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Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

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# Alfa Laval OS Twin Screw Pump

## When Process Flexibility is the Issue

### Application

The Alfa Laval OS Twin Screw pump range combines process flexibility with the highest quality standards. The Alfa Laval OS range has been certified by EHEDG and conforms to the 3A standard. Consequently, it is designed for use in applications within the Dairy, Beverage and Food industries where cleanability is paramount.

With a front loading cartridge shaft seal, a rigid stainless steel gearbox with timing gears located between bearings, providing balanced loading of the shaft assembly and an oil chamber design with enhanced lubrication to the bearings and gears the Alfa Laval OS Twin Screw pump is designed for optimal reliability and quick and easy maintenance.

The Alfa Laval OS Twin Screw pump is available in nine models based on three frame sizes. Each frame size is available with three different screw profiles for varying pressure, flow and solids handling capabilities.



## TECHNICAL DATA

### Standard materials

| | |
|---|---|
| Pump casing | W. 1.4404 (316L), diffusion hardened |
| Screws, front cover, seal housing: | W. 1.4404 (316L) |
| Product wetted elastomers: | EPDM |
| Other elastomers: | FPM |
| Shaft seal: | Single flush, Silicon Carbide/Silicon Carbide |
| Gear box: | Stainless steel |
| Base plate: | Stainless steel |
| Coupling guard: | Stainless steel |

### Motors

Direct coupled motor, 4, 6 or 8 poles, or gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.

### Warranty

Extended 3-years warranty on Alfa Laval OS pumps. The warranty covers all non-wear parts on the condition that genuine Alfa Laval Spare Parts are used.

### Shaft seals

Single, Single flush and double mechanical cartridge seals available. All options are fully front loading and interchangeable.

Flushed seals, connections

| | |
|---|---|
| OS22 – OS36: | 1/4" G |
| OS42 – OS46: | 1/2" G |

Max flush pressure

| | |
|---|---|
| Single flush: | 0.5 bar |
| Double mechanical: | 16 bar (max 6 bar over product pressure) |

| | |
|---|---|
| Flush flow rate | 30 l/hr |

### Pressure

| | |
|---|---|
| Max inlet pressure | 16 bar |
| Max discharge pressure | 16 bar |

### Temperature

| | |
|---|---|
| Process, max | 100°C |
| CIP/SIP, max | 150°C |

Note: For higher temperatures, please contact Alfa Laval.

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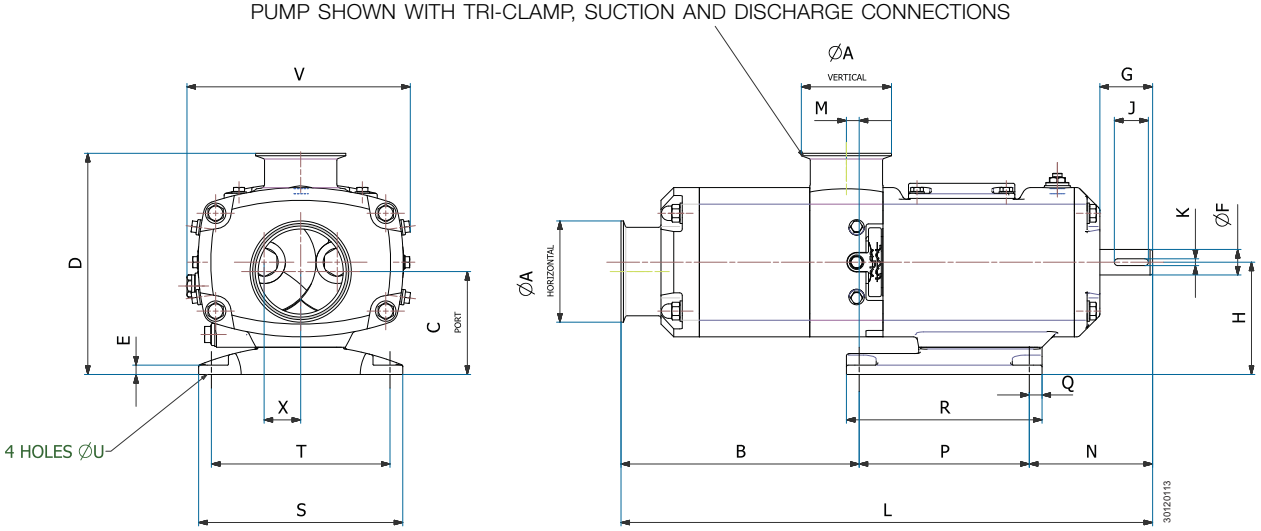
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## Operating data

| Model | Max Flow | Max Differential Pressure | Max speed | | Max Particle Size |
|---|---|---|---|---|---|
| | | | Process | CIP | |
| | m3/h | bar | rpm | rpm | mm |
| OS 22 | 18.2 | 16 | 2500 | 3300 | 12 |
| OS 24 | 24.3 | 12 | 2500 | 3300 | 16 |
| OS 26 | 36.5 | 8 | 2500 | 3300 | 24 |
| OS 32 | 34.8 | 16 | 2200 | 3000 | 16 |
| OS 34 | 46.6 | 12 | 2200 | 3000 | 21 |
| OS 36 | 69.9 | 8 | 2200 | 3000 | 32 |
| OS 42 | 66.8 | 16 | 1800 | 2800 | 21 |
| OS 44 | 89.5 | 12 | 1800 | 2800 | 29 |
| OS 46 | 134.3 | 8 | 1800 | 2800 | 43 |

## Dimension

PUMP SHOWN WITH TRI-CLAMP, SUCTION AND DISCHARGE CONNECTIONS




| Model | ØA Vertical | | B | D | E | F | G | H | J | K | L | N | P | Q | R | S | T | U | V | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| OS22 | 40 | 1½ | | | | | | | | | | | | | | | | | | |
| OS24 | 50 | 2 | 210 | 220 | 9 | 20 | 54.5 | 112 | 40 | 6 | 505 | 117.5 | 165 | 12.5 | 190 | 200 | 175 | 11 | 216 | 33 |
| OS26 | 65 | 2½ | | | | | | | | | | | | | | | | | | |
| OS32 | 65 | 2½ | | | | | | | | | | | | | | | | | | |
| OS34 | | | 265 | 260 | 11 | 30 | 62 | 132 | 40 | 8 | 625 | 145 | 200 | 15 | 230 | 240 | 210 | 11 | 265 | 43 |
| OS36 | 80 | 3 | | | | | | | | | | | | | | | | | | |
| OS42 | 80 | 3 | | | | | | | | | | | | | | | | | | |
| OS44 | | | 340 | 350 | 15 | 45 | 87 | 180 | 70 | 14 | 790 | 180 | 250 | 20 | 290 | 320 | 280 | 17.5 | 346 | 58 |
| OS46 | 100 | 4 | | | | | | | | | | | | | | | | | | |

| Model | ØA Horizontal | | C DIN11851 DIN 11864-1-A-A DIN 11864-2-A-A | C SMS | C Tri-Clamp DIN 11864-1-A-C DIN 11864-2-A-C | C BS 4825-4 (IDF) BS 4825-5 (RJT) |
|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm |
| OS22 | 50 | 2 | 90 | 89.3 | 88.75 | 88.8 |
| OS24 | 65 | 2½ | 98 | 95.15 | 95.10 | 95.15 |
| OS26 | 80 | 3 | 105.5 | 101.45 | 101.45 | 101.5 |
| OS32 | 80 | 3 | 111.5 | 107.45 | 107.45 | 107.5 |
| OS34 | 100 | 4 | 121 | 119.8 | 119.7 | 119.8 |
| OS36 | | | | | | |
| OS42 | 100 | 4 | 148.5 | 147.3 | 147.2 | 147.3 |
| OS44 | 150 | 6 | 173.5 | - | 171.93 | - |
| OS46 | | | | | | |

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## Options

A. Single mechanical shaft seal.
B. Double mechanical shaft seal.
C. Silicon Carbide/Carbon seal faces
D. Product wetted elastomers in FPM or FFPM.
E. Diffusion hardened screws.
F. Heating jacket.
G. Rectangular inlet.
H. Hydrostatic testing with certificate.
I. Reversed flow.
J. Bottom inlet or outlet.
K. Stainless steel shroud covering coupling and motor.
L. Baseplate fitted with adjustable stainless steel ball feet.
M. ATEX compliance.

## Pump sizing

In order to correctly size a twin screw pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection. Specific CIP data are important as well.

Product/Fluid Data

- Fluid to be pumped
- Viscosity
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

## Note!

For further details, see also 100000817.

This product has EHEDG certificate

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**How to contact Alfa Laval**
Contact details for all countries
are continually updated on our website.
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access the information direct.