



WERMA[®] *Success Story*

„This is a really ‚SMART‘ system!“

Professional working tool manufacturer BETA monitors the performance of more than 40 machines with SmartMONITOR from WERMA

In order to reduce unplanned machine downtime to a minimum, improve response time to down time and to free up latent machine capacity BETA Utensili has installed a low cost and retrofitable machine monitoring and data collection system at its plant in Lodi in Italy. Signal towers indicate machine status and transmit this information wirelessly to a PC workstation where it gives a completely transparent overview of the operation. The easy to install wireless monitoring system provides the tool manufacturer with the required data to enable complete analysis and optimisation of the production process.

BETA – THE SPECIALIST MANUFACTURER OF PROFESSIONAL WORKING TOOLS AND INSTRUMENTS

BETA Utensili is Italy's leading manufacturer of a comprehensive portfolio of professional working tools and instruments – from pliers to screwdrivers, hammers, cutting tools and instruments for measurement and test, even down to personal protective wear equipment. The Tool specialist's catalogue covers 30 categories and contains over 14,000 products. The three manufacturing locations of the company in Milan, Castiglione d'Adda (Lodi) and Sulmona (L'Aquila) produce over 10 million parts per annum which are sold worldwide.

„DOWNTIME COSTS A LOT OF MONEY“

Davide Negroni is one of 600 staff employed at the company which has subsidiaries in Europe, Asia and South America. He manages production at the site at Castiglione d'Adda close to Lodi where over 70 staff work 24 hours per day over two or three shifts. "I am responsible for the complete production process" says Negroni "and we make several million tools per year, half of which are sold in Italy, the other half being sold on the international markets."

Davide Negroni stresses how important, given such high volumes, "that production runs problem free and that

Company portrait: BETA - the specialist manufacturer of professional working tools and instruments

BETA Utensili is Italy's leading manufacturer in the development and production of professional working tools and instruments. The catalogue consists of 30 different categories and over 14,000 products from pliers to screwdrivers, hammers, cutting tools and instruments for measurement and test, even down to personal protective wear equipment and everything needed for the workshop. Over 10 million products are made every year at the three sites in Milan, Lodi and Aquila which are sold worldwide. BETA has a global sales network with 8 subsidiary companies, its own logistics

network and more than 250 sales partners. There are more than 600 employees at the successful Italian company and its subsidiaries in Europe, Asia and South America.

The company was founded in 1923 and already by the nineteen sixties employed more than 200 people. The product range has increased year by year and meets the demanding requirements of industrial, professional and private users. Design and quality are of the highest importance to BETA. The company has set its goal to always meet the expectations and requirements of the user and to make the product one of the most important working tools.

Accordingly, the end product is subject to the most exacting of checks and controls. The design of the product aims to meet the functional demands as well as safety, robustness and ease of use whilst at the same time being aesthetically attractive. These objectives are reflected throughout all areas of the business and have led to an exemplary level of customer satisfaction.





Davide Negroni can view the status of all machines in his office in real time.

any stoppages are responded to immediately." He adds; "an undetected stoppage, even if it is only five minutes long, causes considerable increased costs which of course we would like to avoid. In addition to which the company is constantly striving to review the processes continually, to analyse and optimise them." Negroni concludes: "only by doing this can we increase productivity and maintain our competitive edge."

THE SEARCH FOR THE RIGHT SOLUTION

"In the past we had a constant battle with machine downtime which went

either unnoticed or were uncovered far too late" says Negroni: "in addition to which I could never see the productivity of our machines in real time which therefore also affected the response time, so we had to find a solution."

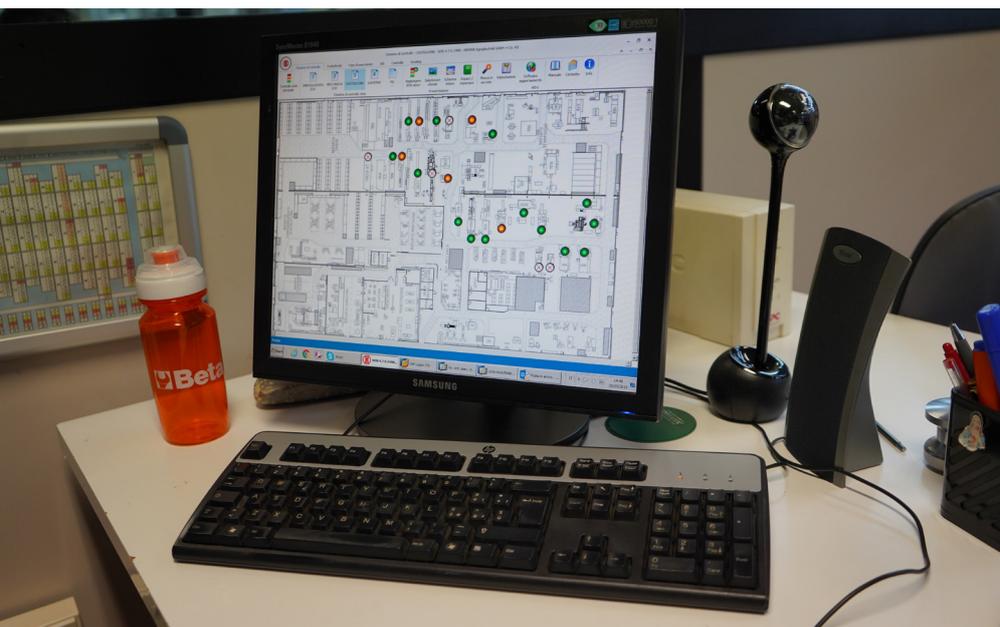
Through a Google search the 50 year old Production Manager found the monitoring and machine data collection system SmartMonitor from WERMA. "I had tried out several other systems and just about given up hope of finding a simple uncomplicated system which fulfilled our needs and which would also be easy to install and low-cost." The enquiry was sent in to WER-

MA and resulted in an initial consultation by telephone and just a few days later Negroni received a trial kit for three machines.

„I WAS IMMEDIATELY WON OVER!“

"Unlike the other systems I was able to install SmartMONITOR from WERMA by myself, simply quickly and intuitively. I was able to install the transmitter units onto our existing WERMA signal towers and with the system being "plug and play" contact the receiver to the PC and away we go!" reports Negroni. The Production manager was pleased and impressed: "I found it especially good that I was able to install the trial kit live in our production and test it. This means that it is all no longer theoretical but you can check the heartbeat of the machines yourself."

SmartMONITOR consists of wireless transmitters, a wireless receiver and the software. The tried and tested robust system transmits data on 868 MHz and the networked transmitters roam continuously looking for the optimum route to send data back to the receiver. A wireless transmitter unit is simply added to an existing WERMA signal tower and monitors constantly status changes of the machine, equipment or manual work-station and, if selected, the count of the output. Status changes are transmitted wirelessly to the receiver unit and saved to a SQL database which is an integral part of the software supplied.



The software displays the networked signal towers fitted to a machine. Productivity can be analysed and error statuses reviewed in order to increase the productivity and efficiency of the machine.

SIGNAL TOWER ACTS AS THE INTERFACE

WERMA's SmartMONITOR offers manufacturing businesses a smart alternative to monitoring machines and work-stations and collecting data in an uncomplicated and simple way. The intelligent networking of signal towers provides the basis for a cost-effective, simple and retrofittable alternative to more complex traditional monitoring systems. Type of machine or age is not important as the WERMA signal tower serves as the interface for the system.

At the Castiglione d'Adda site of BETA machine tools, presses and other special machines which are all networked on the SmartMONITOR system. Negroni explains further; "our production facility is very extensive which many different types of machines deployed, some of which are out of line of sight. This system offers the best possibility to see machine stoppages and error statuses immediately enabling speedy responses to be undertaken. During night shift when there is no supervisor on duty I can be informed of machine status change by e-mail and can see immediately if the machine is operating correctly. This enables the response time to issues to be minimised and avoids lengthy stoppages occurring."

Once the initial test phase was completed Davide Negroni ordered more units from WERMA. "We have now installed SmartMONITOR on more than 40 machines" advises Negroni proudly. Dr. Vismara who runs the BETA site in Milan has also installed the WERMA system. "We use SmartMONITOR at our site to check the performance of the facility and analyse downtime and the causes of unplanned stoppages. It is simply fantastic how quickly we can check and control and how the efficiency of our plant has improved thanks to the WERMA system."

EVALUATION AT THE TOUCH OF A BUTTON

The installation and introduction of the WERMA system at BETA passed off without a problem. "The system really was quick and easy to install and be ready for service" says Negroni, "and we had the first meaningful figures with-



BETA site: Virtually every machine on the Castiglione d'Adda site is equipped with WERMA signal towers and SmartMONITOR. The "plug and play" system simply requires a transmitter unit to be added to the signal tower which will then monitor the status change of the machine or equipment, including optionally, the output count.

in the first week – you really can't get it quicker than that!". The software displays the networked system of monitored machines and in the Control Station or Cockpit view the user can see the real time status of machines, analyse productivity, look for error/stoppage sources and thereafter improve the efficiency of the machines.

Responding to a question about how staff have reacted to the system Negroni answers; "our staff are also pleased with the system as it is now immediately clear where there are problems and stoppages and how quickly these can be responded to. It shows clearly repetitive issues which can then be addressed with long term improvement measures.

BETA is very happy with the WERMA system and already planning to expand the use of it. "We are very pleased with the product and with the service from WERMA" concludes Negroni. "We will install the system on the rest of the machines in use already and then on future purchases."



Left: Davide Negroni, head of production at the Castiglione d'Adda site near Milan manufacturing several million tools per annum.

Right: Dr. Vismara ist General Manager des Hauptsitzes von BETA und treibt seit Jahren die Entwicklung des Unternehmens maßgeblich voran. Auch er ist begeistert von dem smarten System.