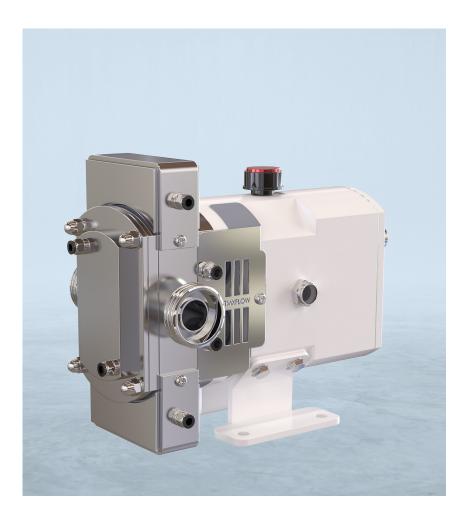
# **TMXFLOW**



# **CHOCOLATE PUMP**



Chocolate is one of the most difficult fluids to transfer in food production. With its ever-changing and shear sensitive properties, it must be handled with extreme care. If a user is struggling with consistency and quality of chocolate, talking to an engineer experienced in the subject is a good idea. We will be able to help users easily to increase your production and reduce chocolate-induced your headaches with our experience

The pumping chocolate (also compound chocolate, creams, and cocoa paste) is a delicate process.. It is shear sensitive, viscous, solidifies when cool and also requires special attention to hygiene. We use specially designed mechanical seals in our pumps in order to avoid leakage problems.

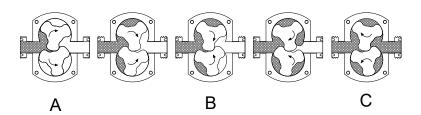
Chocolate will be shear sensitive, if pumped at high speeds. It is important to select suitable chocolate pumps, as the viscosity of the fluid can be very high. Depending on the user's goals lobe are one of the best choices for chocolate. We recommend using lobe pumps . they are hygienic and easy to clean, as well as being able to pump high-viscosity products efficiently.

Lobe pumps are more complex but provide solids handling capability for chocolates containing ingredients like peanuts or raisins.

We put on attaching a heating jacket to the front cover and/or the pump body to keep the chocolate warm and prevent it from solidifying inside the pump.

#### Operation

The positive displacement of the Series SLA pump is provided by non-contacting, contra-rotating two or tri-lobe rotors within a fully swept pump chamber.



#### **User Benefits**

Hygienic Design
Low energy consumption
Compact size
Smooth flow
Reversible operation
Low shear pumping
Minimal pumped media agitation
Easy maintenance
Hygienic design

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#### **Technical Specifications**

#### **Materials**

Pump Head Housing	AISI 316L
Gaskets	EPDM or FPM
Gear Box	GG25
Shafts	Duplex Stainless Steel
Shaft Seal	Single,Double Mechanical Seal
Surface Finish	Ra<0,8 μm
Connections	DIN 11851, SMS, ISO, Clamp
Base Plate	Stainless Steel
Coupling Guard	Stainless Steel

# **Operation Limits**

Maximum flow	15 m3/h
Maximum differential pressure	12 bar
Maximum working pressure	12 bar
Temperature range (EPDM)	10°C to + 120°C
Temperature CIP, max. 30 min	+140 °C
Maximum speed	120 rpm

## **Operating Data**

Model	Tri-Lobe max(m³/h )	Bi-Wing max(m³/h )	Max Bar	Tri-Lobe Volume at 100 rpm/lt	Bi-Wing Volume at 100 rpm/lt	Max Speed(rpm)
SLA+ 1-25	1,01	1,15	12bar	1,77	2,02	120
SLA+ 1-40	1,08	1,22	12bar	1,89	2,15	120
SLA+ 1-50	1,37	1,58	10bar	2,40	2,78	120
SLA+ 2-40	2,02	2,38	12bar	3,54	4,17	120
SLA+ 2-50	2,45	2,95	10bar	4,29	5,18	120
SLA+ 2-65	3,17	3,82	10bar	5,56	6,69	120
SLA+ 3-65	3,82	4,64	12bar	8,84	10,74	120
SLA+ 3-80	4,53	5,46	10bar	10,48	12,63	120
SLA+ 3-100	5,51	6,71	10bar	12,76	15,54	120
SLA+ 4-100	9,14	10,00	8bar	25,39	27,79	120
SLA+ 4-125	11,37	12,46	8bar	31,58	34,61	120
SLA+ 4-150	13,55	14,87	8bar	37,64	41,31	120

## **Lobes Type**





Tri-Lobe

Bi-Wing

SLA rotary lobe pumps basically consist of two lobe rotors which rotate synchronously inside a casing without touching each other.

As the rotors rotate, the spaces between the lobes and the casing are filled with the product, which is transported to the discharge nozzle with a fixed amount of displacement.

The pumped fluid forms a continuous stream thanks to the tolerances between the lobes and the pump casing, thus ensuring an efficient pumping



With bare shafts



With geared motor and coupling mounted on stainless steel base frame



With stainless steel motor shroud



Rectangular inlet



With vertical ports



**Pressure Relief valve** 

Positive displacement rotary lobe pumps will continue to build up pressure when operating against a closed valve.

With this in mind,it is very important to add in safety device to prevent accidental over-pressurization and subsequent damage to the pump or system.

SLA pumps can be equipped with an integrated pressure relief valve to avoid these damages. Design and cleanability.



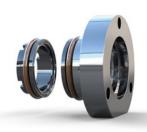
**Heating Jackets** 

Heating jackets are available for all pump sizes. This option makes it possible to heat the pump chamber and to ensure that

the pump chamber and to ensure the products which solidify at ambient temperature are kept liquid.

Alternatively,the heating jackets for SLA are available for the rotor case and the front cover.

Due to the integrated design in the pump, it is a highly efficient system without any compromise in the hygienic design and cleanability.

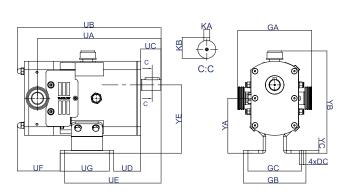


#### **Mechanical Seals**

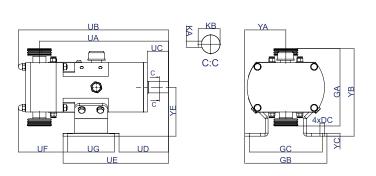
Single Mechanical Seal
Double Mechanical Seal
Flushing
Sic/Sic/EPDM or Viton
Tungsten/Tungsten/EPDM or Viton
Knife-Edge
Gaskets-EPDM, Viton, NBR, Kalrez,
PTFE FEP

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# **Horizontal Configuration**



# **Vertical Configuration**



## **Horizontal Dimensions**

TYPE	UA	UB	UC	UD	UE	UF	UG	GA	GB	GC	YA	YB	YC	YE	KA	KB	DC
SLA+ 1-25	277	322				66		166									
SLA+ 1-40	277	326	45	106,5	226,5	66	90	174	140	110	123	229	6	100	8	28,3	12
SLA+ 1- 50	283	338				72		178									
SLA+ 2-40	327	385				59		195									
SLA+ 2-50	333	395	55	128	288	65	120	199	163	133	138	262	6	120	8	32	14
SLA+ 2-65	341	412				73		209									
SLA+ 3-65	430	510				81		244									
SLA+ 3-80	432	517	85	175	375	88	150	254	194	154	176	327	8	150	10	41	16
SLA+ 3-100	442	536				98		272									
SLA+ 4-100	525	627				108		313									
SLA+ 4-125	538	653	103	222	442	121	170	323	213	173	220	405	12	200	14	48,5	16
SLA+ 4-150	550	668				133		343									

## **Vertical Dimensions**

TYPE	UA	UB	UC	UD	UE	UF	UG	GA	GB	GC	YA	YB	YC	YE	KA	KB	DC
SLA+ 1-25	277	322				66		166				187					
SLA+ 1-40	277	326	45	106,5	226,5	66	90	174	176	146	88	191	12	150	8	28,3	12
SLA+ 1- 50	283	338				72		178				197					
SLA+ 2-40	327	385				59		195				219					
SLA+ 2-50	333	395	55	128	288	65	120	199	196	166	98	220	15	180	8	32	14
SLA+ 2-65	341	412				73		209				226					
SLA+ 3-65	430	510				81		244				275					
SLA+ 3-80	432	517	85	175	375	88	150	254	236	196	118	280	18	220	10	41	16
SLA+ 3-100	442	536				98		272				290					
SLA+ 4-100	525	627				108		313				357					
SLA+ 4-125	538	653	103	222	442	121	170	323	254	214	127	361	21	280	14	49,5	16
SLA+ 4-150	550	668				133	-	343				371					

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