



Continuous Mixed Flow Grain Driers



Perry of Oakley Since 1947

Perry of Oakley Ltd. was founded in 1947 by Tom Perry, a farmer's son, who offered a mobile repair and manufacturing service to local farmers and 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

reduction systems for 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.

Savannah Series Driers are Exported Worldwide to Dry a Large Variety of Crops



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- 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 application 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 inverter controlled fans for ease of control when drying light crops and for energy saving.
- Optional "Grain Sentry" automatic drier moisture control using automatic grain sampling and measurement using an industry standard Near Infra Red moisture meter for high accuracy.
- If you connect the drier to the internet it will allow 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 Research & Development capabilities.

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Dual Column Driers

- These driers provide the high capacity of a large drier combined with the flexibility of being able to use either half for drying small batches.
- If there is a small amount of crop to be dried, only one column needs to be used.
- One column can be left filled with one crop whilst the other column is used to dry another. This significantly reduces lost time spent filling and emptying the drier between batches.



Drier Discharge

To promote consistent movement of the grain, all Savannah Series Driers are fitted with our highly efficient, fully galvanised, pneumatically controlled shutter discharge (with phosphor bronze bushes on all wearing parts). All driers have pneumatic shutter discharge to ensure even movement of crop across the whole bed. This is especially important when drying crops from very high moisture content, and seed crops.

- Shutter discharge for efficient drier operation.
- Heavy duty fully galvanised construction with all the pivot points fitted with phosphor bronze bushes.
- Fully adjustable pneumatic or electric operation.
- Sight glasses in hoppers to aid adjustment.
- Hand slides in hoppers to control grain flow.



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Highly Efficient Axial Flow Fans

Optional inverter controlled fans for ease of control when drying light crops and for energy saving.

Fan Positioning Options:

- Front mounted.
- Vertical mounted.

All fans can be fitted with:

- Pneumatically operated dust reduction shutters.
- Weather protection shutters.
- Silencers to suit requirements.
- CentriKleens for dust collection (see separate page for details.)



Drier Access for Cleaning

- Improved access to the Savannah Series Driers by putting two access hatches in the roofs of all 4m, 5m & 6m driers.
- Improved access to Savannah Series Driers with optional plenum side access doors and drop down access platforms inside the plenum.
- Large doors for easy access when cleaning the plenums.
- Multiple cross braces and harness connection points inside the drier to provide safe access for cleaning.



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Drier Burner & Fuel Options

- **Direct or indirect fired** via air to air heat exchanger.
- **Kerosene or diesel** (3 stage, with mode selection on the PLC panel to control the amount of heat generated).
- **Natural gas or LPG** (fully modulating burners for optimum heat control).
- **Partly or fully biomass fired** via heat exchangers.
- **Coal fired** using air to air heat exchanger.



Drying Light Seeds

- Savannah driers have optional inverter control of drier fans as. This provides convenient control to reduce the airflow when drying light crops. When selecting a light crop to dry on the crop selection page, the drier PLC control automatically sets the appropriate speed for the drier fans. Also, by reducing the drier fan speed, when drying, energy can be saved.
- On multiple fan driers the PLC panel gives the operator the option to turn a fan off. To use this option effectively fan shutters should be fitted.
- During low temperature operation on multiple burner driers the PLC panel allows individual burners to be turned off.
- If the inverter controlled fan option is not selected, air can be bled into the fans to reduce the airflow through the crop using slides at the bottom of the fan plenum.



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Light Grain & Chaff Recovery



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The Light Grain & Chaff Recovery System reduces the need to clean out light grains and chaff from the drier exhaust plenum.

- Additional option on all new driers but can be retrofitted to shutter discharge driers.
- Pneumatically operated only - connected to existing drier compressor.
- PLC controlled so frequency of drop can be easily adjusted.
- Labour saving.
- Particularly useful when drying oil seed rape or light seeds.
- Chaff and light seeds released directly into the discharge hoppers.
- Pneumatic flap optimises the airflow in the drier when in the shut position.



Tired of cleaning your drier exhaust plenum during harvest?

Then you need the Light Grain & Chaff Recovery System!

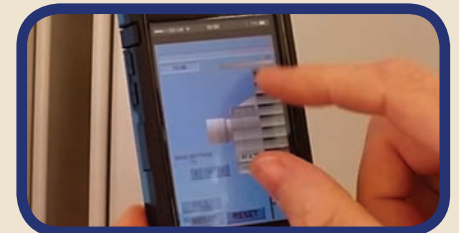
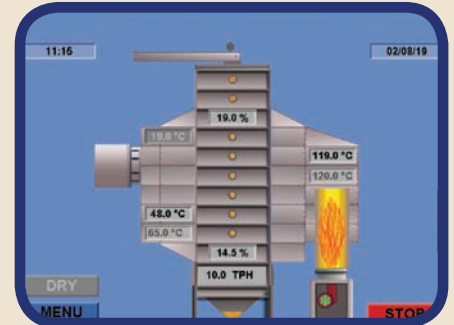


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PLC Control Panel

Overview

- 12" Touch screen.
- Simple operation.
- A standard feature is an automatic grain moisture control system. This uses temperatures at the top and bottom of the drier to monitor incoming and outgoing grain temperature changes and control the drier discharge speed accordingly to maintain a moisture content based on grain temperature. This does not actually measure the grain moisture content.
- The Grain Sentry is an optional automatic drier moisture control using automatic grain sampling and actual moisture content measurement using Near Infra Red technology. The PLC then uses this data to make control changes to the drier speed to maintain the actual grain output moisture content. This system does accurately measure the grain moisture content.
- Plain language status alerts.
- Designed and programmed in house.
- Data logging of all readouts and alarms and drier status.
- Moisture contents can be entered during the day.
- Export all recorded drier conditions and moisture contents to a spreadsheet and automatically create daily record sheets.
- Fuel use calculator included.
- Optional recirculating batch mode included - requires additional empty probe.



Unique Crop Set Up Page

The crop set up page 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 using this data. By selecting the crop, the control panel sets all temperatures and fan speeds to suit it.

WHEAT-MILLING

ENTER CROP

25.0%

TARGET MOISTURE %

15.0%

ENTER MOISTURE

SET SPEED

11.0

BACK SETUP

Internet Connectivity

Connect your panel to the internet to:

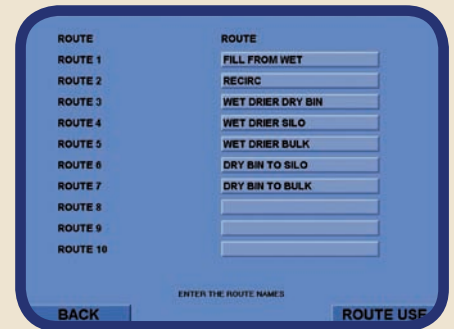
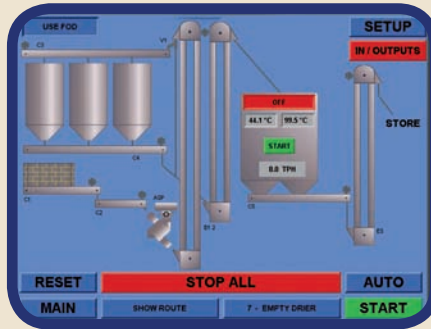
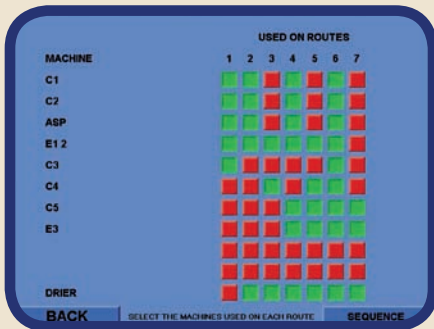
- Have the ability to control or monitor the drier remotely from any internet connected PC, phone or tablet.
- Download all drier history and data logged records.
- Connect the drier to the internet and allow UK engineers to access the panel for diagnostics or adjustments while you watch the screen.
- Requires internet connection and modem for all features (not included).

PRESS TO SELECT	CROP	DRYING TEMP	GRAIN TEMP	FAN SPEED
☐	BARLEY-FEED	125.0 °C	62.0 °C	100
☐	BARLEY-MALT	70.0 °C	44.0 °C	95
☐	BEANS	85.0 °C	50.0 °C	100
☐	SORGHUM	85.0 °C	48.0 °C	85
☐	MAIZE	125.0 °C	65.0 °C	100
☐	OATS	70.0 °C	44.0 °C	85
☐	RAPESEED	85.0 °C	48.0 °C	80
☐	PEAS	85.0 °C	50.0 °C	100
☐	SEED CROP	70.0 °C	44.0 °C	100
☐	SUNFLOWER	60.0 °C	38.0 °C	80
☐	WHEAT-FEED	125.0 °C	62.0 °C	100
☐	WHEAT-MILLING	85.0 °C	48.0 °C	100

BACK RESET DEFAULT

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PLC Plant Control Panel



Overview

- Additional cost option incorporated in your drier control panels.
- Switch simply between drier and plant control view.
- Can control up to 40 machines as standard.
- Unique mimic drawings for each installation.
- Manual or auto route selection modes.
- Drier operation can be seen whilst in plant control panel display.
- Possible to add routes on site without reprogramming.
- Larger control panels can be provided for large installations.
- Can integrate with on site SCADA.

Drier Upgrades

Give Almost Any Make of Drier a New Lease of Life

We have upgraded many makes of driers up to 40 years old with a PLC panel conversion, both roller and shutter discharge.

This cost effective solution of adding our PLC screen and control to your existing drier cabinet gives the benefit of:

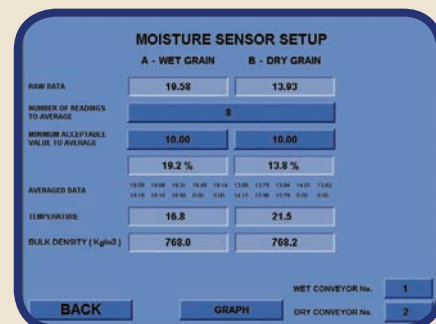
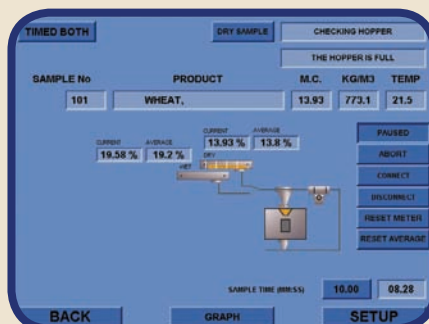
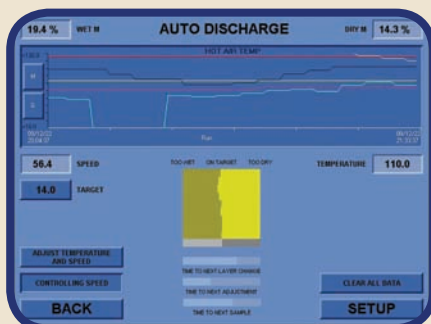
- Enhanced data logging.
- Possibility of remote connection via an internet connection.
- Enhanced auto control of the drier using input and output grain temperature.
- Plant control panel mimic and control if applicable.
- Simple upgrade to Perry Grain Sentry automatic moisture sampling and drier control system at a later date.



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Automatic Grain Moisture Measurement System with Drier Moisture Control - The Grain Sentry

- The Perry Grain Sentry uses pneumatic conveying to take a grain sample from the drier filling and emptying conveyor system.
- The Grain Sentry can be fitted to ANY MAKE of most existing grain driers.
- The Grain Sentry does not need to be calibrated (just an annual service).
- Industry standard grain moisture measuring.
- One system can control 2 driers.
- Results are fully data logged.
- Reduces the need for a drier operator to be at the drier.
- Self-learning drier control algorithm written by Perry's own engineers.
- This is a fully integrated PLC solution when fitted to a Perry drier.
- When combined with our hot air recirculation system it can save up to 35% of direct drier operating costs.



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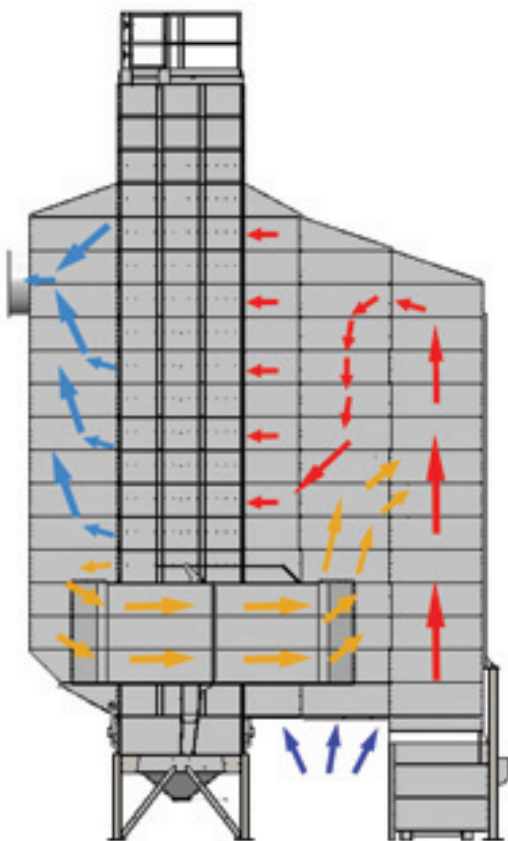
Energy Saving Drier Hot Air Recirculation

- Can save up to 20% or more of your grain driers fuel bill.
- When combined with Grain Sentry automatic drier control total direct drier operating savings can be up to 35%. (*results will be affected by hot air temperature, type of crop dried, fan speeds, air flow, crop moisture, ambient conditions and drier model)
- Hot Air Recirculation takes the drier air used for cooling and from the lower drying zones and mixes it with heated air from the drier heat source.

Theoretical percentage saving can be:

- 70°C hot air temperature, 15°C ambient, percentage saving 21% to 24% depending on drier model selected.

*Theoretical calculation, will be affected by hot air temperature, drier fan speed and air flow, crop moisture, ambient conditions, crop type, drier model.

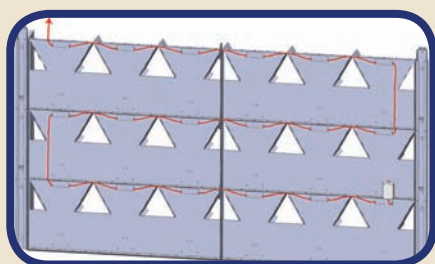


Optional Furnace Mesh Enclosure, for use in dirty environments where there is a lot of chaff to prevent accidental fire.

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Drier Fire Detection

- Perry's patented Grain Sentry fire detection system can give you peace of mind when running your drier unattended.
- Our system provides the best chance of sensing heat build up at the early stages of a fire.
- Once triggered the system will shut down the drier and fans, and can raise the alarm with an audible signal or use a modem to contact the owner or operator.
- Due to changes in the wire resistance, the position of a heat source will be identified.
- The Grain Sentry fire detection can be fitted to any make of continuous flow tower drier.
- One cable can protect a whole drier.



Optional Furnace Mesh Enclosure, for use in dirty environments where there is a lot of chaff to prevent accidental fire.

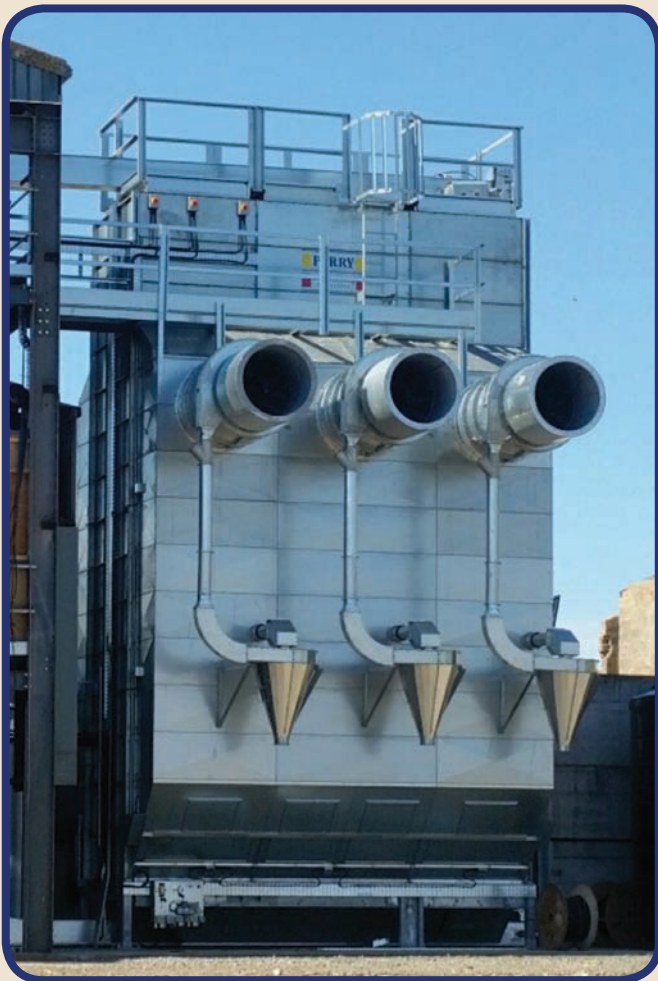


Grain Sentry Fire Detection Cables in position.

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CentriKleen - the cost effective, simple solution to your drier's dust and chaff problems.



- Can be fitted to existing axial fans on all makes of drier.*
- No additional motor power.
- Up to 95% of visible dust and chaff collected.
- Does not require additional steel support.**
- No moving parts.
- All galvanized.
- Dust and chaff can be collected into a trailer, dust box or building.
- Two models available to suit 1m and 1.25m diameter axial fans.



Had enough of having yards or roofs covered in chaff from your drier?
CentriKleen is your solution!

*Subject to fan survey and test.

**Access is required for periodic cleaning.

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Principle Of Operation

The reserve section of the drier is kept full of grain using a feed on demand or flow and return conveying system. This keeps the grain column permanently full which is essential for efficient operation.

To obtain the best drier operating speed and correct drying temperatures the crop details are entered onto the crop selection page of the PLC control. You enter the grain type (malting barley or feed wheat etc.), then input moisture content of the grain to be dried and the target moisture content. The drier PLC then calculates the correct drier throughput and temperatures for operation.

The heat source is normally a diesel, kerosene or gas fired burner but it is also possible to use biomass & coal heat sources via heat exchangers to provide some or all of the heat.

If light seeds such as oil seed rape are being dried, then the amount of air going through the drier needs to be reduced. The drier PLC will preset the fan speed if a light crop is selected to be dried, if (optional) fan inverters are fitted. This reduces the amount of air being drawn through the drier and reduces crop lift off. If inverters are not fitted then air bleeds will be fitted to manually allow air to be bled into the fans.

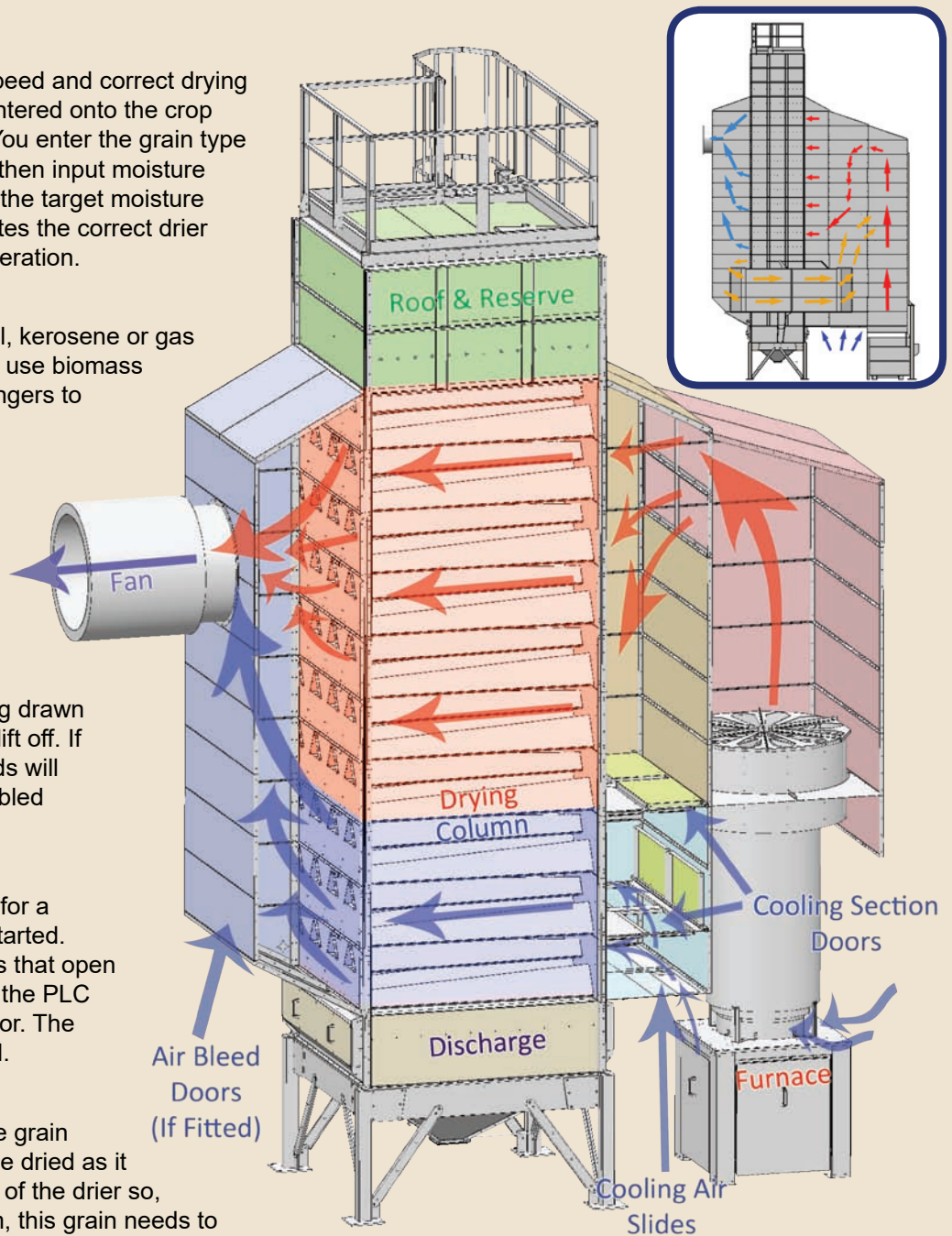
Once the drier has been preheated for a short period the discharge can be started. The discharge is a series of shutters that open and shut at intervals determined by the PLC or manual adjustment by the operator. The shutters are pneumatically operated.

At the start of the drying process the grain that comes out of the drier will not be dried as it has not passed down the full height of the drier so, depending on the conveying system, this grain needs to be either recirculated back into the top of the drier or diverted to an area where it can be put back into the drier later.

Whilst the drier is running the operator will take periodic moisture samples of grain entering and leaving the drier. When the desired exit moisture content is reached the conveying system is changed so that the dry grain is sent to store and not recirculated.

Once the operator is sure that there is a consistent moisture content for the grain leaving the drier then automatic mode can be selected to allow the PLC to control the drier without the need of the operator to be permanently in attendance.

In normal operation the bottom section of the drier uses ambient air to cool the grain before it leaves for the store.



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Capacity and Sizes Available



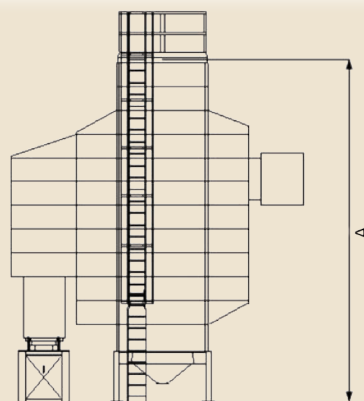
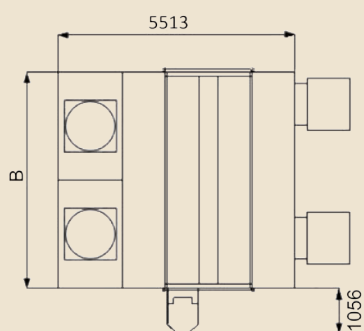
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	Model	Zone Qty	Holding Capacity (T)	Total Power (kW)	Absorbed Power (kW)	Capacity Feed wheat 20% to 15%	Capacity Maize 24% to 14%	Maximum Thermal (kW)	Drier Height (mm) (*A)	Drier Width (mm) (*B)
S2	S206	6	11.0	15.5	9.8	8.0	3.2	648	6293	2180
	S207	7	12.0	15.8	10.2	10.0	3.9	794	6843	
	S208	8	13.5	16.2	12.9	12.5	4.7	956	7393	
	S209	9	14.5	16.2	13.3	12.5	4.7	952	7943	
	S210	10	15.5	21.0	15.6	14.5	5.5	1103	8493	
	S211	11	17.0	25.9	17.9	16.0	6.2	1243	9043	
	S212	12	18.0	25.9	19.6	18.0	6.9	1382	9593	
	S213	13	19.0	30.1	19.9	18.0	6.9	1540	10143	
	S214	14	20.5	30.1	19.9	20.0	7.6	1589	10693	
	S215	15	21.5	25.7	21.8	23.0	8.7	1747	11243	
	S216	16	23.7	31.9	26.3	25.0	9.5	1913	11793	
	S217	17	25.0	30.9	26.0	28.0	10.8	2185	12343	
S3	S306	6	17.0	16.2	13.3	12.5	4.7	952	6293	3180
	S307	7	18.5	21.0	16.3	15.5	5.8	1180	6843	
	S308	8	20.5	25.9	19.6	18.0	6.9	1382	7393	
	S309	9	22.0	30.1	19.9	18.0	7.1	1483	7943	
	S310	10	23.5	25.7	21.8	22.0	8.3	1667	8493	
	S311	11	25.5	31.9	26.3	24.0	9.2	1855	9043	
	S312	12	27.0	31.9	27.0	28.0	10.6	2143	9593	
	S313	13	29.0	41.5	30.5	28.0	10.2	2058	10143	
	S314	14	30.5	40.5	32.1	31.0	11.7	9359	10693	
	S315	15	32.0	50.3	36.8	34.0	13.1	2642	11243	
	S316	16	35.6	50.3	38.8	36.0	13.7	2764	11793	
	S317	17	37.5	45.5	38.7	40.0	15.2	3277	12343	
	S318	18	39.4	45.5	38.7	40.0	15.3	3095	12893	
	S319	19	41.4	59.9	44.0	42.0	16.3	3285	13443	
	S320	20	43.3	59.9	45.6	46.0	17.6	3545	13993	
	S321	21	45.2	59.9	47.9	48.0	18.7	3539	14543	
	S322	22	47.2	76.1	54.0	50.0	19.6	3729	15093	
	S323	23	49.1	76.1	56.4	54.0	21.0	3759	15643	
	S324	24	51.1	76.1	59.3	56.0	21.7	3915	16193	
	S325	25	53.0	64.5	56.1	61.0	23.6	4287	16743	
S4	S406	6	22.5	25.9	19.6	16.0	6.1	1228	6293	4180
	S407	7	25.0	30.1	19.9	20.5	7.9	1589	6843	
	S408	8	27.0	31.9	26.3	25.0	9.5	1913	7393	
	S409	9	29.5	31.9	27.0	25.0	9.4	1905	7943	
	S410	10	31.5	40.5	30.6	29.0	10.9	2206	8493	
	S411	11	34.0	50.3	35.3	32.5	12.3	2486	9043	
	S412	12	36.0	50.3	38.8	36.0	13.7	2764	9593	
	S413	13	38.5	45.5	38.7	36.0	13.7	2967	10143	
	S414	14	40.5	45.5	38.7	40.0	15.2	3061	10693	
	S415	15	43.0	49.9	43.0	46.0	17.3	3493	11243	
	S416	16	47.4	63.5	51.5	49.0	18.4	3716	11793	
	S417	17	50.0	76.1	56.4	52.0	20.5	4132	12343	
	S418	18	52.6	76.1	59.3	52.0	19.8	3992	12893	
	S419	19	55.2	63.1	54.7	57.0	21.8	4388	13443	
	S420	20	57.8	80.1	61.4	61.0	23.4	4726	13993	
	S421	21	60.3	80.1	64.4	64.0	25.0	4719	14543	
	S422	22	62.9	96.9	67.8	67.0	26.2	4972	15093	
	S423	23	65.5	96.9	70.9	72.0	28.0	5012	15643	
	S424	24	68.1	96.9	74.8	74.0	28.9	5220	16193	
	S425	25	70.7	103.5	80.3	80.0	31.2	5672	16743	

Note: It is recommended that all driers over 50tph capacity and operating FOD have an additional 550mm reserve section.

Throughput capacity assumes mature, clean grain with no restriction to airflow and with the drier stabilised. TPH is calculated on the weight of wet grain into a drier. Note that if the product going through the drier has impurities, the capacity could be reduced. Capacity is calculated using wheat at 750kg/m³. Relative humidity: 80%. Ambient temperature: 15 degrees Celsius. Drying Temperature: 125 degrees Celsius. Moisture reduction 5% from 20% to 15% M.C wet basis.

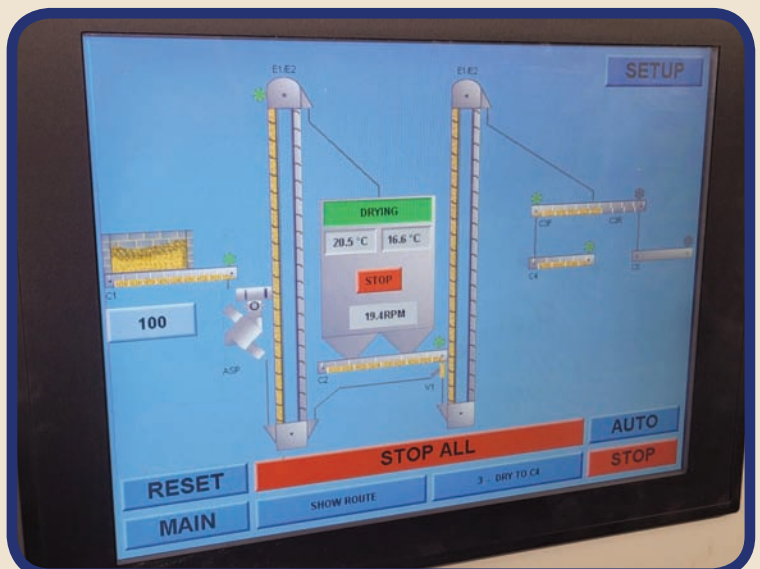
	Model	Zone Qty	Holding Capacity (T)	Absorbed Power (kW)	Total Power (kW)	Capacity Feed wheat 20% to 15%	Capacity Maize 24% to 14%	Maximum Thermal (kW)	Drier Height (mm) (*A)	Drier Width (mm) (*B)
S5	S506	6	28.5	26.4	22.0	21.0	7.9	1588	6293	5180
	S507	7	31.5	31.6	26.3	26.0	10.1	2041	6843	
	S508	8	34.0	41.2	30.9	31.0	11.7	2363	7393	
	S509	9	37.0	51.0	37.0	31.0	11.9	2401	7943	
	S510	10	39.5	46.2	37.8	37.0	13.9	2678	8493	
	S511	11	42.5	46.2	38.9	41.0	15.4	3117	9043	
	S512	12	45.5	60.6	45.8	46.0	17.6	3545	9593	
	S513	13	48.0	60.6	48.1	46.0	17.0	3430	10143	
	S514	14	51.0	76.8	56.6	51.0	19.1	3860	10693	
	S515	15	53.5	63.8	55.0	57.0	21.7	4367	11243	
	S516	16	59.3	80.8	61.6	61.0	23.4	4726	11793	
	S517	17	62.5	80.8	64.6	66.0	25.0	5052	12343	
	S518	18	65.7	97.6	71.2	66.0	25.8	5203	12893	
	S519	19	69.0	103.0	80.4	70.0	26.9	5431	13443	
	S520	20	72.2	104.2	80.6	76.0	29.3	5908	13993	
	S521	21	75.4	98.8	84.3	80.0	31.2	5898	14543	
	S522	22	78.6	119.8	88.6	84.0	32.7	6214	15093	
	S523	23	81.9	119.8	92.5	90.0	34.9	6265	15643	
	S524	24	85.1	122.0	94.2	93.0	36.1	6526	16193	
	S525	25	88.3	119.0	102.0	101.0	39.3	7135	16743	
S6	S606	6	34.0	30.1	26.3	25.0	9.4	1905	6293	6180
	S607	7	37.5	41.2	32.4	31.0	11.7	2359	6843	
	S608	8	41.0	51.0	39.0	36.0	13.7	2764	7393	
	S609	9	44.0	46.2	38.9	36.0	14.1	2857	7943	
	S610	10	47.5	60.6	45.8	44.0	16.5	3308	8493	
	S611	11	51.0	76.8	54.3	49.0	18.5	3729	9043	
	S612	12	54.0	76.8	59.5	54.0	20.6	4146	9593	
	S613	13	57.5	65.2	56.4	54.0	20.4	4123	10143	
	S614	14	61.0	80.8	64.6	62.0	23.4	4719	10693	
	S615	15	64.5	74.8	63.7	69.0	26.0	5238	11243	
	S616	16	71.1	103.0	80.4	72.0	27.4	5528	11793	
	S617	17	75.0	104.2	80.6	80.0	30.4	6024	12343	
	S618	18	78.9	101.0	84.3	80.0	30.6	5964	12893	
	S619	19	82.8	122.0	89.3	85.0	32.9	6636	13443	
	S620	20	86.6	122.0	94.2	89.0	34.3	6909	13993	
	S621	21	90.5	119.0	95.4	96.0	37.4	7078	14543	
	S622	22	94.4	151.4	107.8	101.0	39.3	7457	15093	
	S623	23	98.2	151.4	112.0	108.0	41.9	7518	15643	
	S624	24	102.1	151.4	118.3	111.0	43.4	7831	16193	
	S625	25	106.0	144.2	117.0	118.0	45.9	8324	16743	
S8	S806	6	45.0	51.0	38.4	32.0	12.2	2457	6293	8180
	S807	7	50.0	59.4	39.0	41.0	15.8	3061	6843	
	S808	8	54.0	63.0	51.8	50.0	19.0	3716	7393	
	S809	9	59.0	63.0	53.2	50.0	18.8	3685	7943	
	S810	10	63.0	80.2	60.4	58.0	21.8	4411	8493	
	S811	11	68.0	99.8	69.8	65.0	24.6	4972	9043	
	S812	12	72.0	99.8	76.8	72.0	27.4	5528	9593	
	S813	13	77.0	90.2	76.6	72.0	27.4	5717	10143	
	S814	14	81.0	90.2	76.6	80.0	30.4	6104	10693	
	S815	15	86.0	99.0	85.2	92.0	34.6	6756	11243	
	S816	16	94.8	126.2	102.2	98.0	36.8	7432	11793	
	S817	17	100.0	151.4	112.0	104.0	41.0	8264	12343	
	S818	18	105.2	151.4	117.8	104.0	39.6	7984	12893	
	S819	19	110.4	125.4	108.6	114.0	43.6	8519	13443	
	S820	20	115.6	159.4	122.0	122.0	46.8	9456	13993	
	S821	21	120.6	159.4	128.0	128.0	50.0	9213	14543	
	S822	22	125.8	193.0	134.8	134.0	52.4	9943	15093	
	S823	23	131.0	193.0	141.0	144.0	56.0	10024	15643	
	S824	24	136.2	193.0	148.8	148.0	57.8	10441	16193	
	S825	25	141.4	206.2	159.8	160.0	62.4	11074	16743	



Mistral Series Mixed Flow Grain Driers

The Mistral Series Continuous Mixed Flow Drier is a cost effective solution, designed to be an entry level static drier for farmers looking to dry up to 30tph of combinable crops.

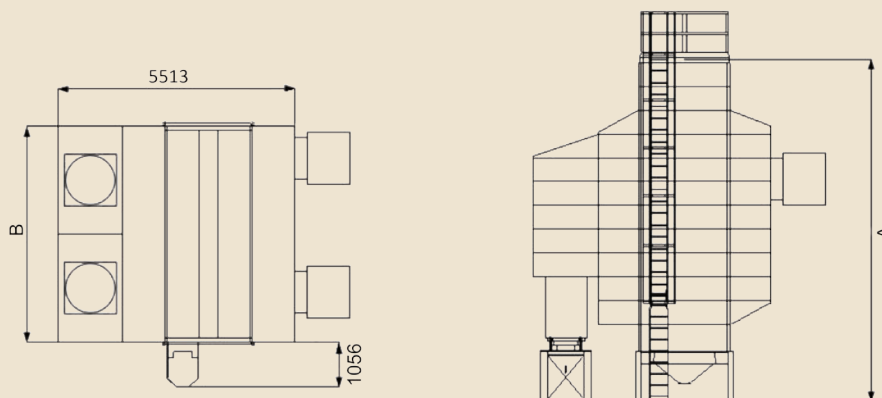
- Designed with the same efficiencies and expertise as the Savannah Series Driers. 1.6mm thick grain column and air ducts, which has a completely ledge free design to reduce dust and chaff residue.
- 25% to 30% of the drier is used for cooling the crop before it goes to store. This prevents deterioration of the grain when in store. Additional ventilation will still be required.
- Fully galvanised construction for outdoor use.
- Burner and fuel options – diesel, kerosene, gas steam, coal using heat exchangers or biomass heat sources as options (direct or indirect fired).
- Highly efficient axial flow fans – Optional inverter-controlled fans for ease of control when drying light crops and for energy saving.
- Discharge – the Mistral range of grain driers are fitted with the Perry's proven, simple to operate, roller discharge (shutter discharge is optional).
- CentriKleen – the cost effective, simple solution to dust and chaff problems, which can be fitted to existing axial fans on all makes of drier.
- Fire detection – can help provide early warning of a fire, helping to reduce potential damage to the drier. It is for use to detect fire within a grain drier drying column.
- Commissioning and support – there is a dedicated technical support line to provide a first point of call for all technical enquiries on any Perry machine.
- Control Panel - as standard, the Mistral drier is controlled via a hard-wired control panel, though this is easily upgradable to the Perry PLC Touch Screen Control Panel, using inhouse written software. Connect the drier to the internet to allow UK engineers access to the panel for diagnostics and adjustments.
- 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.



Mistral Series Mixed Flow Grain Driers

	Model	Zone Qty	Holding Capacity (T)	Total Power (kW)	Absorbed Power (kW)	Capacity Feed wheat 20% to 15%	Capacity Maize 24% to 14%	Maximum Thermal (kW)	Drier Height (mm) (*A)	Drier Width (mm) (*B)
M2	M205	5	11.0	15.5	9.8	8.0	3.2	648	6293	2180
	M206	6	12.0	15.8	10.2	10.0	3.9	794	6843	
	M207	7	13.5	16.2	12.9	12.5	4.7	956	7393	
	M208	8	14.5	16.2	13.3	12.5	4.7	952	7943	
	M209	9	15.5	21.0	15.6	14.5	5.5	1103	8493	
	M210	10	17.0	25.9	17.9	16.0	6.2	1243	9043	
M3	M306	6	17.0	16.2	13.3	12.5	4.7	952	6293	3180
	M307	7	18.5	21.0	16.3	15.5	5.8	1180	6843	
	M308	8	20.5	25.9	19.6	18.0	6.9	1382	7393	
	M309	9	22.0	30.1	19.9	18.0	7.1	1483	7943	
	M310	10	23.5	25.7	21.8	22.0	8.3	1667	8493	
M4	M406	6	22.5	25.9	19.6	16.0	6.1	1228	6293	4180
	M407	7	25.0	30.1	19.9	20.5	7.9	1589	6843	
	M408	8	27.0	31.9	26.3	25.0	9.5	1913	7393	
	M409	9	29.5	31.9	27.0	25.0	9.4	1905	7943	
	M410	10	31.5	40.5	30.6	29.0	10.9	2206	8493	
M5	M506	6	28.5	26.4	22.0	21.0	7.9	1588	6293	5180
	M507	7	31.5	31.6	26.3	26.0	10.1	2041	6843	
	M508	8	34.0	41.2	30.9	31.0	11.7	2363	7393	
	M509	9	37.0	51.0	37.0	31.0	11.9	2401	7943	
	M510	10	39.5	46.2	37.8	37.0	13.9	2678	8493	

Throughput capacity assumes mature, clean grain with no restriction to airflow and with the drier stabilised. TPH is calculated on the weight of wet grain into a drier. Note that if the product going through the drier has impurities, the capacity could be reduced. Capacity is calculated using wheat at 750kg/m³. Relative humidity: 80%. Ambient temperature: 15 degrees Celsius. Drying Temperature: 125 degrees Celsius. Moisture reduction 5% from 20% to 15% M.C wet basis.



Email us today at sales@perryengineering.com for further information about our market leading Mixed Flow Driers, or visit www.perryengineering.com.

Mobile Driers

High Specification mobile drier supplied in a durable painted finish for indoor or outdoor use.

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- Capacities from 7 to 42T.
- Basic operation, hard wired semi automatic panel or fully automatic PLC panel to allow unattended operation and remote connectivity via a mobile data network. Receive status updates as they happen using the PLC option.
- Models from 7.5 to 25T have the unique feature of an external auger, meaning access for servicing is easier and quicker to collapse for transit. With no centre auger the heated airflow is more uniform in the cone plenum; this increases performance. Less fuel usage as no heat is transferred to the centre auger.
- The external auger also allows the drier to have an independent mixer in the bottom and a control slide to control the rate of grain mixing during the drying process.



- Reliable Ecoflam two stage burners.
- Full stock of spares, and support, in the UK.
- Tried and tested in the UK for over 5 years.
- The 1.5mm stainless steel screen material means the drier is suitable for oil seed rape and most UK combinable crops.
- Two year warranty period.
- The patented, stainless steel heat exchanger option has the ability to change from indirect to direct fired and as such still provide the full range of drying temperatures and efficiencies.
- There are fewer motors, meaning more reliability and a smaller electrical requirement, which can be a very important consideration for some farms.
- Large inlet tipping hopper, or an option available suitable simply

for filling by an intake and elevator combination.

- For added safety and control of the process there are three temperature sensors, one for hot air temperature, one for hot grain temperature and an additional fail-safe alarm temperature sensor.
- Very high quality paint finish to ensure a long outdoor life.
- Dual point aspiration as an option.
- Heavy duty specification.
- Quality drier made in Europe.
- Can run multiple batches unattended.
- Diesel, kerosene or gas fired.



Email us today at sales@perryengineering.com for further information about our market leading Mixed Flow Driers, or visit www.perryengineering.com.

BELT DRIER

PERRY BIOMASS

E N G I N E E R I N G



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The Perry Belt Drier has been purposely designed to dry 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
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.
- Agitators for even drying.
- Air knife or pressure washer belt cleaning options.





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10 Reasons to make Perry Driers your next purchase:

- Optional automation and standard PLC aids reduce the need for a dedicated drier operator.
- Supported by our dedicated technical team.
- Commissioned by our own engineers.
- Optional market leading energy saving features – saves up to 20% of drier fuel use.
- Optional Grain Sentry - highly accurate automatic moisture measuring and drier control – can save up to 35% of direct drier operating costs when combined with hot air recirculation.
- Optional Fire Detection for peace of mind when the drier is operated unattended.
- All software written in house by our own engineers.
- Highly efficient pneumatically operated shutter discharge system on Savannah models.
- Heavy duty specification built to BS6399 and BS5950.
- Completely ledge and bolt free grain column for smooth flow.

