



JCD Jog Conveyor Dryer

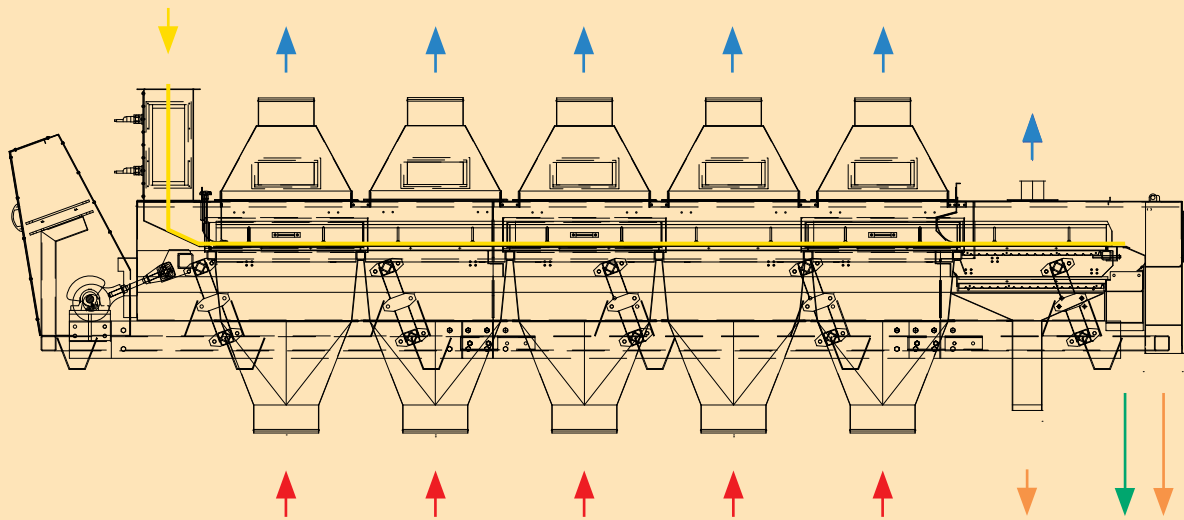




Purposes & and Principles of Operation

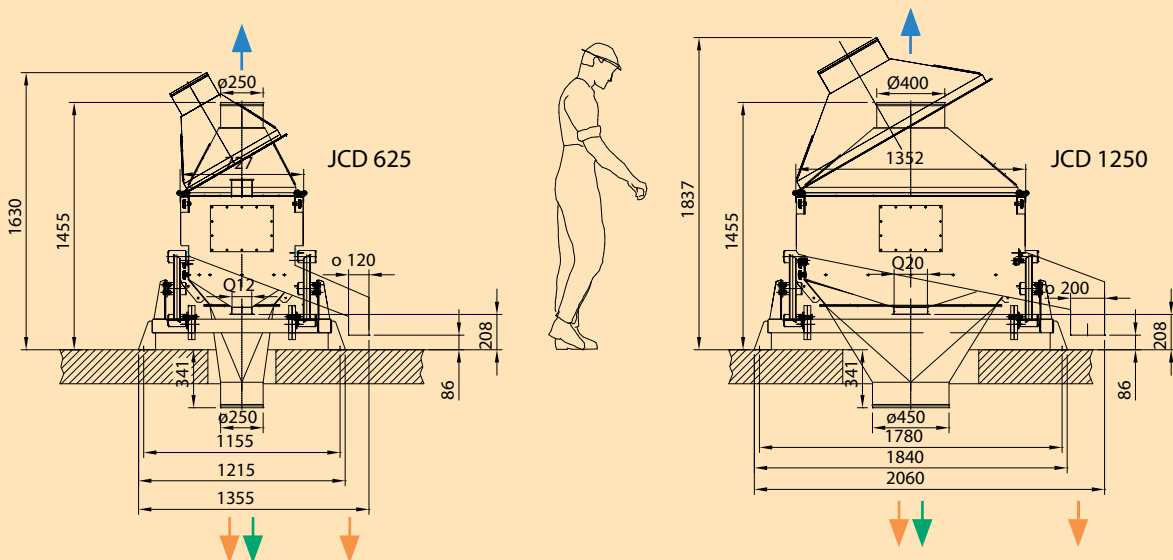
Jog Conveyor Dryers are mainly used after the coating process to prevent wet kernels from clumping together during bagging off. Due to very gentle handling of the sensible product inside the machine, there is no danger of abrasion on the coating layer.

Wet product (yellow), coming from the coating machine, is fed to the inlet bin of the JCD. The product passes the feed regulation slide and enters the drying section, where warm air (red) is blown through the product layer from underneath. Moist air is aspirated from top (blue) and led to a de-dusting plant. The amount of aspirated air is app. 10% higher than the warm air amount, thus creating an under pressure inside the machine, preventing any exit of dust. The airflow through the product on the drying grid (= perforated sheet) creates a fluidised bed. By means of the frequency controlled eccentric drive, product is conveyed towards the finished product outlet (green). There is a possibility to install a screening section with two screen layers at the end of the machine, to screen out over- and undersized material (orange). This screening section is mainly used when running pelleted or encrusted seed, as well as weight gained kernels, mainly to remove clumps of kernels and grit.



Machine Range

The Jog Conveyor Dryer JCD is available in 2 different widths, 625 and 1.250 mm. The number of drying-, cooling- and screening sections is flexible but should not exceed the maximum amount of 8 sections (6 drying-/ cooling sections, 2 screening sections)



Throughput and drying- capacities on request



Warm Air Supply

Warm air must be supplied to the dryer by fans with adequate pressure (~ 1.000 Pa). All conventional heat sources (Gas, Oil, Steam, Solid fuel) are suitable for the JCD operation. Depending on customer requirements and availability of heat sources, Cimbria Heid is able to engineer a tailor made solution. Special attention should also be paid to expensive heat processing. The usage of energy saving and recovery systems is also extremely important to our valued customer.

To protect the germination capacity of the sensible seed, warm air temperature is limited to max. 45°C. Temperature sensors in the warm air supply guaranty the compliance of the adjustable temperature limit. In case of exceeding this limit, the integrated process control unit will shut down or decrease the heating equipment (depending on composition).

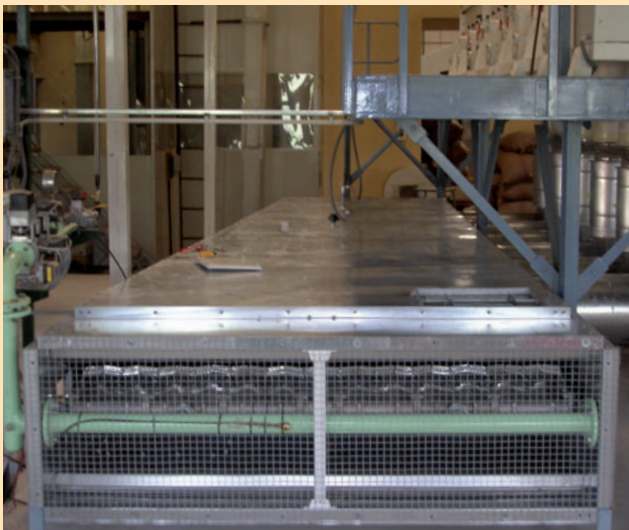
Example for heat sources



Oil stove to produce hot water or steam



Radiators for indirect heating (heat source: hot water or steam)



Line gas burner for direct heating



Usage of existing warm air from other parts of the plant

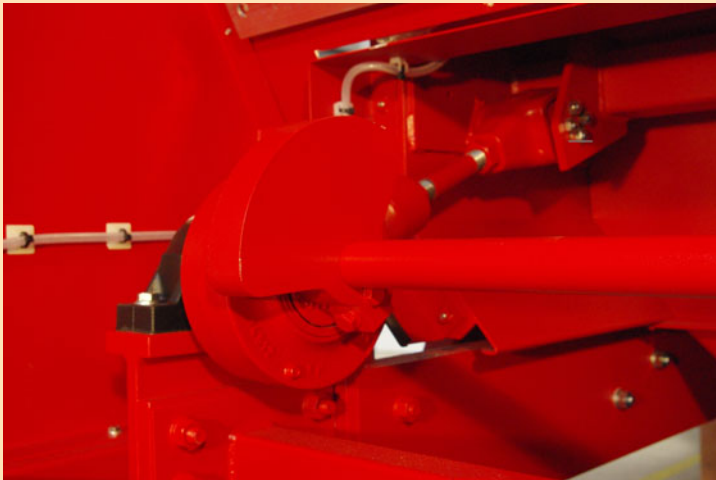
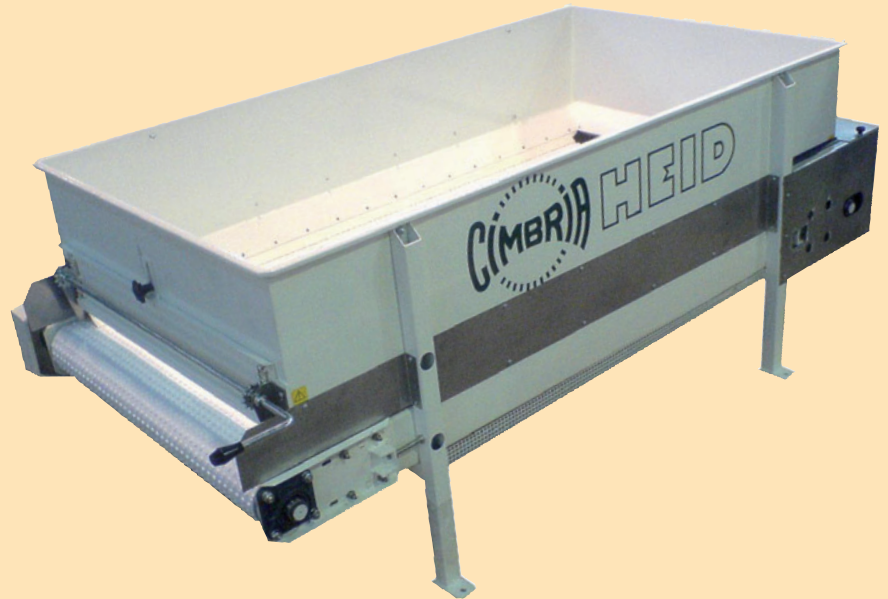




Features

Feeding device

To assure constant feeding of the JCD, pre-bins and feeding devices are used (mainly electromagnetic feeders). For heavily flowing or bridging products (e.g. grass seed) we are also able to supply dosing belts.

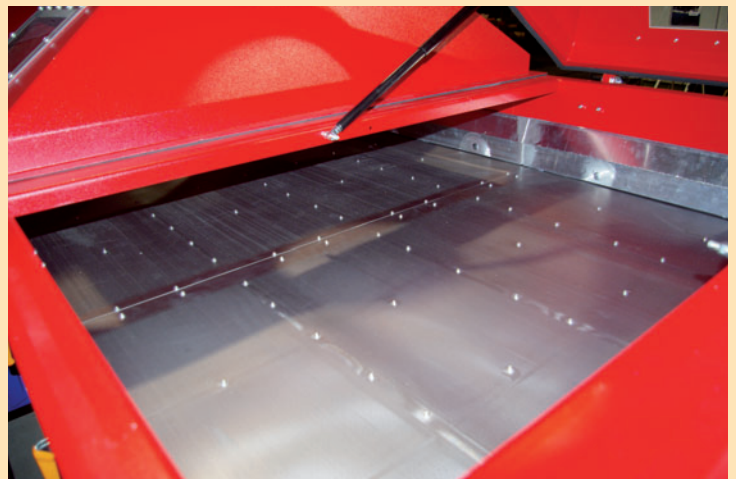


Eccentric drive

The shaking movement produced by the eccentric drive enables a gentle and uniform flow of seed through the dryer. The integrated dynamical counterbalancing system prevents vibration to the steel platform or building.

Drying grid

The drying zones are covered with perforated sheets, which are easily extricable from the side of the machine for cleaning purposes. Depending on granulate- sizes of the specific product to be dried, the screen perforations are evaluated individually to prevent plugging or for small particles from falling through.





Screening section

On demand, the JCD can be equipped with a screening section after the drying-/cooling zones. This section includes 2 screen layers, arranged above each other as top- and bottom screen. This is used for removal of oversized (clumped kernels) and undersized (grit, dust) particles. A permanent screen cleaning system by means of the well established rubber ball boxes keeps the screen free of plugging automatically during the process.

Access

For cleaning or supervision purposes, the aspiration hoods on top of the drying sections can be opened easily, giving excellent access to the whole drying grid. A frequent change of product variety is therefore no problem.



Ease of use

All regulation slides, screen-clamping and speed regulation of the drive are positioned outside the machine. Therefore, operators are not forced to get in contact with parts contaminated by the coating agent.

Our Jog Conveyor Dryers operate worldwide



A large number of worldwide patents justify high research and development expenditure and indicate the high technological standards of our plants and machines. All over the world the products of CIMBRIA HEID Maschinenfabrik are bought and successfully operated: some 98 % of our production is exported. And as a member of the CIMBRIA Group CIMBRIA HEID has access to a global network of highly qualified partners offering permanent support to customers and their plants.



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