

Johnson Screens' nozzles are an integral part of water treatment



Johnson nozzles are typically used in media retention vessels where specific flow and backwash rates are desired. Our applications engineers can recommend the number of nozzles needed for effective collection and distribution.

Downflow reactors can place extremely high loading on the media retention screens at the bottom of the vessel. In some cases, this can require a false bottom to carry the load. Some provisions must be made for the process flow to pass through this plate. This can most easily and effectively be done by installing a number of screen nozzles uniformly across the plate.

Standard nozzles are 2 in. in diameter and can be attached to the plate either with threaded end fittings or with "L" bolts. Slot openings are typically 0.007 in. wide and are of the unique plug-resistant Johnson Vee-Wire® design, allowing particles to make only two-point contact with the edges of the wire. In other designs such as wire mesh, particles can readily become entrapped in the mesh causing plugging and creating a continuing maintenance problem. Johnson's screen nozzles are most commonly made with 316L stainless steel, but a special spherical nozzle of ABS or Kynar plastic is also available. Other custom nozzles can be designed to suit special process and installation requirements.

Hydrosphere® Specifications

Material:	ABS plastic - or PVDF
Fitting:	3/4 inches NPT male nipple
Slot Size:	0.008 inches (0.20 mm)
Screen Open Area:	0.9 square inches (5.8 sq cm)
Collection Flow:	3 - 5 GPM (11 - 19 LPM)
Backwash Flow:	20 - 25 GPM (75 - 95 LPM)
Overall Height:	3.5 inches (89 mm)
Diameter at Flange:	2.9 inches (74 mm)

U.S. Pat. No. 3,826,375



Standard Nozzle Specifications

Type 316L Stainless Steel	.007" Slot	75N	100N	75R	100R
Fitting	Size	3/4" NPT	1" NPT	3/4" (19 mm)	1" (25 mm)
	Type	Thread	Thread	Ring	Ring
Screen Diameter		2" (50 mm)			
Screen Length		1 9/16" (40 mm)			
Overall Length		3 1/8" (80 mm)		2 1/8" (54 mm)	
Spacing	Optimum	6" (152 mm)			
	Maximum	11" (279 mm)			
Suggested Maximum Collection Flow Per Nozzle		4 GPM (15 LPM)			
Suggested Maximum Backwash Flow Per Nozzle		6 1/2 GPM (25 LPM)	11 1/2 GPM (44 LPM)	6 GPM (23 LPM)	10 1/5 GPM (40 LPM)
Collapse Strength		300 PSI (2070 kPa)			
Burst Pressure		200 PSI (1380 kPa)			
Part Number		254836	254842	254837	254852



Johnson Screens Industrial and Architectural Screens

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