

FRIGOR TEC
Drying to the point

FrigorTec GmbH • Germany



AGRIFRIGOR™ –
Air dehumidifiers – Heat pumps
for drying hay

frigortec.com



The Control System

A hay drying system can be operated with the AGRIMAT control system. For maximum efficiency, the system switches automatically between outside air and recirculation mode, so that the optimum air is used for drying at all times.



AGRIFRIGOR™	HT 50	HT 100	HT 150
AIR DEHUMIDIFIERS - HEAT PUMPS			
Hay box size [m²]¹⁾	to 50	to 125	to 200
Electrical data			
Max. current consumption [A]	24	32	55
Electrical connection [kW / A]	12 / 32	18 / 32	30 / 63
Suitable for air volume¹⁾			
Dehumidifier operation [m ³ / s]	3.0 – 5.5	6.5 – 11.0	9.5 – 16.5
Outdoor air operation max. [m ³ / s]	8.0	17.0	25.0
Dimensions [L x W x H in mm]	2,100 x 1,150 x 1,900	2,500 x 1,250 x 2,000	2,900 x 1,250 x 2,400
Weight [kg]	800	900	1,200



AGRIVENT™	AV5,5	AV7,5	AV9	AV11	AV11	AV15
VENTILATOR						
Air volume [m³ / s]	7.0	7.5	9.5	9.0	11.5	13.1
Pressure [Pa] maximum²⁾	1,390	1,850	1,850	2,300	1,700	2,350
Electrical data						
Max. current consumption [A]	11	14	17	21	21	27
Electrical connection [kW / A]	5.5 / 16	7.5 / 16	9.0 / 32	11 / 32	11 / 32	15 / 32
Dimensions [L x W x H in mm]	1,100 x 1,030 x 1,420		1,250 x 1,080 x 1,570		1,570 x 1,210 x 1,910	
Weight [kg]	220	230	260	270	450	450

All figures are valid for 400 V-3 Ph-50 Hz

¹⁾ At an average initial hay moisture content of 35%, at 1,000 Pa counter-pressure and final hay moisture of 14%

²⁾ Higher pressures available on request

Subject to technical changes.

A convenient control system is optionally available: The AGRICONTROL Siemens S7 handles all switching operations and a monitor displays the current status of the system. This is especially useful when there are several drying boxes. The operator can subsequently keep track of everything. The FrigorTec app enables remote control via mobile phone or computer.



HT 200

HT 250

HT 300

HT 400

HT 500

to 250

to 300

bis 350

to 400

to 500

63

95

110

125

190

40 / 63

45 / 100

60 / 125

80 / 125

90 / 250

13.4 – 22.0

14.5 – 25.0

19.0 – 33.0

26.8 – 44.0

29.0 – 50.0

33.0

38.0

50.0

64.0

76.0

3,600 x 1,250 x 2,400

3,900 x 1,250 x 2,500

5,800 x 1,250 x 2,400

7,200 x 1,250 x 2,400

7,800 x 1,350 x 2,500

1,300

1,600

2,400

2,600

3,200



AV 15 AV 18.5

AV 22 AV 30

AV 30 AV 45

AV 45 AV 55

16.0

17.0

18.5

20.5

25.0

25.0

34.0

36.0

1,800

2,100

2,300

2,840

1,890

2,400

1,800

1,950

27

36

45

55

55

78

78

95

15 / 32

18.5 / 50

22 / 50

30 / 63

30 / 63

45 / 100

45 / 100

55 / 100

1,670 x 1,550 x 2,060

1,670 x 1,600 x 2,570

1,750 x 1,900 x 2,330

1,750 x 1,920 x 2,190

600

650

650

700

700

800

800

1,000

Technical specifications AGRIFRIGOR™ - Air Dehumidifier:

- Dries under all ambient conditions (rain, fog, heat and cold)
- Sound-optimized fans and compressors
- Effective large surface area coarse dust air filter – easy to clean
- Sturdy industrial design
- Full enclosure with quick-release fasteners
- Hay box with differential pressure sensor
- Quality control through factory test run
- Fully automatic control
- Temperature and humidity sensors
- Vibration decoupling
- Coated heat exchanger as corrosion protection
- Operating hour meter
- Environmentally-friendly safety refrigerant without CFC and without HCFC
- Fully welded condensate tray
- Remote control via app
- Air flap-motor drives
- Pressure indicator
- CE certified for high level of safety
- Made in Germany

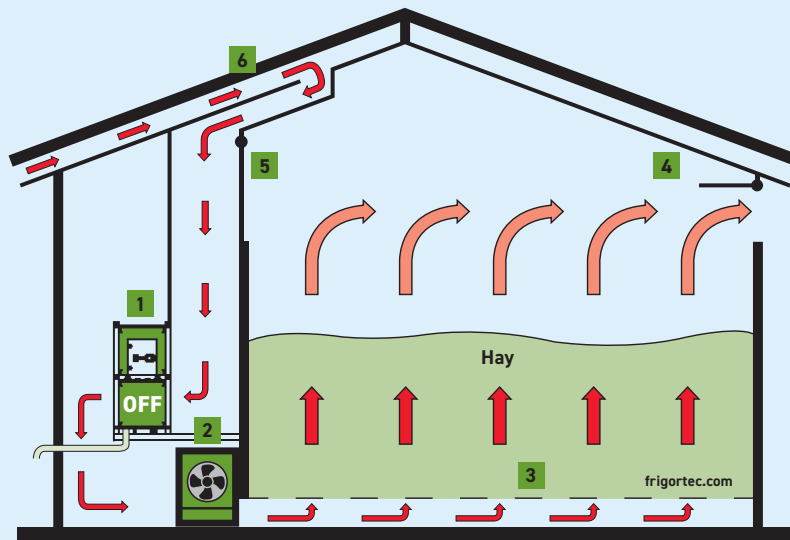
AGRIFRIGOR™- Hay drying process

Outer Air Operation with Under-Roof Pre-Warming



sunny and warm
outer air warming in the solar panel,
air humidity drops

- 1 AGRIFRIGOR™ air dehumidifier
- 2 AGRIVENT™ radial fan
- 3 Aeration floor
- 4 Exhaust flap
- 5 Outer-/Recirculation flap
- 6 Solar panel

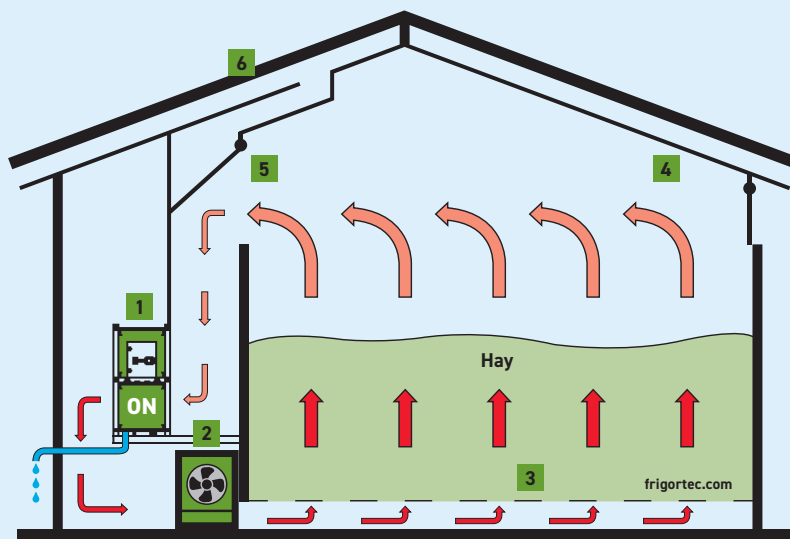


Recirculation Mode with Air Dehumidifier



cold + rainy / night / cloudy:
air circulation inside of the storage,
AGRIFRIGOR™ air dehumidification
and warming

- 1 AGRIFRIGOR™ air dehumidifier
- 2 AGRIVENT™ radial fan
- 3 Aeration floor
- 4 Exhaust flap
- 5 Outer-/Recirculation flap
- 6 Solar panel



Produce premium quality hay – ecologically and effectively!

The constantly changing weather conditions force companies to provide for weather-independent under roof drying.

Drying fodder from meadows, pastures and fields with a heat pump is an extremely energy-efficient, natural conservation process.

Cut fodder grass is initially pre-dried in the sun. Subsequently the fodder is dried homogeneously and controlled to the desired degree of dryness with an AGRIFRIGOR™ heat pump.

This controlled drying process produces high quality hay. The energy-efficient heat pump generates low energy costs and high profitability.

The AGRIFRIGOR™ heat pump, combined with a pressure-stabilized fan, ensures that pre-dried fodder grass is quickly and weather-independently dried thereby preserving the valuable plant substances. This technology enables cutting to be done at an optimal time, consequently reducing crumble losses to a minimum.

No storage losses due to residual heat or mold formation occur with homogeneously dried hay. For farmers, healthy hay improves animal health, increased feed intake and hygiene and therefore a higher forage yield.

The same advantages that apply to hay drying with an AGRIFRIGOR™ heat pump are applicable for drying hops, tea leaves, herbs and nuts.

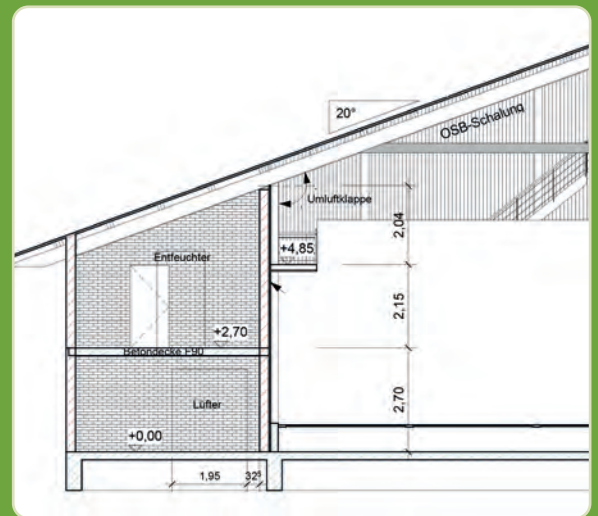


FrigorTec planning support

We would be delighted to offer you comprehensive advice and collaborate with you to create the optimal customised solution.

Take advantage of our extensive experience!

- Dimensioning of your drying system
- Arrangement of boxes, air ducts and technology
- Design of the roof suction system
- Coordination with your architect and hall constructor
- Comprehensive documentation as free assistance



FrigorTec GmbH is certified according to DIN EN ISO 9001 : 2015.

FrigorTec GmbH is member of:

- Society for the Support of the German Milling School Braunschweig e.V., Bonn / Germany
- Rationalisation Curatorship for Agriculture, Rendsburg / Germany
- Federal educational institution in Agribusiness Burg Warberg e.V., Warberg / Germany
- ALB, Stuttgart / Germany
- AGF, Detmold / Germany

TÜV acceptance testing in our factory.

An additional test at the installation site is usually not necessary for the AGRIFRIGOR™.



We pass on only what we have produced by our own hands.
Made in Germany.



In the parent plant in Amtzell, Germany all products made by FrigorTec GmbH are developed, constructed and produced. Every device passes a quality inspection with test runs before delivery. We sell the FrigorTec solutions in over 100 countries through our worldwide distribution network.

SERVICE
(24 / 7)



Our service keeps the units maintained and ensures the spare parts supply - worldwide.
service@frigortec.com

Grain cooling
GRANIFRIGOR™

Crane air conditioning
CRANEFRIGOR™

Standard cooling
STANDARDFRIGOR

FrigorTec
SERVICES

Insect heat treatment
DEBUGGER

Hay dryer
AGRIFRIGOR™

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Drying to the point

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