

# GRAIN DRYERS

## Diesel & Gas Fired



“ Don't get caught out by another wet harvest,  
**PROTECT YOUR INVESTMENT WITH AN OPICO GRAIN DRYER** ”





Profit from our knowledge

CHOOSE AN OPICO DRYER FOR:

**clean, efficient, high throughput drying  
and unrivalled local dealer support.**

- ✓ Reliable
- ✓ Built to last
- ✓ Larger plenum - high throughput
- ✓ Clean sample
- ✓ Automatic control option
- ✓ Gas or diesel fired
- ✓ 3 phase electric or PTO drive
- ✓ High resale value
- ✓ Local dealer support



Pictured:  
OPICO Magna 2910 Electric Drive

# OPICO GRAIN DRYERS - DIESEL & GAS



**Diesel fired**



GRAIN  
DRYERS

OPICO's Magna dryers are fuelled with diesel which is, of course, readily available on most farms. The on board fuel tank (460-1000L) provides for a considerable amount of drying, alternatively the dryer can be connected to a larger supply tank. The innovative Duax Heat Core system makes the Magna one of the cleanest and most efficient direct fired diesel dryers on the market.

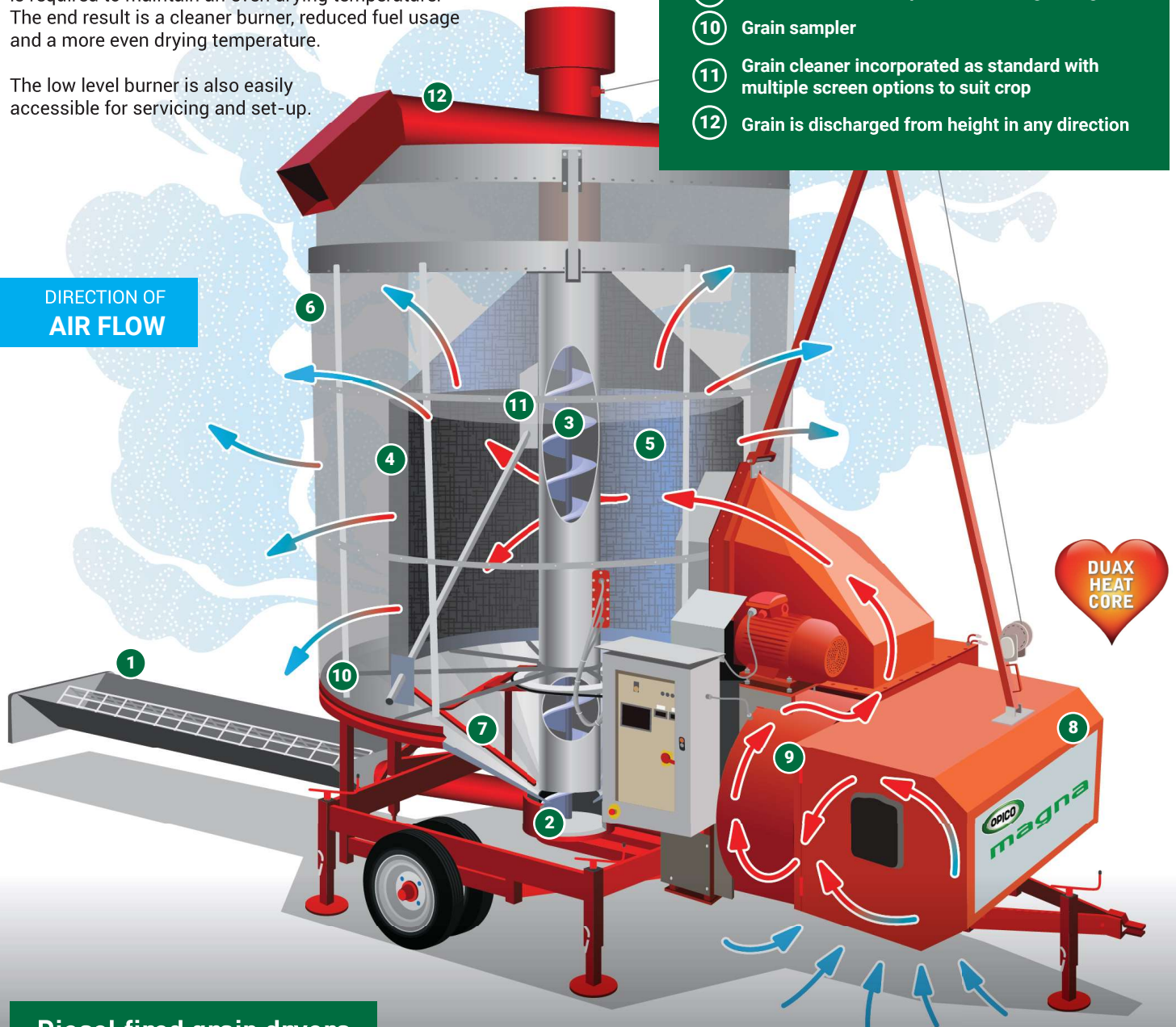
Inside the burner chamber is a steel barrel lined with heat retaining bricks, similar to those used in a storage heater. This is OPICO's unique Duax Heat Core. Whilst the burner heats the air directly these heat bricks also build up temperature and heat up the air as it is drawn past into the fan. Once up to temperature the Duax Heat Core retains heat to provide a more even "moderated" temperature to dry the grain, this means less burner modulation (switching between high and low flame) is required to maintain an even drying temperature. The end result is a cleaner burner, reduced fuel usage and a more even drying temperature.

The low level burner is also easily accessible for servicing and set-up.

## ✓ FEATURES

- 1 Loading hopper allows grain to be loaded at ground level
- 2 Cone shaped silo base takes grain to the bottom of the main auger
- 3 Central auger constantly recirculates grain for even drying
- 4 Round silo design ensures even airflow through grain
- 5 Inner chamber has larger perforations to maximise airflow
- 6 Smaller perforations in outer sheet prevent small seed loss
- 7 Agitator ensures constant flow of the grain
- 8 Burner unit heats the air coming into the dryer
- 9 Fan draws air in and pushes it through the grain
- 10 Grain sampler
- 11 Grain cleaner incorporated as standard with multiple screen options to suit crop
- 12 Grain is discharged from height in any direction

DIRECTION OF  
AIR FLOW



Diesel fired grain dryers





## Gas fired



## GRAIN DRYERS

All OPICO GT dryers are fuelled by liquid propane gas (LPG) providing clean, cost effective, controllable heat to dry with and requiring minimal set-up and servicing time.

The liquid propane is vaporised in the dryer and burnt in a ring burner to achieve high temperatures and an even safe heat.

Choose from bulk tanks or cylinders to suit your needs.

### ✓ FEATURES

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DIRECTION OF  
GRAIN FLOW



# GETTING THE MOST FROM YOUR DRYER

## ✓ OPICO GRAIN DRYERS

OPICO grain dryers offer you unrivaled flexibility to enable you to fit them into many different drying and storage layouts. With a little thought about the flow of wet and dry grain and minimal alterations to existing buildings, an efficient drying process can be set up.

The key is planning a layout that avoids double handling - minimising labour input maximises the financial efficiency and drying throughput.

Many farms could increase drying output at minimal additional cost by simply arranging their system better. Electric drive and fully automated dryers are another good way of increasing drying output per day without increasing the size of the dryer being used.



Call us if you would like some advice  
or a farm visit to discuss your best options.  
01778 421111

Whether you choose a manual or an automatic system the ease of management and peace of mind are key benefits of owning an OPICO dryer. Once set for a specific crop type the dryer looks after the drying process itself. If there is any problem it will either shut the burner off or shut down the dryer completely.



## ✓ POSITIONING THE GRAIN DRYER

There are a wide range of options when it comes to choosing the right locations for your new dryer.

Think about the flow from field to store so that time spent handling, filling and emptying are minimised. Avoid double handling.

Ideally your dryer should be sited in a well ventilated area and have cover overhead to protect it from the weather.

**THE KEY IS PLANNING  
A LAYOUT THAT AVOIDS  
DOUBLE HANDLING!**



Pictured:  
OPICO Magna 4810 Electric Drive







## EIGHT POINTS TO CONSIDER WHEN POSITIONING YOUR DRYER



1 Although dryers are mobile, not many move once installed on farm. However, the fact they can be moved ensures a good resale value.



2 If dryers are sited inside a shed condensation will be a problem unless there is a through draft to take the hot moist air away from the dryer.



3 A purpose built installation affords excellent positioning for fuel, ventilation and some protection from the weather.



4 Use the natural fall of the ground to help the grain flow and minimise the need for additional augers and conveyors.



5 If the installation is permanent then protect the dryer from the prevailing weather by using Yorkshire boarding which still allows ventilation.



6 A simple extension to an existing store provides cover and ventilation as well as access.



7 Incorporating all the positioning elements is the best solution. Site the dryer and wet grain hopper under a lean-to, protecting them from the elements, but ensuring ventilation to dispel damp moist air.



8 Think about loading as well as discharging.



# OPICO GRAIN DRYERS

## FILLING THE GRAIN DRYER

**OPICO dryers can fill themselves from their reception hopper at between  $\frac{3}{4}$  and 2 tons per minute, and therefore need a filling system suitable for this demand.**

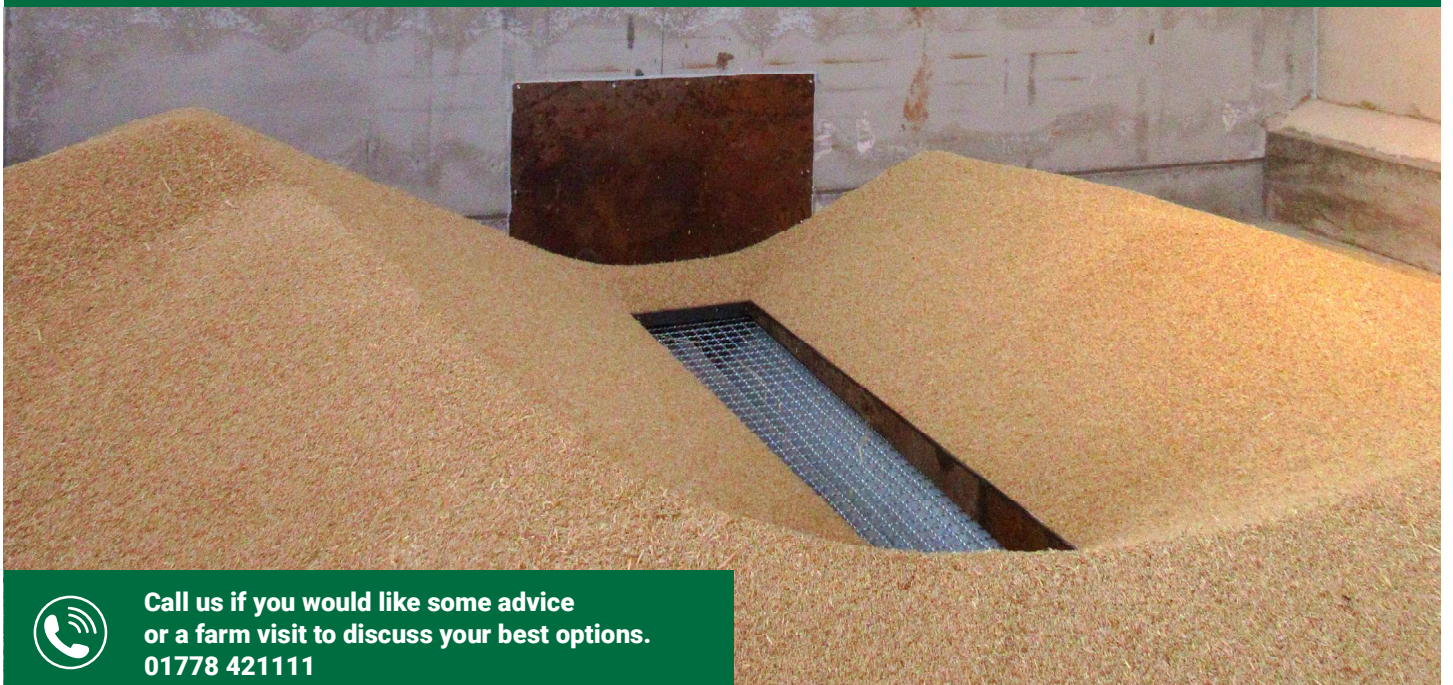
If there is not enough grain throughput to satisfy the dryer's demand then the drying cycle will be extended and the dryer's throughput reduced.

As far as possible avoid double handling i.e. incorporate grain pits or wet grain hoppers into the design of the loading system with sufficient capacity to optimise filling.

Site the dryer as close to the wet grain as possible. If loading with a materials handler use a pre-loaded feed hopper to ensure the demand from the dryer's loading auger can be met. With automatic dryers match the feed hopper to multiples of the capacity of the dryer itself.



**CUSTOMISED HOPPER  
PLACEMENT & BESPOKE  
SOLUTIONS AVAILABLE**



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or a farm visit to discuss your best options.  
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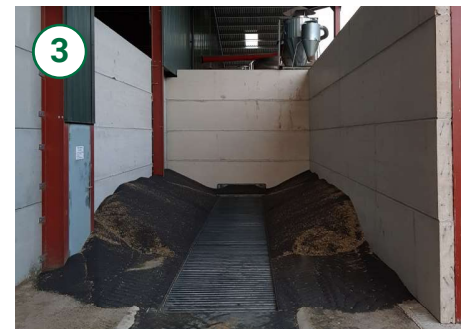
## NINE POINTS TO CONSIDER OF TYPICAL DRYER FILLING



**1** A 29 ton automatic dryer with a matched 29 ton wet grain hopper is loaded with wet grain being stored inside the shed behind.



**2** A 12 ton dryer takes the full capacity of the 12 ton trailers' grain chute to fill at maximum speed.



**3** A sunken loading hopper allows filling with a trailer straight from the field or with wet grain moved with a materials handler.



**4** A buffer hopper ensures the dryer is filled as quickly as the loading hopper is able to take grain minimising downtime.



**5** An adjustable sluice that controls the flow of grain is required with some of pre-store hopper designs.



**6** A bespoke intake hopper allows a dryer to be integrated into an existing grain handling system.



**7** A sunken dryer with walled loading area to allow a substantial amount of grain to be piled up to feed the dryer. This prevents double handling as grain can be tipped into the loading area straight from the field rather than being tipped and moved with a handler. Beware not to place too much grain above the loading hopper without some sort of baffle to prevent the weight of grain crushing the hopper.



**9** Reception pit allows tipping straight from the field or filling with the handler from a wet grain heap.



# OPICO GRAIN DRYERS

## ✓ EMPTYING THE GRAIN DRYER

One of the advantages of a recirculating batch dryer is that it discharges from a height.

With some planning and the help of gravity, grain can be moved to a storage area without the use of conveyors.

Dryers can be fitted with a variety of discharge options to suit particular installations. Automatic dryers can be specified to provide control and power to auxiliary conveyors if required.



## MULTIPLE DISCHARGE OPTIONS AVAILABLE



Swivel gravity to either side



Gravity to both sides



Single: hydraulic or electric horizontal auger to either side



Twin: electric horizontal auger to both sides



Customised unloading





## SIX POINTS TO CONSIDER WHEN EMPTYING THE DRYER



1 A common and low cost system is to discharge from outside a grain store through the cladding above the grain walling.



2 More permanent installations should be fitted with a flange to seal the cladding.



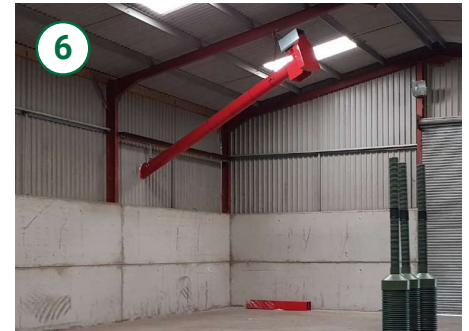
3 Electric or hydraulic horizontal discharge augers can be specified and used to control the speed of emptying.



4 Discharging over a grain wall provides unrestricted unloading capacity. Dry grain can then be moved to permanent storage with a telehandler or loaded for sale.



5 A 38 ton dryer fitted with twin horizontal discharge to allow lorries to be filled or grain to be emptied into a storage bin.



6 Various lengths of auxiliary auger are available to link in with the dryers own discharge, these can be controlled by the grain dryer.

## ✓ FULLY INTEGRATED SYSTEMS REDUCE DOUBLE HANDLING AND DOWNTIME!

Permanent installations can be integrated fully with grain handling equipment and the dryers controls can be used to turn other augers and conveyors on and off.





# OPICO GRAIN DRYERS



## ✓ THE PROCESS FROM WET TO DRY GRAIN - AN EXAMPLE

Whether using a simple PTO drive or a fully automated 3 phase dryer you need to keep the dryer full for as long as possible to achieve maximum productivity in a day, this means allowing the dryer unrestricted loading and unloading.

As all OPICO dryers are fitted with high capacity intake and discharge augers this has to be accounted for when integrating them into a system.

However, the whole harvesting operation can be slowed down by the intake system if trailers cannot be tipped immediately. Unloading wet grain trailers via the grain chute is inefficient as it slows the operation down considerably.



A reception pit built into the floor inside the grain store allows trailers to be tipped quickly but would require a large capacity auger to feed straight into a dryer without a pre store bin.



The reception pit can be loaded by a materials handler when a wet grain pile has built up and trailers are not coming in from the field.



The transfer auger is then loaded from the undercover sunken reception pit.



The pre storage hopper, which is matched to the size of the dryer, is gradually loaded whilst the dryer is at work on the previous load.



The pre store hopper can also be loaded directly by a materials handler if required, whichever way it is full by the time the previous load is finished.



A horizontal discharge auger discharges through the cladding and over the grain walling of the dry grain shed to finish the process.

# ALL OPICO GRAIN DRYERS FEATURE SIMPLE CONTROLS FOR SAFE ACCURATE DRYING

## ✓ CONTROL SYSTEM

The Magna (diesel) and GT (gas) versions of the OPICO dryer both incorporate a control system that monitors the drying functions of the dryer to ensure consistent drying and safe operation.

The functions that are monitored include drying temperature, grain temperature, flame failure, power failure, fan failure, fuel supply and agitator, auger and PTO speeds. Should any of the functions of the dryer fail, either the burner is shut off or the dryer is shut down completely.



## ✓ FULLY AUTOMATIC

GT and Magna dryer ranges are available for fully automated operation. These models will load, dry, cool and unload automatically, giving unattended drying hour after hour, seven days a week.

Automatic dryers can also be specified to provide control and power for auxiliary intake and discharge conveyors if required.

**The Magna system allows operators greater connectivity and remote control of their machine operations, via a mobile device.**



GT Grain Guard monitor



Magna automatic touch screen monitor

## ✓ FAN OPTIONS

OPICO grain dryers are fitted with centrifugal quiet fans, which are ideal for use in village areas and other noise-sensitive environments.

## ✓ BESPOKE DESIGN

OPICO Territory Managers are very knowledgeable and have many years of experience in siting and selling recirculating batch dryers.

Territory Managers work with local dealers to advise on any grain drying project, whether new build or incorporating an existing grain storage shed.

Bespoke specifications of the dryer, to fit with on-farm requirements and engage with ancillary equipment suppliers, can be provided as necessary.

## ✓ SKY VAC - DUST EXTRACTOR

The SkyVac is a powerful grain cleaner which removes the trash, dust and fines from the grain as it is dried, leaving you with precisely what you want in store - a cleaner better finished sample with a higher hectolitre weight.

With regard to safety and the environment, the SkyVac has made an impact into the problem of dust in the atmosphere. Operators work in a far cleaner, less dusty environment whilst benefiting from a better sample at the same time.



**AT THE HEART OF OUR MAGNA GRAIN DRYERS**  
*Saves you up to 10% on diesel*



# OPICO SUPPORT

## ✓ **NATIONWIDE COVERAGE**

“We understand the importance of reliable back-up at an often stressful time of the year. All OPICO dryers are sold through our trusted dealer network of trained service engineers who are available to help whenever you need their support.”



*Profit from our knowledge*

## **INSTALLATION CHECKLIST**

- ✓ When siting your dryer, consider the grain flow around the farm to minimise double handling.
- ✓ Choose a covered, ventilated environment for your dryer.
- ✓ Ideally, face the fan towards the prevailing wind.
- ✓ Take advantage of expert advice when siting the bulk or cylinder LPG supply or diesel storage.
- ✓ Grain is discharged from OPICO dryers at height – use gravity to help you move the grain to where it needs to be.
- ✓ Even in a dry year put your grain through the dryer - it will polish it up and improve its appearance and hectolitre weight.





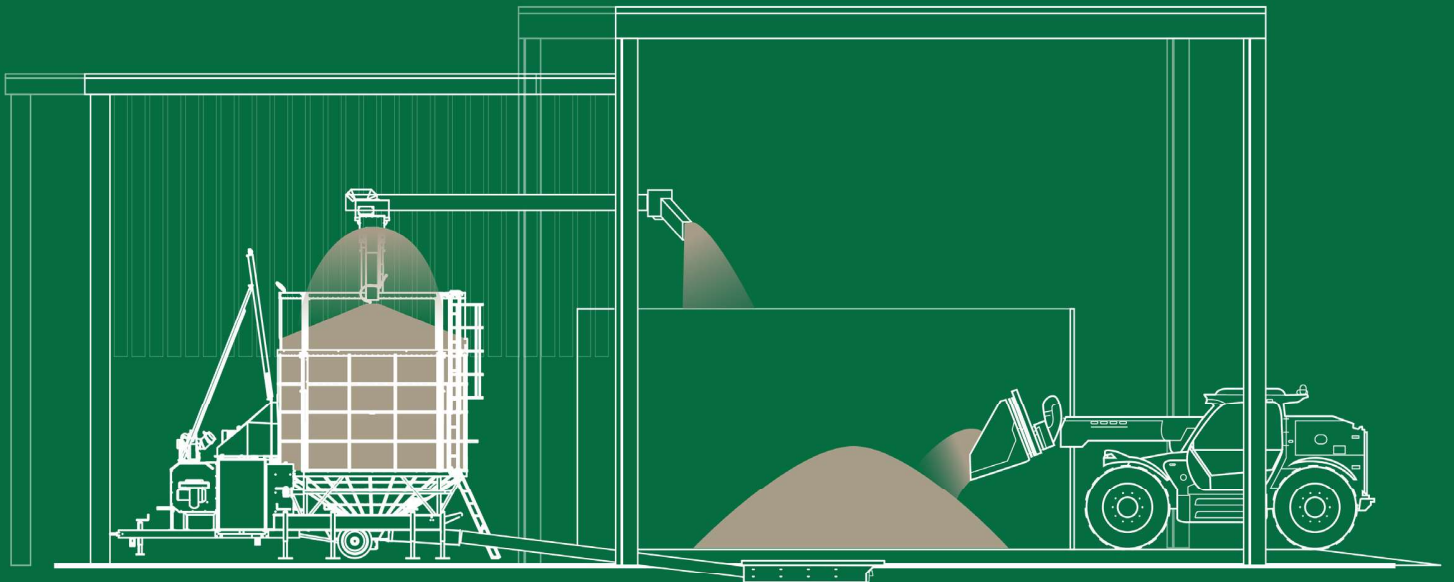


*Profit from our knowledge*

## OPICO GRAIN DRYER RANGE

- ✓ Adaptable and easy to install in any situation
- ✓ Recirculation for consistent grain quality
- ✓ Large drying zones improve hourly throughput
- ✓ Grain cleaner improves hectolitre weight
- ✓ Simple control systems for precise drying
- ✓ No1 for in-season service and parts back up
- ✓ Fuel efficient

## FROM SITE VISIT & SPECIFICATION TO HARVEST & DRYING



OPICO has over 50 years of experience working with farmers and dealers to create drying solutions tailored to you.



*Profit from our knowledge*



Scan to find your local OPICO dealer

OPICO is committed to support your machine throughout its working life.

A full range of genuine OPICO wearing parts are available from your local dealer.

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