

HydroWhirl® S

Tank Washing - Slotted Spray Nozzle

DESIGN FEATURES

- Cleans more quickly, and uses less water and lower pressure than static tank washers
- Surface finish of 0.8 microns R_a or better: ideal for sanitary applications
- Laser-welded design for durability
- 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
- Spray Angles: 360°, 90° Down*, 180° Up*, 180° Down, 270° Up, 270° Down, *Not available in all flow rates.

Flow rates: 4.39 – 338 l/min

All 360° HydroWhirl S nozzles 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					
FNPT/G	-	-	1/4"	-	1/2"	-	-	1/2"	-	1"	-	-			
Pipe Clip On	1/8"	-	-	3/8"	-	-	3/4"	-	-	3/4"	-	-	1-1/4"	1-1/2"	-
Pipe Weld	-	1/4"	1/4"	-	1/2"	1/2"	-	1"	1/2"	1"	1"	-	-	-	2"
Dim F (mm)	10.3	13.7	13.7	17.1	21.3	21.3	26.7	33.5	21.3	26.7	33.5	33.4	42.2	48.3	60.3
Tube Clip On	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tube Weld	3/8"	1/2"	3/8"	1/2"	3/4"	3/4"	-	1"	3/4"	1"	-	1"	1-1/4"	1-1/2"	2"
Dim F (mm)	9.5	12.7	9.7	12.7	19.1	19.1	25.4	19.1	25.4	25.4	25.4	31.8	38.1	50.8	-
DIN Clip On**	DN8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DIN Weld**	-	DN10	DN10	DN15	DN15	DN20	DN25	DN15	DN20	DN25	DN40	DN50	-	-	-
Dim F (mm)	10	13	13	19	19	23	29	19	23	29	41	53	-	-	-

Optimal cleaning performance achieved between 2-3.5 bar; maximum operating pressure is 10 bar.

HydroWhirl® S Flow Rates and Dimensions

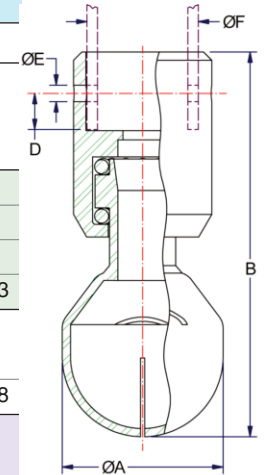
Nozzle Number	LITERS PER MINUTE @BAR						Dimensions (mm)					Wt. (g)	Coverage Diameter (m) @ 2.75 bar
	0.5 bar	0.7 bar	1 bar	2 bar	3 bar	4 bar	A	B (NPT) B (G)	C	D MAX	E		
HWS-20-3	4.39	4.79	5.40	7.05	8.19	9.11	16.7	42.7	69.1	3.81	2.18	24.9	1.5
HWS-20-4	7.41	8.10	9.20	12.2	14.2	15.9		49.8					
HWS-20	10.8	12.0	13.9	20.2	25.3	29.1		60.3					
HWS-30-5	7.71	8.80	10.4	15.3	18.9	21.9	27.9	66.5	83.3	5.33	2.18	93.0	2.4
HWS-30-6	19.5	21.0	23.4	29.8	34.2	37.6		92.7					
HWS-30	19.1	21.7	25.7	37.0	45.4	53.1		100					
HWS-40-7.5	18.8	21.3	25.1	35.7	43.8	50.7	38.9	92.7	108	8.89	3.96	306	3.4
HWS-40-8	21.5	24.3	28.6	40.6	49.6	57.2		100					
HWS-40-9	26.6	30.2	35.7	51.5	63.0	72.7		92.7					
HWS-40	30.2	34.6	41.2	59.9	71.8	82.5		100					
HWS-40HF-11	40.9	46.4	54.5	77.3	95.0	109	38.9	92.7	108	8.89	3.96	302	4.0
HWS-40HF	50.4	57.3	67.5	97.0	116	132		100					
HWS-50-16	81.6	92.0	108	154	188	218	69.1	158	180	8.89	5.56	1524	5.5
HWS-50	125	142	167	238	293	338		164					

Standard Materials: Nozzle: 316L Stainless Steel; Ball Bearings: 316 Stainless Steel

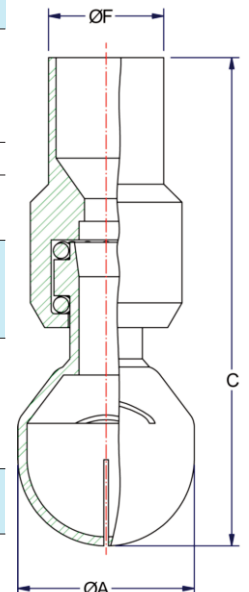
Flow rates represent threaded connections with a 360° spray angle.

Flow rates may vary for other connection types and spray angles.

**Per DIN 11866 Part A



Threaded and Clip On Connections



Weld On Connections

TANK WASHING