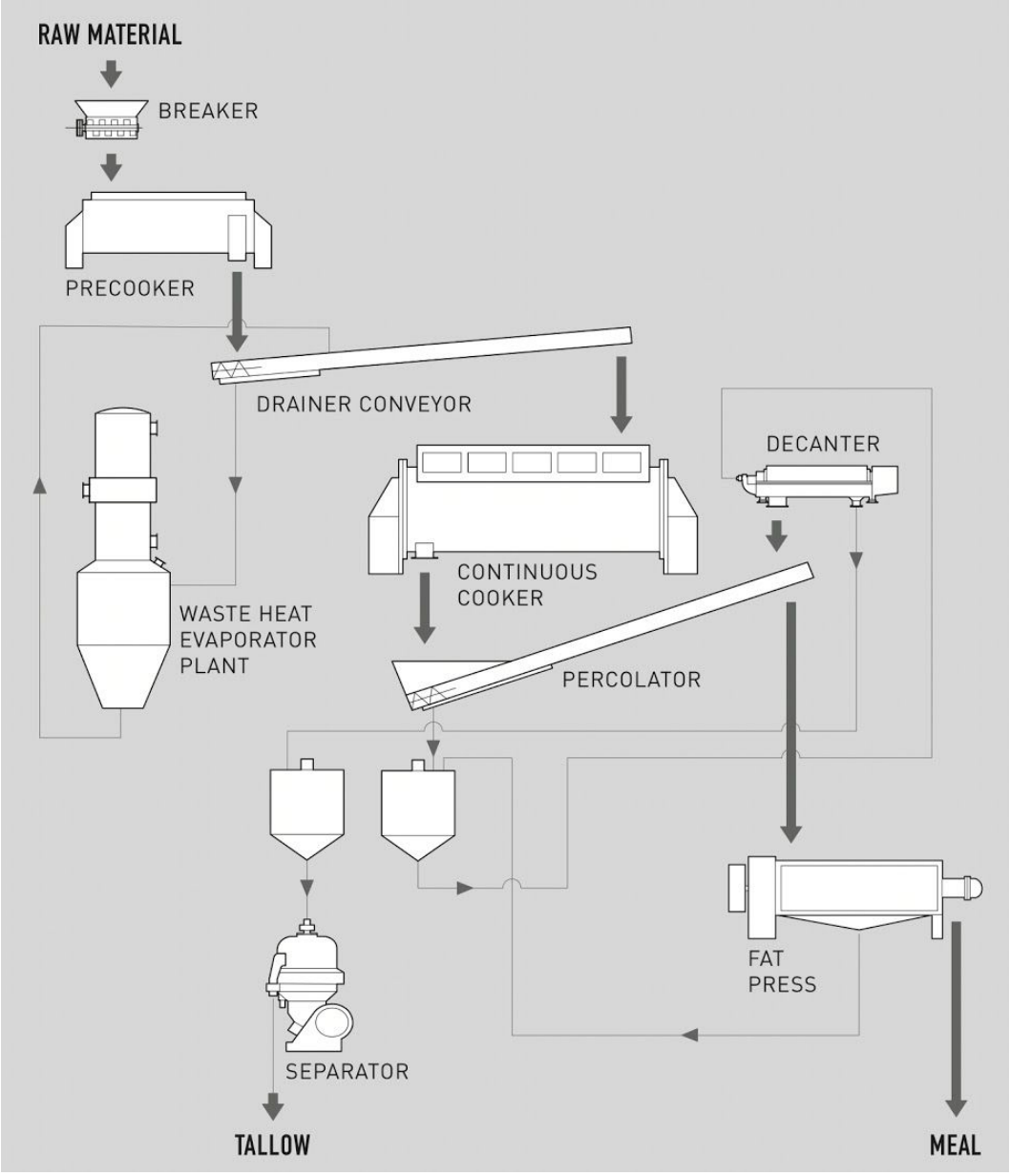
The goal of functional analysis is to decompose the system into actions or activities, that are termed functions. Functions characterise **what** the system does rather than **how** the system achieves this. That is:

A function is an implementation free description of an action or activity that must occur as part of the operation of the system.



Breaker

Break down raw materials to grain size smaller than xxx

Precooker

Heat up the raw material to 90-100 °C rapidly to break down the fat cells and coagulate the proteins (RenderTech, 2019).
Control the steam supply pressure automatically to keep the temperature within the desired range.

Drainer Conveyor

Separate the free liquid from the preheated raw material
Pump the free liquid to the waste heat evaporator
Transfer the materials from one end to the other end

Waste Heat Evaporator

Concentrate the process liquor using waste energy (vapour-rich mixture from a contact drier)
(optional) Condense the vapour produced from the evaporation process

Continuous Cooker

Heat up the product indirectly with no harsh agitation to ensure efficient separation of the fat from the cake in the following processes
Control the odour

Percolator

Separate the liquid fat from the protein solids

Decanter

Separates any solids from the drained liquid

Fat Press

Further separate fat from the protein solid by pressing

Separator

Remove any remaining protein and water