

## 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, but 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
- Orbital welded design – durable assembly
- Made from rolled steel, not forged – no internal stress points
- Surface finish of 0.8 microns R<sub>a</sub> or better
- 100% welded assembly
- Made to BETE quality standards by European high-precision stainless steel fabricator
- Made from FDA-approved materials for use in Clean-in-Place (CIP) applications

#### Comprehensive quality control

- Material traceability controlled throughout production
- Lab testing validates minimum service life of 300 hours



*Surface finish ideal for sanitary applications*

#### 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: 3.72 – 89.7 gpm
- Dual bearing design – nozzle operates effectively in any orientation

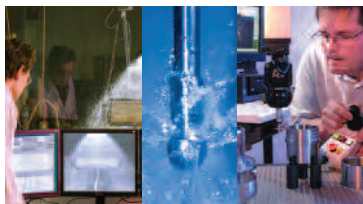
The HydroWhirl S nozzle is an outstanding combination of design, quality, and engineering. The HydroWhirl S nozzle is ideal for anyone who needs reliable, efficient cleaning of tanks and other interior spaces.

BETE Fog Nozzle, Inc. has been a pioneer in nozzle engineering, manufacturing, and applications for over 55 years. BETE nozzles are used throughout the food processing and pharmaceutical industries. BETE Applications Engineering will work with you to help during trial runs and ensure you choose the optimal spraying solution.

# BETE®

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# HydroWhirl™ S

## Tank Washing - Slotted Spray Nozzle

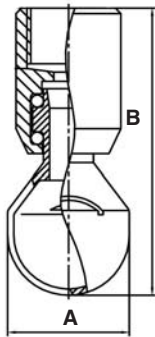
### DESIGN FEATURES

- Cleans more quickly, but uses less water and lower pressure than static tank washers
- Surface finish ideal for sanitary applications
- Orbital welded design - durable assembly
- Stainless steel construction - corrosion resistant
- 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:** 3.72 to 89.7 gpm



HWS-20 - HWS-50

### HydroWhirl S Coverage Chart

When spraying at 40 psi

Nozzle Number	Washing Diameter (ft)
HWS-20	4.9
HWS-30	6.6
HWS-40	13.1
HWS-40 HF	13.1
HWS-50	19.7

### CONNECTION SIZES

Connection Type	Nozzle Number				
	HWS20	HWS30	HWS40	HWS40HF	HWS50
Pipe Clip On	10 mm	3/8", 1/2"	3/4", 1"	3/4", 1"	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	1/8"	1/4"	3/4"	3/4"	1-1/2"

Dimensions are approximate. Check with BETE for critical dimension applications.  
Not recommended for applications over 60 psi.

### HydroWhirl™ S Flow Rates and Dimensions

Female Pipe Size	Nozzle Number	Spray Angle	GALLONS PER MINUTE @PSI						Dimensions (in)		Wt (oz)
			10 psi	20 psi	30 psi	40 psi	50 psi	60 psi	A	B	
1/8"	HWS-20	360°	3.72	4.58	5.37	6.30	6.37	6.50	0.655	1.68	0.88
1/4"	HWS-30	360°	6.37	8.65	10.41	11.96	13.08	14.10	1.1	2.34	3.28
3/4"	HWS-40	360°	10.47	14.45	17.52	20.21	22.27	24.14	1.53	3.65	10.80
3/4"	HWS-40 HF	360°	16.66	23.09	28.05	32.39	35.74	38.80	1.53	3.65	10.64
1 1/2"	HWS-50	360°	37.96	52.96	64.26	73.60	82.08	89.70	2.72	6.1	53.76