

# A.R.I. Non-slam



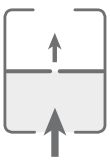
Wastewater

## Spring-loaded External Add-on Component

### Description

A.R.I. Non-slam is an external spring-loaded throttling component that allows for free air intake, throttling air discharge to reduce potential surge.

### Operation



Non-slam

### Features and Benefits

Construction materials	UV resistant, non-corrosive and durable
Simple product design	Easy to install and maintain
NS component	Efficient surge suppression
Normally closed, non-slam	Immediate activation, throttled-air discharge, surge preventing
Normally closed, spring-loaded component	Prevents intrusion of insects and debris
External add-on component	Dry-spring mechanism, not in contact with the liquid
Retrofit	Standard air valve can be converted to a non-slam

## General Operation

### Non-slam (Three-stage Capacity Air Discharge)

#### 1½" NS Component

Non-slam (Fig. 1) has one permanent hole (orifice) that is not adjustable. Air discharge capacity is controlled by the discharge of air through the single orifice.



Non-slam Fig. 1

#### 2", 3", 4" NS Component

Non-slam (Fig. 2) has three small holes (orifices) that can be closed or opened / or the disc (Fig.2) has three or more holes that are permanently open.



Non-slam Fig. 2

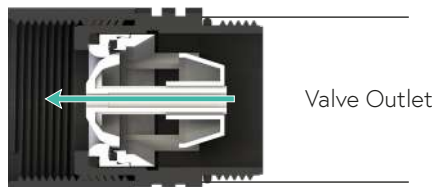
Air discharge capacity is controlled by partially or fully opening one or more of the three orifices (Fig. 1) or with all the holes permanently open (Fig. 3) - reducing potential surge.



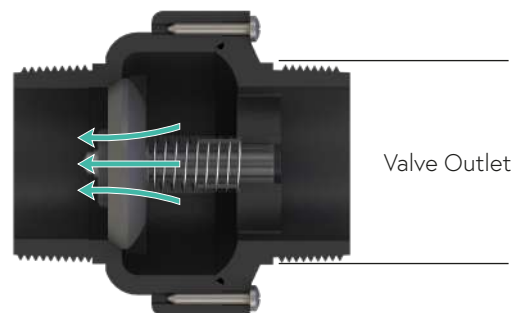
Non-slam Fig. 3

At water column separation, drainage, pipe burst, sudden closure of the isolating valve, pump trip, etc., the check valve and air valve open, allowing large volumes of air into the system. When the water column returns, air is discharged through the small orifices (one orifice - 1½" model), at a rate determined by the orifice opening setting (set manually by the user). In this way, air discharge is controlled, greatly reducing the effects of slam.

Non-slam air discharge

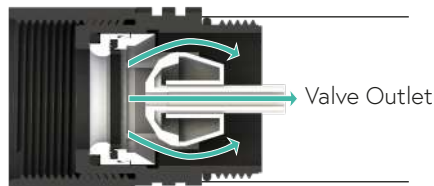


Valve Outlet

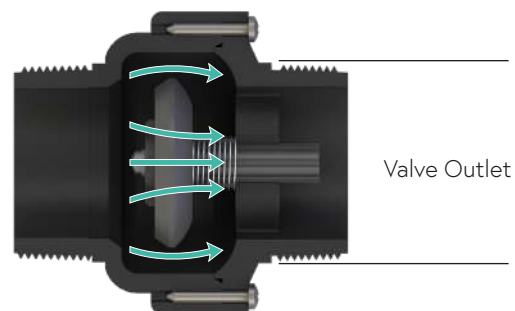


Valve Outlet

Non-slam air intake



Valve Outlet



Valve Outlet

## Non-slam Orifice Data Table

Size	Number of orifices	Discharge orifice (mm)	Total NS area (mm <sup>2</sup> )	NS orifice (mm)	Switching point (bar)
1½"	1 orifice	37.5	12.6	4	Spring-loaded, normally closed
2" (50mm)	1 orifice	50	15.9	4.5	
	2 orifices	50	30.8	6.2	
	3 orifices	50	47.7	7.8	
3" (80mm)	1 orifice	75	50.3	8	
	2 orifices	75	100.5	11.3	
	3 orifices	75	150.8	13.9	
4" (100mm)	1 orifice	100	78.5	10	
	2 orifices	100	157	14.1	
	3 orifices	100	235.5	17.3	



1 ½"



2", 3", 4"

## Technical Specifications

Size		1½"	2"	3"	4"
Material		PAGF/ PPGF +POM	PAGF/ PPGF	PAGF/ PPGF	PAGF/ PPGF
Thread connection		BSP/NPSM	BSPT/ NPT	BSPT/ NPT	BSPT/ NPT
Weight (gr.)	PAGF	80	270	720	1402
	PPGF	80	205	580	1080
Suitable air valve models		D-020 2"-8"	D-26 2"	D-26 3"	D-26 4"
		D-025 2"-4"	D-23 3"	D-23 4"-8"	
		D-025 L 2"-4"			