

I Application

The TLS pump is a positive displacement rotary lobe pump designed according to the sanitary requirements. The pump has a reduced size and it is highly efficient and reliable. This pump is ideal for managing all kinds of fluid, of either low or high viscosity, in the food-processing, dairy and cosmetic industries as well as for filtering and bottling applications. Products containing fragile solids such as junket can be pumped without damage thanks to the specially designed lobes.

I Design and features

The TLS pump is a monoblock pump that can be adapted to any gear motor with a B5 flange. The pump basically consists of a stainless steel pump housing and cover manufactured by investment casting, two tri-lobe rotors with a sanitary design attachment. Moreover, the pump is provided with height adjustable stainless steel legs of hygienic design.

The rotary lobe pump is provided with a C/SiC/EPDM external single mechanical seal. The seal is balanced and has a sanitary design. If an application requires it, other seal materials can be used.

I Technical specifications

Materials:

Parts in contact with the product	AISI 316L (1.4404)
Other stainless steel parts	AISI 304L (1.4306)
Support and lantern	GG-25
Gaskets in contact with the product	EPDM according to FDA

Mechanical seal:

Rotary part	Silicon carbide (SiC)
Stationary part	Carbon (C)
Gaskets	EPDM

Internal surface finish:	Bright polish, Ra < 0,8 µm
External surface finish:	Matt

Connections:	DIN 11851 CLAMP SMS
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*TLS rotary lobe pump
with shroud*



I Technical specifications

Operating limits:

Nominal pressure	1200 kPa (12 bar)	174 PSI
Temperature range	-10 to 120 °C (EPDM)	14°F to 248°F
	+140°C (SIP, max. 30 min.)	284°F

	DN	Maximum speed min ⁻¹	Maximum pressure bar	Volume per revolution l/rev.
TLS 1-25	25 1"	950	12	0,10
TLS 1-40	40 1½"	950	7	0,14
TLS 2-40		950	12	0,23
TLS 2-50	50 2"	950	7	0,30
TLS 3-50		720	12	0,68
TLS 3-80	80 3"	720	7	0,95

I Motor and gear unit

Helical gear unit with B5 flange in compliance with the IEC standards and triphasic induction motor
 4 poles=1500/1750 rpm, efficiency class according to EC regulation, IP 55 protection and F-class insulation.

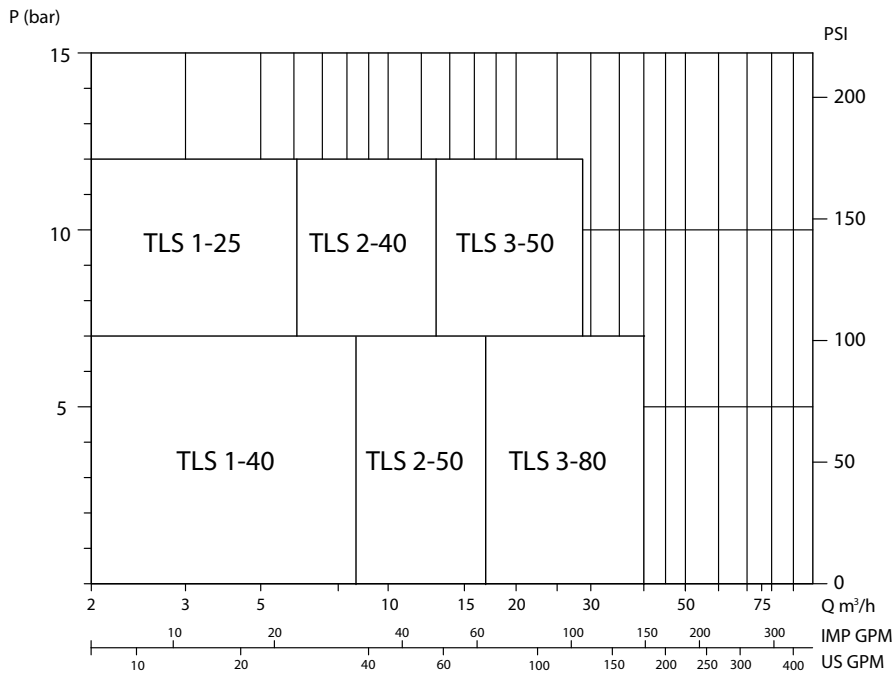
3 phases, 50 Hz, 230 V Δ / 400 V Y, ≤ 4 kW
 3 phases, 50 Hz, 400 V Δ / 690 V Y, ≥ 5,5 kW

I Options

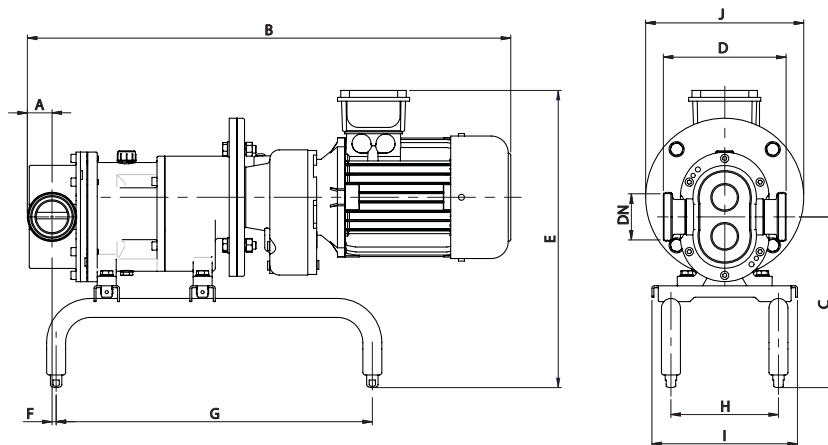
- Pump casing with drain port.
- Mechanical seal options: SiC/SiC, TuC/SiC.
- Lip seal.
- FPM gaskets.
- External by-pass.
- Bi-lobe rotors.
- Stainless steel shroud can be mounted without disassembling the pump.
- Other drive types and protection classes.
- Different types of connections.
- Stainless steel trolley.
- Polyester or stainless steel control box.



I Performance chart



I Dimensions



Pump	DN	D		
		DIN 11851	SMS	CLAMP
TLS 1-25	25 1"	158	138	156
TLS 1-40	40 1½"	166	146	
TLS 2-40		190	170	180
TSL 2-50	50	194		
TLS 3-50	50 2"	239	215	225
TLS 3-80	80 3"	256	223	227



I Dimensions

	Gear unit	kW	DN	A	B	C	E	F	G	H	I	J	kg
TLS 1-25	SK01F	0,55	25	26	625	220	387	2	375	140	200	165	36
		0,75	25	26	625	220	387	2	375	140	200	165	39
TLS 1-40	SK01F	0,75	40	33	640	220	387	8	375	140	200	165	40
		1,1	40	33	675	220	392	8	375	140	200	185	44
TLS 2-40	SK20F	1,1	40	33	725	270	448	1	500	170	230	200	59
		1,5	40	33	725	270	448	1	500	170	230	200	63
TLS 2-50	SK20F	1,5	50	39	735	270	448	6	500	170	230	200	64
		2,2	50	39	765	270	470	6	500	170	230	200	74
TLS 3-50	SK25F	2,2	50	39	880	353	569	-13	600	200	280	250	121
		3	50	39	880	353	569	-13	600	200	280	250	121
		4	50	39	925	353	579	-13	600	200	280	250	126
TLS 3-50	SK33F	5,5	50	39	1010	353	604	-13	600	200	280	270	156
TLS 3-80	SK25F	3	80	55	905	353	569	-2	600	200	280	250	124
		4	80	55	955	353	579	-2	600	200	280	250	130
TLS 3-80	SK33F	5,5	80	55	1035	353	604	-2	600	200	280	270	159
		7,5	80	55	1035	353	604	-2	600	200	280	270	166

