

PCM Moineau™

# IVA, LVA, GVA, Visco-feeder™

Progressing cavity pumps  
and systems for viscous food products

- > Gentle pumping
- > Accurate dosing
- > Versatile



Keep it  
moving



# Pumps and Systems

## Solutions for viscous and hyper-viscous products

*The growing demand for more concentrated and sophisticated products often implies an increase in the viscosity of the products being transferred. If your product is viscous, pasty, sticky, greasy, thick, or concentrated, PCM provides an appropriate solution for each type of rheology.*

### ↳ Progressing cavity pump for fluids with high viscosity or high solids content

IVA/LVA/GVA pumps are fitted with a feeder hopper and a conveyer screw. The open-throat design allows the fluid to flow in without restriction while the screw feeds the materials into the rotor stator.

#### ■ IVA / LVA benefits

- Transfers high-viscosity, non-homogeneous, and pasty products
- Small investment, low power consumption
- Compact solution for simplified integration

#### ■ GVA benefits

- Transfers very viscous products
- Accommodates non-homogeneous products containing pasty and even sticky pieces
- Improved circulation of the fluid thanks to the hopper's shape

### ↳ VISCO-FEEDER™, feeding

Force-feed system offers accurate transfer and dosing of highly viscous products with optimum steady flow and high accuracy for any number of production lines.

#### ■ Key benefits

- Versatile: Highly viscous/sticky products up to 15.000.000 cP
- Accurate batch or continuous dosing: From 10 ml to several kilos
- Productivity: Continuous production with batch loading of product and temperature controlled operation
- Quality and hygiene: Airtight, minimum shearing and Cleaning In Place



**IVA / LVA**

**GVA**

**Visco-feeder™**



Viscous and non-homogeneous products

Very viscous, sticky, and non-homogeneous products

Transfer and dosing of hyper-viscous products

**IVA / LVA**

**GVA**

**Visco-feeder™**

VISCOSITY



15.000 cP / 20.000 cP

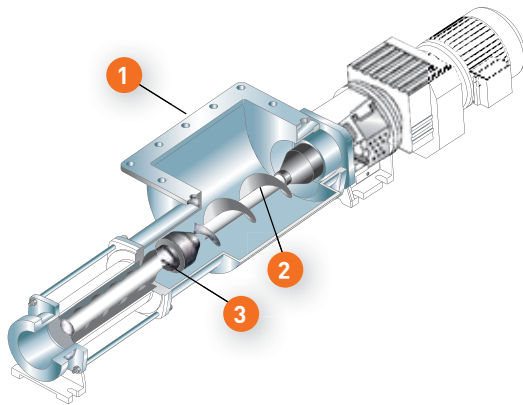
80.000 cP

400.000 cP

UP TO 15.000.000 cP

# IVA / LVA

FOR VISCOUS AND NON-HOMOGENEOUS PRODUCTS



## ■ Characteristics

- Maximum flow: 50 m<sup>3</sup>/h
- Maximum pressure: 52 bar
- Hopper: 72 x 156 to 590 x 590 mm

## ■ Accessories

- Built-in or remote frequency variator
- Dry running protection
- Safety pressure switch

## ■ Construction

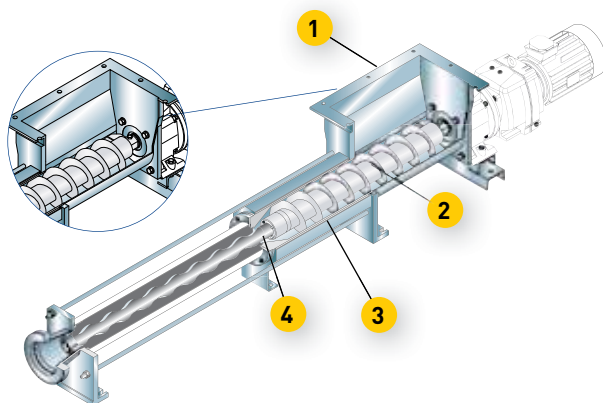
- 1- **Small hopper.**  
Compact size.
- 2- **Feed screw.**  
Facilitates product flow.
- 3- **Simplified barrel.**  
Promotes auto-flow of a more or less viscous liquid product.

## ■ Options

- Drain plug: Enables total drainage
- LVA option: Polished finish, food couplings: SMS, DIN, etc., stainless steel base, hopper: 76 x 161 to 440 x 440 mm

# GVA

FOR VERY VISCOUS, STICKY, AND NON-HOMOGENEOUS PRODUCTS



## ■ Characteristics

- Maximum flow: 28 m<sup>3</sup>/h
- Maximum pressure: 24 bar
- Hopper: Length 500, 1000, 1500 mm

## ■ Accessories

- Built-in or remote frequency variator
- Dry running protection
- Safety pressure switch

## ■ Options

- Drain plug: enables total drainage
- Grease sealing
- Special finish: polished, glass blasted... depending on the product
- Anti-bridging device built into the hopper: provides for better feeding of the feed screw by eliminating the possibility of clogging

## ■ Construction

- 1- **Large inlet hopper.** To eliminate cavitation and the risk of product bridging in the inlet hopper. For higher viscosity products the GVA can be fitted with an optional motorised bridge breaker.
- 2- **Feed screw.**  
Ensures the filling of the barrel.
- 3- **High hydraulic yield barrel.**  
Provides for better feeding.
- 4- **Reduced size of pin joint.**  
Facilitates product flow.

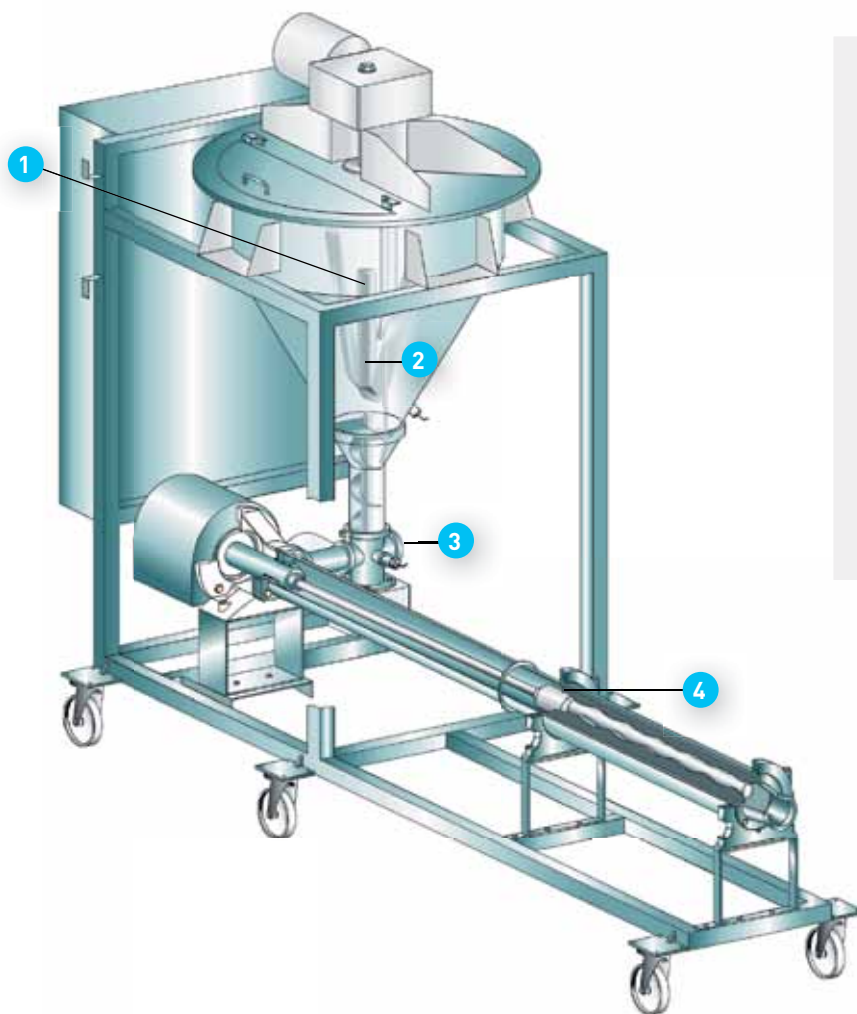
- Flow management with level control module in the hopper
- Double jacket to maintain the product's temperature
- Built-in Cleaning In Place

# Visco-feeder™

SYSTEM FOR FEEDING AND ACCURATE DOSING OF HYPER-VISCOUS PRODUCTS

## Applications

- Transfer of cheese mixtures from the kneading trough mixer to the packaging line
- Co-extrusion inner of dry pet-food
- Continuous deposit of dough mix in the desired shape
- Feeding of an extrusion head for biscuit filling
- Dosing and continuous injection of caramel and hyper viscous ingredients



### Construction

- 1- Premix chamber.  
Continuous homogenization of the product without introduction of air.
- 2- Barrel independent of the pump.  
Feeding of pumps at controlled pressure.
- 3- Cleaning In Place.  
Gravity drainage of whole installation, cleaning of hidden areas.
- 4- Modular equipment.  
Using one or several positive displacement pumps.

### Characteristics

- Maximum flow: 40 m<sup>3</sup>/h
- Maximum pressure: 24 bar
- Hopper: Cleaning In Place

## Advantages

- Batch or continuous dosing of hyper viscous and/or sticky products
- Great flexibility: High precision (<2%) regardless of the number of production lines, the flow, and the product
- Strict hygiene standards

## ↘ Industries and applications



### In all Food Industries

#### ■ Dairy products

Melted cheese, curd, cottage cheese, butter, etc.



#### ■ Meats, fish, pet food

Meat emulsions, minced meat, ground meat, sausage meat, stuffing, filling, chicken flesh, fish flesh with or without pieces, offal, slaughterhouse waste, etc.



#### ■ Bread, cakes, pastry

Bread dough, cookie dough, gluten, fillings, sauces, chocolate, glaze, cookie cream, etc.



#### ■ Drinks

Juices, wine must and yeast, destalked harvests, must and spent grains, etc.



#### ■ Fruits, vegetables, salads

Mashed potatoes, vegetable pulp, jam and jelly, fruit compounds, whole apples, cooked apples, tomatoes, fruit purées, spent grains, peels, etc.



#### ■ Sugar, starch, egg products, readymade meals, sauces

Beet pulp, waste lime, molasses, starch milk, mayonnaise, sauces, caramel, honey, etc.