INDICATOR POST - VERTICAL/WALL TYPE WITH NRS GATE VALVE



TECHNICAL DATA

MODELS	HD-IP (Vertical type- adjustable length), HD-WP (Wall type)
SIZES OF NRS GATE VALVE TO BE USED WITH INDICATOR POST	4" to 24" (100 NB to 600 NB)*
MATERIAL OF CONSTRUCTION	Refer specification table for Indicator Post & NRS Gate Valve
FINISH	Fusion bonded epoxy coating (internal & external) in accordance with ANSI/ AWWA C550, RAL 3000
REFERENCE STANDARD	UL 789, FM Class Number 1110
APPROVALS	UL Listed, FM Approved
ORDERING INFORMATION	Type of Indicator Post (i.e.Vertical or Wall), Model Number & Size of NRS Gate Valve
8) A/' + 'C' - +	

*With specific target carrier nut material for 14" to 24" sizes NRS Gate Valve

DESCRIPTION

HD Indicator Posts with NRS Gate Valves are used in fire protection systems, where the requirement is to know whether the valve is in open/shut condition. Further, these HD Indicator Posts are also used to operate the Gate valves which are buried under-ground or located in difficult to access areas like cross walls which are used for interior water systems.

HD Indicator Posts are available with Vertical Indicators for underground water supplies or Wall Indicators for interior water systems. Vertical Indicator Posts are of adjustable length type and are used to suit with HD NRS Gate valves having post flange.

These are intended for use with NRS Gate Valves controlling water supplies to sprinkler, deluge, water spray, foam, and standpipe systems used in fire service. The Indicator Posts need to be installed in accordance with the manufacturer's installation instructions, NFPA-11, 13, 14, 24 and local Authority having Jurisdiction.

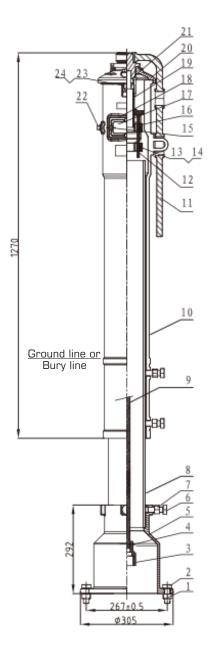


WORKING PRINCIPLE

- 1. Locking wrench (for vertical type) and handwheel (for wall type) is used to rotate the operating nut which will further drive the connecting rod/stem for opening and closing the valve.
- 2. Here rotary motion is translated into lifting motion for indicating the position of valve it is connected to.



INDICATOR POST - VERTICAL TYPE (MODEL HD-IP)



Part No.	Part	Standard Specification	Options
1	Hex Nut	Carbon Steel Zinc Plated	AISI 304, AISI 316
2	Hex Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316
3	Socket	ASTM A536, 65-45-12	
4	Cotter Pin	AISI 304	
5	Base Flange	ASTM A536, 65-45-12	
6	Hex Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316
7	Hex Nut	Carbon Steel Zinc Plated	AISI 304, AISI 316
8	Standpipe	Carbon Steel ASTM A53	
9	Stem 1"Square	Carbon Steel AISI 1045	
10	Body	ASTM A536, 65-45-12	
11	Locking Wrench	ASTM A536, 65-45-12	
12	Target Carrier Nut	AISI 304 (100NB - 350NB) HPb59-1 (400NB - 600NB)	
13	Hex Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316
14	Hex Nut	Carbon Steel Zinc Plated	AISI 304, AISI 316
15	Hex Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316
16	Indicator Assembly	ASTM A536, 65-45-12	
17	Window Class	Plexiglass	
18	Gasket	EPDM	
19	Operating Nut	AISI 304	
20	Top Section	ASTM A536, 65-45-12	
21	Snap Ring	Stainless Steel AISI 1066	
22	Plug	Malleable Iron Galvanized	
23	Square Nut	Carbon Steel Zinc Plated	AISI 304, AISI 316
24	Hex Bolt	Carbon Steel Zinc Plated	AISI 304, AISI 316

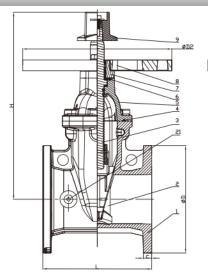
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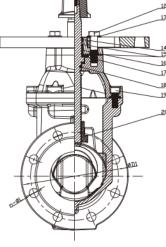
- For special material request other than standard specification, please indicate clearly in the inquiry and reconfirm in the order.
- Default Stem length of Square bar for HD-IP is 2200 mm



ANSI FLANGE RESILIENT NRS GATE VALVE (GVNR-2-250) WITH POST FLANGE (FOR MODEL HD-IP)

10 11







Part	Deut	Material	
No.	Part	Standard Specification	Options
1	Valve Body	ASTM A536, 65-45-12	
2	Resilient Wedge Disc	ASTM A536, 65-45-12+EPDM	
З	Stem	Stainless Steel	AISI 304 / 316
4	Bonnet Gasket	EPDM	NBR
5	Bonnet	ASTM A536, 65-45-12	
6	O-Ring	NBR	
7	Gland	ASTM A536, 65-45-12	
8	Indicator Post Flange	ASTM A536, 65-45-12	
9	Square Operating Nut	ASTM A536, 65-45-12	
10	Bolt	AISI 304	AISI 316
11	Flat Washer	AISI 304	AISI 316
12	Bolt	AISI 304	AISI 316
13	Flat Washer	AISI 304	AISI 316
14	Ring Wiper	EPDM	NBR
15	O-Ring	NBR	EPDM
16	Axis Guide	Brass Hpb59-1	
17	Washer	Brass Hpb59-1	
18	O-Ring	NBR	EPDM
19	Bolt	Carbon Steel Zinc plated	AISI 304 / 316
20	Wedge Nut	Brass Hpb59-1	Bronze ZQSn5-5-5
21	Plug	ASTM B584-06a C89833	Bronze ZQSn5-5-5

- Connection Ends: Flange to ASME B16.1 CL125
- Working Pressure: 250 psi
- Temperature Range: 0ºC- 80ºC
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Finish: RAL 3000

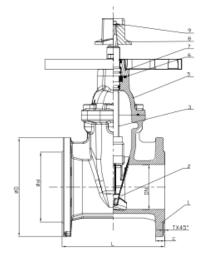
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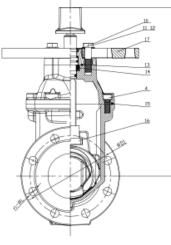
- For special material request other than standard specification, please indicate clearly in the inquiry and reconfirm in the order. If not, then the standard material and specifications shall be considered.
- Size 4"~5" with 1pc of 1/2" bronze NPT tapping plug, size 6"~12" with 1pc of 3/4" bronze NPT tapping plug
- The dimensions of Post Flange for ANSI NRS Gate Valve is as follows: Number of Holes:4, Hole diameter: 18mm, PCD of Post Flange: 267 mm

S	ize	Dimensions (mm)						
Inch	NB	L	Н	D	D1	С	D2	n-øL
4"	100	229	395	229	190.5	19.1	305	8-ø 19.1
5"	125	254	432	254	215.9	19.1	305	8-ø 22.2
6"	150	267	475	279	241.3	19.1	305	8-ø 22.2
8"	200	292	585	343	298.5	22.2	305	8-ø 22.2
10"	250	330	656	406	362	23.8	305	12-ø 25.4
12"	300	356	751	483	431.8	25.4	305	12-ø 25.4
14"	350	381	952	533	476.3	25.4	305	12-ø 28.6
16"	400	406	952	597	539.8	25.4	305	16-ø 28.6
18"	450	432	1178	635	577.9	25.4	305	16-ø 31.8
20"	500	457	1199	699	635	28.6	305	20-ø 31.8
24"	600	508	1367	813	749.3	30.1	305	20-ø 34.9



BS FLANGE RESILIENT NRS GATE VALVE (GVNR-2-16) WITH POST FLANGE (FOR MODEL HD-IP)







Part	Daut	Material				
No.	Part	Standard Specification	Options			
1	Valve Body	EN-GJS-450-10				
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM				
З	Stem	Stainless Steel	SS304, SS316			
4	Bolt	Carbon Steel Zinc Plated	SS304, SS316			
5	Bonnet	EN-GJS-450-10				
6	O-Ring	NBR	EPDM			
7	Gland	EN-GJS-450-10				
8	Stem Cap	EN-GJS-450-10				
9	Bolt	SS304	SS316			
10	Ring Wiper	EPDM	NBR			
11	Bolt	SS304	SS316			
12	Flat Washer	SS304	SS316			
13	O-Ring	NBR	EPDM			
14	Thrust Washer	Brass HPb59-1 (Type A)				
15	Bonnet Gasket	EPDM	NBR			
16	Wedge Nut	Brass HPb59-1	Bronze ZQSn5-5-5			
17	Post Flange	EN-GJS-450-10				

- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN16
- Temperature Range: 0°C- 80°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Finish: RAL 3000

Note:

- For special material request other than standard specification, please indicate clearly in the inquiry and re-confirm in the order. If not, then the standard material and specifications shall be considered.
- The dimensions of Post Flange for PN16 NRS Gate Valve is as follows:

Number of Holes: 4, Hole diameter: 18mm, PCD of Post Flange: 267 mm

S	ize	Rating	Dimensions (mm)							
Inch	NB	Rating	L	Н	D	D1	d	С	Т	n-d
4"	100	PN16	229	347	220	180	156	19	З	8-Ø19
5"	125	PN16	254	432	250	210	184	19	3	8-Ø19
6"	150	PN16	267	443	285	240	211	19	3	8-Ø23
8"	200	PN16	292	518	340	295	266	20	З	12-Ø23
10"	250	PN16	330	656	405	355	319	22	3	12-Ø28
12"	300	PN16	356	751	460	410	370	24.5	4	12-Ø28
14"	350	PN16	381	352	520	470	429	26.5	4	16-Ø28
16"	400	PN16	406	952	580	525	480	28	4	16-Ø31
18"	450	PN16	432	1255	640	585	548	30	4	20-Ø31
20"	500	PN16	457	1276	715	650	609	31.5	4	20-Ø34
24"	600	PN16	508	1444	840	770	720	36	5	20-Ø37



INSTALLATION INSTRUCTIONS FOR INDICATOR POST - VERTICAL TYPE

Step-A: Buried Depth Adjustment

- 1. Unpack the valves & check for the presence of any scratches or damages on sealing surface.
- 2. Check whether the valve is normally operational or not.
- 3. Arrange the installation accessories like nuts, bolts, wrenches, cutting machine etc.
- 4. Assume the Indicator post, gate valve & stem in three parts as shown in the **fig.1**.
- 5. Measure the height from center line of NRS gate valve till the ground level.
- 6. Now, start loosing the nuts-bolts which are holding the standpipe (part no. 8- refer specification table) and body (part no. 10- refer specification table). Adjust the standpipe and ensure that the position of valve center to the indicator buried line equals to the height measured in Step-5. Bury line/ ground line marking in Indicator post must be inline to the grade/ ground level, and tighten the nuts-bolts again. (Refer the burial depth / trench depth shown in

Table - I w.r.t sizes of NRS Gate valves used).

- 7. Keep the Indicator post and NRS Gate valve side by side, ensure that both indicator base flange and post flange of Gate valve is parallel to each other.
- 8. Now, align stem with the name plate of Indicator post and cut-off the extra length of stem which falls above the top edge of name plate as shown in **fig. 2**.

Step-B: Adjust the Indicator signs (Open/Shut)

- 9. Remove the top section with indicator assembly head from Indicator post by loosening the nut.
- 10. Count the number of rotations required to manually close the NRS gate valve from its normally open position (ensure valve must in normally open condition initially).





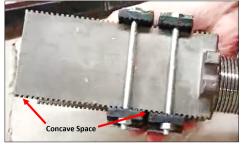
fig.1

fig.2

- 11. Refer **Table-II** for relation between number of turns and concave number/space. Concave number/space is defined as the number of concave slot between two signs as shown in **fig. 3**.
- 12. Now, loosen the fastening nuts which are holding these signs and arrange both the signs such that no. of concave spaces (as per Table-II) is met on both the sides of indicator assembly.
- 13. Take out the stem (part-2 shown in fig. 1) from valve and insert it from the bottom end of the indicator post. Ensure that it is exposed from the top portion of Indicator post.
- 14. Re-install the top section with indicator assembly by aligning it properly with the stem and fix it to the indicator post.
- 15. Check whether the "Shut" sign is visible from the window glass, if not then remove the top section with indicator assembly and re-adjust it untill the sign is visible through glass. However, during adjustment, kindly maintain the concave space as mentioned in Table-II for corresponding valve size.

Step-C: Indicator Post Installation

- 16. Use the tool to turn the indicator head so that signs shoud be seen at the middle of the window glass.
- 17. At this step, both the NRS Gate Valve and Indicator Post should be in "Shut" condition.
- 18. Now, lift the NRS gate valve and connect it with the Indicator base flange by proper aligning it with the stem.
- 19. Tighten the bolts (part no. 2- refer specification table) of base flange slightly and make sure there is no gap between both the flanges (i.e Indicator post and NRS gate valve).
- 20. Now, use the locking wrench (part no. 11- refer specification table) to open the NRS gate valve through indicator post. Check whether the sign shows "Open" in indicator post and valve is physically opened.
- 21. If both the items are in "Open" condition, then installation assembly is qualified, else above steps to be revisited.





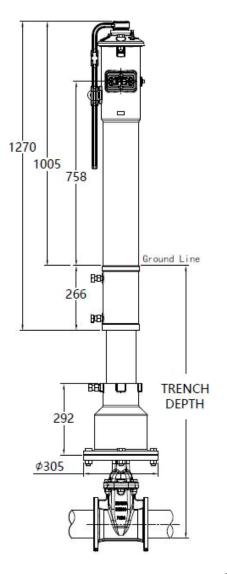


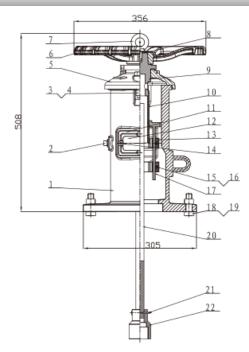
	TABLE - I						
Size	Buried/Trench Depth Dimension (mm)						
100 NB	Min.	958					
	Max.	1808					
150 NB	Min.	1073					
	Max.	1923					
200 NB	Min.	1200					
	Max.	2050					
250 NB	Min.	1314					
230 NB	Max.	2164					
300 NB	Min.	1448					
	Max.	2298					
350 NB	Min.	1615					
	Max.	2465					
400 NB	Min.	1615					
	Max.	2465					
450 NB	Min.	1795					
430 ND	Max.	2645					
500 NB	Min.	1840					
	Max.	2690					
600 NB	Min.	2052					
	Max.	2902					

TABLE - II

		ANSI Standard NF	RS Gate Valve	BS Standard NRS Gate Valve		
SI.No.	Size of Valve	Full Open- Full Close (No. of Rotations)	Concave No./ Space	Full Open- Full Close (No. of Rotations)	Concave No./ Space	
1	100 NB	11	1	21	9	
2	125 NB	11.5	2	11.5	2	
З	150 NB	13.5	З	31	17	
4	200 NB	18.5	7	41	24	
5	250 NB	21	9	21	9	
6	300 NB	27.5	14	27.5	14	
7	350 NB	32	17	32	17	
8	400 NB	34.5	19	34.5	19	
9	450 NB	39	14	39	14	
10	500 NB	43.5	16	43.5	16	
11	600 NB	51.5	20	51.5	20	



INDICATOR POST - WALL TYPE (MODEL HD-WP)



Part No.	Part	Standard Specification	Options
1	Body	EN-GJS-450-10	
2	Plug	Malleable Iron	
3	Square Nut	Carbon Steel Zinc Plated	SS 304, SS 316
4	Hex Bolt	Carbon Steel Zinc Plated	SS 304, SS 316
5	Cover	EN-GJS-450-10	
6	Hand Wheel	EN-GJS-450-10	
7	Eye Bolt	Carbon Steel Zinc Plated	
8	Gasket	Carbon Steel Zinc Plated	
9	Snap Ring	AISI 1066	
10	Operating Nut	AISI 304	
11	Gasket	EPDM	
12	Window Class	Plexiglass	
13	Target	Cast Aluminium	
14	Hex Bolt	Carbon Steel Zinc Plated	SS 304, SS 316
15	Hex Bolt	Carbon Steel Zinc Plated	SS 304, SS 316
16	Hex Nut	Carbon Steel Zinc Plated	SS 304, SS 316
17	Target Carrier Nut	AISI 304	
18	Hex Nut	Carbon Steel Zinc Plated	SS 304, SS 316
19	Hex Bolt	Carbon Steel Zinc Plated	SS 304, SS 316
20	Stem 1"Square	Carbon Steel AISI 1045	
21	Cotter Pin	AISI 304	
22	Socket	ASTM A536, 65-45-12	

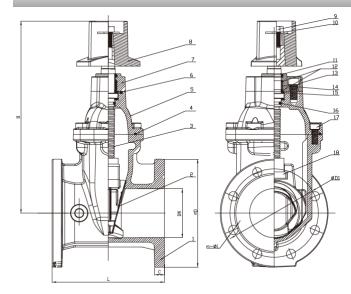
Note: • The dimensions of Flange for Indicator Post - Wall Type is as follows:

Number of Holes:4, Hole diameter: 19mm, PCD of Post Flange: 265 mm, OD of Flange: 305 mm

Default Stem length of Square bar for HD-WP is 920mm



ANSI FLANGE RESILIENT NRS GATE VALVE (GVNR-300) WITHOUT POST FLANGE (FOR MODEL HD-WP)



Part	Dant	Material				
No.	Part	Standard Specification	Options			
1	Valve Body	ASTM A536, 65-45-12				
2	Resilient Wedge Disc	ASTM A536, 65-45-12+EPDM				
3	Stem	Stainless Steel	AISI 304, AISI 316			
4	Bonnet Gasket	EPDM	NBR			
5	Bonnet	ASTM A536, 65-45-12				
6	O-Ring	NBR	EPDM			
7	Gland	ASTM A536, 65-45-12				
8	Stem Cap	ASTM A536, 65-45-12	Pressed Steel			
9	Bolt	AISI 304	AISI 316			
10	Flat Washer	AISI 304	AISI 316			
11	Ring Wiper	EPDM	NBR			
12	O-Ring	NBR	EPDM			
13	Bolt	Carbon Steel Zinc plated	AISI 304, AISI 316			
14	Axis Guide	Brass Hpb59-1				
15	Washer	Brass Hpb59-1				
16	O-Ring	NBR	EPDM			
17	Bolt	Carbon Steel Zinc plated	AISI 304, AISI 316			
18	Wedge Nut	Brass Hpb59-1	Bronze ZQSn5-5-5			



- Connection Ends: Flange to ASME B16.1 CL125
- Working Pressure: 300 psi (standard supply);
 250 psi and 200 psi (upon special request)
- Temperature Range: 0°C- 80°C
- Coating: Fusion Bonded Epoxy Coating in ccordance with ANSI/AWWA C550
- Finish: RAL 3000

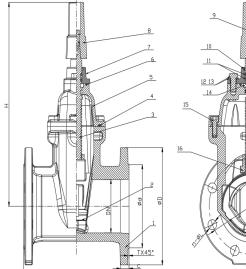
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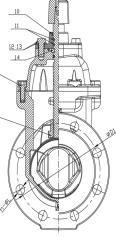
- For special material request other than standard specification, please indicate clearly in the inquiry and reconfirm in the order. If not, then the standard material and specifications shall be considered.
- Size 4"~5" with 1pc of 1/2" bronze NPT tapping plug, size 6"~12" with 1pc of 3/4" bronze NPT tapping plug

Si	ize	Dimensions (mm)						
Inch	NB	L	Н	D	D1	С	D2	n-øL
4"	100	229	375	229	190.5	19.1	305	8-ø 19.1
5"	125	254	415	254	215.9	19.1	305	8-ø 22.2
6"	150	267	455	279	241.3	19.1	305	8-ø 22.2
8"	200	292	565	343	298.5	22.2	305	8-ø 22.2
10"	250	330	636	406	362.0	23.8	305	12-ø 25.4
12"	300	356	731	483	431.8	25.4	305	12-ø 25.4



BS FLANGE RESILIENT NRS GATE VALVE (GVNR-16-300/GVNR-16-250) WITHOUT POST FLANGE (FOR MODEL HD-WP)







Part	Dant	Mater	al	
No.	Part	Standard Specification	Options	
1	Valve Body	EN-GJS-450-10		
2	Resilient Wedge Disc	EN-GJS-450-10+EPDM		
3	Stem	Stainless Steel 420	SS 304, SS 316,	
4	Bonnet Gasket	EPDM	NBR	
5	Bonnet	EN-GJS-450-10		
6	O-Ring	NBR	EPDM	
7	Gland	EN-GJS-450-10		
8	Stem Cap	EN-GJS-450-10		
9	Bolt	Carbon Steel Zinc plated	SS 304, SS 316	
10	Ring Wiper	EPDM	NBR	
11	O-Ring	NBR	EPDM	
12	Bolt	Carbon Steel Zinc plated	SS 304, SS 316	
13	Flat Washer	Carbon Steel Zinc plated	SS 304, SS 316	
14	Thrust Washer	Brass Hpb59-1	Bronze ZQSn5-5-5	
15	Bolt	Carbon Steel Zinc plated	SS 304, SS 316	
16	Wedge Nut	Brass Hpb59-1	Bronze ZQSn5-5-5	

- Connection Ends: Flange to BS EN 1092-2:1997
- Working Pressure: PN16 (standard supply); PN10 (upon special request)
- Temperature Range: 0°C- 80°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Finish: RAL 3000

Note:

• For special material request other than standard specification, please indicate clearly in the inquiry and reconfirm in the order. If not, then the standard material and specifications shall be considered.

Size			Dimensions (mm)							
Inch	NB	Rating	L	н	D	D1	d	С	Т	n-d
4"	100	PN10/PN16	229	384	220	180	156	19	3	8-Ø19
5"	125	PN10/PN16	254	461	250	210	184	19	3	8-Ø19
6"	150	PN10/PN16	267	483	285	240	211	19	З	8-Ø23
8"	200	PN10	292	550	340	295	266	20	3	8-Ø23
		PN16								12-Ø23
10"	250	PN10	330	691	405	350	· 319	22	3	12-Ø23
		PN16				355				12-Ø28
12"	300	PN10	356	793	460	400	370	24.5	4	12-Ø23
		PN16				410				12-Ø28



INSTALLATION INSTRUCTIONS FOR INDICATOR POST - WALL TYPE

- 1. Unpack the valves & check for the presence of any scratches or damages on sealing surface.
- Check whether the valve is normally operational or not.
- 3. Arrange the installation accessories like nuts, bolts, wrenches, cutting machine etc.
- 4. Assume the Indicator post, gate valve & stem divided into three parts as shown in **fig.4.**

Step-A Drilling on a wall

- According to the centre position of NRS gate valve shaft on construction site, find the hole centre on a wall for marking. Now, considering the marked point as a centre, draw a circle of diameter 120mm to 150mm.
- 6. This size will be hole size which is to be drilled on a wall so that indicator post stem can be passed through it during installation.

Note: Hollow tube of appropriate dimension for protection of indicator post stem to be arranged at site

7. Use the existing marked point as a centre of circle and now mark the PCD, bolt circle diameter which is to be drilled on a wall for fixing the indicator post flange with wall. Bolt circle diameter has to be same as that of indicator post flange hole size.

Step-B Adjust the length of stem

- 8. Measure the length from the top of gate valve stem cap to the side of wall wherein the indicator post is fixed (say it as A).
- 9. Now, put the stem through bottom of indicator post to the square hole of indicator assembly and measure the length from the bottom of stem socket to the bottom of flange (say it as B).
- Cut the appropriate length of stem which exceeds the top section of indicator post after ensuring 'B' equals to 'A' ('B' can be less than 'A' max. by 10 mm).

Step-C Adjust the Indicator signs (Open / Shut)

- 11. Remove the top section with indicator assembly head from Indicator post by loosening the nut.
- 12. Count the number of rotations required to manually open the NRS gate valve from its normally closed position (ensure valve must in normally closed condition initially).
- Refer **Table-III** for relation between number of turns and concave number / space. Concave number/space is defined as the distance between two signs i.e Open & Shut or number of concave slot between two signs.
- 14. Now, loosen the fastening nuts which is holding these signs and arrange both the signs such that no. of concave spaces (as per Table-III) is met on both the sides of indicator assembly.
- 15. Re-install the top section with indicator assem¬bly and fix it to the indicator post.
- 16. Check whether the "Open" sign is visible from the window glass, if not then remove the top section with indicator assembly and re-adjust it until the sign is visible through glass. However, during adjustment, kindly maintain the concave space as mentioned in Table-III for corresponding valve size.

Step-D Indicator Post Installation

- 17. Turn the handwheel such that 'Open" indicator sign is observed at the centre position of indicator glass and now, independently turn the stem cap of NRS gate valve for adjusting it to fully "Open" position corresponding to indicator sign.
- 18. Install the stem assembly to the indicator post by securing it with the NRS gate valve and fix the indicator post firmly to the wall.
- 19. Now, start turning the handwheel to open the NRS gate valve through indicator post. Check whether the sign shows "Shut" in indicator post and valve is physically closed.
- 20. If both items are in "Shut" condition, then installation assembly is qualified, else above steps to be revisited.

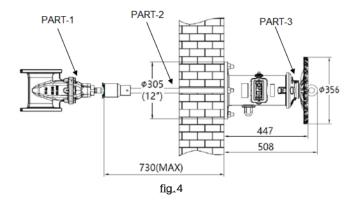




TABLE - III

SI.No.	Size of Valve	ANSI Standard NF	RS Gate Valve	BS Standard NRS Gate Valve			
		Full Open- Full Close (No. of Rotations)	Concave No./ Space	Full Open- Full Close (No. of Rotations)	Concave No./ Space		
1	100 NB	11	1	21	9		
2	125 NB	11.5	2	11.5	2		
3	150 NB	13.5	3	31	17		
4	200 NB	18.5	7	41	24		
5	250 NB	21	9	21	9		
6	300 NB	27.5	14	27.5	14		

MAINTENANCE:

- 1. Do not rely on the valve to support other heavy objects, do not knock on the valve in operation, and do not stand on the valve.
- 2. Regularly check whether the fasteners of various parts of the valve are loose or damaged and repair them in time if there is any problem.
- 3. For service with changes in temperature and line pressure, it is recommended that the valve be re-bolted after 24 hours of operation to compensate for any loosening that may occur.
- 4. In the repair and maintenance of the valve, the user should use the same size and material as the original accessories. It can also be ordered as a spare part at the time of ordering for replacement during maintenance.
- 5. Valves that do not open and close frequently are required to be turned, to prevent the stem and stem nut from biting.
- 6. Maintenance of Valves to be carried out before winter every year, and indicator flexibility operations to be performed once in a month to keep valves clean.
- 7. After the maintenance is completed, the relevant operations should be filled in the "Valve Maintenance and Repair Record"; the operator and the person in-charge should sign for confirmation after completion.
- 8. In case of Vertical Type Post Indicator, oil the bearing in the top section at least once in a year by adding several drops of oil in the hole located on the top of the Operating Nut (part no. 19 from specification table).

INSPECTION:

It is recommended that monthly visual inspection is carried out to ensure that the post indicators are not damaged.

It is further recommended on a quarterly basis that, the post indicators should be closed two times and then reopened to verify that the Indicator Post is in fully open position and properly engages with the Valve. Any damaged parts need to be replaced immediately



LIMITED WARRANTY

HD FIRE PROTECT PVT. LTD. hereby referred to as HD FIRE warrants to the original purchaser of the fire protection products manufactured by HD FIRE and to any other person to whom such equipment is transferred, that such products will be free from defect in material and workmanship under normal use and care, for two (2) years from the date of shipment by HD FIRE. Products or Components supplied or used by HD FIRE, but manufactured by others, are warranted only to the extent of the manufacturer's warranty. No warranty is given for product or components which have been subject to misuse, improper installation, corrosion, unauthorized repair, alteration or un-maintained. HD FIRE shall not be responsible for system design errors or improper installation or inaccurate or incomplete information supplied by buyer or buyer's representatives. HD FIRE will repair or replace defective material free of charge, which is returned to our factory, transportation charge prepaid, provided after our inspection the material is found to have been defective at the time of initial shipment from our works. HD FIRE shall not be liable for any incidental or consequential loss, damage or expense arising directly or indirectly from the use of the product including damages for injury to person, damages to property and penalties resulting from any products and components manufactured by HD FIRE. HD FIRE shall not be liable for any damages or labour charges or expense in making repair or adjustment to the product. HD FIRE shall not be liable for any damages or charges sustained in the adaptation or use of its engineering data & services. In no event shall HD Fire's product liability exceed an amount equal to the sale price. The foregoing warranty is exclusive and in lieu of all other warranties and representation whether expressed, implied, oral or written, including but not limited to, any implied warranties or merchantability or fitness for a particular purpose. All such other warranties and representations are hereby cancelled.

NOTICE :

The equipment presented in this bulletin is to be installed in accordance with the latest publication standards of NFPA or other similar organisations and also with the provision of government codes or ordinances wherever applicable.

The information provided by us is to the best of our knowledge and belief, and consist of general guidelines only. Site handling and installation control is not in our scope. Hence we give no guarantee for result and take no liability for damages, loss or penalties whatsoever, resulting from our suggestion, information, recommendation or damages due to our product.

Product development is a continuous programme of HD FIRE PROTECT PVT. LTD. and hence the right to modify any specification without prior notice is reserved with the company.



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