

DESCRIPTION PELLETING SYSTEM

MAKING PELLETS FROM DRY POULTRY MANURE

GENERAL INFO

Turn-key compact pelleting line

The Dorset Pelleting System is a pelleting line for processing poultry manure or digestate into fertilizer pellets. The system is pre-constructed, compact and includes all equipment required for pellets production.

Volume reduction

Pelleting presses the material together which offers great volume reduction and new marketing opportunities.

Bacteria removal

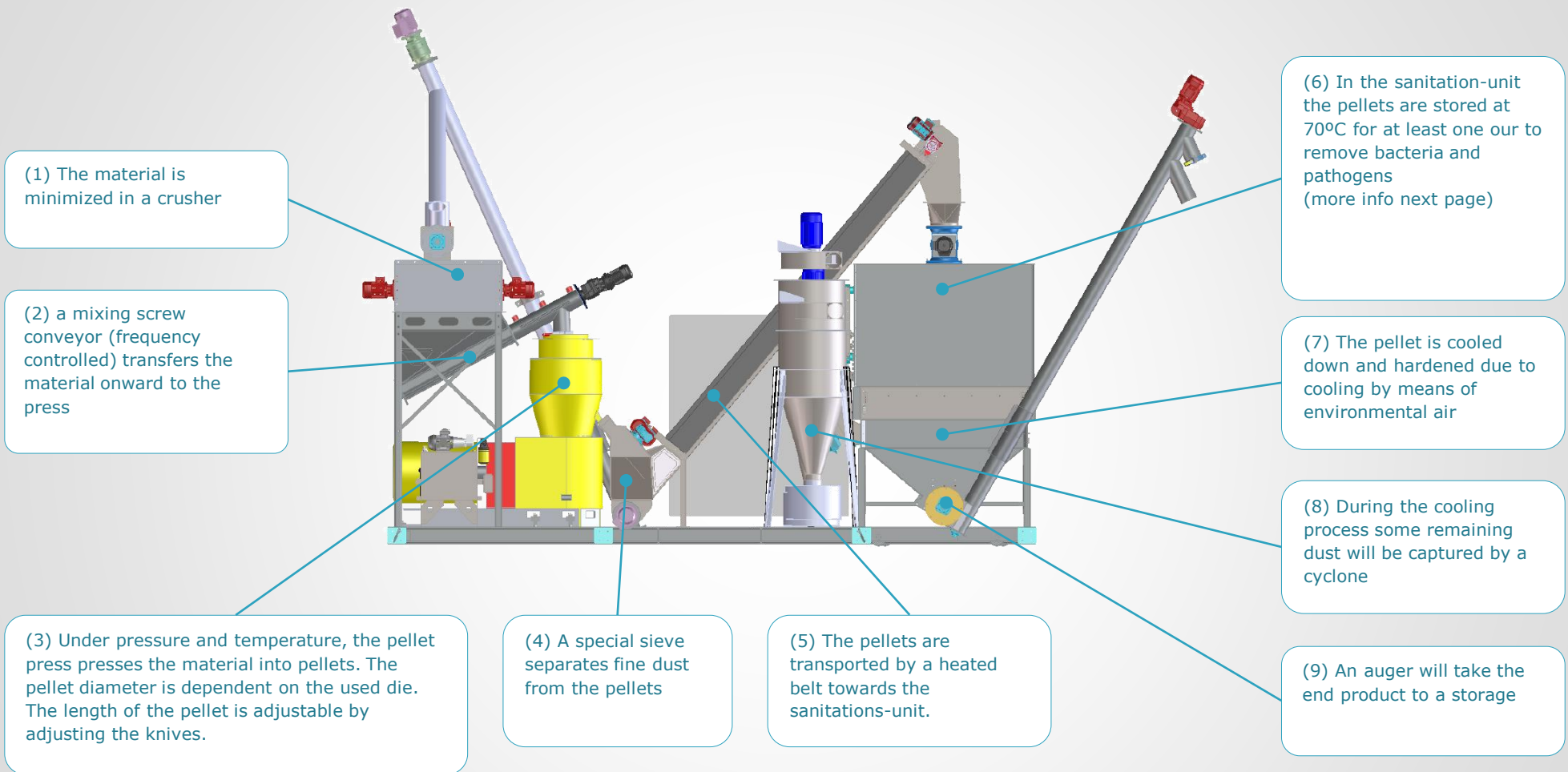
The system includes a sanitation-unit to remove bacteria which makes the end-product suitable for export and improves storage capabilities.

Capacity: 800 kg/h

Including

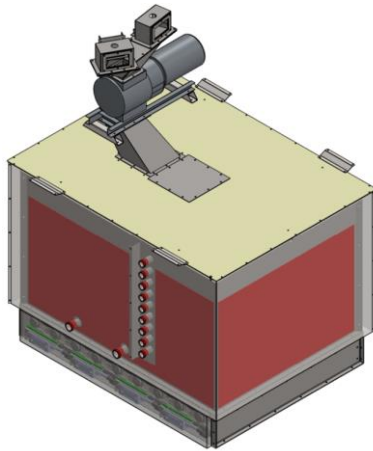
- Crusher
- Screw conveyors
- 2 Pellet press with capacity of 400 kg/h, 37 kW
- Sanitation unit
- Cooling unit with dust extraction by cyclone
- Special sieve for removing fine dust





SANITATION SYSTEM

Dried material that has been pelleted will go through a sanitation process. By doing this, harmful bacteria and pathogens will be killed. When this process has been performed, the pellets are sanitized and can subsequently be exported. However, regulations may apply that contain which stipulate certain requirements regarding this process. Dorset's sanitation unit can fulfill the requirements for sanitation of pellets.



BIO-SECURITY

Regulatory conditions for sanitation

Sanitation can be performed using several methods. Dorset uses heat as sanitation source as heat kills living organisms. While thermophilic organisms tolerate higher temperatures, most respiring organisms do not live above 63°C for any appreciable period of time. Due to a predominant influence of temperature on the rate of chemical kinetic reactions in cellular functions/organelles. At extreme temperatures, cellular functions are disrupted. Even spores and viruses, which do not actively respire, are significantly affected by temperature.

However, most methods follow the basic principle of heating the pellets for at least 60 minutes at a minimum temperature of 70° C as has been described in chapter 3 of European Commission regulation, no. 1774/2002.

The Dorset sanitation unit consists of a rotary valve, the sanitation unit itself (including heating, high level sensor) and a pellet outlet at the bottom.



RELEVANT FEATURES

Running hours

We recommend to have the machine running up to 16 hours per day. The machine does not require to have monitoring operator, but we recommend having the installation running only when someone is present on the site. The machine could run 24/7 if you have a night shift on site.

Less vulnerable to fluctuation in dry matter content

As a results of the use of a horizontal die instead of a vertical die, the machine is less vulnerable to fluctuations in the dry matter content of the input material, which makes the systems operations more reliable.

Maintenance

- Rollers should be cleaned on a weekly basis
- The majority of other maintenance on a montly basis
- No special skills are required

Easy integration with other Dorset equipment

Delivery time and installation

Short delivery and installation time due to pre-assembly and wiring being done at the production site before transport. The frame with the equipment assembled will be shipped in a container and installed at the project site



Upscaling

Easy upscaling afterwards by placing additional units parallel.

