

LYOTRACK

Humidity Monitoring for Freeze-Drying Market



A NEW HUMIDITY MONITORING TECHNIQUE which provides a better understanding of freeze-drying process

The need

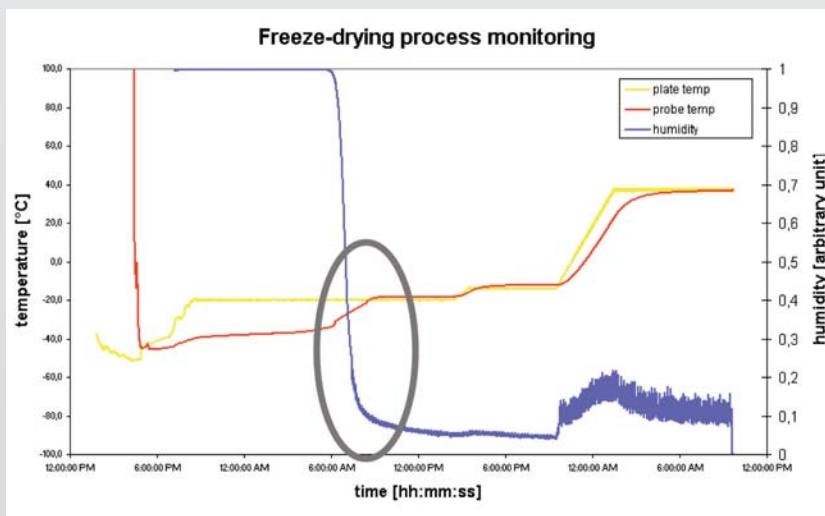
In the freeze-drying industry one of the major concern is process monitoring and more precisely the determination of the end of primary drying.

The solution

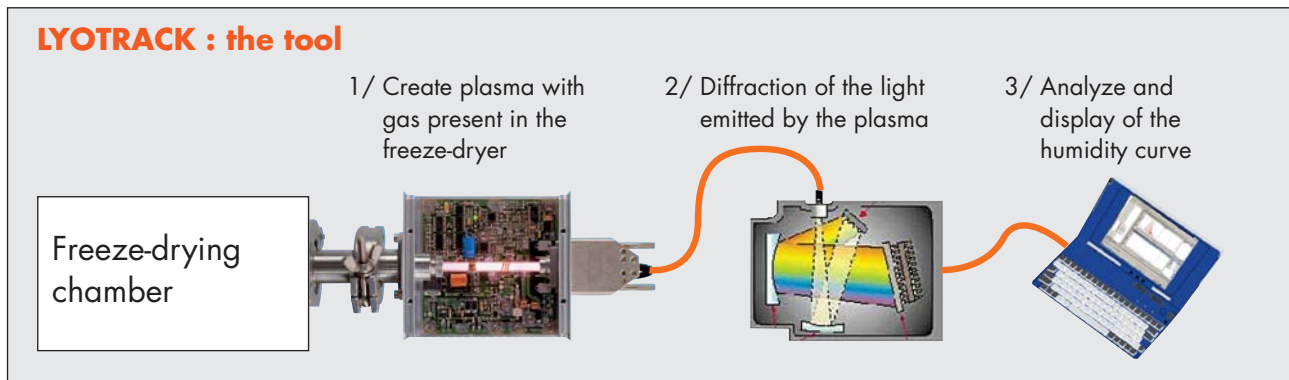
Monitoring humidity of the atmosphere of freeze-dryer during cycle allows a global load monitoring.

The development

Alcatel has developed the LYOTRACK, the unique moisture monitoring technology under vacuum conditions.



Humidity curve (in blue) given by LYOTRACK indicates the **end of primary drying** when there is no water vapor anymore. It gives the same information as the cumbersome temperature sensor but **for all vials**.



Working pressure

No need of secondary pump. LYOTRACK is working at standard freeze-drying pressures.

Withstand sterilization

Materials in contact with process gas are stainless steel, quartz and FPM (for seal). Therefore LYOTRACK withstand sterilization conditions (2 bars and 125°C).

Easy for use

As simple to connect as a pressure gauge.

Dedicated software, with algorithm for detection of the end of primary drying.

LYOTRACK can be used...

- for process development or process monitoring on pilot, scaling up and production freeze-dryer. LYOTRACK is also compatible with automatic loading freeze-dryer
- for batch monitoring
- to enhance process monitoring.



LYOTRACK's offer is made up of Lyotrack sensor, Lyotrack software (computer is not supplied), power supply and ethernet crossed cable. Analog output allows to retrieve humidity signal on a PLC, thus Lyotrack is suitable for production scale.

Vacuum connection port	Triclamp 1.5 inch
Main power supply	110 - 240 Vac / 47- 63 Hz
Pressure range of use	5 µbar - 500 µbar
Startup time	< 3 minutes
PC connection	Ethernet
Weight	0.8 kg (1.8 lbs)
Dimension	124 x 160.9 x 91.6 (mm) 3.88 x 6.33 x 3.61 (inch)
Cooling	Air
Temperature of use	15°C - 35°C
Storage temperature	0°C - 50°C



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