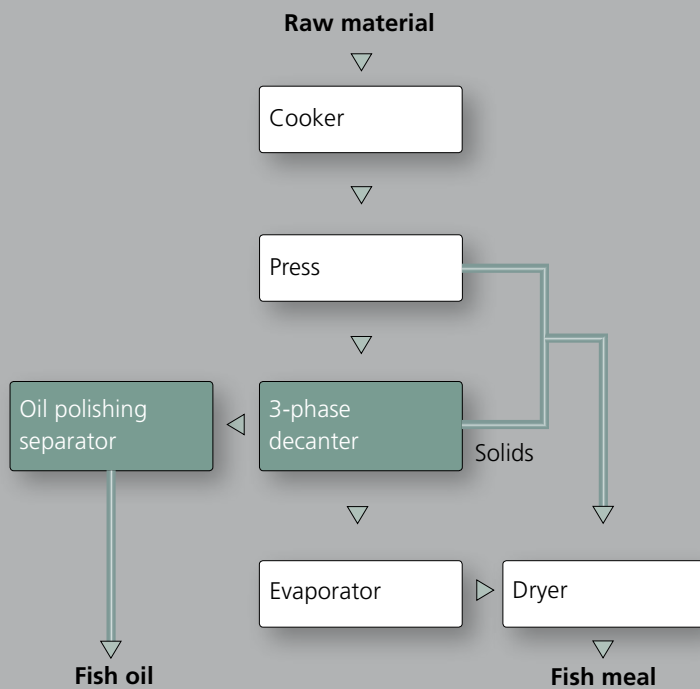


Liquids to Value



Fish Meal and Fish Oil Recovery – The 3-Phase Process

In the 3-phase process, the raw material is heated in a cooker to coagulate the protein whilst the fat-containing cells are gently disintegrated so that the oil is released. The cooked raw material is fed to a screw press before a 3-phase decanter separates the press water cleanly into solids, water and oil. According to customer preferences

GEA Westfalia Separator offers several discharge systems for 3-phase decanters. The two liquid phases can either be discharged freely or via tubes. In the second case the paring tube and with it the separation zone in the decanter can be externally adjusted. The separated solids are directly conveyed to the dryer along with the press cake from the press.

The stickwater or heavy liquid phase from the decanter is evaporated before it is dried and processed into fish meal. As the oil phase from the decanter may still contain small residues of free water and solids, a polishing separator is recommended downstream to remove even those tiny impurities. The result is purest fish oil.





3-phase decanters for press water separation

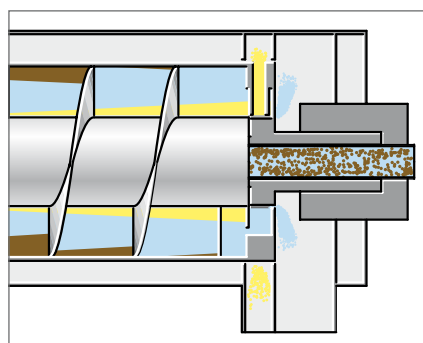
- Complete decanter range from 2 – 20 m³/h
- Customized solutions
- Robust design, particularly designed for hot operation processes
- Sophisticated wear protection for long operation lives
- Special bowl concepts for maximum throughput and clarifying efficiency
- Westfalia Separator® varipond® for always optimal separation results even with different feed conditions
- Made in Germany – Quality assurance system, CE conformity, DIN EN ISO 9000:2000 and 14001



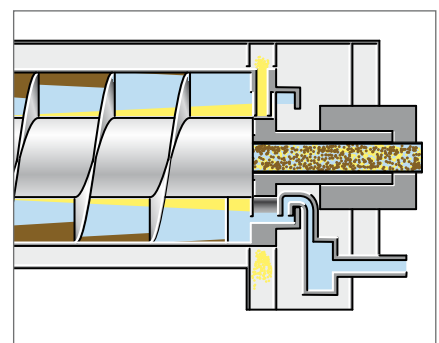
Separators for oil polishing

- Complete polisher range from 0.5 – 30 m³/h
- Customized solutions
- Optimized disc stack for top fish oil quality
- Minimum number of parts and seals for minimum wear
- Very service-friendly flat belt drives
- Assembly-friendly design for fast service
- Low vibration machine installation for an easy integration into the process
- Made in Germany – Quality assurance system, CE conformity, DIN EN ISO 9000:2000 and 14001

Optional oil discharge for 3-phase decanter



Gravity discharge of both phases



Adjustable separation zone diameter by Paring Tube®



GEA Mechanical Equipment

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