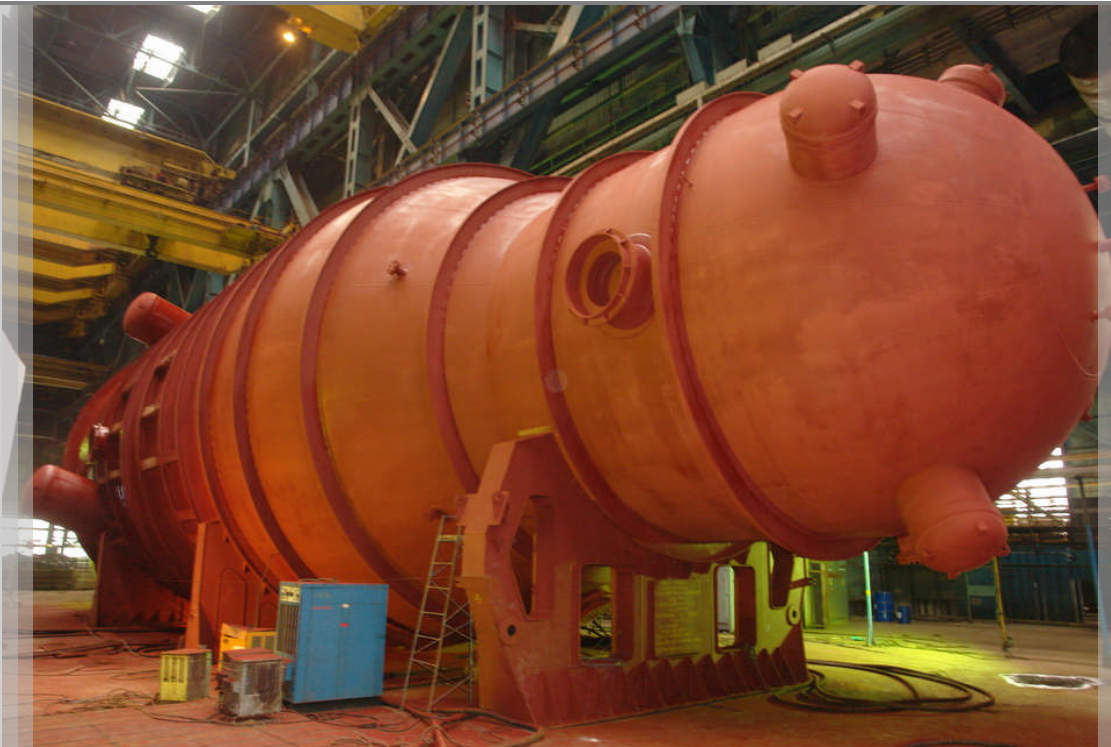




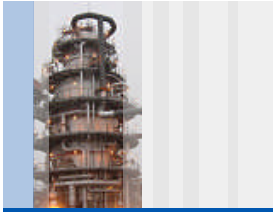
**LOHRMANN**  
GROUP

ProOil-288



## Brand New VACUUM DISTILLATION COLUMN for Sale 603 t/hr Atm.Res. & 15 t/hr Hv. Visbr. Diesel

- Presented by: Lohrmann International Germany



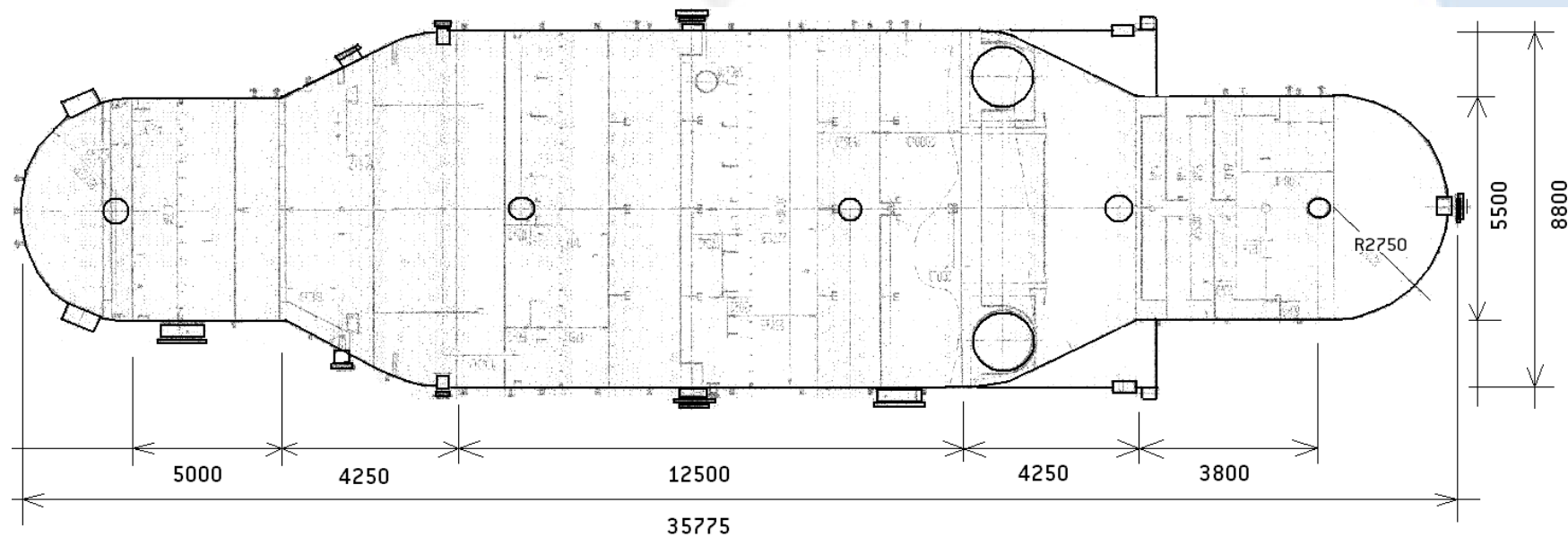
## 1. INTRODUCTION

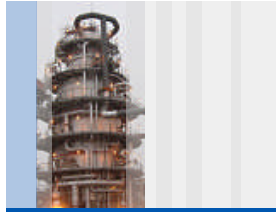
For sale is a new Vacuum Distillation Column, which was produced for a crude oil refinery, as a duplicate column of an already existing unit. However, the refinery operators have decided to keep the existing unit in operation and sell the brand new one.

The VD Column was designed for processing of atmospheric residue.

## 2. DESIGN BASIS

In mm





## 2.1. OPERATING PERFORMANCE REQUIREMENT

Capacity of vacuum column has been specified as follows:

- 603 t/hr (639 m<sup>3</sup>/hr at 15 °C) of Atmospheric Residue – „mazut“
- 15 t/hr (16.2 m<sup>3</sup>/hr at 15 °C) of Heavy Visbreaker Diesel

Service factor of unit is 8000 operating hours in the year.

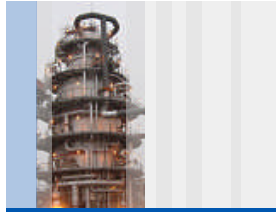
Operating range will be from 50 – 100% of design capacity.

It is requested to reduce content of gas and oil (fraction up to 580°C) in the vacuum residue („gudron“) and minimize the coking of wash bed.

Two operating mode has to be evaluated:

CCR Vacuum gas oil

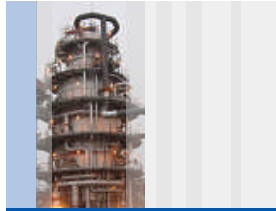
- |          |              |
|----------|--------------|
| - Case 1 | max. 0,4%wt. |
| - Case 2 | max. 0,8%wt. |



## 2.2 FEEDSTOCK SPECIFICATION

The specification of feedstock – Reduced Crude („mazut“) and Vizbraker Heavy Diesel Fuel supplied were used for design.

	Reduced Crude	VB Heavy Diesel
Density at 15°C	0,955	0,927
Distillation Curve (ASTM D1160)		
IBP	323°C	229°C
5%	371°C	-
10%	393°C	318°C
20%	425°C	-
30%	453°C	365°C
40%	482°C	-
50%	516°C	398°C
60%	553°C	-



70%	-	436°C
80%	-	-
90%	-	492°C
95%	-	-
FBP	588°C / 69,7%	530°C / 96,3%

## 2.3 PRODUCTS SPECIFICATION

The following products are required:

Vacuum Diesel

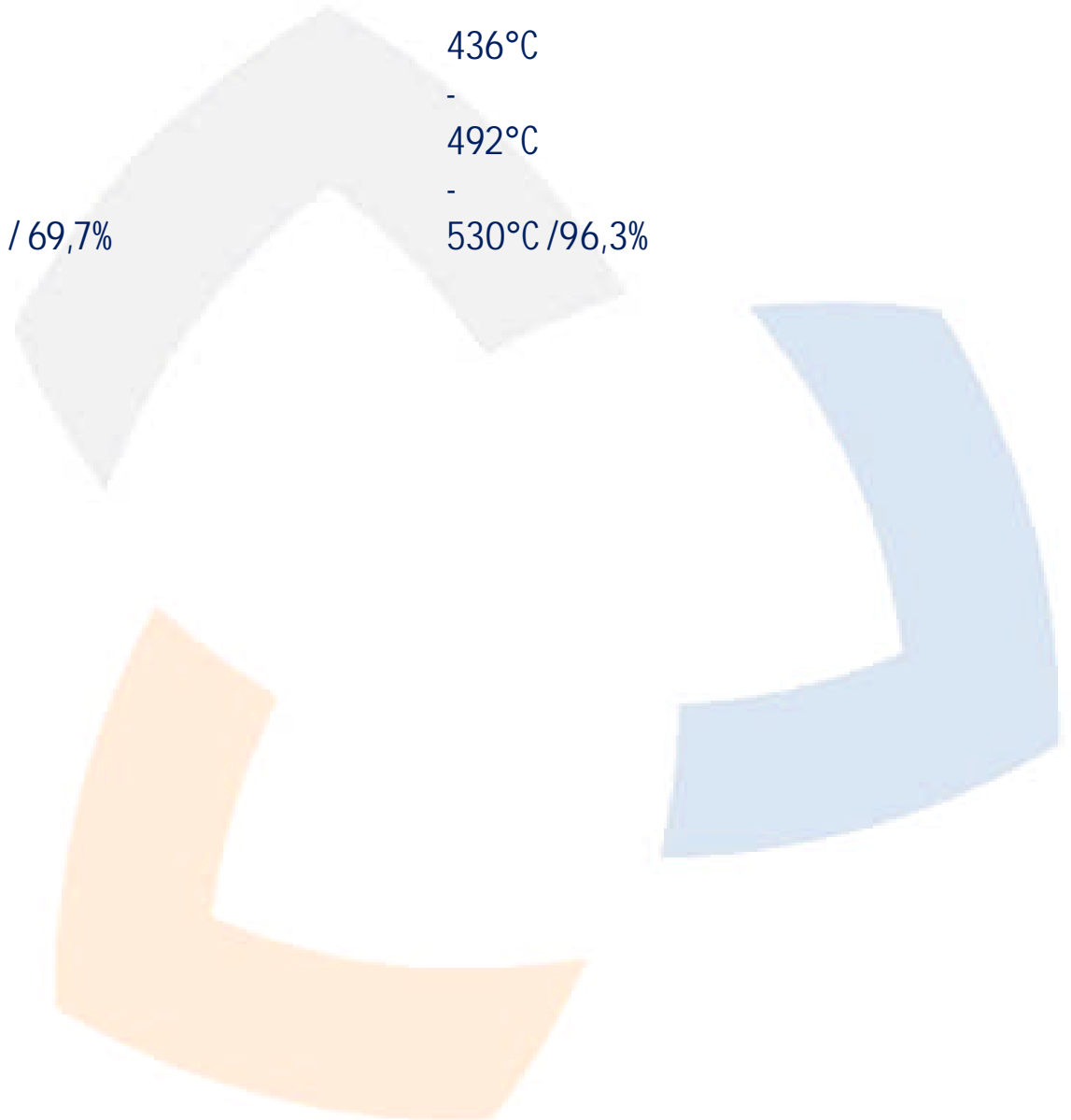
95% vol.                      max. 365°C

Vacuum gas oil

Conradson Carbon

Case 1                      max. 0,4%wt.

Case 2                      max. 0,8%wt.



## 2.4 OTHER TECHNOLOGIC SPECIFICATION

Operating pressure at the top of tower is 30 mmHg and 40 mmHg in the flash zone.

Bottom pumparound return temperature after heat exchange network max. 215°C.

Feed minimal temperature to fired heater 275°C.

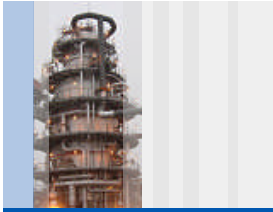
Feed minimal pressure to fired heater 210 kPa (abs)

Steam to fired heater coil pressure 1300 kPa(abs)



(Picture: Similar Unit – not for sale.)





Thank you!



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