

HydroWhirl® Orbitors

Tank Cleaning Machines Ideal for High Impact Cleaning

The HydroWhirl Orbitor and HydroWhirl Orbitor 100 are versatile tank cleaning machines 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 machines

- The HydroWhirl Orbitor and Orbitor 100 can be stripped, maintained, and rebuilt in less than 15 minutes
- The HydroWhirl Orbitors are 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 Orbitors are 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.

BREWERIES AND WINERIES

Bright beer tanks, coppers, maltings brew kettles, fermentors, storage tanks

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; external surface finish of 0.5 µm (microns) R_a or better
- 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 and vessel openings
- 2 or 4 nozzle configurations



All HydroWhirl Orbitor and HydroWhirl Orbitor 100 tank cleaning machines are available with ATEX approval.

HydroWhirl® Orbitor 100

High Impact Rotary Tank Cleaning Machine

DESIGN FEATURES

- Easily field-serviced to reduce maintenance costs
- Minimum moving parts to extend operating life
- Self-cleaning; self-lubricating
- High-impact jets; orbital wash pattern = high efficiency cleaning process
- Ideal for small to medium tanks, easily fits through Ø4" (100 mm) openings or Ø3.35" (85 mm) when nozzle head vertically aligned
- 4 nozzle configurations
- Female connections

SPRAY CHARACTERISTICS

- 360° wash pattern
 - Variable cycle times
 - High impact cleaning
- Flow rates:** 12 - 52.4 gpm
Working Pressure: 45 - 145 psi

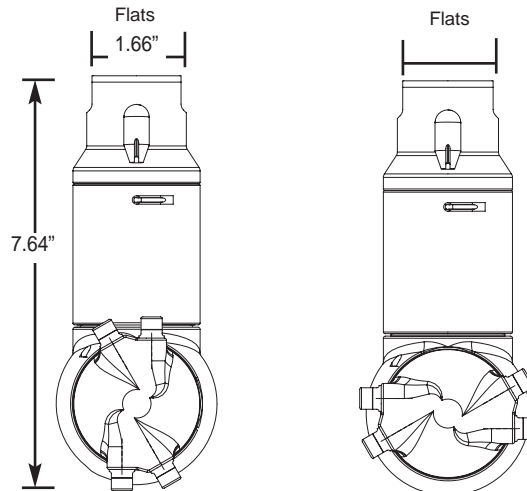
Materials:

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

Max. Working Temp.: 200 °F (95 °C)

Max. Ambient Temp.: 285 °F (140 °C)

Weight: 5.5 Lbs



Vertical Nozzle Head Alignment
 Clearance Diameter: 3.35"

Horizontal Nozzle Head Alignment
 Clearance Diameter: 3.94"



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Performance may vary with ATEX models.



4 nozzle spray pattern

Jet lengths are effective cleaning lengths

# Nozzles X Orifice Size	4 x 3mm			4 x 4mm			4 x 5mm			4 x 6mm		
	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	12.0	3.3	6.0	17.8	6.6	5.4	23.7	8.2	4.4	30.6	9.8	3.9
60	13.9	4.9	5.4	20.3	8.2	4.7	26.7	9.8	3.9	34.0	11.5	3.4
75	15.8	6.6	4.8	22.7	9.8	4.1	29.6	11.5	3.4	37.3	13.1	3.0
90	17.6	6.6	4.3	25.1	9.8	3.6	32.3	11.5	3.0	40.6	13.1	2.6
100	18.8	8.2	4.0	26.6	11.5	3.3	34.1	13.1	2.8	42.8	14.8	2.4
115	20.5	8.2	3.6	28.9	11.5	2.9	36.7	13.1	2.4	46.0	14.8	2.1
130	22.2	9.8	3.2	31.2	13.1	2.7	39.1	14.8	2.2	49.2	16.4	1.9
145	23.9	11.5	2.9	33.4	13.1	2.5	41.4	14.8	2.0	52.4	16.4	1.7