



PCM Moineau™



Gavo Series

Cake pumps for concentrated
and dehydrated sludges

- > Easy to maintain
- > Evolutive conception
- > Cost effective solution



Keep it
moving



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 m³/h (50 m³/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



GCA

Gavo for centrifuge applications

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

GVA

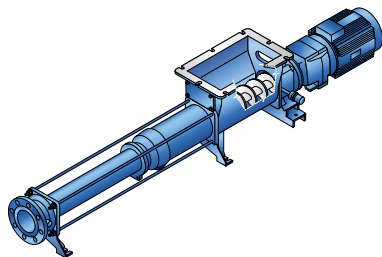
Gavo for various applications

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

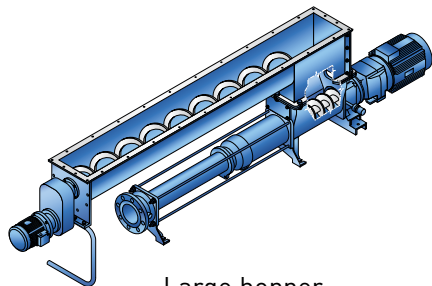
GBB

Gavo with bridge-breaker

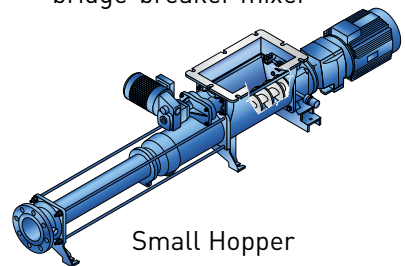
- sticky, pasty products
- products with high dryness content and high viscosity
- lime treatment possible using a built-in, high-performance bridge-breaker mixer



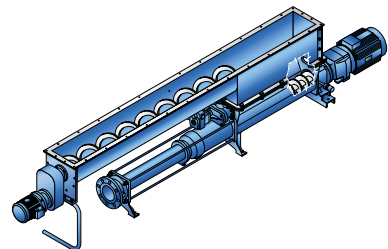
Small Hopper



Large hopper



Small Hopper



Large hopper

GCA

GVA

GBB

10

CENTRIFUGED SLUDGE

20

30

40

DEWATERED SLUDGE

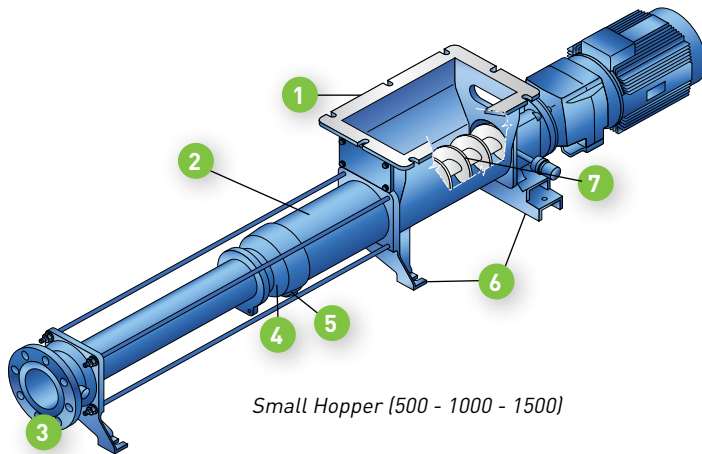


GAVO GCA

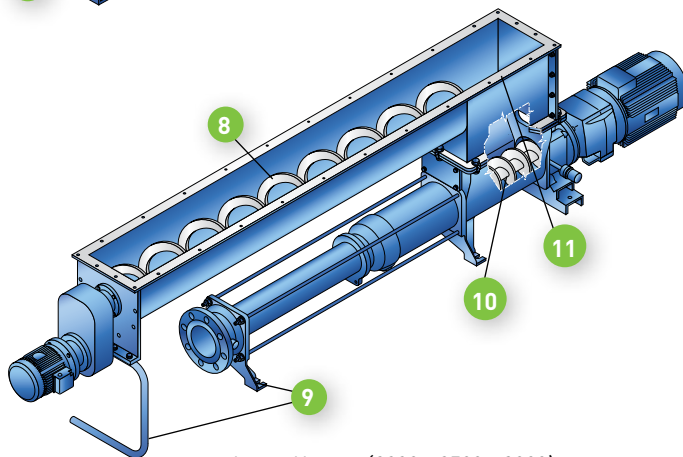
FOR CENTRIFUGE APPLICATIONS

GAVO GVA

FOR VARIOUS APPLICATIONS



Small Hopper (500 - 1000 - 1500)



Large Hopper (2000 - 2500 - 3000)

■ Maximum characteristics

- flow rate up to 50 or 30 m³ 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

■ Construction

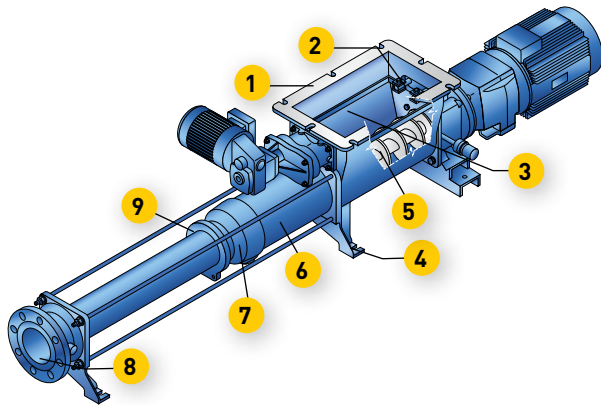
- 1- The shape of the hopper allows better feeding of the feed screw by limiting bridging risks.
- 2- The conical, high-yield hydraulic barrel guarantees better feeding by promoting the flow of pasty products towards the cavity.
- 3- The discharge pipe includes a tube lubrication device for better management 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.

Advantages

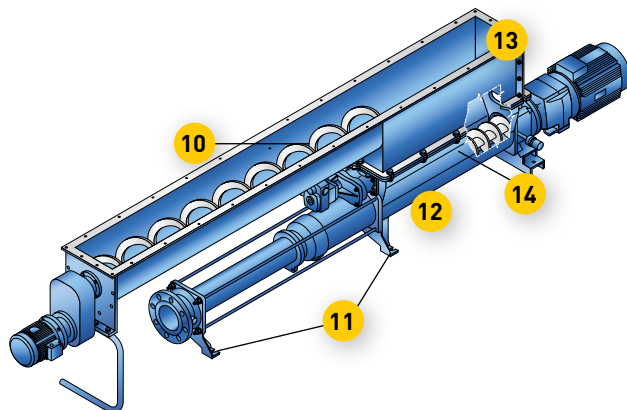
- Improved fluid circulation owing to the shape of the hopper
- Optimal discharge for the application and the site's service conditions
- Evolutionary depending on the site's service conditions
- Large hopper pump
 - up to 25% shorter than a conventional solution
 - simpler maintenance, faster and easier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

GAVO GBB

WITH BRIDGE-BREAKER



Small Hopper (500 - 1000 - 1500)



Large Hopper (2000 - 2500 - 3000)

■ Maximum characteristics

- flow rate up to 32 m³ 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

■ Construction

- 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.

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

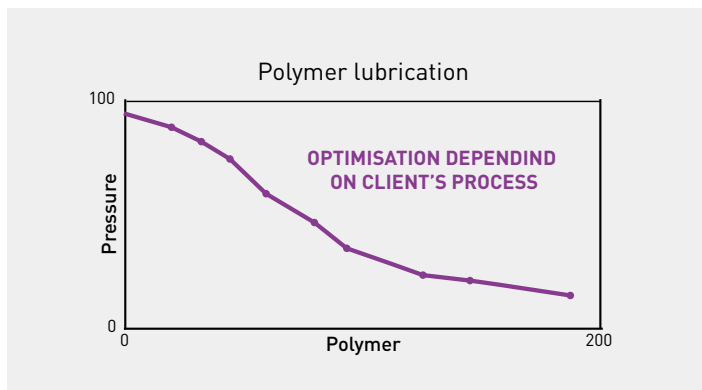
- Transfer over long distances
- Reduction of discharge pressure

■ 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.