

## HydroWhirl™ Orbitor tank cleaning machine is ideal for high impact cleaning

The HydroWhirl™ Orbitor is a versatile tank cleaning machine designed to meet the high standards required in the food, brewing, beverage, dairy, and chemical industries combining high performance cleaning efficiency with extended operating life and reduced life cycle costs.

### Advantages of the HydroWhirl Orbitor tank cleaning machine.

- The HydroWhirl Orbitor can be stripped, maintained, and rebuilt in less than 15 minutes.
- The HydroWhirl Orbitor is self cleaning and self lubricated.
- Enhanced external cleaning with dedicated nozzles that clean the external surfaces of the machine and its mounting pipe.
- Designed for use where high impact cleaning is required.
- The HydroWhirl Orbitor is ideal for use in larger tanks and where the product is difficult to clean.
- Designed with minimum moving parts to ensure extended operating life and reduced down time.

### Available Versions:

- 2 or 4 nozzle machines
- Variable cycle times
- Male or Female connections
- 360° wash pattern
- 180° down wash pattern
- 180° up wash pattern

### Typical HydroWhirl Orbitor Applications:

Typically used where high impingement cleaning is required and where the most efficient use of utilities is necessary.

#### BREWING

Bright beer tanks, coppers, maltings

#### COATINGS AND PAINTS

Storage silos, process vessels, mixers

#### FOOD AND DAIRY

Raw milk storage, spray driers, process vessels, storage silos

#### CHEMICAL

Process vessels, mixers, storage silos

#### BEVERAGE

Process vessels, storage silos



### Key Features and Benefits:

- Designed to meet hygienic standards
- Optimum consumption of water, chemicals, and time = reduced operating costs
- Minimum moving parts = reduced lifecycle costs
- Self cleaning; self lubricating = no process contamination
- High impact jets; orbital wash pattern = high efficiency cleaning process
- Compact design = will fit through small access flanges
- 2 or 4 nozzle configuration = wash pattern variable up to super intense
- External Surface Finish: 0.5 microns Ra or better

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, chemical 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™ Orbitor

## High Impact Rotary Tank Cleaning Machine

### DESIGN FEATURES

- Reduced operating costs
- Minimum moving parts = reduced life-cycle costs
- Self cleaning; self lubricating = no process contamination
- High-impact jets; orbital wash pattern = high efficiency cleaning process
- Compact design
- 2 or 4 nozzle configurations = wash pattern variable up to super intense
- Male or female connections

### SPRAY CHARACTERISTICS

- 360 wash pattern
  - Variable cycle times
  - High impact cleaning
- Flow rates:** 21.5 - 160 gpm  
**Working Pressure:** 45 - 145 psi

### Materials:

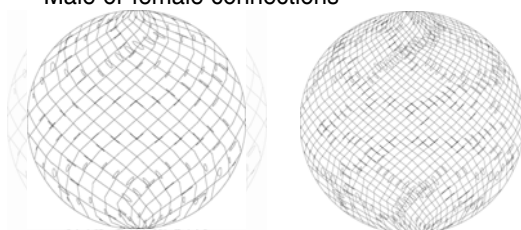
- Housing: 316L
- Nozzle Head: SAF 2205
- Gears: PEEK + 316 SS
- Bushings/Seals: Carbon Filled PTFE

**Max. Working Temp.:** 203°F (95°C)

**Max. Ambient Temp.:** 284°F (140°C)

**Weight:** 13.2 Lbs

Minimum opening size is 125 mm (5") for either a 2-nozzle or 4-nozzle standard-capacity model.



Orbitor 2 nozzle spray pattern

Orbitor 4 nozzle spray pattern

### Jet lengths are effective cleaning lengths

Connection Size	4 X 4.2mm				4 x 5mm			4 x 6mm			4 x 7mm			4 x 8mm		
	1" and 1-1/2"				1" and 1-1/2"			1-1/2"			1-1/2"			1-1/2"		
Pressure (PSI)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	
45	22.6	9.5	11	31.4	13.1	13	38.6	17.4	15.5	59.1	21.3	20.1	68.3	23.6	15.5	
60	26.5	9.8	9.3	36.4	13.8	10.8	45.7	18.7	12.9	67.7	23.3	15.2	79.0	26.2	12.9	
75	30.0	11.5	7.9	40.8	15.4	9.4	52.1	20.3	11	75.2	25.3	14.9	88.4	29.5	11	
90	33.3	13.1	6.9	44.8	17.1	8	58.0	23.0	9.5	81.9	27.9	13	96.9	32.5	9.5	
100	35.3	16.4	6.3	47.2	20.7	7.3	61.8	26.2	8.4	86.0	30.8	11.7	102	34.8	8.5	
115	38.1	20.3	5.8	50.8	24.6	6.8	67.0	30.8	7.6	91.9	33.8	10.4	110	36.7	7.8	
130	40.8	23.3	5.6	54.0	27.9	6.5	72.1	33.8	7	97.3	36.7	9.3	117	40.0	7	
145	43.4	25.6	5.5	57.2	29.5	6.4	76.8	36.7	6.9	102	39.4	8.9	123	42.6	6.9	

Connection Size	2 x 6mm				2 x 7mm			2 x 8mm			*2 x 10mm			*2 x 12.5mm		
	1-1/2"				1-1/2"			1-1/2"			1-1/2"			1-1/2"		
Pressure (PSI)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	Flow (gpm)	Jet Length (ft)	Cycle Time (min)	
45	21.5	18.0	33	26.1	21.3	37.5	33.5	23.6	25.7	59.1	32.1	41	89.4	33.1	26.8	
60	25.4	19.7	27.2	31.3	23.6	31.6	39.3	26.2	22.9	68.7	34.4	34.2	103	36.7	24	
75	28.8	20.7	24.7	36.0	25.9	28.2	44.4	29.5	20.5	77.2	37.7	30.5	115	39.7	21.7	
90	31.9	23.0	22.6	40.4	27.9	25.8	49.1	32.5	18.9	84.9	41.7	28	126	44.0	19.8	
100	33.9	26.2	21	43.2	9.2	24	52.0	34.8	17.5	89.8	45.6	26	133	48.5	18.4	
115	36.7	29.5	19.5	47.2	30.2	22.3	56.2	36.7	16.4	96.6	49.9	24.5	143	53.8	17.2	
130	39.4	33.5	18.4	51.1	37.0	21	60.1	40.0	15.6	103	55.8	23.2	152	60.0	16.3	
145	41.9	37.7	17.4	54.7	40.4	20	63.8	42.6	14.9	109	61.7	22	160	65.9	15.5	

\*High Capacity Jet Machine

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CALL 413-772-0846  
 Call for the name of your nearest BETE representative.