

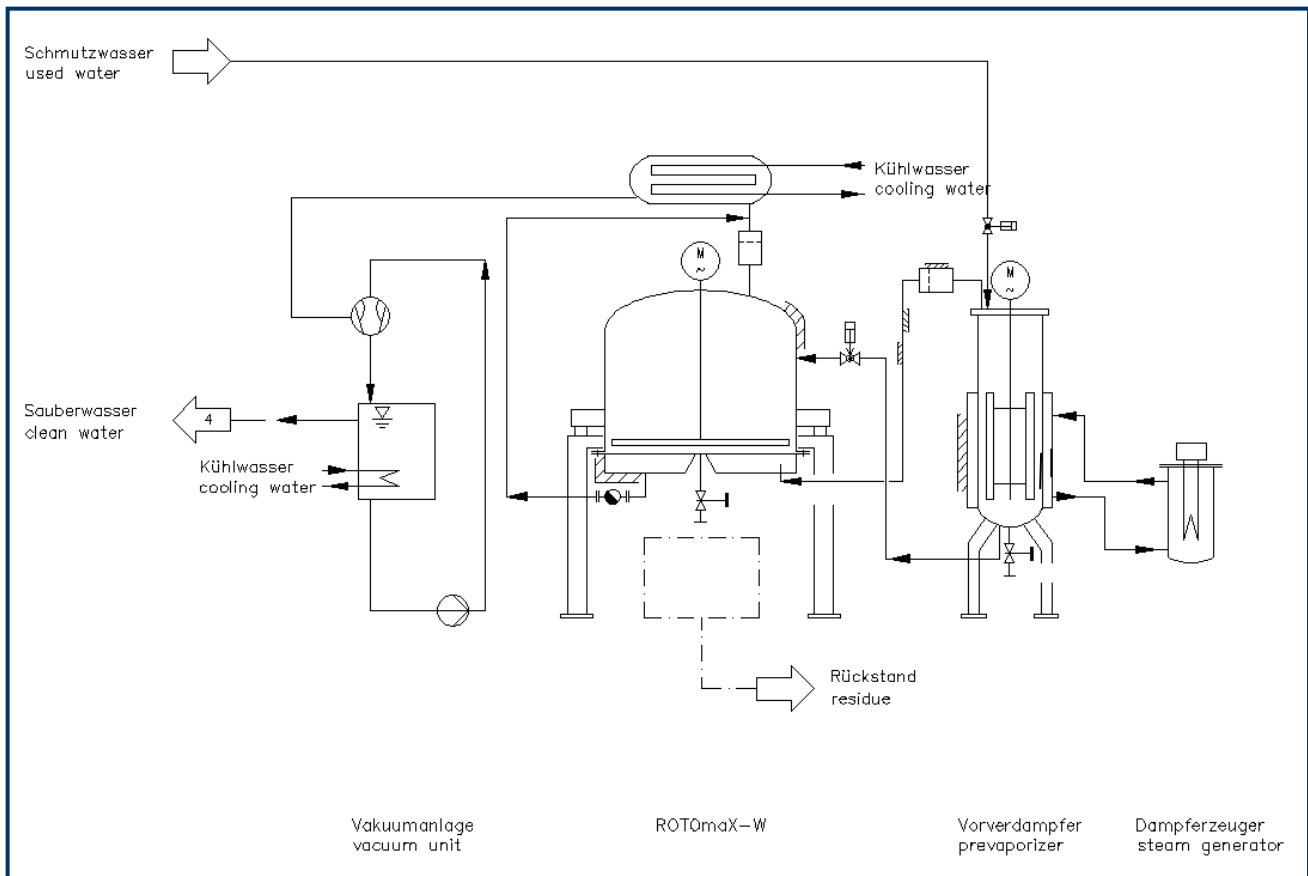
Distillation Unit Type ROTOMA^X - W with Prevaporizer

ROTOMA^X - W

Superior heating- and agitating- / scraping-technology guarantee the maximum in saturation contaminated water based media → waste quantity reduced to minimum.

Prevaporizer

Heating energy used twice → double output, half energy consumption per litre of evaporated water.



Process description

Approximately half of the contaminated water is evaporated in the prevaporizer under ambient pressure. The steam of 100°C containing the energy installed at the prevaporizer is supplied to the heating floor of the distillation unit.

The pre-saturated water left in the prevaporizer is extracted into distillation vessel by vacuum. Vacuum inside distillation vessel reduces the boiling range of water to < 60°C. The temperature gap of > 40° between the pre-saturated water inside distillation vessel and steam of 100°C supplied from prevaporizer ends in condensation of the steam in the heating floor of the distillation unit while heating energy is transferred to the product inside distillation vessel. The saturation is finalized inside distillation vessel and 95% of the original water quantity included in the stream to be treated is evaporated and ends in the clean water stream

The condensate left in the heating floor guided by vacuum enters the condenser and joins the steam rising up from distillation vessel. The total of distillate cools down the condenser a little while passing through to vacuum unit and draining into a clean water reservoir.

The loss of water in the prevaporizer (half-half by evaporation and by extraction into distillation vessel) is compensated by continuous refill.