



➔ Fluid technology

Food and Personal Care

motralec

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improving your process



PCM Food: excellence in the Food and Personal Care industries

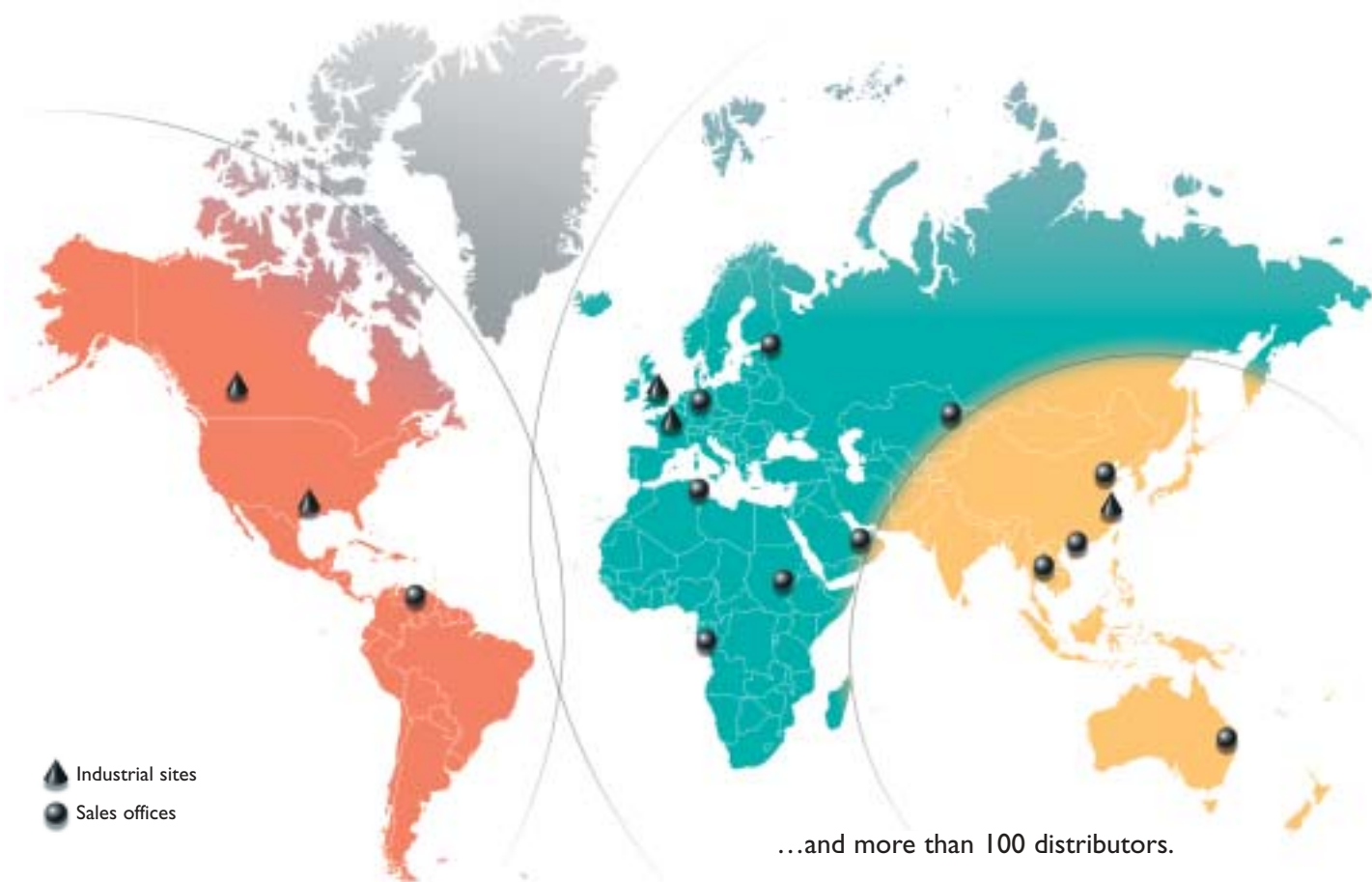
Specialist of positive displacement pumps, PCM is a market leader with world-renowned expertise in fluid technology. The company uses its know-how in the food and personal care sectors via its PCM Food division.

Since its creation in 1932 by René Moineau and Robert Bienaimé, PCM has made the partner-customer relationship a priority on which to build its basic values: quality, manufacturing expertise, innovation and services.

→ Our business: fluid technology.

From the supply of components to the creation of turnkey systems, our aim is to design and build the technical solutions best suited to your applications whether these involve transferring, dosing, injecting, mixing, coating or filling.

→ Worldwide presence:



→ Services: a relationship of trust based on expertise.

PCM Services is available to help you get the best performance out of your equipment: PCM Services can provide you with research, start-up assistance or audit of your installations, training, maintenance contracts, repairs and express delivery of spare parts.

Your requirements are our requirements

PCM stands by you to guarantee:

→ Your product's appearance and texture remain perfect

PCM technology guarantees that the viscosity of the flow of ingredients remains constant and homogenous and notably that pieces remain whole.

→ Design that complies with rules and standards

Our components and systems take into account constantly changing standards (3A, EHEDG), norms and regulations in force (CE, FDA, ISO 9001/2000, ISO 14001, ATEX).

→ Easy cleaning for perfect hygiene

A design that makes thorough cleaning of equipment easy:

- Cleaning or sterilization in Place (C.I.P).
- Cleaning Out of Place (C.O.P) by dismantling.

→ Production optimization and LCC (Life Cycle Costs)

- Through accuracy of transfer, filling, dosing and injection.
- Through easy, low-cost maintenance.
- Through reduced production down-time.
- Through time saving in production changes by using multi-purpose components.





In all Food and Personal Care industries

Transfer, dosing, injection, mixing, coating, filling

Dairy Products



Fresh and pasteurized products: milk, cream, ferments, diluted or concentrated flavorings...

Fermented products: yogurt, curd, fromage frais, cottage cheese, fresh cream...

Ingredients: fruit preparation...

Desserts, cheese, butter, dairy by-products...

CIP products (Cleaning In Place)

Meat, Fish, Pet Food



Meat, gravy, meat emulsion, pâtés, mince, cod brandade...

Blood, viscera, animal fats and oils...

Molasses, brine, acids, amino acids...

Coextrusion biscuit filling

Bread, Cakes Pastry



Dough, batter, biscuit mix, choux pastry...

Fillings and coatings, cream, custard, chocolate, caramel...

Yeast, ingredients...

Drinks



Water, juice, sugar syrup, flavorings, colorings, sweeteners...

Wine, must, lees, grape crop, diatomaceous earth...

Beer, must, ingredients, yeasts...



PCM Food

Fruit, Vegetables, Salads



Fruits in syrup, purée, compotes, jam, fruit juices, concentrates...

Vegetable oils and fats, margarines, uncooked oils, sludge...

Vegetables, soups, mashed potato, peelings, spent grain, whole potatoes...

Prepared salads

Sugar, Starch, Egg products, Ready-made meals, Sauces



Starch, molasses, gluten, starch milk...

Sugars, glucose, honey, sugar syrup, pulp, syrups, thick juices, liqueur, formaldehyde, antifoaming agent, flocculant...

Egg products: liquid eggs, yolks/whites/whole...

Sauces, mustard, mayonnaise...

Ready-made meals, baby food...

Personal Care



Cosmetic bases, oils, creams, lotions, toothpaste, shampoo, gels...

Pharmaceutical and veterinary products, sterile solutions...



REFERENCES

BARILLA

BEIERSDORF

BEL

BINGGRAE

BONDUELLE

BONGRAIN

CADBURY

DANONE

HARRY'S

HEINZ

KRAFT FOODS

L'ORÉAL

LACTALIS

LEE KUM KEE

MCCAIN

MASTERFOODS

NATIONAL FOODS

NESTLÉ

SANOFI

SHANGHAI BRIGHT

UNILEVER

YOPLAIT

...





A complete range of Components and Systems

To meet all your requirements, PCM offers you a wide range of solutions, from simple **components** (pumps, mixers) to complete **systems**.

POSITIVE DISPLACEMENT PUMPS

To cope with the most difficult fluids and applications, PCM offers a unique and wide range of positive displacement pump technologies.



PCM MOINEAU® PROGRESSIVE CAVITY PUMPS

Characteristics:

- Cope with abrasive, viscous and fragile fluids, including pieces.
- High suction power.
- Low pulsating flow.



*Moineau Series H Pumps with fresh dairy products:
Plain bulk yogurt transferred to heat-exchanger
and then to packing line*

A broad range of solutions for food and personal care applications

H

HYGIENE



- + most hygienic Moineau pump,
- + easy to dismantle,
- + respects shear sensitive products.

Max flow: 180 USGPM
Max pressure: 360 PSI

I STAINLESS STEEL SIMPLICITY

- + complete stainless steel design,
- + simple and robust,
- + simple dismantling for easy maintenance.

Max flow: 1080 USGPM
Max pressure: 675 PSI

COMPACT EASE

- + compact design,
- + optimized for cleaning out of place,
- + excellent price/performance ratio.

Max flow: 70 USGPM
Max pressure: 60 PSI

GAVO PUMPS FOR DIFFICULT PRODUCTS

- + cope with heterogeneous and high-viscosity products,
- + construction with hopper and feed screw,
- + low capital investment, energy-saving.

Max flow: 220 USGPM
Max pressure: 360 PSI

PCM Food

PCM DELASCO® PERISTALTIC “HOSE” PUMPS

Characteristics:

- Cope with the most abrasive, fragile and corrosive fluids.
- Low-cost and easy to maintain.
- Only one component of the pump (hose) is in contact with the product.



DL Pump in the ready-made meals industry: racking from a mobile tank into hopper of a dosing system supplying the container packing line

Various models depending on flow and pressure

PMA

COMPACT

- + dosing pump,
- + excellent value for money,
- + simple and quick maintenance.

*Max flow: 60 USG
Max pressure: 20 PSI*

Z

FLEXIBLE

- + very versatile in use,
- + rugged and long-lasting,
- + easy to change hose.

*Max flow: 80 USGPM
Max pressure: 40 PSI*

DL / DSC

HIGH PRESSURE

- + advantages of the peristaltic principle at high pressure,
- + long-lasting tubes,
- + easy-fit connections.

*Max flow: DL 100 USGPM - DSC 300 USGPM
Max pressure: 200 PSI*

PCM PRÉCI POMPE® DOSING PUMPS

Characteristics:

- Cope with most industrial chemical products.
- Excellent value for money.
- Stand up to aggressive environments.



Two Préci Pump Lagoa Series pumps in the dairy industry: pumps with stainless steel body for dosing acid and soda in the Cleaning In Place zone

Membrane or piston models

LAGOA

MEMBRANE DOSING PUMP

- + simple and robust construction,
- + accurate dosing,
- + multi-purpose for dosing a vast range of fluids.

*Max flow: 90 USG per head
Max pressure: 180 PSI
Precision: ± 1%*

P3

PISTON DOSING PUMP

- + simple and robust,
- + regular dosing, accurate flow control,
- + high self-priming capacity, high pressure.

*Max flow: 600 USG
Max pressure: 5100 PSI
Precision: ± 0.5%*



IN-LINE MIXERS

In-line mixers are designed for the manufacture of homogenous finished or semi-finished products made from liquid, viscous, thick or fragile ingredients which may swell or contain pieces.

Dosymix[®] dynamic mixers and Dostam static mixers can be built into a continuous industrial process, without intermediate batching.



FOR DYNAMIC MIXING: DOSYMIX[®]

Characteristics:

- **Hygienic design:** Cleaning and Sterilization In Place.
- **Quality of the finished products:** ability to encounter fragile pieces as well as texture conservation (no shearing) through careful dynamic mixing.
- **Productivity:** limited product loss due to low internal volume.
- **Versatility:** multi-orifice mixers for better distribution of pieces.

Flow: from 60 to 2000 USG



DOSYMIX[®]
Dynamic in-line mixer



FOR STATIC MIXING: DOSTAM

Characteristics:

- **Simple construction:**
easy to integrate into the process as part of the piping.
- **No moving parts:** no energy required, no wear and tear,
no spare parts, no maintenance.
- **Productivity:**
limited product loss due to low internal volume.

Flow: from 150 to 8000 USG



DOSTAM
Static in-line mixer

SYSTEMS

PCM FOOD specializes in in-line injection and mixing which offers:

- complete dosing, injection, in-line mixing, coating and filling systems,
- transfer of fragile or viscous products,
- continuous preparation of recipes.



JUST IN TIME INJECTION SYSTEM: DOSYFRUIT®

Characteristics:

- **Quality of the finished products:** accurate dosing, protects fragile pieces.
- **Hygiene:** Cleaning and Sterilization In Place.
- **Productivity and versatility:** automatic switchover of containers in continuous production, production by automatic recipe, just-in-time injection by synchronization.
- **Return on investment:** limited fruit loss by automatic control of intermediate and final thrusts, reduced maintenance.



DOSYFRUIT®
Fruit injected into stirred yogurt





INDEPENDENT FILLING, COATING OR INJECTION SYSTEM: DOSYFILL®

Characteristics:

- **Complex and innovative filling:** combined dosing or centre filling, dosing of viscous or fragile products, with or without pieces.
- **Versatility:** additional dosing element on existing machine, original system with modular dosing part (easy maintenance in concurrent operation time).
- **Hygiene:** Cleaning and Sterilization In Place.

*DOSYFILL®
Fresh products being filled into pots*



SYNCHRONOUS MULTI-DOSING SYSTEM: DOSYJET

Characteristics:

- **Control of dosing** of different products in the same cycle.
- **Easily integration** into an industrial process.
- **Made to measure** from standard units.

*DOSYJET
Flavored liqueurs
being simultaneously
injected into cakes*



SYSTEM FOR FEEDING AND ACCURATE DOSING OF HYPER-VISCOUS PRODUCTS: VISCOFEEDER®

Characteristics:

- **Specific quantity dosing or continuous dosing of hyper-viscous and/or sticky products:** feeding of controlled-pressure pumps, without introducing air.
- **Great flexibility:** modular equipment using one or more dosing pumps, high precision for any number of production lines.
- **Strict hygiene standards:** Cleaning In Place, gravity drainage of whole installation, cleaning of hidden areas.



*VISCOFEEDER®
in the pet food industry:
continuous injection dosing at 1,000,000 cps*

OTHER MADE TO MEASURE SYSTEMS USING POSITIVE DISPLACEMENT PUMPS

Preparation and continuous dosing, proportional injection, filling skids... whatever your application, our extensive range and expertise enable us to custom-build a system that meets your specific needs.



*Testing a skid for preparation
and dosing of cheese into containers*



Skid for proportional fruit dosing

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