

Cat Fines Separation

Systems for cat fines removal from residual oils in refineries



Improve Oil Quality

Refining cat fines

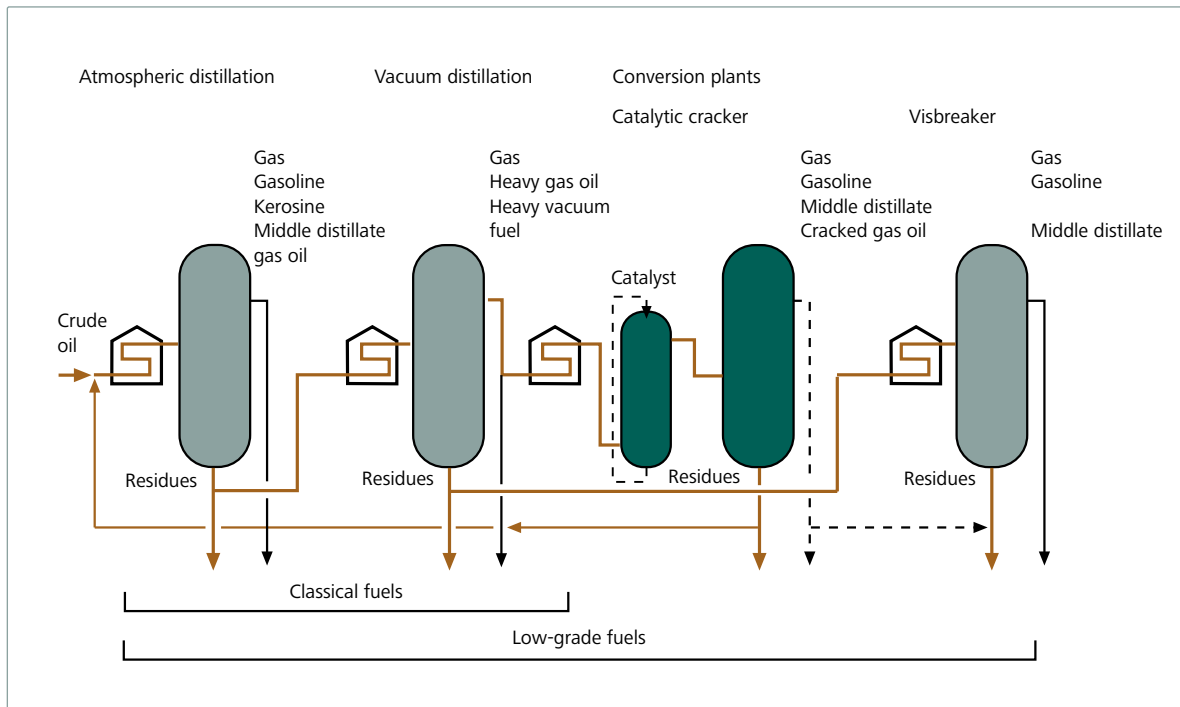
During modern refining processes the residual oils from atmospheric and vacuum distillation are sent to a cracking tower. Here the long hydro-carbons are cracked with help of pulverised catalysts such as aluminium silicates which are mixed with the oil. This cracking process takes place at a temperature of approx.

500 °C (930 °F). A lot of these cat fines remain in the residues of the cracking tower and the distillates coming from the cracking process.

These cat fines can be separated from the oils to recover them and / or to improve the oil quality.

Centrifuge plant for cat fines separation





Typical refinery process

Effective Refining Principle

Combining disk stack centrifuges and bowl separator

- Disk stack centrifuges for cat fines removal (operated as clarifier)
- Due to high product temperature oil instead of water as operating liquid recommended
- Downstream cat fines concentration with decanters possible



Separation Results

Customer Benefits

Catalyst fines removal from residual oils

Optimum oil quality as refinery product

Catalyst particles are recovered

Higher sales prices for refinery product obtainable

These cat fines can be re-injected into catalyst tower and re-used

These top results can be achieved only with fuel oil treatment systems from Westfalia Separator.

Check Investment for an Economical Solution

Receive an individual estimate

Please fill in the following questionnaire and send it back to fax no.:
+49 25 22/77-17 78
or e-mail:
mineraloilsystems@gea-westfalia.de

Company: _____
Contact: _____
Phone: _____ Fax: _____
E-mail: _____

Oil specification

Viscosity: _____ c St @ _____ °C
Density: _____ g/ml @ _____ °C
Solid Content (Cat Fines): _____ %

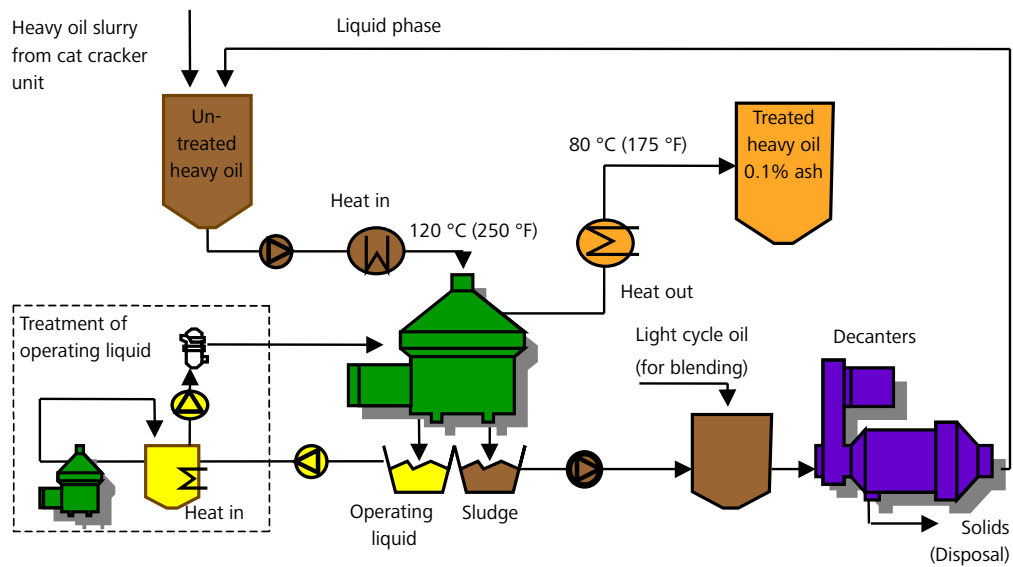
Site conditions

Temperature min.: _____ °C
Temperature max.: _____ °C
Humidity: _____ %
Hazardous area classification: _____
Voltage / frequency: _____ V _____ Hz
Heating medium available on site: (electricity, thermal oil, steam) _____

Product infeed conditions

Temperature min.: _____ °C
Temperature max.: _____ °C
Required capacity: _____ l/h

Special remarks



Complete cat fines removal plant

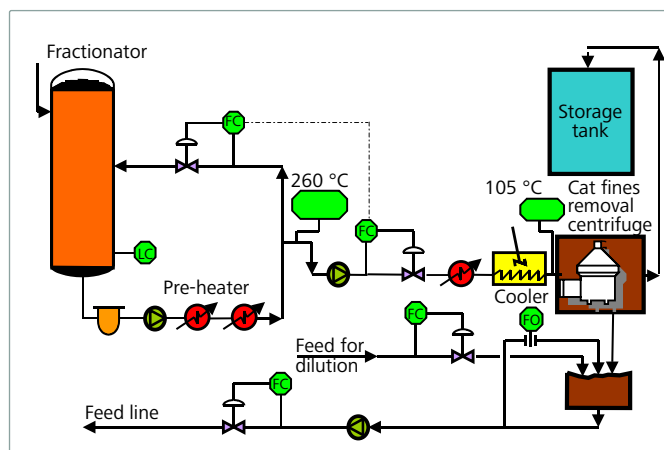
Payback in No Time

Only fuel oil treatment systems from Westfalia Separator boost your profit

Scope of supply

- 5 x OSC 50 self-cleaning disc stack centrifuges operated as clarifier for cat fines removal
- 1 x OTB 9 solid bowl separator for the treatment of the operating liquid
- Complete plant with auxiliary equipment
Whole plant in Ex-design

**Payback within a short time –
The solution is the cat fines removal system from Westfalia Separator.**



Flow chart of cat fines in the cracking process

- Beverage Technology
- Dairy Technology
- Oils and Fats Processing
- Chemicals, Pharmaceuticals and Biotechnology
- Oils and Fats Recovery
- Starch Technology and Industrial Biotechnology
- Environmental Technology
- Marine
- Energy
- Oilfield
- Industry
- Engineering
- Second Hand Machinery
- Service

The information contained in this brochure merely serves as a non-binding description of our products and is without guarantee.

Binding information, in particular relating to capacity data and suitability for specific applications, can only be provided within the framework of concrete inquiries.

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Take the Best – Separate the Rest

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