

# Company overview

## Bulk storage and handling solutions from the specialists

Bespoke storage and handling systems individually designed for safe, efficient, fully controlled handling of dry bulk materials. With 60 years of design and manufacturing expertise, Portasilo can devise the optimum solution for even the most challenging materials.





OPTIMUM HANDLING SYSTEMS FOR EVERY

DRY BULK CHEMICAL

# Portasilo designs, manufactures and installs complete storage and handling systems for every type of dry bulk product.

## How can we help you?

Contact our specialists to find out how we can design, manufacture and install a complete storage and handling system for your bulk materials.



**UK**

+44 (0)1904 624 872



**INDIA**

+91 83907 22244

Our 60-year track record means you can rely on our expertise to design the optimum safe, efficient, cost-effective handling system for materials ranging from dusty powders to cohesive sludges, no matter how explosive, corrosive or difficult to handle.

In our long experience, supplying systems to customers worldwide, we have overcome every challenge in bulk material handling, from aggressive and hazardous materials to urgent deadlines, tight budgets and awkward sites. Our combined knowledge, experience and resources enable us to supply tailored solutions to meet the individual requirements of any plant.

### Supporting customers in diverse sectors

Portasilo manufactures storage and handling systems for customers in a wide range of industries, from water and food to energy and chemical.

We have dedicated specialists with a detailed understanding of the demands and priorities of each sector, enabling us to design the most efficient, cost-effective and safe handling solutions for every customer.

The businesses we supply range from major multinational corporations to specialist material handling companies, all around the world.

### Experts in:

- » Storage
- » Discharge
- » Conveying
- » Weighing & Dosing
- » Turn-key contracts

### A sample list of our clients includes

Food	Energy	Chemical	Water	Nuclear
Mars	Eon	Asian Paints	Yorkshire Water	AWE
Heinz	RWE	Shell	South West Water	Magnox
Nestle	Drax	Lafarge	Welsh Water	Dounreay
PepsiCo	SSE	Tata	Black and Veatch	Sellafield
Cargill	Alstom	Lotte Chemicals	AECOM	Sizewell

Everything we supply, from silos to dischargers and conveying systems, is manufactured in our own purpose-built workshops, giving us full control over the quality and specification of your systems.



## Delivering world-leading systems – worldwide

Wherever you are in the world, you can rely on a responsive service and a bulk-handling solution designed specifically for your plant and operational priorities. Portasillo has been supplying bespoke systems to international customers for more than 60 years, which means we have the logistical expertise and resources, global contacts and regional knowledge to successfully complete projects on time, anywhere in the world.

For overseas projects, any dischargers, conveyors and other specialist equipment will be manufactured in our UK factory, while silos, hoppers and other storage vessels may be fabricated in the destination country, under the supervision of Portasillo project managers.

We have installed everything from a water desalination plant in Australia to handling systems for a steel smelting plant in India and a sugar-conditioning system in Taiwan and many other examples in between.

### India offices: local support for major markets

To provide a responsive service to customers worldwide, we have offices in the UK and India. We have invested significantly in an extensive infrastructure to support the strategically important Indian market, which includes offices in Chennai and Pune. The local teams here offer a full range of services to our Indian customers, from engineering and installation to project management and site services.

## Global sales from the UK and India





## HIGH-PERFORMANCE PRODUCTS MANUFACTURED IN PURPOSE-BUILT WORKSHOPS



### Storage



#### Silos designed for safe, uncontaminated storage

Specifying the correct silo size and geometry for the material you need to store is essential for safe storage and effective discharge. Portasilo can advise you on the optimum vessel design, and manufacture precisely the silos you need to store your materials safely and without deterioration.

Our robust, high-performance storage vessels range from sack-tip hoppers to large-volume silos up to 15 metres in diameter, with capacities from 10m<sup>3</sup> up to 5,000m<sup>3</sup>. Silos up to 4.6 metres in diameter can be manufactured in one piece and delivered by road. Larger silos are fabricated in sections and assembled on site.

Each silo is designed specifically for your project, and you can choose from carbon, steel, stainless steel or aluminium, depending on the nature of the material you wish to store and your budget.

### Discharge



#### Effective, efficient, controllable discharge systems

Portasilo manufactures and installs an extensive range of silo discharge systems, to suit all types of material.

The market-leading low-profile Rotoflo discharger offers a highly controlled, reliable means of discharging difficult materials from silos. Whether you are storing cohesive, fibrous, hygroscopic or free-flowing materials, the Rotoflo discharger promotes efficient outflow at a controlled rate, while minimising preferential flow and preventing the formation of stagnant zones within the silo. Rotoflo dischargers can feed up to four conveying lines simultaneously.

Our experienced engineers will be able to advise you on the most appropriate discharge system for your material, operational requirements and budget.

A range of products including:

- » Mechanical dischargers
- » Vibratory dischargers
- » Aeration dischargers

### Conveying



#### Conveying systems tailored to your operational needs

Portasilo manufactures a range of vacuum and pneumatic conveying systems, as well as mechanical screw conveyors for highly controlled material transfer.

Your conveying systems can be completely enclosed, to provide a clean, safe and environmentally friendly solution. For moist products, we can add dewatering screws and climate-control systems to prevent blockages. We'll also design your conveyors to provide close to zero waste during the transfer of materials around your plant.

A range of products including:

- » Dense-phase
- » Lean-phase
- » Mechanical conveying
- » Pneumatic vacuum



## Weighing and dosing



### Precision-engineered automated systems to boost efficiency

If your plant needs to weigh and mix ingredients, Portasilo offers a range of mixing tanks, sack-tip hoppers and day hoppers to handle every type of ingredient. We will design an automated weighing and batching system to deliver very precise quantities of material into your mixers or production lines, accurately and reliably, while eliminating labour-intensive processes and the risk of human error.

We manufacture advanced precision metering units (PMU) for accurate batch weighing of major and minor ingredients. Your weighing system will be specified to match your throughput rates, with a choice of gravimetric or volumetric weighing mechanisms. In all our batching and weighing systems we work to very tight tolerances to eliminate waste and optimise efficiency.

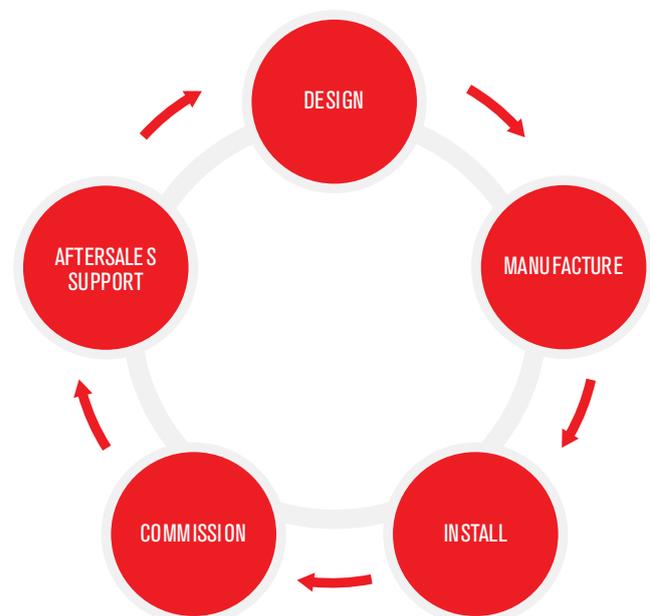
## Turnkey solutions

When you work with Portasilo you will have access to a complete package of products and services, giving you a single supplier for your entire project.

As well as supplying all components for your storage and handling solution, our specialists will design, deliver, install and commission the complete system.

We can handle all civil engineering works, electrical control systems and install all electrical and instrumentation equipment. We will project manage every part of the process, ensuring you get precisely the bulk handling system you need, delivered on schedule and to budget.

We can also carry out a detailed analysis of material properties in our test laboratories, as well as conducting discharge and conveying trials to determine the optimum handling solution.





## MULTI-SECTOR EXPERTISE



### Food

#### Economical systems to optimise productivity and minimise waste

Portasilo has vast experience of supplying economical, ATEX-rated food handling systems to major food manufacturers and processors worldwide. Our sector knowledge and operational experience mean we understand the importance of optimising productivity and maintaining strict hygiene standards, while eliminating waste and minimising downtime in food processing plants.

We can design systems to handle every type of foodstuff, from dusty granules to moist pelletised products. All work we carry out on operational plants is organised to minimise process interruption and downtime.

Food industry clients include:

- » British Sugar
- » Kellogg's
- » Kraft
- » Mars
- » Nestle



### Chemical

#### Bulk handling solutions for challenging and hazardous chemicals

Our combined knowledge, experience and resources enable us to supply tailored solutions to meet every challenge in chemical material handling, from aggressive and abrasive materials to hazardous sites.

We have particular expertise in providing solutions for paint powders, sealants and adhesives, fertilisers, petrochemicals, plastics and rubbers.

Chemical industry clients include:

- » AkzoNobel
- » Asian Paints
- » BASF
- » DuPont
- » Huntsman



### Energy

#### Bespoke systems for complex and volatile biofuels

We can devise bespoke storage and handling systems for a whole range of energy-sector applications, including chemical and fuel injection systems, ash handling, dust filtration, energy from waste and biomass handling.

We have experience of handling every type of biomass material, including wood pellets, dried sewage sludge, meat and bone meal, draff, chopped straw and charcoal. Your system will be designed to handle the unique properties of your material, no matter how dusty, explosive, cohesive or free-flowing.

Energy industry clients include:

- » Alstom
- » Drax
- » E.on
- » RWE
- » Scottish Power

"Lafarge likes to think of itself as a customer-focused company and the engineering department must have suppliers with the same attitude for us to be able to deliver on salepeople's promises. Portasilo delivers what they say they will and that is due to the professional approach their team operates with."

**Tony Prince, Chief Engineer, LCUK, Lafarge**



## Water

### Optimum powder-handling systems for water-treatment plants

Portasilo manufactures storage and handling systems for every dry bulk material used for water treatment, from hydrated lime and powder-activated carbon (PAC) to polymers and soda ash.

We can supply ATEX-rated equipment for explosive polymers, sealed moisture-controlled systems for hygroscopic materials and controlled discharge and conveying systems for free-flowing materials like PAC.

Water industry clients include:

- » Aecom
- » Severn Trent Water
- » South West Water
- » United Utilities
- » Yorkshire Water



## Nuclear

### Safe, efficient installation on sensitive nuclear sites

Portasilo has a track record of supplying efficient storage, discharge, conveying and dosing systems for nuclear power plants, for both generation and decommissioning. We understand the complexities, sensitivities and critical process requirements of the nuclear industry, and have a proven record of fulfilling the sector's stringent documentation requirements.

The types of material we handle for this sector include iron oxide, magnetite, cement, pulverised fly ash, blast furnace slag and have particular expertise in encapsulation and grout handling.

Nuclear industry clients include:

- » Babcock
- » EDF Energy
- » Magnox
- » NDA
- » Sellafield Ltd



## Construction

### Robust, long-life storage and handling for construction industry materials

For more than six decades, Portasilo has been designing and manufacturing robust, durable and versatile storage and handling systems for a wide range of building products for the construction, mining and quarrying industries.

Construction industry clients include:

- » LaFarge
- » Thomas Armstrong
- » Tarmac
- » British Gypsum
- » Cemex

### Industry association memberships include:





SYSTEMS INDIVIDUALLY DESIGNED FOR  
YOUR MATERIALS AND PROCESSES



We can offer a range of solutions to each sector, outlined below are some examples but there are many more, contact your sales engineer to find out how we can design a system to meet and exceed your requirements.



### Food

Our solutions can include:

- » Sugar conditioning
- » Chocolate crumb processing
- » DSEAR/ATEX services



### Chemical

Our solutions can include:

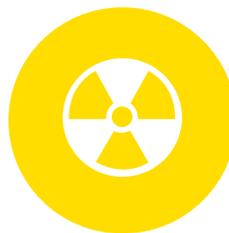
- » Batching plants
- » Air pollution control systems
- » Plastic pellet storage & handling
- » Aggressive/abrasive material handling



### Water

Our solutions can include:

- » Desalination
- » Chemical dosing
- » Hydrated lime systems
- » Quick lime



### Nuclear

Our solutions can include:

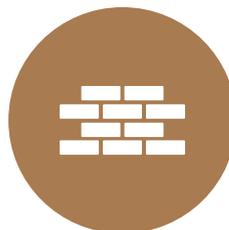
- » Grout make up/mixing & dosing
- » Storage
- » Water chilling systems
- » Dry powder blending



### Energy

Our solutions can include:

- » Ash handling
- » Energy from waste
- » Biomass processing
- » Chemical injection



### Construction

Our solutions can include:

- » Gypsum storage & handling
- » Sand aggregate storage & handling
- » Cement storage & handling
- » Ferrous Sulphate processing

“The engineering solution was better than other companies who were up for tendering. Installation has gone with no hitches and it was a difficult installation for anyone.”

Heinz

Bespoke storage and handling systems, individually designed for accurate, efficient, fully controlled handling of an extensive range of materials



### Food

- » Bran
- » Chocolate crumb
- » Coffee
- » Flour
- » Rice
- » Salt
- » Sugar
- » Tea
- » Wheat
- » Wheat gluten



### Chemical

- » TiO<sub>2</sub> (titanium dioxide)
- » China clay
- » Gypsum
- » Limestone filler
- » Adipic acid
- » Urea prill & fines
- » Potash
- » Sodium nitrate
- » Zinc oxide
- » Sulphur pellets
- » Ash
- » Polystyrene
- » PVC granules



### Water

- » Hydrated lime
- » Powder-activated carbon (PAC)
- » Polymers
- » Quick lime
- » Dry sludge pellets
- » Soda ash
- » Micro sand



### Nuclear

- » Iron oxide
- » Magnetite
- » Ordinary Portland Cement (OPC)
- » Pulverised fly ash
- » Blast furnace slag



### Energy

- » Wood pellets
- » Dried sewage
- » SRF wood chip
- » Meat and bone meal
- » Draff
- » Chopped straw
- » Wood dust
- » Charcoal
- » Biosolids
- » Chaff
- » Ash
- » Coal



### Construction

- » Gypsum
- » Cement
- » Limestone
- » Ferrous Sulphate
- » Sand



FULL TURN-KEY SERVICE PACKAGE

– MAKING YOUR LIFE EASIER

Whatever the specific circumstances or limitations of your project, our specialists have the expertise to design a complete handling system that stores and transfers materials safely around your plant to meet your specific operational requirements.



“Portasilo delivered delivered what they said and provided back up with no problems. The after-sales support has been excellent and they responded to any issues we had.”

#### **Kellogg's**

“Having worked with Portasilo over many years, I know I can trust their specialists to give honest advice and come up with the best solution. What's more, I know they will get the job done on time - which is absolutely invaluable for a project manager.”

#### **Project Manager, CAM Project Management**

For difficult or untested material, we can carry out a detailed analysis of its properties in our test laboratories

#### **Experienced project management**

Your entire project, from design through to installation and commissioning will be carefully coordinated by an experienced project manager. That gives you the peace of mind that every stage of your project will be completed to the highest standards and your bulk handling system will be installed and operational right on schedule.

#### **Safe, efficient installation and commissioning**

Your storage and handling system will be installed on site by an experienced team, with minimal disruption to your operations. Our engineers are accustomed to working on busy, hazardous and sensitive sites, and will follow the strictest health and safety procedures. Once installed, your system will be fully tested and commissioned to ensure it is working at optimum efficiency in line with your requirements.

#### **After-sales support – keep your plant running at optimum efficiency**

Once your system is installed, you can call us at any time to carry out maintenance or repair work, and to provide regular servicing to keep your plant working at optimum efficiency.

We stock a comprehensive inventory of spares, and offer a rapid response if you need a replacement part. Our engineers can also complete plant upgrades and modifications, where required, to ensure your plant keeps pace with changing operational processes or new legislation.

## Independent accreditations – for complete quality assurance



The Portasilo quality-management system is accredited to ISO9001:2000. Our factory-based manufacturing environment delivers consistently high quality standards through close control of the entire construction process.

We have achieved ISO 14001 accreditation for our environmental-management systems, and OHSAS 18001 for our occupational health and safety management system. We are also a member of the Safe Contractor health and safety accreditation scheme.

Portasilo is an accredited supplier of ATEX explosion-protection equipment and systems.

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“The Portasilo specialists were on hand at all times to provide advice and guidance. Portasilo were involved right from the consultation phase of the projects, ensuring the systems were designed in accordance with all South West Water’s specifications.”

**Mike Galligan, Works Manager, South West Water**

“The system designed by Portasilo rectified a number of areas of concern at the plant in a single solution – and represented excellent value for money.”

**Jason Rollinson, Project Manager, Tecker**

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**Shepherd Group**

## Prestigious parent company – for peace of mind and quality assurance

Portasilo is a member of the Shepherd Group, one of the UK’s leading family-owned businesses, with a 120-year history of quality craftsmanship in the construction and manufacturing sectors.

The Shepherd Group is a stable and growing organisation, with a strong ethos of integrity, openness and honesty. Today, the company is a diversified business leader in construction, mechanical and electrical engineering, modular buildings and equipment housings, delivered through strong brands including Portakabin, SES and Portastor.

Such a well-established and reputable parent group gives you the assurance of a financially secure supplier with unrivalled experience in delivering major projects, combined with a dedication to sustainability and corporate responsibility.

# Portasilo®

Bulk Handling Systems



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