

Mobil DTE 10 Excel series hydraulic oil provides energy savings of 3.7% on average*



Energy lives here™

Volkswagen AG | Wolfsburg | Germany

Situation

In the manufacture of plastic molded parts, the automotive industry uses injection molding machines from Krauss Maffei among others. Injection molding machines use hydraulics for generating clamping force, moving the injection unit, ejecting the molded part, etc. In order to lower the total energy demand of the system, reduce leakage oil and increase oil service life, Volkswagen initiated a search for a higher performing hydraulic oil to replace the conventional hydraulic oil they were using at the time.

Recommendation

Initially, the use of **Mobil DTE 10 Excel™ 46**, a high-performance ISO VG 46 hydraulic oil was recommended. **Mobil DTE 10 Excel™ series** hydraulic oils are formulated to reduce frictional losses in hydraulic systems, resulting in a measurable decrease in power consumption. The very good viscosity and temperature behavior of the **Mobil DTE 10 Excel series** oils allow the selection of a lower viscosity grade.

This benefits the cold temperature start-up performance of systems with variable speed drives, avoiding the extra energy required to pre-warm the oil. **Mobil DTE 10 Excel 46** hydraulic oil has been recommended for use in all injection molding machines.

Benefit

Measuring the energy uptake before and after the switch to **Mobil DTE 10 Excel 46** hydraulic oil resulted in average energy savings of 3.7%*. Power consumption was measured under identical production conditions and material process rates. In addition to the advantages of extended oil change intervals and system service life due to strong wear protection, energy savings of at least 330,000kWh/year were achieved based on the 22 systems operating at the site for 6,000 hours per year. It may be assumed that total CO₂ reductions will amount to about 200,000 kg p.a.**

3.7% of energy savings*

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*This proof of performance is based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.

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