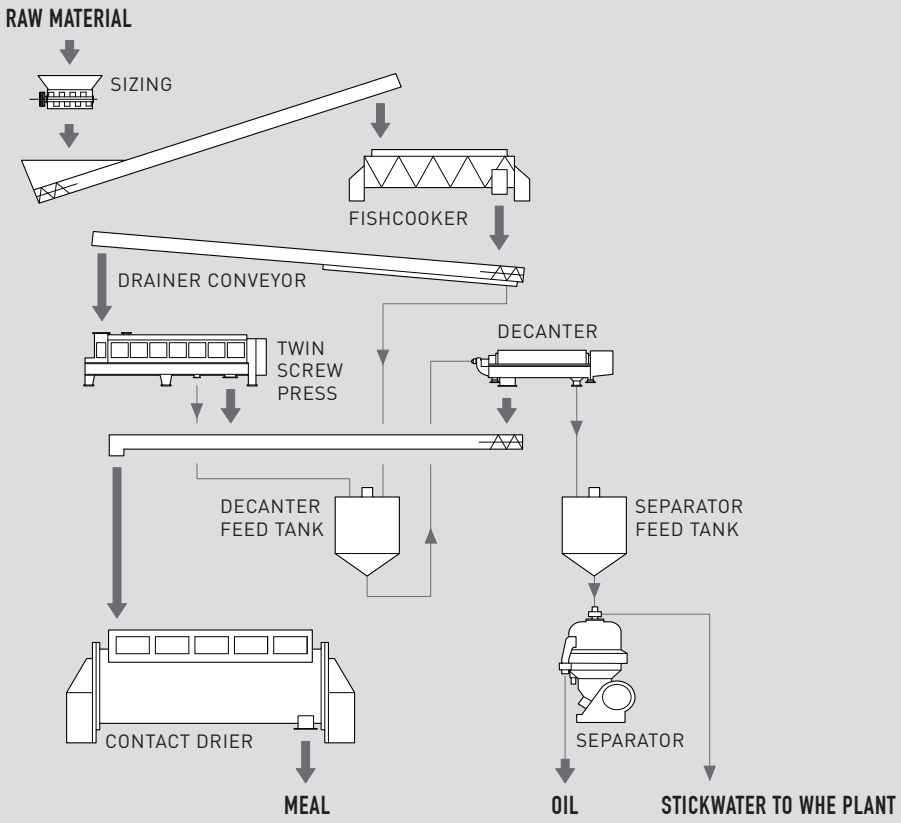
FISHMEAL PLANTS

RENDERTECH



The Rendertech Fishmeal Process (FMP) is a low-temperature wet rendering process suitable for producing fishmeal at raw material capacities of up to 15 tonne/hr and above. It produces better-quality end products with high digestibility, has low energy consumption and is simple to operate. When fitted with a Rendertech Waste Heat Evaporator for stickwater recovery, the process is virtually 'zero waste', resulting in high product yield and low wastewater loads.

FEATURES AND BENEFITS

- Low-temperature cooking with a gentle cooking action to protect the amino acids and produce high-value fishmeal with high digestibility.
- Continuous automated process.
- Low maintenance costs.
- Low odour footprint with a fully enclosed system for effective odour capture and treatment.

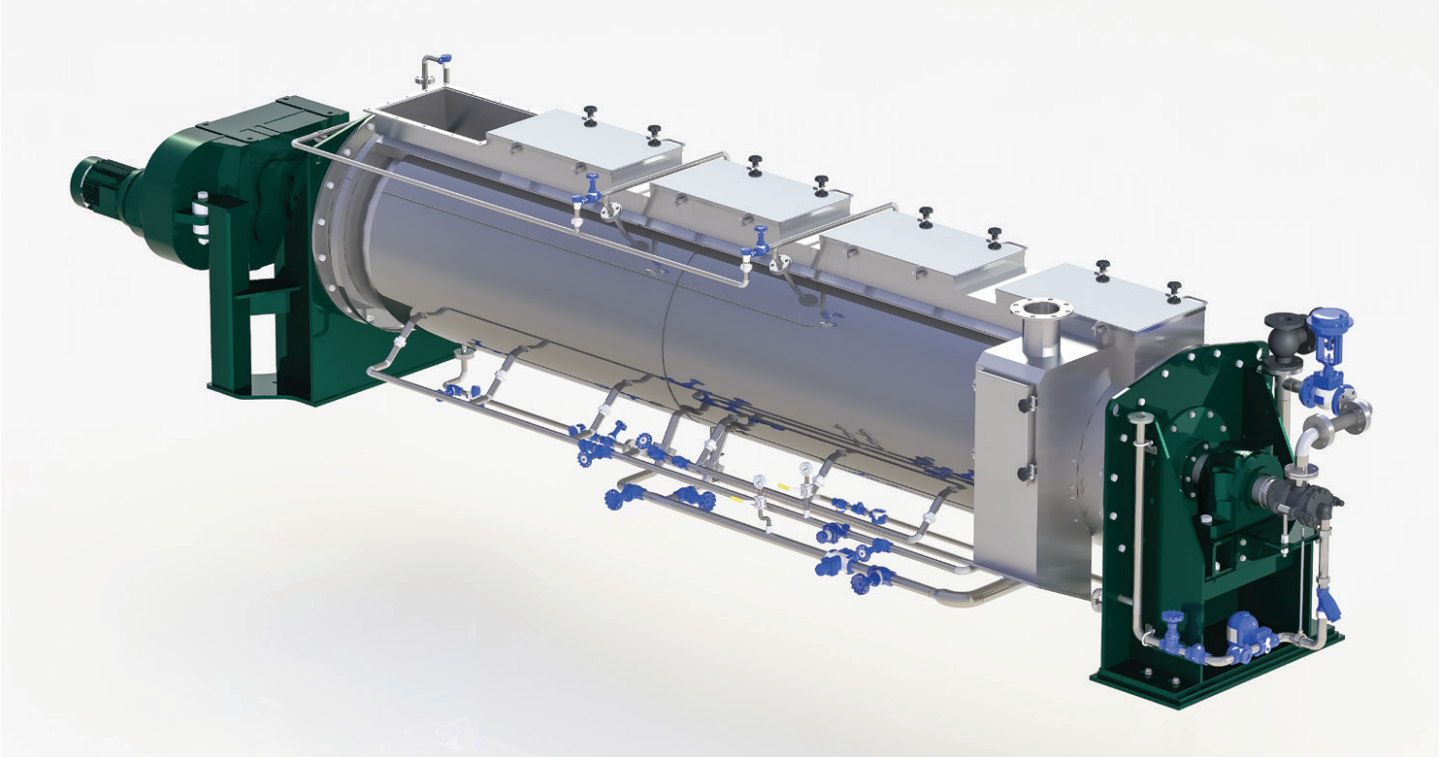
PROCESS DESCRIPTON

Cooking

The Rendertech Fish Cooker is a continuous indirect heat exchanger. It consists of a slowly rotating steam-heated screw and steam-heated external jacket. The raw material is fed continuously to the Fish Cooker, where it is heated gently to 90–100oC to coagulate the proteins and break down the fat cells. The temperature is controlled by automatic regulation of the steam supply pressure.

Pressing

After cooking, the raw material is continuously discharged from the Fish Cooker and conveyed by the Drainer Conveyor to the Twin Screw Press. Free liquids percolate out in the Drainer Conveyor, and in the



Press most of the remaining fat and water is removed, leaving a cake with a moisture content of 45–55%.

The Press and Drainer liquid, consisting of oil, water and a small percentage of the fine solids, is pumped to the Decanter Feed Tank and the Press cake is continuously conveyed to the Drier.

Oil refining

The Press liquid is reheated in the Decanter Feed Tank before being pumped to the Decanter for removal of fine solids. The fines are discharged into the Drier feed conveyor and the liquids flow to the Separator Feed Tank. The liquid is reheated before final polishing in a disc Separator. The Separator sludge is recycled to the Fish Cooker and the polished oil is pumped to storage.

Stickwater concentration

The stickwater, which contains dissolved protein and oil, is concentrated in the Waste Heat Evaporator using vapour from the Contact Drier. The concentrate is pumped to the Contact Drier.

Drying

The de-oiled solids from the press and decanter fines are dried in the Contact Drier. The meal leaving the drier is ready for milling and screening.

Ancillary equipment

Rendertech can provide ancillary equipment to suit the specific requirements of your site, including raw material preparation and storage, conveying, meal milling and storage, oil storage, steam generation, heat recovery, odour control, and wastewater treatment.

OPTIONS

- Standard designs from 3 to 15 tonne/hr
- Flexible layouts to suit available space
- Complete turnkey installation

YOUR PROCESS PARTNER

We are specialists in process and storage solutions, providing the products and technical expertise to get the best from your plant. For more information call for a no obligation chat about your processing needs.

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