

ENHANCED LUBRICATION AS A MEANS OF REDUCING ENERGY CONSUMPTION

Companies attempting to reduce energy consumption for economic or environmental reasons should take a close look at the effectiveness of the lubrication of their equipment. Not only does poor lubrication result in accelerated wear and premature failure of machinery, it also leads to reduced efficiency due to frictional losses. Noise and heat are tell tale signs of friction and it is not unusual for a poorly lubricated gearbox, for example, to result in 5-10% extra power consumption.

Under the high load conditions that most industrial equipment operates, even the best formulated lubricants fail to provide all of the answers. Fortunately, new technology is now available involving highly polarised polymeric fluids, which enables the effectiveness of existing lubricant systems to be dramatically enhanced.

These materials, which are simply blended into the host lubricant, are quite literally attracted to the positively charged metal surface as a result of their negative polarity. As a result, friction is reduced by the presence of a layer of lubricant which is bound to the metal surface and, in addition, its unique chemistry means that chemical entities responsible for providing extreme pressure and anti-wear properties are built directly into the polymer backbone. This means that even under the most severe loads, frictional losses and wear are kept to a minimum, thus ensuring optimal efficiency of operation.

By way of example, the use of such a lubricant enhancement system in the main gearbox of a Marris thermoplastic extruder resulted in a 9% reduction in power consumption which equated to a power saving of £5,000 per annum.

Further details can be obtained from the Belesta Division of Belzona Polymeric Limited who can also be contacted through their web site www.belesta.co.uk

ISO 9001:2000
Q 09335Directors: W.R. Ashcroft, P.K. Battey, S.T. Buxton, R. Campbell, M.G. Yeadon.
Registered No. 3254747, England.
Registered Office: Claro Road, Harrogate, North Yorkshire, HG1 4AY.
Belzona® and **Belesta®** are registered trademarks
www.belesta.co.uk www.belzona.com