



CLEAN OIL
BRIGHT IDEAS

Application Study
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Quench Oil Oil from Washing Water, Tunnel Furnace, Washing Bath

CJC™ Application Study

CUSTOMER

Nedschroef Altena GmbH
Westiger Straße 62, 58762 Altena, Germany

THE SYSTEM

Tunnel furnace with downstream washing bath.
Quench oil: mineral based quench oil
4 quenching baths, volume 5,200 - 7,000 L
Volume of the 4 washing baths: 1,000 L each

THE PROBLEM

Especially when quenching small parts in high quantities, high volume of oil is carried into the washing oil during the cleaning process.

This leads to the formation of oil and water emulsion which has to be collected and disposed of at high costs.

Furthermore, it results in additional costs for the replacement of the lost oil.

THE SOLUTION

A CJC™ Filter Separator PTU1 27/108 P was installed for trial to remove particles and water from the oil, which had been skimmed from the water emulsion and pumped into a settling tank. The target was to recondition the oil for reuse in the quenching bath.

CJC™ Filter Separator PTU1 27/108 P with a flow rate 180 L/h using **CJC™ Filter Inserts 4 x BLAT 27/27** with a filtration ratio of 3 µm absolute and a total dirt holding capacity of 16 L.

THE RESULT

The installed CJC™ Filter Separator draws the remaining water from the oil. After a crackle test it can be reused in the quenching process.

This oil recovery saves the company a substantial amount for disposal of old and purchase of new oil. Since installation of the Filter Separator, the company has reduced its purchase of quench oil by 3,000 L - each month.

Facing these convincing results, the company has bought the CJC™ Filter Separator after the test period.



*Heat Treatment Plant of Nedschroef Altena GmbH,
manufacturer of special screws for the automotive industry*



*Sylvester Kapias, Manager Heat Treatment
with CJC™ PTU1 27/108*

COMMENTS

Mr. Sylvester Kapias, Manager Heat Treatment:

"We already filter our quenching baths with a CJC™ Fine Filter. Therefore, we decided to run this test with the skimmed oil. By using the CJC™ Filter Separator we can annually save up to approximately EUR 70,000."