



Product Data Sheet
Product: Tank Cleaning Machine
Type: BC (FT Only)

The Butterworth Type BC automated tank cleaning machine provides 360° impact indexed coverage for the cleaning of the inside of tanks and process vessels.

In Application

The Butterworth Type BC is a light weight, highly versatile machine and is applicable in most all types of tanks for process, storage, and transportation. It is applied to small cooking kettles, larger process mixing vessels in the personal care industry, and molasses storage tanks where the product on the wall of the vessel is very tenacious in nature. In smaller vessel applications, only one machine is used. For larger vessels, multiple machines can be used to provide 100% coverage.

Operational

The Butterworth Type BC machine creates a pattern matrix similar to a ball of twine (see cleaning pattern simulation in the lower right hand corner of this page). Please note that this example shows a vertical tank. The machine is capable of cleaning horizontal, rectangular and irregular shaped vessels also. A complete pattern is established when 65 axial revolutions of the body have been completed. During the process of this pattern build out, 8 cycles (for a 4 nozzle hub) and/or 4 cycles (for a 2 nozzle hub) are established with each cycle increasing the density of the pattern matrix. The machines can be mounted vertically, horizontally or even upside down, to provide the appropriate coverage needed.

User Benefits

- Hygienic Design
- High Jet-Stream Impact
- Reduced Cleaning Times
- Reduced Effluent Generation
- Reduced Energy Costs
- 100% Self-Rinsing (for specific models)
- Improved Capital Equipment Utilization

Model #	Nozzle Type	Nozzle Configuration	Lubrication	Inlet Conf.
BC314Z43NOFT	1 (short)	4 x 3.0mm	Media	1.50" NPT (F)
BC414ZM3NOFT	1 (short)	4 x 4.0mm	Media	
BC514Z31NOFT	1 (short)	4 x 5.0mm	Media	
BC614Z31NOFT	1 (short)	4 x 6.0mm	Media	
BC314Z43BOFT	1 (short)	4 x 3.0mm	Media	1.50" BSP (F)
BC414ZM3BOFT	1 (short)	4 x 4.0mm	Media	
BC514Z31BOFT	1 (short)	4 x 5.0mm	Media	
BC614Z31BOFT	1 (short)	4 x 6.0mm	Media	

Part Number Reference Guide

BC 3 1 4 Z 4 3 N OFT
 Machine Type Office of Nozzle Nozzle Design Nozzle Hub Type Gearbox Type Guide Vane Type Impeller Type Connection Type Lubrication Methodology



General Specifications

Materials of Construction (As Standard):

- 316 Stainless Steel/CD4-MCU Duplex S/S
- See manual for parts detail

Weight:

- 11 lbs. (5.0 kg)

Lubrication:

- Flow-Through (Media Lubricated)

Pressure Range:

- 40-300 PSI (21 Bar)

Jet-Length Radius:

- 0-40' (12.19 M)

Temperature Range:

- Static : 300°F (149°C)
- Operational : 300°F (149°C)

Inlet Connection Type:

- 1 ½" NPT (F) STANDARD
- 1 ½" BSP (F)
- Weld
- Cam & Groove
- Others on request

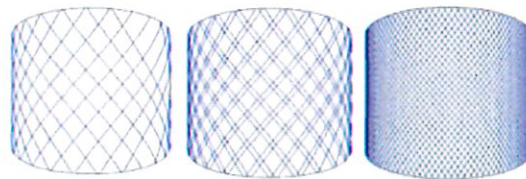
Minimum Tank Opening Requirement & Turn Radius

- Tank Opening: Type 1: 4.404" (111.87 mm)
- Turning Radius Type 1: 5.562" (141.27mm)

Surface Finish:

- ≤ 25 Ra μ (Micro Inch) – External as standard

Cleaning Pattern Simulation



Note: The simulation shown is for reference purposes only. The machine will also work in horizontal and irregular shaped vessels.

Butterworth

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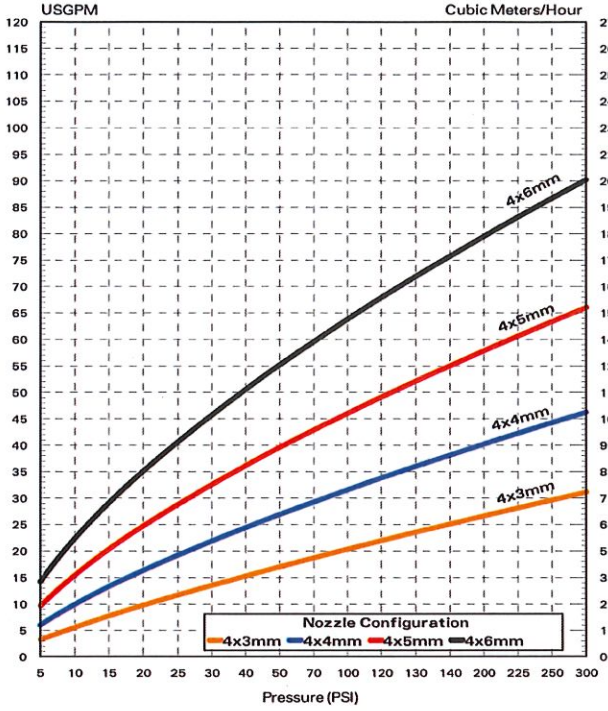
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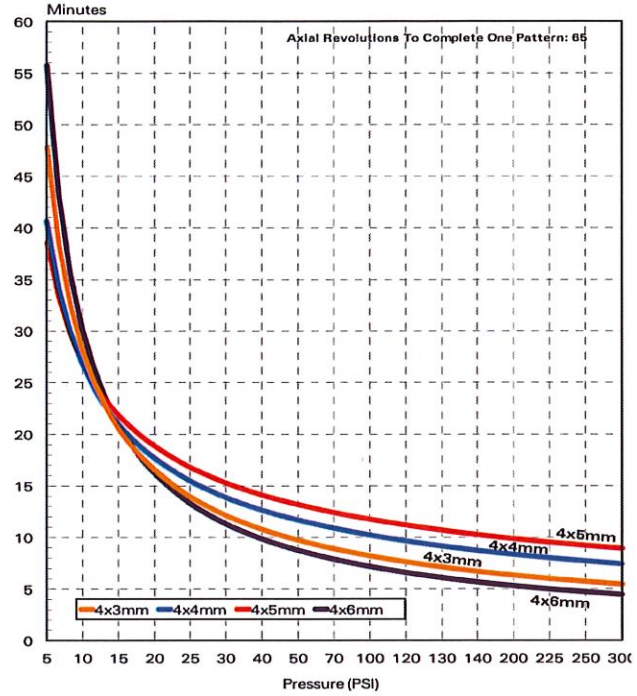
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Flow/Pressure



Pattern Time



Jet Length (Radius)

