



PCM Moineau™

# I Series

Simple and robust design  
for abrasion and corrosion resistance

- > High suction and self-priming capabilities
- > Constant non-pulsating flow
- > Ideal for fragile and viscous products



**PCM** Keep it moving

# I Series

## Simple and rugged design for wear and corrosion resistance

*I Series "all weather" pumps: the original manufacturer's know-how for the best results in all operating conditions.*

### Advantages

#### ■ The Moineau technology

- Handles both fragile and viscous products
- High suction and self-priming capabilities
- Constant non-pulsating flow
- Easy to maintain
- Reversible
- Flow rate proportional to running speed
- No valves

#### ■ I and ID Moineau pumps

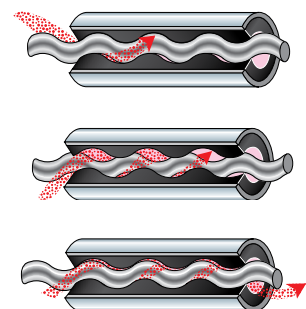
- Rugged construction
- Versatile
- Wear resistant
- Corrosion resistant

### Performance

- 51 models
- Close coupled or bearing arrangement
- Maximum flow rate: 500 m<sup>3</sup>/hr
- Maximum pressure: 45 bar (200 bar upon request)
- Maximum temperature: 120°C

### Operating principle

A Moineau pump consists of a helical rotor turning inside a helical stator. The stainless steel rotor is machined to a high degree of precision, and the stator is molded in a resilient elastomer. The geometry and the dimensions of these parts are such that when the rotor is inserted into the stator, a double chain of watertight cavities (honeycombed-shaped) is created. When the rotor turns inside the stator, the honeycomb progresses spirally along the axis of the pump without changing either shape or volume. This action transfers the product from the pump intake to the pump discharge without degrading the product.

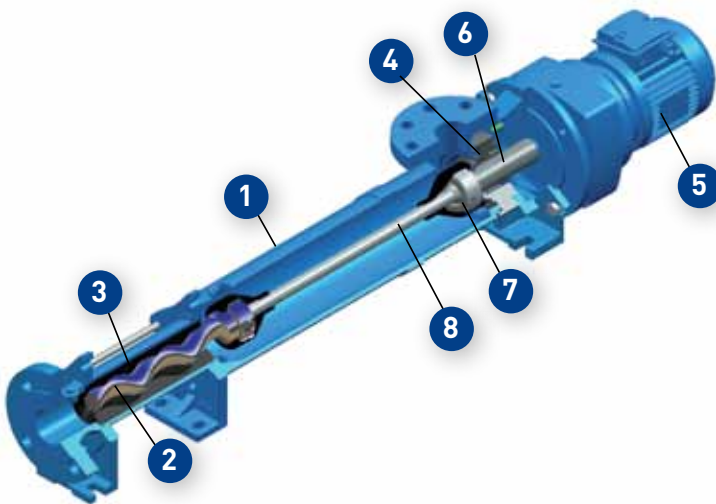


# I and ID Range

## PROGRESSING CAVITY PUMPS

### ↘ Applications

Progressing cavity pumps are used in all branches of industry: building, ceramics, chemical, edible oil industry, mining, oil, paper industry, petrochemical, sewage treatment, soap factories, starch factories, sugar refineries.



### Advantages

- Non-pulsating flow
- Flow directly proportional to speed
- High self-priming capability
- High efficiency
- Operates without valves
- Reversible flow
- Simple and heavy duty construction
- Easy maintenance

### ■ Construction

- 1- Body.** In cast iron or AISI316L stainless steel as a standard, the body can also be made of special materials upon request for demanding applications.
- 2- Rotor.** Available in corrosion or wear resistant materials such as AISI316L stainless steel, hard chrome plated stainless steel, hardened steel. In case of extreme abrasion ZWRC, ZCRO, ZWC special coatings can be used.
- 3- Stator.** A variety of materials (NBR, CR, NR, EPDM, FKM, CSM) are available to fit basically all applications. PCM's manufacturing guarantees a constant level of high quality, longer life spans.
- 4- Shaft sealing.** A comprehensive range of packed gland, single or double mechanical seals is available to suit all duty conditions.
- 5- Drive.** Pumps are driven by geared motors or variable speed geared motors. Most pump models are available in close coupled and bearing versions.
- 6- Drive shaft.** Hardened or sleeved for increase wear resistance and lowered maintenance costs.
- 7- Pin joint with hardened bushings.** For longer service life they are strengthened by hardened bushings fitted into boreholes in the coupling rod and the rotor/drive shaft head. The pin joints with hardened bushes are easy to remove for maintenance purposes.
- 8- Connecting rod.** In AISI 304 or AISI 316 stainless steel.

**Base.** Stainless steel feet (for closed coupled version only) or steel baseframe.

## ↘ Industries and applications



### Environment

Liquid sludge, lime milk, polymer, Ferric chloride, Aluminum chloride, PAC, WAC, Nutrient, Scum, Foam, Acids, Alkalines.



### Mechanical Engineering

Oil water mixtures, laminoire wastes, cutting oil, engine lubricants, engine lubricant wastes, waste oil, spent baths, lead paste, washcoat, slop, colloidal silica, water-glycol deicing, glycol, resin, hardener.



### Chemicals

Glues, paints, varnishes, polymer, flue gas desulphurization, fiber production, colloidal silica, latex, pigment slurry, plasticizers, emulsion, zeolite, binder, sizing.



### New Energies

Oil, biodiesel, musts, vinasses, coal water mixtures, glycerin & methanol, soapstock, liquid manure, waste ion-exchange resin, dispersant, stabilizer, slurry from flue gas desulfurization (FGD).



### Minerals

Mineral slurries, explosive preparation, polymer, pulp, grouts, mortars, refuse derived fuels, chrome VI reduction, coloring agent, sludge.



### Food

Sugars & Starches (Transfer of sugar, glucose, honey, pulp, syrup, molasses, thick juices, liquor, flocculent, starch, starch milk, gluten).



### Paper

Mineral slurries (kaolin, talc, bentonite, calcium carbonate, titanium dioxide), binders (starch, casein, AKD, PVA, CMC, latex), additives (retention agents, dispersants, optical brighteners), coating color, polymer.



### Oil & Gas

Surface transfer.