

Combined Friction & Wet Dewinger mini series

Products & Solutions for seed centres

The BCC Wet Dewinger and Seed Extractor 800 is a compact and multi-purpose unit that can be used for pre-cleaning, seed extraction and wet dewinging of seed. By adding an optional pelletizing kit it can also be used to pelletize small seed.





dewinging by the means of spraying water



pre-cleaning of cones

COMBINED FRICTION / WET DEWINGER MINI SERIES

Pre-cleaning is done to remove small impurities e.g. needles, scales and twigs prior to drying and storage. Mature cones that will not go into storage after pre-cleaning could be dried directly for seed extraction. During the drying process, the cone scales gradually open for seed to be extracted. After seed extraction, the seed batch requires further processing. For coniferous species, one of the first processes includes the removal of wings from the seed.

The Mini Series unit is generally used in gene banks, small scale seed processing plants, R&D facilities or containerised nurseries that process their own cones and seed.

THE PROCESS

The pre-cleaning process:

In this unit small to medium-sized quantities of cones can be pre-cleaned. The drum is manually filled and the tumbling process of separating impurities can start. The drum is tilted in a horizontal position from the easily operated control panel. The impurities are extracted and emptied through the bottom outlet into a plastic container. The operator's platform and double latching doors allow for easy loading into the drum and to monitor the process.

The seed extraction process:

The drum is manually filled and the tumbling process of separating impurities can start. The drum is tilted and seeds are extracted and emptied through the bottom outlet into a plastic container. The double latching doors allow for an easy refill of cones.



The dewinging process:

The drum is removed and seeds can be manually loaded and to further start a slow tumbling. The process starts by spraying water into the seed mass. When all the required water is applied and absorbed, the seed lot is gently tumbled and dried with compressed air until all the wings are detached from the seed. The wings drop into a container under the drum.

All the necessary functions (drum speed, inclination of the drum, start/stop and air and water flow) are regulated from the control panel.

OPERATIONAL BENEFITS & KEY FEATURES

- Compact and versatile machine.
- Adjustable drum speed and inclination.
- Easily exchangeable insert drums with various sizes used for different processes.
- Dust pick-up duct allows for connection to filters for a dust free operation.
- The principle of wet dewinging ensures effective removal of wings without damaging the seed.
- The unit is enclosed in a dustproof metal housing with the dust pick-up connection on top.
- The double-latch access doors include an observation window and inspection shutter allowing easy monitoring of the processes at all times.
- The doors are easily opened to change insert drums.
- Integrated air nozzle for dewinging purposes.
- A user-friendly control panel to operate drum speed, inclination, start-stop and air-water solenoid timer.



ACCESSORIES AND EXTRA FEATURES

- **Integrated air gun with hose for easy cleaning.**
- **Insert screens with various dimensions and mesh sizes.**
- **Manual water application spray can.**
- **Connections to a dust filter system.**
- **Pelletizing kit.**

TECHNICAL DATA

| | |
|--------------------------------|---------------------------------------|
| Dimensions (L x W x H): | 1400mm x 1300 x 1500mm |
| Weight: | 205kg |
| Power supply: | 1 x 230V, 50Hz |
| Power requirement: | <1kW |
| Compressed air consumption: | 200 liters/minute at 6Bar |
| Water consumption: | 20 liters/minute at 2Bar |
| Dust filter connection: | 2400 m ³ /hr |
| Maximum production capacity: | |
| Seed extraction: | approx. 60litres every 2-5 minutes |
| Dewinging: | approx. 120litres every 45-60 minutes |
| Dewinging drum: | |
| Dimensions (diameter x depth): | 800mm x 640mm |
| Screen insert: | |
| Dimensions (diameter x depth): | 630mm x 710mm |
| Pelletizing drum: | |
| Dimensions (diameter x depth): | 630mm x 300mm |

* Note that the equipment can be customized to meet individual requirements

Disclaimer - As BCC AB equipment is continuously developed and refined, the design and capacity can differ from the figures listed here.

