

# Product News

Systems for Oil processing and recovery

PETROCHEMICAL INDUSTRY





# Petrochemical production

## Benzine refining

### Assignment

Removal of aromatic hydrocarbons from a hexane solution

### Solution

Recovery by Liquid-Liquid-Extraction and a 3-step mixer settler and recovery of the extraction medium by Rectification.

### Performance and Execution

Feed	3,000	kg/h
Operation temperature	< 120	°C

Location:

ROMANIA





# Used oil recovery

## Liquid-Liquid Extraction column for Oil recovery

### Assignment

Used oil cleaning: Removal of polycyclic aromatic hydrocarbons' PAC's and other pollutions

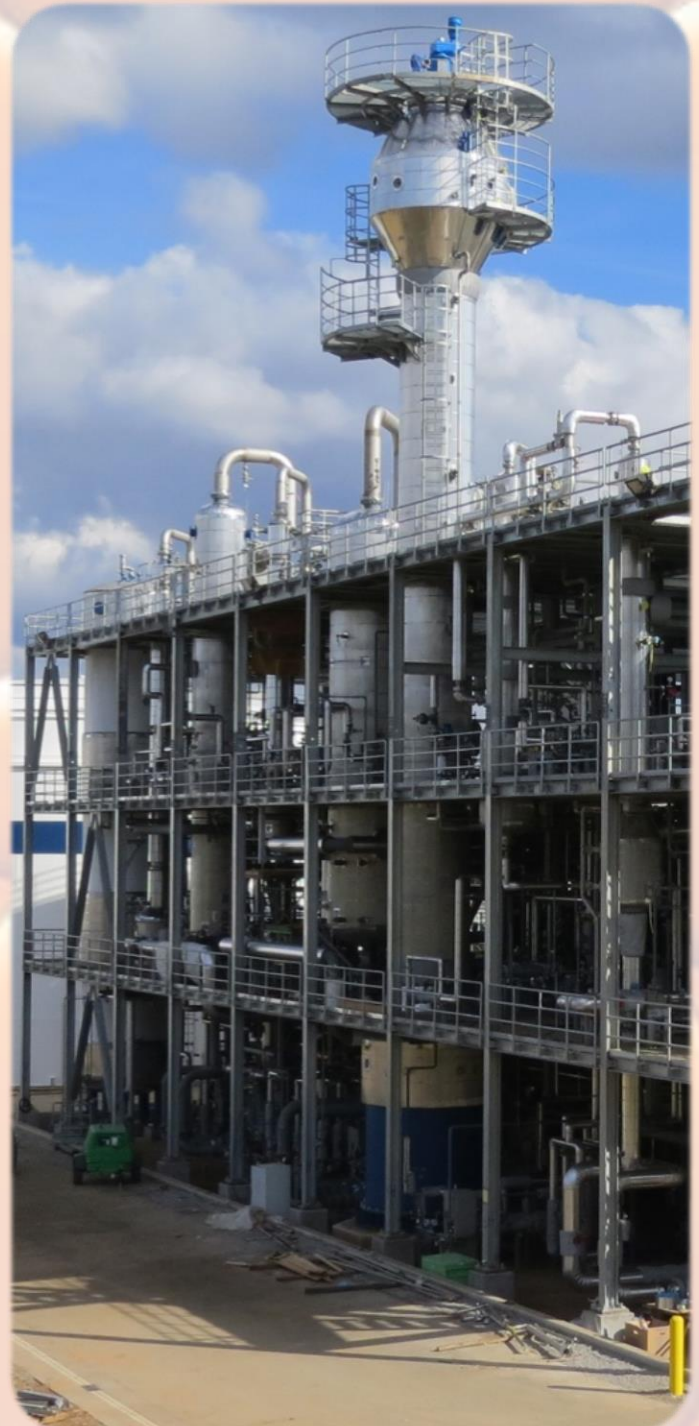
### Solution

Recovery by using liquid-liquid extraction technology

### Performance and Execution

Feed	11,000	kg/h
Operation temperature	< 100	°C

Location: USA  
KINGDOM of SAUDI ARABIA



# Oil processing

## Oil Dehydration and the removal of Gas Oil

### Assignment

Water and Gasoil separation from used oil. The residue can be reused as base oil after additional process steps.

### Solution

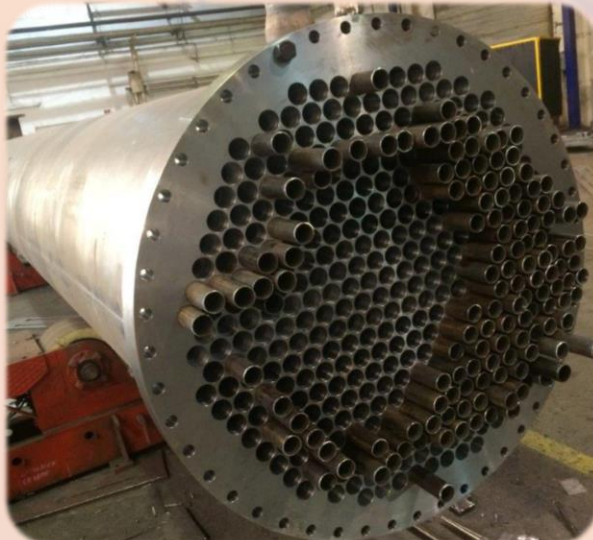
Oil Dehydration and Gas Oil removal by evaporation technology

### Performance and Execution

Distillate capacity	1,700	kg/h
Energy consumption kW	1,100	kW
Operation temperature	< 300	°C

Location:

DENMARK





# Dehydration of used oil from Automotive production process

## Assignment

Used oil from an Automotive production process that has about 60% oil with graphite and metal tinder and up to 40% water content, needs to be filtrated and dehydrated. The recovered oil should be reused.

## Solution

Recovery of used Oil by evaporation technology



## Performance and Execution

Inlet flow	1,500 l
Outlet water flow	600 l
Recovery of Oil	900 l
Viscosity:	< 10,000 cP
Operation temperature:	< 100 °C
Water content in Oil	< 0.05 %

Location:

GERMANY





# Oil processing

## Oil Neutralisation

### Assignment

Oil distillates from a coal tar plant becomes neutralized with an NaOH Solution

### Solution

Neutralisation by Liquid-Liquid extraction technology

### Performance and Execution

Feed 14,000 kg/h

Location: CHINA



Every customer requirement is a unique task, which has to be solved with customised solutions.

### Special solutions for the Oil and Petrochemical Industry

- High quality of recovered solvent and oil solutions
- Low Energy Systems (LES) provided by special techniques
- Transparency and good accessibility
- Cleanable systems
- Modular options for further procedures, handling or customer requirements
- Foam handling without additional non product media

### Certificates and Conformities

- CE declaration
- ATEX directive 2014/34/EU
- Specialized company according to the German Federal Water Act
- Qualified for HSE Examination

### Our Skills and Background

- Customer requirement orientated
  - Customised, no mass product
  - Adapted stream rates for a clean production flow
  - Quality of the processed solution
  - Flexible in solving customers task
  - Adapted plant design towards customers' needs
- Experts in Thermal Process Technology
- High demand for quality of design and on economically and sensibly calculated solutions
- High standard HSE risk assessment - HAZOP -
- Transparency in project management, by frequent reports to the customer
- High demand on documentation
- Automation with special knowhow of thermal process'
- Highly qualified personnel

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## INDUSTRIES

Pharmaceutical, Biopharma,  
Food, Cosmetics

Coatings, Pigments,  
Paint and Dye

Petrochemical  
Oil processing

Polymer

Chemical

Surface treatment

and more....

## EVAPORATION

Natural-/ Forced circulation  
Falling-film  
Multistage  
Thin film  
Vapour recompression  
Heat pump

## CRYSTALLISATION / DRYING

Evaporation crystalliser  
Thin film dryer

## RECTIFICATION / ABSORPTION

Packed column  
Scrubber  
Absorption column

## LIQUID-LIQUID-EXTRACTION

Extraction column, agitated  
Mixer-Settler  
Multistage reaction column

# Customised Solutions

  
**schulz+partner**  
verfahrenstechnik GmbH

**SCHULZ+PARTNER GMBH**

**CARL-ZEISS-STR. 11**

**D-79331 TENINGEN**

**Phone + 49 (0)7641 95 95 700**

**Fax + 49 (0)7641 95 95 701**

**INFO@SCHULZPARTNER.COM**

**WWW.SCHULZPARTNER.COM**