

## COMBINATION NON SLAM AIR VALVE MODEL D-060-C HF NS

### A. INSTALLATION AND OPERATION

1. Mount the air valve on a riser, connected to the crown of the pipe.
2. Install an isolating valve below the air valve.
3. Flush the system before installing the air valve to avoid any debris or sharp objects getting into the air valve.
4. Lift the air valve by the lifting ring and place it carefully on the rubber gaskets of the isolating valve.
5. Place washers on each of the bolts & nuts that connect the air valve flange to the isolating valve flange.
6. Tighten all the bolts and nuts using the crossover method.  
The closure tightness of the bolts and nuts shall be according to the standard torque for their specific size.  
Use ring wrench keys for the closing and opening of all bolts of the air valve (including the flange bolts).

### B. MAINTENANCE

#### B.1. Maintenance - Automatic Air Release Component

1. Shut the isolating valve below the air valve.  
**WARNING:** Air Valve under Pressure: Slowly unscrew the Body (1) of the Automatic air release valve from the Base (7); making sure that the valve Base does not rotate.
2. Remove the Clamping Stem (4) and the Float (5) from the Body.
3. Wash the inside of the Body, the Clamping Stem, the Float and the Rolling Seal (3) under clean running water.
4. Check to make sure that the Rolling Seal is not damaged (torn or cracked) and is situated precisely in the middle of its groove in the Float. Replace the Rolling Seal if it is damaged or has been removed from the float. See B.2 Instructions for Replacing the Automatic Air Release Rolling Seal.
5. Reassemble the air valve in the reverse order:  
First insert half the length of the Rolling Seal into the groove in the Body, and then push it the rest of the way in the groove with the aid of the Clamping Stem. Make sure that the Rolling Seal is set and held in place.

#### B. 2 Instructions for Replacing the Automatic Air Release Rolling Seal

1. Begin with stage B.1.5. above in Maintenance - Automatic Air Release Component.
2. Remove the Rolling Seal (3) by sliding it out of the groove in the Float(5).
3. Place the replacement Rolling Seal in the groove of the Float and slide it until it reaches the exact middle of the Float (The middle of the Rolling Seal should line up exactly opposite the middle seam of the Float).
4. Hold the bottom end of the Float in one hand with the thumb resting on the flat side surface of the Float. Hold the Body (1) upside down in the other hand.
5. Slide the tail end of the Rolling Seal into the corresponding groove on the Body while simultaneously sliding the the two grooves on the sides of the Float unto the two corresponding rails inside the Body.
6. Hold in place. Before lowering the Float,with the other hand insert the Clamping Stem (4), flat side facing outward – protusion side facing inward, into the same grove in the Body as the Rolling Seal.
7. Lower the Float and Clamping Stem simutaneously into the Body, pushing down the clamping Stem with the tip of the second finger.



8. Make sure the O-Ring is situated precisely in the inside groove of the Base (7).
9. Screw the assembled Body into the Base. Tighten manually (only).
10. Open the isolating valve below the air valve.
11. Make sure there are no visible leaks.

### B.3 Maintenance - Air & Vacuum Valve Component

1. Unscrew the Bolts (16) that connect the valve Cover (13) to the Body (21).
2. Remove the Cover assembly from the air valve Body.
3. Clean the following parts: Body (21) including the groove of the O-ring (19), Screen (12), Float (20), and Cover (13) including the Orifice Seat (17) and Orifice Seal (18) under clean running water in order to remove coarse grime and/or accumulated scale.
4. Check that the Orifice Seal is not damaged (torn and/or cracked). In case the Orifice Seal is damaged, consult your dealer.
5. Reassemble the air valve in the reverse order:  
First insert the Float, and then place the O-ring in the groove.  
Place the Cover on the Body, insert the Bolts and Washers and tighten the Nuts (16).
6. Tighten all Bolts and Nuts using the crossover method.  
The closure tightness of the Bolts and Nuts shall be according to the standard torque for their specific size.  
Use ring wrench keys for the closing and opening of all bolts of the air valve (including the flange bolts).

### B.4 Maintenance - NS Non-Slam Component

1. Check the movement of the Non Slam Disc (15) in the disc housing that it moves without any interference.
2. In case the Disc does not move freely in the housing, there might be embedded debris which needs to be flushed out.
3. To flush and clean the area inside the disc housing:  
**WARNING: Air Valve under Pressure: Slowly unscrew the Bolts (16) that connect the valve Cover (13) to the Body (21). Remove the Cover (13) from the valve Body (21). Unscrew the four Domed Nuts (9); remove the Screen Cover (10) and the Screen (12). Make sure to save the Washers (9) that sit under the Screen and on the Threaded Rods (11).**
4. Flush the Cover disc housing and the Disc (15) from both sides of the cover and clean with a cloth as necessary in order to remove any debris, coarse grime or accumulated scale.
5. Make sure that the Disc moves freely in the Cover disc housing.
6. Reassemble in the opposite order:  
Place the Screen (12) on the Cover disc housing between the Threaded Rods (11), making sure that the Washers (9) on the Rods are between the disc housing and the Screen.  
Place the Screen Cover (10) on top of the Threaded Rods, making sure that the Washers are in place between the Screen and the Cover.  
Screw the Domed Nuts (9) on to the Threaded Rods (which extend out from the screen cover) and close tightly.

## TROUBLESHOOTING GUIDE

PROBLEM	REASON	SOLUTION
Leak From the Small Orifice	<ol style="list-style-type: none"> <li>a. Dirt particles stuck in the Orifice</li> <li>b. Rolling Seal torn</li> </ol>	<ol style="list-style-type: none"> <li>a. Shut the isolating valve, wait a minute, and open it again, very fast. If leaking continues, follow instructions for: <b>B.1. Maintenance - Automatic Air Release Component</b></li> <li>b. Follow Instructions for: <b>B. 2 Instructions for Replacing the Automatic Air Release Rolling Seal</b></li> </ol>
Leak From the Large Orifice	Dirt particles stuck on the Orifice Seal, Orifice Seat, or on the Float	Shut the isolating valve, wait a minute, and open it again, very fast. If leaking continues, follow steps for: <b>B.3 Maintenance - Air &amp; Vacuum Valve Component</b>
Non-slam Component is stuck	Non-slam disc doesn't move freely in the Disc Housing	Dirt particles stuck in the disc housing. Follow steps for: <b>B.4 Maintenance - NS Non-Slam Component</b>

## PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	One Way Out	Brass
2.	Shell S-050-C	Cast Iron ASTM A48 CL.35B / Resicoat RT R4
	Shell S-052	Ductile Iron ASTM A536 60-40-18 / Resicoat RT R4
3.	Body	NSF 61 Certified Reinforced Nylon
4.	Rolling Seal	NSF 61 Certified E.P.D.M
5.	Clamping Stem	NSF 61 Certified Reinforced Nylon
6.	Float	NSF 61 Certified Foamed Polypropylene
7.	O-Ring	NSF 61 Certified NBR 70
8.	Base	Stainless Steel ASTM A744 CF84
9.	Plug	NSF 61 Certified Reinforced Nylon
10.	Domed Nut & Washer	NSF 61 Certified STST UNS 30400
11.	Screen Cover	Cast Iron ASTM A48 CL.35B / Resicoat RT R4
12.	Screen	NSF 61 Certified STST UNS 30400
13.	Cover	Ductile Iron ASTM A536 60-40-18 / Resicoat RT R4
14.	Ring	NSF 61 Certified STST UNS 31600
15.	Non-Slam Disc	NSF 61 Certified STST UNS 31600
16.	Bolt, Nut & Washer	NSF 61 Certified STST UNS 30400
17.	Orifice Seat	Stainless Steel SAE 304 / UNS 30400
18.	Orifice Seal	NSF 61 Certified E.P.D.M
19.	O - Ring	NSF 61 Certified NBR 70
20.	Float	NSF 61 Certified STST UNS 31600 /NSF 61 Certified polycarbonate
21.	Body	Ductile Iron ASTM A536 60-40-18 / Resicoat RT R4
22.	Plug	NSF 61 Certified Reinforced Nylon

