

BUSINESS CASE: AUTOMOTIVE

FROM IDENTIFICATION TO QUICK IMPLEMENTATION

– A SUSTAINABLE SOLUTION AND HIGHER QUALITY

THE TEMPERATURE
IS LOWERED FROM
70°C
→ **45°C**

BIODEGRADABLE
& SUSTAINABLE
SOLUTION
LESS CARBON
FOOTPRINT

ENERGY & CO₂
SAVINGS
↓ **50%**

“The reduced temperature for operation was a great savings”

*Dennis Brock
Manufacturing Engineer, Danfoss Easley*



DST-CHEMICALS®
PURE PERFORMANCE

BUSINESS CASE

OPTIMIZATION WITH LESS CONSUMPTION CHEMISTRY & WATER – AND AT LOWER TEMPERATURE

Danfoss Easley in South Carolina (US) is a supplier of mobile hydraulics for agricultural machines and construction equipment (OHV's). As a supplier, it is extremely important to be able to supply hydraulic components of a high quality, enabling the customers to operate optimally – and without breakdowns.

Danfoss Easley experienced daily problems with their oxide removal baths after TEM (thermal deburring) and were not satisfied with the quality of the cleansed hydraulic manifolds. DST-CHEMICALS® has visited Danfoss Easley in South Carolina, US.

Nick Bjerregaard, Technical Process Manager at DST-CHEMICALS®, elaborates on the challenge, the solution – and the result.

OPTIMISE THE WASHING PROCESS – AND INCREASE THE QUALITY

For cleansing and washing of hydraulic components, Danfoss Easley uses oxide removal baths. They experienced many daily problems with the fact that the baths only lasted for a week – and the result was poor. There were too many oxides on the surface after washing.

Danfoss Easley used many resources, water as well as time, on washing. And this at a temperature of 70°C. In order for the employees to be able to handle the washed components further along in the process, the components had to be placed in a cooling tunnel.

A long process, which had to be repeated every week. This resulted in waste of time, energy – as well as water consumption and the use of many chemicals.

REDUCED USE OF CHEMICALS AND WATER – AT A LOWER TEMPERATURE

– We wanted to reduce the water consumption and the use of chemicals and increase the quality of the washing of hydraulic manifolds at Danfoss Easley. And to that end, we introduced various measures, explains Nick Bjerregaard.

Using DST-DEBURR®, Danfoss Easley could lower the water temperature to 45°C. And instead of replacing the baths each week – Danfoss Easley was able to just replace once a month. By lowering the water temperature – from 70°C to 45°C – Danfoss Easley was also able to turn off the cooling tunnel after the washing process. The hydraulic manifolds could be handled right away. This also gave the employees a much better – and quicker – flow in the work process.

SUSTAINABLE SOLUTION – WITHOUT COMPROMISING ON QUALITY

By lowering the temperature of the baths – and using smaller amounts of chemicals, this is also of great significance to the environment. The solution is more sustainable – and has also optimised the handling of hydraulic manifolds at Danfoss Easley. At the same time, they have saved time and money and increased quality. And thus, they can deliver a better end product to their customers.

DST-CHEMICALS® is currently working with several Danfoss divisions, training new employees and doing follow-up service.

BENEFITS FOR DANFOSS EASLEY, SOUTH CAROLINA, US

- The temperature has been lowered from 70°C-45°C
- Approx. 50% saved energy and CO₂
- Higher quality after TEM
- Biodegradable and sustainable solution – a smaller carbon footprint
- A more stable process – better flow

FIND OUT MORE ABOUT DST-DEBURR®
www.dstchemicals.com/products/dst-deburr



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