

SOLVENT DEASPHALTING (SDA)

At present Solvent Deasphalting is one of the most interesting 'Bottom-to-Barrel' technologies to process heavy residues in modern refineries.

Due to the major price differences more and more heavy, high-sulphur crude oils are used in refinery processes rather than light, low-sulphur crudes. This requires more efficient residue processing technologies.

Since the SDA technology has the **lowest investment cost** compared to other residue technologies (e.g. hydrocracker, coking plant, visbreaker, gasification, ...), the long-known 'Solvent Deasphalting' process used in lubricating oil refineries is increasingly applied by fuel oil refineries.

At own pilot plants and based on long-years' research and development various processes can be simulated for an optimum plant design.



SDA PLANTS... ALL FROM A SINGLE SOURCE...



Propane deasphalting plant, H&R Ölwerke Schindler GmbH, Hamburg, Germany, 2011



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SDA / PDA PILOT PLANTS

EDL operates own pilot plants with autoclaves for 0.5 I and 5 I in a pressure range of 30 to 300 bar in cooperation with the Leipzig University.

The tests show the following results:

- Determination of the equilibria data at constant pressure and temperature
- Optimization and determination of process parameters
- Optimization of the solvent ratio related to the feedstock
- Analytical evaluation of the DAO and pitch product quality
- Definition of DAO and pitch yields as well as the solvent percentage
- Optimization of pitch reflux in the extractor



Determination of the extraction equilibria in the Leipzig laboratory

PROCESS SIMULATION AND DESIGN

Pörner / EDL offer an extensive program for evaluating test and analysis data both for thermodynamic and hydraulic design of the extraction column used in the solvent deasphalting process, as well as for evaluating DAO and pitch to be further processed in downstream units.



TYPICAL PLANT LAYOUT

Main components of a SDA unit are:

- Extractor
- DAO train
- Pitch train
- Solvent recovery





We look forward to presenting our capabilities to you in a personal meeting.

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