



Coating Centrifuge

New type of centriuge for coating bulk material, such as springs, screws etc. Due to its construction, the material can be dipped, centrifuged and dried without loading and unloading the material.

- Low consumption of coating agent, since only the storage tank and the material in the drum come into contact with the coating agent.
- Short periods of disuse, since colours may be changed quickly by simply exchanging the tank.
- Maintenance of the coating agent and cleaning of the tank outside the system.
- The sequence of dipping, tumbling and centrifuging is freely programmable.
- The paint reservoirs can be entirely designed according to the necessities of the coating agent.
- No loading and unloading of the material between the different steps of dipping, centrifuging and tumbling - thus no carry-over of the material.
- Flexible system

Components

The drive unit is integrated in frame so that the dip tank can be placed under the machine without difficulties.

The unit is hydraulically swivelled to tumble the parts between the different centri-fuging cycles so that hollow parts can be discharged and the parts can move.

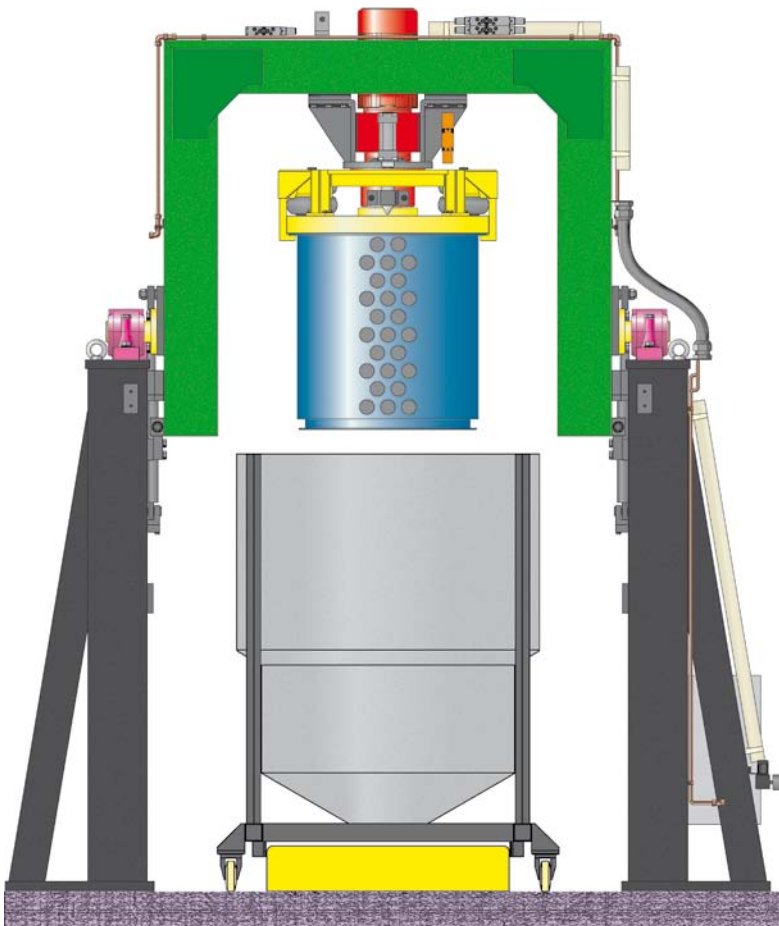
The machine is driven by a frequency-controlled gear motor.

A movable device helps to place the drum with the material to be coated into the chuck capacity of the centrifuging device. The drum is fixed in a holding by compressed air.

The dip tank is loosely connected with the system. Guiding tracks help to find the exact position in the centrifuging device.

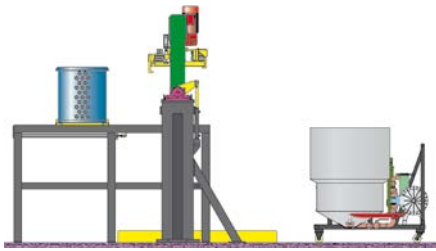
The dip pan is constructed according to the necessities of the coating agent, e.g. heating, cooling, tumbling, agitating etc. It is manageable and can be quickly exchanged.

The whole system is automatically fed and discharged in connection with a ROBOT-POLAR-system.



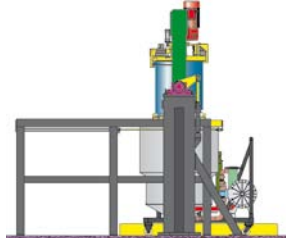
Sequence of operations

Function



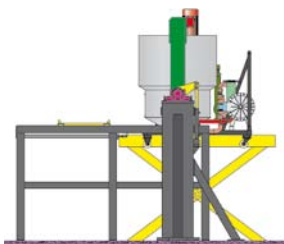
Step 1:

The system is ready for operation in starting position. The drum with the material to be coated is standing in the right position to be picked up, the dip tank has not yet been placed into the system.



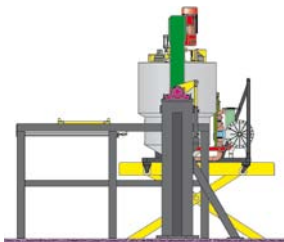
Step 2:

The drum with the material has been driven into the centrifuge and locked by the drive. The dip pan is standing on the elevating table. Then the tank is pushed up into dipping position.



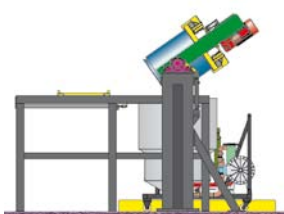
Step 3:

The material is dipped into the coating agent. For the dipping, we have provided a storage chamber for the coating agent in the lower part. The upper part serves as extraction chamber. Thus any carry-over of the coating agent is excluded.



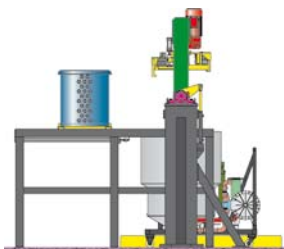
Step 4:

The dip tank is lowered to the centrifuging position. Now the centrifuge starts to spin off the excess coating agent with the pre-selected speed of max. 400 rpm.



Step 5:

To discharge blind holes and to avoid any junction of the material, the centrifuge is tipped to tumbling position and the speed is reduced to 20 rpm. Then follows another centrifuging cycle in upright position of the centrifuge. The number of tumbling cycles can be pre-selected (0-5).



Step 6:

The coating operation is over. The drum with the material is detached from the drive locking and pushed into pick-up position.

The dip tank with the coating agent is driven into the system and, during the process, placed into the right height by an elevating table (dipping, centrifuging and tumbling).

The cycle starts by placing the drum with the material to be coated into the clamping device of the centrifuge. Then the dip tank is lifted until the material has completely emerged in the coating agent. After the dipping time the dip tank goes to centrifuging position. The centrifuge is spinning at a pre-selected speed of max. 400 rpm. To discharge blind holes and to avoid any junction of the material, the drum is tipped to inclined position and the material is tumbled at approx. 20 rpm. Then follows another centrifuging cycle in upright position of the centrifuge. The number of tumbling cycles can be pre-selected (0-5). When the coating cycle has ended, the drum is placed back into filling position and can be transported for example by the lift and transport unit of a STEIMEL-ROBOT-POLAR-system.

Technical data

Speed : 20-400 rpm
Voltage : 230/400 V
Power : 2,2 kW (Ex)

Weight of cycles : 150 kg
Volume of cycles : 50 l
Through-put : max. 700 l/h
(The data depends on the desired processing result.)

Total height : 2975 mm
Total width : 2485 mm
Total length : 3300 mm
(incl. loading device and elevating table)

Technical modifications reserved.

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