



Progressing  
Cavity Pumps

EcoMoineau<sup>TM</sup>

The first Eco-Design  
progressing cavity pump

- > Simplified servicing
- > Reduced space requirements
- > Reduced Life Cycle Cost



Keep it  
moving

# EcoMoineau™

## Reduced size - increased performance

PCM EcoMoineau™ is the most compact progressing cavity pump (PCP) available on the market today. Its revolutionary design combines the legendary performance and reliability of PCM PCP technology with a highly modular, eco-friendly design.



PCM  
ECO  
DESIGN



### SIMPLIFIED SERVICING

At first glance the EcoMoineau™ pump may look like an ordinary PCP, but a closer look reveals a multitude of design features that make installation, operation and servicing easier than ever before. For example:

- The **seal** can be changed by simply **disconnecting the drive**.
- The **shaft** line (rotor, coupling rod, driving shaft) **can be removed without disconnecting the pipes**
- The integrated version comes with a **smaller diameter, self-positioning mechanical seal**.

### REDUCED SPACE REQUIREMENTS

Because the EcoMoineau pump is more compact than comparable progressing cavity pumps, it requires less space for installation and servicing, which speeds up maintenance, reduces civil engineering costs and eases integration in systems. Most PCPs require clearance of nearly a stator length for maintenance operations; the EcoMoineau pump requires just 70 mm. It can be installed in smaller premises and can be hoisted using lighter lifting gear.

Before: 25L5 - 450 mm   
After: 25M6 - 100 mm 

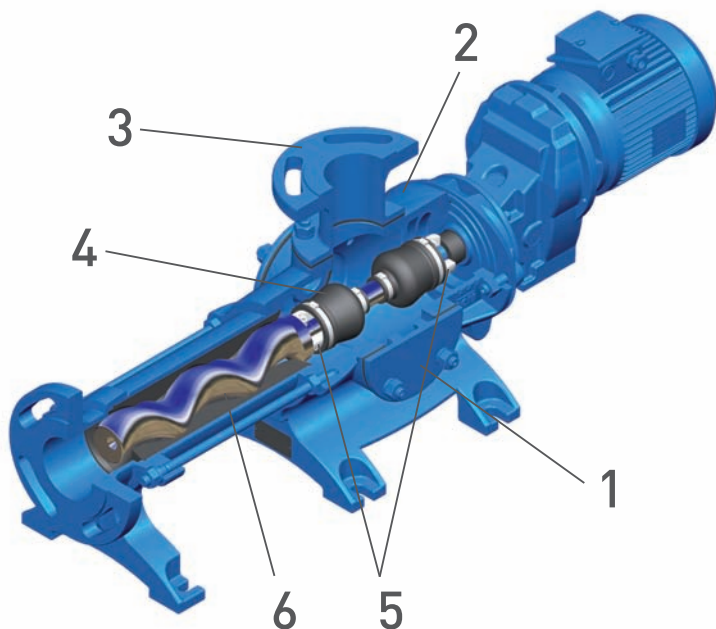
Thanks to the reduction of the connecting rod, the pump size has been considerably reduced.

### REDUCED LIFE CYCLE COST

EcoMoineau pumps are ready for the upcoming European Energy-using Products (EuP) directive. Their new design is **38% lighter** (thanks to less raw materials) and **uses 10% less power** than previous generation Moineau pumps. This makes EcoMoineau pumps more energy efficient to manufacture, transport and operate.

## EcoMoineau™ Highlights

### Fixed stator



#### 1 Standard hand holes

- Ease pump body access
- Can be used for polymer or water injection

#### 2 Shorter body

- Reduced dead volume
- Fully drainable body for easy cleaning
- Integrated feet (no base frame required)
- Spacer design provides easy manual access to seals

#### 3 Inventive flanges

- Multi-standard (PN or Class)
- Multiple flanges on single pump
- Flanges can be positioned on site

#### 4 Revolutionary joint

- Coupling rod length reduced by 80%
- Reduced number of parts
- Hardened for long-life operation

#### 5 Patented connecting system

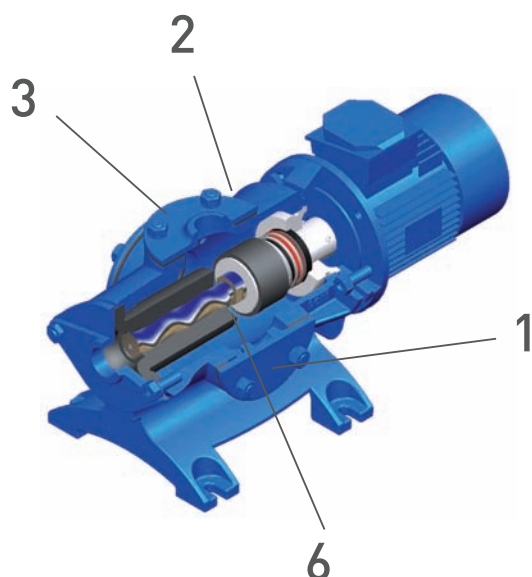
- Drive can be dismantled independently of pump
- Only 70 mm of clearance are required to dismantle the stator
- Easy access to wearing parts without complete dismantling
- Rotor can be disconnected without removing the stator or body

#### 6 Elastomer expertise

- To ensure maximum pump efficiency we develop, mix and produce our own elastomers in our state-of-the-art laboratory

- Simplified parts management thanks to common platform and shared components








### Floating stator



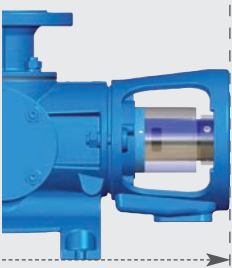
## Integrated design









### ● The choice of simplicity

-   - Shortest design
-   - Fewer parts, no drive shaft
-  - Self positioning mechanical seal
-  - Standard mechanical seals eliminate leaking, tightening and adjustment
-  - Reduced mechanical seal diameter lowers spare part costs

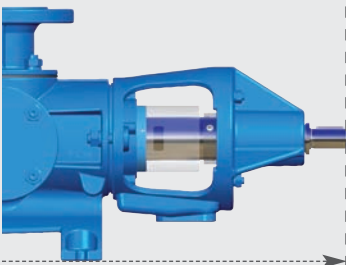
## Monobloc design



### ● For a maximum versatility

-   - Reduced dimensions
-  - Built-in drip tray
-  - Versatile configuration (seals and stators)
-  - Spacer with improved access to the sealing system
-  - Rubber deflector: protects the drive and bearing therefore reducing maintenance

## Bearing design



## REDUCE LCC THROUGH ECO-DESIGN



### Installation & maintenance

- Reduced space requirements
- Simplified access
- Easier cleaning
- Faster intervention
- Fewer parts



### Product Integrity

- Pulsation-free
- Very low shear
- Wide range of viscosities and solid contents



### Energy savings

- EuP-ready
- Up to 10% more efficient than previous generation
- More energy efficient manufacturing and transportation



### Environmentally friendly

- ISO 14001 factory
- VOC-free paint
- Zero leakage for zero on-site contamination (mechanical seal required)
- Fewer parts simplifies decommissioning
- Reduced freight forwarding costs
- PCM recycling service



# Industries & Applications



## Environment

Sludge to 100g/l, lime milk, polymer

## Mechanical Engineering

Oil water mixtures, laminoire wastes, cutting oil, engine lubricants, engine lubricant wastes



## Chemicals

Glues, paints, varnishes, polymer, flue gas desulphurization, fiber production, colloidal silica

## New Energies

Oil, biodiesel, musts, vinasses, coal water mixtures



## Minerals

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



## 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



## Food

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

## Oil & Gas

Surface transfer

## Technical Specifications

**Max. flow rate:** 60 m<sup>3</sup>/h / 264 US GPM

**Max. pressure:** 24 bar / 350 psi

**Max. temp:** 120°C / 250°F

**Particle size:** 22 mm / 0.87 inches

## Performances

	EcoMoineau*		I Series**
	Floating Stator	Fixed stator	Fixed Stator
Maximum flow rate	up to <b>6 m<sup>3</sup>/h</b> 26 US GPM	up to <b>60 m<sup>3</sup>/h</b> 264 US GPM	up to <b>250 m<sup>3</sup>/h</b> 1 100 US GPM
Maximum pressure	<b>10 bar</b> 150 PSI	<b>24 bar</b> 350 PSI	<b>24 bar</b> 350 PSI
Maximum temperature in continuous operation	<b>90°C</b> 200°F	<b>120°C</b> 250°F	<b>120°C</b> 250°F

\***Body:** Cast iron

\*\***Body:** Cast iron or stainless steel

Figures are given as a general guide. For higher values, please contact us.



Eco-design EcoMoineau pump versus the traditional I series PCP

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