



Product Data Sheet
Product: Tank Cleaning Machine
Type: LT & LT-FT

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

Industries

The Butterworth LT is a highly versatile machine and is applicable in most all types of tanks for process, storage and transportation. It eliminates the necessity for manual cleaning of cooking kettles, larger process mixing vessels in the personal care industry, oil storage tanks, rail cars and tanker trucks and of course in brewery fermenters. 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 LT 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, 4 cycles 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

- Elimination of Confined Space Entry
- High Jet-Stream Impact
- Reduced Cleaning Times
- Reduced Effluent Generation
- Reduced Energy Costs
- Reduced Water Use
- Improved Capital Equipment Utilization



General Specifications

Materials Of Construction (As Standard):

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

Weight:

- 15 lbs. (6.8 kg)

Lubrication:

- Flow-Through (Media Lubricated)
- Sealed Gearbox (Food Grade Grease)

Normal Operational Range:

- 40 psig (2.8 Bar) – 300 psig (20.7 Bar)

Maximum Pressure:

- 1000 psig (69 Bar)

Jet-Length Radius:

- 0 – 58' (17.68 M)

Temperature Range:

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

Inlet Connection Type:

- 1 ½" NPT (F)
- 1 ½" BSP (F)
- Weld
- Others on request

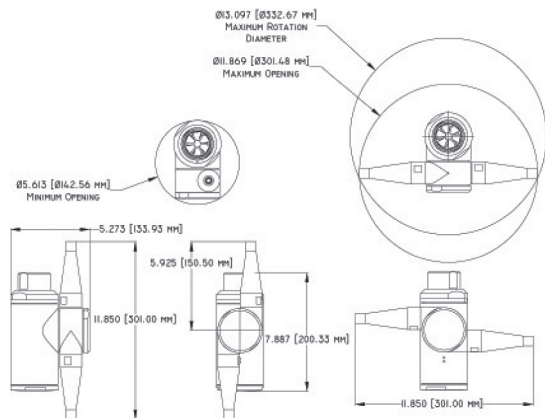
Minimum Tank Opening Requirement:

- 5.613" (142.56 mm)

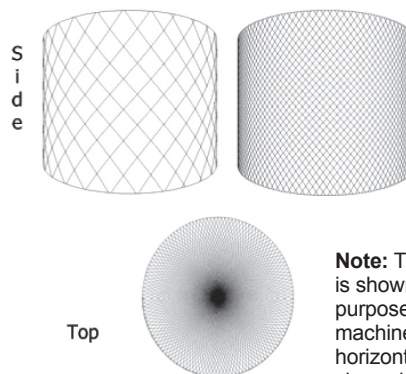
Surface Finish:

- < 25 Ra μ (Micro Inch) – External

General Dimensions



Cleaning Pattern Simulation



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

Butterworth, Inc.

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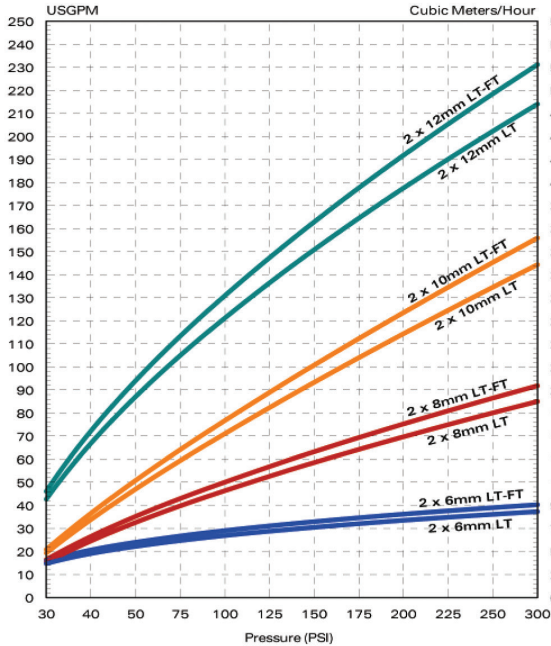
TYPE LT - Model Reference Table

Model #	Nozzles	Inlet	Lubrication
LT6ZM3N0FT	2 x 6mm	1.50" NPT (F)	Media
LT8Z31N0-C	2 x 8mm		Food Grade Grease
LT8Z31N0FT	2 x 8mm		Media
LT10Z21N0-C	2 x 10mm		Food Grade Grease
LT10Z21N0FT	2 x 10mm		Media
LT12Z21N0-C	2 x 12mm		Food Grade Grease
LT12Z21N0FT	2 x 12mm	Media	

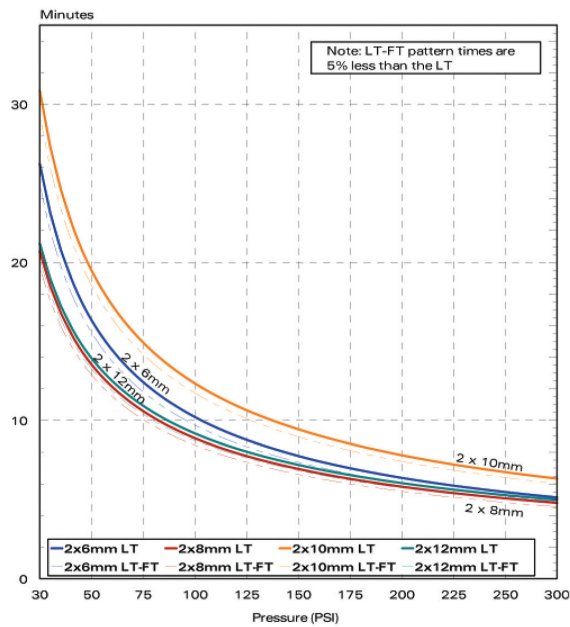
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LT10Z21B0FT	2 x 10mm		Media
LT12Z21B0-C	2 x 12mm		Food Grade Grease
LT12Z21B0FT	2 x 12mm	Media	

Custom Configurations on Request

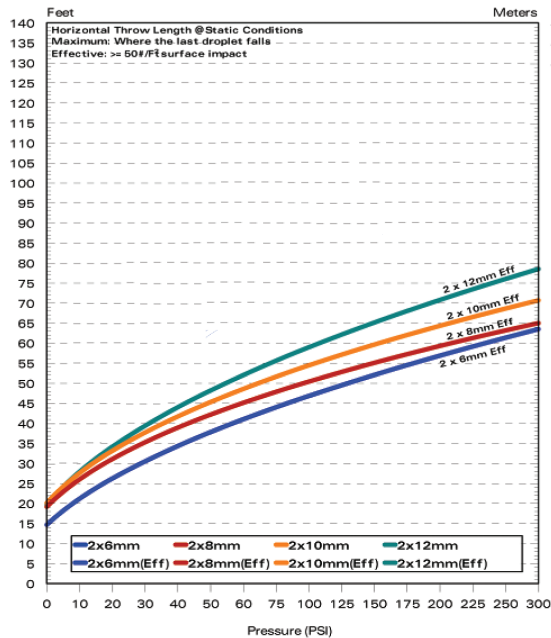
Flow/Pressure



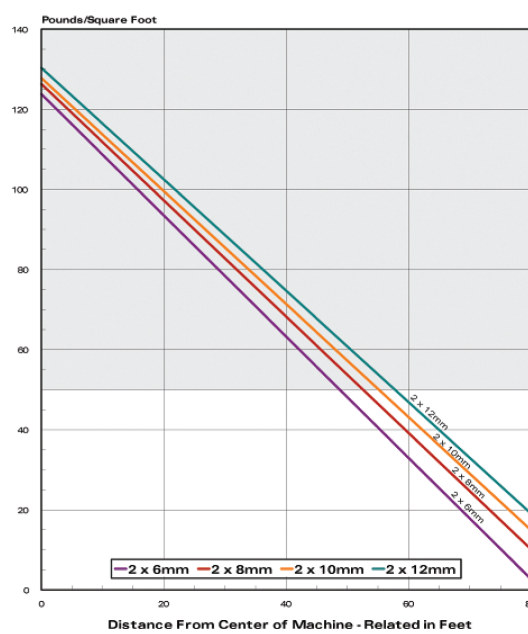
Pattern Time



Jet-Length (Radius)



Impact Pressure @ 100 PSIG



Important Notice:

The curves presented here are summary in nature. For a complete set of curves, contact Butterworth.

Contact Butterworth for installation and engineering assistance.

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