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inoxen

**PRODUCT
CATALOGUE**



CONTENTS

Twin Screw Pump	1
Very Rich and Flexible Combination	5
Motor Direct-Connected Screw Pump Selection Table	6
Variable Frequency Motor Helical Gear Screw Pump Selection Table	7
Twin Screw Pump Mechanical Seal Design	9
DJ-LGR Screw Pump Dimension Data Chart	11
TS-L Screw Pump Dimension Data Chart	12

TWIN SCREW PUMP

Flexible solution for two-direction reversible, high pressure, high viscosity, large particle, pulse free, liquid delivery.



Twin-screw pump has strong self-priming ability, can transport solid particles, gas-liquid mixture, high viscosity, low viscosity and other materials. The pump not only can extract and convey materials, but also apply for CIP and SIP systems, can reduce pipeline, valve and CIP exclusive pumps, which improve efficiency and save cost. It has extra characteristics, that other volume pumps do not have, such as no pulse phenomenon, no particle damage, high pressure, wide speed range, large flow range and so on.



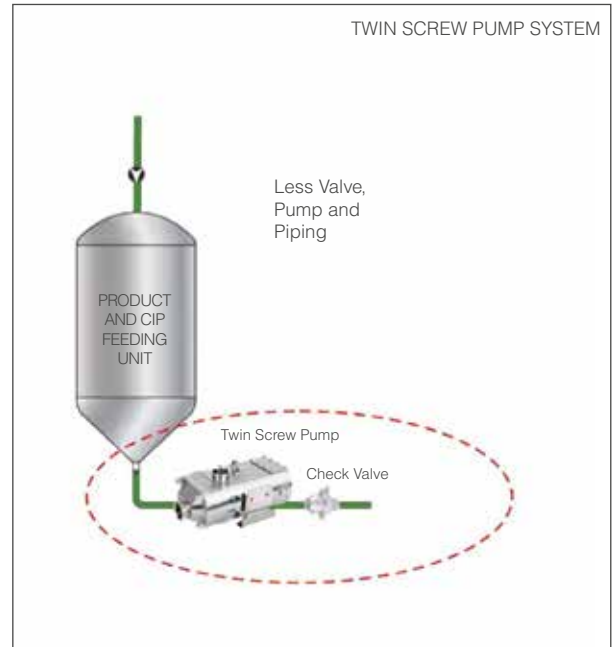
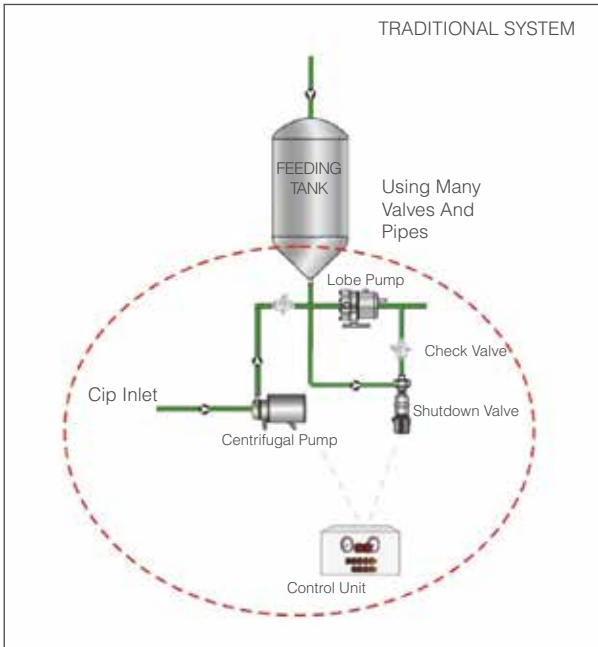
Technical Specifications

Max Flow	110 m ³ /h
Max Particles	23mm
Max Pressure	20bar
Speed Range	10-3500 R.P.M.
Working Temperature	-40 °C ve 15 °C
Surface Treatment	Ra≤0.6 μ m; Ra≤0.4 μ m
Material	%100 SS316L Stainless Steel

After used screw pump, other auxiliary pumps and valves and controllers can be reduced as more as possible.

Other solutions CIP cleaning and media delivery configuration

Screw pump solutions CIP cleaning and media delivery configuration



With its strong self-priming capacity, the TS series screw pumps have the ability to deliver high viscosity and low viscosity medium , as well as CIP liquid extraction and cleaning functions. Choosing TS series screw pump will help you to reduce using CIP dedicated pump and valve control system. It will save cost.



Choose the right screw spacing for your process.



Option 1: Large screw spacing, larger flow rate. Can deliver larger particles, but the pressure will be lower compared with small spacing screw.

Option 2: Small screw spacing, lower flow rate but higher pressure, the particles that can be transported will also be smaller.

Small spacing screw
Higher pressure. Lower flow rate, smaller particles.

Middle spacing screw
Middle pressure. Middle flow. Middle particles

Large spacing screw
Lower pressure. larger flow rate. larger particles

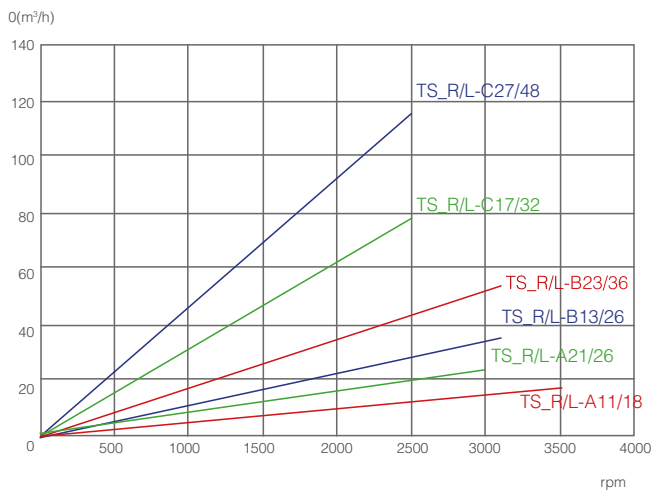
Technical characteristics selection tablet



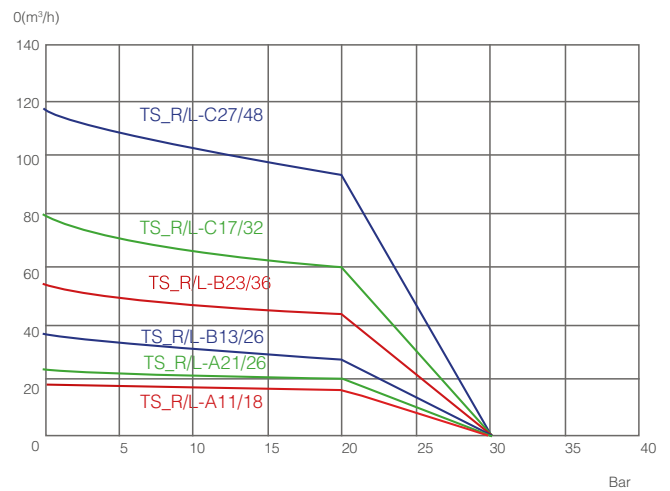
Model	Screw Spacing (mm)	Flow Per Rotation (l/r)	Max. Flow (l/m)	Max. Flow (m ³ /h)	(Rpm) Max Speed (Minutes)	Max. Solid (mm)	Max. Pressure (bar)	Pump Head Port	Body Port	Net Weight (kg)
TS_R/L-A11/18	18	0.09	324	19.4	3600	8.5	20	1.5"-2"	1"-1.5"	29.9
TS_R/L-A21/26	26	0.13	468	28.1	3600	12.5	20			
TS_R/L-B13/26	26	0.20	580	34.8	2900	12.5	20	2.5"-3"	2"-3"	58.7
TS_R/L-B23/36	36	0.29	841	50.5	2900	17.5	20			
TS_R/L-C17/32	32	0.53	1537	92.2	2900	15.5	20	3"-4"	3"-4"	154.7
TS_R/L-C27/48	48	0.79	2291	137.5	2900	23.5	20			

IG Screw Pump Graph

TSR/L(Q-R/Graph)



TSR/L(Q-R/Graph)



TYPICAL PRODUCT APPLICATION

Food and Beverage

Soup, stew, ketchup, vegetables, condiments, chocolate, fat and oil, cream filling, breweries, wort, brewery, wort, soft drink/fruit juice, moat processing.

Dairy

Cream, milk, choese curd and whey, cottage cheese, yogurt.

Medicine/Cosmetic

Ointment, syrup, extractive, serum, face creams & emulsion, hair styling gels & liquids, dyes and alcohols, soap, cosmetics.

Chemical/industrial

Solvents, paints, fuels, resins, polymers&sludges, oil & lubricants.



VERY RICH AND FLEXIBLE COMBINATION



TS-R crew Pump (recommended configuration)

TSR screw pump's standard configuration is inlet and outlet bi-directional reversible, control the reverse rotation of the motor can achieve the purpose of material reverse conveying.



TS-L Screw Pump (Selection Configuration)

TSL screw pump's standard configuration is inlet and outlet bi-directional reversible, coniroil the reverse rotation of the motor can achieve the purpose of material reverse conveying.



Screw Pump + Heating Jacket

Screw pump with heat jacket is widely used for transporting materials which are frozen or will freeze or perishable at room temperature. such as chocolate. candy, gum. etc. According to the process requirements, it is equipped with front cover heating jacket or surrounding heating jacket structure.

MOTOR DIRECT-CONNECTED SCREW PUMP SELECTION TABLE



Model	Screw Spacing (mm)	Pressure (Bar)	Motor (kW)	Max. Solid (mm)	Flow Per Rotation (l/r)	Suggested Speed Range (r/min.)	Suggested Flow Range (m ³ /h)		Pump Head Inlet	Pump Body Outlet	Net Weight (kg)
TS_R/L-A11/18	18	4	2.2	8.5	0.09	100-1450	0.54	7.8	1.5"-2"	1"-1.5"	80.9
		7	3								84.9
		10	4								90.9
		14	5.5								123.9
		18	7.5								134.9
TS_R/L-A21/26	26	3	2.2	12.5	0.13	100-1450	0.78	11.3	1.5"-2"	1.5"-2"	80.9
		5	3								84.9
		8	4								90.9
		11	5.5								123.9
		15	7.5								134.9
TS_R/L-B13/26	26	4	4	12.5	0.20	100-1450	1.2	17.4	2.5"-3"	2"-3"	152.7
		8	5.5								163.7
		12	7.5								218.7
		18	11								233.7
TS_R/L-B23/36	36	3	4	17.5	0.29	100-1450	1.74	25.2	2.5"-3"	2.5"-3"	152.7
		7	5.5								163.7
		10	7.5								218.7
		15	11								233.7
TS_R/L-C17/32	32	4	7.5	15.5	0.53	100-1000	3.18	31.8	3"-4"	3"-4"	314.7
		8	11								329.7
		12	15								374.7
		18	18.5								387.7
TS_R/L-C27/48	48	4	7.5	23.5	0.79	100-1000	4.74	47.4	3"-4"	3"-4"	314.7
		7	11								329.7
		10	15								374.7
		15	18.5								387.7

VARIABLE FREQUENCY MOTOR HELICAL GEAR SCREW PUMP SELECTION TABLE



Model	Screw Spacing (mm)	Pressure (Bar)	Motor (kW)	Max. Solid (mm)	Flow Per Rotation (l/r)	Suggested Speed Range (r/min.)	Suggested Flow Range (m ³ /h)		Pump Head Inlet	Pump Body Outlet	Net Weight (kg)
TS_R/L-A11/18	18	5	1.1	8.5	0.09	100-1000	0.54	5.4	1.5"-2"	1"-1.5"	76.9
		10	1.5								85.9
		14	2.2								93.9
		18	3								101.9
		20	4								114.9
TS_R/L-A21/26	26	4	1.1	12.5	0.13	100-1000	0.78	7.8	1.5"-2"	1.5"- 2'	76.9
		8	1.5								85.9
		12	2.2								93.9
		16	3								101.9
		18	4								114.9
TS_R/L-B13/26	26	5	3	12.5	0.20	100-1000	1.2	12.0	2.5"-3"	2"-3"	130.7
		10	4								143.7
		15	5.5								201.7
		20	7.5								214.7
TS_R/L-B23/36	36	4	3	17.5	0.29	100-1000	1.74	17.4	2.5"-3"	2.5"-3"	130.7
		8	4								143.7
		12	5.5								201.7
		16	7.5								214.7
TS_R/L-C17/32	32	5	5.5	15.5	0.53	100-1000	3.18	31.8	3"-4"	3"-4"	297.7
		10	7.5								310.7
		15	11								441.7
		20	15								460.7
TS_R/L-C27/48	48	4	5.5	23.5	0.79	100-1000	4.74	47.4	3"-4"	3"-4"	297.7
		8	7.5								310.7
		12	11								441.7
		16	15								460.7

Product Features and Advantages

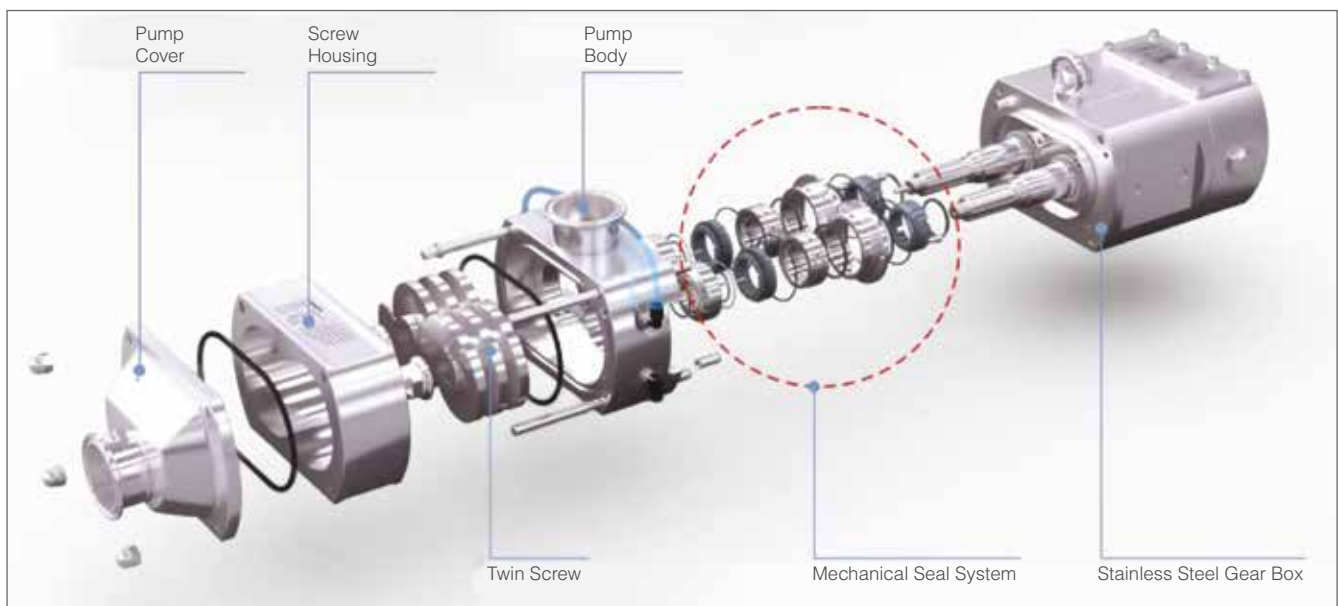
- With CIP extraction and delivery capacity; pump body and pump cover can discharge liquid completely.
- At the area contacting with medium. Shaft and seal connect without screw.
- Single and double mechanical seal options
- All models have seal flush ports for optional double.
- Steam online available.
- All stainless steel design, including gearbox.

Simple Installation and Disassembly

- The screw and shaft are connected by spline. It's simple and convenient for installation and disassembly.
- Rotate clockwise and counterclockwise without changing configuration.
- The pump can be used for various viscosities without changing configurations, etc.

Features

- Pressure up to 300 psi (20.0 bar).
- Special screw lock nut designed to extend service life.
- There are no bearings and screws at the area contacting with medium.
- Large diameter 17-4PH shaft for higher strength and stiffness. Helping to reduce vibration and extend seal life.
- High precision heavy duty needle roller bearings .
- Oil-lubricated bearings can be forward lubrication over the entire speed. Temperature and pressure range.



TWIN SCREW PUMP MECHANICAL SEAL DESIGN

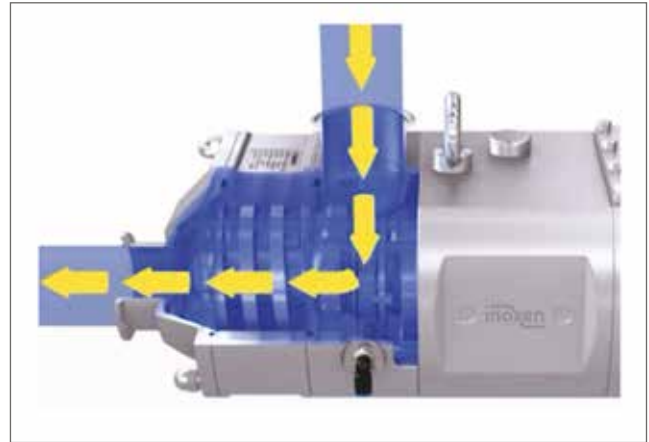
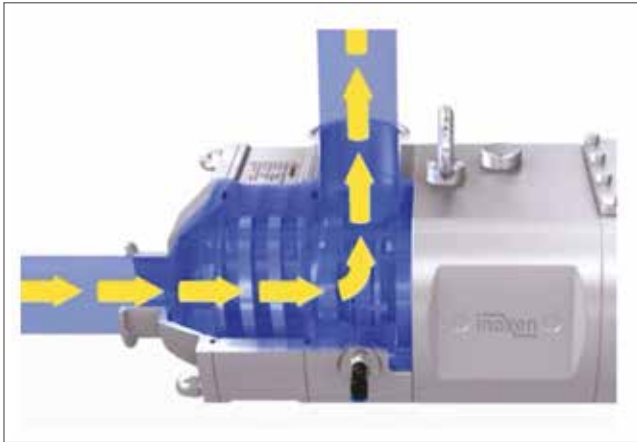


Mechanical Seal Configuration

1	SIC/C/EPDM	4	SIC/S IC/EPDM	7	TC/TC/EPDM
2	SIC/C/FKM	5	SIC/SIC/FKM	8	TC/TC/FKM
3	SIC/C/HNBR	6	SIC/SIC/HNBR	9	TC/TC/HNBR

Power (kW)	Voltage	Power (kW)	Voltage
0.55kW	210V-230V/50HZ 360V-400V/50HZ 420V-460V/50HZ	4.0-5.5kv	360V-400V/50HZ 630V-690V/50HZ 420V-460V/60HZ
0.75kW		7.5-11kv	
1.1-1.5kW		15-18.5kv	
2.2-3.0kW		22-30kv	

Pump inlet/outlet connection standard



When clockwise rotation, pump cover is inlet and pump body is outlet.



When rotating counterclockwise, pump cover is outlet and pump body is inlet.



Clamp



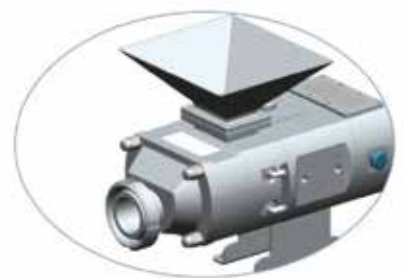
Threaded



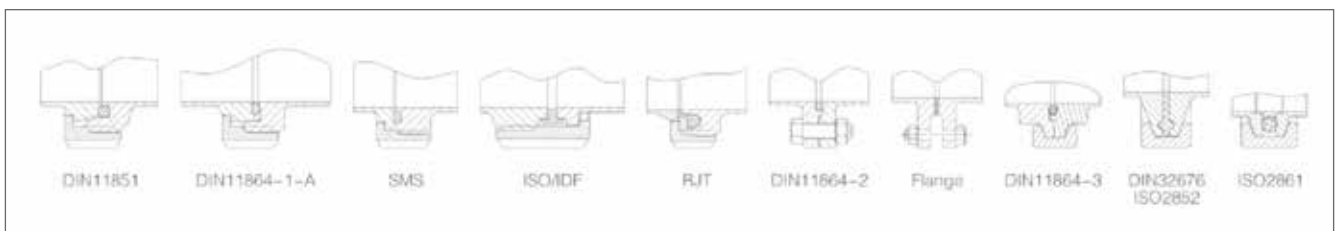
Aseptic Flange



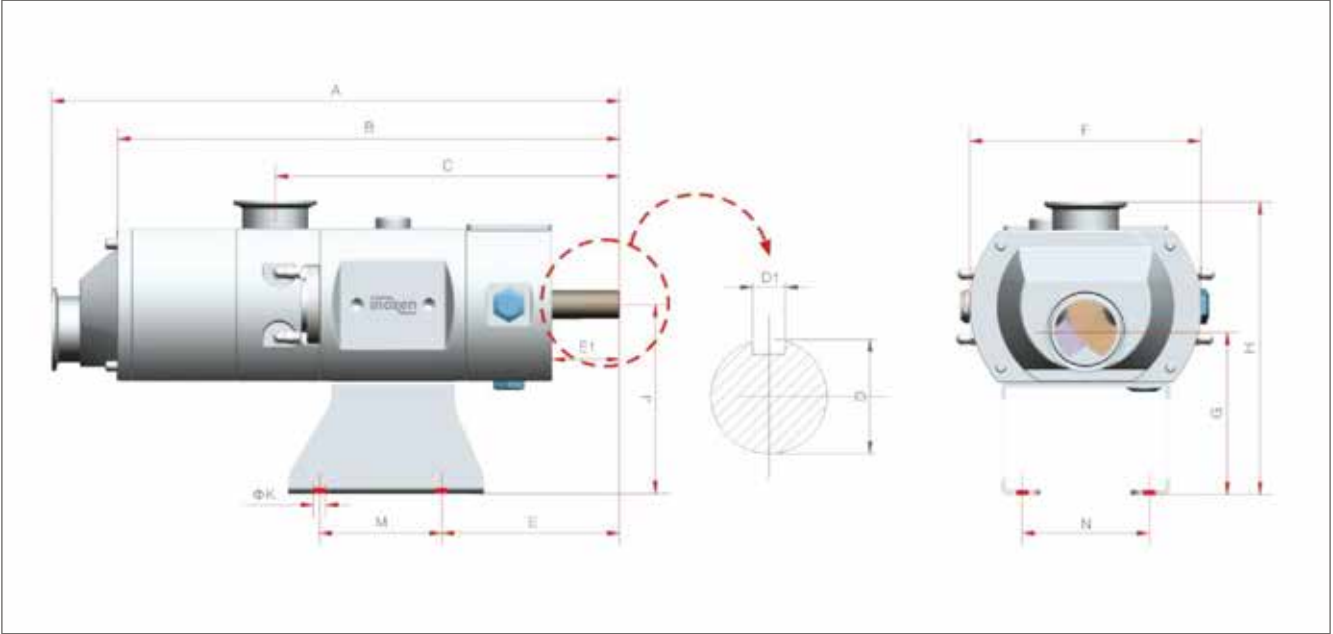
Union



Flange Hopper



SCREW PUMP DIMENSION DATA CHART

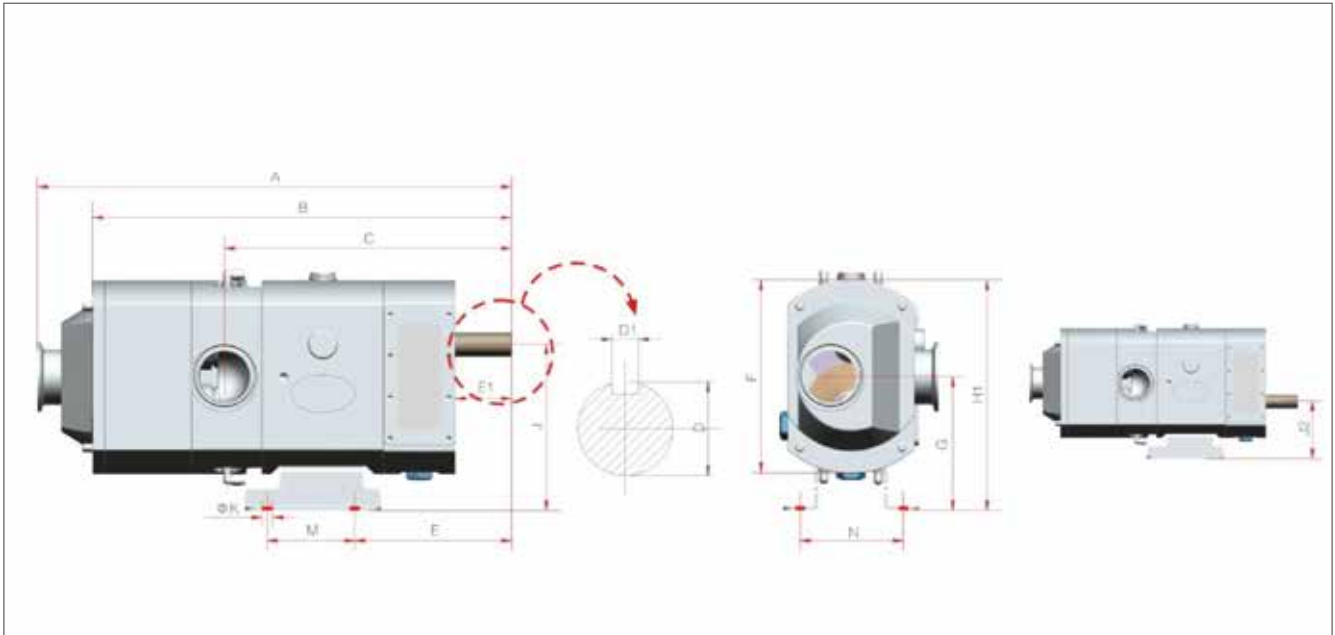


Model	Cover Port	Body Port	Assembly Dimension											
	Inlet	Outlet	B	C	D	D1	E	E1	F	G	J	K	M	N
TS_R/L-A11/18	1.5"-2"	1"-1.5"	385	25	22	6	122	52	178	127	145	12	115.5	95
TS_R/L-A21/26	1.5"-2"	1"-1.5"	385	265	22	6	122	52	178	127	145	12	115.5	95
TS_R/L-B13/26	2.5"-3"	2"-3"	520	354	28	8	181	57.5	225	162	180	12	190	125
TS_R/L-B23/36	2.5"-3"	2"-3"	520	354	28	8	181	57.5	225	162	180	12	190	125
TS_R/L-C17/32	3"-4"	3"-4"	634	411	42	8	196	73	322	206	240	18	300	194
TS_R/L-C27/48	3"-4"	3"-4"	634	411	42	8	196	73	322	206	240	18	300	194

Model	Clamp		Union		Flange	
	A	H	A	H	A	H
TS_R/L-A11/18	436	225	445	234	447	231
TS_R/L-A21/26	436	225	445	234	447	231
TS_R/L-B13/26	589	280	601	296	595	289
TS_R/L-B23/36	589	280	601	296	595	289
TS_R/L-C17/32	720	376	727	383	730	386
TS_R/L-C27/48	720	376	727	382	730	386



SCREW PUMP DIMENSION DATA CHART



Model	Cover Port	Body Port	Assembly Dimension													
	Inlet	Outlet	B	C	D	D1	E	E1	F	G	H1	J	K	M	N	J2
TS_R/L-A11/18	1.5"-2"	1"-1.5"	385	265	22	6	122	52	178	123	217	153	12	115.5	95	93
TS_R/L-A21/26	1.5"-2"	1"-1.5"	385	264.5	22	6	122	52	178	123	217	153	12	115.5	95	93
TS_R/L-B13/26	2.5"-3"	2"-3"	520	354	28	8	181	57.5	225	149	265	186.5	12	190	125	112
TS_R/L-B23/36	2.5"-3"	2"-3"	520	354	28	8	181	57.5	225	149	265	186.5	12	190	125	112
TS_R/L-C17/32	3"-4"	3"-4"	634	411	42	8	196	73	322	226	390	286	18	300	194	164
TS_R/L-C27/48	3"-4"	3"-4"	634	411	42	8	196	73	322	226	390	286	18	300	194	164

Model	Clamp	Union	Flange
	A	A	A
TS_R/L-A11/18	436	445	447
TS_R/L-A21/26	436	445	447
TS_R/L-B13/26	589	601	595
TS_R/L-B23/36	589	601	595
TS_R/L-C17/32	720	727	730
TS_R/L-C27/48	720	727	730



