CHALLOW

Your natural solution for crop drying & storage products on the farm

The CHALLOW range of drive-on drying floors and crop storage systems provide complete integrated solutions available in a choice of design to suit your crop.

Why a CHALLOW floor and storage system?

- Over 30 years of proven use in UK and European agricultural markets.
- Components are manufactured in our own factory to ensure quality control and minimal on-site installation time.
- Designed and installed by our own experienced staff to provide complete customer satisfaction.
- Unique 16g expanded metal inserts on our A1 design floor, allowing for near level floor while maintaining maximum strength within the timber floor.
- Floor joist spacings are reduced to achieve a 5 tonne wheel load.
- Palletised sections screw together on site for ease of maintenance and re-location at a later date if required.
- Softwood joists, which support the drying floors, are TANALISED® E pressure treated in our own treatment plant to ensure a long and maintenance free service life.
- Lift out panels complete with handles in each section of floor for ease of cleaning.

TANALISED® E
PRESSURE TREATED TIMBER

CHALLOW - the original drive-on drying floor with more than 30 years of commercial use.

The Drive-On Drying Floor System

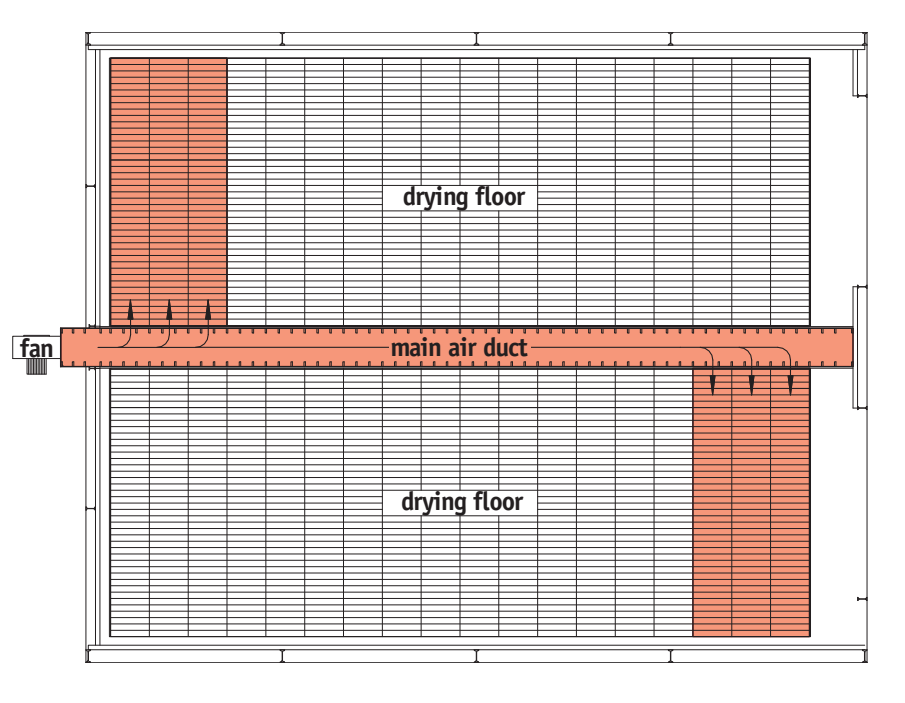
The CHALLOW range of products provides a complete system for the effective drying and storage of combinable crops, along with onions and potatoes.

An air permeable, drive-on timber floor is set on a level concrete sub floor. These quality timber floors, available in either hardwood or kiln dried softwood, are able to carry virtually any pneumatic wheeled vehicle.

The floors are supported by TANALISED® E pressure treated softwood bearers. These form apertures through which air is blown by a fan via a main air duct.

Most suitable buildings with the addition of perimeter walls can be converted to a modern storage facility. The drying floor can be adapted to fit most types of existing main air duct and is available in two designs – see page 4.

Particular areas of floor can be individually ventilated through the main air duct and apertures are designed for optimum air space and low resistance.



All challow crop drying and storage products are installed directly by our experienced staff.

Design Variations

In addition to the general advantages the CHALLOW drive-on drying floor allows its user, the system also offers the further benefit of choice in design detail. The options are illustrated below.

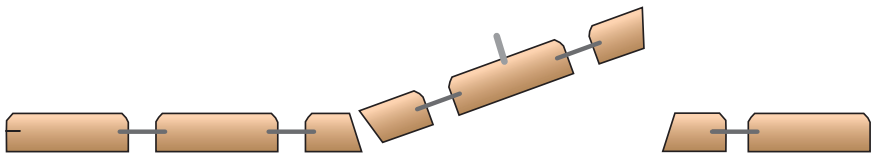
Design A1 - This design produces a near flush surface requiring minimal sweeping to clean between crops. To achieve this feature without impairing the strength, the floor plates are profiled to a unique section and the expanded metal inserts are pressed to suit. These features make it our most popular floor design.

Available as: **A1H** – with hardwood floor plates.
A1S – with kiln dried softwood floor plates.

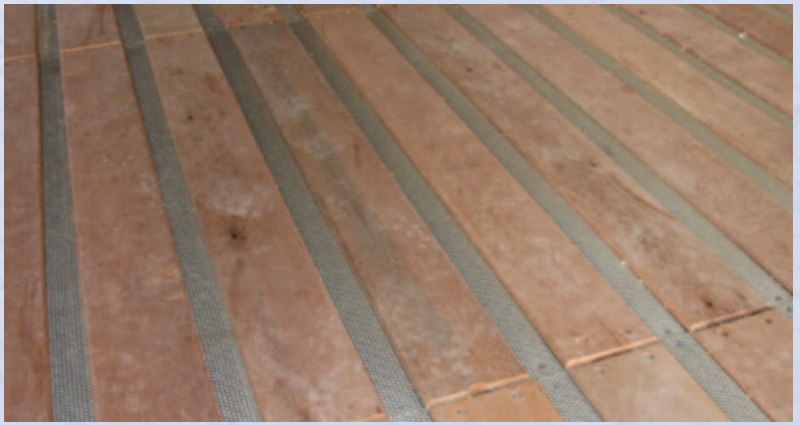
Design A2 - This design uses flat expanded metal inserts set approximately 20mm below the surface, leaving sufficient timber above the inserts for strength. Consequently more of the crop will be retained on the floor than the A1 design, which is reflected in the lower cost of this design option.

Available as: **A2H** – with hardwood floor plates.
A2S – with kiln dried softwood floor plates.

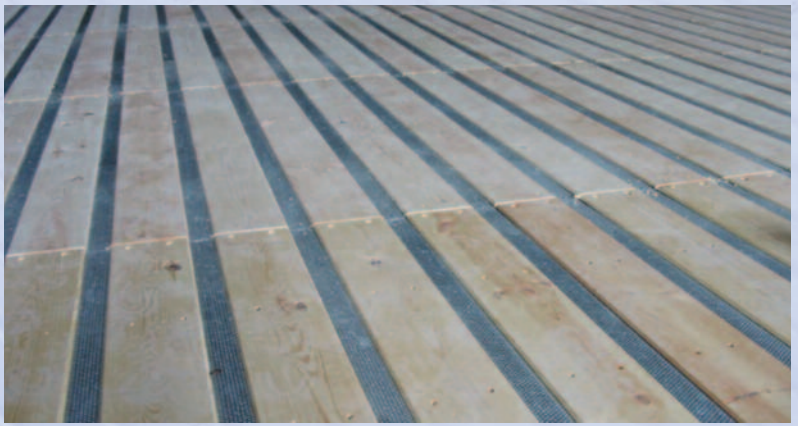
Clean out panels - On all A1 and A2 design floors, a removable pre-fabricated section in each floor unit is provided for removal of dust and small trash.



Design A1 Hardwood



Design A1 Softwood



Design A2 Hardwood

All floor designs are assembled on pressure treated softwood bearers.

The Main Air Duct

The main air ducts are of proven strength and stability. The plywood cladding, which forms the flush outer skin, is tongue and groove jointed for strength and provides an airtight seal.

An internal fan room, perimeter shedder walling and crop retaining walls can also be incorporated to complete the CHALLOW system.

The engineer designed and specified CHALLOW duct range has the high performance and specification to complement the CHALLOW drive-on drying floor with which they are generally, but not exclusively, installed. Between each hardwood frame is a slide control to optimise the distribution of airflow below the drive-on drying floor.

The air duct frames are bracketed to the concrete floor and the sides are extended without cross bracings to provide safe, unobstructed walkways within the air duct and on the catwalk above. The smooth, vertical faces readily accept internal dividing walls.

The air duct can be installed either centrally or, depending on the store width, to one side.

A variety of sizes are available to give the correct capacity for efficient air flow through the drying system.

MODEL	STORAGE HEIGHT	WIDTH	CAPACITY
TC42	2400mm	1024mm	42000 cfm (70,000 m³ /hr)
TC60	3000mm	1244mm	60000 cfm (100,000 m³ /hr)
TC78	3000mm	1524mm	78000 cfm (130,000 m³ /hr)
TC87	3600mm	1524mm	87000 cfm (145,000 m³ /hr)
TC115	4000mm	1824mm	115000 cfm (195,000 m³ /hr)

Air ducts constructed with hardwood frames.

Crop Retaining Walls

Perimeter Shedder Walling

Shedder walling is ideal for converting existing buildings that have suitable concrete floors but are without adequate load bearing walls.

Walling consists of timber frames that are bracketed to the existing concrete floor and clad with tongue and groove plywood.

Shedder walling can be integrated with a drying floor and main air duct to provide a custom made drying system, or installed separately to provide additional storage capacity. Double sided walls are available where required.

Storage heights available up to a maximum of 3600mm level fill.

Dividing Walls

These walls are designed for the separation of crops within a store. Uses hardwood framed panels, clad on both sides with plywood and set between supporting steelwork.

Panels supplied with lifting brackets and pressure release slides to remove the crop.

Storage heights available up to a maximum of 4000mm surcharged fill.

Doorway Panels

Designed to close door openings up to 6000mm wide. Uses hardwood framed panels clad on one side with plywood, supported with one or two intermediate steel supports in sockets depending on storage height required.

Panels supplied with lifting brackets and pressure release slides to remove the crop.

Storage heights available up to a maximum of 4000mm surcharged fill.

Doorway Boards

Designed to close door openings up to 6000mm wide, without the need for intermediate supports.

Consists of softwood boards with packers attached; these are placed above each other to achieve the required storage height.

Storage heights available up to a maximum of 3600mm level fill.

A range of designs for use within the store.

CHALLOW

crop drying and storage products

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severn valley woodworks

Challow is part of Severn Valley Woodworks, first established in 1970 and today recognised as one of the leading suppliers of quality timber and timber products in the UK.

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Your local Challow Agent:

Internal Fan Rooms

Internal fan rooms provide an alternative to the traditional external fan house, particularly where space is at a premium.

Positioning the fans above the main air duct has the advantage of utilising space within the store that is not normally used.

Internal fan rooms are suitable for both centrifugal and axial fans, with ample room for the addition of gas burners if required.

Further advantages include the ability to introduce acoustic materials within the structure to reduce noise levels, and closing off a potential entry route for vermin at ground level.

Suitable for timber and steel Main Air Ducts.