

BRANKAMP E:xxacto

Precise to the last micrometer

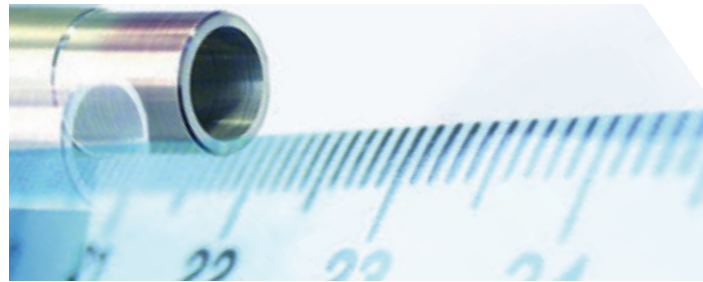
Parts that are too short are the most frequently occurring error during the production of multiple-spindle automatic lathes. Together with Huber Systems, BRANKAMP now offers a solution for this typical problem encountered in metal cutting. BRANKAMP E:xxacto will be presented for the first time at the EMO 2007.

Digital dimension measurement technology measures each part during the manufacturing process in the machine. The patented digital measuring sensor is mounted on the central slide of the multiple-spindle automatic lathe. The length of the part is then measured during the pivoting process of the material drum. BRANKAMP E:xxacto detects even the smallest of deviations, accurate to the nearest 0.001 millimeter, early on during

the manufacturing process – without changing the machine's cycle time. As soon as a part that

is too short is detected, the system sends a message to the

continued on page 2



BRANKAMP E:xxacto: Always the right length.

News

FACTORY M IN BRAZIL



The production monitoring system FactoryM is now also being launched in South America. After the successful introduction of the modular works communication system in Europe and China, now two Brazilian manufacturing companies have put their trust in BRANKAMP's FactoryM. The software solution was recently presented to the South American market at the FEIMAFE in Sao Paulo.

ARNOLD UMFORMTECHNIK GETS AWARD

As a specialist for intelligent connection solutions, Arnold Umformtechnik GmbH was honored with the Bosch Supplier Award in July 2007. The Forchtenberg-based company won out over international competition in the Material and Components category. Technology giant Bosch presented a total of 47 Supplier Awards to suppliers from 14 countries.

BRANKAMP PK 4U NOW WITH BLUETOOTH

The BRANKAMP PK 4U is now also available with the innovative Bluetooth function. The wireless connection serves as an interface for the transmission of important production data. Quantities and downtimes can be sent via Bluetooth directly to a cell computer.

QUOTE OF THE MONTH:

»Problems are best solved by detecting them before they become a problem.«

Joachim Zahn,
Former Head of Daimler-Benz



A BRANKAMP ET terminal with integrated in-process dimension measurement by Huber Systems on a Tornos Multideco. The multiple-spindle automatic lathe for mass production manufactures turned parts for the automobile industry.

BRANKAMP at the EMO

All-around genius



All sectors of the metal working industry will be represented at the EMO 2007 (September 17-22, 2007). And BRANKAMP can offer every one of these sectors application-oriented solutions with its individual ProcessMonitoring systems. In Hanover, the Erkrath-based international market leader will present the new in-process dimension measurement system BRANKAMP E:xxacto for metal cutting for the very first time. In the punching area, the ProcessMonitoring specialist will demonstrate its new "high-speed force sensor system" at stand F45 in hall 25 (page 4). BRANKAMP will also be taking the collision protection system CMS (page 2) and the modular production monitoring system FactoryM (page 3) to the EMO, for applications in metal cutting as well as for the punching and cold forming sectors.

The special issue

„Hanging up the running shoes“

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News

BRANKAMP OFFERS UNIQUE TELESERVICE PACKAGE

The successful BRANKAMP tele-service team has put together a special offer package, right in time for the EMO 2007. For only 625 euros, BRANKAMP will provide the required hardware and software for remote maintenance as well as 10 hours of included online service. In the event of a system failure, the service technician can directly login to the customer's system. The technician will then analyze the problem and, in most cases, rectify it right then and there - saving time and money.

FIGURE OF THE MONTH: The five top locations worldwide for the establishment of production facilities:



	CHINA	18 PERCENT
	GERMANY	11 PERCENT
	USA/CANADA	9 PERCENT
	POLAND	7 PERCENT
	INDIA	4 PERCENT

Source: Ernst & Young

With 18 percent, China is clearly the favorite production location in the world. Germany is in second place with 11 percent, followed by the US/Canada with nine percent.

IMPRESSUM

Herausgeber:
Dr.-Ing. K. Brankamp System
Prozessautomation GmbH,
Max-Planck-Straße 9,
D-40699 Erkrath

Vi.S.d.P.: Tom Brankamp,
Michael Tobias (enterprise)

BRANKAMP CMS

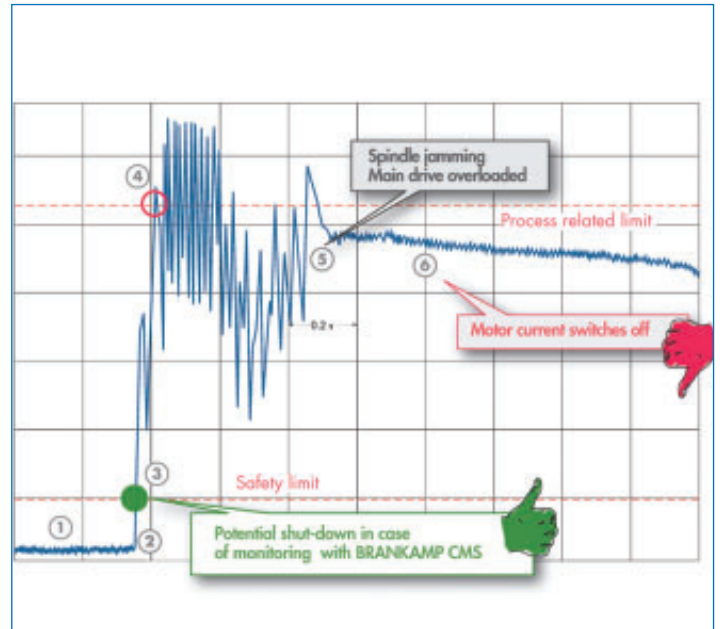
Time is money

A high degree of machine availability, optimal parts quality and machine breakdowns reduced to a minimum – these three important factors are crucial for keeping a manufacturing company competitive in today's tough world of competition. BRANKAMP's CMS systems reduce machine downtimes to a minimum, thus helping increase profitability.

You can't miss hearing a machine crash. A loud bang and you know instantly that a collision has occurred. It can take up to 10 seconds for the machine operator to react to the noise and press the emergency OFF button – which translates into 10,000 milliseconds. The innovative BRANKAMP CMS machine protection system executes the OFF command 100 times faster. This significantly minimizes the time to final machine shutdown.

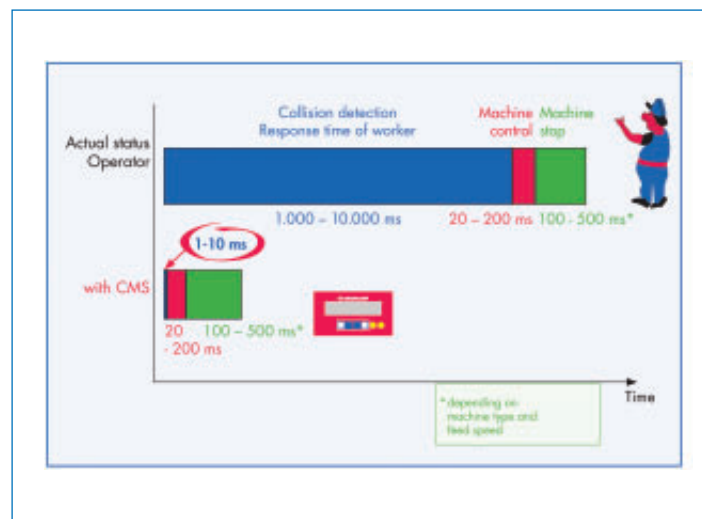
Limiting Damage by Decreasing Reaction Time

The result: damage to machines and tools is clearly decreased. This saves valuable time and simultaneously reduces repair costs. "We have been using BRANKAMP's CMS100 collision



monitoring system for about two and a half years. Up to now we

have had many successful results with over 50 machines where a collision without a monitoring system would have led to a lot of machine damage," says Marvin Schlieker from transmissions manufacturer ZF. Thanks to the System Security Checker function SSC, the reliability of the BRANKAMP CMS was increased even more. As soon as the machine operator presses the SSC button, the machine automatically switches to the check mode and tests the functionality of the machine while it is running. Thanks to this safety test, permanent monitoring of machines and tools is guaranteed.



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Precise to the last micrometer

machine, which in turn separates the part out or stops production. The data can be viewed by the worker at any time. The worker can follow the digital dimension measurement on the BRAN-

KAMP monitoring terminal. And BRANKAMP E:xxacto offers a double layer of protection, because the digital measuring sensors by Huber Systems use the same interface as the BRAN-

KAMP ProcessMonitoring system. The digital dimension measurement as well as the proven BRANKAMP process monitoring can thus be used in parallel via a single monitor.

Fit for the Future

New management in place at BRANKAMP



From left to right: Executive Director Werner Ebeling, Tom Brankamp, Jochen Brankamp, Anna Brankamp, Managing Director Hans-Peter Schneider and Executive Director Franz Saliger.

BRANKAMP's succession has been settled. The Erkrath-based company and its 50 employees will remain in the family. The new Managing Director is longtime Executive Director Hans-Peter Schneider. BRANKAMP's new management crew has been

a well-synchronized team for many years. Managing Director Dipl.-Ing. Hans-Peter Schneider, 54, has been with BRANKAMP since 1988, most recently as Executive Director and Manager of the Punching Division and Technology Manager. The executive

management also includes two longtime BRANKAMP employees: Dipl.-Ing. Franz Saliger, 54, will continue to head the cold forming business area. Werner Ebeling, 62, will continue to be responsible for the metal cutting area. Continuity is also insured

on the shareholder side. BRANKAMP will remain a family business. Anna, Jochen and Tom Brankamp will take over the corporate shares of their father, Professor Dr.-Ing. Klaus Brankamp, who founded the company in 1977.

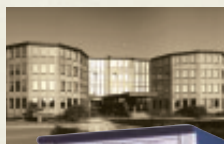
1977

August 1977: BRANKAMP Process Automation is founded, and screw manufacturer ABC is its first major customer

1986: BRANKAMP develops the data-collection system DC 5000

March 1982: The 500th BRANKAMP system Processa 0101 is rolled out

January 1987: Move to the new administrative building



January 1988: BRANKAMP America and UK are founded

October 1987: BRANKAMP Italy is founded

June 1988: Initial success on the Japanese market

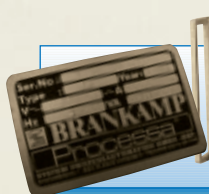
1988: World premiere: absolute force monitoring

1988: Takeover of Widatronic from Krupp

1989

September 1989: Trade show booth at the EMO with a new, open design

October 1989: Production of the first punched parts launched in ghost shifts at Wolf Geräte, Wendel



1977: Processa 0101



1981: Processa 0102



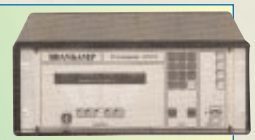
1985: Processa 3040



1985: Processa 2050



1985: Processa 4051



1987: Processa 8100

"Thanks to the use of pressing force monitoring, unplanned failures, such as bearing shell collapses, for example, can now be almost entirely prevented. In addition, we were able to increase the tool operating life by around 25 percent."

Klaus Rothhammer,
Production Manager at
SEISSENSCHMIDT (2007)



"Thanks to ProcessMonitoring we were able to decrease our reaction and setup times and significantly increase the service life of tools. The results were convincing. Our failure rate decreased from eight percent to zero percent."

Manfred Nußer,
Technical Specialist at the Drive
Line Product Center at the MTU
Friedrichshafen (2006)



"Our employees tested various systems for many months. The results were heavily in favor of the BRANKAMP PK 508. Naturally, a big advantage from the user's perspective is user-friendliness, and this aspect also contributed in large part to winning my team over."

Rolf Burghauser, Master Craftsman in the area
of cold forming at Peiner Umformtechnik (2002)



"Thanks to the systems, we have become significantly more flexible. Even to the extent that labor costs now play a smaller role in certain processes due to multiple machine operation – for example, in the manufacturing of components for electronic parking brakes."

Hans Zirwes, Plant Manager
at Textron Fastening
Systems in Neuss (2005)



"I can't imagine modern cold forming without ProcessMonitoring. The devices are an important part of our quality strategy!"

Martin Schneider, Plant
Manager Metals at
Emhart Technologies in
Gießen (2007)



"Our experiences have been very positive. Before we started using BRANKAMP ProcessMonitoring we did not have any exactly reproducible configurations and no possibility of an unmanned shift. This changed abruptly with ProcessMonitoring."

Iris König, Economist and
Owner of J.C. König Stiftung
& Co. KG (2007)

"BRANKAMP and ABC have been working together for decades. We particularly value the flexibility and support that we always get from BRANKAMP."

Michael Belasus, Technical Manager Production at ABC Umformtechnik GmbH & Co. KG (2007)

1990

May 1990:
Move to the new
production hall



September 1992:
Exclusive contract with Prokos

October 1990:
In-house exhibition in the GDR



1997: Modular concept with fanless touchscreen PC

April 1993:
ProcessMonitoring for can production



September 1998:
New motto:
Forward Thinking
Forward Thinking

December 1998:
Double dynamic envelope curve



2000: Monitoring in semiconductor production

November 2000:
DIN ISO 9001 certification



October 2001:
Ford "Q1 Award"



2002:
Development of Ultra-Emission



1990: Widatronic 8030

1991: Procesa 3060

1992: PK 732

1992: PK 508

1994: CMS

1997: GT 90

1998: PK 400

1999



"Within a very short time frame, we have minimized tool maintenance of stamping steps and reduced waste. With the help of BRANKAMP systems we can now not only detect stamped slugs but are also able to prevent them from occurring to a large degree. In addition to decreased tool maintenance and minimized waste, we are also able to increase the manufacturing speed."

Bernd Schäfer,
Team Leader Toolmaking at ElringKlinger AG (2006)

"We have had good experiences with the BRANKAMP PK 4000 system in wheel manufacturing. This is how we got to know the company."

Hans Josef Richner,
Electrical Engineer at Ford in Cologne (2007)

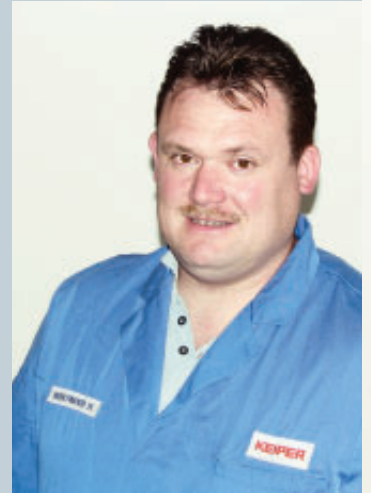
"For us, the introduction of ProcessMonitoring was definitely the right thing to do. Our investments have completely paid for themselves in just one year."

Christian Grzegorzek, Maintenance Manager at Siemens AG in Mühlheim (2003)



"We were very skeptical due to previous experiences with other monitoring systems. BRANKAMP was able to convince us that we are on the right path and that we still have many options for improvement open to us."

Ralf Bohlander,
Pre-Fabrication Foreman at Keiper GmbH & Co. KG in Rockenhausen (2007)



"Thanks to BRANKAMP's machine monitoring, the consequential costs of a collision were kept to a minimum"

Steven Tröger, Project Manager in the Technology + Manufacturing Department at Uhlmann (2007)

"We have been using the BRANKAMP CMS 100 collision monitoring system for about two and a half years. During this time we have had much success with over 50 equipped machines where a collision without a monitoring system would have resulted in a lot of damage to the machines."

Marvin Schlieker,
Condition-Based Maintenance at ZF (2007)

"Processes take place at all levels of a company. ProcessMonitoring systems help our employees master the very demanding interface between the physical/technical and the production/organizational world. The BRANKAMP philosophy, "Focus on the Employee," fits in very well with the process-related test philosophy of SFS Intec."

Jörg Holthöfer,
Project Manager Process Development at SFS intec AG (2007)



2004

September 2002:
Siemens certifies BRANKAMP iMSoft

February 2002:
Single-button operation (eDrive)

January 2003:
Bruderer certifies BRANKAMP

October 2002:
Over 40,000 systems in operation worldwide

January 2003:
Rotator detects transfer error



June 2003:
Takeover of Helpro

December 2003:
Factory Net: Networked production

April 2004:
Absolute force measurement for thread rollers



October 2004:
ZF Friedrichshafen: Test series for the introduction of the CMS

June 2004:
Yamazaki Mazak chooses BRANKAMP



1999: C 90 1999: B 400 1999: C 100 1999: PK 550 2001: PK 5000 2001: PK 6000 2002: PK 4000 2004: HELPRO MP

Professor Dr.-Ing. Klaus Brankamp

The company founder

Increased quality, decreased costs – this is the main objective of every state-of-the-art manufacturing process. ProcessMonitoring plays a central role in achieving this objective. Thirty years ago, Professor Dr.-Ing. Klaus Brankamp introduced the innovative technology, which above all enables optimized quality and an improved level of utilization in the industrial manufacturing sector.

”One can compare our Process-Monitoring systems to a car’s tachometer,” Professor Dr. Klaus Brankamp said last year. ”Some drivers watch the tachometer to make sure they don’t reach the red zone and overrev the engine. Others use it so they know to shift in time, thereby saving fuel.” The modern BRANKAMP systems prevent process errors or switch machines off in time, for example, in the event of malfunctions, thus preventing or limiting the occurrence of expensive damage.

Professor Dr.-Ing. Klaus Brankamp was born on August 29, 1939 in Düsseldorf. He studied mechanical engineering at the RWTH Aachen University and obtained his doctorate there in 1967. After his postdoctoral lecture qualification in 1970, he taught ”Planning and New Product Development” at ”his” university. At the same time, Dr. Brankamp founded a consulting firm, the nucleus of today’s BRANKAMP Group.

Seven years later, a project sponsored by the state of North Rhine-Westphalia was the point of departure for the invention that today is known the world over: ProcessMonitoring technology. The objective of that project was to sound out the opportunities and possibilities of ”ghost shift production”.

”The active support of the production team by electronic measurement systems, multiple machine operation or production during breaks were still only ideas at that time whose implementation was regarded as impossible,” Professor Brankamp stated in retrospect.

Today, the technology he developed is well-known everywhere in the world. Over 50,000 BRANKAMP applications are in use worldwide. Buzzwords such as ”ghost shift”, ”productivity increase“, ”automation“ and ”quality“ are inextricably linked with the name Brankamp in the industry.








Professor Dr.-Ing. Klaus Brankamp was an active member of the VDI and the IHK. He belonged to several management boards and advisory boards and authored numerous textbooks. Characteristic of Klaus Brankamp were his open, people-oriented nature, his engaging

manner, his extraordinary sense of obligation and responsibility and his immense expert knowledge.

Professor Dr.-Ing. Klaus Brankamp passed away after a short but serious illness on February 27, 2007.

2005
2007

<p>March 2005: CMS on robot and handling units</p>	<p>April 2005: BRANKAMP representation in China</p>	<p>November 2005: Emails on the production machine</p>	<p>January 2006: Together with E.W. Menn, development of a new process for monitoring thread rolling</p>	<p>April 2006: RFID technology</p>	<p>August 2006: Factory M</p>	<p>September 2006: Initiative per location Germany</p>	<p>January 2007: BRANKAMP: the Slugbusters</p>	<p>June 2007: New management in Place at BRANKAMP</p>	
									
2005: PK 4U	2005: ECO 500	2006: HELPRO UP	2007: ECO 100	2007: PK 900					

BRANKAMP FactoryM

Hanging up the running shoes

How is an order progressing? Can the agreed delivery date be met? These customer questions are part of everyday business for department managers and production managers. But the answers are found in the production hall rather than in the office. Each query therefore means a walk down to the production facility. This costs valuable work time and hinders the reliable flow of information. With the works communication system FactoryM from BRANKAMP, production managers can retire their running shoes.

Unlike the usual production data acquisition systems, with FactoryM the production manager can decide which functions are really needed and which ones can be done without. Expensive overall solutions that can only be partially used are now a thing of the past. "FactoryM is a truly modular system that every company can adjust and expand according to its specific needs," says BRANKAMP Managing Director Hans-Peter Schneider.

Everything at a Glance

As the pioneer in process monitoring systems, BRANKAMP has been developing independent production data acquisition solutions since 1985. "FactoryM is comparable to a navigation system. It guides the operator through the production process in a simple and concise manner," says Schnei-

der. The most important production data can be viewed at a glance on the operator's PC. The relevant impulses from between six and eight machines are recorded with a BRANKAMP IMC Box and saved. The data is transmitted directly to the in-house servers and automatically stored in the FactoryM database. They can then be accessed at every authorized PC with just a touch of a button. The production data is not lost even when there are network disruptions, because it is stored temporarily in the IMC Box. If a company uses BRANKAMP ProcessMonitoring



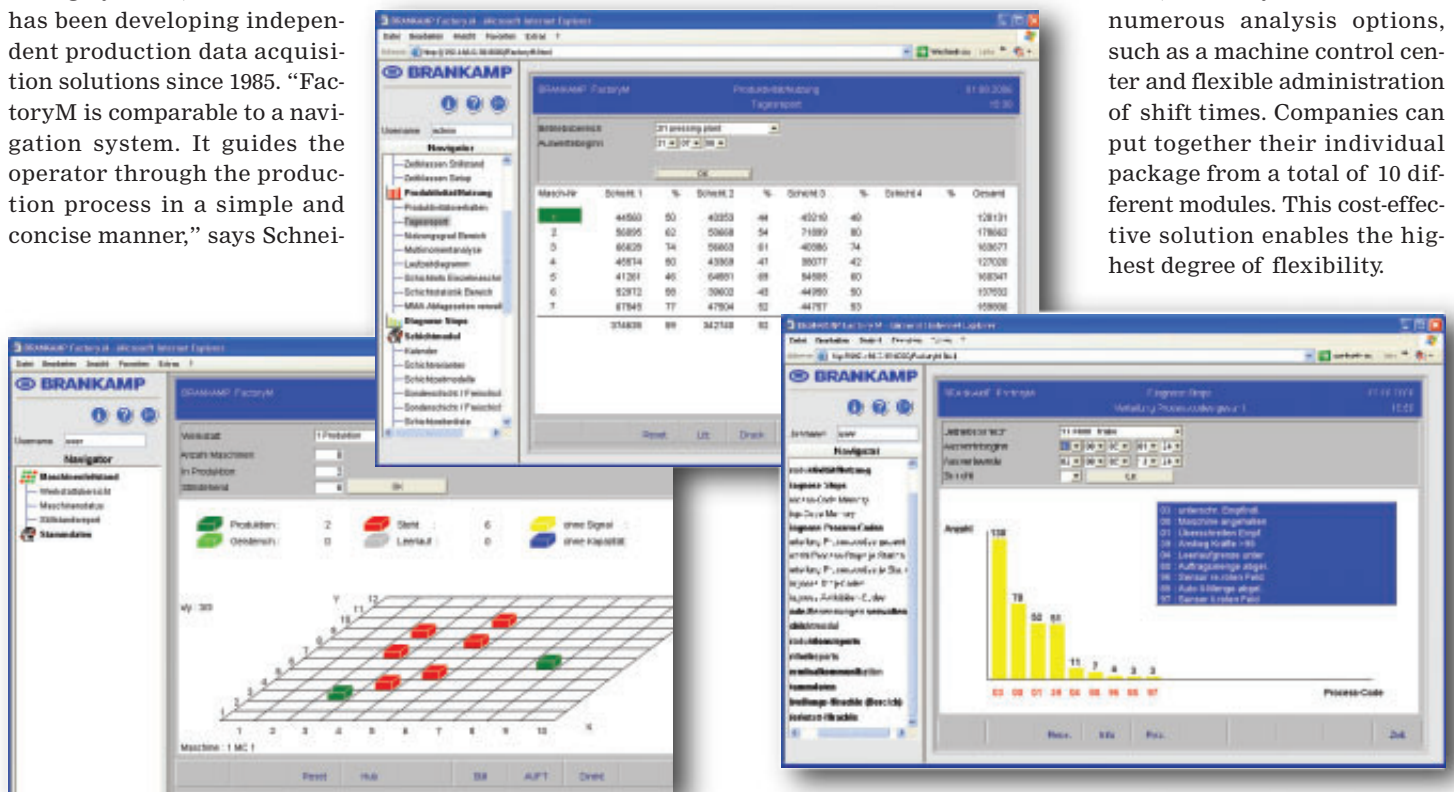
Saving shoe wear-and-tear: FactoryM saves production managers and workers much legwork.

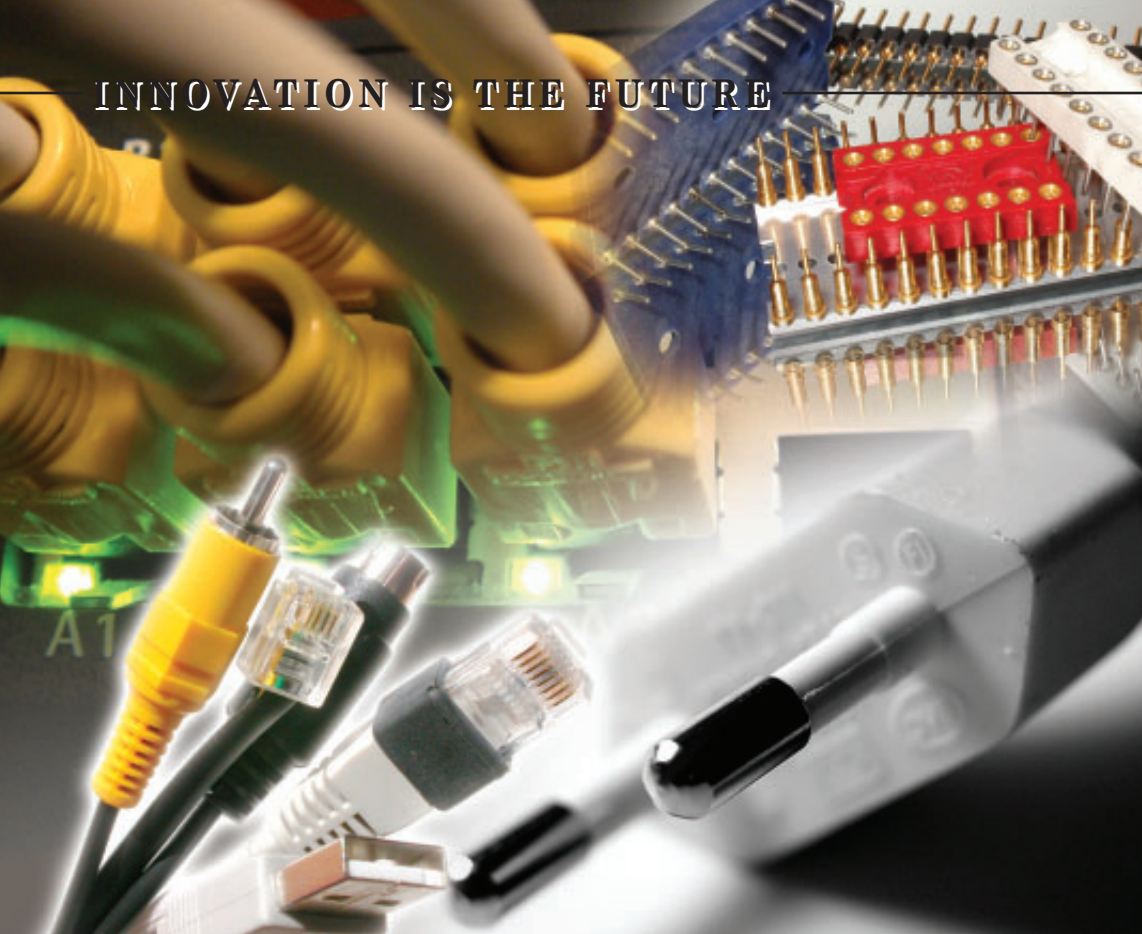
systems or other common monitoring systems, the impulses are directly transferred from there. Even high-speed punches pose no problems for FactoryM. Hans-Peter Schneider: "The system provides reli-

able data even at 3,000 strokes per minute."

Flexible and Modular

In addition to information about the quantity produced and a digital workshop overview, FactoryM also offers numerous analysis options, such as a machine control center and flexible administration of shift times. Companies can put together their individual package from a total of 10 different modules. This cost-effective solution enables the highest degree of flexibility.





Greater reliability in punching

Manufacturing is a complex process during which breakdowns occur time and again. But no punching operation can afford long production downtimes. Reliable process monitoring is therefore crucial. With its multi-sensor PK 900 measuring device, BRANKAMP is setting new standards in production safety.



Continual monitoring of the current machine status is essential for optimal management of production processes. The data from up to 20 independent punching processes can be viewed with a combination of the PK 900 and the GT industrial terminal. Equipment is easily selected via a touch screen on the left side of the screen.

The data and information from all monitored punching operations is brought together in the BRANKAMP GT industrial terminal. In this way the machine operator has an optimal overview of production. Using the touch screen, he can easily access the data for each individually monitored punching operation and display them on the color monitor. Standard functions include, amongst others, envelope curve monitoring, zoom and trend display. And the screen withstands raw production conditions, because the touch screen of the BRANKAMP GT is up to four times more shatter-proof than conventional touch screen monitors.

The BRANKAMP "High-Speed Force Sensor System"

Reliable, fast, cost-effective!

One-hundred percent error-free parts are an absolute must in the connector and contact industry. In automobile electronic engineering, in particular, nothing may go wrong. Nevertheless, typical punching problems such as stamped slugs, surface markings and male die fractures continue to occur. Time-consuming and cost-intensive final inspections are the result. The new "high-speed force sensor system" by BRANKAMP is here to help. The system enables seamless monitoring - even at speeds up to 3,000 strokes per minute.

Previously, measurements of the pressing forces of high-speed punches always failed due to the vibration of the machine. The vibrations were so great that they superimposed the determination of the forming capacity and therefore distorted it. Exact measurements were almost impossible. BRANKAMP's new "high-speed force sensor system" measures and assesses the pressing forces, even at extremely high stroke rates. The sensors are mounted appropriate to the particular tool.

BRANKAMP's two other sensors, UltraEmission and AcousticEmission, complete the in-process control in the punching shop. While the high-speed force sensor system" determines the pressing forces, AcousticEmission detects male die fractures in the machine and informs the worker immediately. UltraEmission makes sure that even the smallest punching waste is spotted in the tools. With the all-inclusive package from BRANKAMP, punches are optimally protected and parts quality is ensured. All the infor-

mation gathered is transferred to a clearly arranged color display by the BRANKAMP ProcessMonitoring system. Using envelope curves, the machine operator can see if any defective parts were rejected or if there are any tool or machine errors. The advantage of this is that final inspection by additional personnel is superfluous. Productivity is also increased thanks to the possibility of multiple-machine operation. Costs for tool and machine repairs are reduced to a minimum.

Dr.-Ing. K. Brankamp System Prozessautomation GmbH, Max-Planck-Str. 9, D-40699 Erkrath

BRANKAMP GMBH, DEUTSCHLAND

Phone +49/ 211/ 25 07 60
 Fax +49/ 211/ 20 84 02
 eMail bpd@brankamp.com

BRANKAMP S.R.L., ITALIA

Phone +39/ 039/ 60 81 917
 Fax +39/ 039/ 60 85 207
 eMail bpi@brankamp.com

BRANKAMP INC., USA

Phone +1/ 617/ 492 16 92
 Fax +1/ 617/ 497 56 75
 eMail bpa@brankamp.com