

# PERRY

**ENGINEERING**  
EXCELLENCE

## *Customer Case Studies*

*Don't just take our word for it, see what our customers have to say.*



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

# **CHACO TRADING T/A LIONS DEN FARMS**



30.04.2018

## **Re: Letter of Recommendation for Perry Engineering**

This Letter serves to confirm that Lions Den Farms, based in Zimbabwe have recently purchased a Perry Engineering Dryer.

Perry Engineering use the highest quality materials on their drying and handling equipment. The technology and touch screen user interface makes it extremely easy to use and monitor everything in the drying process from the burners all the way through to the conveyors, cleaners and fans.

One unique and extremely helpful feature is the ability to link the Control Panel to the internet and remotely monitor and control the machine from anywhere in the world, it is technology like this that takes our business to another level and improves our overall efficiency and productivity.

We at Lions Den farms have also been very impressed with the professional and efficient work ethics of the Perry Engineering team who came up with very detailed designs for the entire drying and handling scheme as well arranging a very smooth shipping and transport program to get the equipment from the UK to Zimbabwe without any issues.

I have also been very pleased with the technical support and training from the Perry team in everything from online support over email down to the technicians who installed, commissioned and trained our staff for several weeks in order to fine tune the dryer and ensure we achieve the full drying capacity and efficiency of the machine. They have a very personal way of doing business and through this I have had the pleasure of working directly with company owners who ensure the job is done right.

I highly recommend the company Perry Engineering and its equipment and will not hesitate to use them for all future requirements in this field.

A handwritten signature in blue ink, appearing to read "Nathan Douglas", is positioned above the printed name.

Nathan Douglas  
Managing Director

# *Top UK Manufacturer now in Africa*



Lions Den Farms, a large, forward thinking farm in Zimbabwe, started off as a small 60ha dryland farm in 2011 and has grown in the last seven years to one of the biggest, and most diverse, farming operations in the country - now operating on six different farms.

Lions Den Farms is a diverse company that is currently cropping a total of 2000ha per year. They have a wide range of crops in order to reduce market risks and improve cash flow. The 2018 cropping program includes 1000ha commercial maize, 250ha seed maize, 400ha commercial soya beans, 120ha seed soya beans, 100ha seed wheat, 200ha commercial potatoes.

This agricultural company is at the forefront of introducing and utilising high tech precision farming equipment to maximise efficiency and yields in order to have a sustainable future in the industry.

In November 2017, after visiting the UK, Nathan Douglas from Lions Den Farms made the decision to purchase a Perry S610 continuous mixed flow drier. The drier is located in Lions Den next to the GMB silos. There is an agreement with GMB to dry grain for farmers who bring maize to the silos.

The drier is rated to dry at 20tph when drying maize from 18% to 13% moisture content using 110 degrees Celcius hot air temperature. It has a total electrical demand of 46kw and is fitted with three fans and two burners which are capable of burning diesel or kerosene.

Perry of Oakley Ltd. hosted a very successful open day at Lions Den on the 10th May 2018 and during the days preceeding this the drier was drying soya beans effectively and efficiently. During and after the open day the drier was drying maize from moisture contents as high as 21.5% down to 12.5%. Nathan Douglas from Lions Den Farms is happy to invite people to visit and see the drier at any time.



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



## Key features of Savannah Series Drier

By utilising the curved conveyors on Perry of Oakley Ltd.'s range of equipment it is possible to install the drier system on a simple concrete flat pad, this reduces the civil cost to the minimum.



The PLC control panel is designed and programmed in house by Perry of Oakley Ltd. engineers and provides the operator with a very easy to use interface to operate the drier. A permanent internet connection provided to the drier will enable a computer and mobile phone app to connect to the drier to monitor and control the drier remotely.

Another key feature of the PLC panel is the crop set up page. This enables the operator to simply select the crop type, moisture content at the inlet and moisture content required, and the PLC will set the correct drying temperatures, discharge speed and fan speed for the crop. However, the hot air temperature can also be adjusted by selecting a new drying temperature on the PLC panel. It can be reduced low enough to safely dry seed crops and milling or malting quality crops.

The drier will operate using diesel, kerosene, gas and, as a new option for the African market, a coal fired heat source.

Pneumatic shutter discharge ensures the consistent discharge of the grain evenly across the surface of the drier.

As standard the drier is capable of drying all combinable crops including light crops such as oil seed rape and all seed crops.

Inverter controlled fans for ease of control when drying light crops and for possible energy saving.

The grain column has a completely ledge free design to reduce dust and chaff residue. Tapered air ducts promote even flow and uniform drying across the whole grain column.

Perry of Oakley Ltd. equipment in Zimbabwe is sold through Agrisstructures in Harare. All Perry of Oakley Ltd. driers sold are fully supported by a spares package held locally which covers most hard to replace parts including the PLC, electrical components, sensors, burner spares, and connecting links, flights, chain and buckets for the handling system.

Agrisstructure's engineers will be able to offer servicing and breakdown support and in exceptional circumstances our engineers from the UK are only an overnight flight away.



For more information you can also call Agrisstructures on 00263712 833687.



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*





# ***Future Proof Planning Ensures Success by Revesby Estate***

Revesby Estate is based near Boston, Lincolnshire. They have 1,000 hectares of arable farming and produce 6,000 tonnes of grain per annum, 5,000 tonnes of wheat, the other 1,000 tonne is a mix of rape and barley.

In 1982 Revesby Estate installed a range of 30tph Law Denis handling and drying equipment, but over the years Revesby Estate have expanded their arable farming acreage and as a result the Law Denis equipment was no longer able to keep up with the required throughput. Revesby Estate opted to install both handling and drying equipment from Perry of Oakley Ltd. when it was time to upgrade their equipment.



this is

**REVESBY**  
ESTATE



The new installation at Revesby Estate is an intricate network of conveyors, elevators, aspirator cleaners, cyclones, ducting and a drier.

The handling equipment is from the Perry of Oakley Ltd. heavy duty range, which is capable of capacities from 80tph to 150tph and is built to a semi industrial specification, ideally suited to smaller grain stores or larger farms, it fills a gap in the market between standard agricultural equipment and full industrial specification equipment.

There are four 100tph belt & bucket elevators ranging in heights from 12.65m to 19.25m, all fitted with ATEX approved explosion relief panels and rotation sensors with under speed monitoring. All of Perry's machines are manufactured from durable galvanised steel.



There is one uprated and refurbished existing intake and seven new chain & flight conveyors, one of which is a flow and return conveyor and five are curved combination conveyors. All of the conveyors are capable of achieving 100tph throughput capacity and range in lengths from 9.1m to 26.5m.

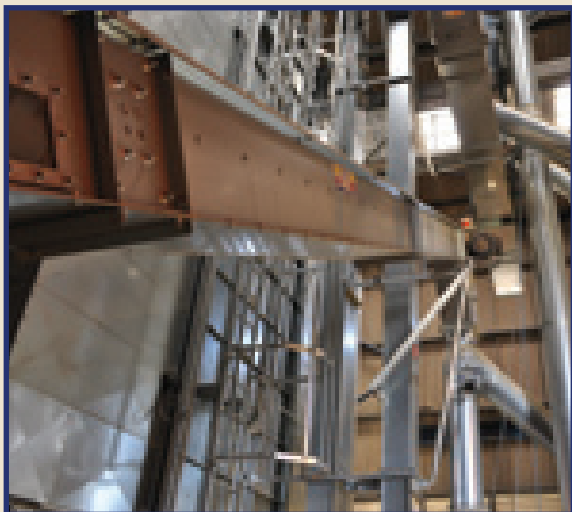
Perry of Oakley Ltd. have also supplied an AC150 aspirator pre-cleaner, which is capable of capacities up to 150tph and has been designed to remove dust, chaff and light particles from the grain before it is dried. In addition to this, due to the high air flow provided by the 22kW fan with inverter control, it is capable of being adjusted to improve the bulk density of the crop if the sample has too many pinched or small grains. This helps to improve product quality.

The drier is a Perry M611 shutter discharge drier, capable of



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*

***Revesby Estate said “We are really happy with the new system, everything is running well & we have future proofed for years to come!”***



throughput capacities of up to 49tph and has a holding capacity of 51 tonnes. The drier has been fitted with Perry of Oakley Ltd.'s revolutionary CentriKleens, which reduce the amount of dust & chaff exiting the drier by up to 95% (independently verified), helping to keep plant yards and roofs clean. CentriKleens can be retrofitted to any drier with axial fans.

They have also increased their storage capacity by adding Bentall Rowland silos to this installation. The silos have added an extra 3000 tonnes storage capacity, and the Perry of Oakley Ltd. equipment has been designed to allow further expansions in the future. The Perry of Oakley Ltd. equipment can call from the bin or the pit, or can deliver to the silos or the stores.



The whole system is controlled with the Perry PLC plant control panel, a touch screen panel that has been designed and programmed in house to be simple and effective to use. The PLC panel is able to be connected to the internet, which in turn offers its users text and email alerts of status updates, and an app that allows you to control it using your mobile phone while on the move.

Revesby Estate have planned for the future with this installation. They plan to expand their product range to include beans and oats and the flexibility of the Perry of Oakley Ltd. equipment allows them to further increase their capacities at a later date if required and allows them to become a semi commercial operation by offering contract drying and storage, which now they have the new equipment, is on the cards for the future.



Scan this QR Code or visit

[www.perryof oakley.co.uk/future-proofing-years-come](http://www.perryof oakley.co.uk/future-proofing-years-come)  
to watch our video case study on Revesby Estates!

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



# Woldgrain Storage Ltd. Complete Phase 3 Of Project Valiant



Woldgrain Storage Ltd., based at Hemswell Airfield, Lincolnshire, was established in 1980 to store grain on behalf of its founding members. The original scheme had 20,000 tonne storage and one drier accompanied by 60tph handling equipment. The main products that Woldgrain handle are oilseed rape, barley, wheat and oats. Their expected throughput each year is between 85,000 and 100,000 tonnes.

With the success and an increase in membership in recent years the capacity has been increased in stages to 57,000 tonnes of ventilated storage with a total of two driers and two 250tph intake systems. Further increases in membership required extra facilities hence Project Valiant Phase 3 has taken place.



Project Valiant Phase 3 comprised of a further 26,000 tonnes of silo storage, carefully arranged with varying size silo's to fill in several unused plots on the limited size site. By initiating Project Valiant this represents a further important step along the road to achieving Woldgrain's ultimate goal of a fully developed store of 85,000 tonnes.

Over a number of years Perry of Oakley Ltd. have worked with both GAME Engineering Ltd. & Jessops Construction Ltd. to install several machines at Woldgrain, including conveyors that were used for filling the original silos in 2012.

This year more new Perry machines were installed. GAME Engineering Ltd. designed the layout and installed the equipment, while Jessops Construction Ltd. were the main contractors who Perry supplied and installed the drier for. The new installation included a 250tph horizontal chain & flight conveyor intake, a 100tph and a 250tph horizontal chain & flight conveyor, a 100tph curved combination chain & flight conveyor, a 100tph and a 250tph belt & bucket elevator, screw dischargers & screw conveyors along with the M618 80tph grain drier with PLC control panel.



Woldgrain is now able to intake up to 750tph and boasts one Perry drier, seven Perry screw conveyors / bin dischargers, over thirty Perry industrial specification conveyors, two curved combination industrial specification conveyors and four industrial specification elevators.

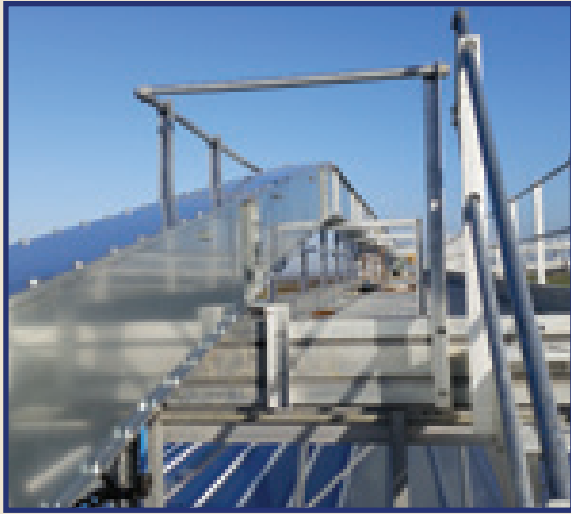
Woldgrain have also installed a number of Perry's Silo Discharge Augers, which make emptying large silos quick, easy, safe and efficient.



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*



***John Burnett, Managing Director of Woldgrain Storage Ltd., said: “Perry supplied conveyors for filling the original silos in 2012 uprating from 60tph to 100tph. These have performed very well, they are a quality product at a competitive price and the service and technical back up has been very good when required.”***



All of Perry's conveyors are made from durable, heavy duty galvanised steel and are available from three different ranges. The agricultural range is capable of capacities of up to 60tph, the heavy duty agricultural range is capable of up to 120tph and the industrial range will comfortably cope with up to 600tph. With the three ranges available this enables Perry to tailor each machine to suit the customer's needs, this has included the machines installed for Woldgrain.

The new 80tph drier installed at Woldgrain has the Perry's drier PLC panel, a 12" touch screen control panel, that is simple to use and easy to follow. It has been designed & programmed in house and each panel is customised to each drier that is sold. There are over 70 alarms and messages allowing you to understand quickly and easily what is happening in your drier. When the panel is connected to the internet, text messages and emails can be sent to set numbers and addresses to give regular status reports on the drying process.



Scan this QR Code or visit  
[www.perryfoakley.co.uk/woldgrain-storage-initiate-phase-3-project-valiant](http://www.perryfoakley.co.uk/woldgrain-storage-initiate-phase-3-project-valiant) to watch our video case study on Woldgrain Storage

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



# Full Plant Refurbishment Completed in St Andrews



Mr Henry Cheape approached K. M. Duncan Agricultural Engineers Ltd. in search of a better handling and drying solution for the 600 acres of combinable crops within the estimated 2300 acres of Strathtyrum Estates in St Andrews, Scotland.

Previously, Mr Cheape was running a Farm Fans batch drier that was situated in a building that was some distance away from his storage area. This often resulted in both excessive handling and double handling of his crop, making the process very labour intensive and uneconomical. The system was also worn out and no longer fast enough to keep up with the demands put upon it.

K. M. Duncan Agricultural Engineers Ltd. recommended to Mr Cheape that he installed both Perry of Oakley Ltd. handling equipment and a Perry Drier. Perry and K. M. Duncan decided on a solution that will enable the plant to increase in their drying capacity with greatly reduced handling, making the whole plant more cost effective and less labour intensive.



A new building has been erected at Strathtyrum Estates to house the new intake, drier, aspirator cleaner, elevators and PLC plant control panel. There are store conveyors linking the new building to the older steading buildings which are used for storage, then more conveyors continuing on to a more recent floor store that had been built on the other side of the steading buildings. The layout has been designed so that each of the buildings can eventually be replaced with more modern buildings whilst keeping the same centre line so as not to disrupt the new handling equipment.

From the intake the crop travels up an auger and into a Perry AC60 aspirator pre-cleaner and cyclone. The aspirator pre-cleaner has a capacity of 60 tph and has been designed to separate light grains and chaff from the crop helping to improve the quality and cleanliness of the crop. From there, the crop is transported up one of two 60tph Perry model 220 single lift belt & bucket elevators and into a 60tph Perry flow and return store conveyor. The flow and return conveyor deposits the crop into the drier and returns any overspill back to the pit.

The drier selected for the upgrade was a 20.5tph Perry M407 continuous mixed flow drier. All of the Perry grain driers are designed and manufactured in the UK and are designed to BS6399 for wind loading and BS5950 for structural strength with a fully galvanised construction. This particular drier has been fitted with a Light Grain & Chaff Recovery System (LGCRS) which is a pneumatically operated system that periodically discharges chaff and light grain directly into the discharge hopper and back to the main grain flow. The LGCRS has been designed to remove the need to clean out light grains and chaff from the drier exhaust plenum and the pneumatic flap also optimises the airflow when it is in the shut position.



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*

**Mr Cheape said “Perry of Oakley Ltd. and K. M. Duncan Agricultural Engineers Ltd. have worked together to provide me with a suitable solution that allows for future development. Harvest and drying should be much easier as the plant will be able to look after itself with minimal interaction and no double handling of the crop.”**



The driers pneumatic shutter discharge discharges the crop into a 60tph Perry FC/FE curved combination store conveyor which then deposits the crop into the second of the two 60tph Perry elevators. The elevator transfers the

crop into a short Perry inclined store conveyor which is connected to one long conveyor which spans from the new building, across the road (with span braces to support it) and through the two older buildings which are used as stores.

The whole system is controlled by the Perry PLC Plant Control Panel. This is a 12” touch screen PLC panel has been designed and programmed by Perry engineers and is capable of controlling up to 10 machines as standard along with the drier. The panel displays a mimic of the complete store as well as having multiple automatic routes available, making it simple to understand and use. The drier control within the panel displays a complete mimic of the drier which helps make the Perry driers one of the most simple to operate, that is available on the market today. The panel can be connected to the internet to allow status reports to be sent to selected mobile numbers and email addresses, data logging and remote access. The PLC Panel has over 65 alarms and messages built in to it, helping to keep what is going on with your drier clear and simple to understand. The PLC panel also has a crop set up page which allows you to enter the crop type, intake moisture content and target moisture content. The panel will then set all the drier parameters and start speed for you, using the data you have put in.



Strathtyrem Estates estimate putting between 1,800 and 2,000 tonnes of malting and feed barley, milling and feed wheat and oil seed rape through the new handling and drying system per year.



Scan this QR Code or visit

[www.perryofoakley.co.uk/full-plant-refurbishment-st-andrews-0](http://www.perryofoakley.co.uk/full-plant-refurbishment-st-andrews-0)  
to watch our video case study on this plant refurbishment

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



# ***Fire Risk Reduced in Feedplant thanks to Perry of Oakley Ltd. Equipment***

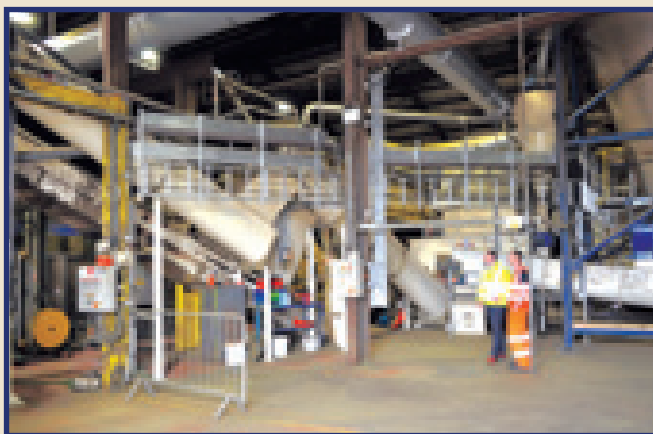
Dengie Crops Ltd., well known manufacturers of high quality chopped alfalfa (chaff) based feeds for horses had to refurbish their manufacturing plant near Southminster, South East England, due to fire damage. A faulty cooler allowed a fire to break out, it burned the belt of the belt and bucket elevator that was taking the product away from the cooler, the fire quickly spread to some of the other belted handling machinery that was connected to it.



Dengie Crops Ltd. produces over 20,000 tonnes of their chopped alfalfa feeds each year. They run their machines 24 hours a day, 7 days a week, all year with two 12 hour shifts each day. The machines have minimal downtime in order to keep up with demand. Dengie needed their machines up and running again as quickly as possible, they contacted their trusted dealer, Game Engineering Ltd., and asked them to help provide them with a solution.



Game Engineering Ltd. helped Dengie redesign some of their feed mill using screw conveyors to transport the product between processes rather than replacing the damaged elevators and conveyors. Once the decision had been made to use screw conveyors, Game Engineering Ltd. contacted Perry of Oakley Ltd. to see if they could provide the industrial specification machines within a tight time scale of just 5 weeks.



Perry of Oakley Ltd. are the UK's most experienced manufacturer of materials handling & drying equipment. With over 70 years experience in the industry, 2017 saw Perry named as one of the UK's top 100 SME's & won SHAPA's Exporter of the year award. They have helped provide solutions for a wide range of industries from agricultural applications, feed & flaking mill equipment and industrial applications.

Perry of Oakley Ltd. supplied Dengie with six new screw conveyors and one extension for an existing screw. The new conveyors were 600mmø 'U-Trough' screw conveyors. Manufactured from high quality 5mm thick galvanised steel casing with one piece flighting segmented from 5mm thick mild steel on a heavy duty and oversized 219mmø centre tube.



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*

***Dengie Crops Ltd.'s production manager, Bill Livermore said:  
"We are really happy with the new screw conveyors. It's a lot  
cleaner and they have helped minimise the risk of fire. The  
turnaround time and installation time was really good, we  
were surprised to find a company that could meet such tight  
deadlines. Overall we are really  
happy with the new system and  
would recommend both Perry of  
Oakley Ltd. & Game Engineering  
Ltd."***

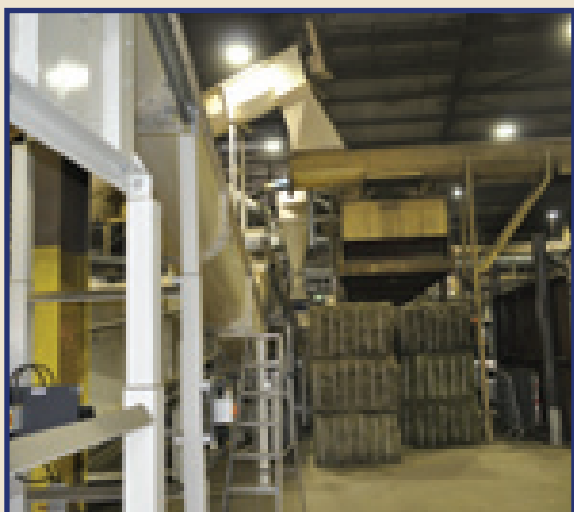


Each screw conveyor is capable of handling 11tph (based on a 30% fill) of the chopped alfalfa at 66kg/m<sup>3</sup>, the equivalent of 320tph of dried wheat, these screw conveyors are a truly industrial specification and built to last!



The screw conveyor lengths range from 3m to 8.5m, going from horizontal up to a 25 degree incline. They are durable and adaptable, meaning they are handling the different inclines easily and efficiently. From the point of order, the machines were despatched in just 5 weeks; Perry of Oakley Ltd. had met the targets of the tight deadlines within the time specified.

Dengie have also installed a new screener that senses if there is a fire and then contains the fire to within one auger, giving Dengie Crops Ltd. the reassurance that if a fire were to break out again, the damage will be limited to one machine.



A by-product of exchanging the belt & bucket elevators and conveyors with the screw conveyors has been the reduction of dust in the atmosphere. It is now an almost dust free environment to work in and again helps reduce the risk of fire.



Scan this QR Code or visit

[www.perryof oakley.co.uk/fire-risk-reduced-feed-plant-thanks-perry-equipment](http://www.perryof oakley.co.uk/fire-risk-reduced-feed-plant-thanks-perry-equipment) to watch our video case study on Dengie Crops Ltd

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





# ***J.F Marsh & Son Complete Full Refurbishment including Satake Colour Sorter***



Roger & Neil Marsh, a father and son from J.F Marsh and Son, based on the Isle of Sheppey, have recently completed a full refurbishment of their grain handling, cleaning & drying equipment. With the help of Perry of Oakley Ltd. and Mike Bartter Systems Ltd., the 4th generation, family run farm have increased and improved their drying capacity and the quality of their grain, enabling them to sell their product into more sought after markets at a higher premium.

In the 1970 / 1980s Roger Marsh had a 19 foot diameter Shivvers drier installed, which at the time was a top of the range drier that was capable of drying 4tph (100 tonne per day) if the ambient conditions were correct. They had used various handling equipment manufacturers, but favoured the Perry of Oakley Ltd. equipment for ease of use and reliability.



After 35+ years of service, the drier broke down on three separate occasions during one harvest. Each occasion costed J.F Marsh & Son in excess of a week's worth of drying time and it was at that point they decided to upgrade the machinery. They chose to upgrade to a Perry 26tph continuous mixed flow drier with the Light Grain & Chaff Recovery System (LGCRS) and Perry CentriKleens fitted as optional extras.

The Light Grain & Chaff Recovery System is a pneumatically operated system that is installed at the base of the exhaust plenum. It has been designed to help reduce the build-up of dust, chaff & seeds in the plenum by periodically discharging any product that may have been drawn from the grain column and return it back into the main grain flow. The Light Grain & Chaff Recovery System (LGCRS) removes the need to clean out light grains and chaff from the drier exhaust plenum as often, saving time and effort.

The Perry CentriKleen is the biggest step forward in allowing farms to cost effectively collect the dust emitted by their grain drier and also presents the most cost effective retrofit device for existing driers on the market. The Perry CentriKleen is the simple solution to your drier's dust & chaff problems, helping to keep roofs and yards clean.

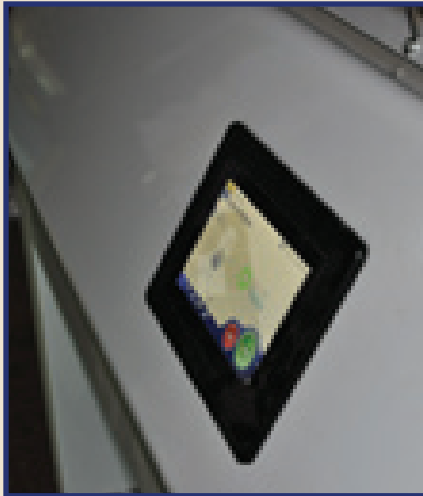
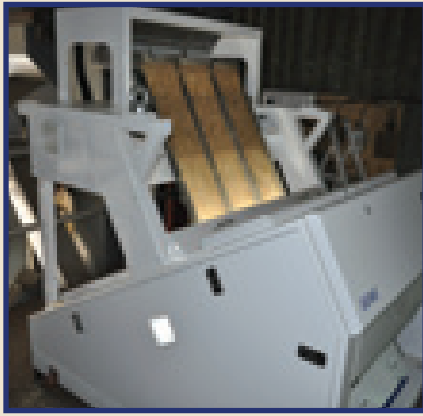
To accompany the drier, the Marsh family installed 60tph Perry handling equipment with several store conveyors (including a curved combination with a mechanical reception hopper), a double lift belt & bucket elevator, an aspirator pre-cleaner and an auger. This equipment allows the farms wheat, oil seed rape, beans & barley to be delivered to the 4000 tonnes of stores that are a mixture of bin storage and floor stores. Some of the stores date back to the 1960's.

With the export market reducing, Neil Marsh decided to increase the volume of grain he sold into the UK market. He quickly found that the UK mills were more stringent with their regulations governing



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*

***Neil & Roger Marsh said: "We are really happy with the Perry equipment, we would recommend it. Having built the drier ourselves we can vouch for the simplicity of the Perry equipment, but it is also built to a great standard, making it reliable. We are really happy with our new plant. We know and trust the Perry machines and have found their staff to be helpful, friendly, knowledgeable who aim to please."***



grain quality. He was quoted £25,000 per harvest to clean the grain to the required standard. This led to their most recent purchase, a Satake Colour Separator where Perry of Oakley Ltd. acted as a Satake dealer. In only three seasons the cost of the colour separator would be justified.

The grain will be passed through the Satake a total of three times. The first will be at its maximum throughput of 9tph, allowing the impurities to be removed from the bulk of the grain. The rejected grain will then be run through again at a slower pace, allowing for more of the good grain to be saved. They will then run the rejected grain through once more, specifically targeting the ergot within the crop. This will allow them to sell the ergot into the alternative medicines market, meaning a product that would normally have been burned as refuse could now potentially provide them with an additional income and entry into additional markets.



Mr Marsh commented that he was surprised at how simple the whole installation had been. He was very impressed with the 60tph rated Perry machines being able to so easily adapt to feeding the 9tph Satake using just simple inverters.

The whole system is controlled with Perry's PLC plant control panel. It is a 12" touch screen panel which is designed and programmed by Perry's experienced engineers. The ease of use of the PLC panel is always one of the first things mentioned by Perry customers, and it is no different with the Marsh's.



Scan this QR Code or visit  
[www.perryfoakley.co.uk/j-f-marsh-complete-full-refurbishment-satake-colour-sorter](http://www.perryfoakley.co.uk/j-f-marsh-complete-full-refurbishment-satake-colour-sorter) to watch our video case study on J F Marsh

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



# Union Grain Storage Ltd. Install New Grain Sampling System



Union Grain Storage Ltd., Skegness, operate a 20,000 tonne store, housing 17,000 tonnes of grain in six bulk bays and 3,000 tonnes in six additional silos. They sample anything up to 30,000 tonnes of product each year including wheat, barley, rape, beans and peas. Union Grain are a member of Openfield Cooperative which is an industry leading, British, farmer owned cooperative.



In early 2016 Union Grain Storage Ltd. made the decision to upgrade their grain sampling system. Their old system had become worn and dated. The store manager at Union Grain Storage Ltd. John Allen, approached Perry of Oakley Ltd. about installing one of their newly available grain sampling systems. Union Grain Storage Ltd. already have several Perry machines installed and they have a long business relationship together.

Along with being the UK's most experienced manufacturer of grain & bulk handling and drying equipment, Perry of Oakley Ltd. are exclusive UK suppliers of Tout Pour Le Grain's range of grain sampling equipment.



The grain sampling system installed at Union Grain Storage is the HERON 3000 Gyroscopic. The HERON Gyroscopic boasts 3.3m, 4.1m or 5m operating radii. It can be mounted on a single post or on a wall allowing for maximum flexibility to suit the needs of the user. The swinging up/down drive is gearmotor controlled through a variable frequency drive (VFD) for torque boost and integrated dumper bottom detection. The sampler also has a vacuum intake with grain to air ratio adjustment and a 3kW vacuum turbine at the foot of the sampler for conveying distances up to 60m; or at the sample receiver end for greater distances.



***Mr. John Allen said “We are very happy with the new sampling equipment, it’s a really nice machine. We are particularly impressed with the joystick controlled panel which we can program with up to 10 sampling spots. It’s a big improvement on our previous system.”***



All the electronic components and wiring are enclosed neatly on the sampler pillar. With the limp home mode available, the sampler can operate up/down and swivel drives even if the VFD fails, meaning no down time.

Union Grain Storage Ltd. opted for their HERON Gyroscopic to have the uprated control panel which allows for automatic sampling and can be programmed to sample up to 10 spots per vehicle for 4 different vehicle sizes. By sampling the 10 spots it conforms to TASCC (Trade Assurance Scheme for Combinable Crops) and the HGCA's (Home Grown Cereals Authority) best practice guide.



Scan this QR Code or visit  
[www.perryofoakley.co.uk/heron-range](http://www.perryofoakley.co.uk/heron-range) to  
see the TPLG samplers in action!

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



# Flaking Mill Upgrade



Perry of Oakley Ltd. are the UK's most experienced manufacturer of materials drying & handling equipment. Established in 1947, 2017 marked 70 years of successful installations of their British manufactured machines. Perry export machines globally and are well represented with a network of dealers & specialist engineers worldwide.

Perry of Oakley Ltd. are best known for their grain handling and drying equipment, and are well established within the agricultural industry. They have also



provided solutions for many other industries including; coal, minerals, biomass (including wood chip, sawdust, shavings & pellets), sewerage & sludge, digestate, rubbish/refuse, grass & many others. The relatively recent launch of the Perry Belt Drier also provides other industries with fast, efficient and cost effective drying solutions.

Perry of Oakley Ltd. recently provided a company with a drying and handling solution for a commercial feed plant that produces flaked maize for dairy cow feed. The installation has been completed over several stages in order not to disrupt the production of the flake.



The company needed to increase their output from approximately 5tph of dried and cooled, and 9tph undried flake to 25tph of dried and cooled flake. They had two existing lines, LINE 1 - a full flaking, drying and cooling line and the other, LINE 2 - a flaking line only, the undried flake had a poor storage life and didn't allow the company to produce a stock pile. With no stock pile, when the flaking line malfunctioned they quickly found themselves running low on feed stock.

Stage one of the upgrade involved increasing the input to the tempering bins in order to keep the planned and existing flaking lines fed with sufficient raw material. A new line between the dry bin and the tempering bins was

added. From the dry bin a 10tph chain & flight store conveyor takes the corn through an aspiration unit, cleaning away any light impurities. An auger then feeds a 12.5m belt & bucket elevator, which in turn feeds a milling separating machine, another aspiration unit and then a de-stoner.





Perry's range of belt & bucket elevators are capable of capacities of up to 1000tph. As standard, Perry's belt & bucket elevators are manufactured from heavy duty, durable, galvanised steel. Perry manufacture three standard ranges of bucket elevators suitable for agricultural, commercial & industrial use. With a wide range of optional extras available, each one is carefully designed to suit each customers' requirement, ensuring that every machine manufactured is fit for purpose.

After the de-stoning process the kernels are taken via another belt & bucket elevator, through to a highly sophisticated dampening system to take the moisture content from around 11% to 18%, ensuring the corn is ready for tempering. The dampening system comes with automatic moisture control & water dosage. It is a stainless steel measuring channel with online temperature, moisture & hectolitre weight measurements.



A series of belt & bucket elevators and chain & flight conveyors then transports the dampened corn to tempering bins. The tempering process then takes between 8 and 10 hours.

Perry supplied and installed most of the equipment within the new pre-dampening line, including sourcing and installing the specialist machinery. They were able to adapt the existing machinery to suit the new system currently installed, helping to keep costs to the customer to a minimum.



Stage two of this installation was to install a third flaking line (LINE 3). The new flaking line takes the tempered kernels via a pre-existing belt & bucket elevator through a new bullet type magnet, which removes any metallic impurities ensuring the pin rollers within the flaking mill are not damaged. An existing conveyor then feeds a new store conveyor that is connected to a surge bin. The store conveyor is equipped with electro-

pneumatic outlets, which allows the surge bins to call for the kernels when they are needed. The surge bins then feed a steam chest, which cooks the kernels and feeds them into the flaking mill.

Perry's range of store conveyors are capable of handling capacities of up to 1000tph and are all manufactured using highly durable galvanised steel. They come in widths from 7" right up to 1m wide. There is no metal to metal contact on any of the chain and flight conveyors, helping to increase the longevity of the conveyors. A range of chain speeds are offered to suit various different products, ensuring minimal damage to the product while being conveyed.

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



# Flaking Mill Upgrade Continued



Once the corn has been flaked, the flakes are then discharged directly into a Perry Belt Drier, which takes the moisture content of the flakes from 23% down to 11% by drying and cooling the flakes, which gives the flakes a much longer storage life. The customer installed a 10tph belt drier, but currently only requires it to output approximately 8tph.

The Perry belt drier has proven to be an effective tool for drying flaked maize as, unlike other driers, air is drawn down through the product bed, meaning there is minimal product lift. There are also no slats or chains to come into contact with the product, meaning there is minimal product damage during the drying and cooling process. The consistent air flow within the belt drier is aided by the fact that there are no louvres or perforations to become blocked, this also means that in this particular application the Perry belt drier requires less frequent cleaning than that of its competitors.

On discharging from the drier, the dry flakes are deposited into a new chain & flight conveyor that feeds directly on to an existing belt conveyor, which in turn takes the dried flake in to stores. Perry's experienced engineers were able to supply and install the full flaking line, including the surge bin, steam chest and flaking mill along with adapting the existing machinery to ensure the whole process runs efficiently and smoothly.

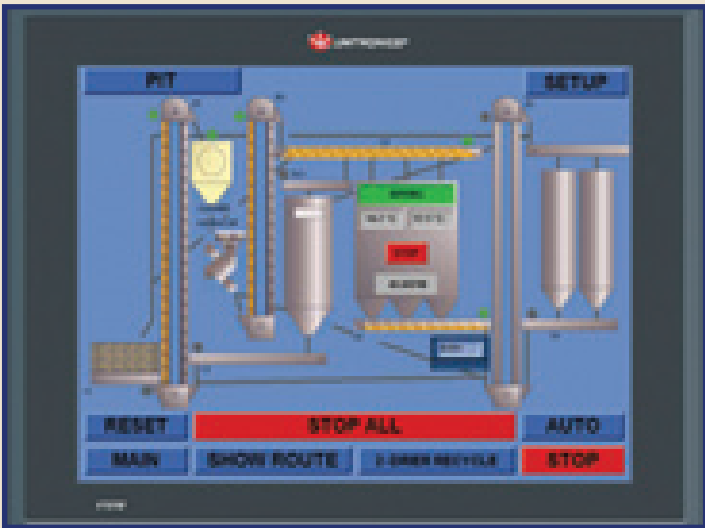
With the new flaking line installed and working efficiently, the third stage of this installation involved shutting down LINE 2 in order to add

a belt drier to dry and cool the flakes after the flaking process. The Perry Belt drier installed in LINE 3 had proven to be a lot more efficient and required a lot less maintenance than the existing drier in LINE 1 so the customer opted to install another 10tph Perry Belt Drier.

The second Belt Drier discharges in the same manner as the first, including feeding the same belt conveyor that takes the dried flake to stores.

By improving the pre-tempering line, adding a whole new line and improving the second line Perry have now increased their customers overall output to an average of 25tph. This has allowed the customer to meet their ever increasing demand and allows for further growth. They also now have a stock pile of flaked maize, which reduces the pressure on all 3 lines, allowing them to work under their maximum output.

Perry of Oakley Ltd. can provide handling equipment with capacities from 8tph up to 1000tph suitable for full commercial use. Industrial specification handling available includes chain & flight conveyors (horizontal, inclined & curved combinations), mechanical reception pits, belt & bucket elevators, belt conveyors, twin trace conveyors & augers / screw conveyors. All of their machines are manufactured to the highest standard using the latest engineering and manufacturing technologies.



Scan this QR Code or visit [www.perryofoakley.co.uk/flaking-mill-equipment](http://www.perryofoakley.co.uk/flaking-mill-equipment) to find out more about our range of flaking & milling equipment

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



# *Upgrade and Expansion of Drying & Handling Equipment in East Pitkierie*



John & Allan Marshall from East Pitkierie, Anstruther, Fife have an all arable farm with a 1,400 tonne barley store and a 3,800 tonne wheat store. They farm 695 acres of wheat, 217 acres of barley, 247 acres of oil seed rape & a further 80 acres of potatoes giving them a total of 1,300 acres of arable land to farm.



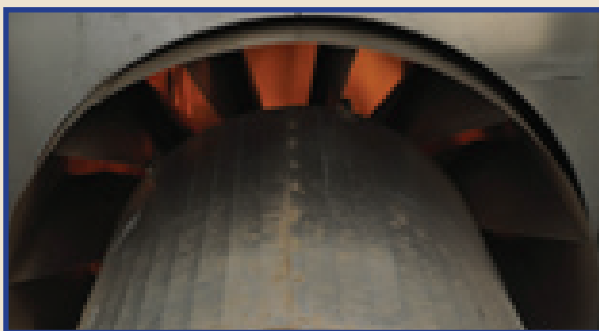
The father and son team decided to fully refurbish their store including erecting a new building and upgrading the drying and handling equipment. They contacted K. M. Duncan Agricultural Engineering Ltd. to undertake the refurbishment work. They chose to work with K. M. Duncan as they are a local dealer to them with an excellent reputation for their quality of workmanship and good problem solving skills.

K. M. Duncan recommended Perry of Oakley Ltd. as the supplier of the grain handling & drying equipment. Perry are the UK's most experienced manufacturer of materials handling & drying equipment. Over the last 70 years, Perry have supplied tens of thousands of solutions to various industries. In 2017 they were recognised as one of the UK's top 100 SME's and were awarded the accolade of UK Exporter of the Year by SHAPA.



The new system starts with twin 6m long 60tph Perry mechanical reception pits which feed an aspirator pre-cleaner via an inclined chain & flight conveyor. The aspirator pre-cleaner removes dust, chaff, husks, awns and materials lighter than grain to help improve crop quality. The airflow within the pre-cleaner can be adjusted to suit a variety of crops.

After pre-cleaning, the grain is elevated via an 11.5m high, 60tph belt & bucket elevator. The elevator gives the Marshall's their first flexible route option as it can either feed the grain drier or a series of 60tph conveyors to take the grain to stores.



The grain drier is a Perry model M511 grain drier. It is capable of 41tph (based on wheat at 750kg/m<sup>3</sup>) and has had the Light Grain & Chaff Recovery System (LGCRS) installed on it. The LGCRS removes the need to clean

***John & Allan Marshall said: “We have found the Perry machines have quite low noise levels and we particularly like the Perry PLC control panel. It’s really simple to use and the text message alerts are really helpful. The automatic set up makes getting the drier running at its optimum for our crops really simple, and with the panel including the handling too, rerouting the crop is easier than we could have hoped for.”***



out light grain and chaff from the drier exhaust plenum. The collected chaff and light seeds are released directly into the discharge hoppers. This system has proven particularly useful when drying oil seed rape. If you are tired of having to clean out your driers exhaust plenum during a busy harvest, the LGCRS could be the solution you have been searching for.



From the drier, the dried grain is then passed through a second aspirator pre-cleaner, then up another belt & bucket elevator and then delivered to stores via a belt conveyor which has been installed with a motorised tripper, allowing John & Allan Marshall to make the most of the storage space available in their new buildings and existing stores.

The whole system is controlled using a Perry 12” touch screen PLC program, which is designed and programmed at Perry’s factory in Devon by their team of experienced engineers.



Scan this QR Code or visit

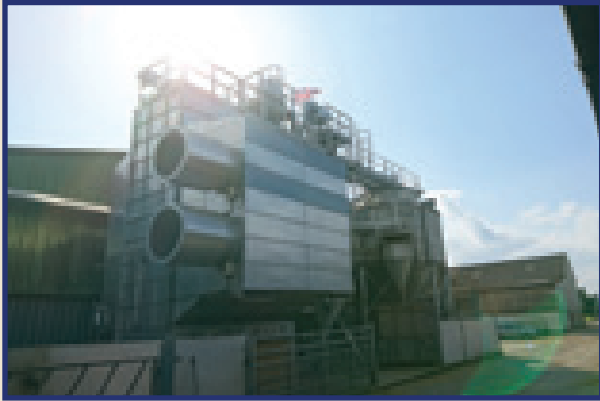
<http://www.perryoakley.co.uk/upgrade-and-expansion-drying-handling-equipment-east-pitkerrie> to see the a video & more images

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





# Osgodby Grange Set Sights on Contract Drying & Storage



Doug Dear from Osgodby Grange in Selby, Yorkshire has recently completed a full refurbishment of his mixed arable and livestock farm's handling & drying equipment. Each year Mr. Dear farms 350 hectares of wheat, barley, maize and oil seed rape. They produce about 2000 tonnes of their own crop but also offer a contract drying & storage service. They currently do approximately 700 tonnes of contract drying and storage, with an additional 400 – 500 tonnes of drying wheat but this is a side of the business they are looking to develop.



Until recently Mr Dear operated a 10tph Allmet Drier and accompanying handling equipment. When the drier could no longer keep up with demand Mr. Dear contacted Russell Thompson from Thompson's Engineering Ltd. to help him with the process of upgrading his plant to be more modern, more efficient & capable of doing more.

Mr. Dear chose to use Thompson's Engineering as they have worked together in the past & Mr. Dear found them to be a very professional operation with excellent build quality.



Thompson's Engineering Ltd. recommended Perry of Oakley Ltd. to Mr Dear for both the handling equipment and the grain drier upgrade. Perry of Oakley Ltd. are the UK's most experienced manufacturer of materials handling, drying & storage equipment. With over 70 years of experience and accolades such as SHAPA's "Exporter of the Year" 2017 award winner & being listed as one of the top 100 UK SME's, Perry were confident they could provide Mr Dear with a suitable solution.

The old drier was replaced by a Perry M-Series drier. The drier is rated for 25tph, but in real terms Mr. Dear has found the drier averages around 35tph. Accompanying the drier now is Perry's agricultural specification handling equipment. This includes a mechanical intake pit, a holding bin, belt & bucket elevators, an aspirator pre-cleaner, cross conveyors & three out-loading conveyors.



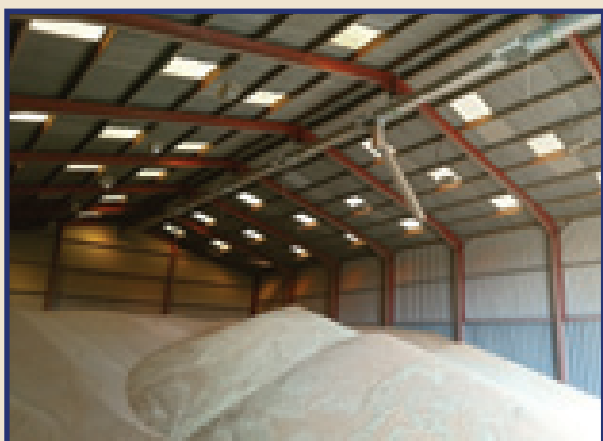
Perry's are currently offering a 10 year anti-perforation guarantee on all of their agricultural specification store conveyors. (T's & C's apply)

***Doug Dear Said: “Our system is so quick, easy & simple now; it has made life so much easier. We are more than happy. The build quality is excellent, I’ve seen the competition, there’s more metal in it and it’s just good gear.”***



Mr Dear & Thompson’s Engineering spent a lot of time working out the new site on paper, as a result of this Mr Dear feels that there is no way you can clog the drier up or route the grain around the wrong path. If someone does make a mistake, the worst case scenario is that the grain is returned to pit.

The whole system is controlled with Perry’s 12” touch screen PLC control panel which is designed and programmed in Perry’s Devon based factory by their experienced engineers. The simplicity of the system means that Mr Dear plans to leave the drier running on its own with the confidence that very little can go wrong with his system.



Mr Dear was kind enough to provide Perry a full interview to review his equipment. You can watch the full video and hear his review for yourselves by using the link below.



Scan this QR Code or visit

<http://www.perryof oakley.co.uk/osgodby-grange-sets-sights-contract-drying> to see the a video & more images



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



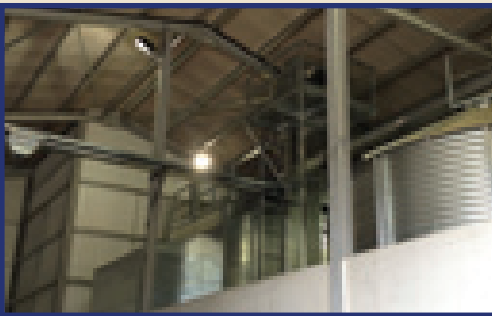
# Catton Farms so Impressed they are Installing More!



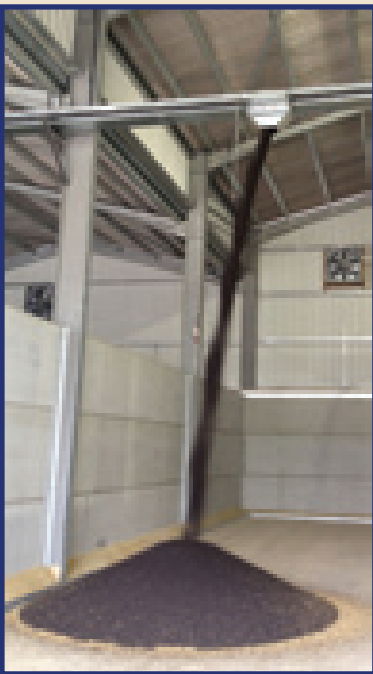
Father and son team, Ralph and Tom Catton of Catton Farms, Hertfordshire, are now in the second phase of updating their family run farm to a high specification drying and storage facility that has the potential to become a commercial operation within the next 12 to 18 months.

Catton Farms previously had a 40 year old drying and storage system which included 10tph handling, 12 ventilated storage silos (40 tonne) and a 7 tonne pit. They had a maximum storage capacity of 500 tonnes in that store. The system that they had installed was no longer adequate for the aspirations and needs of the company. Not only were the capacities not large enough, but the system was very labour intensive and highly inefficient.

Ralph and Tom approached Ivan Maggs of Concept Grain Systems Ltd. & Mike Callaghan of Perry of Oakley Ltd. to help them bring their handling and storage up to date. Concept Grain Systems Ltd. recommended that Catton Farms installed a range of Perry handling and drying equipment. Concept Grain Systems Ltd. and Perry of Oakley Ltd. worked together with Catton Farms to produce a plan that allowed for machinery and equipment to be installed for harvest, but also had the potential to be expanded later if required.



The first phase of the upgrade included demolishing two buildings and erecting one new large twin portal building, 60tph handling equipment (including various chain and flight conveyors, an aspirator cleaner, a belt and bucket elevator), a storage silo and a 29tph, PLC panel operated, continuous mixed flow drier, all of which was supplied and manufactured by Perry of Oakley Ltd. to maximise the efficiency of the store. With the new throughput capacity of 2500 tonnes per year at Catton Farms, the standard Perry equipment copes with ease. The machines selected were the Perry standard Agricultural range with a 3mm thick galvanised steel base and 2mm thick galvanised steel sides to ensure maximum machine life.



There were specific requirements to this instalment that Perry and Concept Grain Systems Ltd. had to work around. There were older buildings that needed to be used, and new buildings that needed to be designed and developed to work alongside the existing buildings. Thanks to the proposed layout and design by Ivan Maggs from Concept Grain Systems Ltd. and Mike Callaghan from Perry of Oakley Ltd. planning permission for the new twin portal framed building was obtained.

Due to a limited amount of space, the drier needed to be shorter than a

**Tom Catton said: “Concept Grain Systems Ltd. & Perry of Oakley Ltd. guided us through the process of updating our machinery; the level of expertise within the companies has helped us no end.**



**The Perry machines they recommended we installed have worked really well, and as a result we had a very successful first year. The machines have helped us to reach a much more efficient level of productivity, and with phase 2 of the installation now underway we can increase our productivity further and begin to plan for the future expansion of our business.**



standard 29tph drier, so an integral hopper was installed to keep the height of the drier down. Also as the drier is in a building the fans had to be side mounted to ensure the air was not directed over a roof or towards other building walls. The fans were fitted with dust shutters to minimise the amount of dust and chaff that leaves the drier when it discharges.

With the help of Concept Grain System Ltd. and Perry of Oakley Ltd. the current set up at Catton Farms now boasts a new 1400 tonne store including a 15 tonne below ground pit surrounded by concrete grain walling above ground to provide further storage of approximately 70 tonnes below a sheltered roof canopy, an internal 55 tonne

ventilated storage silo, 60tph handling equipment and enough capacity throughput to keep six corn cart tractors and two combines working full time. The new system is far less labour intensive and helps to maximise the efficiency of the store with the transport of granular products and a reduction in labour costs.

Catton Farms have been so impressed with the Perry handling and drying equipment that they have decided to proceed with phase 2 of their upgrade plans and are currently in the process of installing belt conveyors to neighbouring buildings to further increase their storage facility and to reduce the amount of labour required further still.



Scan this QR Code or visit  
<http://www.perryofoakley.co.uk/cattonfarms>  
to see the a video & more images

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



# Second time around for Strawson's Farms & Perry of Oakley Ltd.



In 1998 Strawson's Farms, Louth, installed a range of 30tph and 60tph grain handling equipment from Perry of Oakley Ltd. and a 20tph drier. More recently Mr Strawson has found this system had not been able to keep up with the amount of grain he is now producing on the farm, and so made the decision to upgrade his drier and handling equipment. Each year Mr Strawson may need to dry up to 6000 tonnes which will be a combination of wheat, barley, oilseed rape and beans.

It was decided the 20tph drier would be changed to a Perry 50tph M611 drier and the handling equipment was upgraded to the 100tph Perry heavy duty agricultural range of conveyors and elevators along with reusing one of the existing Perry conveyors.

The heavy duty agricultural range (from 60tph to 120tph) is a mid range specification that bridges the gap between the lower capacity agricultural range (from 8tph to 60tph) and the high capacity industrial range of products (from 60tph up to 600tph). All of this range of Perry conveyors are designed and manufactured in house and has an all bolted and rivetted construction with heavy duty dimple form countersunk joint for high mechanical strength. The heavy duty agricultural range is suitable for throughputs of up to 30,000 tonnes per annum.

The new handling equipment at Strawson Farms incorporate a 100tph curved combination conveyor, two 100tph store filling conveyors, a 100tph flow and return conveyor and two 100tph single lift belt & bucket elevators. Mr Strawson was happy to use Perry handling equipment again as it had performed well on the original installation and found it straightforward to use and maintain.

The drying process starts with product being tipped into an existing pit which feeds a 300mm intake screw that was already installed at the farm. The product is then picked up by a 14.45m 100tph elevator which then routes the product to either the drier via a 9.1m flow and return conveyor, or feeds the product to an 8.5m 100tph conveyor which is connected to a 27.5m 100tph 15 degree curved combination conveyor.

The system was designed and drawn by Perry's Area Sales Manager which is a service available to all our customers. We help our customers design a solution for their needs using our over 60 years of grain handling and drying experience.

The curve combination conveyor is made up using Perry's market leading horizontal conveyor and flight elevator designs. Each conveyor that leaves the factory has been tailored to suit the customer's needs, with a wide range of optional extras and heavy duty construction Perry's will be able to fill customer's requirements.

The curved combination runs along the line of the roof giving more vertical storage height. Coming off of the curved conveyor are two existing Perry conveyors that were uprated to cope with the increased required capacity. These deposit the product to the back of the store, allowing the store to be filled to its maximum potential. If the product has been routed through the Perry drier the shutter discharge deposits the product into another 8.5m 100tph conveyor and is then conveyed up to the curved combination conveyor via a 10.55m 100tph elevator.

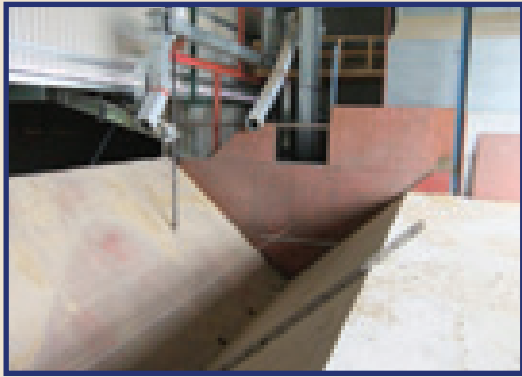
Perry's agricultural and heavy duty agricultural range of elevators are fitted with low stretch, oil resistant EP nitrile rubber belting as standard and have slatted pulleys to help reduce the build-up of material on the pulleys. Along with a durable galvanised steel finish the elevators have been designed to offer a high specification machine at an affordable price.



*For more information call us on +44 (0)1404 890300,  
email us at [sales@perryfoakley.co.uk](mailto:sales@perryfoakley.co.uk) or  
visit our website [www.perryfoakley.co.uk](http://www.perryfoakley.co.uk)*



***Mr. Strawson said: "Having used Perry handling equipment previously I was happy to upgrade to the Perry heavy duty agricultural range of machinery. The drier is performing well and the LGCRS saves me time as I don't have to empty the exhaust plenum as often.***



***The PLC Panel is easy to use & overall we are very happy with our installation. It's really simple to use and understand."***

When the drier is operated at 125°C it is capable of a throughput of 48.5tph (based on dry wheat at 750kg/m<sup>3</sup>), it stands at just over 10m tall by 6m wide. This gives the drier a holding capacity of 51 tonnes. All Perry driers are designed and manufactured to BS6399 for wind loading & BS5950 for structural strength. The drier has been designed to be as efficient and long lasting as possible. Perry has a dedicated research & development drier that allows them to constantly update their technology and understanding of their driers. All Perry driers have a reliable pneumatic shutter discharge system.



Mr Strawson's new M611 drier is fitted with Perry's Light Grain & Chaff Recovery System (LGCRS). The LGCRS is a pneumatically operated system that is installed at the base of the exhaust plenum. It has been designed to help reduce the build up of dust, chaff & light seeds in the exhaust plenum by periodically discharging any product that may have been drawn, by the fans, from the grain column and puts it back with the main grain flow. This is an optional extra that can be fitted to new Perry driers and it can be retrofitted to existing Perry driers that have been fitted with shutter discharges.

The whole system is controlled using the Perry's PLC drier and plant control panel. The 12" touchscreen PLC panel has been designed and programmed by Perry engineers and is capable of controlling up to 10 machines as standard along with the drier. The panel displays a mimic of the complete store as well as having multiple automatic and manual routes available. In the drier control section alone there are over 70 alarms & messages, making drier operation easy to understand. Another impressive feature of the drier panel is its ability to calculate and set the parameters needed for the target moisture content when the crop type and intake moisture content is specified. The Perry PLC control panel can send live status updates via email or text to designated addresses and numbers. It can also be controlled remotely from any PC, allowing Perry staff to offer remote support to any drier.



Scan this QR Code or visit

<http://www.perryfoakley.co.uk/?q=second-time-around-strawsons-perry> to see the a video & more images

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





*SHAPA's 2017 & 2021 'Exporter of the Year' award  
winners & DIT Export Champions.*

# Perry of Oakley Ltd.

Dunkeswell Airfield,  
Dunkeswell,  
Honiton,  
Devon,  
EX14 4LF

## Phone

**Sales: +44 (0)1404 890 300**

**Support: +44 (0)1404 890 305**

## Web

**E-mail: [sales@perryofoakley.co.uk](mailto:sales@perryofoakley.co.uk)**

**Web: [www.perryofoakley.co.uk](http://www.perryofoakley.co.uk)**



in



f

