



## ***LIQUIDRY H Thin-Film-Dryer***

### **Technical data**

- + Full drying up to 99,5 % dry substance
- + Heating temperature up to 500 °C
- + Heat exchange surface up to 120 m<sup>2</sup>
- + Special rotor design/know how

## LIQUIDRY H Thin-Film-Dryer

LIQUIDRY H fall into the category of the so-called contact dryers and is mainly used for continuous operation in horizontal units. Depending on the application, they are operated either under vacuum, atmospheric pressure, or overpressure. LIQUIDRY H is characterized by the fact that only the jacket is heated, which is designed as double-walled cylinder in most applications.

Depending on availability, LIQUIDRY H can be operated with the following heating media:

- + steam
- + heat transfer oils
- + molten salts
- + electrical heating

The rotor running in the jacket is equipped with attached wiper and conveyor elements and provides for the required turbulence in the drying chamber, on the one hand, and for a regular distribution of the material on the heated inside jacket surface, on the other hand. Additionally, the material to be dried is gradually conveyed towards the outlet nozzle, while the accumulating vapours stream upward in the counter current to leave the unit near the inlet nozzle.

Depending on the starting material, the wiper and conveyor elements are arranged at the smallest possible gap clearance to the jacket without touching it. The relatively high rotational speeds at the end of the wiper element prevent an encrustation of the jacket surface. After standstill of the dryer, the rotor can be pulled out of the dryer jacket for maintenance and cleaning purposes. To this end, a removal trolley is available.

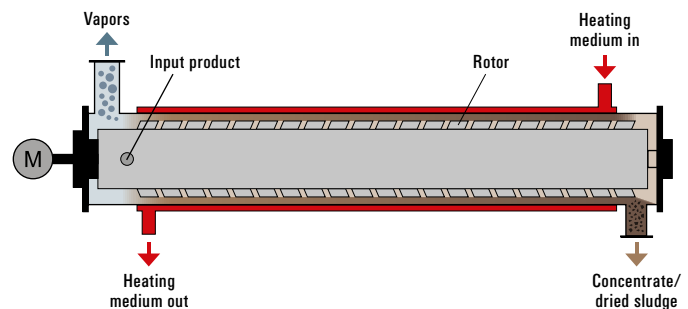
The LIQUIDRY H can be used for a wide range of applications. It allows drying to the point as required for the respective application, starting with partial drying in the order of several tenths of a percent to full drying to approx. 99,5 % of the dry substance. The so-called adhesive phase and/or slurry zone is passed through smoothly without requiring any product back mixing.

Moreover, the process is characterized by low emissions (odor, dust, and noise), and it excels due to a compact design and low maintenance and space requirements.

Along with the tendency toward increasing environmental standards such as “zero liquid discharge” (ZLD), the requirements on process temperature are rising, too. Kremsmüller is able to realize 500 °C and more for sludge processing in horizontal TFDs.

### Applications

- + all types of sludge (sewage sludge, drilling sludge, industrial sludges etc.)
- + preliminary and intermediate products for the chemical industry
- + inorganic salt solutions
- + solvent recovery from salt solutions
- + suspensions and pastes
- + lecithin



Functional principle Thin-Film-Dryer horizontal (LIQUIDRY H)

