BRANKAMP
THE PROCESSMONITORING COMPANY
Journal
WIRE-SPECIAL
March 2008 · Edition 3 · Volume 25

BRANKAMP presents innovative Expert product line

ProcessMonitoring 2.0

Massive forming, punching or simply metal cutting – experts in every modern manufacturing process will be traveling to the wire/Tube/METAV triple trade fair. And one of their destinations will be the BRANKAMP stand, where the global market leader and unique cross-sector provider of ProcessMonitoring systems will be exhibiting. For on the opening day of the fair, at 9.30, a prototype for a completely new generation of ProcessMonitoring systems is being unveiled.

"The new Expert systems contain highly-complex electronics and a wealth of know-how. But in terms of operation, they are revolutionary in their simplicity," enthuses Ferdinand Oppel, Managing Director at Prokos GmbH, a BRANKAMP Group company. In point of fact, the innovative systems themselves select the strategy for monitoring the machine. All the operator needs to do is enter details of the forming operation. "It is comparable to modern digital cameras, where the photographer can specify whether he wants to take a portrait photo or a macro image. The camera then automatically selects the right settings, checks the exposure and the image sharpness," adds Oppel, himself a qualified engineer. The systems in the Expert series, like these cameras, have the benefit of the collective experience of thousands of real-life applications

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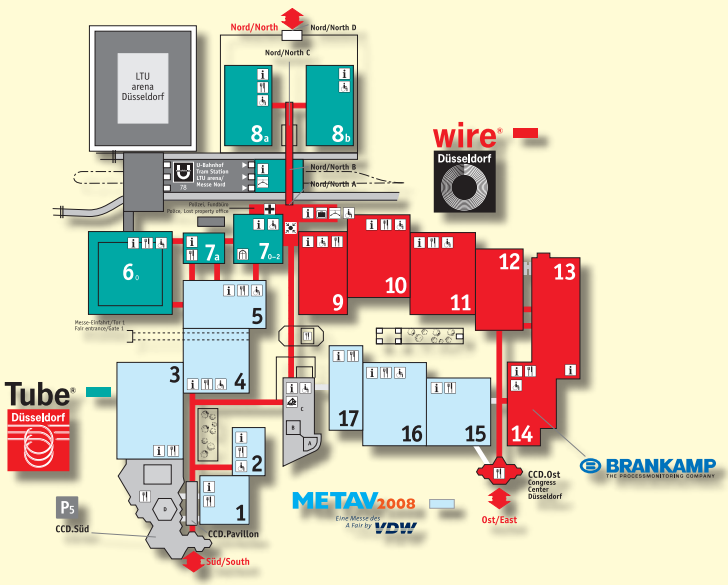
Key trade fair date:
31.03.2008, 9.30
Presentation of the innovative Expert systems
Hall 14, Stand D 32

wire® Tube® METAV



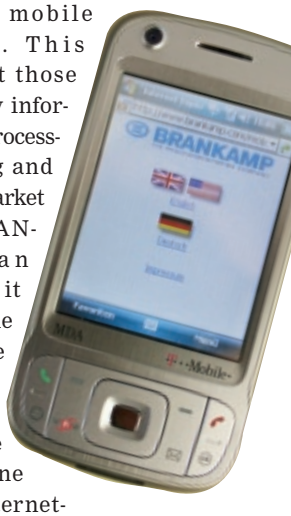
From machine tools to manufacturing systems to forming technologies: From 31 March to 4 April, the Messe Düsseldorf exhibition area is offering everything a metalworker's heart desires. In addition to wire, the international specialist trade fair for cable and wire, this year also sees the specialist events Tube (tube and pipe trade fair) and METAV (manufacturing technology and automation) being staged in parallel. Visitors can use their admission ticket to attend all three trade fairs. In total, over 3,000 exhibitors are presenting new products, trends and innovations in practically every area of metalworking, in 17 halls. BRANKAMP is represented with its own stand (D 32) in Hall 14.

News

NEW AT WIRE: BRANKAMP NEWS PICKER

Quantities produced, maximum force, envelope curve or reasons for stoppages – ProcessMonitoring offers a wide range of key process data. With the BRANKAMP News Picker, a newly-developed FactoryM module, precisely the right data - and only that data - relevant for the individual user is displayed for him. This data can be defined individually, using a special filter. The information needed is displayed directly on screen using a push process, or is sent via e-mail to a respectively-designated address.

BRANKAMP INTERNET NOW AVAILABLE ON YOUR MOBILE



The brankamp.com website has now also been specially optimized for mobile browsers. This means that those needing key information on ProcessMonitoring and about the market leader BRANKAMP can now access it whilst on the move. There is just one requirement: the mobile phone must be internet-enabled. By 2010 the number of mobile phones with an integral web browser is set to climb world-wide from 250 million to 814 million.

QUOTE OF THE MONTH:

»Research is converting money into knowledge, and innovation is converting knowledge into money.«

Dr. Alfred Oberholz, Manager

Nachrichten

NEW AT WIRE:
BRANKAMP SAVE AND RESCUE

The innovative BRANKAMP SAR-System (Save and Rescue) means that swapping out ProcessMonitoring systems in the event of servicing or repair is no problem. The new systems automatically locate the FactoryNet server on installation and load all stored process and settings data. Downtimes and setting processes are significantly shortened as a result.

NEW AT WIRE:
BRANKAMP INTERNET SERVICE SUPPORT (BISS)

Whether in Brazil, India or Mexico – companies the world over rely on BRANKAMP ProcessMonitoring systems for their manufacturing operations. Using FactoryNet, the specialists at BRANKAMP have extended their comprehensive service offer still further: the innovative function „BISS“ – BRANKAMP Internet Service Support – enables servicing of ProcessMonitoring systems via a secure internet connection. If the customer activates this function, the system logs on to the service server. In the event of a fault, this means that BRANKAMP specialists can access the system directly and can rectify the fault speedily and cost-favorably. BRANKAMP customers can use this service anywhere in the world.

IMRPINT

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Portrait

E = Schneider

Energy is Eternal Delight, wrote William Blake – and nowhere is that demonstrated more clearly than in the thought, speech and action of Hans-Peter Schneider. The qualified engineer joined BRANKAMP 20 years ago. Since that time, he has been driving the company forward vigorously, including with innovative new developments. Since mid-2007, the 54-year old has been managing director at BRANKAMP.

“Quality stands the test of time,” says Schneider. “We work very closely with our customers. We know their processes and requirements in great detail. And we use this knowledge throughout, from development to installation of our systems.” Schneider has learned his job from the bottom up: after an apprenticeship as a physics lab assistant, he studied communication engineering in Bochum before working at the Krupp Research Institute as a development engineer for industrial metrology and automation. He took on responsibility at an early stage, and as a young engineer he built up the process monitoring division at Krupp Widia. Schneider came to BRANKAMP in 1988, together with Widatronic. Before being appointed as managing director, the qualified engineer’s previous post was as executive director. “It is through innovations that we will remain a compelling force in the market and consolidate our position as a global market leader for ProcessMonitoring,“ he says, setting out a clear objective. This father-of-two is likely to be found underwater when not at work: he has extensive experience of diving areas within and beyond Europe.

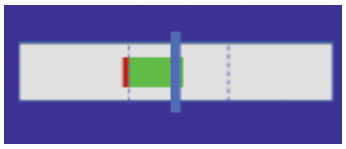
“Adaptive Die Match” for thread rollers

Green light for manufactoring

NEW

Together with the leading manufacturer E.W. Menn, BRANKAMP has developed an automatic system for track alignment on thread rolling machines. “Adaptive Die Match” is exclusively available for Menn machines.

On this innovative system, a patented sensor ensures the precise alignment of the track line up. As a result, the time taken to align the track is extremely reduced by comparison with conventional machines. “The measuring process ensures that the quality of the roller jaw alignment is permanently monitored,” says BRANKAMP Executive Director Franz Saliger. “If the values move out of the tolerance range, the system reacts before production is adversely affected.” Up until now, the operative needed to adjust the track line up himself. On this new version of the track alignment function, that is now a thing of the past, thanks to “Adaptive Die Match”. The optimal setting of the thread rollers and their adjustment in the production process now operates automatically. This



offers enormous advantages, particularly for multi-machine operation. Automatic track alignment can be viewed at wire on the E.W. Menn stand C 18 in Hall 13. **The next BRANKAMP Journal will feature more on this topic.**

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ProcessMonitoring 2.0

scenarios. They independently select the optimum parameters. In addition, the innovative system also stores the calculated settings under a tool number. When the tool is again mounted on the machine, the data is then instantly available. “This operating concept is a global first,” says Oppel. The user interface on the touch screen systems, already popular with operators and proven in practice, has also been given a fundamental overhaul for wire. “We have taken up suggestions which have come from use in practice to further enhance this proven concept,” says BRANKAMP Managing Director Hans-Peter Schneider. The innovative „Optimizer Function“ on the BRANKAMP system similarly sits well with this philosophy. This function continuously monitors the manufacturing process and calculates the optimal limit settings to protect the machines. The „Optimizer“ automatically makes corrections when the system is being set up. **More innovations on page 4 in this Journal.**

At the stand at wire, and on the internet at www.brankamp.com, you can view a film about the test series at SHW.

Simulated programming error: the advance was increased fourfold, but the cutter head remains undamaged

Test series using the BRANKAMP CMS system under near-real conditions

Machine protection in hardness test

How exactly does ProcessMonitoring work? This question was pursued by a delegation from R+V Versicherung, one of the largest German insurance groups. At the machine tools manufacturer SHW Werkzeugmaschinen GmbH in Aalen, the concept was explained to the experts in engineering insurance and then demonstrated in a number of practical trials. SHW equips practically all its machines ex works with systems from the global market leader BRANKAMP.

"A large number of our customers lease the machines. The finance providers are then naturally interested in ensuring that the machines are kept in good condition. That's where the Brankamp system is a major help," says Herbert Klewenhagen, Managing Director at SHW Werkzeugmaschinen GmbH. "A further benefit is that anyone who concludes a servicing contract with us and uses the Brankamp system gets a more favorable rate on the insurance policy." The reason for this was demonstrated by SHW development engineer Alfons Egetemeir for the visiting insurance professionals, using a test series performed directly on an SHW machine. First, the visitors themselves were able to stop the machine themselves, with just a gentle blow using a rubber mallet. In a further test, a fine 5 mm drill bit was used. SHW expert Egetemeir explains: "This drill bit has a power rating of around 50 watts, and the machine spindle has a power of 32 kilowatts. Using the drill, we conducted a test drilling with a 100 mm advance and a depth of 10 mm. To cause the machine to switch off, we increased the advance from 100 mm to 1,200 mm, in other words by a factor of 12.

BRANKAMP Executive Director Werner Ebeling (4th from left) in discussion, and the CMS System in use

A stop at the right time minimizes damage

The result? Drill bit and machine were undamaged. Egetemeir also carried out a hardness test using a 125 mm cutter head. "First, we worked using a cutting depth of 2 mm and an advance of 900 mm per minute. Then we quadrupled the advance rate, to 3.6 meters." Once again, the result was that the machine was shut down in good time. There was no damage either to the cutter head or to the machine. Egetemeir adds, "The important thing to be aware of is that the system cannot prevent a collision. It reacts to the collision. But in the event of a collision, the damage is significantly less. In the normal scenario, when there is a collision we are still feeding energy into the machine, into the axle, whereas in the other scenario with the Brankamp system we are removing the energy and diverting it. This is why the damage is then significantly less." The delegation from R+V Versicherung was positively surprised by the test results. "Regardless of the aspects concerning the insurance side, a system of this kind has advantages for the customer, in that every customer surely has an increased interest in having as few downtimes on the manufacturing machine as possible," comments Matthias Köster, Principal Holder of Commercial Authority and Head of Group for Engineering Insurance with R+V Allgemeine Versicherung AG. "In our experience, customers using machines equipped with these kinds of systems give consistently good feedback about them."

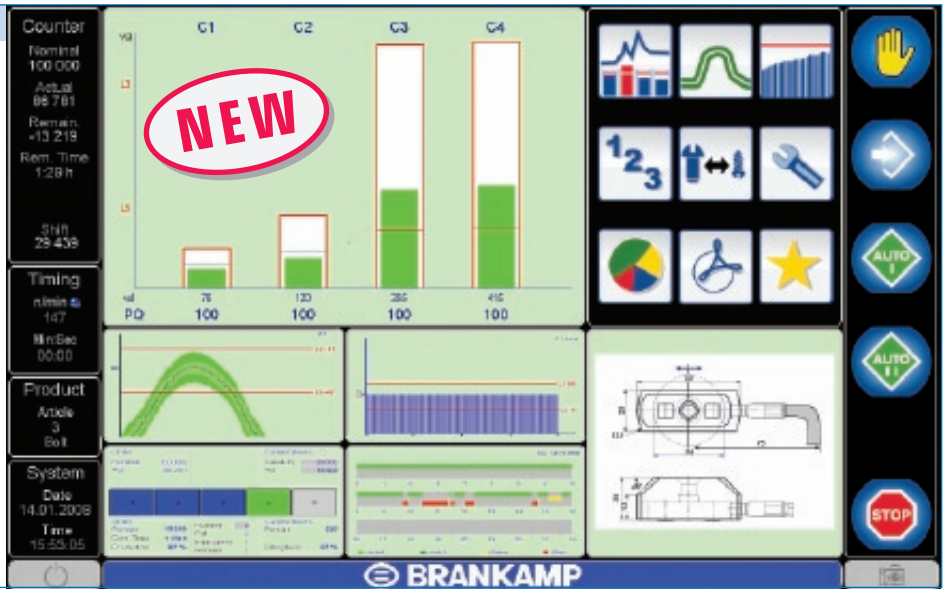
Innovations at wire 2008:

New tools for FactoryNet

The electronic networking of production halls – known as FactoryNet – is one of the major visions of the future for engineers. Experts see this as an opportunity for developing major new potential by connecting up the entire area involved in adding value. FactoryNet not only makes production processes more transparent, but also considerably faster and more cost-favorable. At wire, BRANKAMP – the pioneer in production networking – is presenting a series of new developments. The BRANKAMP Journal offers a sneak preview of the highlights.

"B"-SERIE: INNOVATIVE OPERATING CONCEPT

The new-style ProcessMonitoring systems **B15**, **B17** and **B19** contain a **unique operating concept**. All the systems are equipped with the latest touch screen technology. The working interfaces are a triumph with their simple symbols and with operating and display elements which can be set by the user himself. The operator navigates effortlessly through the various function levels using **softkeys**, which only appear when they are needed. This means that the display is kept comprehensible at all times. The new media window enables drawings, work schedules or similar to be displayed as well. Selected settings can be loaded via **RFID Card** (see below) from the **FactoryNet server**.



RFID CARD SHOWS THE WAY AHEAD

RFID is electrifying the experts. Radio Frequency Identification technology is making it possible to identify objects clearly and contact-free using radio. No matter whether for logistics, retail or industrial production, using these innovative radio chips is allowing companies in all sectors to have hopes of significantly more economical processes. At wire 2008, BRANKAMP is demonstrating how workers with a special RFID card can identify themselves on the ProcessMonitoring system. The system then automatically loads the corresponding language, the personalized working interface with the previously-selected settings, and the personal access rights. This identification can also be used for recording operational data.

BLUETOOTH IN MANUFACTURING

On the BRANKAMP PK 4U system, process-relevant data can now be **stored** and repeatedly downloaded. Using the network connection with a central FactoryNet server, which is now also possible as an encrypted link via **Bluetooth**, it is possible to store all products with their process data (such as stress on the machine, envelope curves or quantities) in a single cross-machine and cross-device database. When a product is being repeatedly manufactured, the ProcessMonitoring system is then automatically and optimally pre-set with this data. The advantage of this is that networking means that the stored data can be transferred from one machine to another. Even if the system is replaced, the data continues to be available.

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