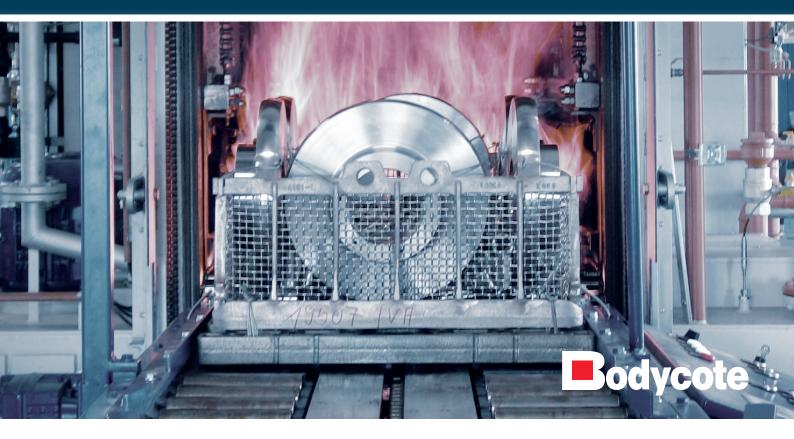
BUSINESSCASE

BODYCOTE



Bodycote saves € 26,000 per year with DST-DEGREEZ®

Bodycote is the world's leading supplier of heat treatment and has experience providing services for all kinds of companies, from large multinational customers and their supply chains to local niche specialists. Bodycote is an important link in the manufacturing process for practically all markets, including the space travel and defence industries, cars, power stations, oil & gas, construction, machinery, pharmaceutical companies and the transport industry.

Bodycote Varmebehandling A/S is Denmark's leading supplier of hardening services and supplier of the widest selection of processes within heat treatment and metallurgic services.

Long-term relations with Bodycote provide access to an abundance of knowledge and expertise from the group's interactive metallurgic divisions, which cover more than 170 hardening companies in 27 countries through Bodycote Plc.

Read more on www.bodycote.dk and www.bodycote.com



Bodycote in Denmark, which hardens steel, consumes a lot of energy on the hardening process. Since 2010, it has been one of their goals to reduce energy consumption. One method has been to lower the temperature of the washers to 45°C.

Not only has the washing temperature been lowered – it has been of just as much significance that the production flow during hardening has been optimised,



 $\textbf{Headquarters}: \ \mathsf{DST\text{-}CHEMICALS} \ \mathsf{A/S} \cdot \mathsf{Merkurvej} \ \mathsf{27B} \cdot \mathsf{DK\text{-}6000} \ \mathsf{Kolding} \cdot \mathsf{Tel:} \ \mathsf{+45} \ \mathsf{7550} \ \mathsf{6360} \\ \mathsf{100} \ \mathsf{1$

which means that no unnecessary energy is consumed while the hardened items wait in line at the washing process.

The solution was DST-DEGREEZ/16 - a brand-new and ground-breaking product that has been developed precisely for hardening oils. The development has been carried out in close cooperation with Bodycote in Ejby, which has been an important business partner of DST-CHEMICALS for several years with regard to development and optimisation of products for hardening plants.

FACTS

Industry: Hardening company

Process: Washing of metal products

before and after hardening

Products: DST-DEGREEZ/16 (3-5%) degreaser

DST-PAS/1 (0.5-1%) corrosion inhibitor

Other: Washing before and after gas nitriding

with DST-DEGREEZ/3P (5%) degreaser

COMPLETELY OIL-FREE SURFACE

BEFORE

Washing temperature of 60°C

High evaporation Good degreasing quality

Fast drying

Short bath lives Excessive waste water

High product conductivity

Large overflow

Frequent bath changes Fewer production hours **AFTER**

Washing temperature of 45°C

Low evaporation

Same drying time

Exceptional degreasing quality

Completely oil-free surface

Fast run-off of water

Long bath lives

4-7 times longer

Amount of waste water reduced by 69%

Elimination of bottleneck

Rare bath changes

More available production hours

84 hours a year

Optimisation of the production flow

Better use of 3 shifts

Low product conductivity

No stains on the items

No subsequent cleaning



Extremely fast oil skimming

The oil is removed at once with an oil skimmer

Clean baths

Reduced overflow



