



The Butterworth Type LTQ 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 LTQ is a highly versatile machine and is applicable in most all types of tanks for process, storage, and transportation. Tank capacities range from 13,000 to 130,000 US gallons (50 - 500 M3).

**Operational**

The Butterworth Type LTQ machine creates a pattern matrix similar to a ball of twine (see cleaning pattern simulation in the lower right-hand corner of this page). 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 are established with each cycle increasing the density of the pattern matrix.

**User Benefits**

- Decreased Discharge Generation
- High Jet-Stream Impact
- Hygienic Design
- Improved Capital Equipment Utilization
- Reduced Energy Costs
- Shortened Cleaning Times



**General Specifications**

**Materials Of Construction:**

- 316 Stainless Steel/CD4-MCU Duplex S/S

**Weight:**

- 14 lbs. (6.35 kg)

**Lubrication:**

- Flow-Through (Cleaning Fluid Lubricated)

**Pressure Range:**

- 0-300 PSI (21 Bar)

**Jet-Length Radius:**

- 0 – 40' (12.19M)

**Temperature Range:**

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

**Inlet Connection Type:**

- 1 ½" NPT (F)
- 1 ½" BSP (F)
- Weld
- Cam & Groove
- Tri-Clamp

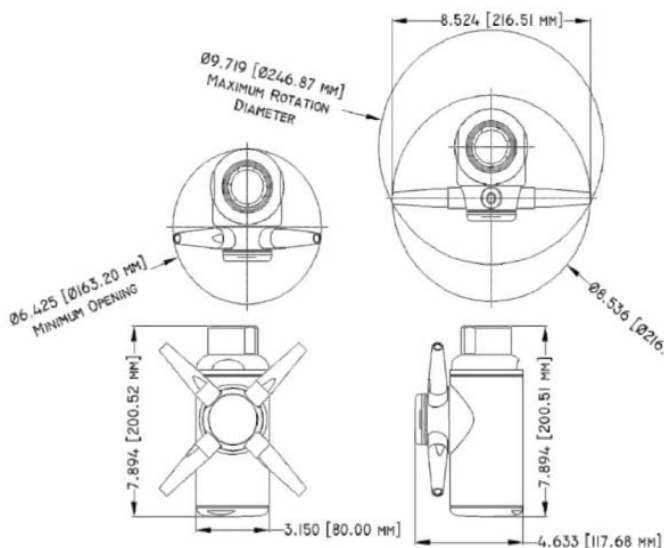
**Minimum Tank Opening Requirement & Turn Radius**

- Tank Opening : 6.425" (163.20mm)
- Turning Radius : 4.860" (123.45mm)

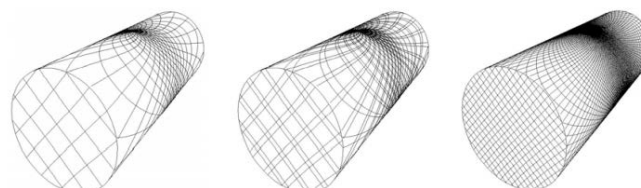
**Surface Finish:**

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

**General Dimensions**



**Cleaning Pattern Simulation**



Cylindrical Tank

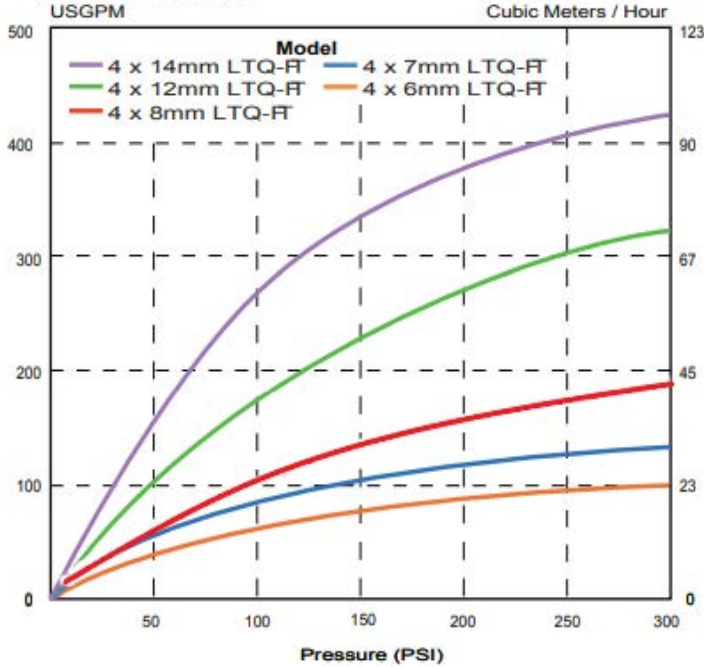
**Butterworth, Inc.**

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**Flow/Pressure**



**TYPE LTQ - Model Reference Table**

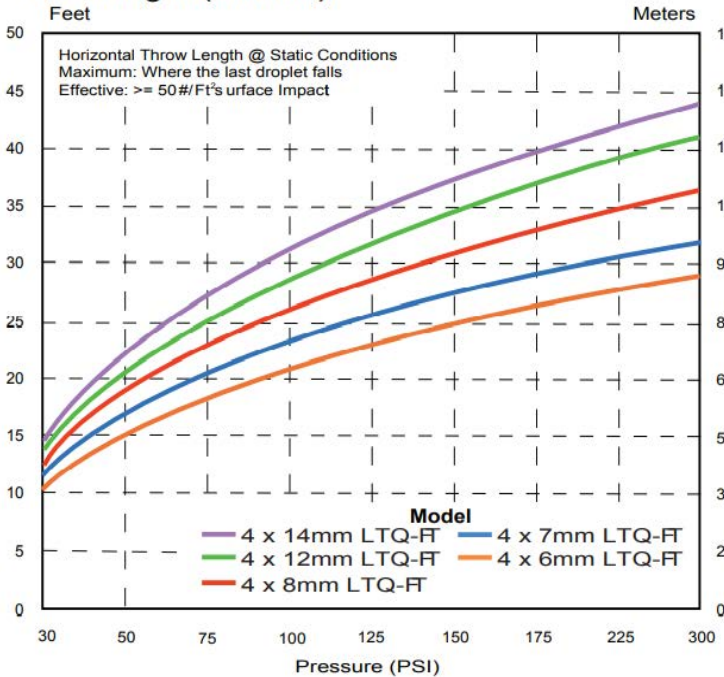
Model #	Nozzles	Inlet	Lubrication	Surface Finish
LTQ634Z31N0FT-01	4 x 6 mm	1.50" NPT (F)	Media	< 25 Ra $\mu$
LTQ734Z11N0FT-01	4 x 7 mm		Media	< 25 Ra $\mu$
LTQ834Z11N0FT-01	4 x 8 mm		Media	< 25 Ra $\mu$
LTQ1234Z11N0FT-01	4 x 12 mm		Media	< 25 Ra $\mu$
LTQ1434Z11N0FT-01	4 x 14 mm		Media	< 25 Ra $\mu$
LTQ634Z31B0FT-01	4 x 6 mm	1.50" BSP (F)	Media	< 25 Ra $\mu$
LTQ734Z11B0FT-01	4 x 7 mm		Media	< 25 Ra $\mu$
LTQ834Z11B0FT-01	4 x 8 mm		Media	< 25 Ra $\mu$
LTQ1234Z11B0FT-01	4 x 12 mm		Media	< 25 Ra $\mu$
LTQ1434Z11B0FT-01	4 x 14 mm		Media	< 25 Ra $\mu$

**Part Number Reference Guide**

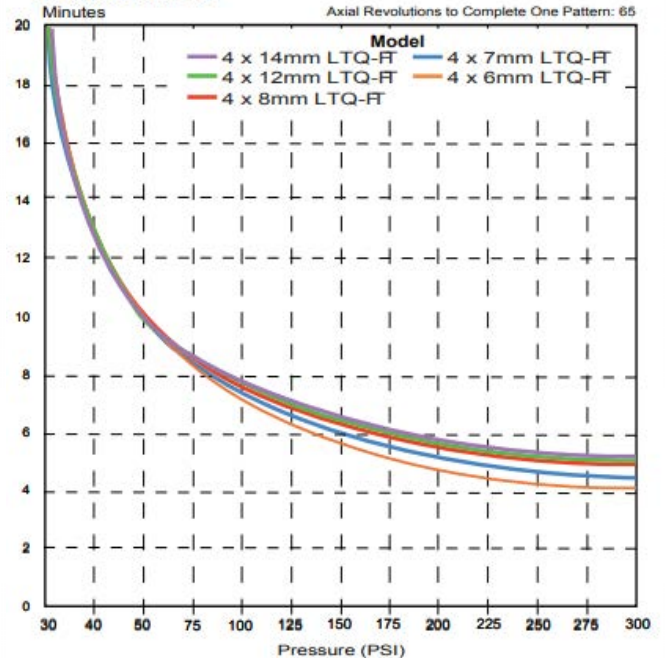
**LTQ 6 3 4 Z 3 1 N 0FT -01**

LTQ	6	3	4	Z	3	1	N	0FT	-01
Machine Type	Orifice of Nozzle	Nozzle Design	Nozzle Hub Type	Gearbox Type	Guide Vane Type	Impeller Type	Connection Type	Lubrication Methodology	Other info specific to part number

**Jet-Length (Radius)**



**Pattern Time**



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