



DataNet – Multi-site pharmaceutical production monitoring

“Streamlining our control processes and eliminating human error ...”

Evelina Fuchs, Process Engineer

Application: Pharmaceutical production and storage
Organization: Concept for Pharmacy

Background:

A rapidly developing technology and scientific landscape brings new challenges for the pharmaceutical industry. Strict regulations, harsh competition and rising R&D costs require production, transport and storage processes to be as safe and efficient as possible.

About the Customer:

Concept for Pharmacy is a unique pharmaceutical facility manufacturing extemporaneous preparations, as well as special disinfection agents containing colored chlorine.



Key Customer Challenges:

- Production, storage and R&D facilities span 4 floor, over 100 square meters
- Complex multi-site with parallel working processes requires simultaneous control of diverse humidity, pressure and temperature micro-environments
- Numerous transmission barriers - stairwells, multiple floors, and concrete walls
- Sterile areas require dust-proof installation and non-disintegrative system elements
- Non-digital autoclave legacy equipment functions at extremely high temperatures in patented colored chlorine manufacturing. Technicians must switch color plates at the moment of optimal temperature, which until now had been determined by periodic manual checks - both time consuming and open to human error.

DataNet Implementation:

A DataNet system with external PT100 sensor was placed inside the autoclave oven providing technicians with timely alerts when the oven reached optimal temperatures. Clean room refrigeration and freezer temperature and humidity levels were monitored by DataNet temperature and RH units, connected to a non-disintegrating PT100 external temperature sensor. They were mounted without screws to avoid any dust creation. A further DataNet unit was connected to a convector which reconstructs environmental parameters. This allowed engineers to test various temperature and humidity parameters and establish the monitoring needs of products throughout the storage and transport life cycle.



Measurable Results:

- **Helicopter view** – fully controlled single view of all micro-environments.
- **Reliable production process** - whilst protecting the integrity of clean rooms, safe procedures with less raw materials and product wastage were ensured.
- **Remaining constantly appraised** – alerts and updates by cellular phone and email to both on-duty staff and off-duty managers
- **Integrating legacy investments** - oven color processing with a PT100 avoids human error and having to purchase a new and expensive digital autoclave with timer
- **ISO compliance** - as part of ISO 9000:2001 and ISO 13485:2008 incorporated into Concept for Pharmacy's management system, all processes have to be monitored and data stored on record. The DataNet system enables the company to monitor all these processes and extract any required data whenever necessary.



Customer's Last word:

“We’ve found the system to be very user-friendly, streamlining our control processes and preventing human error by automatically logging the data”

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