

PCM Industry ▶ Built for Life

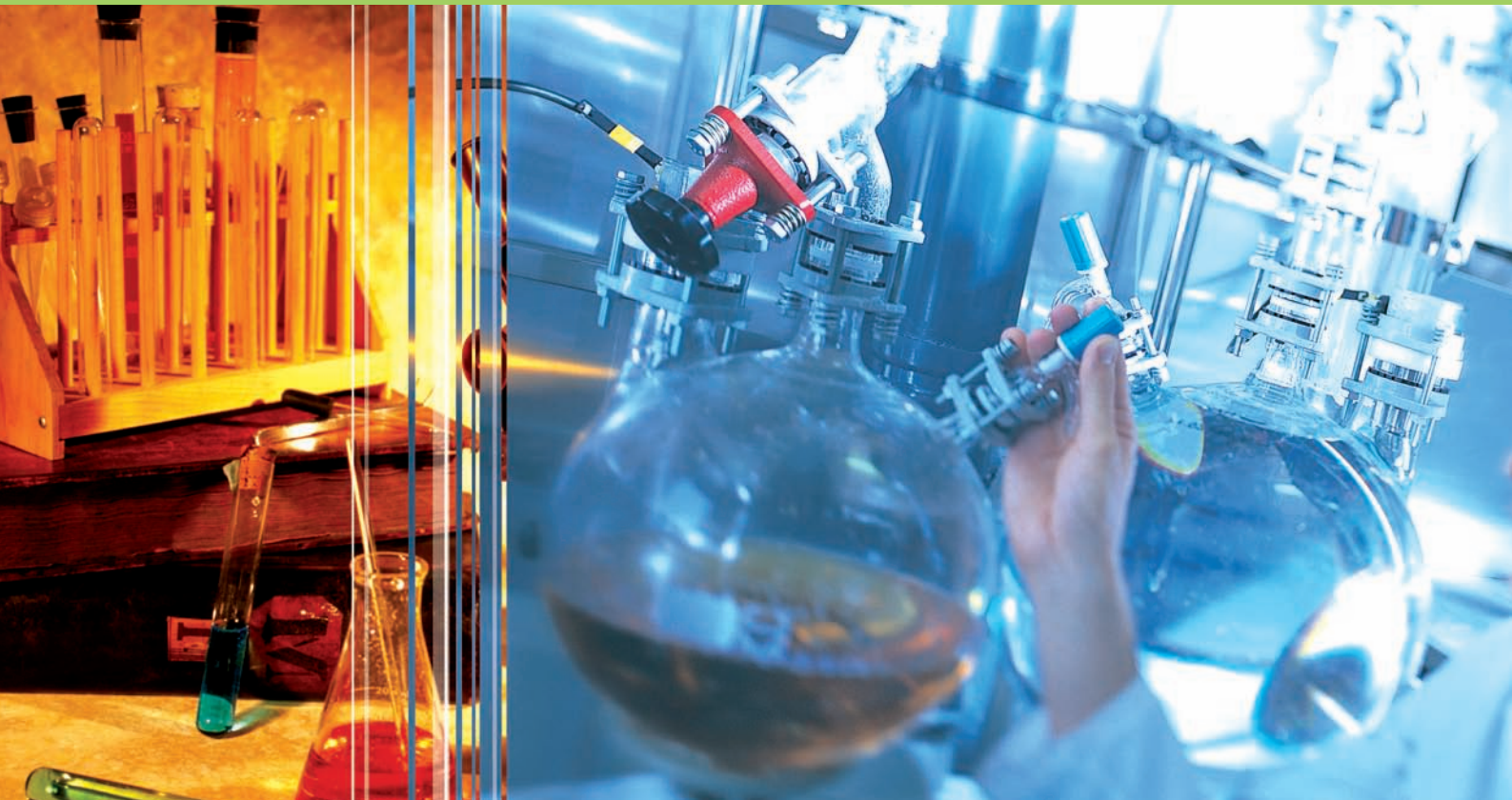


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Keep it  
moving



## ➤ Your industrial partner

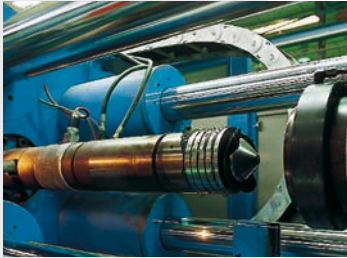
For the past 75 years, PCM has been providing advanced pump technologies to the industry sector. Our unmatched expertise can be traced back to our origins: the company was founded by the inventor of the progressing cavity pump.

### Unique expertise

Today, we are one of the world's leading manufacturers of positive displacement pumps and fluid-handling equipment. As a leader we offer a complete range of solutions that other manufacturers cannot match.

### Vertical integration

Put our expertise to work for you. When you want a single source for the best in positive displacement pump technologies as well as complete mastery of every level of the fluid handling solution—from components to pumps, systems to services—PCM is the partner. No other company brings together such a wide and deep knowledge under one roof.



Elastomer press

## The elastomer experts

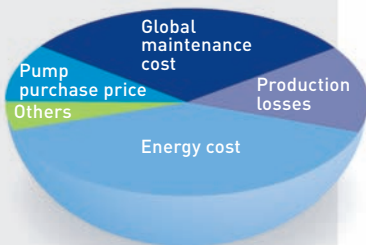
The ability of an elastomer to withstand the pumping action and the fluids being handled has a direct impact on the efficiency and reliability of a pumping system. While many other pump manufacturers use third-party elastomers, we mix and produce our own to ensure the highest quality and maximum compatibility. And thanks to over 75 years of experience in elastomers, we have a unique database of formulas and compatibilities.



Flow Technology Center

## Fluid knowledge

The design of our pumps starts in the Flow Technology Center. Instead of inventing pumps and trying to adapt them to your needs, our Flow Technology Center focuses on fluids to identify the best pump design.



## Focus on life cycle efficiency

Pumps lie at the heart of an incredibly wide range of industrial applications. The better adapted a pump, the more efficiently it operates. Poorly adapted pumps may cause production losses, maintenance downtime and unnecessary energy consumption.

We use Life Cycle Cost (LCC) analysis to identify the most cost-effective pumping solution, and LCC is not reserved for new pump acquisitions. Studies estimate that changing equipment and/or control systems can increase energy savings by 30 to 50 per cent.



Ecolobe™: the first eco-design lobe pump

## Eco-design

To reduce the Life Cycle Costs and environmental impact of our pumps, we embraced Eco-Design more than half a decade ago. PCM Eco-Design lessens the environmental impact of our pumping solutions, by taking a Life Cycle Cost (LCC) approach to design, optimizing it at every stage, from suppliers and manufacturing through to decommissioning. In doing so, we enable you to meet your operational and environmental requirements at the same time.



René Moineau

## Inventor of the PCP

René Moineau, the founder of PCM, invented the world's first Progressing Cavity Pump (PCP) in 1930. It was the start of the innovation and technical excellence that made PCM famous.





## Technologies for every challenge

We offer one of the widest ranges of positive displacement pumps in the industry. When combined with our Life Cycle Cost (LCC) approach to pump design, this enables us to provide you with the right pump technology for your fluids and operating environment.



Moineau™ range

## Progressing cavity pumps: Unbeatable competitiveness



Ideal for fragile, abrasive and viscous fluids, PCM EcoMoineau™ progressing cavity pumps offer low Life Cycle Costs, thanks to their low energy consumption, inherent reliability and high suction capabilities.



Delasco™ range

## Peristaltic pumps: Easiest maintenance



The gentle pumping action of PCM peristaltic or hose pumps is adapted to shear sensitive fluids. Their simplicity and robustness also make them ideal for medium flow, medium pressure pumping of abrasive, fragile and corrosive fluids. They are low cost and easy to maintain, because only the hose is in contact with the fluid.



Lobe range

## Lobe pumps: smallest footprint

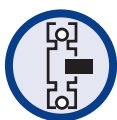


Ideal for handling viscous and abrasive fluids, including high solids content, PCM Ecolobe rubber-coated lobe pumps feature a design that eliminates the maintenance problems that commonly affect other industrial lobe pumps. Maintenance can be performed in place without dismantling the piping.



Preci-Pompe™ range

## Dosing pumps: High metering accuracy



When your applications require a high level of accuracy, reliability and economical efficiency, PCM dosing pumps are the answer. Featuring rugged, simple design they offer maximum compatibility with most chemical reagents.

Product range	Technology	Q max m <sup>3</sup> /h	P max bar	Visco max cP	T max °C
Moineau	Floating stator	15	10	5,000	90
	Fixed stator	250	48	1,000,000	120
Delasco	Soft hose	20	3	15,000	120
	Reinforced hose	65	15	50,000	110
Lobe (rubber-coated)	Tri lobe	750	10	500,000	90
Preci-Pompe	Diaphragm	0.35	12	1,500	90
	Plunger	2	350	5,000	150

Higher values available upon request. Please contact us for more information.





## ➤ Turnkey solutions that simplify process engineering

Our turnkey pump skid systems simplify and accelerate the integration of PCM pumping solutions into your industrial processes. Each skid includes the pump, accessories and control panels. We also develop and deliver customized skid systems for any application.

### Best of our worlds

Each PCM skid combines our technological and process expertise in a ready-to-use system. They provide the best pump technology according to the product and application.

### Complete process

Because our skids integrate all the equipment and accessories needed, they provide a full industrial process. This cuts down on integration time and enables you to integrate advanced processes into your operations.



Stand-alone pumping station

## Ready to go

The quality of factory-built PCM skids is generally higher than site assembled systems, because our factory is properly equipped and organized for this purpose. Moreover, PCM skids are fully tested ahead of installation to ensure rapid integration into your operations. You no longer have to spend time or money developing a system around the pumps. Nor do you have to worry about finding the right control systems and other accessories.

## Economical

PCM skids are an economical alternative to time-consuming on-site system installation, because they eliminate the need to manage multiple suppliers and there are no hidden engineering costs. You can order whole systems at one time, which simplifies purchasing. By deploying standardized skid systems across your operations, you can reduce maintenance and spare parts costs.



Lime treatment using Gavo™ in a sewage treatment plant

## Transfer Systems

### Cake Pump Process Integration

Complete Gavo force-feed system with integrated polymer lubrication sludge level control and lime addition.



An industrial application featuring EcoMoineau with a bypass

## Solid/Liquid Separation Systems

### Filter Press Feed System

Complete dewatering system that separates solids from liquids.



ChemSkid™ for ferric chloride injection

## Dosing Systems

### Lime Milk Dosing Systems

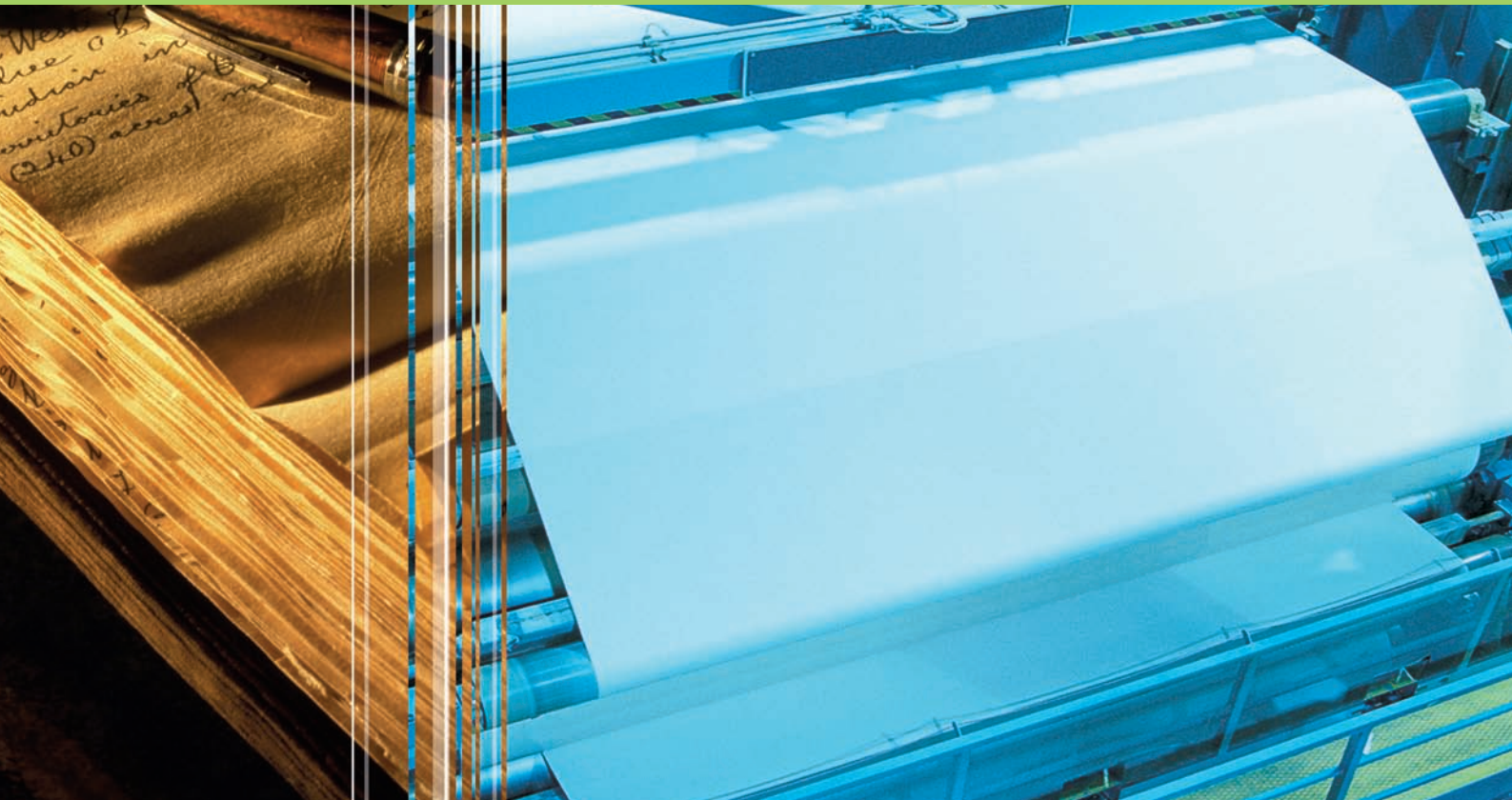
Complete systems for lime milk preparation, mixing and dosing.

### Chemical Dosing System

Complete systems for chemical injection in industrial processes.

## Customized systems

We can develop customized systems to meet your exact requirements. They come with pumps, accessories and the control panel in a custom-made, fully tested skid.



## At your service

To increase the added value of our pumps and pump systems, we provide a wide range of pre- and post-sales services for our industrial customers.

### Testing: Making the right choice

To ensure the performance and lifespan of a pump or pump system, it is vital that it is engineered to meet the needs of the materials being handled. That is why we provide viscosity, elastomer and abrasion testing.

### Installation: Ensuring trouble-free operation

Our installation services take the guesswork out of integrating a new pump into an existing system or installing a new pump from scratch. We provide start-up assistance, system integration engineering, and training for operators.

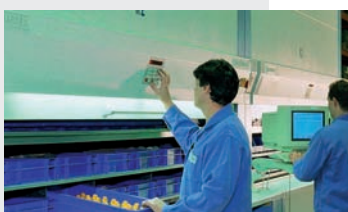




Revamping of a Moineau pump GBB series with installation of the new bridge-breaker device



Start up assistance



Over 5,000 references in stock



On-site training for paper manufacturer

## Servicing: Guaranteeing efficiency

To make sure your pump investment meets your performance expectations and operates at maximum efficiency, we provide extended warranties, field maintenance for PCM and non-PCM pumps, repair services and wear analysis.

## Optimization: Delivering lowest operating cost

To make sure the pumps you own and the ones you are going to buy operate efficiently during their entire lifespan, we provide system optimization services such as Life Cycle Cost (LCC) audits, seal and motor upgrades, and ATEX conformity.

## Life Cycle Services: Extending lifespan

Our life cycle services can breathe new life into your PCM pumps. Rotor and mechanical seal refurbishment adds years onto a pump's lifespan. And when a pump does need decommissioning, we can recycle it for you, in accordance with today's strictest environmental regulations.

## Spare parts: Rapid worldwide distribution

Thanks to our worldwide network of sales offices and distributors, you can obtain genuine PCM spare parts quickly. Using PCM spare parts ensures that PCM products last as long as possible, benefit from warranty protection and maintain their CE conformity until their end of life.

## Global presence

With production facilities in Europe, Asia and America, and sales offices and logistics centers around the world, we are always close to your operations. We also have an extensive network of over 60 distributors in 60 countries.



## ➤ At the heart of industry

PCM serves six highly demanding industrial markets. While all of them share similar requirement in terms of reliability, cost effectiveness and productivity, each has special needs that PCM meets with perfectly adapted pumping systems.

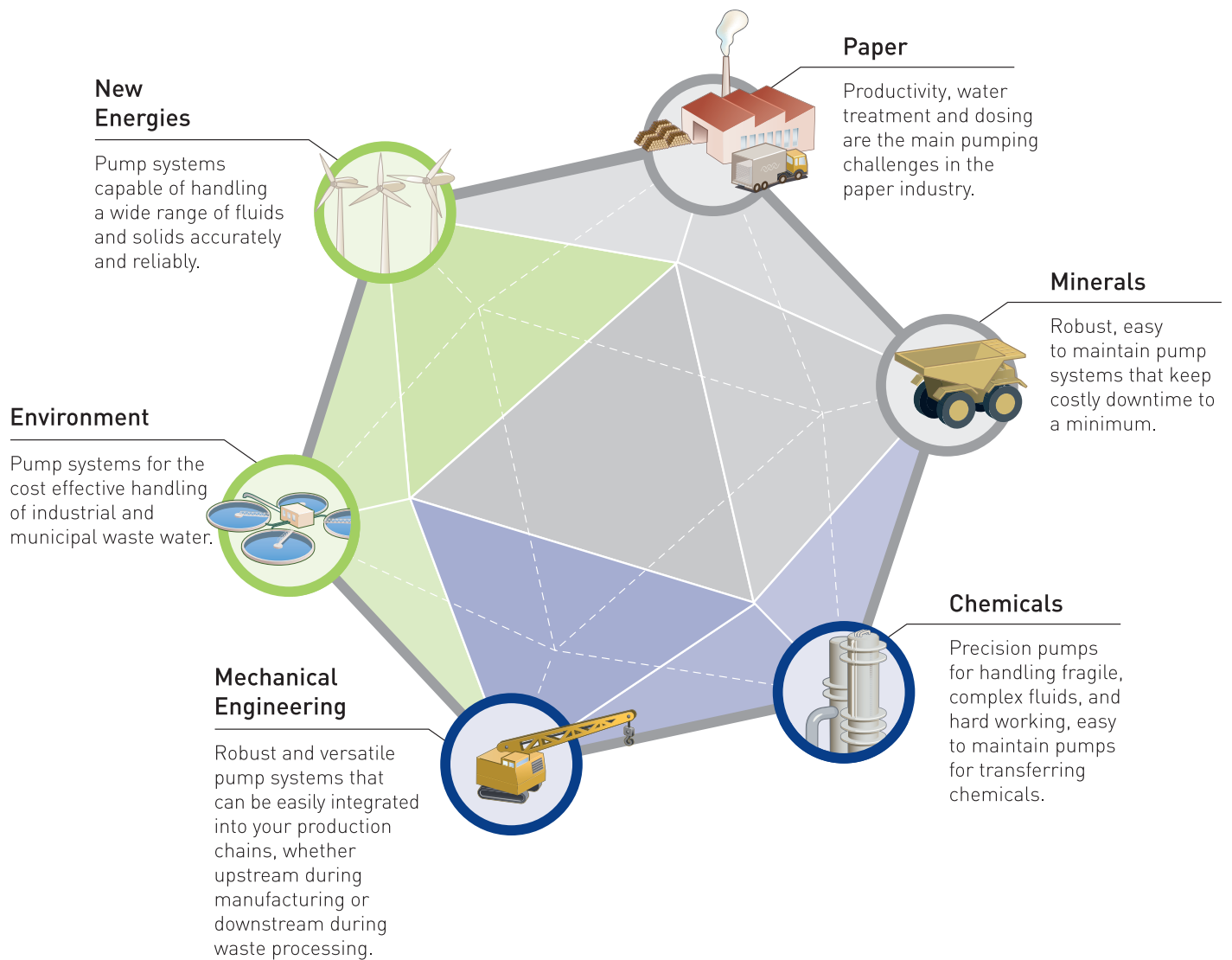
### Dependable partnership

We know just how important the reliability and performance of your operations are to your business. You can count on PCM pumps to keep your fluids moving smoothly as they make their way through the variety of demanding processes and applications that lie at the heart of your business.

### Eye on the end user

In today's just-in-time economy, your customers expect your industrial processes to never stop working. With one eye on your customers' requirements and one eye on working constructively with your other suppliers, we ensure that our pumps contribute to meeting and exceeding your customer services objectives.

## Multifaceted expertise







## ➤ Solid versatility

Mature industries require pumps and pump systems capable of handling a wide range of tasks as cost-effectively as possible. Their ability to handle aggressive liquids and extreme operating conditions are also a must.



### Environment

One of the most important challenges in environmental protection is the cost-effective treatment and handling of municipal and industrial waste water. PCM pumps are used to handle industrial and municipal waste water and sewage, dewater sludge, and meter chemical additives.

#### Case study: water treatment plant.

➤ **Challenge:**

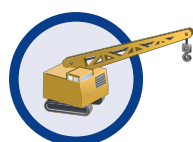
Providing a reliable and economical solution on sludge transfer and polymer dosing.

➤ **PCM Solution:**

EcoMoineau progressing cavity pumps.

➤ **Results:**

On both applications, EcoMoineau pumps proved to be a long lasting choice requiring very limited maintenance.



## Mechanical Engineering

Light and heavy industries require versatile pump systems that can be easily integrated into their production chains, whether upstream during manufacturing or downstream during waste processing. Pumps need to be reliable, robust and capable of handling a wide range of emulsions, metal particles and corrosive materials.

### Case study: surface treatment/spent bath emptying.

#### ➤ Challenge:

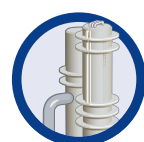
Find a pump capable of handling a variety of corrosive products with particles. Dry running and self priming functionalities. Easy maintenance and mobility would be a plus, as customer had negative experience with AOD (Air Operated Diaphragm) pumps whose valves required frequent maintenance due to clogging.

#### ➤ PCM Solution:

Delasco hose pump on a trolley with starter control panel was the natural choice.

#### ➤ Results:

Flexible, highly mobile solution improved productivity and reduced maintenance requirements and costs.



## Chemicals

Product compatibility and versatility are what the chemical industry looks for in pumps. Manufacturers of specialty chemicals in particular, require pumps capable of handling fluids with fragile composition and complex rheology.

### Case study: detergent manufacturer.

#### ➤ Challenge:

Mixing the ingredients and filling containers.

#### ➤ PCM Solution:

Customized chemical dosing and filling system including Delasco hose pumps. The hose pump versatility allows it to be used with various aggressive chemicals.

#### ➤ Results:

Customer was pleased by the TCO (total cost of ownership) of the system, which requires low maintenance and low energy while allowing accurate filling of various sizes of containers.



## ➤ Constant productivity

In many industries, productivity rhymes with profitability. The ability to work non-stop in demanding operating conditions is what companies in these sectors expect from their pumps and pump systems.



### New Energies

To meet their promises of sustainability, new energies must combine environmental responsibility with real-world economics. To reach economically viable production levels, their industrial processes require pump systems capable of handling a wide range of fluids and solids accurately and reliably.

#### Case study: biodiesel unit.

##### ➤ Challenge:

Customer needed to empty waste cooking oil from road tanker. This oil could include some abrasive particles. The pump had to fit in a small space and be easily serviceable.

##### ➤ PCM Solution:

PCM installed an Ecolobe pump.

##### ➤ Results:

The small footprint of this pump allowed it to fit in the allotted space. It has so far been working maintenance-free for over two years.





## Minerals

Abrasiveness is number one challenge in the mineral industry. Downtime caused by equipment failure can bring an entire quarry or production facility to a halt. Consequently, robustness, ease of maintenance and spare part delivery times are of the utmost importance.

### Case study: quarry operator.

#### Challenge:

Sand was entering the pumps and damaging the rotors, which required frequent maintenance.

#### PCM Solution:

PCM developed a special abrasion-resistant rotor coating for its progressing cavity pumps.

#### Results:

Rotor lifecycle extended from six to sixteen months.



## Paper

The paper industry is one of the most demanding sectors in terms of productivity, water treatment and dosing. Most production facilities operate non-stop, and any downtime can be costly. In addition, paper and pulp plants use incredible quantities of water, which they must manage and treat in accordance with strict regulations.

### Case study: paper plant with 30 PCM pumps installed in the 1980s.

#### Challenge:

Reduce annual water consumption of 2,625 m<sup>3</sup> per pump.

#### PCM Solution:

We retrofitted each Moineau pump with a self-contained lubrication system that eliminated the use of water.

#### Results:

Water consumption of pumps reduced to zero. Over 78,000 m<sup>3</sup> of water saved annually.





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