

## STS Twin Screw Pump



### Operation

Twin screw pump is a positive displacement pump what means that the pump is transferring a certain volume of product in accordance with the speed and pitch of the screws. While turning, the two screws are forming closed chambers that are moving in an axial direction. This movement creates a vacuum at the inlet side and pressure at the outlet. Due to this double chamber technic, there is an almost pulsation free working with high and low viscosity products.

### Application

The STS is a twin screw pump, with a hygienic design, suitable for use in the food, dairy, beverage and cosmetic industries.

The flow is uniform and in an axial direction, so there are no changes in the volume or physical properties of the product. Therefore, it is an ideal pump for handling shear-sensitive fluids.

It has a high suction lift capability with very low NPSH values. It is capable of pumping liquids with high viscosity, but also with low viscosity, so it can be used as a CIP-supply pump. The design ensures full cleanability and drainability.

### User Benefits

- 100% CIP running at high speeds
- Single and double mechanical seal options
- Even when running at high pressures, there is no rotor/rotor/body contact
- Speed up to 3,500 rpm
- Ideal for abrasive products
- Gentle handling of cut-sensitive products
- Totally drainable
- Bidirectional: It is possible to recover the product from the line due to being
- Ideal for products with high air or gas content
- Perfect for vacuum applications with high and low viscosity products

## Technical Specifications

### Materials

Pump casing .....	AISI 316 diffusion hardened
Screws, front cover, seal housing.....	AISI 316 diffusion hardened
Inside surface finish.....	Ra ≤ 0.8
Gear box .....	Stainless steel / Cast Steel
Base plate.....	Stainless steel
Coupling guard .....	Stainless steel
Product wetted elastomers.....	EPDM
Other elastomers .....	FPM
Shaft seal .....	Single / Double
Rotary seal face.....	Silicon Carbide / Tungsten
Stationary seal face.....	Silicon Carbide / Tungsten

### Operating Limits

Maximum flow .....	110m <sup>3</sup> /h
Max working pressure .....	20 bar
Temperature range .....	-40C to 150C
Max CIP temperature .....	150°C
Max Speed.....	3000rpm / 50hz
Max Speed.....	3600rpm / 60hz

### Operating Data

Model	Screw Spacing (mm)	Flow per rotation (L/r)	Max Flow (L/m)	Max Flow (m <sup>3</sup> /h)	Max speed (rpm)	Max solid (mm)	Max pressure (bar)	Net Weight (kg)
STS A.18	16	0,09	324	19,4	2900	8,5	20	
STS A.26	28	0,13	468	28,1	2900	12,5	20	30,2
STS A.48	48	0,22	638	38,3	2900	23,5	15	
STS B.26	26	0,20	580	34,8	2900	12,5	20	
STS B.36	36	0,29	841	50,5	2900	17,5	20	59,3
STS B.60	60	0,46	1334	80,0	2900	29,5	15	
STS C.32	32	0,53	1537	92,2	2900	15,5	20	
STS C.48	48	0,79	2291	137,5	2900	23,5	20	154,6
STS C.80	80	1,40	4060	243,6	2900	39,5	12	



Double Mechanical Seal



Heating jacket and Motor Shroud



Helical Gear

### Information



Twin Screw pumps are designed for precision, abrasive, high and low viscosity use.

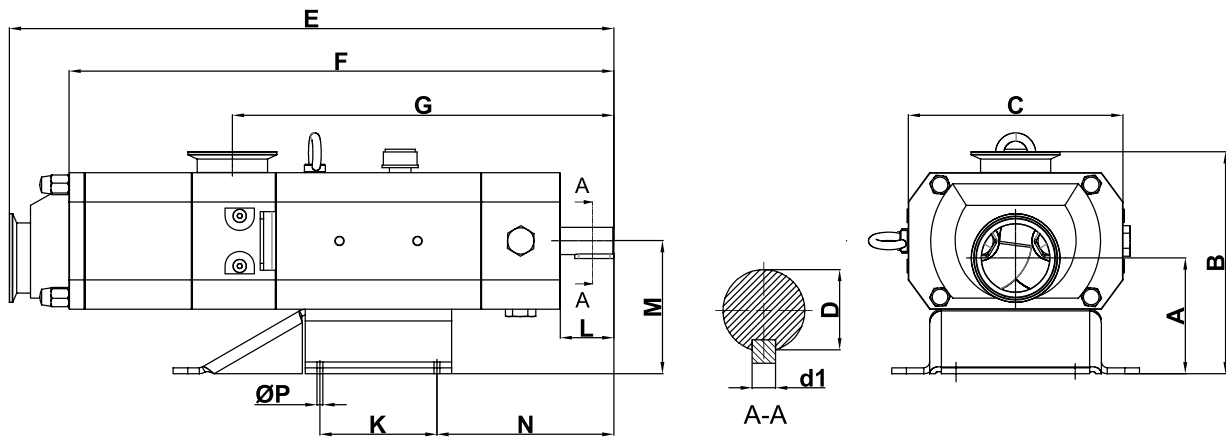
These pumps are built on a robust and reliable platform that meets stringent hygiene standards.

It can perform both product transfer and CIP transactions.

Low vibration properties and excellent solids handling increase product quality by reducing the risk of product damage.

Maintenance has been simplified and uptime has been increased.

## Dimensions



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Model	Inlet / Outlet	F	G	D	d1	N	L	C	A	M	QP	K	E	B
STS A.18	2" - 2"	385	265	22	6	122	52,0	178	127	145	12	115,5	436	225
STS A.26	2" - 2"	385	265	22	6	122	52,0	178	127	145	12	115,5	436	225
STS A.48	2" - 2"	385	265	22	6	122	52,0	178	127	145	12	115,5	436	225
STS B.26	3" - 3"	520	354	25	8	181	57,5	225	162	180	12	190,0	589	280
STS B.36	3" - 3"	520	354	25	8	181	57,5	225	162	180	12	190,0	589	280
STS B.60	3" - 3"	520	354	25	8	181	57,5	225	162	180	12	190,0	589	280
STS C.32	4" - 4"	634	411	42	8	196	73,0	322	206	240	18	300,0	720	376
STS C.48	4" - 4"	634	411	42	8	196	73,0	322	206	240	18	300,0	720	376
STS C.80	4" - 4"	634	411	42	8	196	73,0	322	206	240	18	300,0	720	376