



## ROTOFLO SILO DISCHARGE UNITS

VERSATILE, CONTROLLED, VIBRATION-FREE

## INTRODUCTION

Severfield Modular Solutions Limited is part of Severfield plc - the UK's market-leading structural steel company. Its success is built on its commitment to delivering outstanding customer service, being responsive, dependable, and flexible, ensuring it meets all your project needs on time and in full.



## A REVOLUTION IN MATERIALS HANDLING

Since its inception at Portasil, the Rotoflo Silo Discharger has been continuously developed to ensure it meets the most demanding of applications. As a result, Rotoflo remains at the forefront of material handling technology.

We purchased the patent and Intellectual Property for Rotoflo from Portasil in 2020, and it is now our role to produce and develop these units for our global customer base.

By working closely with our customers, we ensure we understand their specific needs and requirements, helping increase manufacturing efficiency, increase productivity, reduce downtime, and reduce maintenance costs.

With an impressive track record across multiple industry sectors, we aim to consolidate and build on Rotoflo's reputation, making it the universal first choice for silo discharging applications.

## UNIQUE VIBRATION-FREE SYSTEM DESIGN

The Rotoflo discharger provides a highly efficient, reliable, and controlled flow of even the most challenging materials, without incurring the complications, costs, or side effects associated with vibration or aeration. Rotoflo represents a cost-effective solution to the common challenges of discharging difficult materials from storage vessels, such as bridging, rat-holing, and stagnant zones.

## BUILT-IN VERSATILITY

The Rotoflo is available in a range of sizes and materials construction to meet your specific application and feed rates. These versatile units can be manufactured from mild steel, stainless steel, or mild steel combined with a stainless-steel cladding. We can also provide food-safe finishes and ATEX-rated equipment to suit your requirements.

Rotoflo can be mounted in new-build and retro-fit silo applications and achieves complete, controlled, and pulse-free discharge on vessels ranging from 20m<sup>3</sup> to 600m<sup>3</sup> storage capacity.

Rotoflo units can be supplied with multiple outlets for simultaneous or alternate material feeding of up to four discharge points. There are also alternative drive options available, including dual and variable speed for weighing and process control applications.

## LOW-PROFILE, EASY MAINTENANCE DESIGN

All maintainable items can be easily serviced without the need to empty the storage vessel. This includes the externally mounted gearbox. The low-profile design makes the Rotoflo discharger an ideal solution for plants and operations where headroom is at a premium.





[CLICK TO PLAY THE ROTOFLO ANIMATION](#)

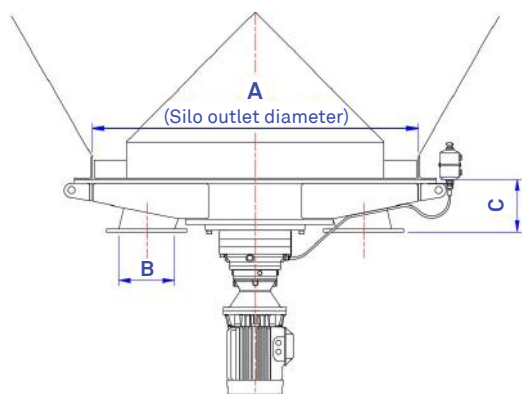


## THE COST-EFFECTIVE SOLUTION

- Reduces capex
- Increasing live storage volume in your vessels
- Multiple discharging points from the same silo
- Reducing the need for downstream equipment
- Lowering power consumption
- Allowing maintenance access, without the need to empty your vessel

## TECHNICAL DATA

The Rotoflo offers a range of options tailored to suit various industrial needs. Available in four sizes the Rotoflo caters to a broad spectrum of silo capacities, spanning from 20m<sup>3</sup> to 600m<sup>3</sup>. Each model of the Rotoflo is available in both carbon steel and stainless steel. This flexibility ensures compatibility with diverse operational environments and material handling requirements.



Rotoflo	A (mm)	B (mm)	C (mm)	Through-put*
LP 1200	1200	200	250	1.5-60m <sup>3</sup> /hr
LP 1500	1500	250	300	2.4 - 80m <sup>3</sup> /hr
LP 1800	1800	300	350	4.8 - 120 m <sup>3</sup> /hr
LP 2400	2400	350	450	8 - 160 m <sup>3</sup> /hr

\*Low speed gear box option or frequency inverter can be used to achieve lower throughputs

## ROTOFLO<sup>®</sup> BENEFITS

- Controlled discharge – consistent feeding over a wide range of throughputs.
- Multiple outlets – feeds up to four process streams from the same silo.
- Totally sealed and dust free – fixed, flanged connections with no flexible joints.
- First-In, First-Out discharge – can be achieved for better inventory control.
- Complete silo emptying – eliminates dead storage and increases effective storage capacity.
- Suitable for a diverse range of materials – from fine powders and particulates to granular products.
- Low power consumption – high torque, low speed rotation requires (typically) 0.2kW per hour, per tonne discharged.
- Easy to retrofit – to existing silos and vessels.
- No vibration – avoids product compaction and eliminates vessel fatigue failures.
- ATEX certified – units are available certified ATEX 1D for use in potentially explosive atmospheres.
- Robust construction – pressure shock resistant design, ideal with explosive materials.
- Positive shut-off – reversing the drive closes the scoops, enabling positive shut off with the silo full.
- Minimal maintenance requirements – increased productivity and lower running costs.
- Industry leading reliability – 20+ years of trouble-free operation.

# ROTOFLO HAS BEEN USED FOR

Activated carbon	Hydroxy EthylCellulose	Rice bran concentrate
Adipic Acid	Hydrated Lime	Salt
Air Filter Dust	Kaolin - Anhydrous	Sand
Aluminium Silicate	Kaolin - Hydrous	Sewage Sludge Pellets
Andracite	Lead Oxide	Silica - Powder
Artificial Gypsum	Magnesium Oxide	Silica - Precipitated
Astaxin	Magnesium Silicate	Sodium Bi Carbonate
Barium Sulphate	Magnesium Sulphate	Sodium Carbonate
Bentonite	Maize	Sodium Chloride
Blast-furnace Slag Powder	Maize Starch	Soya Bean Feed
Boric Acid	Marble Powder	Spanish Gypsum
Calcium Carbonate	Microdol	Starch
Calumite	Milled Biomass	Steatite
CEM11	Milled Coal	Stucco Plaster
China Clay	Modified Corn Starch	Super Absorbent Molecule
Chocolate Crumb	Morden R	Titanium Dioxide
Chromium Oxide	Oat bran Concentrate	Urea Prill
Diuron	Opacilite	Wheat fibre
Dolomite	Ordinary Portland Cement	Wheat Flour Corn Meal
Dried Sewage Granulate Pellets	Pulverised Activated Carbon	Wood flour
Ferrous Sulphate Heptahydrate	Pulverised Fuel Ash	Zeocross
Ferrous Sulphate Monohydrate	Polyelectrolyte Polymer	Zeodent
Fillite	Potato Starch	Zeolex
Fumed Silica	Precipitated Calcium Carbonate	Zinc Oxide
Glass	PVC resin	Zinc Phosphate
Granulated Sugar	Quicklime	
Gypsum Powder	Recycled plasterboard	

TO FIND OUT MORE ABOUT ROTOFLO SILO DISCHARGER, PLEASE CONTACT US OR VISIT OUR WEBSITE AT:

[www.severfield.com/products/material-handling/rotoflo](http://www.severfield.com/products/material-handling/rotoflo)

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