

Forces OF CHANGE



TWO CLIMATES ARE PUTTING PRESSURE ON BUSINESS: THE ECONOMIC AND THE ENVIRONMENTAL. THANKFULLY, TWO TRUSTED ENGINEERING INNOVATORS – SKF AND ERIKS – ARE WORKING HARD TO RELIEVE THAT PRESSURE. PHIL BURGE, COUNTRY COMMUNICATION MANAGER AT SKF, LOOKS AT HOW BOTH SKF AND ERIKS ARE LEADING THE WAY IN DEVELOPING NEW SOLUTIONS THAT BOOST BOTH SUSTAINABILITY AND PROFITABILITY.

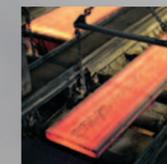
SKF and *ERIKS* have a lot in common. Both are trusted, valued manufacturers and suppliers of powerful engineering solutions with a long history and an enviable track record of innovation. However, what you may not know is that they also share a strong desire to innovate and develop sustainable solutions, so much so that both have devised new initiatives that set clear targets for building efficiency into engineering businesses, machines and processes. For *ERIKS* and SKF, sustainability isn't just a buzz word or an optional extra that can be added into the mix; it's an integral part of the engineering industry that brings positive commercial benefits for all concerned.

On May 8th 2012, SKF announced the launch of the BeyondZero portfolio, including products and solutions that will both improve energy efficiency and support more environmentally friendly energy production. The announcement was made in tandem with the launch of SKF's new climate strategy, which includes aggressive targets for reducing greenhouse gas (GHG) emissions for SKF, its suppliers and logistics operations, as well as from its customer solutions.

The SKF BeyondZero product portfolio enables SKF customers to reduce their own environmental impact, helping to maximise profits through reduced energy consumption while cutting emissions. For

example, electric motor-driven systems (EMDS) consume more than 40% of global electricity production according to the International Energy Agency. However, if all new 1-50 HP motors were equipped with SKF Energy Efficient deep groove ball bearings instead of the standard (SKF) design, 290,000 tonnes of CO₂ emissions would be avoided.

ERIKS has also made great strides in embedding the goals of improved energy efficiency and more environmentally friendly energy production more deeply within the engineering landscape. *ERIKS* Planet+ is a new initiative that focuses on innovation and sustainability to provide solutions that



reduce energy consumption, waste and pollution while protecting people, business and the environment. *ERIKS* Planet+ has four key targets: Positive Energy Reduction, with more efficient products; Positive Waste Reduction, through increased recycling and higher product quality; Positive Pollution Reduction, by minimising contamination; and Positive Risk Reduction, by providing a safer working environment.

Like BeyondZero, Planet+ wins the enthusiasm of customers because it brings measurable benefits to the bottom line as well as the environment. Building sustainability also

builds trust in customers, who are not only keen to embrace the energy savings that innovative products and processes can achieve but also appreciate the difference it makes to their own customers, who are likewise looking to make the most ethical choices when it comes to suppliers.

A range of products and services now exist that can be built into engineering systems to deliver high performance as well as high levels of efficiency. For example, the SKF CASM electric cylinder, an energy-efficient electromechanical solution for replacing conventional pneumatic cylinder systems and hydraulic lifts, illustrates how production processes and assembly lines can benefit from product innovations that target sustainability.

Engineers can realise a significant energy use reduction of up to 90% when they replace pneumatic cylinders with electric cylinders. This is because electric cylinders, unlike pneumatic cylinders, do not require constant power in order to maintain air pressure. This consumption of energy occurs in pneumatic cylinders even when the actuators are not moving.

Like energy efficient bearings, electric cylinders offer a powerful solution because they can make significant savings in so many industries and applications, especially packaging, factory automation, food and beverage and material handling industries such as waste and recycling. Consider the savings made by an SKF customer who replaced hydraulic lifts in a textile printing machine with two CASM electric cylinders. The customer cut energy consumption by 7MWh per year, which translates into a CO₂ saving of 5.3 tonnes per year.

SKF ConRo, roll line unit for the steel industry, is another BeyondZero solution that has chalked up impressive figures. In a normal-sized continuous steel casting machine with 400 roll lines, ConRo can achieve an annual CO₂ reduction of approximately 600 tonnes. Unlike conventional roll line units, ConRo rolls are re-lubrication free; this eliminates grease consumption, which translates to significant customer cost savings. Plus, the robust design of ConRo extends roll line unit service life by 25% or more. Together, customers can expect up to 50% lesser total operating cost per roll line unit. Ultimately, SKF ConRo roll line units can increase reliability and productivity of



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continuous casting machines, and help customers reduce their negative environmental impact.

And there are services, too, that can make measurable improvements.

For example, the SKF Energy Monitoring Service – Pump Systems recently helped an SKF customer within the pulp and paper industry to achieve a massive reduction of its annual electricity demand. An energy improvement potential of 70% was identified by monitoring only eight out of their 300 pumps. Through monitoring and optimising the efficiency of the eight pumps, it was calculated that the factory could reduce its annual electricity demand by up to 2,500MWh, corresponding to 1% of the factory total electricity use. In terms of CO₂ emission reduction, this equates to about 1,900 tonnes per year (according to world power grid mix CO₂ factor of 0.749kg CO₂/kWh). The SKF Energy Monitoring Service (EMS) specifically for pump systems typically demonstrates an energy use savings potential can be greater than 20% in non-monitored pump systems; and year-to-year savings of approximately 5% in those systems that are regularly monitored.

Sustainability and profitability are the two key targets in today's engineering industry and it is solutions that blend both of these elements that best meet the challenges of the modern world. Both *ERIKS* and SKF bring customers engineering solutions that combine the benefits of sustainability and profitability into one powerful package.

