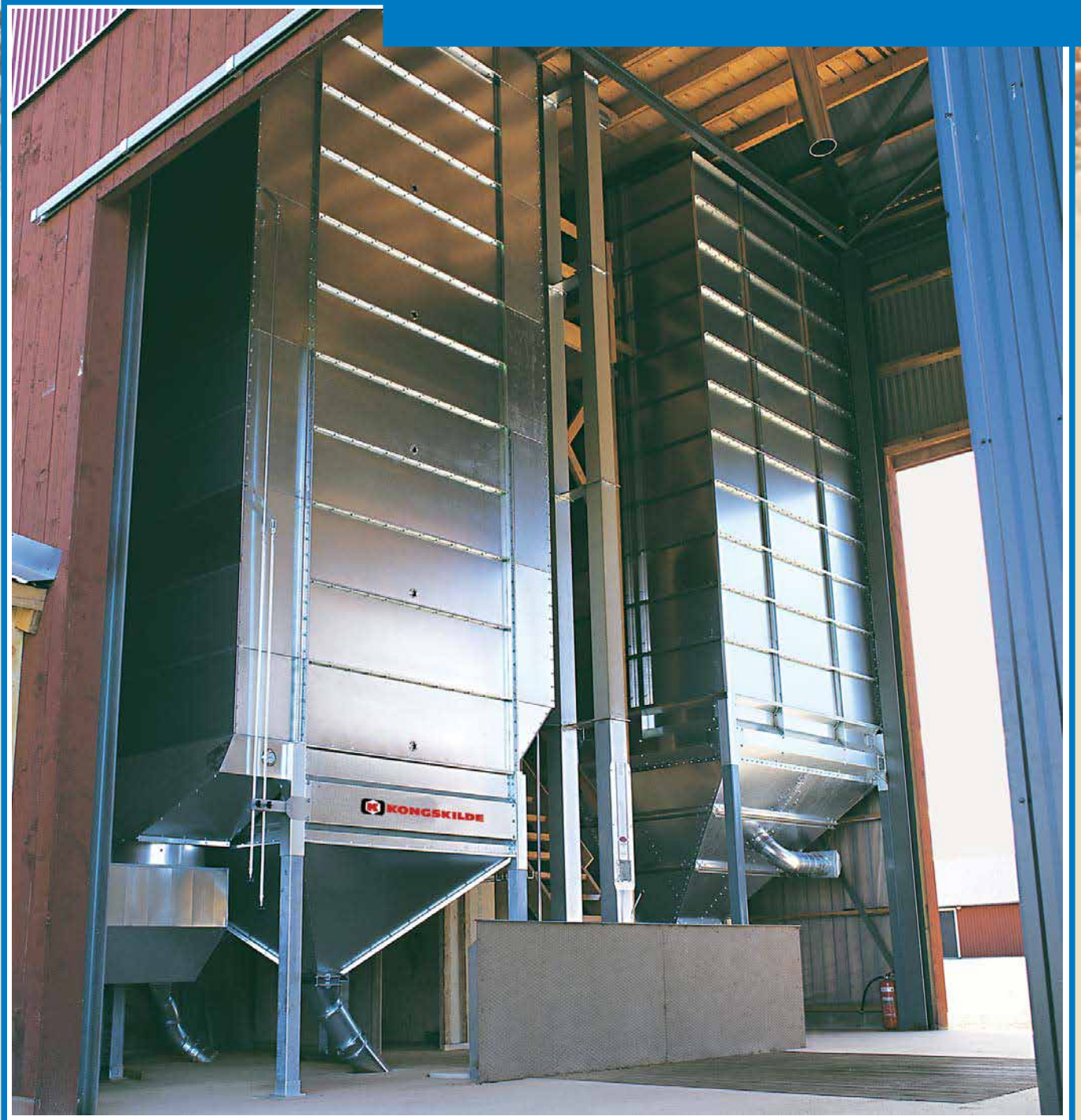




Grain Drying



Sound investment

Kongskilde has long experience of production and supply of machines for agriculture and industry, and is well known for high quality.

Kongskildes products are built on thorough engineering and practical tests by the end user.

Kongskilde grain driers are designed to be economical in use and easy to operate. Few movable parts give long service life and minimal expenses for service and spare parts.

A Kongskilde drier is a safe choice when a decision to invest in a drying system is taken.

Effective and Economic Drying

Kongskilde driers are suitable for drying of:

- Wheat
- Barley
- Oats
- Rye
- Maize
- Peas
- Beans
- Canola
- Linseed
- Rice
- and other free flowing crops.



A wide Programme

A Kongskilde drier is a professional product, which can be used for efficient and economical drying within both farming and agroindustry.

Description

Kongskilde grain driers work on the so-called "Mixed Flow" principle that ensures a very gentle, homogeneous and economic drying.



The drying column consists of a number of modules:

Lower section with strong support legs, which ensure high stability and with a bottom hopper, which gives complete emptying of the drier.

A number of drying/cooling sections based on the drying capacity requirements.

On top there is a buffer section which ensures enough grain in the drier during the drying operation.

The drying column has smooth insides surfaces. Therefore a Kongskilde drier demands minimum cleaning during operation and when changing varieties.

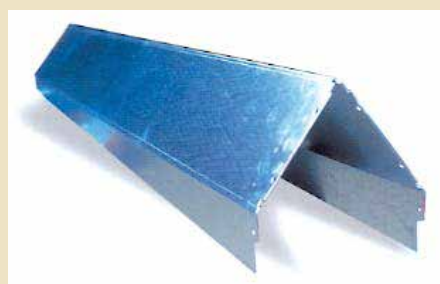
Characteristics

Buffer Section

The buffer section is of modular design and the size can be adjusted to the function and dimensions of the drier.

Tapered lateral Air Ducts

Inlet- and exhaust laterals in the drying and cooling sections are tapered to ensure an even airflow and minimum back pressure. The size of the ducts and the distribution in the drying column are carefully designed to give a safe and very economic drying process.



Air Plenum

Both the inlet plenum chamber and the exhaust plenum chamber have large dimensions, so that an even air distribution can be reached in the drying system. Chambers are fitted with access doors to ease inspection and cleaning of the plenum.

Discharge Section

KRD recirculation and KCD continuous flow driers are fitted with a "pulse" discharge section with a set of swing gates.

The pulse function secures a steady and uniform flow of all kinds of grain, - also high moisture maize.

The discharger is operated by electric motor.

The swing gates can park in open position for quick emptying of the drier.

Long Service Life

Kongskilde driers have a drying column made of galvanised steel sheets – suitable for in-door and out-door location. All parts are produced on a top modern production line, which ensure that all parts fit together. This makes installation easy and ensures tight joints on the completed drier.

Accessories

Kongskilde delivers a wide programme of heaters, blowers, noise silencers, dust control devices and control panels to complete the drier functions.

Modular System – Easy to adapt to new or existing systems.

KRD Recirculating Drier

KRD driers have a larger width than KBD and go up to large capacities.

KRD is fitted with a discharge unit, which gives the opportunity for a uniform movement of the grain down through the drying column during the drying process.

When the grain is moving, grains with different humidity are being mixed.

The grain is moving from warmer zones to cooler zones and vice versa. KRD can therefore dry very gently and still obtain high drying capacities. It is ideal for drying of crops with high humidity.

The discharge unit is fitted with electric motor and automatic control panel so the process runs without attending the drier.

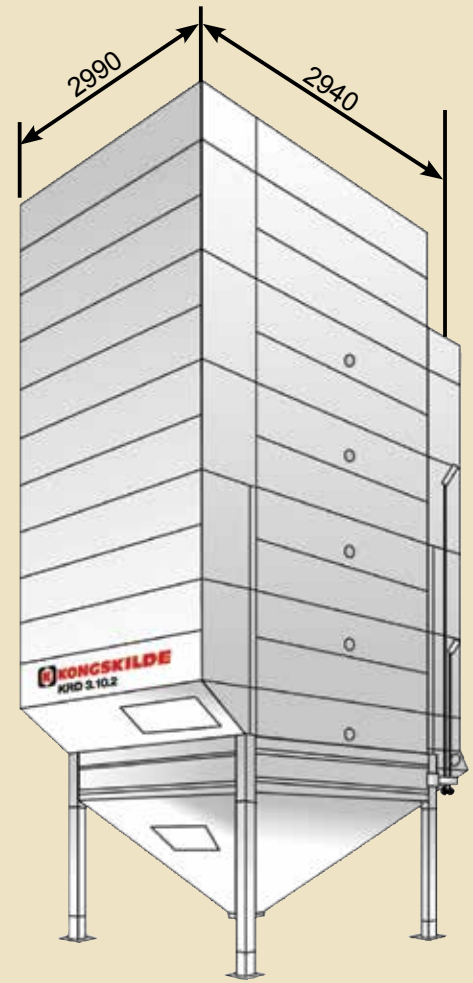
KRD is delivered standard with air plenum for hot and for the moist air. This reduces indoor moisture - and dust pollution.

Capacities

KRD is delivered with holding capacities from 11.4 T to 30.0 T of wheat equivalent to a drying capacity of 6.3-20.3 T/H, from 19% to 15% m, c. at 90° C drying air.

Extra Equipment

Shutters for the air plenums so that the drying can be effected with part full drier.



For further specifications, please see our KRD datasheet.

KCD Continuous Flow Driers

This drier is ideal for middle sized / large farms, grain trade and agroindustry.

KCD is carefully designed to give a gentle drying at low energy consumption. The Kongskilde KCD drier owe its excellent performance to the tapered form of the duct and the close distance between the air ducts.

The drier is mounted on strong legs, cut to height to adapt to the local conditions. An outlet hopper with inspection/ cleanout door.

The discharge unit is placed on top of the outlet hopper. It is made of very strong profiled galvanised steel plate.

The discharge unit is supplied with swing gates, which give an even discharge all over the cross section of the drier.

The discharge unit is supplied with a number of inspection holes above the discharge swing gates.

The drying/cooling sections have air ducts with tapered shape and close distance that result in a very effective and gentle drying at low energy consumption.

The buffer section on top is supplied with roof having an inspection door. Hereby the outlet of moist and dusty air is reduced inside the building.

KRD is supplied with large air plenums for both the hot drying air as well as the moist output air.

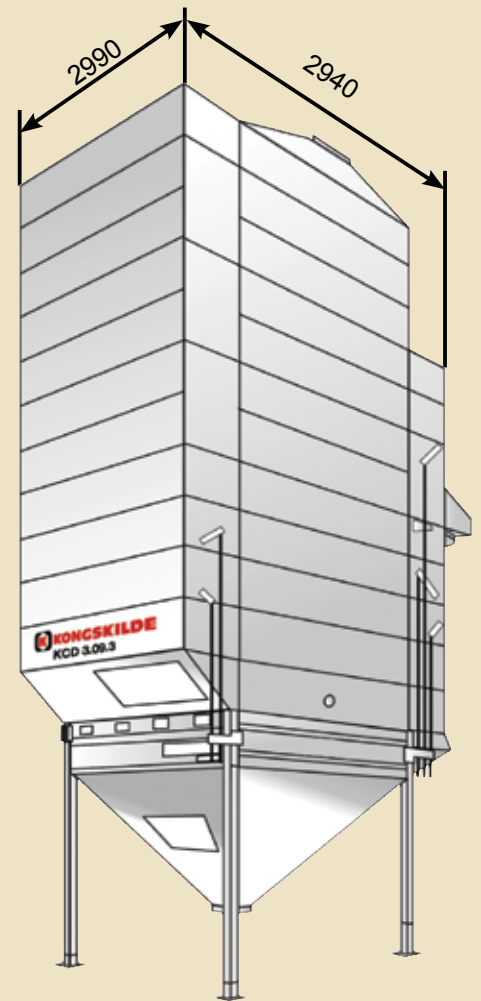
For highest flexibility the air plenums of the hot air section are supplied with two air flaps so the ratio between drying- and cooling sections can vary according to the drying capacity.

Capacities

KCD is supplied with drying capacities from 7,8 T/H to 25 T/H of wheat, from 19% to 15% m. c. at 90° C drying air.

Extra Equipment

Shutters for the air plenum so that the drying can be effected with part full drier.



For further specifications, please see our KCD datasheet.

Accessories

To make the drier ready for work it has to be fitted with a heater and a blower. In order to operate, the drier also needs a control panel.

The accessories can be combined so they meet the needs of the customer in the best possible way.

Blowers

Kongskilde programme of HVL centrifugal blowers is known for very high efficiency and reliable operation.

– They are typically used for smaller/middle sized batch driers and recirculating driers.



Individual blowers and heaters are typically used in the larger driers.

Axial blowers are used for suction in large continuous flow driers.



When placing a drier in urban areas the drier can be fitted with silencer. Dust separating equipment can also be supplied.

Heaters

By choosing the heater both economy as well as legislation in connection with health and fire must be taken into consideration.

Oil

Heaters can be supplied in two designs: Direct fired heaters where the combustion gasses go with the heated air through the drier. This result in a maximum energy output.



Indirect fired heaters ensure that only clean heated air passes through the drier. It is suitable for crops for human consumption and inflammable crops such as rape seed and soybeans.



Gas

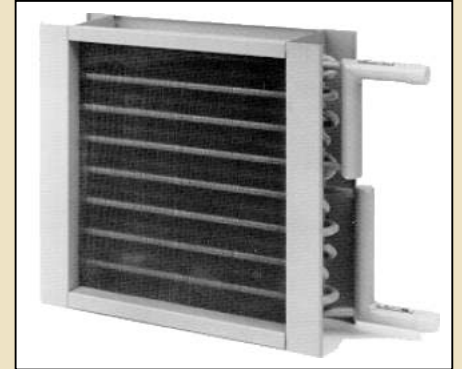
Gas is a very clean source of heat. The gas heaters can normally be of the direct type.

Gas is usually a more expensive source of heat than oil.

Hot Water

Heating with heat exchanger and hot water from e.g. straw burner is a very clean and economic source of heat. This is especially profitable for batch driers.

With heat exchanger is it normally impossible to obtain the high hot air temperatures that is used for recirculating driers and continuous flow driers.



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Control Panel

It is important that all the functions of the drier is controlled correctly so

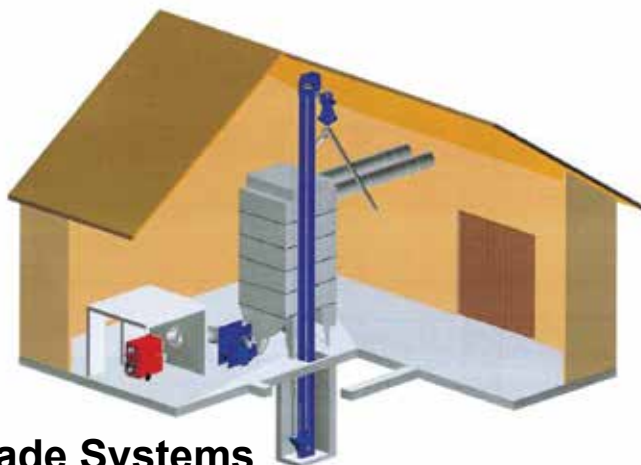


the operation is easy and the safety precautions are in order.

Kongskilde supplies panels for controlling of the drier with different levels of automation.

Because the drier is part of a complete system including transport equipment to and from the storage facility, it is normally profitable to build all functions together in the panel, which Kongskilde supplies.

Complete Drying System



Tailor-made Systems

A drier consists of a number of components, have to be dimensioned carefully in order to make the solution optimal both technically and economically.

The drier must work together with transport- and storage system.

Kongskilde is among the few companies that offers a complete programme of grain handling equipment for transport, cleaning, drying and storage. – Kongskilde is supplying the complete solution.



Kongskilde provides experienced salesmen and engineers, who are ready to discuss the entire system design to meet the individual customer needs.

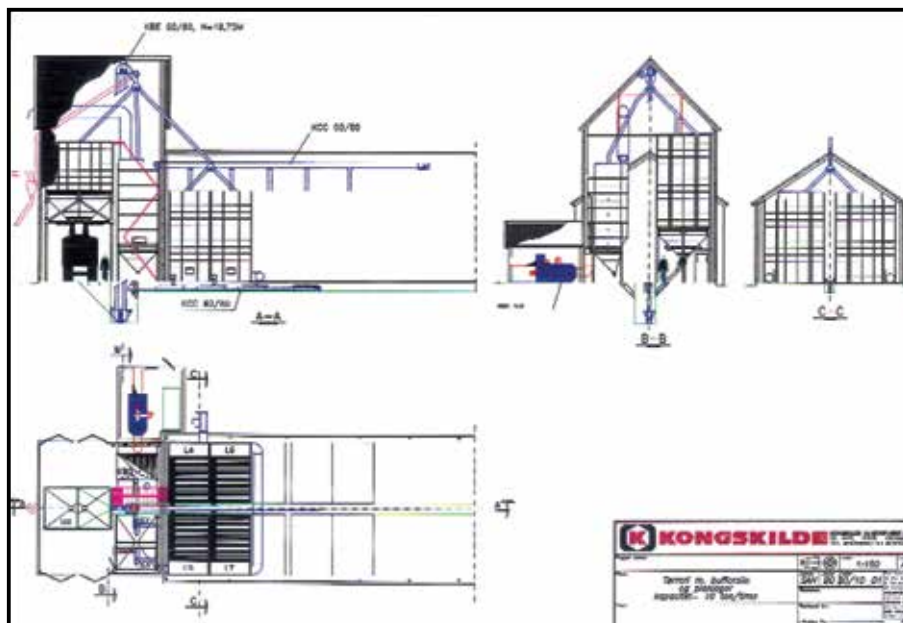
Design

Kongskilde works with modern 3D Cad programmes for fast and accurate execution of drawings of the installations.

A Kongskilde drier proposal is a safe choice when a decision to invest in a drying system is taken.

The drawings and documentation ensures a good co-ordination with the civil works and building companies and a correct erection of the delivered equipment.

Good instructions help the customer to start to use the equipment successfully.



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