

Bedding



AG

FAN Separator

Bedding.....

To be usable a bedding, a product needs to be cow compatible for comfort and health, environment friendly and economical to buy, handle and dispose of after use.

Traditional bedding materials like straw, wood shavings, sawdust and sand are foreign materials and imported to the farm.

Once used, these materials increase the manure solids. They are labor intensive and costly to buy.

Rubber mats and mattresses attempt to reduce labor and improve comfort, but are expensive to buy and to maintain.



Economic benefits of using manure solids for bedding are both immediate and long range by eliminating purchased bedding material and by providing added cow comfort and health.

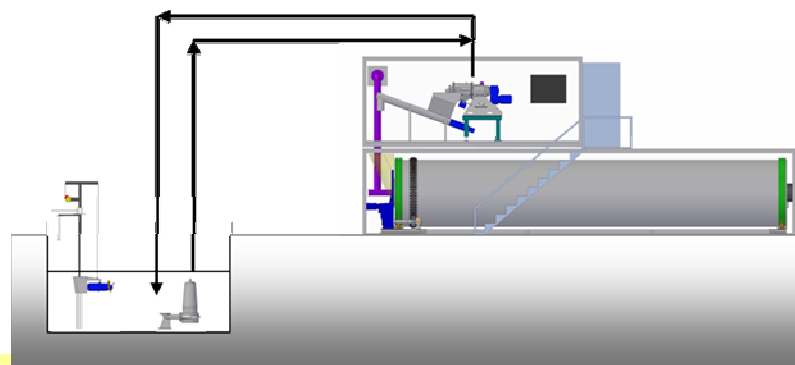
Additional benefits in manure handling and storage add to the economic, management and environmental advantages gained by using the FAN Bedding Process to produce dairy bedding material.

The FAN Bedding Process

The first step

in the process is the separation of big fibers from the manure. These fibers are mainly undigested parts of feed, such as corn, silage or hay.

To remove only the large fibers and lower the moisture content, the slot size of the screen in the PressScrewSeparator is increased.



The ideal Bedding material:

- Cow compatible for comfort and health
- Environmentally friendly
- Economical
- Easy to handle and dispose



The **FAN Bedding Recovery Unit-BRU** provides free bedding material recycled from the manure already at the farm.

The bedding is produced fresh daily, needs no storage area and does not increase the total amount of manure solids.



The second step

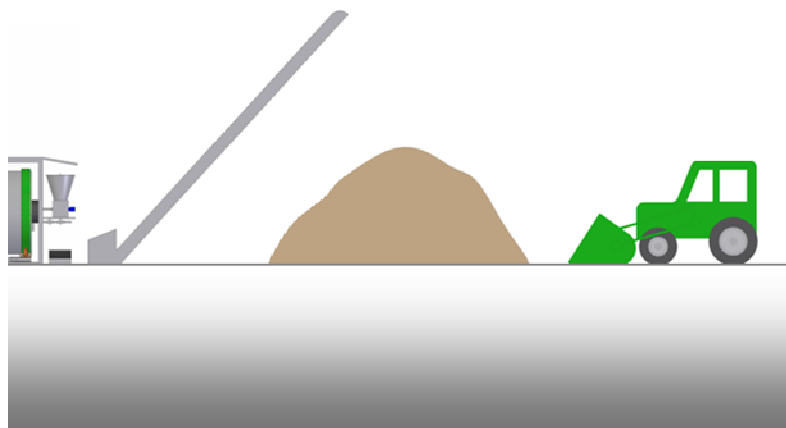
of the process is an intensive aerobic treatment of the solids for hygienization and drying.

All this happens in an isolated roasting drum, where the solids are slowly mixed and aerated.

The process ensures a homogeneous product that is heated for several hours in a controlled process.

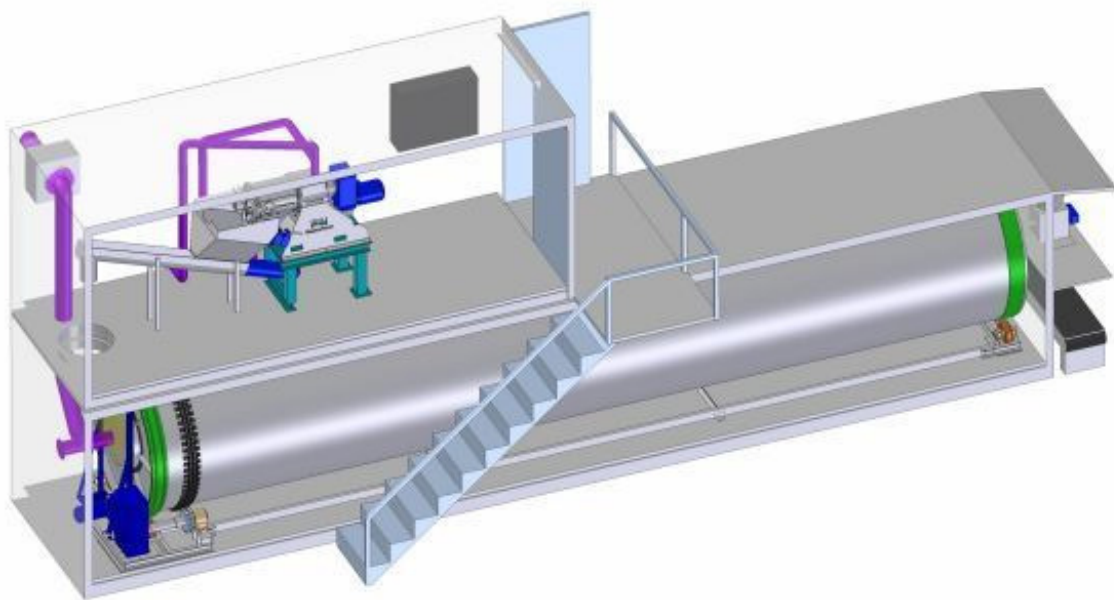
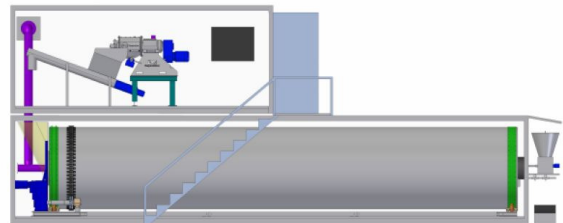
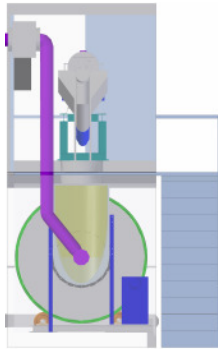
The chemistry is totally different from the fresh manure and therefore counteracts the mastitis producing micro organism in the fresh manure.

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FAN Bedding Recovery Unit - BRU

The FAN Bedding Process

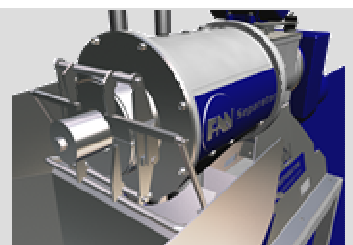
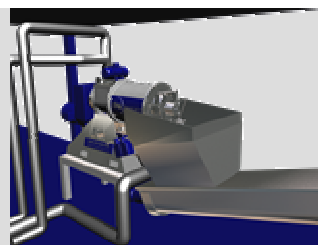
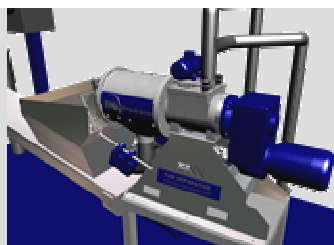


The **FAN Bedding Recovery Unit –BRU** is a system to recover bedding material from liquid daily manure.

The manure is pumped to a **FAN Press Srew Separator-PSS** where the coarse fibres are separated and squeezed.

The solids are fed with a screw conveyor into the **FAN Compo Drum Dryer-CDD** where the solids are treated in an aerobic hot environment for a certain time. The result is a bedding material with low moisture content and low bacterial counts: perfect for bedding.

One system containing a **PSS** and a **CDD** is sized for a 1.000 cow dairy.



The FAN Bedding Process

The Parts of the System:

- Submersible Pump with Mixing Device
- FAN Press Screw Separator
- Feeding Auger
- FAN Compost Drum Dryer in an isolated container
- Exhaust Air fan with automatic speed control
- Additive Dosing for bedding conditioner
- Conveyer Belt (customer supplied)



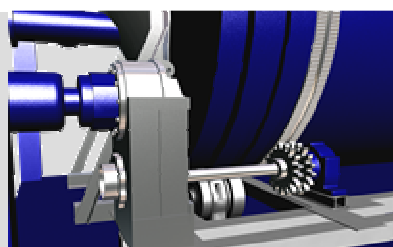
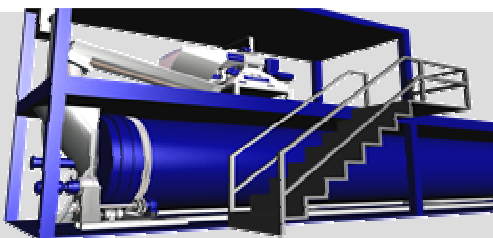
The process is fully automated. The manure is pumped from the collection pit to the **PSS**. The separated solids then fall directly into the **CDD** and are automatically discharged after the intense aerobic process.

The biological process is monitored by measuring the temarature and controlled by adjusting the air volume.



Standard running conditions:

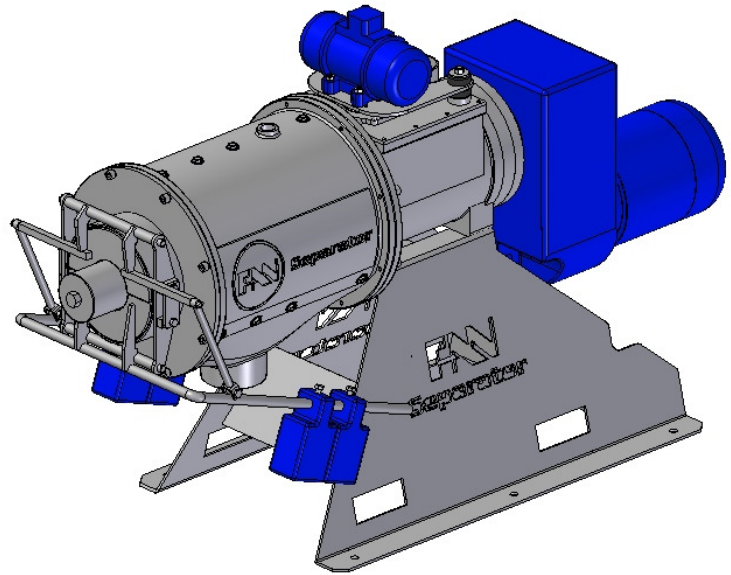
Exhaust temperature range:	140–150 °F (60–65 °C)
Process temperature in the drum:	more than 150 °C (65 °C)
Product Output:	20–25 cubic yards per day (10–20 qm/d)
Retention Time:	24 hours
Separated Manure Solids:	36-38% dry matter
Bedding Material:	40-42% dry matter



FAN Bedding Technology



text PSS

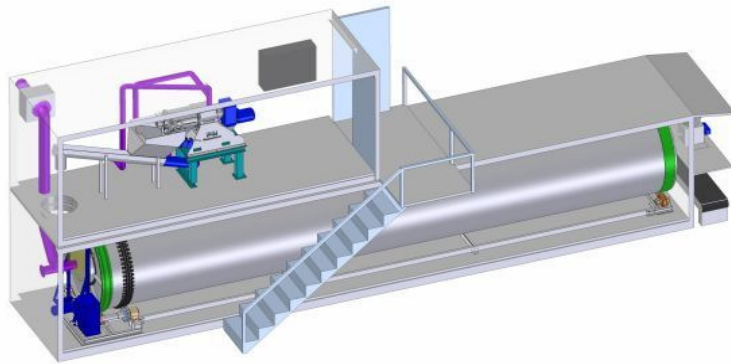


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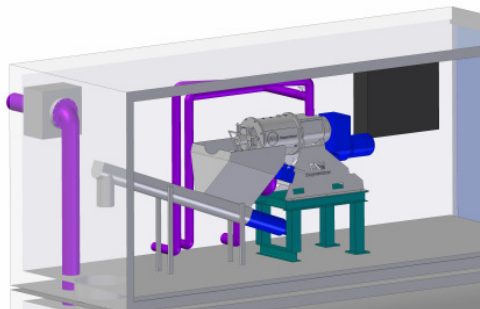
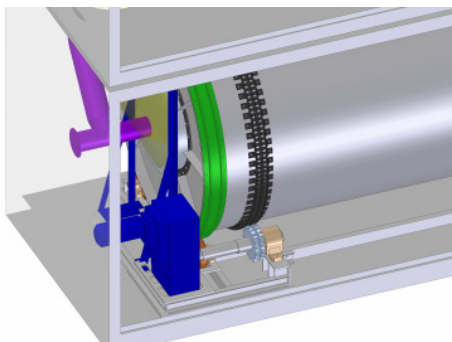


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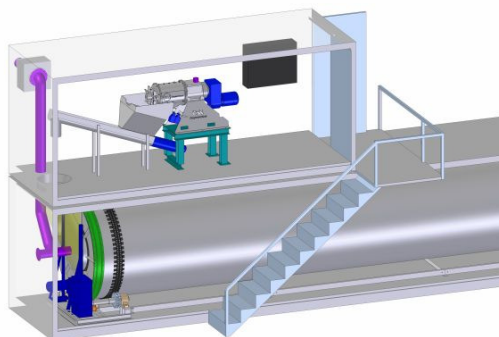
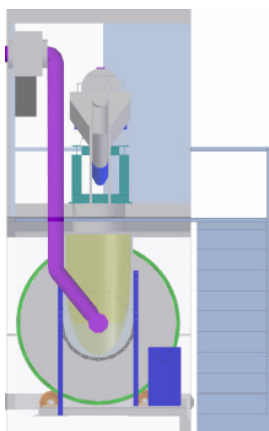




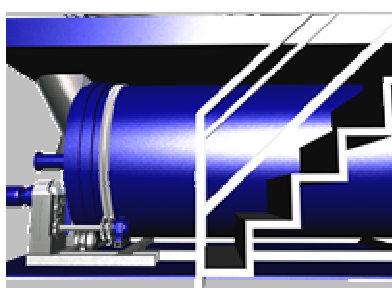
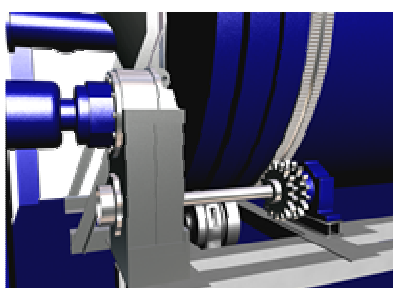
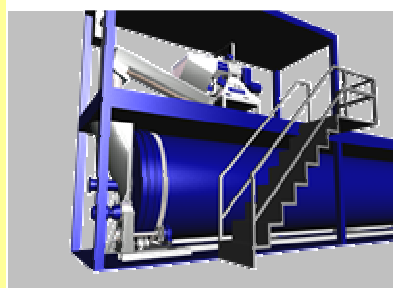
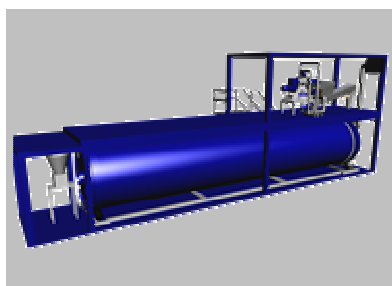
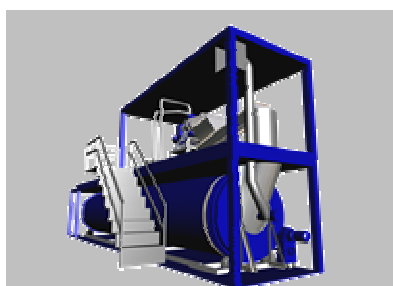
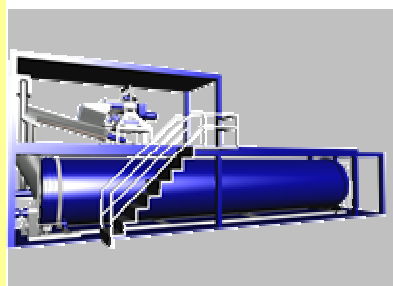
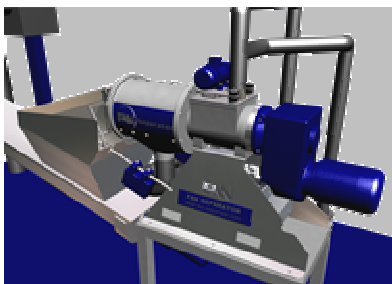
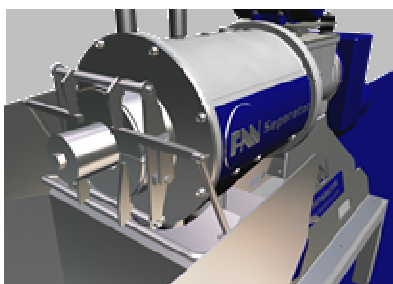
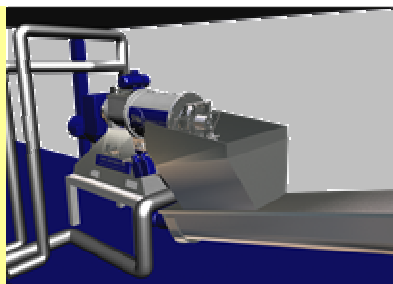
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