

Thermal imaging – now more affordable than ever

Thermal imaging is a fantastic tool for detecting electro-mechanical faults. Today's infrared camera is easily portable, and year on year the technology is being developed to provide better image quality and the necessary software tools to make the job easier, quicker and more efficient.

The world's first portable thermal imaging camera with a 640 x 480 detector is now commercially available providing unrivalled image quality. It provides 307,000 pixels or measurement points whereas the nearest alternative provides just 76,000. This means the image quality is far superior and, importantly in high voltage applications, the camera can be used at greater distances away from the target.

No longer the sole preserve of the professional thermographer, thermal imaging is now widely used by a range of trades. Infrared cameras now fall into two basic categories beyond those designed for professional and in-depth thermal analysis.

The next in line are the models aimed at those conducting regular condition monitoring surveys with a need for good image quality, data collection plus analysis and reporting, but not for the sophisticated features of the high-end cameras.

However, it's the find-it-fix-it infrared camera models that are really extending the use of thermal imaging in the general inspection sector. These easily portable, torch-style cameras are true toolbox tools designed for spot checks and limited analysis. They have become a viable option thanks to developments in detector technology that has allowed the purchase price of the camera to be set at a level that's within the scope of any engineer.



Small pitch breakthrough for Smartlink chain sensor

RENOLD CHAIN HAS ANNOUNCED THAT ITS UNIQUE AND INNOVATIVE CHAIN SENSOR, SMARTLINK, IS NOW AVAILABLE FOR SMALLER PITCH SIZES DOWN TO THREE QUARTER INCH PITCH CHAIN.

Up until as recently as late 2007 it seemed that it would be impossible to make Smartlink available for anything less than one inch pitch chain.

The breakthrough has been possible thanks, in large part, to advances in the miniaturisation of components, and means that Smartlink is now available for use on a much wider range of applications.

For more information about the Renold Smartlink concept for monitoring load levels in chains, visit the Smartlink page on the ERIKS website: www.eriks.co.uk/Renold-Smartlink



NSK'S EMM-VS Series of vibratory bearings offer 30% higher load ratings and up to twice the life of conventional designs

NSK has introduced the EMM-VS Series of cylindrical roller bearings (CRB) for Vibrating Equipment. The bearings have a 30% higher load rating compared to conventional CRB bearings and offer up to twice the bearing life. These performance advantages mean that, in many applications, bearings can be downsized to reduce costs without affecting machine performance or bearing life.

The EMM-VS Series bearings are available in standard ISO sizes, and are designed for use in gearboxes, gear drives and in steel-making equipment. They feature a special outer ring-guided, one-piece machined brass cage that gives higher strength and rigidity under vibrating conditions, plus the additional qualities of improved wear-life and resistance to corrosion.

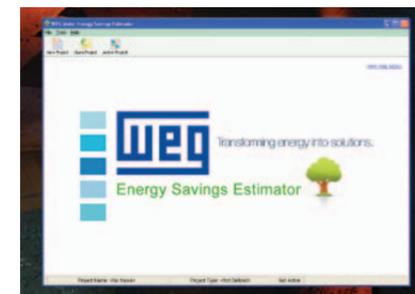
The one-piece VS-Series brass cage ensures accurate guidance of the rollers via special cage pocket profiling, reducing

harmful skewing of the rollers to a minimum. In addition large cage pocket corners relieve stress concentrations on the cage. Combined, these features reduce thermal effects within the bearings and help minimise resonance from induced vibrations.

The cage pocket design also improves grease or oil flow within the cage pockets, and the resulting improved dispersion of lubricant delivers the additional benefit of dampening noise.

The EMM-VS Series design is completed by a special crowning of the bearing rollers; this eliminates stress concentrations at the roller ends, helping the bearings to accommodate heavy loads and provide longer operating life. The same feature also enables the bearings to cope with misalignment between shaft and housings, effectively addressing another key area where damaging stress concentrations may occur.

WEG payback calculator for pump and fan motors goes online



With motors running for thousands of hours per year, WEG's new online payback calculator for electric motors enables pump and fan users to quickly determine energy savings, payback times and reductions in CO₂ emissions, when evaluating new projects, or the replacement of existing motors with higher efficiency types.

The payback calculator is designed to produce comprehensive reports, and can be used to compare a wide range of variables, based on usage and component specifications, to find the best option for any application, including multiple motor installations. The payback calculator is not limited to WEG products: it can compare efficiencies with any

product on the market. The payback calculator is for use on desktops or portable PCs and is easily downloadable (www.weg.net/green/uk/save-money.html).

In addition, for engineers on the move an energy saving BlackBerry App is also available downloadable: (www.weg.net/green/uk/blackberry-apps.html). The tool can calculate the payback time for premium versus standard efficiency motors in new projects, and the mobile App is equally useful in assessing the running costs of existing motors, to determine the repayment time for replacing them with more efficient types. It also enables users to calculate and display the payback time for a new motor against the cost of rewinding, following a motor failure. Here the system even takes account of the fact that rewound motors may experience a drop of up to 2 points in efficiency.

The simple-to-use online App offers the benefits of dual set-up options, for kW and HP, and Euro, Dollar and Pound as default currencies, with the facility for other currencies via a 'custom' function. In addition, coefficients for CO₂ emissions are provided for coal, oil, natural gas and other fuels.

Britool Expert Launched



Leading tool brand Britool has re-launched as Britool Expert, offering a complete range of mid-priced tools aimed at the Industrial and Automotive markets.

As part of the Stanley Black and Decker group, Britool – Europe's leading hand tool brand – has undergone a complete transformation with an entire reshape and expansion of the tool range. Sheffield-based Britool has now launched Britool Expert, comprising more than 1,200 products for the mid-price range professional market.

The Britool Expert range is able to offer professionals quality tools for every trade and has been boosted by a research and development team. This has ensured tools have been developed to meet all applicable industry standards such as: ISO, DIN, EN and testing carried out to guarantee tools are precision built with quality materials that give reliable performance.

Britool Expert is now available from ERIKS Tools and Maintenance Core Competence Centre and complements an already comprehensive range of products already stocked.

The new catalogue is available to download from the Britool Expert website.

The UK launch at Stanley Black and Decker HQ in Sheffield ties in with the European launch of the Expert brand. The launch of Expert carries a long term goal of becoming not only a market leader in hand tools, but also breaking into the power and workshop tool market in 2012 and onwards.