



## GAVO SERIES

› CAKE PUMPS FOR  
CONCENTRATED  
AND DEHYDRATED SLUDGES

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## **GAVO SERIES**

### **A FULL RANGE OF CAKE PUMPS FOR THE RECOVERY OF DEWATERED SLUDGE AND HIGH VISCOSITY PRODUCTS**

Gavo series offer an optimized and turn-key solution for the transfer of dehydrated sludges.

#### **› ADVANTAGES**

The Gavo series offer all the advantages of the Moineau technology: ease of maintenance, product integrity as well as a pulsation free and constant flow-rate.

- Transports sludges with minimum odour
- Perform mixing in lime treatment applications
- Suitable for all sludge dewatering equipment
- Economical compared to other means of transfer such as:
  - belt conveyor
  - screw conveyor
  - piston pumps
- Evolutionary depending on the installation service conditions

#### **› CHARACTERISTICS**

- Maximum flow rate: up to 32 m<sup>3</sup>/h (50 m<sup>3</sup>/h for GCA)
- Maximum pressure: 12 bar – 18 bar – 24 bar – 40 bar
- Maximum temperature in continuous operation: 80 °C
- Standard hopper width: 275 mm
- Standard hopper length for dewatering equipment: 500, 1000 and 1500 mm for basic models
- Adaptation of a transfer system increasing lengths to 2000, 2500 and 3000 mm

› PRODUCT RANGE AND APPLICATIONS



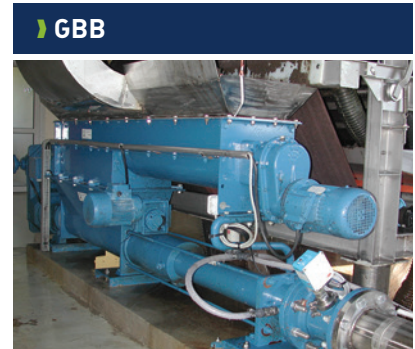
**Gavo for centrifuge applications**

- centrifuge thickening
- non-sticky, pasty products
- low dryness content and low viscosity



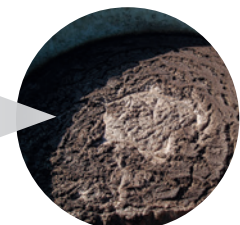
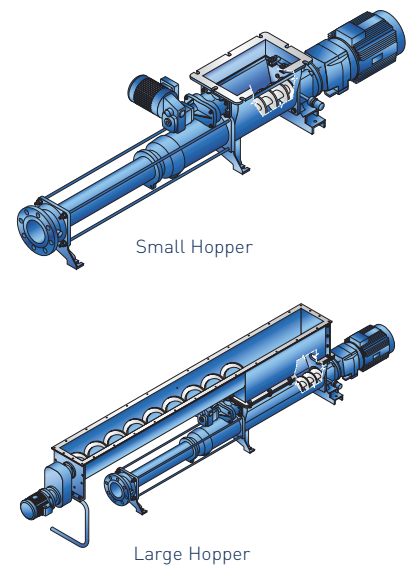
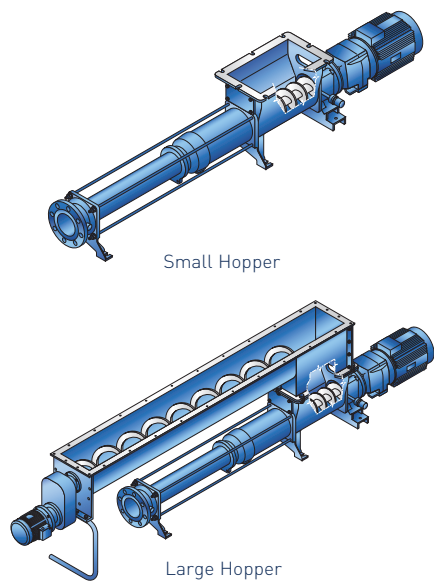
**Gavo for various applications**

- non-sticky, pasty products
- high dryness content
- high viscosity



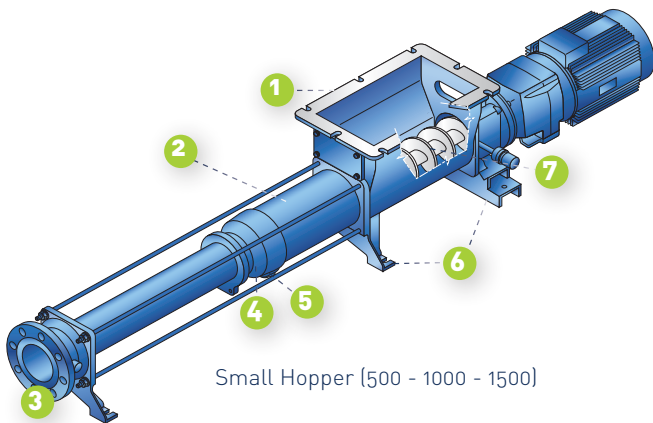
**Gavo with bridge-breaker**

- sticky, pasty products
- products with high dryness content and high viscosity
- lime treatment possible using a built-in, high-performance bridge-breaker mixer

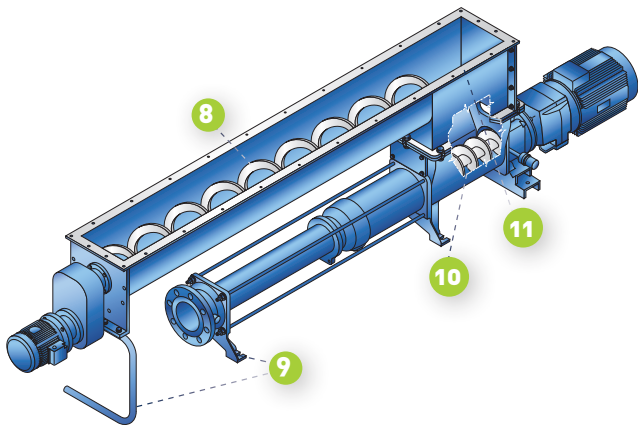


# GAVO GCA FOR CENTRIFUGE APPLICATIONS

# GAVO GVA FOR VARIOUS APPLICATIONS



Small Hopper (500 - 1000 - 1500)



Large Hopper (2000 - 2500 - 3000)

- 1 The shape of the **hopper** allows better feeding of the feed screw by limiting bridging risks.
- 2 The conical, high-yield hydraulic **barrel** guarantees better feeding by promoting the flow of pasty products towards the cavity.
- 3 The **discharge pipe** includes a tube lubrication device for better management of discharge pressure during pumping of difficult products.
- 4 Reduced **articulation** congestion facilitates product discharge. All models are protected by a metal casing, specifically designed to work with abrasive products.
- 5 The standard **drain plug** makes maintenance easier and provides greater operating flexibility for pump drainage.
- 6 The **base** built into the pump structure is designed to facilitate the attachment of the pump onto its foundations.
- 7 The reversible **feed screw** guarantees perfect filling of the barrel.
- 8 The **conveyor screw** in the transfer zone allows sludge to be moved towards the pumping zone.
- 9 The **base** allows the entire pump to be attached and form a single piece of equipment.
- 10 The **feed zone** ensures the filling of the barrel.
- 11 The **linking hopper** guarantees the continuity of the transfer zone in a uniform assembly that can adapt to all dewatering machinery for lengths of 2000 to 3000 mm.

## MAXIMUM CHARACTERISTICS

- flow rate up to 50 or 30 m<sup>3</sup> per hour
- pressure up to 24 bar
- hopper up to 3000 mm

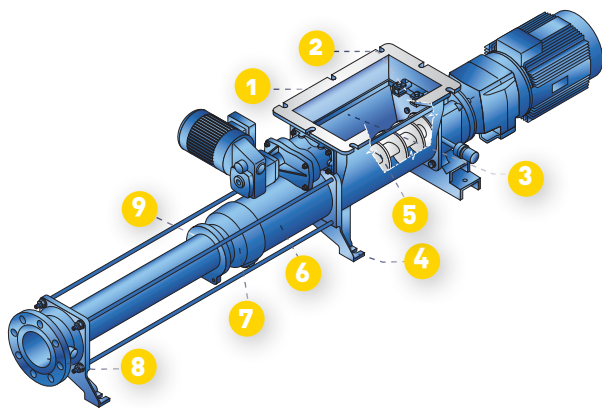
## ACCESSORIES AND OPTIONS

- grease-sealing
- dry running protection
- safety-pressure switch
- flow rate managed by level control
- polymer lubrication

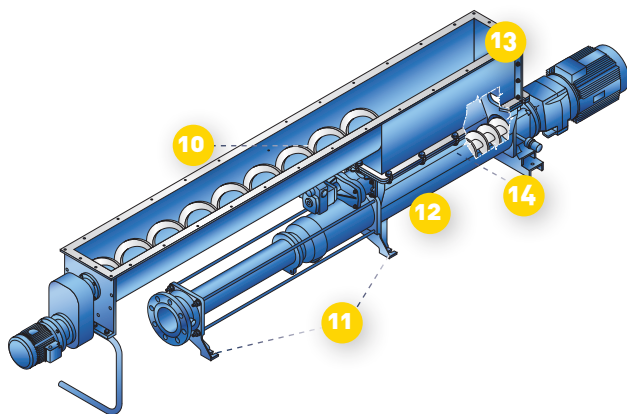
## ADVANTAGES

- Improved fluid circulation owing to the shape of the hopper
- Optimal discharge for the application and the site's service conditions
- Evolutionary depending on the site's service conditions
- Large hopper pump
  - up to 25% shorter than a conventional solution
  - simpler maintenance, faster and easier operation
  - lower-cost spare parts

# GAVO GBB WITH BRIDGE-BREAKER



Small Hopper (500 - 1000 - 1500)



Large Hopper (2000 - 2500 - 3000)

- 1 The **hopper** containing the bridge-breaker provides better feeding of the feed screw by removing the risk of plugging.
- 2 The reinforced **sealing** of the bridge-breaker allows batch operating.
- 3 The hinge-mounted half-**frames** make the **bridge-breaker** more effective for mixing.
- 4 The **base** built into the pump structure is designed to facilitate the attachment of the pump onto its foundations.
- 5 The reversible **feed screw** guarantees perfect filling of the barrel.
- 6 The conical high-yield hydraulic **barrel** provides better feeding by promoting the flow of pasty products towards the cavity.
- 7 Reduced **articulation** congestion facilitates product discharge. All models are protected by a metal casing, specifically designed to work with abrasive products.
- 8 The **discharge pipe** includes a tube lubrication device. This system offers better management of discharge pressure with return pumping, and guarantees optimal working with sticky and plugging sludge.
- 9 The standard **drain plug** makes maintenance easier and provides greater operating flexibility for pump drainage.
- 10 The **conveyor screw** in the transfer zone allows sludge to be moved to the pumping zone.
- 11 The **base** allows the entire assembly to be attached and form a single piece of equipment.
- 12 The **feed zone** ensures the filling of the barrel
- 13 The **linking hopper** guarantees the continuity of the transfer zone in a uniform assembly that can adjust to all dewatering machinery for lengths of 2000 to 3000 mm.
- 14 The **bridge-breaker** zone provides better filling of the feed screw and allows for mixing in lime treatment applications.

## MAXIMUM CHARACTERISTICS

- flow rate up to 32 m<sup>3</sup> per hour
- pressure up to 40 bar
- hopper up to 1500 mm

## ACCESSORIES AND OPTIONS

- grease-sealing
- dry running protection
- safety-pressure switch
- flow rate managed by level control
- polymer lubrication

## ADVANTAGES

- Half-frame bridge-breaker specifically for mixing
- High-yield barrel
- Control of sludge level under the bridge-breaker
- Optimal discharge for different applications and the site's service conditions
- Evolutionary depending on the site's service conditions
- Large hopper pump
  - up to 25% shorter than a conventional solution
  - simpler maintenance, faster and easier operation
  - far less strain on mechanical parts
  - lower-cost spare parts

# PROCESS FUNCTIONS FOR GAVO

All ranges have been developed by optimizing all the LCC (Life Cycle Costs) components. The use of Process Functions reduces costs even further.

## ► POLYMER LUBRICATION

- Reduction of discharge pressure
- Lubrication incorporated in Gavo pumps
- Optimises operation of Gavo pumps
- Compatible with level control

### Applications

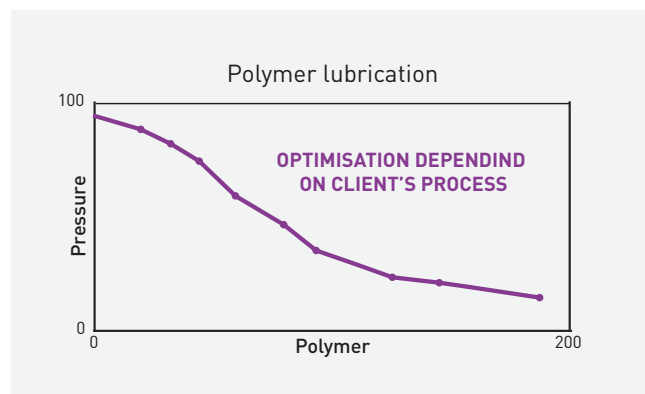
- Transfer over long distances
- Reduction of discharge pressure

### Advantages

- Injection in the form of a lubricating film guaranteeing better yield
- Less strain on wearing parts
- Reduced operating costs
- Evolutionary equipment which can be built into all Gavo pumps

## PCM OFFER

- All equipment for operation is provided
- Installation safety gear included
- Choice of injection pumps adapted to the configuration of the client's process



Polymer lubrication incorporated in GBB in transfer of dewatered sludge with or without lime treatment.

## ▶ LEVEL MANAGEMENT

- Measuring device adapted to equipment's configuration
- Adaptation of receptor for difficult environments
- Mounted receptor allows better integration
- Compatible with lime treatment applications
- Locally installed or distant control box

### Applications

- Variable flow rate functioning
- Flow rate controlled by a process function
- Built in high and low safety devices
- Automatic control of lime injection

### Advantages

- Control of sludge level under the bridge-breaker
- Optimal functioning of Gavo
- Secured installation
- More homogenous mix of sludge and lime
- No overflow problems

## PCM OFFER

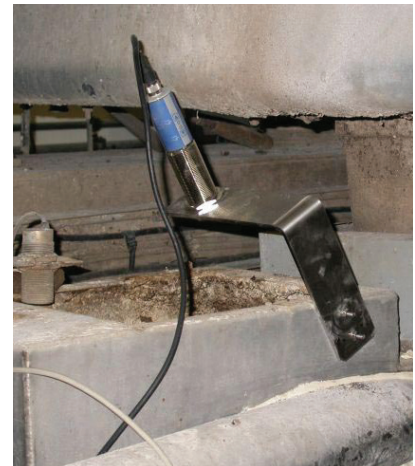
- Equipment built into client's control panel
- Control box installed locally
- Turnkey control panel and installation



Level control built into a control box.



Level control in lime treatment applications.



## INDUSTRIES AND APPLICATIONS



### › ENVIRONMENT

Liquid and dehydrated sludges, lime milk, polymer.



### › 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, sludge.



### › FOOD

Sugars & Starches (Transfer of sugar, glucose, honey, pulp, syrup, molasses, thick juices, liquor, flocculent, 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.