

D P N

DESIGN PRODUCT NEWS



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PLC fastest in its class

IDEC Corp. has announced what it calls the industry's fastest micro controller, the MicroSmart Pentra. With a 'Logic Engine' that can process basic instructions in 0.056 µs, units are available in a traditional 'brick' design – 10, 16, or 24 I/Os – and slimmer book type – 16 or 32 I/Os.

idec.com

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LabVIEW 8.20 marks 20 years

National Instruments has announced LabVIEW 8.20, the 20th anniversary edition of the graphical system design platform. Included are new features designed for advanced analysis and control, improved distributed system management and new targets for HMIs.

ni.com/labview

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Solid Edge V19 shipped

UGS Corp. has announced Solid Edge Version 19 MCAD software for 2D and 3D design and collaboration. New capabilities include motion simulation, assembly and disassembly videos, 3D design annotation, as well as visual collaboration tools that leverage the open JT data format.

ugs.com/solidedge

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Customized cabinets... ...keep power plants humming

By Tim Rourke

Fossil Power Systems is a Canadian success story. In the past 25 years, the Dartmouth, NS-based company has emerged as an international leader for components and systems controlling boilers used in power plants, such as Tuft's Cove near Halifax (above), as well as pulp and paper mills and petrochemical facilities.

The company's core business is the design of burner management systems (BMS) to continuously monitor operating parameters and ensure that all steam generation equipment is working safely. If the BMS detects any abnormal or unsafe conditions, it warns the operators of the problem and, if necessary, shuts down the boiler or affected equipment.

The global success of Fossil (fossil.ca) – 80% of its business is international – is attributable to

the company's innovative problem solving and passionate commitment to meeting customers' needs. The company has a remarkable ability to come up with solutions to difficult problems in a rapid and cost-effective manner. An important part of Fossil's strategy is the development of strong relationships it has formed with suppliers – such as Rittal Systems (rittal.ca) – who are also able to meet exacting requirements in a timely manner.

Fossil has been relying on Rittal to supply enclosures and cabinets for electrical equipment for over 20 years. A key reason for this long-standing relationship is the enclosure specialist's proven ability to provide Fossil with exactly what it needs for any application. "Chemical boilers provide the most challenging environ-

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Cover Story

Enclosures give critical equipment a safe home in harsh environments

From Front Page

ment, and proper protection of our sensitive equipment is an absolute must," said Fossil control engineer Mark Donahue. "While 95% of our requirements can be fulfilled from the 1200 page standard catalog, custom solutions from Rittal help us to close the gap."

Fossil Power Systems enclosures for the equipment room: Rittal Systems TS8 modular unit fits the bill.

In areas immediately adjacent to the boiler, conditions are extremely harsh. Heat, process chemicals, leaks, humidity, dust and dirt can make life miserable for the control equipment and its wiring. Rugged construction and superior sealing around inlets and doors are required for this environment – specs that are met effectively with the standard AE-series of compact wall-mountable enclosures.

NEMA 4X protection for controls

Rittal's ability to help Fossil solve even the toughest problems is evident in the joint development of a solution for a black liquor boiler BMS in British Columbia. Black liquor is a combustible, caustic by-product of the pulping process. "To assist the boiler operators, we decided to provide LCD screens at each burner which would display real-time system information in a graphical format. However we needed special protection from the highly corrosive liquids in the area," said Donahue. "Rittal came through for us by fabricating a custom stainless steel cover with a large viewing window for the AE cabinet. This provided complete NEMA 4X protection for the LCD and controls while allowing the operator to see the process display."

Fossil also uses Rittal's versatile KL (steel) and KS (fibreglass) terminal boxes for its installations. These small enclosures help to organize control and power cabling used throughout the plant. Here again, ruggedness and superior environmental sealing are essential. KL and KS cabinets come in a wide range of sizes to deal with different space requirements.

Plant control rooms represent a different challenge. "Traditional practice in the process control industry is to put computers, power supplies, switches and all their



TS8 enclosure for Fossil boiler management system.

cabling inside operator consoles. Things can get pretty crowded," explained Donahue. "One of our major innovations has been to relocate this equipment to dedicated equipment rooms with suitable climate control and security." Fossil's first installation of this kind was at the Tuft's Cove power plant.

For its integrated control system, Fossil has found the right combination with Rittal's highly adaptable floor-mounted server racks and TS-8 series cabinets. These large modular enclosures can be built up to accommodate virtually any system configuration.

So while the glass-door covered server racks contain the computer and networking equipment, TS-8 cabinets are typically used to house critical system hardware such as control processors, power supplies, I/O cards and communications hardware. Customization is straightforward, thanks to the extensive catalog of TS-8 accessories. *Tim Rourke is Business Development Manager, Rittal Systems, Mississauga, ON.*

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