

Gland Sealing

In consultation with a world-renowned seal manufacturer, a mechanical seal has been developed for the Rotorflo, which is fitted as standard to optimise cleanliness. Wide clearances on the seal particularly suit cleaning-in-place, allowing for flushing fluids to sweep the entire seal area and eliminate product and bacteria build-up. Standard seals have stainless steel and carbon faces. Lantern rings can be fitted on all models. If required, these seals can also be supplied in tungsten carbide or silicone carbide.

Alternative gland sealing arrangements: single or double mechanical seals (with or without flushing). "O" ring seals, lip seals and packed glands are available.

Stainless steel shaft sleeves are standard on the packed gland version, with options such as tungsten, ceramic or hard chrome coating available to cope with aggressive products. Lantern rings can be fitted on pump sizes 2-4.

Rotor Sealing

"O" ring seals are fitted as standard at the back of the rotor and on the retainer to prevent ingress into the spline area. The possibilities of bacterial growth and abrasion of the spline are minimised.

Mounting

The pump can be top or bottom shaft driven, without having to dismantle the shaft assemblies. Size 2 and 3 pumps are inverted and the mounting feet repositioned in pre-drilled holes on the opposite side.

Front Cover

The "O" ring seal, between the front cover and the rotor case, is profiled to the edge of the pumping chamber to minimise the possibility of product entrapment and bacteria build-up. In addition to the standard plain front cover, the Rotorflo can be fitted with options which incorporate either hygienic pressure relief valves or heating jackets.

Performance Guide

| Model | Port Size | Capacity Max |      | Displacement<br>LT/100Rev | Pressure Max |     | Speed Max<br>R/min |
|-------|-----------|--------------|------|---------------------------|--------------|-----|--------------------|
|       |           | m³/hr        | IGPM |                           | Bar          | PSI |                    |
| R21   | 25mm      | 5.4          | 20   | 9                         | 12           | 175 | 1000               |
| R22   | 40mm      | 7.8          | 28.5 | 13                        | 10           | 150 | 1000               |
| R23   | 40mm      | 10.8         | 40   | 18                        | 7            | 100 | 1000               |
| R31   | 40mm      | 18.0         | 66   | 30                        | 15           | 220 | 1000               |
| R32   | 40mm      | 24.0         | 88   | 40                        | 10           | 150 | 1000               |
| R33   | 65mm      | 34.8         | 128  | 58                        | 7            | 100 | 1000               |
| R41   | 65mm      | 45.6         | 167  | 76                        | 15           | 220 | 1000               |
| R42   | 75mm      | 68.4         | 250  | 114                       | 10           | 150 | 1000               |
| R43   | 100mm     | 96.0         | 350  | 160                       | 6            | 88  | 1000               |

Note: This table is intended as a guide only. Before selecting a pump for a particular application please consult your Franklin Electric agent or reseller.



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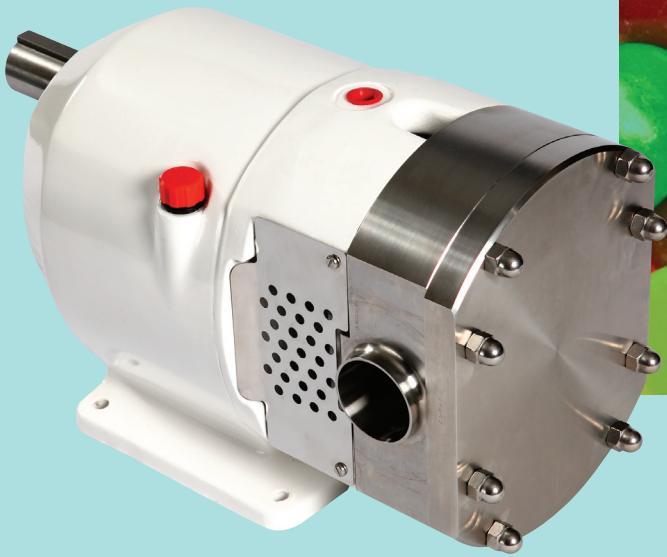


**Service and Support** - Franklin Electric is the leading manufacturer of world-class pumping system solutions providing the highest quality, availability, service, innovation and value in the industry. Backed by unsurpassed expertise throughout Africa, these leading brands are ideal for various pumping applications.



Rotary lobe pumps

The Rotorflo rotary lobe pump is designed specifically for the food, beverage, pharmaceutical and other hygiene-conscious process industries.







Franklin Electric is the  
only South African pump  
manufacturer to be  
awarded the European  
Hygienic Equipment  
Design Group (EHEDG)  
certification for its design  
of a rotary lobe pump



## Rotary Lobe Pumps

Developed especially for the food, beverage, pharmaceutical and other hygiene-conscious industries, the Rotorflo is a high-performance, compact pump which requires little maintenance.

The compact Rotorflo series of pumps is designed and manufactured to international standards, with all wetted parts in 316 stainless steel.

By incorporating a modular design, a specific pump build can be offered for a particular duty and this ensures optimum performance and economy.

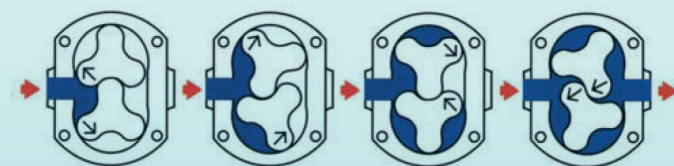
Displacement of the Rotorflo is directly proportional to the rotational speed. The pumps fulfill the broad spectrum of process pumping duties where hygienic and non-corrosive operation is critical.

Rotary lobe pumps have inherent characteristics which overcome many of the pumping problems which arise in process industries.

The advanced rotor profile of the Rotorflo, generated from a pure geometric form, reduces product acceleration to a minimum within the pumping chamber. This ensures a smooth, quiet, low-shear operation, combined with reduced N.P.S.H. requirement over the full performance range.

The low-shear characteristics of the Rotorflo ensure the efficient transfer of all liquid viscosities up to semi-plastic, including delicate suspended solids, aggressive slurries, pastes, froths and gas/liquid mixtures without damaging the product.

The Rotorflo is available in nine basic models in various combinations to cope with a wide range of flow rates and pressures. Pumps in the range have a maximum flow rate of 96m<sup>3</sup>/hr and pressures of up to 15 bar. With various combinations of pump heads, rotor configurations and seals, a wide range of media can be handled without product degradation.



## Features

- Shafts are made of heavy-duty, large-sectioned stainless steel for less deflection and enhanced rigidity
- Helical gears time the main and lay shafts to maintain accurate clearances between the rotors. These clearances ensure high volumetric efficiency and increased suction
- Main bearings are of the standard taper-roller type
- Gearboxes are grease or oil lubricated
- Shaft sealing can be achieved by mechanical seal, packed gland or "O" ring, to suit application
- The spigotted rotor case is positively located on the bearing housing, eliminating loose dowels
- The 12-involute spline configuration ensures accurate positioning of rotors during assembly
- Low-shear characteristics protect delicate products
- Positive displacement technology ensures efficient transfer of all liquid viscosities
- The pumping chamber is fully swept, ensuring no product entrapment
- "O" ring seal profiled to the edge of pumping chamber. Most covers are flush, minimising areas where bacterial growth can occur

Two rotors contra-rotating and timed by a pair of helical gears to prevent contact are mounted on heavy-duty stainless steel shafts. The product is moved gently through the pump with a non-pulsating, low-shear action. The rotors are positioned on the shafts by splines, which ensure they do not touch during operation.

- All wetted parts are made from 316 stainless steel
- Full diameter porting supplied as standard. Fittings available to suit customer specification. Enlarged inlets for hopper feed also available
- Shimming external to gearbox to allow for quick and simple adjustments of rotor clearances when required
- The gear housing is manufactured from robust cast iron
- Keyed gears produce a positive drive to ensure that timing does not have to be reset when rotors are changed
- "O" ring seals on rotor keeps splines free of product contamination
- The front cover can be supplied with a pressure relief valve built in to protect against overload.

