

# Industrial helical rotor pumps

The Orbit industrial helical rotor pump is ideal for a wide variety of applications, ranging from water and wastewater to mining and chemicals.





**Pumping System Solutions** 

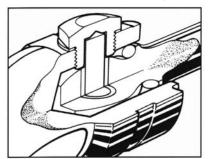
# **Industrial Pump Range**

### **Features**

- Excellent suction capabilities inherently self-priming
- · Good solids handling capabilities including fibrous materials
- Reversible pumps in either direction with equal efficiency
- · Capacity is proportional to speed
- · Pressure is independent of speed
- No valves
- Loose seal/gland arrangement
- · Gentle handling of shear-sensitive products
- · Ability to handle viscous products of over 1-million centipoise
- · Solid or hollow shaft option
- · Pulse-free flow
- · Simple and robust construction
- · Ability to handle products with a large percentage of entrained gas

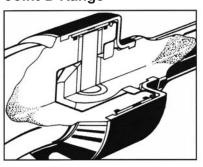
### **Standard Sealed**

**Universal Joint-B Range** 



Standard "O" ring or square seal ring designs provide adequate sealing protection against the ingress of foreign material into the universal joint. Standard seals are suitable for handling most products in industry.

### **Fully Sealed Universal** Joint-D Range



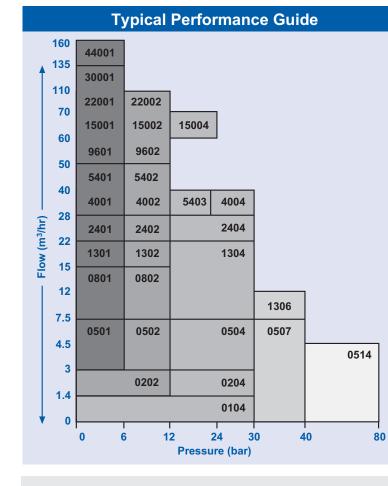
Where neither ingress of chemical product nor contamination of the product handled by the lubricant within the joint can be tolerated, the fully sealed universal joint provides complete sealing protection. Typical applications are foodstuffs and explosive slurries.

### **Drive Shaft**

Manufactured from various high quality steels, drive shafts are hard chrome-plated in the gland area for excellent wear resistance. Hollow or solid shaft designs are standard.

### **Stuffing Box**

These are manufactured as separate castings suitable for EuroDIN seals or braided packing of many different materials. Double and special chemical seals can be quickly and easily fitted.



### Drive

Motor, geared motor, variable speed gear box, hydraulic motor, diesel engine, petrol engine or air motor.

### Castings

Grey cast iron and 316 stainless steel are standard casting materials. The central port can be manufactured as a hopper with an auger feed to handle products with poor flow characteristics (E range).

# Installation

Stator Housing High pumping pressures are obtainable from stators bonded to housings of thick-wall steel tubing.

Bearings High thrust taper-roller or ball bearings of adequate proportions result in high flow and high pressure capabilities.

**Universal Joints** Grease lubricated pin-type joints are either single or fully sealed.

Coupling Rod Coupling rods are proportioned to handle rotor load and eccentricity.

Stator Natural, nitrile, EPDM, hypalon or viton rubber are the standard stator options.

### **Applications**

Agriculture fertilizer, herbicides and pesticides.

**Brewing and Beverages** Yeast, spent grains, kieselguhr, glucose, wine, coffee, fruit juices and pulp.

**Building and Construction** Cement slurries, paint, aerated grout, bitumen, mortar and waste products.

Ceramics

Chemicals Acids and alkalis, emulsions, explosives.



Liquid manure, feedstuffs, irrigation,

Clay slip, glazes and waste products.

petrochemicals, effluents, sludges and

### Mining

Dewatering, flocculants, grouting, dust suppression, gland service, backfilling and sludges.

### Paper and Pulp Paper stock, coatings, dyestuffs, adhesives, starches and waste.

**Pharmaceuticals and Cosmetics** Soap, ointments, creams, toothpaste, raw materials, pastes, shampoo and detergents.

### Water and Wastewater Industry

Belt and filter press feed, flocculants, activated carbon and lime dosing, acids and alkalis for pH control, all sludges including those with high gaseous content and macerated sewage.

Installed horizontally, vertically or in any other position, the pumps may also be skid-mounted or mounted on a portable trolley base.



### Rotor

Standard options are specially hardened and hard chrome-plated rotors in either EN8 or tool steelplated or unplated. Special alloys are available.

> Flanged Ports Castings are machined to BS4504 as standard. Options available include ASA and DIN.



## **Mini Pump Range**

### **Options**

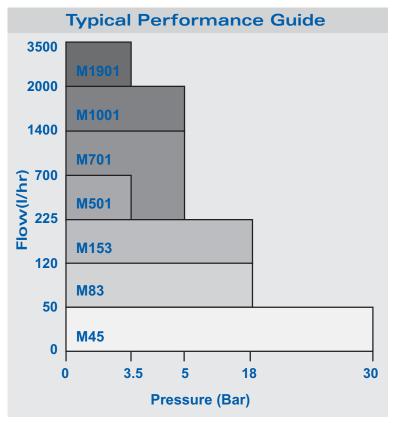
- Bareshaft or close-coupled to electric motor or gearbox (M501 bareshaft only)
- Bareshaft pumps packed gland or mechanical seal. Close-coupled pumps – mechanical seal only (M501 mechanical seal only)
- Materials of construction: Orbidos M45, M83, M153 stainless steel only M501 cast iron only
  M701, M1001 and M1901 cast iron or stainless steel
- Stators available in nitrile, viton and EPDM rubber
- Orbidos M45, M83 and M153, dual rotation close-coupled or bareshaft

### Features

- Positive displacement progressing cavity principle
- · Smooth, non-pulsating flow irrespective of rotational speed
- Excellent handling capabilities for high or low viscosity products
- Suction lift capabilities depend on altitude, temperature and product viscosity
- · Orbidos variable speed options ideal for dosing applications
- Compact, reliable pumping for a multitude of commercial and domestic applications
- Sealed universal for longer life
- Inherently self priming



This self-priming range of positive displacement helical rotor pumps for small and medium size industrial applications offers smooth flow at all speeds and excellent handling of product regardless of viscosity.



### Franklin Electric South Africa (Pty) Limited Head office and factory

PO Box 8136, Edenglen, 1613, South Africa 13 Engwena Road, Sebenza, Edenvale, 1610 Tel: +27 11 609 4150 Fax: +27 11 609 2417 Email: info@denorco.com Website: www.franklin-electric.com

Contact our customer care line for your nearest reseller at +27 11 723 6617 or customercare@denorco.com







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