

Product News

Distillation and Concentration Systems

PHARMACEUTICAL INDUSTRY

Pharmaceutical Industry

The pharmaceutical industry produces different types of medicines and drugs.

Companies in this branch are dealing with a high standard of laws and regulations that govern the testing, patenting, marketing and safety of drugs.

Therefore, as a system supplier for this industry, it is necessary to be sensitized to these specific requirements.



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Pharmaceutical production

Twin Concentration Units as a part of a production process

Assignment

In a production process of a medical drug, extraction fluids must be separated and recovered in a user-friendly method. At the same time the active ingredient should be highly concentrated and may not exceed 40°C. Maximum plant safety, operational reliability and an integrated automated system in the overall process are required.

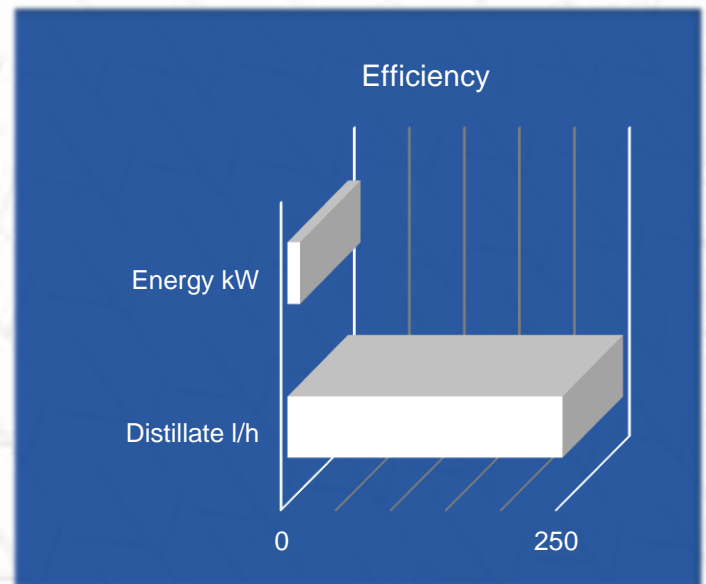
At site, only electrical energy is available.

Performance and Execution

- Low energy consumption through Special Technology
- Twin systems mounted at location

Feed capacity:	750	l/h
Energy consumption kW:	75	kW
Efficiency Distillate:	0,3	kWh/l
Operation temperature:	< 40	°C

Location: GERMANY



System example



Concentration Unit for a Blood Plasma Substitute Production

Assignment

A non-ionic starch derivative called HES (Hydroxyethyl starch) also known as Voluven, a volume expander in intravenous therapy, needs to be concentrated from 18% to over 40%.

Maximum plant safety, operational reliability and a cost-effective automated system is required.

Performance and Execution

- Highly viscous product
- CIP / SIP capable
- High-precision control
- FDA certification

Feed mass flow:	364	kg/h
Concentrate mass flow:	164	kg/h
Operation temperature:	< 90	°C

Location: GERMANY

System example



Every customer requirement is a unique task, which has to be solved with customised solutions.

Special solutions for the Pharmaceutical Industry

- High quality of recovered solvent
- Low Energy Systems (LES) provided by special techniques
- Transparency and good accessibility
- Cleanable systems
- Modular options for further procedures, handling or customer requirements
- Foam handling without additional non product media
- High solvent recovery rates

Certificates and Conformities

- CE declaration
- ATEX directive 2014/34/EU
- GMP (Good Manufacturing Production)
- Components with FDA certificate
- CIP / SIP capable
- Specialised company according to the German Federal Water Act
- Qualified for HSE Examination

Our Skills and Background

- Plants and equipment specially designed for your needs
- Economically and sensibly designed solutions
- Good cooperation with your project team, e.g. by weekly reports on project status
- Hazard assessment - HAZOP - with your qualified personnel
- High degree of system automation
- Integration into existing process control technology
- Documentation according to customer requirements
- Qualified personnel and experts in Thermal Process Technology
- Commissioning and qualified personnel training
- Experienced After Sales Service

INDUSTRIES

Pharmaceutical, Biopharma
Food, Cosmetics

Coatings, Pigments
Paint and Dye

Petrochemical
Oil processing

Polymer

Chemical

Surface treatment
and more....

EVAPORATION

Natural-/ Forced circulation
Falling-film
Multistage
Thin film
Vapour recompression
Heat pump

CRYSTALLISATION / DRYING

Evaporation crystalliser
Thin film dryer

RECTIFICATION / ABSORPTION

Packed column
Scrubber
Absorption column

LIQUID-LIQUID-EXTRACTION

Extraction column, agitated
Mixer-Settler
Multistage reaction column

Customised Solutions for High Standard Tasks



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