

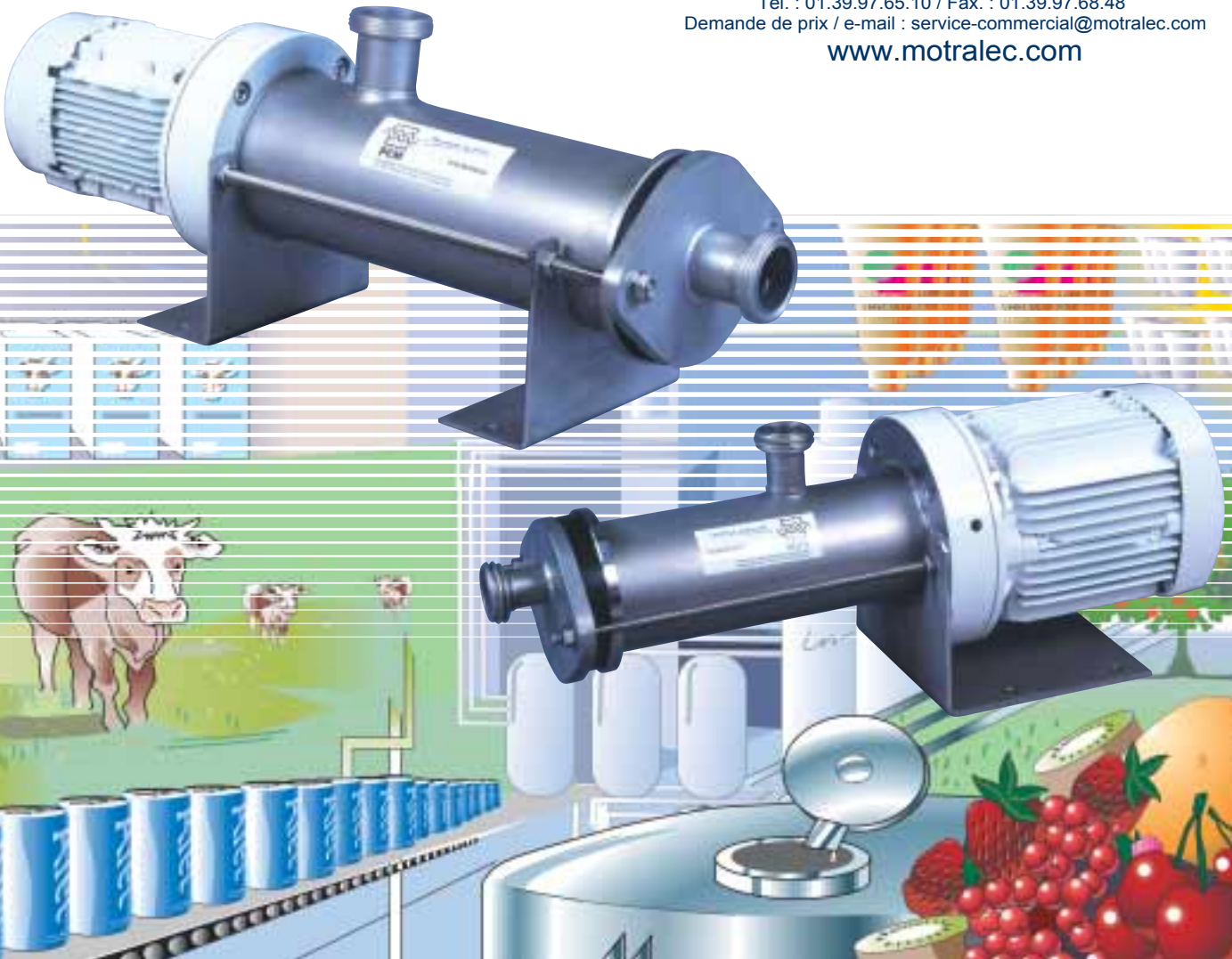
PCM MOINEAU

Compact Series

Compact Progressive-Cavity
Pumps for food & personal care
applications

motralec

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improving your process

PCM Pumps
Compact Series :
The stainless steel compact
progressive-cavity pump



▶ Benefits

Of the Moineau technology:

- Accepts fragile and viscous products
- High suction and self-priming capabilities
- Constant non-pulsating flow
- Ease of Maintenance
- Flow rate proportional to running speed
- No valves
- Pump derived directly from the invention by René Moineau, founder of PCM Pumps

Of the Compact Series Moineau Pump:

- Compact Size
- Excellent Performance/Price ratio
- Conception dedicated to food industry with COP
- Dosing pump without pulsations
- Simple and rugged construction in stainless steel
- Easy maintenance
- Versatile, easy integration
- Tolerates dry-running
- Very quiet operation
- Low LCC (Life Cycle Costs)

Characteristics:

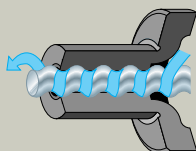
- 7 models
- Maximum Flow-rate: 70 GPM
- Maximum Pressure: 60 psi
- Maximum continuous operating temperature: 176°F
- Sterilization temperature stationary: 284°F
- Displacement: 0.08 to 10.37 in³
- Operating Speed: 250 to 1600 rpm.

Operation:

A Moineau pump is made up of a single helical rotor turning inside a double 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.

The Compact pump consists of a stator without a steel armature attached at one end. The flexibility obtained in this way, combined with an elastic coupling, allows the eccentric rotor to move freely.

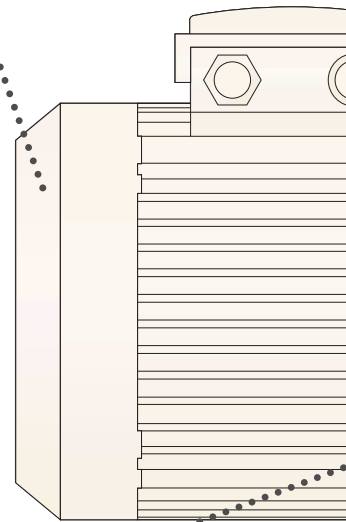
The Compact series pump has the special feature of discharging on the drive side. Therefore, the outlet pressure enables the pumped fluid to compress the floating stator against the rotor and ensure gradual tightening during the pressure increase.



The Compact Series: Created for food
and personal care applications:
Reduced Size
Easy Integration

Drive:

- ▶** • By standard Nema C face flange-mounted motor or VFD duty motor



Drive Shaft:

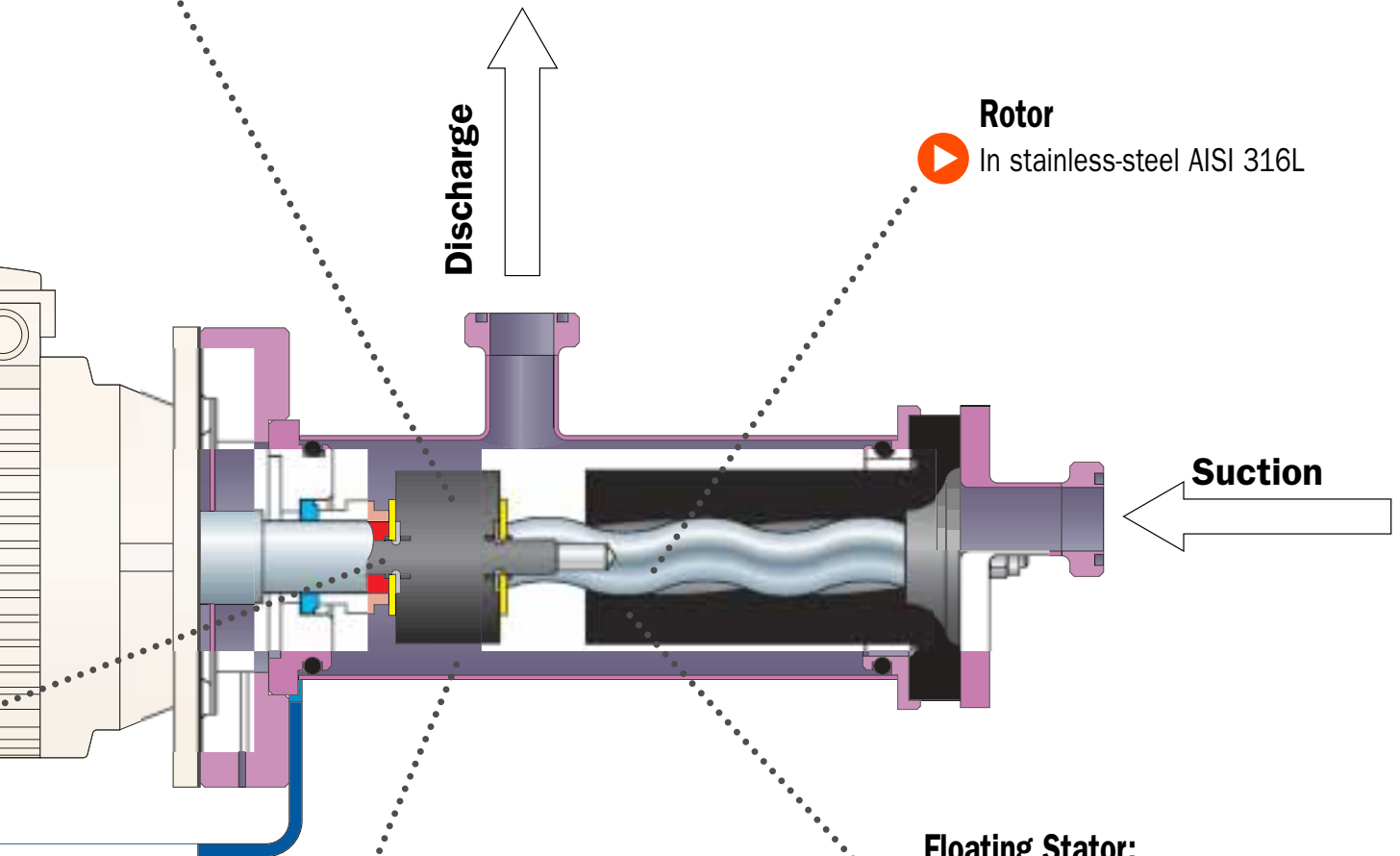
- ▶** In stainless-steel AISI 316L

Construction of Compact Series

Elastomer Coupling:

- In nitrile (NBR)
- Ensures the connection between the drive shaft and the rotor in their rotation
- Its flexibility allows eccentric movement between the rotor and the stator

OPTIONAL: a fluoro-carbonated elastomer sheath (FKM) protects the coupling for products containing solvents, acids or bases.



Rotor

In stainless-steel AISI 316L



Body:

- In stainless-steel AISI 316L shot peening inside and outside
- Connections, CLAMP, SMS, DIN, MACON and other connections (IDF, RJT, ISO PN10) is available on request



Floating Stator:

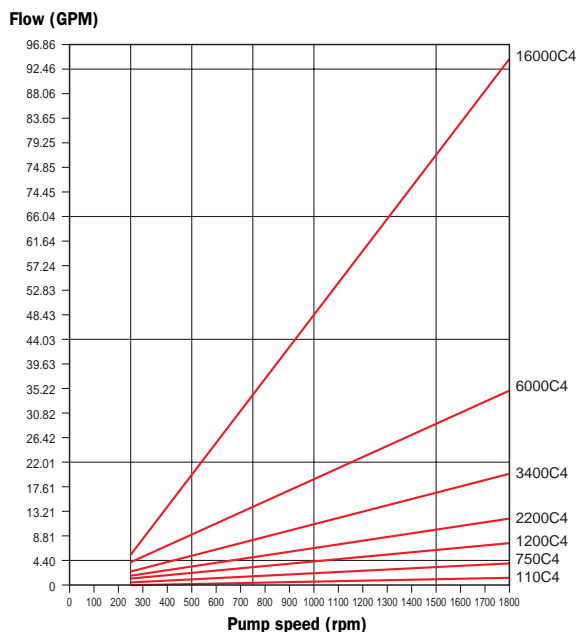
In nitrile (NBR), chloro-sulphonated polyethylene (CSM), or fluoro-carbonated (FKM). Other materials available.



Performances

Model	Motor Speed (rpm)	Motor power (HP)	Flow at 0 psi (USGPM)	Flow at max. P (USGPM)	Max. Differential Pressure (psi)
M110C4	1725	0.5	0.5	0.4	60
M750C4	1725	0.5	3.9	3.4	
M1200C4	1725	0.5	6.9	3.5	
M2200C4	1725	0.5	11.7	9.3	
M3400C4	1765	1	17.5	13.8	
M6000C4	1755	2	31.7	25.1	60
M16000C4	1745	5	84.7	71.4	
MV110C4	1140	0.5	0.3	0.2	
MV750C4			2.6	2	
MV1200C4			4.5	3.2	
MV2200C4			7.7	5.2	
MV3400C4	1165	1	11.4	7.7	
MV6000C4	1165	2	20.8	9.8	
MV16000C4	1160	5	55.4	42.2	

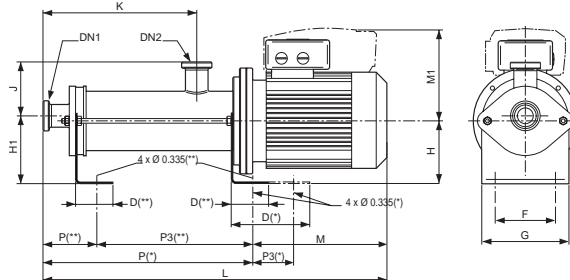
All motors are C Face, TEFC, 3 phase 208-230/460 Volts, 60HZ.
 Current performances carried out on water at 70 degrees fahrenheit.



Dimensions

COMMON DATA												
Model	D	F	G	H1	H	J	K	L	P	P3	M	M1
M110C4	6.06	4.92	5.90	4.60	4.09	2.83	8.34	13.30	13.15	3.15	7.83	4.88
M750C4												
M1200C4												
M2200C4												
M3400C4	2.52	4.92	7.08	4.72	4.33	3.93	10.55	15.63 15.55	5.78	9.37	9.32 7.83	5.59 4.88
M6000C4	3.30	6.29	7.87	5.31	5.31	4.52	11.61	17.66	6.10	11.41	10.89	5.79
M16000C4	4.09	8.50	9.84	7.08	7.08	5.90	16.73	20.60	7.16	16.96	12.07	6.65
MV110C4	6.06	4.92	5.90	4.60	4.09	2.83	8.34	13.30	13.15	3.15	9.64	5.59
MV750C4												
MV1200C4												
MV2200C4												
MV3400C4	2.52	4.92	7.08	4.72	4.33	3.93	10.55	15.63	5.78	9.37	9.91	5.79
MV6000C4	3.30	6.29	7.87	5.31	5.31	4.52	11.61	18.38	6.10	11.41	12.07	6.65
MV16000C4	4.09	8.50	9.84	7.08	7.08	5.90	16.73	25.07	7.16	16.96	16.21	8.03

Dimensions in inches



(*) : 110 - 750 - 1200 - 2200
 (**): 3400 - 6000 - 16000

Connections

Model	CONNECTIONS								
	Pipe	SMS	DIN	MACON	CLAMP	IDF	RJT	Flange ISO PN10	Flange ANSI 150lbs
	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2	DN1/DN2
110C4	1	1	1	1	1	1	1	1	1
750C4									
1200C4									
2200C4									
3400C4	2	2	2	2	2	2	2	2	2
6000C4									
16000C4									
	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

Dimensions in inches

Applications



Compact M6000C4 for the transfer of soap base in the cosmetic industry.

Compact M2200C4 for feeding salted water installation.



MV16000C4 on wine filtration pallet.

Food and personal care applications:

The PCM Moineau range proposes the following products for food and personal care industries.

Series	Hygiene	Cleaning	Max flow rate (USGPM)	Max pressure (PSI)
H	Ultra-clean applications	CIP	180	360
I in stainless steel	Food and personal care applications	COP*	1080	675
Compact	Food and personal care applications	COP	70	60

*cleaning possible by rinsing and draining
CIP: Cleaning in place - COP: Cleaning out of place

Activity Sector	Products transferred with PCM Moineau Compact Series
Food	Sugars, Starches & Glucose: Liquid sugars, honey, liquor, pulp, glucose, and starches... Fatty Products: Vegetal oils and greases (Colza, Groundnut, Olive, Palm, Coconut) and animal oils (tallow, lard)... Drinks: Wines, beers, juices, syrups... Dairy Products: Cheeses, creams... Biscuit & Pastry Products: pastries, dough, stuffing, flavorings, coatings... Ready-made Meals & Conservatives: Sauces, soups, seasoning (sauces, ketchups), oils, brine... Ingredients & Additives: Yeast, ferments, rennet, flavorings & colorings, acids (lactic, formic, ascorbic, amino acids...)
Cosmetic & Para-pharmacy	Oils, creams (face creams, ointments), lotions... Liquid soaps, shampoos... Cosmetic bases...
Materials, & Other Industries	Acidic surface treatment and water treatment effluents Detergent products (detergents, surfactants, sodium hydroxide...) Foaming agents, Flocculants, Polymers... Water based paint, Plasticizers, Urea/formol resins, Silicon...
Environment	Treatment of wastewater: acidic waste, foaming agents, and polymers...



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