

# DRYING POULTRY MANURE



**DRYER**



**PELLETING LINE**



**FERTILISER**

# DRYING MANURE RIGHT NEXT TO THE FARM

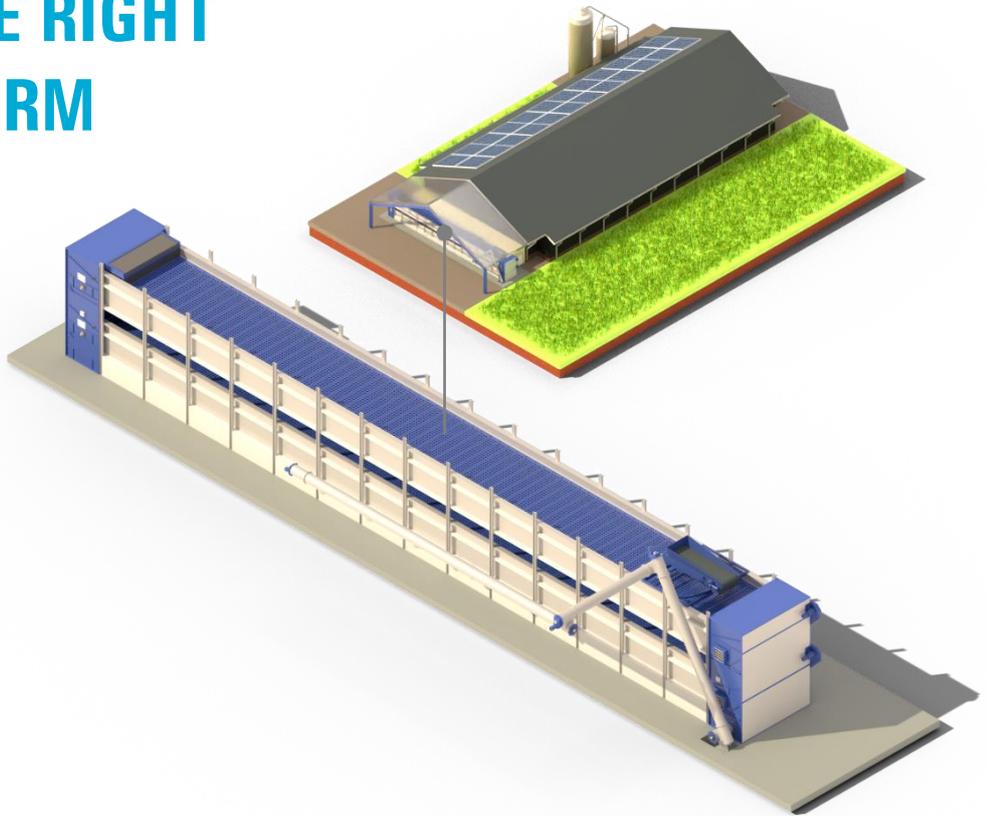
## USING THE WARM FARMHOUSE AIR

Farm air of 20°C or more is normally sufficient to dry the manure produced.

The manure is removed from the barn daily and put on the dryer belt. There it stays for 2 days. This limits the conversion to ammonia and optimizes the nitrogen content in the final product.

The system is recognized as an ammonia and particulate matter reducing technique: 55% reduction at farm level (E.6.4.2 / BWL 2007.03)

The manure is dried by allowing the farm air to flow through the manure on the belt. As a result, the moisture in the manure evaporates until a dry matter content of approx. 84-88% is reached.



**20,000 – 220,000 hens per dryer**



**Uniquely low in energy consumption**



**Organic fertilizer is a valuable result**



**Reduced ammonia, odour and dust emissions**

## HIGHLIGHTS



### Uniquely low in energy consumption

The drying belt of perforated steel plates instead of a woven belt, results in a much lower air resistance.

# 24/7

### Dries manure 24/7

The system works fully automatically and can be monitored remotely if necessary

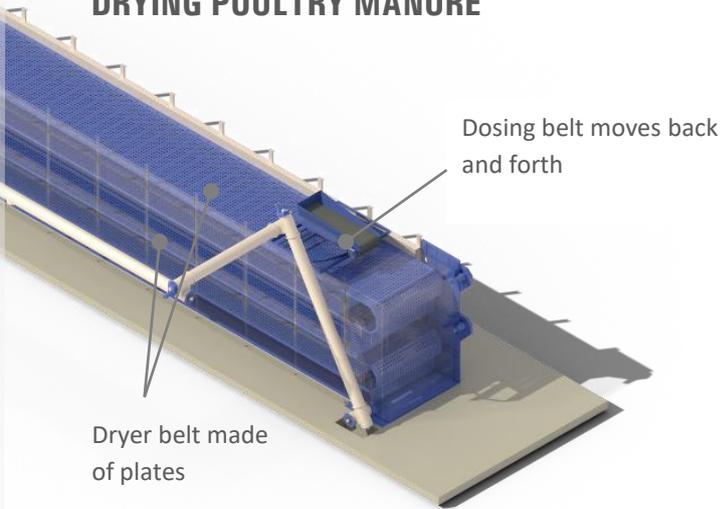
# 800

### Already 800 systems delivered

The Dorset dryers have been extensively tested in the field. Currently, more than 800 systems are operational worldwide.

# DRYING SYSTEM WITH STEEL PLATES

**THE MOST COMMONLY USED SYSTEM FOR DRYING POULTRY MANURE**



The dryer is made up of belts made of steel perforated plates with a smooth coating. This belt does not need a cleaning system.

While the manure is on the belt, the farm air is forced to pass through the belt and manure, achieving optimal contact between air and wet manure. The floor of the dryer contains an automatic cleaning system.



## KEY FEATURES



### Dosing belt applies loosely

On the dryer belt so that the manure can be applied wet, without pre-drying in the farmhouse.



### Belt of steel plates

It cannot break and allows a thick layer (15 – 18 cm). This makes the system more compact.



### Approved dust reduction technique

Approved as ammonia and fine dust reducing technique. 55% reduction at barn level (E.6.4.2)

# THE DORSET PELLET FACTORY

## TURN-KEY SYSTEM

Dorset has developed an integrated pelletizing line with all the necessary operations for pelletizing and sanitizing (70°C) dried poultry manure on a small scale (400 kg/h – 2,000 kg/h).

The system makes a compact and attractive manure pellet, suitable for storage, long-distance transport and export certification procedures.



Pelleting line 2000 kg/h



Exportable end product



Packaging and bunker options

## ORGANIC FERTILIZER

The dried product of laying hen manure is a basic fertilizer for various crops, special vegetables and fruit. The organic pellets contain a high percentage of organic matter and many essential trace elements such as Fe, Mn, B, Mo Zn, Cu.

Average levels when using laying hen manure:\*

Dry matter	90 %	K <sub>2</sub> O	2,3 %
Organic matter	65 %	MgO	1,1 %
N total	4,0 %	CaO	9,3 %
N-organic	3,6 %	pH	7
P <sub>2</sub> O <sub>5</sub>	2.5 %		

\*always remains input-dependent



# DIMENSIONS AND VENTILATION

## MANY DIFFERENT LENGTHS POSSIBLE

When drying with farm air, the dimensions of the dryer are adjusted to the number of animals in the farmhouse. This number of animals per square meter of drying surface, depending on the climate, is 400-600 animals per m<sup>2</sup>.

The farm air goes partly through the dryer (1 to 2m<sup>3</sup>/h. per hen). The remaining air (summer ventilation) leaves the farmhouse directly.

For example, a dryer for 80,000 – 120,000 hens is 27 meters long, 2 meters wide and 3 meters high.

Dryers are up to 3 meters wide and 40 meters long.



## QUOTES AND QUESTIONS

For questions about prices, ventilation, filling cycle, dimensions for your case and the like, please feel free to contact us at:

+31 (0)543 745401  
gm@dorset.nu

We are happy to help you.



1 belt – 2 layers



2 belts – 4 layers (standard)



3 belts – 6 layers

## OVER DORSET GREEN MACHINES



### The complete package

Dorset can provide a total solution, with its own products, and we have everything in-house: sales, engineering, production, service.

1995

### Produces since 1995

Dorset is a global leader in the design and manufacture of drying technology and related products.



### European quality

Our head office is located in the Netherlands and we mainly use Dutch and German manufacturers for the supply of parts.



Inhouse manufacturing



Panel building



Service team

**FULL NUTRIENT RECOVERY**  
LIQUID MANURE PROCESSING FROM CATTLE, PIGS OR BIOMASS PLANTS

- Clean water
- Organic fertilizer pellets

**SMART IRRIGATION CONTROL**  
USING WIRELESS UNDERGROUND SENSOR

- Better crop quality
- Less water consumption
- Less pesticide use
- Less nutrient wash out
- More yield

**BIOSOLIDS PLATE BELT DRYER**

HOLES TO CUT YOUR COSTS

**DORSET I.D. ALWAYS IN CONTROL**

- WEIGHING
- IDENTIFY
- ACCESS CONTROL
- SECURITY

**BIOLOGICAL AIR CLEANING SYSTEMS**

FOR A FARM IN HARMONY WITH THE SURROUNDINGS

- Ammonia
- Odour
- Dust

MORE INFO AT  
[WWW.DORSET.NU](http://WWW.DORSET.NU)

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