

PoulDry, on the right track to dry manure!



PoulDry[®]

EXCELLENCE IN DRYING

- Drying of poultry manure
- Industrial quality standard (stainless steel and powdercoated steel components)
- Modular design for quick installation
- Troublefree operation, unique rail chain guide system, and forced tilting of the perforated drying plates
- Low energy consumption
- Touchscreen control with internet access
- Drying by using air from poultry building or central drying with heated outside air
- Ammoniac and fine dust reduction

VDL Agrotech



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Operation of the pouldry manure drying tunnel

The PoulDry drying tunnel is designed to dry poultry manure, but also other material among others digestate or woodchips. The PoulDry consists of 2, 4 or 6 tiers powder coated perforated steel plates, connected to an industrial transport chain. The chain is driven by motors with a planetary gear transmission.

The manure is evenly spread on the top layer with a turning distribution belt. When the manure reaches the far end of the tunnel the plate tilts and the manure is automatically dropped on the plates of the underlying level. Manure is then moving in opposite direction and dried further. The air from the poultry house, or heated outside air is forced by means of high pressure fans through the perforated plates (35% perforated)

When the manure reaches the lower level the dried manure is removed from the tunnel with a screw conveyor. A scraper system under the tunnel is used to remove the dust accumulated on the floor which is scraped in the screw conveyor and removed with the dried product.

Forced tilting

The planetary gear transmission is directly connected to the shaft and pulls the perforated drying plates connected to the industrial chain. The direct drive in combination with the forced tilting prevent breakdowns and guarantee a long lifespan.

Rail system

The unique design of the rail system reduces the friction, as the manure cannot accumulate on the rails. This allows tunnel lengths up to 40 meter.

Control panel

When the tunnel is put into operation the required data will be entered in the controller, after which the tunnel will operate automatically. The software is designed to operate the tunnel in any house or formation. The control panel includes an eWON so the panel can be connected to the internet. This industrial router allows a safe remote login to the control panel, resulting in more user-friendliness and faster and better service.

Forced tilting



Rail system



Control panel



Complete projects



Complete projects

The tunnel can be part of a complete project. VDL Agrotech can engineer, supply and install other equipment such as conveyor belts, transport augers, pressure fans, heat exchangers and pressure chambers. In addition pre and post treatment equipment such as intake equipment and pelletizing equipment is available.

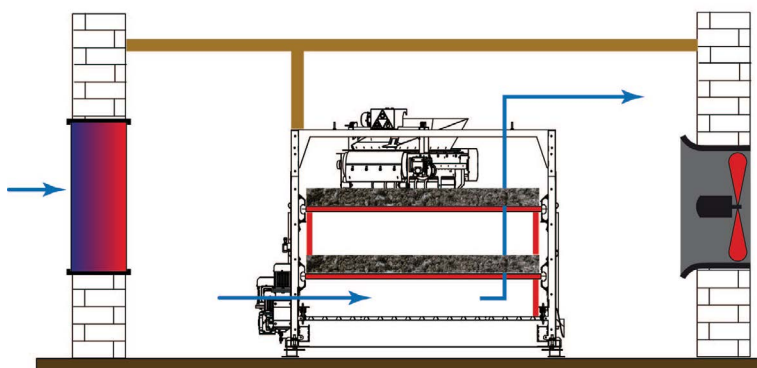
Projects

Manure drying with ventilation air from the poultry house

For the drying of layer hen manure a VDL-4L32M drying tunnel is installed with a 250m² drying plate surface. The manure of 104.000 laying hens is transported by means of belt conveyors twice daily from the house on the tunnel. Minimum ventilation air up to 2 m³/hour per hen is forced through the perforated plates so the manure can dry within 2 days from a 30% to 80% dry matter content. The weight decrease of the manure is 72% and volume reduction at least 50%. The manure is stored in container and sold for incineration or further processing.

Central drying of poultry manure

For central drying of poultry manure a VDL-2L26M drying tunnel is installed with 104 m² drying plate surface. The manure of 80.000 laying hens from different buildings is spread on the tunnel partly directly from a poultry house and partly from a storage bunker. The tunnel is located in a central building. High pressure fans pull the outside air through heat exchangers into the tunnel through the perforated plates and manure. The energy source are biomass kettles that deliver 500kW heat by heating up water to 90 degrees Celsius. Herewith the manure is dried within 1 day from 30% DM to 85% DM.



PoulDry with heat exchanger



Manure drying with ventilation air from the poultry house



Central drying of poultry manure



Technical specifications

PoulDry-2L

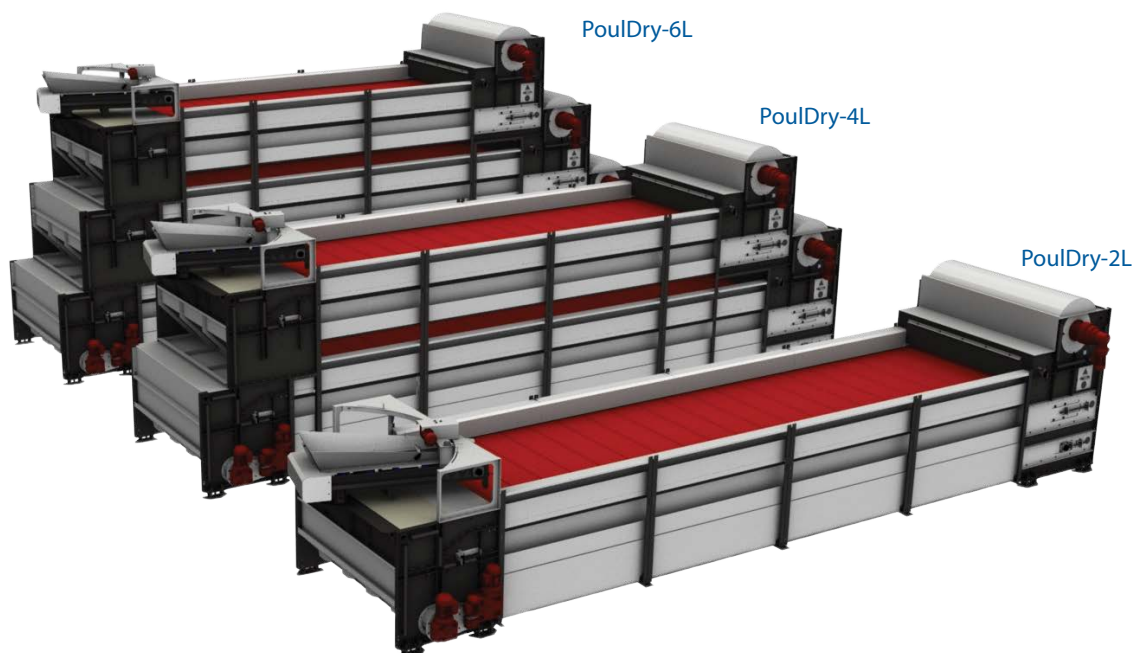
	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M	28M	30M	32M	34M	36M	38M	40M	
Total drying surface (m ²)	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	
Total length (m)	11,2	13,2	15,2	17,2	19,2	21,2	23,2	25,2	27,2	29,2	31,2	33,2	35,2	37,2	39,2	41,2	43,2	
Total width (m)	3,0																	
Total height (m)	2,5																	
Max. loading capacity (m ³)	6,4	8,0	9,6	11,2	12,8	14,4	16,0	17,6	19,2	20,8	22,4	24,0	25,6	27,2	28,8	30,4	32,0	

PoulDry-4L

	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M	28M	30M	32M	34M	36M	38M	40M	
Total drying surface (m ²)	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	
Total length (m)	10,8	12,8	14,8	16,8	18,8	20,8	22,8	24,8	26,8	28,8	30,8	32,8	34,8	36,8	38,8	40,8	42,8	
Total width (m)	3,0																	
Total height (m)	3,7																	
Max. loading capacity (m ³)	11,6	14,8	18,0	21,2	24,4	27,6	30,8	34,0	37,2	40,4	43,6	46,8	50,0	53,2	56,4	59,6	62,8	

PoulDry-6L

	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M	28M	30M	32M	34M	36M	38M	40M	
Total drying surface (m ²)	79	103	127	151	175	199	223	247	271	295	319	343	367	391	415	439	463	
Total length (m)	10,6	12,6	14,6	16,6	18,6	20,6	22,6	24,6	26,6	28,6	30,6	32,6	34,6	36,6	38,6	40,6	42,6	
Total width (m)	3,0																	
Total height (m)	4,9																	
Max. loading capacity (m ³)	15,8	20,6	25,4	30,2	35,0	39,8	44,6	49,4	54,2	59,0	63,8	68,6	73,4	78,2	83,0	87,8	92,6	



Dealer

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