

EVAPORATOR PLANT



Rendertech evaporators, when used in rendering and fishmeal industries, maximise the return from raw materials, increase plant yields and eliminate a high strength wastewater stream. The plants are simple to operate and maintain.

DESCRIPTION

The **Rendertech** waste heat evaporator is a falling film type operating under a vacuum. Process liquid (stickwater) is fed to the sump of the heating body of the evaporator; the feed rate is controlled automatically to maintain a level in the evaporator.

The liquor is delivered to the top of the tubes by the **recirculation pump** and flows down the inside of the tubes as a thin film.

Vapour from the drier is ducted to the outside of the tubes and heat is transferred from the vapour through the tube wall to the liquor. This causes the drier vapour to condense and water to be evaporated from the liquor.

The vapour produced by the evaporation is separated by an integral vapour separator and ducted to the **vacuum condenser** where it is condensed. The concentrated liquor is continuously discharged by **the concentrate discharge pump**.

WASTE HEAT UTILISATION

Primary energy source for the waste heat evaporator is the vapour rich mixture from a **Contact Drier (CD)** or equivalent.

FALLING FILM PRINCIPAL

Process liquor is pumped to the top of the evaporator tubes and distributed to the individual tubes. The liquor forms a thin film as it flows down the inside of the tubes. Falling film operation gives short retention time and quick start-up and shutdown times.

MULTIPLE EFFECTS

Evaporators can be supplied with one, two or three effects. The optimum selection will depend on the waste heat available and liquor to be concentrated. We can also provide evaporators using the **'forced flash'** principle where higher concentrations are required.

AUTOMATIC CONTROL

Automatic control and monitoring allow all operating adjustments at the control panel and minimise labour requirements.

ANCILLARY EQUIPMENT

Rendertech supply waste heat condensers and exchangers for hot water recovery.

