# **TMXFLOW**



# **SLA Rotary Lobe Pump**



### **Application**

SLA range of rotary lobe pumps combines cost effective simplicity and easy maintenance with TMX quality and reliability.

SLA range has been developed for general applications within the Dairy, Beverage, Food, home, chemical and personal care industries.

Fully with CIP cleanable. This pump is also perfect for handling any liquid with low or high viscosity.

When it comes to filtration and bottling applications. Products containing brittle solids such as curd.

Thanks to specially designed lobes, it can be pumped without damage. Easy inspection or replacement without the need for pipework disassembly.

SLA pump is a bare shaft rotary lobe pump. It is made of a stainless steel.

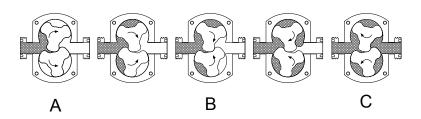
Pump casing and cover, and two-lobe rotors with sanitary attachment.

SLA rotary lobe pump is provided with an internal mechanical seal approved EHEDG. The seal is balanced and has a hygienic design. When required, other materials can be used.

SLA pump range is compact, efficient and capable of flow rates up to 122m3/h and pressures up to 12 bar.

#### 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**

High efficiency
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 | EPDM or FPM                   |
|-------------------|-------------------------------|
| Gear Box          |                               |
| Shafts            | •                             |
| 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               |

# **Operating Limits**

| Maximum flow                  | . 122 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                 | .950 rpm         |

# **Operating Data**

| Model      | Tri-Lobe<br>max(m³/h) | Bi-Wing<br>max(m³/h ) | Max Bar | Tri-Lobe<br>Volume at 100<br>rpm/lt | Bi-Wing<br>Volume at 100<br>rpm/lt | Max Speed(rpm) |
|------------|-----------------------|-----------------------|---------|-------------------------------------|------------------------------------|----------------|
| SLA+ 1-25  | 7,98                  | 9,12                  | 12bar   | 14                                  | 16                                 | 950            |
| SLA+ 1-40  | 8,55                  | 9,69                  | 12bar   | 15                                  | 17                                 | 950            |
| SLA+ 1-50  | 10,83                 | 12,54                 | 10bar   | 19                                  | 22                                 | 950            |
| SLA+ 2-40  | 15,96                 | 18,81                 | 12bar   | 28                                  | 33                                 | 950            |
| SLA+ 2-50  | 19,38                 | 23,37                 | 10bar   | 34                                  | 41                                 | 950            |
| SLA+ 2-65  | 25,08                 | 30,21                 | 10bar   | 44                                  | 53                                 | 950            |
| SLA+ 3-65  | 30,24                 | 36,72                 | 12bar   | 70                                  | 85                                 | 720            |
| SLA+ 3-80  | 35,85                 | 43,2                  | 10bar   | 83                                  | 100                                | 720            |
| SLA+ 3-100 | 43,63                 | 53,13                 | 10bar   | 101                                 | 123                                | 720            |
| SLA+ 4-100 | 72,36                 | 79,2                  | 8bar    | 201                                 | 220                                | 600            |
| SLA+ 4-125 | 90                    | 98,64                 | 8bar    | 250                                 | 274                                | 600            |
| SLA+ 4-150 | 107,28                | 117,72                | 8bar    | 298                                 | 327                                | 600            |

# **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.

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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.



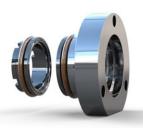
### **Heating Jackets**

Heating jackets are available for all pump sizes.

This option makes it possible to heat the pump chamber and to ensure that 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.

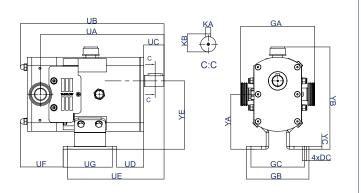


### **Mechanical Seals**

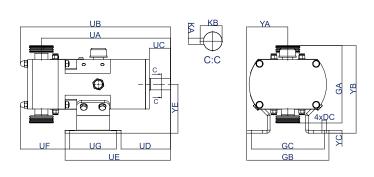
Single Mechanical Seal
Double Mechanical Seal
Flushing
Sic/Sic/EPDM or Viton
Tungsten/Tungsten/EPDM or Viton
Knife-Edge
Gaskets-EPDM, Viton, NBR, Kalrez,
PTFE FEP

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# **Horizontal Configuration**



# **Vertical Configuration**



### **Horizontal Dimensions**

| TYPE       | UA  | UB  | UC  | UD    | UE    | UF  | UG  | GA  | GB  | GC  | YA  | ΥB  | 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  | ΥB  | YC | ΥE  | 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 |    |     |    |      |    |