

Bulkflo

The Guttridge Bulkflo is a large capacity mobile loading hopper with integral screw elevator designed for use within the food, chemical and pharmaceutical industries.

The loading hopper has an integral horizontal discharge screw with an end discharge into the elevating screw. The elevating screw is adjustable from a 90° vertical position down to 70° (or optionally to a horizontal position), thus allowing unique flexibility and onsite convenience. The discharge screw is usually manufactured with a varying pitch to give an even discharge over the hopper length and its speed can be specified to give the required volumetric discharge rate. Optionally a paddle or ribbon type discharge screw can be fitted to agitate the hopper contents.

Ideal for handling pellets, flakes, powders, granules and any free flowing materials. Typical uses include feeding, mixing, processing and packaging machinery or in applications where intermediate storage is needed. The Bulkflo can be fed from bags, boxes, drums or big bag systems.

The Bulkflo machine is designed, in common with all Guttridge machines, with ease of cleaning and maintenance in mind and has many unique design features.



- **316 stainless steel contact parts**
- **Adjustable elevating screw angle**
- **Tough powder coated finish on mild steel components or stainless steel construction**
- **Rapid-release screw tube clamp system for easy clean down**
- **Available with non-standard hopper capacities and 3 elevator sizes**
- **Robust packing gland seals protect bearings against product ingress**

Guttridge

Bulk Materials Handling

www.guttridge.com

Bulkflo

Features at a glance

The Bulkflo is a large capacity mobile loading hopper with integral screw elevator.

- A very versatile machine, capable of handling many different products
- Ideal for bulk bag and buffer hopper applications
- Modular screw and tube design
- 316 stainless steel contact parts
- Designed for easy clean down



Geared Motor Drives

- Suitable for Inverter use
- Swing-away drive for easy clean down*



Dust Extraction Hood

- Allows extraction of dust from tipping process*
- Various sack support table configurations available*

Easy Release Tube & Screw Joints

Allows easy strip down for cleaning

Discharge Height

Up to 5 metres
Extended frame for stability*

Elevator Screw

Up to 5 metres

- Adjustable 70° - 90°
- Adjustable (with additional support) down to horizontal*

Electric Control Panel

- Integral start/stop controls
- Hopper level probes*
- Custom control systems available*

Transfer Point

Special close-coupled transition for efficient feed to elevator screw

Shaft Seals

Packing glands seal all drive end shafts

Heating / Cooling

Jacketed hopper and screw tubes*

Hinged Safety Grill

Microswitch interlock for easy hopper cleanout*

Hopper Capacity

Standard: 400 litre
Optional: 100 – 3000 litre*
Drain point, ideal for wet clean down*



Difficult Products

- Product agitator*
- Mirror finish internal surfaces*
- Vibrator motor to aid discharge*



* Optional Equipment



Weighing Systems

Load cells with controller for loss in weight applications*



Construction

- Bulk bag connection spigot*
- Wheel-mounted frame for mobility
- Machine frame and drive mounting painted as standard
- Stainless steel throughout*
- Hinged lid*

Construction

- The Bulkflo machine is sturdily constructed, using high quality materials throughout. All components are precision punched and fabricated for ease of assembly and interchangeability.
- All contact parts are manufactured from 316 grade stainless steel, external surfaces polished with a uniform grained finish to 180 grit.
- Non-contact parts are manufactured from mild steel with external surfaces powder coated for maximum durability with the option of a stainless steel construction.
- The discharge and elevating screws are separately driven from two geared motor units, IP55 rated.
- Conventional flange bearings support the stainless steel drive shafts which rotate in a packing gland seal to provide an effective seal against most types of products.
- The non-driven shafts run in nylon bushes ensuring a long trouble-free life.

Operation

- Careful attention has been paid to the design of the Bulkflo machine to ensure ease and safety of operation.
- A single Allen key is the only tool necessary for a typical clean-down operation between batches.
- The main tube sections are joined by a special tube clamp which provides a strong and secure joint that can be easily disassembled by undoing a single captive set screw.
- The drive shaft and screw sections are connected using special slip-fit couplings which require no gudgeon bolts making disassembly remarkably quick and easy.
- The Bulkflo elevating screw is designed for use at an incline angle of 70°, adjustable to 90° or optionally to any angle down to horizontal (with appropriate support).

Maintenance

- The Bulkflo machine has been designed to be reliable and easy to maintain so that non-productive downtime is kept to a minimum.

Optional Extras

- Fully wired unit with DOL starters
- Variable speed inverter drive
- Electronic soft start unit
- Paddle or ribbon type discharge screw
- Dust control hood
- Hinged hopper cover
- Big bag discharge frame
- Jacketted screw tubes and panels for temperature control
- Stainless steel construction throughout, including non-contact parts
- Stainless steel polished to special requirements.
- Special purpose machines, fabricated to customers' own specifications

Our policy is one of continuous improvement, all dimensions and technical details are subject to change without notice. Please check at time of ordering.

Capacity Chart:

Elevating Screw Size	Output Capacity approx. max.
75mm dia.	1.5 cu m/hr
100mm dia.	3.5 cu m/hr
150mm dia.	12 cu m/hr

Note: Capacities are very dependent on product flowability and density. Please seek advice before specifying.



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Guttridge - right first time solutions

Guttridge Ltd is one of the UK's leading manufacturers of bulk materials handling systems and has an established track record of delivering reliable right first time solutions to the food and pharmaceutical industry, and many other sectors. The company's food grade hygienic stainless steel range includes conveyors, elevators, big bag handling systems and feeders and is designed and manufactured to a precise specification. Machines are constructed in either 316 or 304 stainless steel, to avoid corrosion/contamination, and are TIG welded to a high standard of finish. Optional specifications include crack and crevice-free construction, electro-polished or mirror finish surfaces and rounded corners. Quick and easy clean down is a defining characteristic and ATEX zoned machines are available. However for certain applications only a truly bespoke machine will suffice.

Bespoke bulk materials handling machines a speciality

With design, specification and manufacture all under one roof, Guttridge is able to successfully meet the need for bespoke solutions in an efficient and cost-effective way. A team of experienced and knowledgeable engineers optimises each machine design, which is then constructed by highly skilled craftsmen in the company's state-of-the-art manufacturing workshop. In-house powder testing provides supportive data for hard to handle new materials, giving the engineers with the skill to interpret the data a scientific edge when it comes to refining their designs. Control over every aspect of a project brings benefits to every customer but is particularly important for those facing the most demanding materials handling tasks.



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Bulkflo hoppers, custom-built for handling sports drink powders