

Examples for toll distilled products



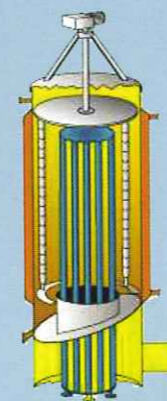
- Pharmaceutical intermediates
- Solvent separation and recovery
- Recovery of failed batches
- Concentration and purification of organic substances (e.g. fatty acids and fungicides)
- Color improvement of fine chemicals and metal organic compounds
- Separation of monomers or oligomers from polymers
- Distillation of prepolymers and oligomers
- Purification of additives

Small productions and pre-tests

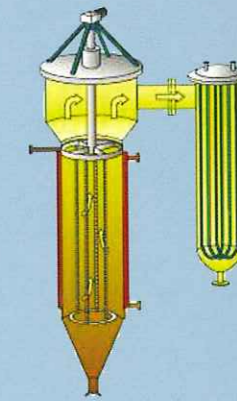
On our laboratory and pilot plants we perform tests as well as production of smaller campaigns. After examination of the results we can guarantee the product as well as the yield of all further distillation campaigns.



TOLL DISTILLATION



with Short Path and
Thin Film Evaporators



VTA delivers components and turnkey plants for falling film, thin film and short path distillation. For rounding off our program we offer toll distillation service. Therefore we have following plant sizes available:

- 2 small plants for campaign sizes up to 50 kg
- 1 medium plant for campaign sizes up to 25 to.
- 1 industrial plant for campaign sizes up to 500 to.

Thin film and short path distillation is used for cleaning, devolatilisation and concentration of heat sensitive, viscous or high boiling valuable products.

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VTA, a company of the STREICHER GROUP

VTA, located in Deggendorf, Germany is a company which belongs 100 % to the STREICHER-GROUP, a company with 1.700 employees. In addition to the design and manufacture of thin film and short path distillation units, VTA operates in Deggendorf laboratory and pilot plants as well as multi purpose toll distillation plants.

Description of the toll distillation plant

1. Technical

Many years experience in plant design of thin film and short path distillation units made the installation of an optimised multi purpose plant possible.

Designed as a double stage plant the stages consist of:

- Falling film evaporator.
- Thin film evaporator.
- Short path evaporator with cold trap.
- Fractionation column with 10 theoretical trays operated with the thin film evaporator as reboiler.
- A flash distillation stage.
- 5 different wiping systems for the thin film and short path evaporator.

2. Execution of the plant

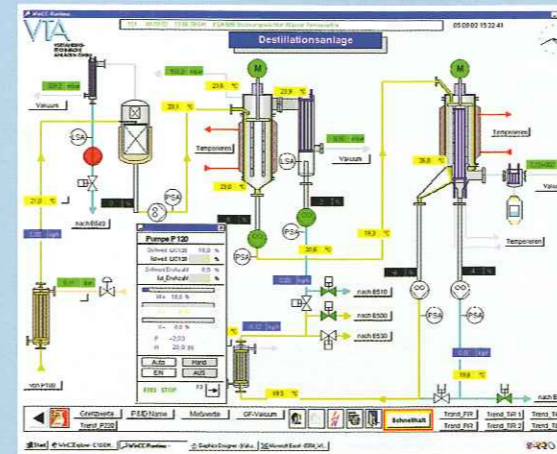
Our toll distillation plant fulfills, as a multi purpose unit, the following criteria:

- Explosion proof design
- All product wetted pipelines, equipment and valves are heatable.
- Small hold up of product in the plant.
- Flexible combination of individual stages.

Technical data of the toll distillation plant:

Throughput	: Up to 400 kg/h
Achievable pressure in the thin film evaporator/falling film evaporator	: < 1 mbar
Achievable pressure in the short path evaporator	: 0,001 mbar
Heating temperature	: max. 350 °C
Product melting point	: max. 150 °C
Viscosity	: max. 40 Pa s (*)
Material of fabrication	: 1.4404 (316 L)

(*) at operation temperature



Analysis and quality assurance

In our analytical department the quality demands of our customers are monitored with wet chemistry and instrumental analytical methods. All incoming and outgoing products are analyzed.

Furthermore all process relevant parameters are measured, recorded and stored on our DCS, in order to reproduce every distillation campaign.

The product quality is documented by certificates of analysis. Furthermore produced samples will be retained as reference samples.

Confidentiality

VTA and the companies of the STREICHER-GROUP have no interest in production or marketing of chemical products. Information received from our customers are treated strictly confidentially. On request cleaning or production information, which have been developed by VTA independently, may also be handled confidentially.

Delivery

Delivery of product in 1 - 26 m³ Isocontainer heatable or unheatable by truck or train for the industrial toll distillation plant, in 1 m³ Isocontainer heatable or non heatable for the medium toll distillation plant.

Big Bag filling

Higher melting products can be flaked directly after the distillation. The product can be filled into big bags with a semi automatic filling line.

