HARTER drying solutions

LOW-ENERGY DRYING.

DRYING SLUDGE TO SAVE DISPOSAL COST.

DRYMEX®

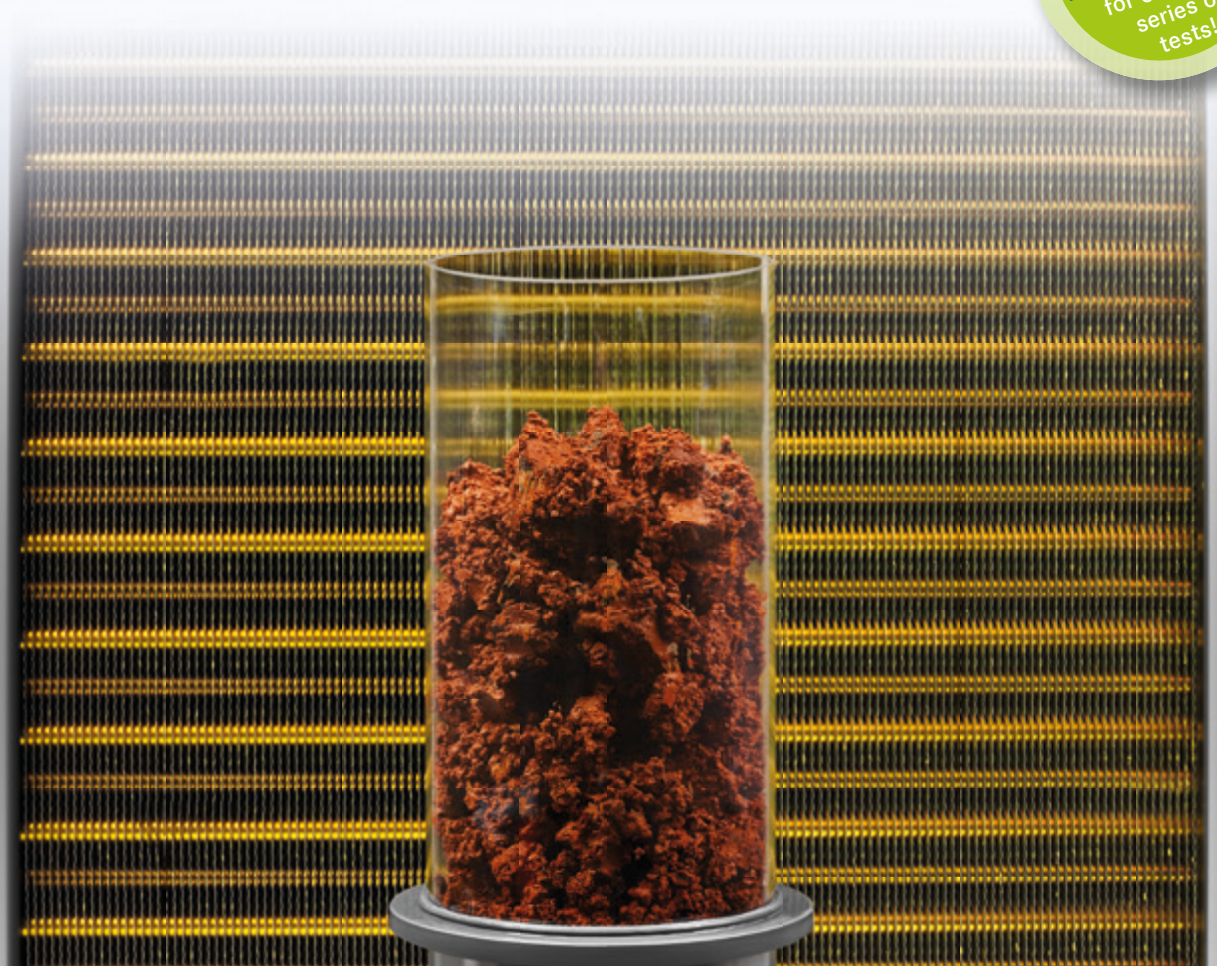
LESS WEIGHT, LESS VOLUME, LESS COST

> Sludge weight and volume reduction by as much as 60 percent
> Disposal cost reduction by as much as 60 percent; a better classification may be obtained sometimes
> Drying at low temperatures between 20 °C and 50 °C
> High efficiency through the use of heat pump technology for air dehumidification
> Reliable and uniform drying
> Energy and cost savings through a perfect combination of air conditioning and air routeing
> Drying in a closed system with no waste air
> Systems are very stable in value
> Short pay-off periods
> Some of the substances in the sludge, when dried, may be recycled

TESTS FOR SUCCESSFUL DRYING

Drying tests in our pilot plant station are a reasonable approach to determine the parameters relevant for successful drying. We test your product to find the best temperature, humidity, drying time, air speed and airflow rate. The results form the basis for further system layout, which will also draw on solutions in hundreds of various projects.

Rent our **MOBILE PILOT PLANT STATION** for extensive series of tests!



DRYMEX® - STANDARD DRYING
M-LINE DRYERS

M-Line dryers are standardised sludge dryers with standard container sizes. We employ a sophisticated combination of powerful dehumidification and targeted air routeing to obtain consistent and reproducible drying results for each batch size.

Drying is accomplished in a closed system which is fully independent from environmental factors.

The system is operated in fully automatic mode through electronic humidity control. The dryer shuts down automatically once the desired degree of drying is achieved.

Drymex® Module	Water Extraction Rate l/24h	Useful Container Volume (m³)
M1	50	0.12 m³
M2	125	0.25 m³
M3	250	0.5 m³
M4	500	1.0 m³
M5	770	1.5 m³

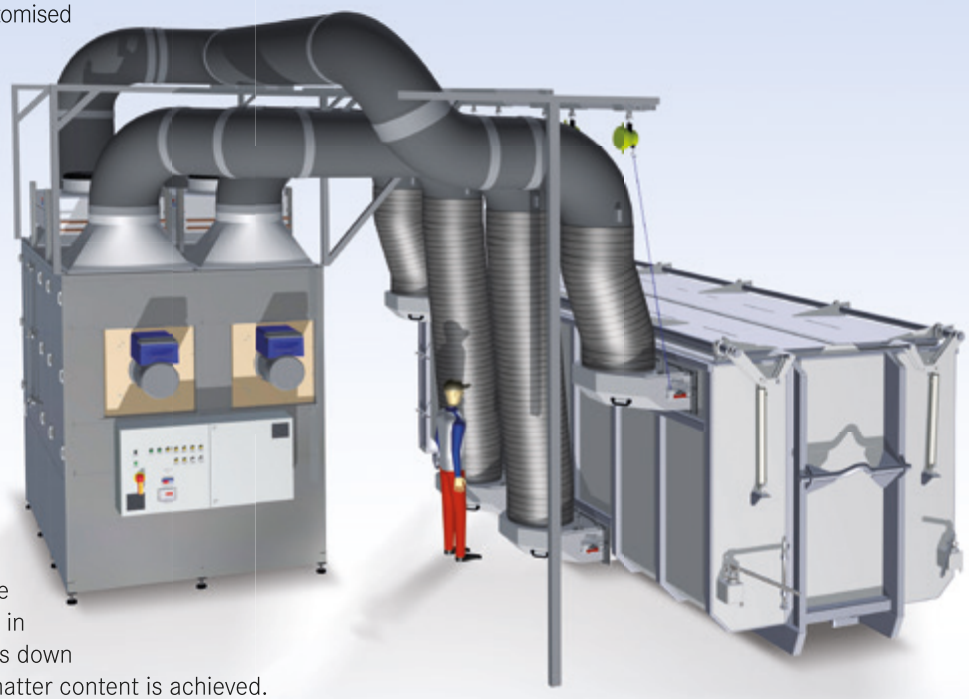
Features:

- Insulated drying cabinet
- Heat pump
- Automatic shut-down once the desired degree of drying is achieved
- Air cooler core tubes made from corrosion resistant steel
- Fins made from epoxy resin coated aluminium
- Cabinet bottom, air duct and sludge container made from 1.4301 corrosion resistant steel
- Frame made from powder coated aluminium
- Housing made from anodised aluminium
- Two sludge containers can be emptied using a forklift with rotating attachment

Optional:

- Tipping provision for sludge containers
- Airflow rate control for optimum dehumidification; this is a reasonable provision where filling heights vary largely or where various sludges with largely varying response to ventilation are to be dried

DRYMEX® - INDIVIDUAL SOLUTIONS
S-LINE DRYING SYSTEMS



These dryers are modular systems customised to meet your individual requirements including, of course, any space particularities. Other than standard dryers, S-line dryers normally have the dehumidification module and the drying container installed in separate places. To obtain best drying results and high process reliability, these systems, too, require a perfect combination of efficient dehumidification and individual air routeing. The drying space, normally a container, is designed such that adequate ventilation of the pre-dewatered sludge is ensured. As our drying systems are always closed, environmental effects on the drying quality are safely excluded. The special drying systems are operated in fully automatic mode. The dryer shuts down automatically once the desired dry matter content is achieved.

We shall be pleased to provide other drying systems for your sludges, such as ceiling mounted types if your chamber filter press is installed in a raised place or on the first floor of your building. Types for continuous operations may also be furnished.
Feel free to contact us!

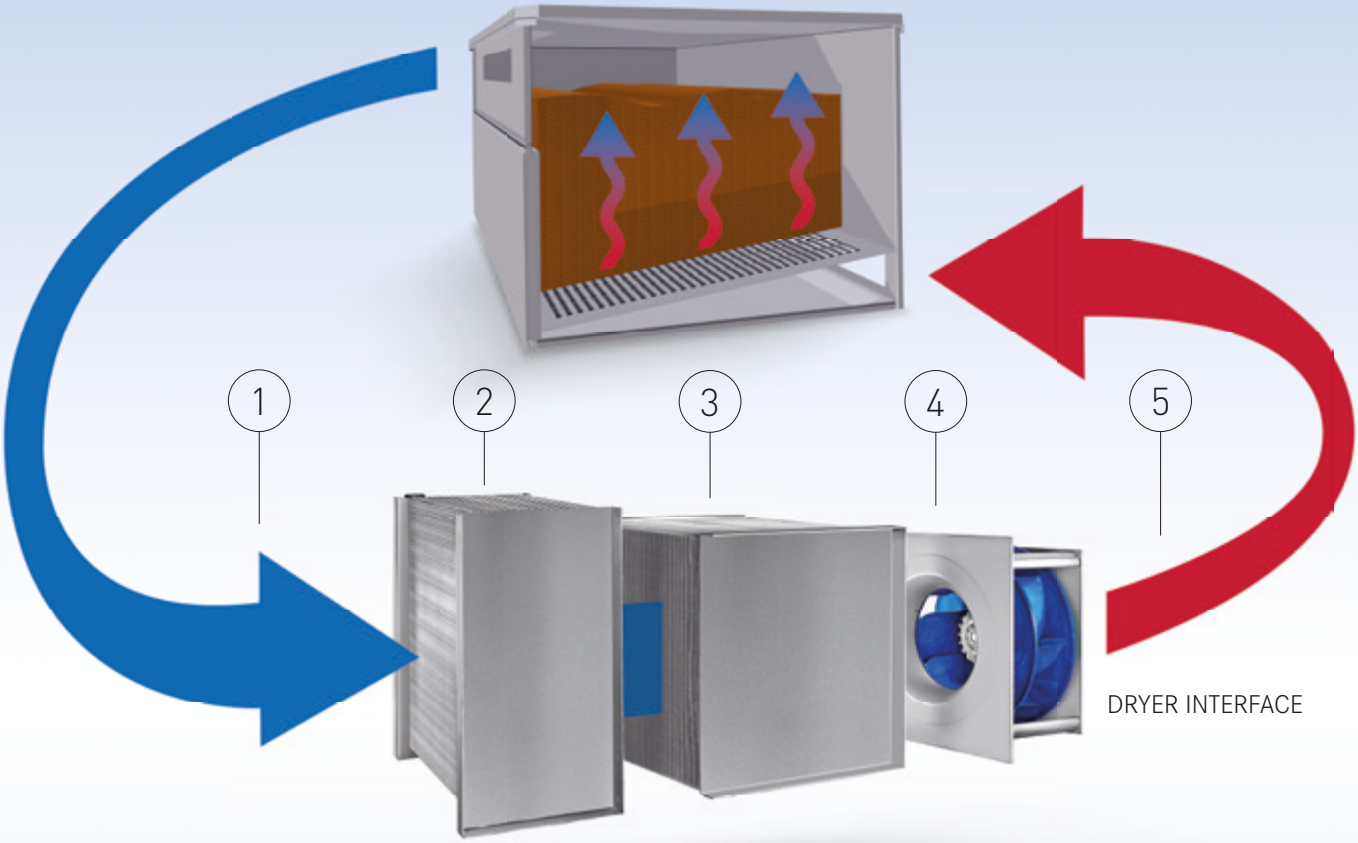
Drymex® Module	Water Extraction Rate l/24h
S1	50
S2	125
S3	250
S4	500
S5	770
S6	1200
S7	2400
S8	3600
S9	4800
S10	6000

Useful container volumes: 5 to 23 m³ approx.

Features:

- Air cooler core tubes made from corrosion resistant steel
- Fins made from epoxy resin coated aluminium
- Fully automatic humidity measurement and shut-down
- Models S1 through S7 - anodised aluminium housing and powder coated aluminium frame
- Models S8 through S10 - 1.4301 corrosion resistant steel housing and frame

HARTER DRYMEX® - THE PROCESS



HARTER's low-energy systems dry fast and reliably.

1 Drymex® dehumidification module / drying container interface - Humid air is extracted from the drying chamber and passed to the dehumidification module.
2 Moisture precipitates on the air cooler fins, and the condensate water leaves the system through the condensate collector and the condensate drain.
3 The air heater raises the air temperature to the level required for the process.
4 The process air fan provides the required air circulation between the Drymex® dehumidification module and the drying chamber.
5 The dried, unsaturated air is now returned to the drying chamber.

The loop is thus closed.

Drymex® - drying systems can dry pre-dewatered aqueous sludges and substrates.

> Metal hydroxide sludge

> Paint sludge

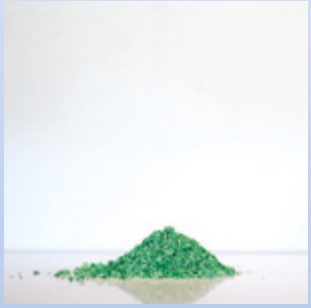
> Grinding sludge

> Sewage sludge

> Aqueous press wastes

> Granulates and much more

Before Drying



After Drying

HARTER drying solutions

DRY PROPERLY.
SAVE DECENTLY.

THE USE OF OUR EFFICIENT DRYING SYSTEMS WILL CUT YOUR COST IN TWO WAYS - BY OPTIMISING YOUR PROCESS AND BY RELIEVING YOUR BUDGET.

ADDITIONAL BENEFIT MAY BE DERIVED FROM BETTER CLASSIFICATIONS AND RECYCLING OF VALUABLE SUBSTANCES.

We shall be pleased to contribute our good ideas to your business.
Feel free to contact us!

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