

HydroWhirl® S slotted rotating spray nozzle for quick, efficient tank cleaning

The HydroWhirl® S nozzle directs the cleaning water through a rotating head at the tip of the spray assembly. This produces a vigorous moving spray action against all areas of the walls of a tank. The spray pattern from the HydroWhirl S head uses impact and repetition to quickly wash the tank. This spray pattern is especially effective at breaking up and removing contaminants.

Advantages of the HydroWhirl S rotary spray nozzle.

- Cleans more quickly, and uses less water and lower pressure than static tank washers
- Complete 360° coverage
- Lower flow and pressure mean smaller pump size resulting in lower operating costs

The HydroWhirl S nozzle has been carefully designed for long service life.

Low-maintenance bearing design

- Self-cleaning bearings are lubricated by water flow to clear away particles

High-precision machining and finish

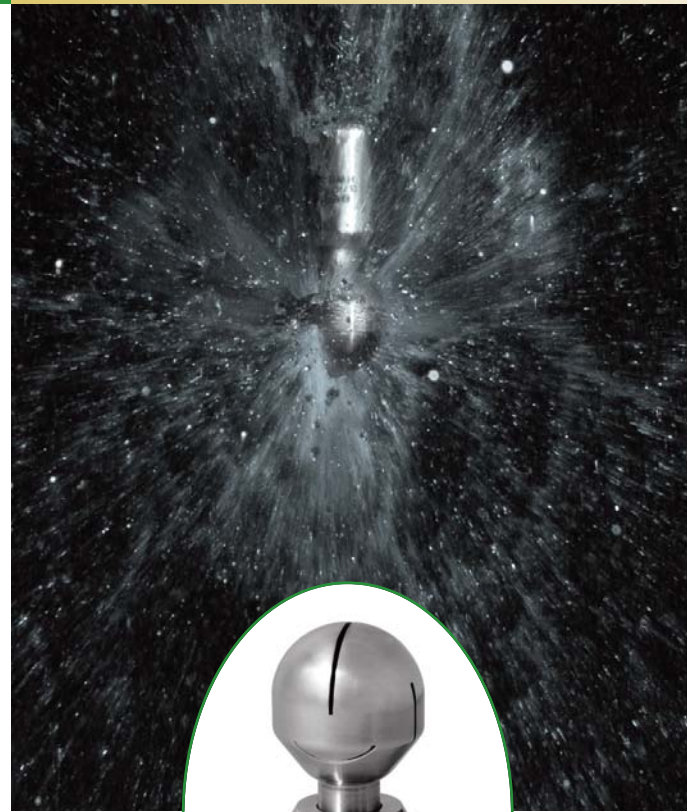
- Stainless steel construction – corrosion resistant
- Laser-welded design for durable assembly
- Surface finish of 0.8 microns R_a or better
- Made from FDA-approved materials for use in Clean-in-Place (CIP) applications

Comprehensive quality control

- Material traceability controlled throughout production
- Lab lifecycle testing validates minimum service life of 300 hours
- All HydroWhirl S nozzle are available with ATEX approval for Zone 0.

Design flexibility

- Available in many different sizes and connections: threaded, clip-on, or welded
- 360° omni-directional spray pattern standard; other spray angles available upon request
- Flow range: 4.39 – 338 L/min (1.26 – 90.9 gpm)
- Dual bearing design – nozzle operates effectively in any orientation



Surface finish ideal for sanitary applications

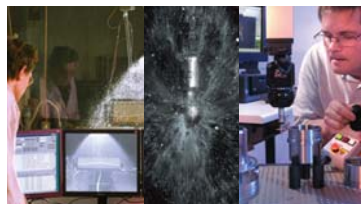
The HydroWhirl S nozzle is an outstanding combination of design, quality, and engineering. The HydroWhirl S nozzle is ideal for anyone who needs reliable, efficient cleaning of tanks and other interior spaces.

BETE Fog Nozzle, Inc. has been a nozzle pioneer for over 60 years. BETE Applications Engineers will work with you to ensure you choose the right BETE nozzle for your application.

BETE®

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HydroWhirl® S

Tank Washing - Slotted Spray Nozzle

DESIGN FEATURES

- Cleans more quickly, but uses less water and lower pressure than static tank washers
- Surface finish ideal for sanitary applications
- Laser-welded design for durable assembly
- Stainless steel construction - corrosion-resistant material
- Three connections: threaded, clip-on, and welded
- Made from FDA approved materials for use in Clean-In-Place (CIP) applications.

SPRAY CHARACTERISTICS

- Self-cleaning bearings
- Vigorous moving spray action
- Complete 360° omnidirectional coverage

Flow rates: 4.39 – 338 L/min

All HydroWhirl S nozzle are available with ATEX approval for Zone 0.



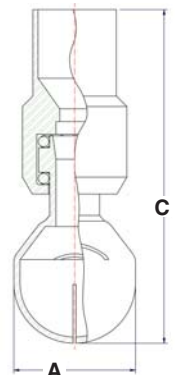
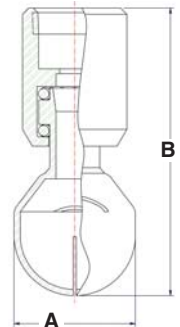
STANDARD CONNECTION SIZES

Additional connection sizes available on request

Connection Type	Nozzle Number													
	HWS 20-3	HWS 20-4	HWS 20	HWS 30-5	HWS 30-6	HWS 30	HWS 40-7.5	HWS 40-8	HWS 40-9	HWS 40	HWS 40HF-11	HWS 40HF	HWS 50-16	HWS 50
Pipe Clip On	--	--	--	--	--	3/8"	--	--	--	3/4"	--	3/4"	--	1-1/2"
Tube Clip On	--	--	--	--	--	3/4"	--	--	--	1"	--	1"	--	2"
Pipe Weld On	--	--	1/4"	--	--	3/8", 1/2"	--	--	--	3/4", 1	--	3/4", 1	--	1-1/2", 2"
Tube Weld On	--	--	1/2"	--	--	3/4"	--	--	--	1"	--	1"	--	2"
FNPT/FBSP	1/8"	1/8"	1/8"	3/8"	3/8"	1/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1-1/2"	1-1/2"
DIN Clip On (mm)	--	--	8	--	--	15	--	--	--	20, 25	--	20, 25	--	40, 50
DIN Weld On (mm)	--	--	8, 10	--	--	15	--	--	--	15, 20, 25	--	15, 20, 25	--	40, 50

HydroWhirl® S Flow Rates and Dimensions

Female Pipe Size	Nozzle Number	LITERS PER MINUTE @BAR						Dimensions (mm)			Mass (g)	Coverage Diameter (m) @2.75 bar
		0.5 bar	0.7 bar	1 bar	2 bar	3 bar	4 bar	A	B	C		
1/8"	HWS-20-3	4.39	4.79	5.40	7.05	8.19	9.11	16.6	42.7	69.1	24.9	1.5
	HWS-20-4	7.41	8.10	9.20	12.2	14.2	15.9					1.8
	HWS-20	10.8	12.0	13.9	20.2	25.3	29.1					
3/8"	HWS-30-5	7.71	8.80	10.4	15.3	18.9	21.9	27.9	59.4	83.3	93.0	2.4
	HWS-30-6	19.5	21.0	23.4	29.8	34.2	37.6					
1/4"	HWS-30	19.1	21.7	25.7	37.0	45.4	53.1					
3/4"	HWS-40-7.5	18.8	21.3	25.1	35.7	43.8	50.7	38.9	92.7	108	306	3.4
	HWS-40-8	21.5	24.3	28.6	40.6	49.6	57.2					
	HWS-40-9	26.6	30.2	35.7	51.5	63.0	72.7					
	HWS-40	30.2	34.6	41.2	59.9	71.8	82.5					
	HWS-40HF-11	40.9	46.4	54.5	77.3	95.0	109					
	HWS-40HF	50.4	57.3	67.5	97.0	116	132					4.0
1 1/2"	HWS-50-16	81.6	92.0	108	154	188	218	69.1	154.9	180	1524	5.5
	HWS-50	125	142	167	238	293	338					



Standard Materials: nozzle: 316L; ball bearings: 316 stainless steel

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Call for the name of your nearest BETE representative.