

## Industries & applications



### Environment

Liquid sludges to 100g/l, lime milk, polymer, thickened sludges up to 120 g/l



### 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, sludges, flocculants



### Food

Sugar & Starches (transfer of sugar, glucose, honey, pulp, syrup, molasses, thick juices, liquor, 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

## Technical specifications

**Max. flow rate:** 90m<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™ M*	
	Floating Stator	Fixed Stator
Maximum flow rate	up to 6m <sup>3</sup> /h 26 US GPM	up to 90m <sup>3</sup> /h 264 US GPM
Maximum pressure	10 bar 150 PSI	24 bar 350 PSI
Maximum temperature in continuous operation	90°C 200°F	120°C 250°F

\* **Body:** Cast iron

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

[www.pcm.eu](http://www.pcm.eu)



PCM Moineau™

# EcoMoineau™ M

The first Eco-Design progressing cavity pump

- > Simplified maintenance
- > Reduced foot-print
- > Reduced Life Cycle Costs



March 2012

B-000033

# EcoMoineau™ M

## Reduced size - Increased performance

PCM EcoMoineau™ M 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.



### SIMPLIFIED SERVICING

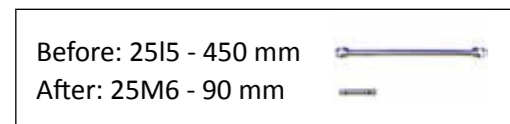
At first glance, the EcoMoineau™ M pump may look like an ordinary PCP, but a closer look reveals a multitude of design features that make installation, operation and maintenance easier than ever before.

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™ M 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 systems. Most PCPs require clearance of nearly a stator length for maintenance operations; the EcoMoineau™ M pump requires just 100 mm. It can be installed in smaller premises and can be hoisted using lighter lifting gear.



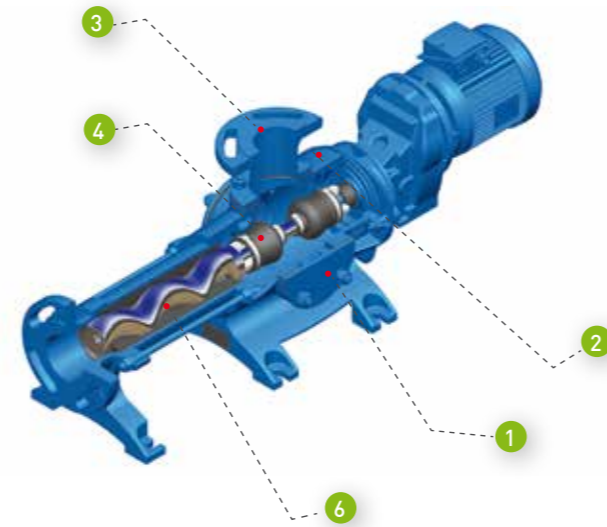
Thanks to the reduction of the connecting rod, the pump size has been considerably reduced.

### REDUCED LIFE CYCLE COSTS

The EcoMoineau™ pumps comply with the European Energy-using Products (EuP) directive. Their new design is **38% lighter** (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™ M Highlights

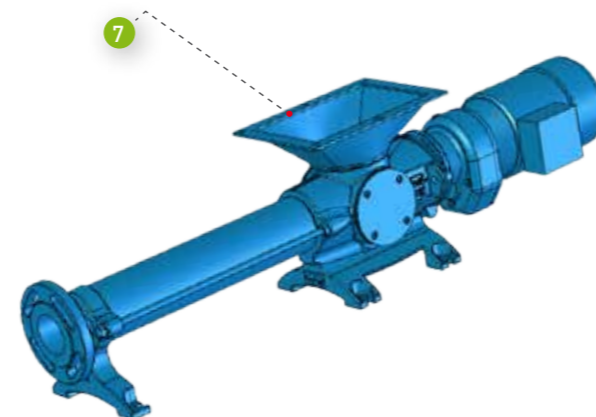
### Fixed Stator



### Floating Stator



### Optional: Hopper



#### 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 100 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

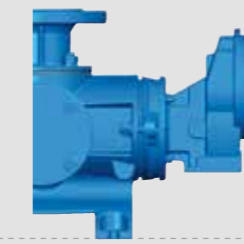
- To ensure maximum pump efficiency we develop, mix and produce our own elastomers in our state-of-the-art laboratory

#### 7 Hopper

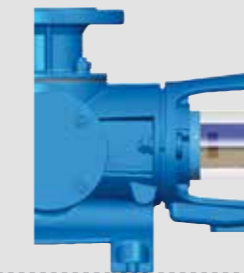
- Recovery and transfer of thickened sludges (up to 120g/l) from dripping tables.
- Hopper (200 x 300 mm)

Simplified parts management thanks to common platform and shared components

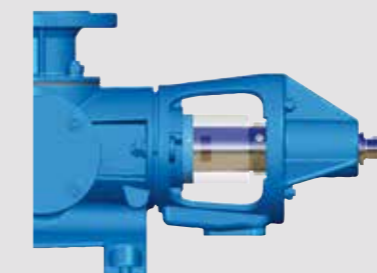
### Integrated design



### Monobloc design



### Bearing 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

### 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

### REDUCE LIFE CYCLE COSTS THROUGH ECO-DESIGN

#### Installation & maintenance

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

#### Energy savings

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

#### Product integrity

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

#### Environmentally friendly

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