

## 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
- Exterior 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®

BETE Fog Nozzle, Inc.

50 Greenfield St.  
Greenfield, MA 01301  
T (413) 772-0846  
F (413) 772-6729  
www.bete.com

# 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

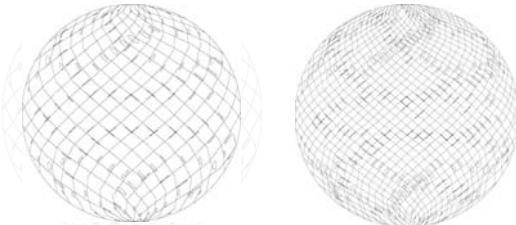
- 360° wash pattern
  - Variable cycle times
  - High impact cleaning
- Flow rates:** 80 - 600 L/min  
**Working Pressure:** 3 - 10 bar

### Materials:

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

**Max. Working Temp.:** 95°C (203°F)  
**Max. Ambient Temp.:** 140°C (284°F)

**Weight:** 6 kg



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 (BAR)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	
3	80.0	2.9	11	112	4	13	138	5.3	15.5	217	6.5	20.1	250	7.2	15.5	
4	100	3	9.3	137	4.2	10.8	170	5.7	12.9	252	7.1	15.2	293	8	12.9	
5	115	3.5	7.9	155	4.7	9.4	200	6.2	11	283	7.7	14.9	333	9	11	
6	127	4	6.9	173	5.2	8	220	7	9.5	310	8.5	13	367	9.9	9.5	
7	138	5	6.3	185	6.3	7.3	240	8	8.4	333	9.4	11.7	395	10.6	8.5	
8	147	6.2	5.8	195	7.5	6.8	257	9.4	7.6	350	10.3	10.4	418	11.2	7.8	
9	153	7.1	5.6	202	8.5	6.5	270	10.3	7	367	11.2	9.3	438	12.2	7	
10	157	7.8	5.5	207	9	6.4	282	11.2	6.9	380	12	8.9	458	13	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 (BAR)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	Flow (L/min)	Jet Length (m)	Cycle Time (min)	
3	80.0	5.5	33	93.3	6.5	37.5	117	7.2	25.7	217	9.8	41	330	10.1	26.8	
4	91.7	6	27.2	117	7.2	31.6	150	8	22.9	255	10.5	34.2	383	11.2	24	
5	108	6.3	24.7	137	7.9	28.2	172	8.7	20.5	290	11.5	30.5	433	12.1	21.7	
6	122	7	22.6	153	8.5	25.8	190	9.4	18.9	320	12.7	28	473	13.4	19.8	
7	130	8	21	168	9.2	24	203	10.3	17.5	347	13.9	26	512	14.8	18.4	
8	140	9	19.5	182	10.4	22.3	213	11.3	16.4	368	15.2	24.5	547	16.4	17.2	
9	148	10.2	18.4	192	11.3	21	223	12.4	15.6	390	17	23.2	572	18.3	16.3	
10	157	11.5	17.4	200	12.3	20	232	13.5	14.9	405	18.8	22	600	20.1	15.5	

\*High Capacity Jet Machine

[www.BETE.com](http://www.BETE.com)

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