



# Alfa Laval OS Twin Screw Pump

When Process Flexibility is the IssueWhen Process Flexibility is Key

## 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.

The Alfa Laval OS Twin Screw pump range is able to pump both process media and CIP supply with just one pump.

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## 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.

Direct coupled motor, 4, 6 or 8 poles, or gear motor, 4 poles, premium efficiency, suitable for frequency conversion.

### 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.

Flush flow rate	30 l/hr
Flush flow rate	8 gph


### Pressure

Max inlet pressure	16 bar
Max inlet pressure	232 psi
Max discharge pressure	16 bar
Max discharge pressure	232 psi

### Temperature

Process, max	100°C
Process, max	212°F
CIP/SIP, max	150°C
CIP/SIP, max	302°F

Note: For higher temperatures, please contact Z&I.

 Authorized to carry the 3A symbol

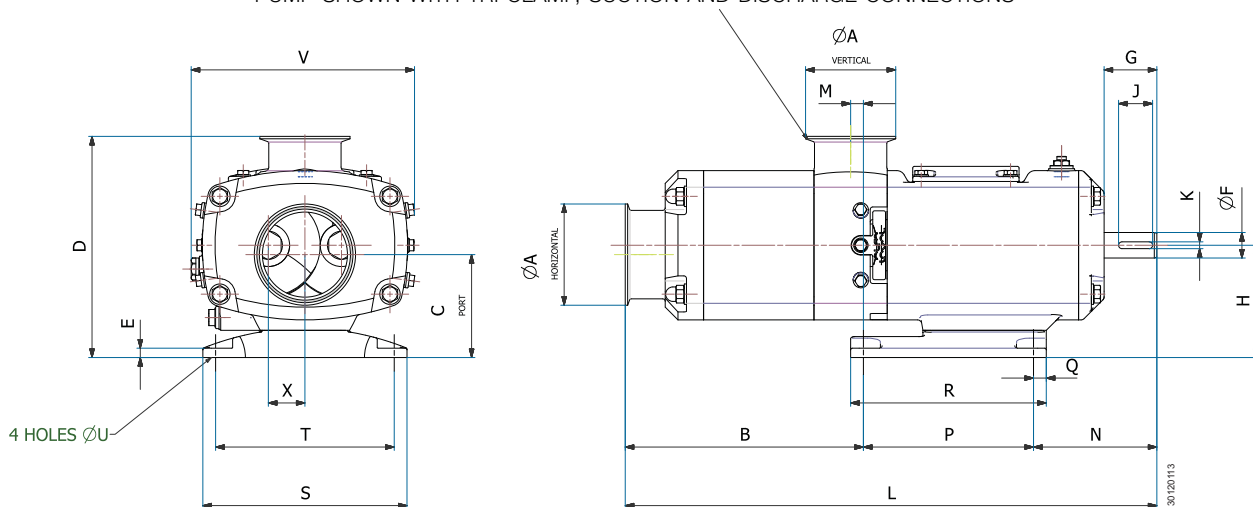
## Operating data

Model	Max Flow m3/h	Max Differential Pressure bar	Max speed		Max Particle Size mm
			Process	CIP	
			rpm	rpm	
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

Model	Max Flow gpm	Max Differential Pressure psi	Max speed		Max Particle Size inch
			Process	CIP	
			rpm	rpm	
OS 22	80	232	2500	3300	0.47
OS 24	107	174	2500	3300	0.63
OS 26	161	116	2500	3300	0.94
OS 32	153	232	2200	3000	0.63
OS 34	205	174	2200	3000	0.83
OS 36	308	116	2200	3000	1.26
OS 42	294	232	1800	2800	0.83
OS 44	394	174	1800	2800	1.14
OS 46	591	116	1800	2800	1.69

## 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	80	3	265	260	11	30	62	132	40	8	625	145	200	15	230	240	210	11	265	43
OS36																				
OS42	80	3																		
OS44	100	4	340	350	15	45	87	180	70	14	790	180	250	20	290	320	280	17.5	346	58
OS46																				

Model	ØA Vertical	B	D	E	F	G	H	J	K	L	N	P	Q	R	S	T	U	V	X	ØA Hor- zontal	C (Tri- Clamp)
	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
OS22																				2	3.49
OS24	1½	8.27	8.66	0.35	0.79	2.15	4.41	1.57	0.24	19.88	4.63	6.50	0.49	7.48	7.87	6.89	0.43	8.50	1.30	2½	3.74
OS26	2 2½																			3	3.99
OS32																				3	4.23
OS34	2½	10.43	10.24	0.43	1.18	2.44	5.20	1.57	0.31	24.61	5.71	7.87	0.59	9.06	9.45	8.27	0.43	10.43	1.69	4	4.71
OS36	3																			4	4.71
OS42																				4	5.8
OS44	3	13.39	13.78	0.59	1.77	3.43	7.09	2.76	0.55	31.10	7.09	9.84	0.79	11.42	12.60	11.02	0.69	13.62	2.28	6	6.77
OS46	4																			6	6.77

Model	ØA		C			
	Horizontal		DIN11851		Tri-Clamp	
	mm	inch	DIN 11864-1-A-A	SMS	DIN 11864-1-A-C	BS 4825-4 (IDF)
			DIN 11864-2-A-A		DIN 11864-2-A-C	BS 4825-5 (RJT)
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						
OS34	80	3	111.5	107.45	107.45	107.5
OS36	100	4	121	119.8	119.7	119.8
OS42						
OS44	100	4	148.5	147.3	147.2	147.3
OS46	150	6	173.5	-	171.93	-

### 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

Alfa Laval reserves the right to change specifications without prior notification.