

«With PDC we have established an accurate data base and therefore have reached a better transparency and process optimization. We are now able to see the current production status at any time.»

Günter Schedl -
Workflow Manager



www.schott.com

Kaba Partner:



www.bedatime.de www.tisoware.com

Schott-Rohrglas GmbH, Mitterteich



Manufacturing appears in a different light

Schott-Rohrglas in Mitterteich, Germany, produces special glasses and glass-ceramics for pharmaceutical and technical applications.

The special glasses are manufactured with state-of-the-art production processes. Schott maximizes their efficiency with a highperformance system for Time & Attendance and Production Data Collection. An up-to-date Access Control system takes care of security at Schott. The market leader, Schott-Rohrglas has 1,400 employees and belongs to the Schott Group, which employs some 18,000 people around the world. In 1884 Otto Schott laid the foundations for the special glass industry. Today Schott is a leading technology-driven global concern producing and supplying innovative high-tech materials, components and systems. The product range goes from special glass and glass-ceramics for the home and health industry to processed

flat glasses or chemical-resistant and heat-resistant borosilicate float glass. Schott-Rohrglas in Mitterteich produces a total of 65,000 tons of glass products per year. The outside diameters range is from 0.8 to 450 mm. Lengths vary from 0.3 mm to 7.5 m. Glass tubes are used in pharmaceutical and medical sectors, electronics, the chemical industry, cosmetics, lighting technology, and the artistic glass industry. The two Schott plants in Mitterteich produce more than 60 different types of glass.

Biometric system secures IT sector

Schott had an Access Control system that was not Year 2000 compliant. The conversion from fixed to flexible working times necessitated the implementation of an electronic Time and Attendance system. «We were looking for a modern, Oracle-based client server system», explains Günter Schedl, workflow manager at Schott-Rohrglas. «It needed to be Ethernet-capable and easily expandable by Production Data Collection, coupled with our PPS system PSI Penta.»

Success Story

On the recommendation of another company, Schott-Rohrglas became acquainted with the software house tisoware Gesellschaft für Zeitwirtschaft mbH in Reutlingen, Germany. Their offer convinced the project team at Schott. «tisoware's system accomplished all our demands,» says Günter Schedl. The implementation took place step-by-step: first Access Control and Time & Attendance, and then PDC as well as personnel resource planning for certain areas. Five Kaba Gallenschütz turnstiles (type «Kentaur») had been installed previously to protect the building's perimeter. Only the Access Control terminals were exchanged. They were replaced by Kaba Benzing Bedas 91 05 subterminals, controlled via three Bedas 92 60. Every employee received a LEGIC key tag for identification. After completion of a prestigious new building complex, two elegant Kaba Gallenschütz «Charon» glass tripod barriers were installed. Within sight of the gatehouse they are used for singling and are controlled via a Bedas 92 90 Access Manager. A sophisticated Access Control system was needed for the IT department. «This is the core of our company where absolute security must be provided», explains Günter Schedl. For this reason Schott-Rohrglas decided to set up an additional biometric system. Three doors were equipped with a finger geometry reader. First, every employee has to present a key tag. Then, the employee's identity must be verified with two fingers at the biometric device before the door opens.

To record flexible working times, 11 Bedas 93 40 time recordings terminals were installed on the company premises in the summer of 2000. With an employer/works council agreement, a large number of flexible work-time models were created. This way, employees can fulfill their normal working time of 37.5 hours/week between 6 a.m. and 7 p.m.. The latest starting time is 2 p.m. and the earliest work finish time is 11:15 a.m.. All commercial employees and industrial workers of the day-shift (approximately 400 employees) are included in this liberal regulation. Some 200 employees working in 3 shifts also profit from this regulation. Since implementation, the system runs smoothly. The collected working times are accounted by tisoware.Zeit and transmitted to PAISY as payroll data.

Clear structures with PDC

In the beginning of 2001, Schott began with the implementation of a Production Data Collection system. A PDC system was urgently needed for the «further processing» sector. In this area, some 200 employees produce different types of valves, e.g. for solar thermal collectors, micro diodes, and television necks. A complicated work cycle compensation takes place due to multiple machine operation. Manual time recording was no longer possible and far too complicated and time-consuming. «Clear structures needed to be created with a state-of-the-art PDC system,» reiterates Günter Schedl. Work orders in this sector often take weeks or even months.

Customized work orders, e.g. 50,000 television necks, are also produced to take into stocks. In April 2001, tisoware.BDE (PDC) was started in one area. Bit by bit the entire sector went live.

Employees book start-of-processing and interruption, as well as produced quantity and scrap. End-of-processing is recorded by the foreman directly at the screen. Fault reports are registered via barcode or keyboard. If a machine is out of order, all affecting orders are set to interruption. The production orders are sent to the PDC system by the PPS system «PSI Penta». In the meantime, Schott-Rohrglas also uses the new module «tisoware.BDEplus» for production data visualization.

Schott's project team is very satisfied with the system and the progress. «Time Recording runs absolutely trouble-free and with Access Control we have reached a very high security standard», summarizes Günter Schedl.