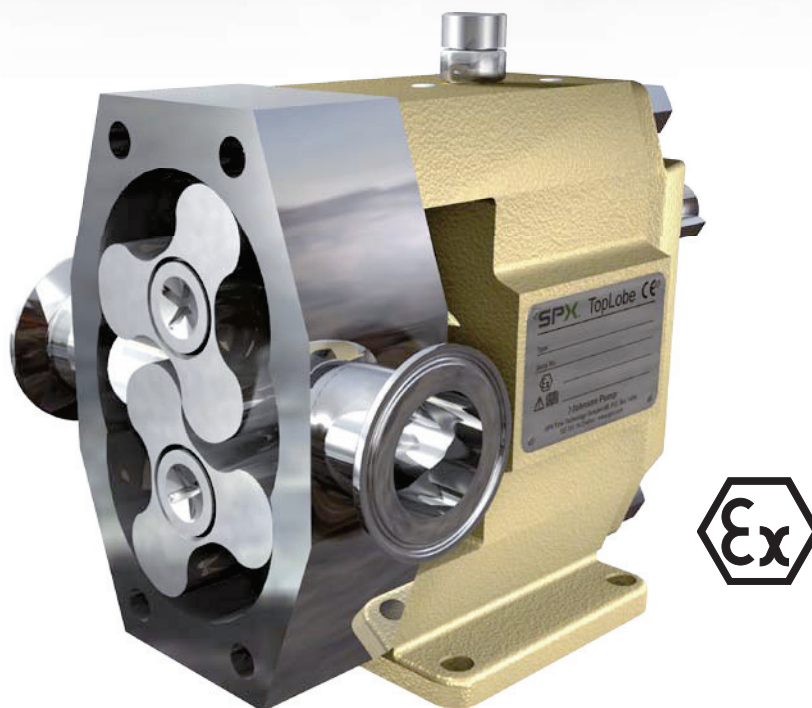


TopLobe

ROTARY LOBE PUMPS



SPX has developed the TopLobe, a rotary lobe pump with radical design improvements for faster maintenance and easier, more effective cleaning, leading to less process downtime. TopLobe is designed to handle the most demanding applications in today's processing industries.

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. For more information, please visit www.spx.com

TopLobe

The new generation of rotary lobe pumps

The original design of the rotary lobe pump goes back to the early 40's and has since then been further developed and improved.

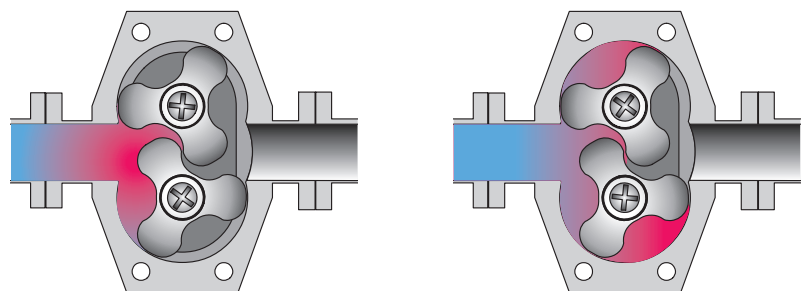
SPX has a long tradition in marketing and distributing rotary lobe pumps. Market knowledge and appreciation of customer needs have been used to improve the existing rotary lobe pump concept with new features and customer benefits.

The group's dedication to product development has culminated in the TopLobe, a new design of stainless steel rotary lobe pumps that overcomes the compromises and constraints associated with the application and use of conventional lobe pumps

Typical characteristics

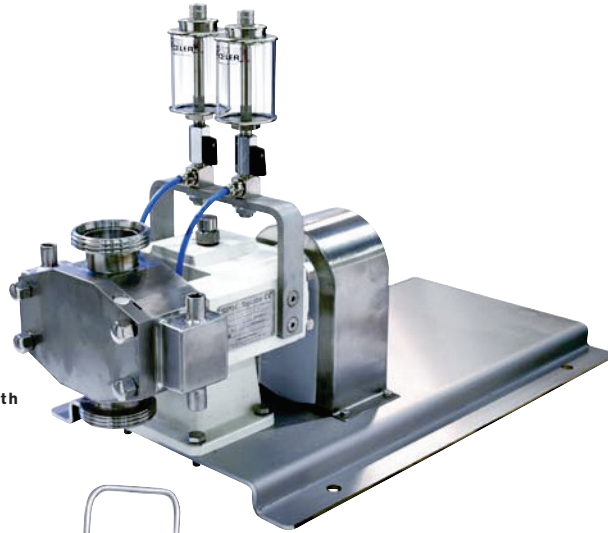
- Front loading seals
- Smooth flow
- Gentle product handling
- Dry running ability
- Efficient transport and dosing
- Handle low and high viscosity products
- Outstanding operational and application qualities
- High availability and efficiency
- Simple maintenance
- Hygienic design
- Low sound level
- EN-standard seals

OPERATING PRINCIPLE

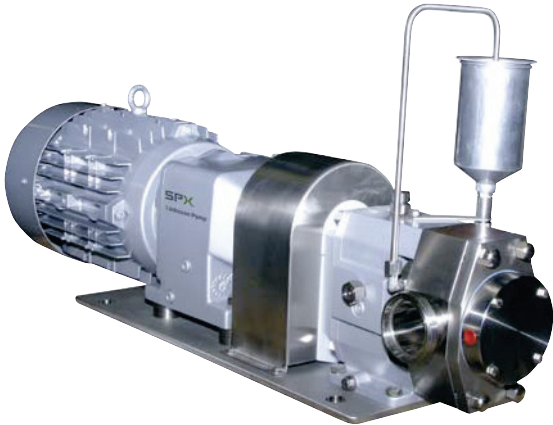


Typical product applications

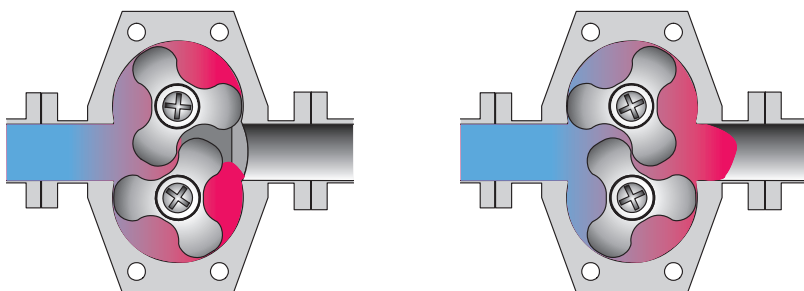
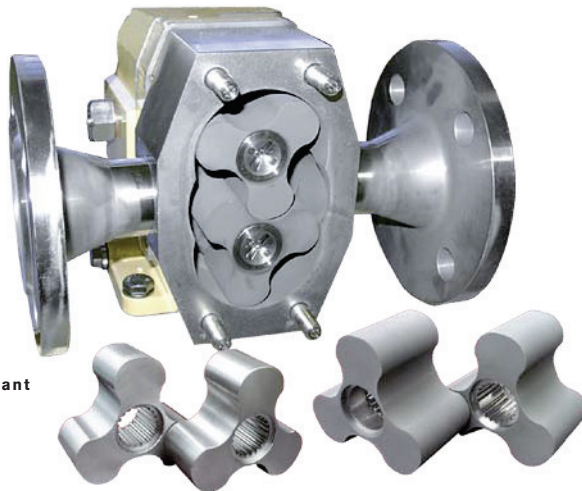
optional heat jacket with oil lubrication



optional quench cup



optional wear-resistant tungsten coating



Food

The hygienic design in combination with its gentle product handling is most suitable for liquids of varying viscosities. The TopLobe can handle delicate liquids containing both soft and hard particles with minimal agitation or shear.



FINE CHEMICALS

The demands in fine chemical processing are increasingly becoming the same as in food and pharmaceutical processing. TopLobe is the ideal pump with its gentle product handling, efficiency and CIP-cleaning.



PHARMACEUTICAL

The TopLobe offers the pharmaceutical processing industry a number of advantages with its low carbon materials of construction combined with hygienic design, gentle product handling and extremely precise dosing.



CHEMICAL INDUSTRY,

PULP&PAPER

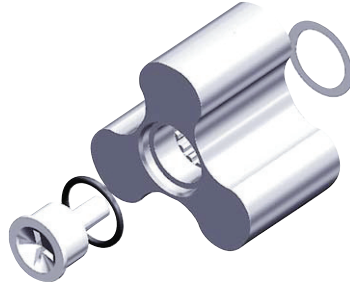
The TopLobe has been designed and developed as per today's demands on high product quality, reliability and service, giving it advanced possibilities in handling aggressive chemicals, slurries and pastes.



Features and *benefits*

Tri-lobe rotor

- Involute splines with one spline missing
- Sealed with O-rings
- Single point shimming
- *Gentle product handling*
- *Hygienic, no risk for product entrapment*
- *Easy to disassemble/assemble*
- *Passes relatively large solid particles*
- *One-way only assembly*
- *Easy service and maintenance*
- *Quick and easy adjustment of rotor clearances*



Counter sunk retainer

- *Reliable locking*
- *Hygienic*
- *Safely sealed rotor*
- *No metallic contact*

Rotorcase

- Simple, robust construction
- Smooth surfaces
- *Hygienic*
- *Minimum risk for product entrapment*
- *Easy to clean, either by CIP, SIP or manually*

Smooth front cover

- *Hygienic*
- *Easy to clean*

Connections

- Large selection
- Welded, maximized inlet opening
- *Few restrictions on applications*
- *Hygienic*
- *Handles highly viscous liquids*
- *Reduces problems with low pressure (NPSHr)*

Seal cover

- Front loading product seals are mounted directly behind the seal cover
- *Quick and easy access to the seals*
- *Hygienic*
- *Easy service and maintenance*
- *Short maintenance and cleaning downtimes*
- *Easily interchangeable with other seal types*



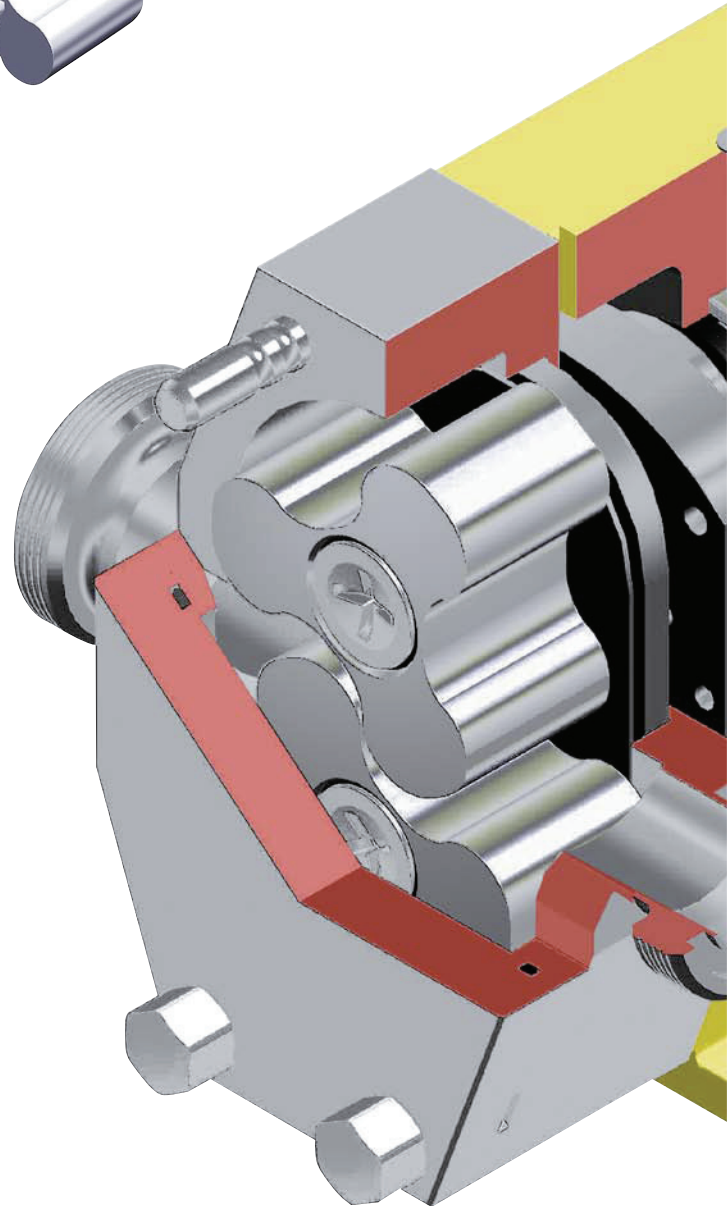
Stationary part of the mechanical seal

Shaft sleeve

- *Quick and easy access to the seals*
- *Easily interchangeable with other seal types*
- *Dry shaft*
- *Longer shaft life*



Rotating part of the mechanical seal



O-ring sealed gearbox cover

- Precise positioning of backmounted bearings
- *Easy, precise assembly of rear bearings*
- *Quick access to gearbox giving easy service and maintenance*

Maximum bearing size

- Shim-free assembly
- *Capable of high speed*
- *Good lubrication of both bearings and gears*

Helical gears

- Ringfeder locking
- *Maintain pump head clearances and timing*
- *Low noise level*
- *Easy service and maintenance*

Robust simple gearbox

- Shim-free
- Oil lubrication
- Minimum shaft deflection
- *Extremely easy to service*
- *Handles extreme exterior operating conditions*
- *Longer life*

Multi foot

- *Allows for maximum flexibility on installation*
- *For horizontal or vertical mounting*
- *Minimizes restrictions on pipebends and valves*

Multi flush cover

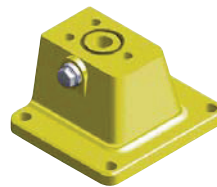
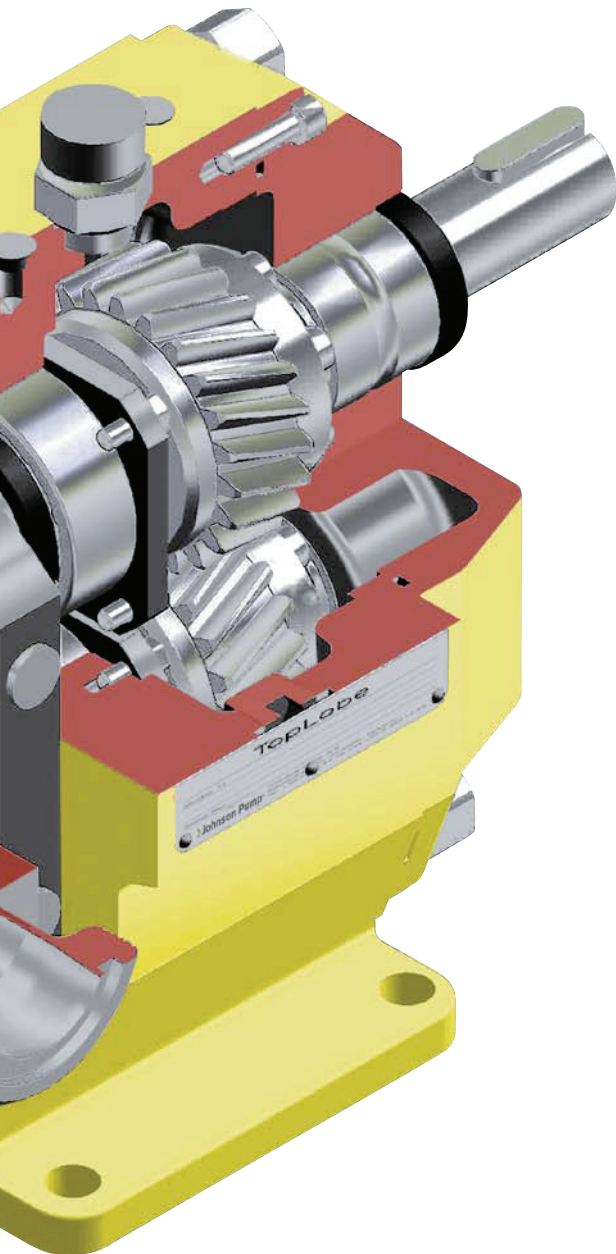
- *One flush cover suitable for all types of shaft seals, quenched or flushed*
- *Versatile*

Pump shaft

- Involute splines
- O-ring sealed
- *One way only assembly*
- *Reliable transmission*
- *Hygienic*
- *Easy to service*
- *Rotors easy to remove*

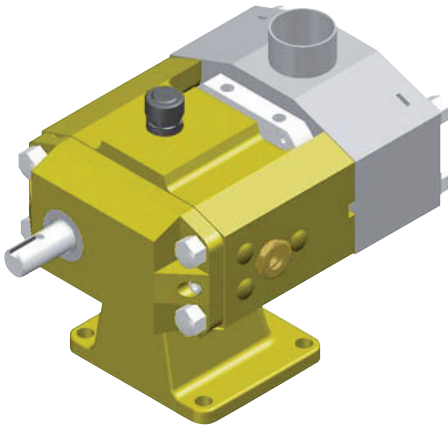
Shaft seals

- Large selection
- EN standard seals available
- *Easily interchangeable with other seal types*
- *Easy access for inspection and service*
- *Short downtimes*
- *Hygienic design*
- *Front loading for easy maintenance*



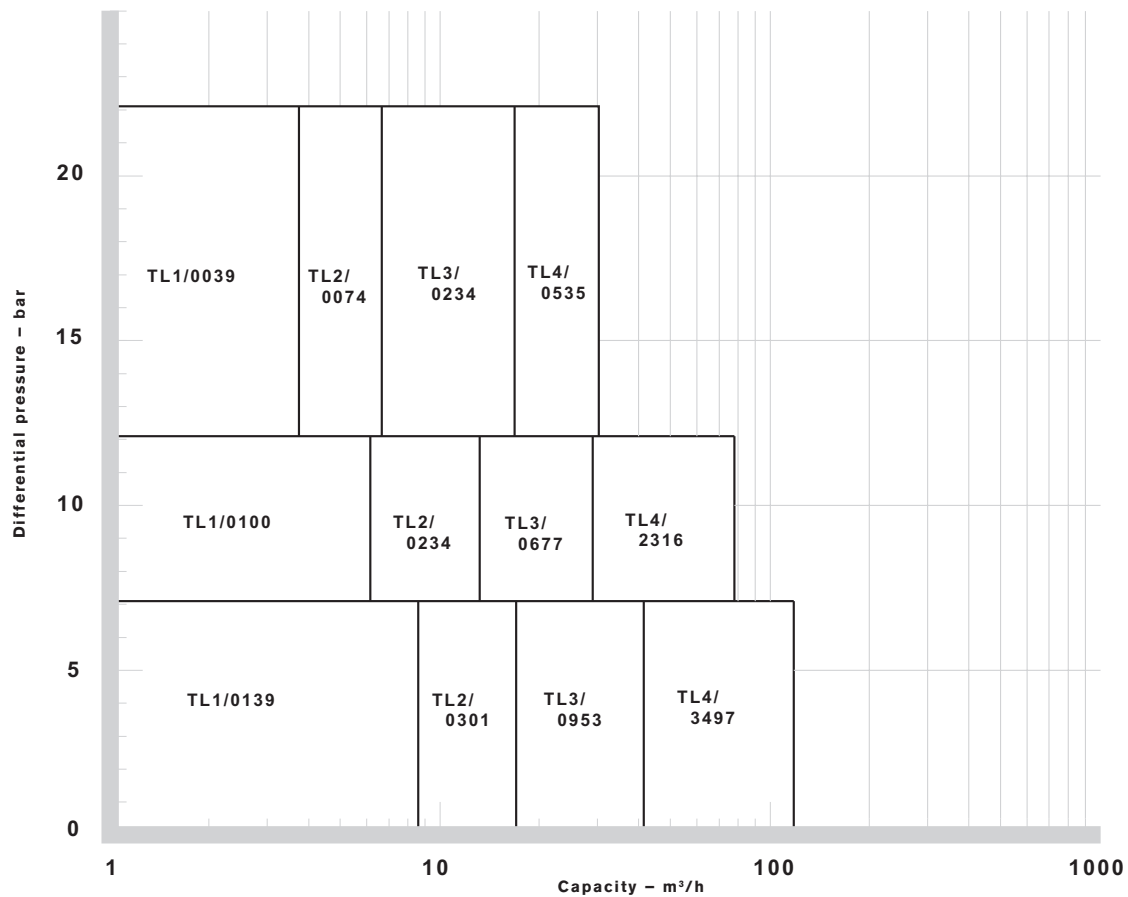
Technical data

The TopLobe range consists of 12 pumps with connections from 25 mm to 150 mm with a capacity of up to 112 m³/h and a maximum working pressure of up to 22 bar.



| PUMP TYPE | DISPLACEMENT [DM ³ /REV] | NOMINAL INTERNAL DIAMETER OF CONNECTION [MM] | MAXIMUM WORKING PRESSURE [BAR] | MAXIMUM SPEED [RPM] | MAXIMUM TORQUE [NM] |
|-----------|-------------------------------------|--|--------------------------------|---------------------|---------------------|
| TL1/0039 | 0.039 | 25 | 22 | 1450 | 53 |
| TL1/0100 | 0.100 | 25 | 12 | 950 | 53 |
| TL1/0139 | 0.139 | 40 | 7 | 950 | 53 |
| TL2/0074 | 0.074 | 25 | 22 | 1450 | 108 |
| TL2/0234 | 0.234 | 40 | 12 | 950 | 108 |
| TL2/0301 | 0.301 | 50 | 7 | 950 | 108 |
| TL3/0234 | 0.234 | 40 | 22 | 1200 | 400 |
| TL3/0677 | 0.677 | 50 | 12 | 720 | 400 |
| TL3/0953 | 0.953 | 80 | 7 | 720 | 400 |
| TL4/0535 | 0.535 | 50 | 22 | 950 | 1200 |
| TL4/2316 | 2.316 | 100 | 12 | 600 | 1200 |
| TL4/3497 | 3.497 | 150 | 7 | 600 | 1200 |

Performance overview

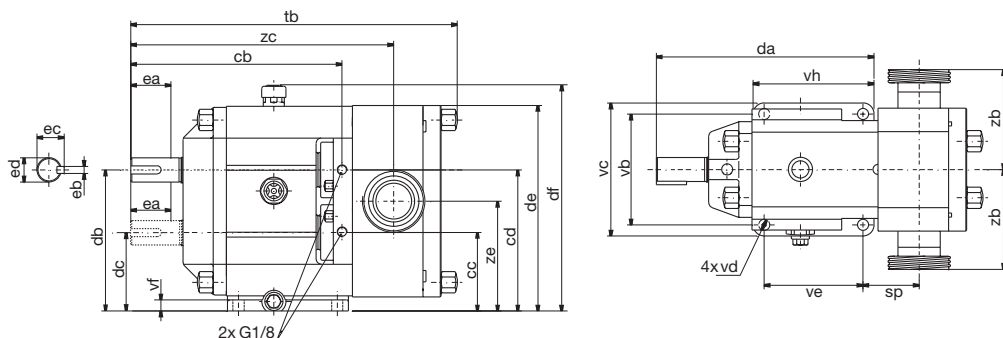


This information should only be considered as guidelines. Please contact us for selecting a pump.

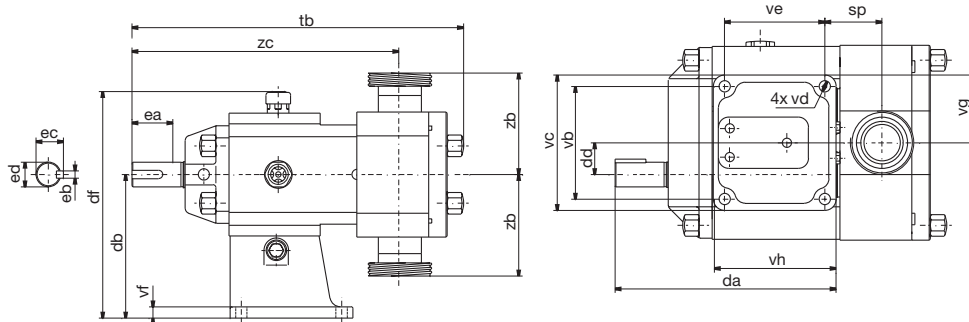
Dimensions

HORIZONTAL MOUNTING

Broken line shaft shows position for bottom drive version



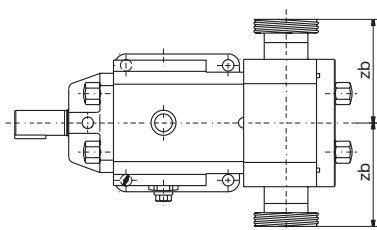
VERTICAL MOUNTING



Dimensions in mm

| PUMP TYPE | CB | CC | CD | DA | DB | DC | DD | DE | DF | EA | EB | EC | ED | SP | TB | VB | VC | VD | VE | VF | VG | VH | ZC | ZE |
|-----------|-----|-------|-------|-----|-----|-----|------|-------|-------|-----|----|------|----|-------|-----|-----|-----|----|-----|----|-----|-----|-----|-------|
| TL1/0039 | 177 | 71.0 | 115.0 | 181 | 118 | 68 | 25 | 172.0 | 195.0 | 40 | 6 | 21.5 | 19 | 45.8 | 261 | 100 | 122 | 11 | 83 | 11 | 61 | 105 | 216 | 93.0 |
| TL1/0100 | 177 | 71.0 | 115.0 | 181 | 118 | 68 | 25 | 172.0 | 195.0 | 40 | 6 | 21.5 | 19 | 42.3 | 261 | 100 | 122 | 11 | 83 | 11 | 61 | 105 | 212 | 93.0 |
| TL1/0139 | 177 | 71.0 | 115.0 | 181 | 118 | 68 | 25 | 172.0 | 195.0 | 40 | 6 | 21.5 | 19 | 48.8 | 273 | 100 | 122 | 11 | 83 | 11 | 61 | 105 | 219 | 93.0 |
| TL2/0074 | 210 | 78.0 | 140.0 | 216 | 140 | 78 | 31 | 204.0 | 227.0 | 50 | 8 | 27.0 | 24 | 55.8 | 313 | 110 | 132 | 11 | 98 | 11 | 66 | 120 | 261 | 109.0 |
| TL2/0234 | 210 | 78.0 | 140.0 | 216 | 140 | 78 | 31 | 204.0 | 227.0 | 50 | 8 | 27.0 | 24 | 49.9 | 313 | 110 | 132 | 11 | 98 | 11 | 66 | 120 | 255 | 109.0 |
| TL2/0301 | 210 | 78.0 | 140.0 | 216 | 140 | 78 | 31 | 204.0 | 227.0 | 50 | 8 | 27.0 | 24 | 55.9 | 325 | 110 | 132 | 11 | 98 | 11 | 66 | 120 | 261 | 109.0 |
| TL3/0234 | 280 | 118.5 | 188.5 | 285 | 200 | 107 | 46.5 | 287.0 | 310.0 | 80 | 10 | 41.0 | 38 | 67.8 | 401 | 170 | 198 | 13 | 130 | 16 | 99 | 158 | 339 | 153.5 |
| TL3/0677 | 280 | 118.5 | 188.5 | 285 | 200 | 107 | 46.5 | 287.0 | 310.0 | 80 | 10 | 41.0 | 38 | 61.8 | 401 | 170 | 198 | 13 | 130 | 16 | 99 | 158 | 333 | 153.5 |
| TL3/0953 | 280 | 118.5 | 188.5 | 285 | 200 | 107 | 46.5 | 287.0 | 310.0 | 80 | 10 | 41.0 | 38 | 73.4 | 423 | 170 | 198 | 13 | 130 | 16 | 99 | 158 | 344 | 153.5 |
| TL4/0535 | 467 | 139.5 | 235.8 | 423 | 250 | 125 | 62.5 | 354.5 | 377.5 | 110 | 16 | 59.0 | 55 | 121.2 | 608 | 230 | 270 | 17 | 214 | 20 | 135 | 254 | 524 | 187.5 |
| TL4/2316 | 418 | 139.5 | 235.8 | 423 | 250 | 125 | 62.5 | 354.5 | 377.5 | 110 | 16 | 59.0 | 55 | 96.4 | 608 | 230 | 270 | 17 | 214 | 20 | 135 | 254 | 499 | 187.5 |
| TL4/3497 | 416 | 139.5 | 235.8 | 423 | 250 | 125 | 62.5 | 354.5 | 377.5 | 110 | 16 | 59.0 | 55 | 122.4 | 660 | 230 | 270 | 17 | 214 | 20 | 135 | 254 | 525 | 187.5 |

FLANGES (ZB)



- 1 = All thread connections (EN, SMS, DS, BS, ISO, gas thread, NPT thread) and all clamp connections (ISO, SMS, DIN)
- 2 = All flanges EN (PN16, PN25) and ANSI (class 150/class 300)

Dimensions in mm

| PUMP TYPE | 1 - ZB | 2 - ZB |
|-----------|--------|--------|
| TL1/0039 | 89 | 121 |
| TL1/0100 | 89 | 121 |
| TL1/0139 | 89 | 121 |
| TL2/0074 | 98 | 130 |
| TL2/0234 | 98 | 130 |
| TL2/0301 | 98 | 130 |
| TL3/0234 | 124 | 156 |
| TL3/0677 | 124 | 156 |
| TL3/0953 | 134 | 166 |
| TL4/0535 | 159 | 191 |
| TL4/2316 | 159 | 189 |
| TL4/3497 | 159 | 189 |

TopLobe



Rotary Lobe Pumps

FOR YOUR LOCAL REPRESENTATIVE:

<http://www.spx.com/en/johnson-pump/where-to-buy/>

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