PERRY ENGINEERING EXCELLENCE

Grain & Bulk Handling Equipment



Perry of Oakley Ltd. was founded in 1947 by Tom Perry, a farmer's son, Perry of Oakley Since 1947 Who offered a mobile repair and manufacturing service to local farmers and bueingesce in the Colley Resingetable area of Hamphire businesses in the Oakley, Basingstoke area of Hampshire.

Working from home he converted an Austin 12 car into a mobile workshop; the back seat was replaced by a bench and welder. He travelled all over the country, sleeping in a tent if away from home, repairing farm machinery (tubing traction engine boilers, welding combines and binders in the field).

In 1949 Tom Perry designed and built our very first belt and bucket elevator with a capacity of 5tph. 1949 also saw the introduction of our first grain cleaners. These early cleaners were equipped with mechanical sieves and aspiration to lift off dust and light rubbish.

During the early 1950s many new farm mechanisation aids were designed by Tom Perry and manufactured in Oakley. These included tractor mounted buck rakes, trailers, dust

combine harvesters and jog trough grain conveyors driven by petrol engines or electric motors. These conveyors had capacities of up to 5tph. As capacity requirements increased the first chain and flight conveyors were developed. These conveyors were the fore runners of the conveyors that Perry's currently design and manufacture with capacities up to 800tph.

In 1952, the first factory was built in Oakley. It measured 60 foot x 40 foot.

In 1955, our first continuous flow grain drier was manufactured also with a capacity of 5tph.

The business steadily developed based on its reputation of delivering reliable, well engineered conveyors and bucket elevators during the

early 1950s. Export sales of Perry's own design grain driers developed as well as adding dust extraction equipment and weighing hoppers to the range. The conveyor range was expanded to include curved and inclined conveyors and flow and return types.

In 1974, a brand new purpose built manufacturing facility was built in Oakley, Basingstoke.

During the next 16

years the business continued to grow.

In 1990, the business had expanded significantly - under the direction of Tom's son Nigel Perry - to require larger premises and a relocation move to Honiton, in Devon, was made.

The following year Nigel's son, David, joined the business having achieved a First Class Honors degree in engineering.

In October 2007, David Perry took over as managing director, with his sister, Claire, joining full time in 2020. Perry's have continued to expand and plan for the future. The company have won numerous awards, including SHAPA Exporter of the Year 2017 & 2021, and Global 100 Best Designer of Bulk Materials Handling, Drying & Storage of the Year - UK 2022.

Investing in the very latest CAD CAM technology, including three dimensional design facilities and the latest fully automated punching and forming machinery; all Perry products are designed and manufactured in Perry's purpose built facility in the West Country using a depth of knowledge acquired during more than 70 years of business.

We have a large engineering and design department and have a very active research and development program. We provide expert technical support for our machinery worldwide and we stock one of the most comprehensive spare parts inventories in the trade.





The UK's most experienced manufacturer of materials handling, drying & storage solutions.

Perry of Oakley Ltd. can help design, manufacture and install your project from intake - up to 800tph - through to drying and storage. Our range of storage equipment includes hopper bottom and flat bottom silos, capable of holding up to 11,000 tonnes, based on wheat at 750kg/m³.







- Chain and Flight Conveyors
- Curved Combinations
- Mechanical Reception Hoppers and Trench Intake Conveyors
- Levelling and Travelling Conveyors
- Twin Trace Conveyors
- Belt and Bucket Elevators
- Belt Conveyors
- Tubular and Screw Conveyors
- Aspirator Pre-cleaners
- Galvanised Modular Square Bins and Tote Bins
- Flat Bottom and Hopper Bottom Silos
- Ducting and Bin Slides
- Grain Driers
- Belt Driers

Call us today on +44 (0)1404 890300 to speak to us about our market leading Savannah Series Driers.



Industrial Chain and Flight Conveyors







- Capacities of up to 800tph based on wheat at 750kg/m³ suitable for full commercial use.
- Stainless steel / galvanised steel / mild steel powder coat painted construction options.
- Each conveyor tailored to individual customer requirements.
- Six standard widths available 230, 300, 400, 500, 600 and 750mm.
- Heavy duty construction.
- Bases fitted with central wear resistant strips for chain to run on or a complete wear resistant plastic base, or Hardox lining for very high throughputs.
- Steel plate chain with breaking strains up to 224kN or forged chain with breaking strains up to 930kN.
- Cross slide or inline slide outlets to save space at the side of the conveyor. Electro-pneumatic, motorised or hand operated options available.
- Optional spring assisted chain tension. This allows the tail end shaft to move slightly as the chain passes around it to smooth out the constant straining and un-straining caused by the chain not taking a perfect radial path around the sprocket.







Industrial Chain and Flight Conveyors





- Can be curved or inclined up to 10 degrees (deep flight conveyors can incline or curve up to 45 degrees.
- Drive configurations to suit customer preferences.
- Horizontal, curved, flow and return and inclined conveyors available.
- All bolted and riveted construction with heavy duty dimple form countersunk joints.
- Mechanical reception pits can be fitted to all horizontal/inclined combinations.
- A range of chain speeds to suit various products.
- Trapezoidal, self cleaning conveyors for seed handling.







Deep Flight Curved or Inclined Industrial Conveyors





- Angles up to 45 degrees.
- Capacities up to 600tph, based on wheat at 750kg/m³ suitable for full commercial use.
- Range of specifications from agricultural to full industrial specifications.
- Chains with breaking strains from 100 to 240kN & forged chain up to 930kN.
- Suitable for all cereals, and a range of granular products & meals.
- Hard wearing plastic or Hardox linings as options.
- Heavy duty plastic flights from 8mm to 15mm thick.









Heavy Duty Agricultural Chain & Flight Conveyors







- Capacities of up to 120tph based on wheat at 750kg/m³ suitable for up to 30,000 tonnes per annum.
- Heavy duty specification. 3mm thick base and 2mm thick sides (thicker options available).
- Stainless steel / galvanised steel / mild steel powder coat painted construction options.
- Perry heavy duty roller chain with deep plastic flights, ideal for handling cereals, pulses and granular products. This also means there is no metal to metal contact.
- A range of chain speeds to suit various products. Steel plate chain with breaking strains up to 70.6kN.
- Reliable 90 degree direct drive gear unit as standard.
- V belt drive to shaft mounted gearbox as an option.
- Horizontal, curved, inclined and flow & return conveyors available, inclined and curved conveyor options up to 45 degree as standard, 90 degree option available.
- All bolted and riveted construction with heavy duty dimple form countersunk joints for high mechanical strength.
- Variety of inlets and accessories.
- Brush gear available to reduce carry over.
- Pneumatic or motorised outlet options.
- High specification outlets with dust and scraper seals.
- Mechanical reception pits can be fitted to all horizontal / inclined combinations.
- Cleaning flights available for seed handling applications.
- Cup flights available to handle carry over when end outlets have slides fitted.







Chain & Flight Store Conveyors











- Capacities up to 60tph based on wheat at 750kg/m³
 suitable for up to 10,000 tonnes per annum.
- Heavy duty specification. 3mm thick base and 2mm thick sides (thicker options available).
- Perry heavy duty precision roller chain with deep faced flights as standard ideal for handling cereals, pulses and granular products. This also means that there is no metal to metal contact.
- Reliable 90 degree direct drive gear unit as standard.
- V belt drive to shaft mounted gearbox as an option.
- Durable galvanised steel construction.
- Steel plate chain with breaking strains of up to 34.3kN.
- Dimple style joints for high mechanical strength and good alignment of sections.
- Three piece trough construction allows base to be thicker than the sides providing a longer life.
- Deep flights mean most conveyors are suitable for inclined applications.
- These conveyors are supplied as standard in modular lengths with loose inlets and outlets to allow faster delivery.
- Inclined conveyors can be used at angles from up to 90 degrees.
- Also with the use of a cable span brace any conveyor can span 12m unsupported.
- Pneumatic or motorised outlet options.
- Brush gear available to reduce carry over.
- Cleaning flights available for seed handling applications.
- Cup flights available to handle carry over when end outlets have slides fitted.





Curved Combinations







- Capacities of up to 350tph based on wheat at 750kg/m³.
- Curved machines used to feed elevator boots remove the need for elevator pits and more expensive civil work.
- Replace a belt and bucket elevator and horizontal conveyor with one curved 90 degrees from horizontal to vertical (capacity up to 50tph).
- Benefit of reduced number of machines and hence easier and quicker installation and less wiring work.
- Horizontal / curved machines can be used to enter buildings and follow the roof line for maximum height.
- Combination machines are made up using our market leading horizontal conveyor and flight elevator designs.
- Angled combinations allow machines to be fitted into existing plants and buildings more easily.
- Mechanical reception pits can be fitted to all horizontal / inclined combinations.







Mechanical Reception Hopper & Trench Intake Conveyor







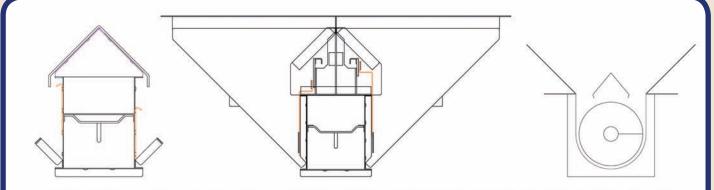


Reception Hopper

- Can only be used for free flowing products.
- Manufactured in lengths from 3m to 6m (industrial up to 8m) and double this when units are used in tandem.
- Hoppers enable trailers to be tipped into a mechanical pit above ground. This is especially useful when there is a high water table and deep pits are not possible. Alternatively hoppers can be situated below ground to allow drive over access.
- The civil works only require a simple rectangular pit.
- Mobile machines are also available.
- Hoppers can be fitted to almost any of our chain and flight conveyors giving complete flexibility.
- Galvanised construction is standard for all capacities up to 800tph.
- Inverter control is not required as there are two separate control slides with operating handles for flow control.

Trench Intake

- Can only be used for free flowing products.
- A more cost effective alternative to a reception hopper.
- Lengths from 1.5m upwards.
- Narrow and compact, perfect for existing trenches.
- No intake hopper, unless requested as an optional extra.
- Capacities up to 800tph.
- Requires an inverter to control the product flow rate.



Cross sections showing: Trench Intake Conveyor, Mechanical Reception Hopper & Screw Conveyor Intake



Levelling & Travelling Conveyors



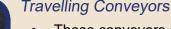


- These conveyors maximise grain store capacity whilst minimising the labour required.
- These conveyors are suspended on carriages and beams at each end of a grain store. They can be manually pushed or winched along, or with motorised beam trollies, the length of a building.
- Systems can be fully automated.
- Capacities up to 300tph.
- Specifications from agricultural to industrial.



Levelling Conveyors

- These conveyors have an open bottom to allow grain to fill the building starting at one end and building up to the base of the conveyor.
- It will fill a grain store with a completely level uncompacted layer of grain ideal for under floor ventilation and drying.
- They remove the need for a loader and grain pusher to fill the store to its optimum.



- These conveyors do not have a fully open bottom. They have individual outlets instead to fill bins or bunkers, in a particular building when there is little headroom.
- They can also be used to fill floor stores with peaked fill when surcharging storage.









Twin Trace Conveyors









- Capacities of up to 1,000tph based on wheat at 750kg/m³.
- Specifically designed to handle products of low bulk densities and those that require gentle handling at low chain speeds.
- Curved and inclined machines are available.
- Completely opening outlet with no chain supports means very little carry over.
- Flush fitting intermediate outlet slides and curved tail end radius plates to minimise product residue.
- Drive configurations to suit every customer's needs.
- Heavy duty construction with 5mm to 10mm thick bases, 3mm to 5mm sides. Fitted with 5mm to 10mm thick mild steel or hardox wear strips for roller chain or forged chain depending on the application.
- All joints formed by heavy duty welded plates ensuring good surface alignment.
- The flights bolt through the hollow pins in the chain making replacement easy.
- Chain runs in channels at side of the conveyor to minimise product contact and damage.







Industrial Belt & Bucket Elevators





- Capacities of up to 1000tph based on wheat at 750kg/m³ suitable for full commercial use.
- Stainless steel / galvanised steel / mild steel powder coat painted construction options.
- Head shaft, head pulley and bearing assembly easily removed in one piece.
- Belt tensioning by adjustable boot shaft.
- Solid crowned head drum as standard boot drums slatted as standard with other configurations available depending on product requirements.
- Large removable inspection panel for maintenance and efficient installation of the belt and bucket assembly.











Industrial Belt & Bucket Elevators







- Shafts fitted nylon or felt shaft seals as standard; air purged seal or gland seals as options.
- Industrial elevators have casing lining options from hardox to ceramic tiles.
- With a full range of belt speeds and specifications the elevators can handle anything from sand and aggregates to plastic granules, meal and many product types.
- Slow speed allows for the gentle handling of highly abrasive products or fragile products such as fresh made pellets.
- Boot and head shell are fitted with large access doors to enable easy cleaning.
- Seed boot option available with elevator boot on a short stand and a clean out tray for removal of residue.
- Buckets are Super Starco style with mild steel as standard.
- Bucket options: HDP / stainless steel / Zytel nylon.
- Explosion panels available to suit ATEX requirements.
- Fully ATEX compliant machines can be supplied.
- Full range of rotation, belt alignment and bearing temperature sensors can be supplied.
- Drive configurations to suit customer preferences.
- Elevator support towers available.







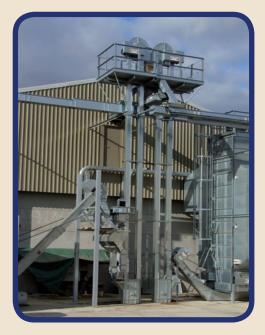


Agricultural Belt & Bucket Elevators









- Capacities available from 11 to 150tph based on wheat at 750kg/m³.
- Single and double lift models available up to 80tph.
- Durable galvanised steel finish.
- V Belt drive to shaft mounted gearbox.
- Optional 90 degree gear unit drives available.
- Slatted pulleys fitted as standard help reduce build-up of materials on pulleys.
- Low stretch rubber oil resistant EP belting standard.
- Gearboxes prefilled with lubricant for easy installation.

Model 220 and 440 Elevator

- This elevator is specifically designed to offer a high specification single and double lift elevator at a very competitive price.
- It has capacities up to 80tph.
- Head and boot shell 3mm thick.
- Heavy duty welded construction hot dip galvanised head cap.
- Range of speeds to provide centrifugal, slow centrifugal and gravity discharge.
- Master cup belt tensioner mounted on the cup belt for easy joining and tensioning.

Model 200, 280 and 560 Elevator

- This elevator is specifically designed with a very low boot inlet height and short head. It is ideally suited to being used in old installations and where space is tight.
- It also has a slower belt speed making it kinder to some products.

Model 330 Elevator

- Single lift belt & bucket elevator.
- High capacity up to 150tph.
- Heavy duty construction.
- Belt tension via adjustable boot pulley.
- 5mm thick head cap.

All elevators are available with an access platform with ladders and hoops meeting all safety standards.

All elevators can have options to make them suitable for handling seed products.



Belt Conveyors -Industrial Applications







- Widths from 500mm to 2,000mm.
- Inclined belts with chevrons.
- Able to handle a wide range of products at a variety of speeds.
- Products handled:
 - Grass and Biomass Pellets
 - SRF and Recyclables
 - Seed
 - Mineral and Aggregates
- Designed to British Standards and CEMA recommendations.
- Painted, stainless steel or galvanised construction.
- Curved solutions also available.





Belt Conveyors -Agricultural Applications







- Capacities of up to 800tph based on wheat at 750kg/m³.
- In agricultural applications these conveyors are ideal for filling large storage sheds. A belt conveyor can be positioned in the apex of the building and a winched tripper can discharge grain all the way along the building avoiding the peaks and troughs formed by using a chain and flight conveyor with separate outlets.
- There are also many inclined applications up to 30 degrees depending on the product being handled.
- Three piece steel trough construction or with a three roller trough belt assembly.
- These designs give an exceptionally rigid construction, easily capable of spanning 6m building bays.
- The section joints are of dimpled style, guaranteeing accurate alignment, and a smooth and strong connection.
- The tripper device can either be motorised or hand operated. It is of a winched design; there is no electrical power supply to the tripper requiring an expensive catenary cable.
- Two manually adjusted tensioning screws are fitted to the tail end. Belt take up unit fitted on lengths over 50m.
- · Gravity tensioner unit also available.
- The belt is of a PVG compound type, with a polyester carcass, giving excellent oil, mildew resistance, flame retardance to ISO. 340 and a satin top cover finish for improved product release.
- Other belt types can be grip face or chevron for use on inclined applications.





Augers / Tubular Conveyors







- Standard diameters from 150mm to 1000mm. Larger diameters on request.
- Stainless steel / galvanised steel / mild steel powder coat painted construction options.
- Flighting options: various thicknesses, ribbon flight, reduced pitch, tapered, mixing, hardened or paddle flights.
- Drive configurations to suit every customer's needs.

Applications:

- Inclined augers up to vertical.
- General conveying.
- Intermediate outlets available.
- Agricultural, industrial or biomass handling.
- Control of the discharge of hopper bottom bins.
- Suitable for stop / start operation.





Screw Conveyors





- Standard diameters from 150mm to 1000mm. Larger diameters on request.
- Stainless steel / galvanised steel / mild steel powder coat painted construction options.
- Flighting options: various thicknesses, ribbon flight, reduced pitch, tapered, mixing, hardened or paddle flights.
- Drive configurations to suit every customer's needs.

Applications:

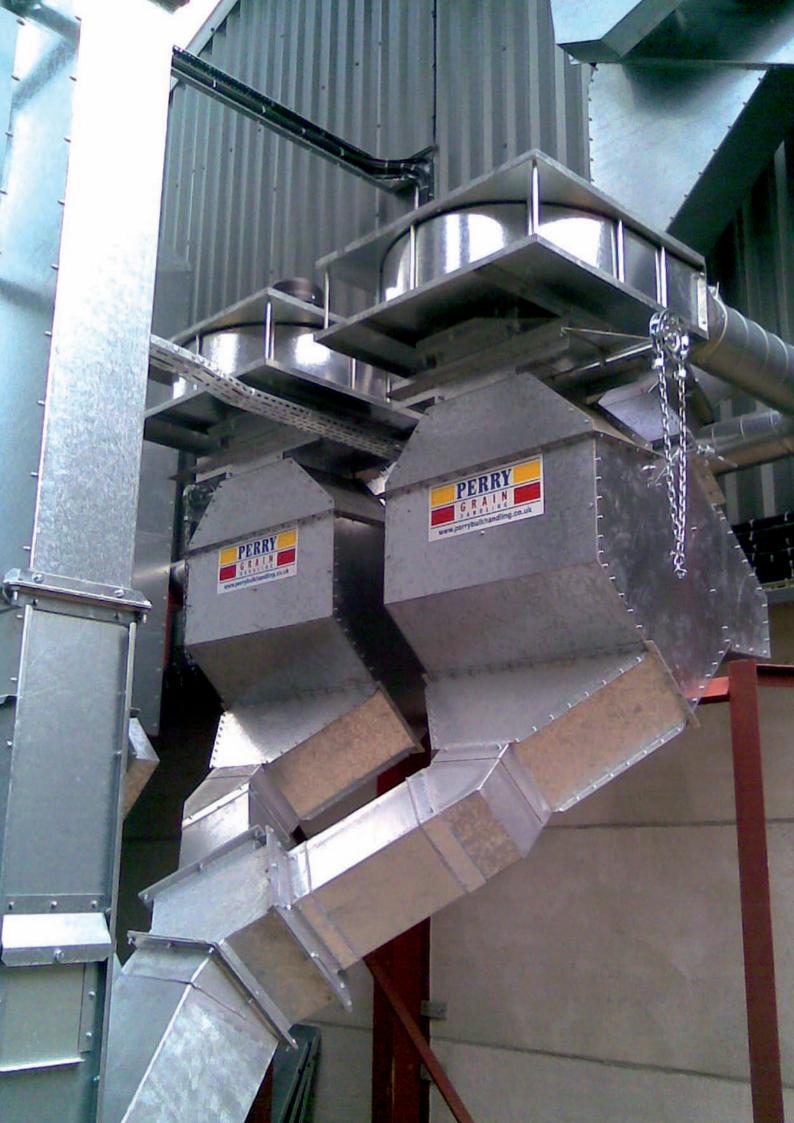
- Intake pits using inverters to control the speed and flow rate.
- Single or multiple bin dischargers.
- Mixing or damping applications.
- General conveying.
- Intermediate outlets available.
- Agricultural, industrial or biomass handling.











Aspirator Pre-Cleaner











The Perry In-line Aspirator Pre-Cleaner removes dust, chaff, husks, awns and material lighter than the grain.

- Three capacities available 30tph, 60tph and 150tph.
- Grain is internally spread over the full width of the chamber and the air is pulled through the cascading grain to remove the light dust and chaff.
- The rate of airflow can be adjusted to suit a variety of crops with an adjustable slide using the chain wheel at the side of the cleaner.
- Perry of Oakley Ltd. also manufacture a full range of exhaust ducting and cyclones to collect the rubbish removed.
- All galvanised steel with a weatherproof motor for external and internal installation.

AC150 Heavy Duty Aspirator Cleaner

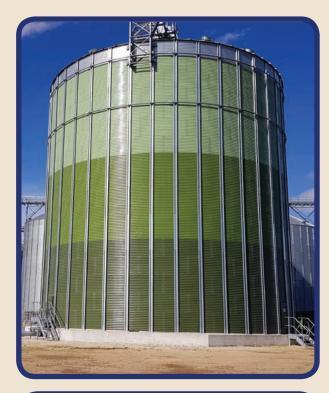
- This is a commercial specification aspirator precleaner.
- All galvanised construction suitable for outdoor use.
- Three separately adjustable cleaning sections.
- Side viewing panel to enable simple adjustment.





Storage Bins & Silos







- All galvanised construction.
- Square hopper bottom bin capacities from 1 to 100 tonnes based on wheat at 750kg/m³.
- Round hopper bottom bin capacities from 1 to 1,554 tonnes based on wheat at 750kg/m³.
- Round flat bottom silo capacities from 1 to 11,000 tonnes based on wheat at 750kg/m³.
- Bin sizes from 1m² to 4m² a variety of heights available.
- Supplied flat pack for bolted construction on site.
- 45 and 60 degree hoppers available.
- Various lid options including dust covers, weather proof lids and tarpaulins.
- Galvanised, stainless, mild steel & painted options available.
- Mobile drier compatible square bins.
- Forklift channels available on bins up to 3m².
- Bin slides manual, motorised & electro pneumatic.
- Bump bars on dump loaded bins to minimise damage from forklifts.
- Modular design.
- Special bins available to suit customer's applications.
- Standard flat bottom silos range from 3m diameter (15 tonnes storage) to 27m diameter (11,000 tonnes storage).
- All silos are designed for high cyclic loading high usage of product in and out at high tonnage rates.



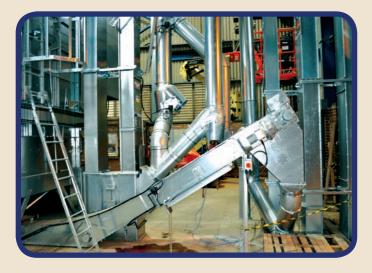






Ducting & Bin Slides









- Perry manufacture and stock a full range of ducting, valves, bends and bin slides, including.
- Square flanged ducting, bends and diverter valves from 150mm square to 600mm square.
- Round clip together ducting, bends and diverter valves in 1mm thick for dust and air transport and 2 or 3mm thick for product transport.
- Bin slides in a range of sizes from 150mm square to 600mm square. These can be hand operated rack and pinion, motorised or pneumatic style.







Mobile Drier Applications









+44 (0)1404 890300 www.perryengineering.com

Perry manufacture a range of equipment that has been designed to fill and empty portable driers.

Square Bins

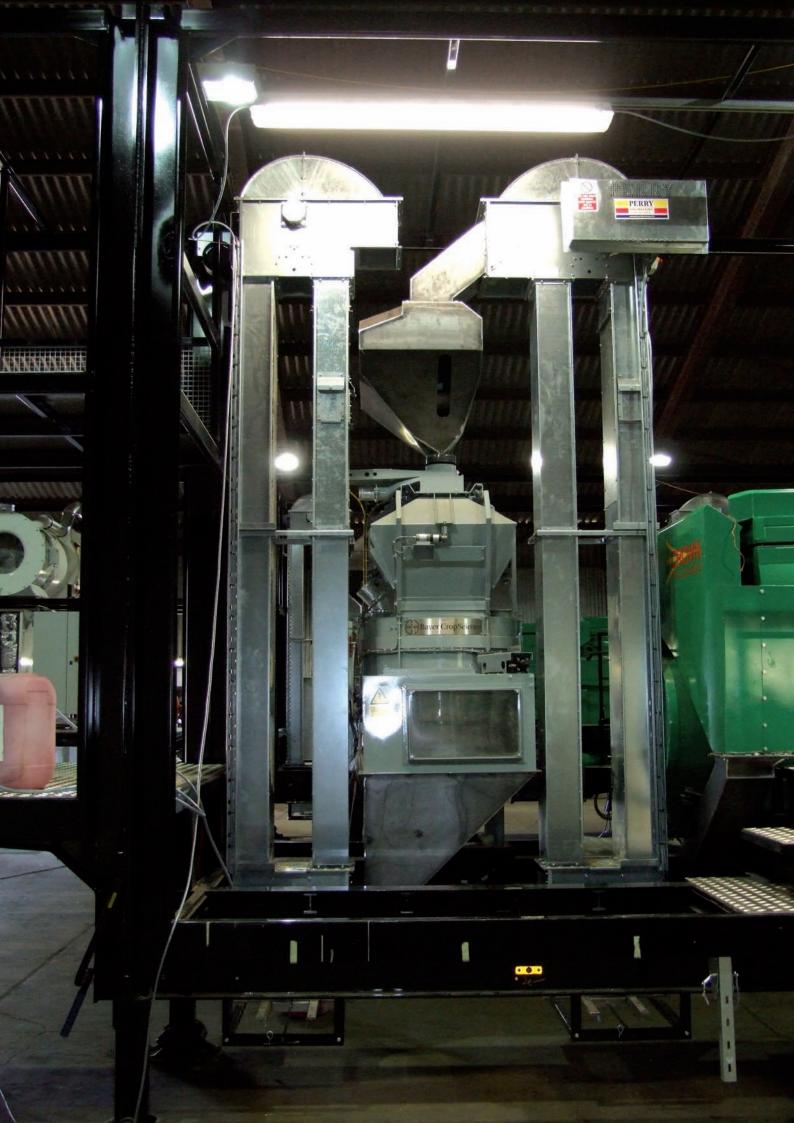
- Compatible with most existing portable driers.
- The benefit of these pre drying bins is to allow longer periods of unattended drier operation, especially at night.
- Can hold up to 70 tonnes.
- Very heavy duty construction using 3mm and 5mm galvanised steel.
- Designed to be dump loaded.
- Bump bars available.
- Forklift channels available to ensure maximum portability on sizes up to 3m square.
- Manually operated bin slide.

Trench Intake Conveyors

- The benefit of these trench intakes is to allow longer periods of unattended drier operation, especially at night.
- Designed to reduce time spent loading a drier and to provide a prestore of grain before the drier.
- Lengths available from 3m to 18m.
- Capacities from 60tph to 120tph.
- Optional hopper to increase product catchment area and to reduce the amount of on site fabrication or civil works required.

General Handling

- Various conveyors and elevators available to transport product from the drier to store.
- Horizontal, inclined, curved and vertical applications.
- Compatible with most existing portable driers.
- The benefit of this equipment is to allow longer periods of unattended drier operation, especially at night.



Seed Handling Machinery







Elevators

- Bucket spacer washers.
- Plastic or steel buckets.
- Easy to clean out seed boot.
- Access doors.
- Range of belt speeds.

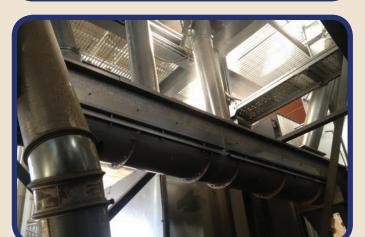
Belt Conveyors

Screw Conveyors to Drop Down Bases for Easy Cleaning

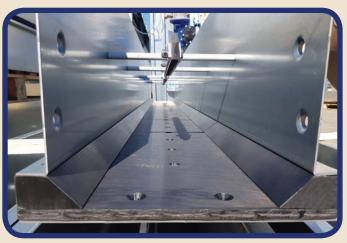
Conveyors

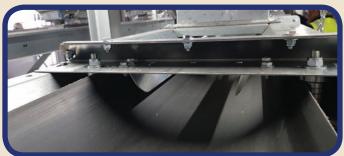
- · Radius plates.
- · Cleaning flights.
- Access doors.
- Range of chain speeds.
- Trapezoidal conveyor for self cleaning.

Smooth Walled Ducting











The Perry Belt Drier is ideally suited to drying almost any nonflowing product. Popular applications have included biomass, anaerobic digestate, grass and seeds.

The Perry Belt Drier is ideally suited for these materials:

- Wood chip Wood shavings Wood pellets Other feed pellets Saw dust Biomass straw Miscanthus and bagasse Herbs Combinable crops Beans and soya beans
- Shredded recycled matter SRF/RDF Digestate Flaked maize Nuts Fruit and fruit slices Compost Cotton rejects Extruded pet foods Finely ground wet chips
- Grass Grass seed Orange peel Pulp granulates Solid shredded waste Granular and shredded plastic Poultry manure Lucerne Alfalfa

KEY POINTS

- Fine mesh drying belt.
- All galvanized construction stainless steel as an option.
- Multiple heat sources available including biomass, steam, oil, kerosene or gas.
- PLC touch screen panel with internet connectivity.
- Levelling device.
- Modular construction.
- Rotary brush to clean belt.
- Various widths up to 3m available.
- Designed and manufactured in house.
- Optional cooling section.









Savannah Series Driers are Exported Worldwide +44 (0)1404 890300 to Dry a Variety of Crops









- Heavy duty commercial specification grain drier built to BS6399 and BS5950.
- Widths from 2m to 8m single and 12m dual column with capacities from 5 to 150tph.
- To promote consistent movement of the grain, Savannah Series Driers are available with our highly efficient, fully galvanised, pneumatically controlled shutter discharge (with phosphor bronze bushes on all wearing parts). Pneumatic shutter discharge ensures even movement of crop across the whole bed.
- The grain column has a completely ledge free design to reduce dust and chaff residue. The tapered air ducts promote even air flow and uniform drying across the whole grain column.
- Variable cooling section so you can change from minimum to maximum cooling by using control levers from ground level.
- 25% to 30% of the drier is used for cooling the crop before it goes to store. This prevents deterioration of the grain when in store; additional ventilation will still be required.
- Touch screen PLC control interface with mobile phone app for monitoring and controlling your drier remotely. Receive status updates, warnings for alarms and change settings wherever you are over the internet.
- Automatic grain moisture control system as standard. This uses temperatures at the top and bottom of the drier to monitor incoming and outgoing grain moisture changes and control the drier discharge speed accordingly.
- Optional automatic grain sampling system which takes a sample of grain, and is analysed using the latest Near Infrared technology. The results are used by our own software to determine the correct drier speed to maintain the optimum moisture content.
- Optional inverter controlled fans for ease of control when drying light crops and for energy saving.
- Automatic crop set up page. Select the crop and moisture content, and the control panel will set all temperatures, fan speeds and discharge speed to suit.
- Connect the drier to the internet allowing UK engineers to access the panel for diagnostics or adjustments while you watch the screen.
- Burner choices are diesel, kerosene, gas, steam, coal using heat exchangers or biomass heat sources as options. Direct or indirect fired.
- Combined with the use of curved conveyors the drier and handling needs only a flat concrete pad. This means much more cost effective concrete work and straightforward calculations.
- Tried and tested design with years of proven track record.
- We have our own dedicated research and development drier at a grain cooperative. This gives us access to a drier operating under real life conditions and the capability for extended test runs for all new product developments and to enhance our R&D capabilities.



SHAPA's 2017 & 2021 'Exporter of the Year' & 2022 Global 100 Best Designer of Bulk Materials Handling, Drying & Storage

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