allows easy access for manual operation and future servicing.
- The valve must be properly supported to prevent shifting and to protect the piping from vibration-related stress.

Installation Steps :

1. Verify that the valve, flanges, and pipes are free of debris or foreign material before assembly.
2. Keep the valve fully closed throughout storage, transport, and the installation process.
3. Use appropriate gaskets and secure the bolts using the crossover (star) method to ensure a uniform seal.
4. Cycle the valve (open and close) several times after tightening to ensure smooth mechanical movement.
5. Always move the valve to the fully open position before introducing pressure to the system.

Operational Best Practices

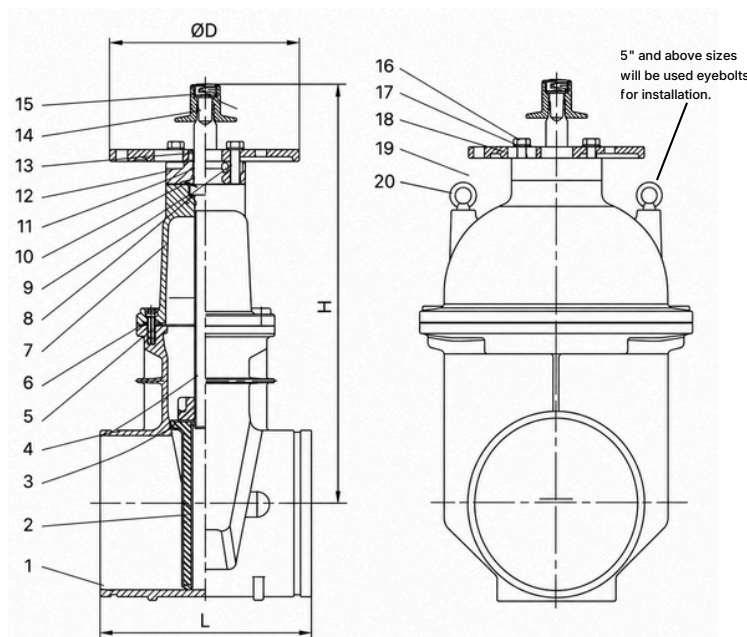
- Applying excessive force to open / close the valve can damage internal components and will void the warranty.
- Never use the valve to pull a pipeline into place. This stress can cause permanent damage to the valve body or seals.
- Debris is the primary cause of leaks. Always flush the pipeline to clear out foreign materials before closing the valve to protect the resilient seat.

Inspection & Upkeep

- While these valves do not require frequent servicing, you should perform annual operational checks in accordance with NFPA or your local Authority Having Jurisdiction (AHJ) guidelines.
- Regularly check for leaks at the flange connections and around the stem.
- When installed outdoors, minor paint discoloration may occur over time; this is purely aesthetic and does not affect the valve's mechanical performance.

Safety Requirements

- All inspections and repairs must be conducted by trained professionals
- Always completely de-pressurize the system before attempting any maintenance or disassembly.



Material Specifications:

No.	Part Name	Material	ASTM Specification
1	Body	Ductile Iron	A536 Grade 65-45-12
2	Wedge	Ductile Iron, EPDM	Fully Encapsulated
3	Wedge Nut	Bronze	B148 C95200
4	Stem	Stainless Steel	A276 Type 304
5	Gasket	Rubber	D2000 EPDM
6	Screw	Carbon steel	A307 Grade B
7	Bonnet	Ductile Iron	A536 Grade 65-45-12
8	Washer	Brass	B124 C37700
9	Bolt	Stainless Steel	F593 Grade 304
10	O-Ring	Rubber	D2000 NBR
11	O-Ring	Rubber	D2000 NBR
12	Gland	Ductile Iron	A536 Grade 65-45-12
13	Seal Ring	Rubber	D2000 NBR
14	Operating Nut	Ductile Iron	A536 Grade 65-45-12
15	Screw	Stainless Steel	F593 Grade 304
16	Bolt	Stainless Steel	F593 Grade 304
17	Washer	Stainless Steel	A276 Type 304
18	Post Flange	Ductile Iron	A536 Grade 65-45-12
19	Washer	Stainless Steel	A276 Type 304
20	Eyebolt	Carbon Steel	A307 Grade B

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