

Services

Seminars and support
for WITTMANN BATTENFELD products

world of innovation



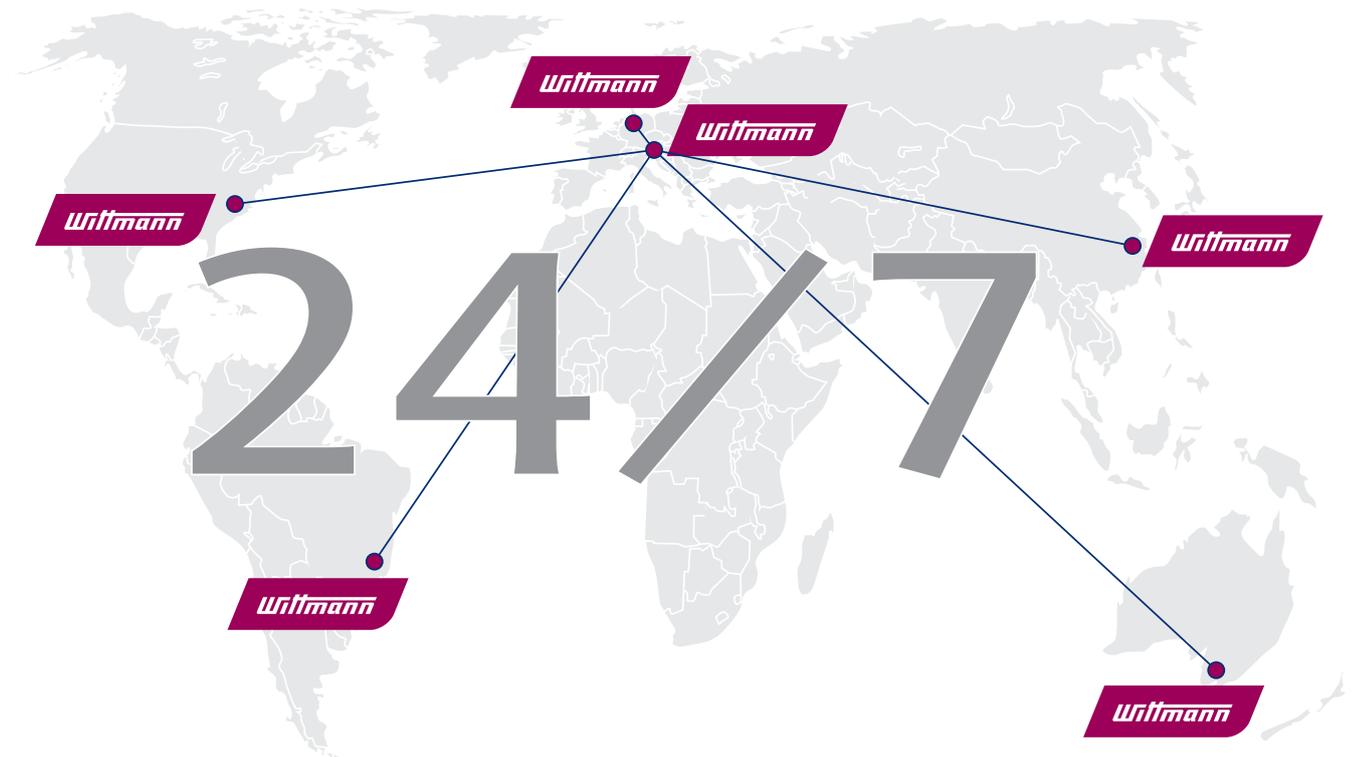
WITTMANN BATTENFELD SERVICES

Life-long support for machines

Injection molding machines provide optimal performance for many years in a suitable environment. This includes the expert knowledge of machine setters and maintenance engineers, as well as fast troubleshooting when problems occur, ranging from spare parts and expendable parts supply at short notice to process technology assistance in standard and special applications. In all of these areas, WITTMANN BATTENFELD offers the complete range of services.

A total of 450 specialists from the company's service organization stand ready to help worldwide as required. This organization is present on all continents with special competence centers and thus provides a short-distance logistics system across many time zones, both online and with on-site assistance.

The support covers the whole life cycle of a machine, starting with its commissioning accompanied by practice-oriented training of operators, and includes regular, value-preserving inspection and maintenance, technical support (hotlines and web services), supply of original spare parts, control system upgrades, demand-oriented retrofitting, adaptations for relocation and modernization of used machines.





CONNECT



Services

The highlights

- » **Technical customer support**
 - Professional commissioning
 - Free service hotline
 - Remodeling and retrofitting
 - Round-the-clock assistance
 - Machine networking
 - Preventive maintenance to secure performance
 - Calibration service to secure precision
 - Condition Monitoring
- » **Spare parts service**
 - Spare parts supply
 - Remodeling and retrofitting
 - Control system upgrades
 - Machine-specific spare parts packages
- » **Training**
 - Service seminars
 - Individual workshops
 - Web training
 - "Energy Efficiency" workshop
- » **Process assistance**
 - Selection of plasticizing units
 - Process technology assistance
 - Handling technology

TECHNICAL CUSTOMER SUPPORT

Service modules for the machines



The WITTMANN BATTENFELD service engineers ensure optimal performance and value preservation of the machinery worldwide – quickly, reliably and professionally.

Service is more than just repair work. Service means supporting and helping customers to ensure long-term performance. This includes the facility for online contact with the machine as well as gaining additional information from network integration of several machines, preventive maintenance and a calibration service.



Service hotline

Round-the-clock troubleshooting

The many years of practical experience and technological expertise of our service specialists help with failure analysis and provide support for efficient problem-solving. The free hotline is also staffed outside business hours and on week-ends.



Professional commissioning

A shortcut to the optimal operating point

The expert knowledge of our service engineers ensures professional commissioning of the equipment. This provides the perfect conditions for successful production.



Remodeling and retrofitting

Long-term value preservation

WITTMANN BATTENFELD machines are often in use for several decades and for a great variety of specifications. Professional remodeling, retrofitting and adaptations for relocation are part of our core competencies and are often the most economical way to achieve optimal production results once more.



Web service 24/7 Round-the-clock competence

Thanks to the service centers located in Europe, North and South America, Asia and Australia, contact partners are available round the clock for handling problems. With the help of the web service center, they can establish a direct connection to the machine on the Internet and thus have any problems or needs for maintenance work diagnosed. For new machines, the web service package is included in the price for the duration of the warranty period. Thereafter, cost-effective one-year contracts are available.



Remote control Extremely easy networking

The WITTMANN BATTENFELD remote visualization system enables networking of the injection molding machines in a production plant - without web connection. Via the network, the machine can be addressed directly from the office for process optimization. All production data can be recorded during production and transferred directly to the corporate network or printed out.



Preventive service Preserving performance by preventive maintenance

Preventive maintenance of the machine serves to detect wear before it causes expensive consequential damage, or quality tolerances can no longer be maintained. It includes regular machine inspections with oil analyses. The benefits are increased fail safety, a reduction in the "total cost of ownership" and less wear on the machine, which increases its resale value.



Calibration service To make sure everything is as it should be

The calibration service includes setting and adjustment of the basic parameters for distances, speeds, pressures and temperatures to ensure machine capability. The benefit is maintenance of the machine parameters' reproducibility. This leads to time, energy and material savings and consistent quality standards in production. This also includes compliance with the requirements of GMP & ISO 13485 standards.

CONDITION MONITORING SYSTEM (CMS)

Quality assurance by condition monitoring

Condition-based maintenance

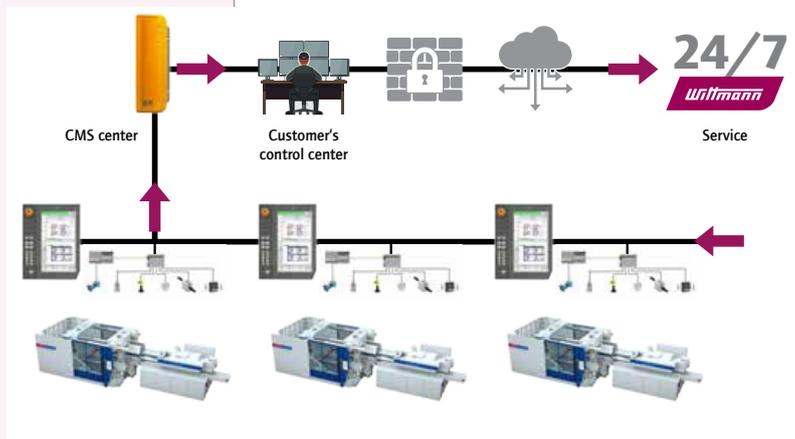
Knowledge saves costs

Condition monitoring requires not only hardware and software, but an intelligent strategy combining technical components with human diagnostics expertise. The condition monitoring strategy consists of continuous monitoring of essential component functions in the injection molding machine, taking into account the ambient conditions (temperature and moisture content of the ambient air) as well as the operating materials (oil/water), the energy input, the condition of the mechanical machine components (vibration measurement) and the process settings.



CMS overview

The machine status can be transmitted via a local network to a central CMS computer and from there to the production control center. From there, the WITTMANN BATTENFELD service can be notified via an online connection in case of irregularities.



SPARE PARTS SERVICE

Ensuring long-term performance

Wittmann



SPARE PARTS SERVICE

90 % within 24 hours

Fast and reliable supply of top-quality original spare parts is a vital part of the WITTMANN BATTENFELD service portfolio. Thanks to continuous replenishment of spare parts stocks, delivery within two working days can be guaranteed for more than 90 per cent of all spare parts. A large proportion is already shipped the same day.

Through cooperation with an international network of courier services, deliveries can even be organized during the night or on weekends.



Remodeling and retrofitting

Ready to meet new challenges

Where the specification for a machine no longer corresponds to its original purpose, WITTMANN BATTENFELD offers a professional machine remodeling and/or retrofitting service. Especially for customized solutions, this is often the economically most sensible option to achieve optimal production results once more. Deliveries during the night or on weekends can also be organized.

Control system upgrades

Preserving proven equipment

WITTMANN BATTENFELD machines have often been in operation for decades and are still in a perfect mechanical condition even after heavy use. Regardless of their current control system generation, these machines can be retrofitted with the latest control system technology.

The efficiency of the equipment can thus be preserved for many more years. The implementation of new technical functions becomes possible without having to buy new machines. For example, a process and batch recording function can be integrated. This makes it possible to comply with the standards of modern quality management. An upgrade of the documentation reduces future maintenance and service work.



TRAINING

"Personal" or "virtual" machine setter training

Regardless of whether newcomers or old hands, the WITTMANN BATTENFELD training courses make all participants fit for getting the maximum benefit out of their injection molding machines. A training program, which is precisely geared to the requirements and is continually further optimized, brings their knowledge up to the state of the art in the areas of machine operation, servicing and maintenance as well as application technology. The courses can be completed with a training certificate.

The training organization is designed for maximum flexibility. The customer's request determines the venue and main topics. Courses can generally be held either at the WITTMANN BATTENFELD training centers or on the customer's premises with a special focus on the production on site.

In addition to the course program, WITTMANN BATTENFELD offers workshops focusing on energy-efficient injection molding and process optimization.





Service seminars

Long-term preservation of productivity

WITTMANN BATTENFELD offers seminars specializing in the technical areas of mechanics, hydraulics and electrics. In maintenance seminars, the principles and systems of preventive machine maintenance are dealt with. Service seminars are available for all machine models with B6 and B8 control systems. In special cases, training courses can also be held for older control system generations directly on site at the customer's premises.



Individual workshops

To fit special needs

Machines from WITTMANN BATTENFELD have a long tradition. These machines still set themselves apart by their intuitive control system concept and long service life. Therefore individual training programs on older control system generations are also available, generally on site. Training courses to meet customers' needs in the areas of process technology and micro injection molding are available as well.



Web training

Worldwide support

Follow-up training sessions via the Internet support the knowledge transfer into daily practice. Any questions arising after an on-site seminar are answered by WITTMANN BATTENFELD training staff live and online via a PC video and audio connection. Every training session can be saved on the hard disc and thus be repeated individually as needed. In this way, even knowledge about specific topics can be expanded and tailored to fit individual needs.



"Energy efficiency" workshops

Recipes against waste of energy

At least ten percent of the energy consumption can be saved by consistent energy management. In the "energy efficiency" workshop, energy saving potentials are demonstrated and practiced in virtual reality exercises. In addition, calculatory approaches to investment and effective measures to save energy are taught.

PROCESS ASSISTANCE

Efficiency for non-standard applications

The aim of the WITTMANN BATTENFELD service portfolio is to support complete solutions. In addition to its technical customer support, spare parts service and extensive training program, WITTMANN BATTENFELD rounds off its customer support with expert process counseling. In this way, all important prerequisites are provided for successful manufacturing of injection molded parts.

» Plasticizing units

Correct plasticizing with relevant know-how

A major issue in process technology counseling is the selection of the optimal plasticizing system. Here, WITTMANN BATTENFELD can draw on many years of experience in the area of screw and barrel manufacturing and offers a wide portfolio of proven standard solutions and innovative customized solutions precisely geared to the constantly growing range of materials to be processed (e.g. long glass fiber-reinforced plastics, wood-plastic compounds, biologically degradable plastics and ceramics).



» **Process technology assistance**

For top-class results even in special processes

WITTMANN BATTENFELD ranks among the pioneers in injection molding technology and has contributed substantially to the development of standard and special processes, in particular the processes listed below.

- AIRMOULD® - gas injection technology
- COMBIMOULD - multi-component technology
- CELLMOULD® - micro cell foam injection molding
- LIM - liquid silicone injection molding
- PIM - metal and/or ceramic powder injection molding
- WPC (wood-plastic compounds)
- Thermoset injection molding
- Co-injection (sandwich) injection molding
- BFMOLD® - variothermic mold cooling
- VARIOMOULD® - variothermic process control



» **Handling technology**

Efficient integration of auxiliaries

The process technology knowledge is rounded off by adding know-how about the potential of special handling technology for the insertion of labels, plastic sheets, textiles or metal components, or even entire metal/plastic assemblies.

- IML (In-Mold Labeling)
- IMD (In-Mold Decoration)
- Insert Technology



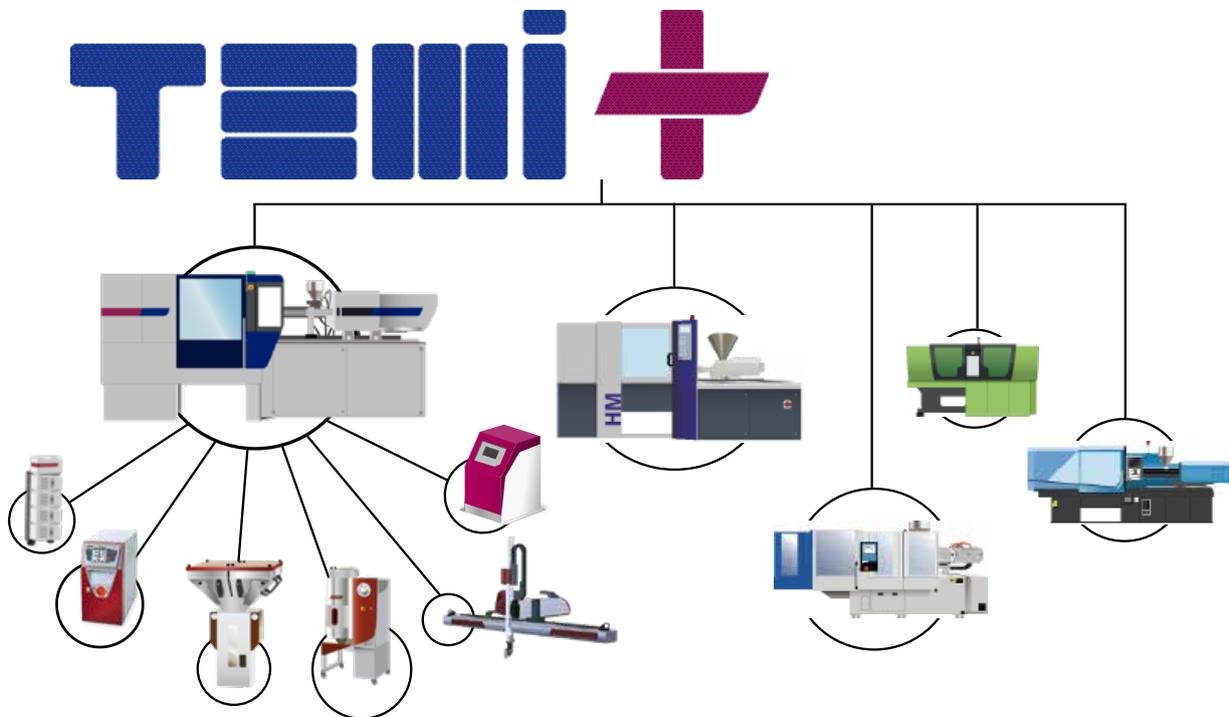
TEMI+

Manufacturing Execution System (MES)

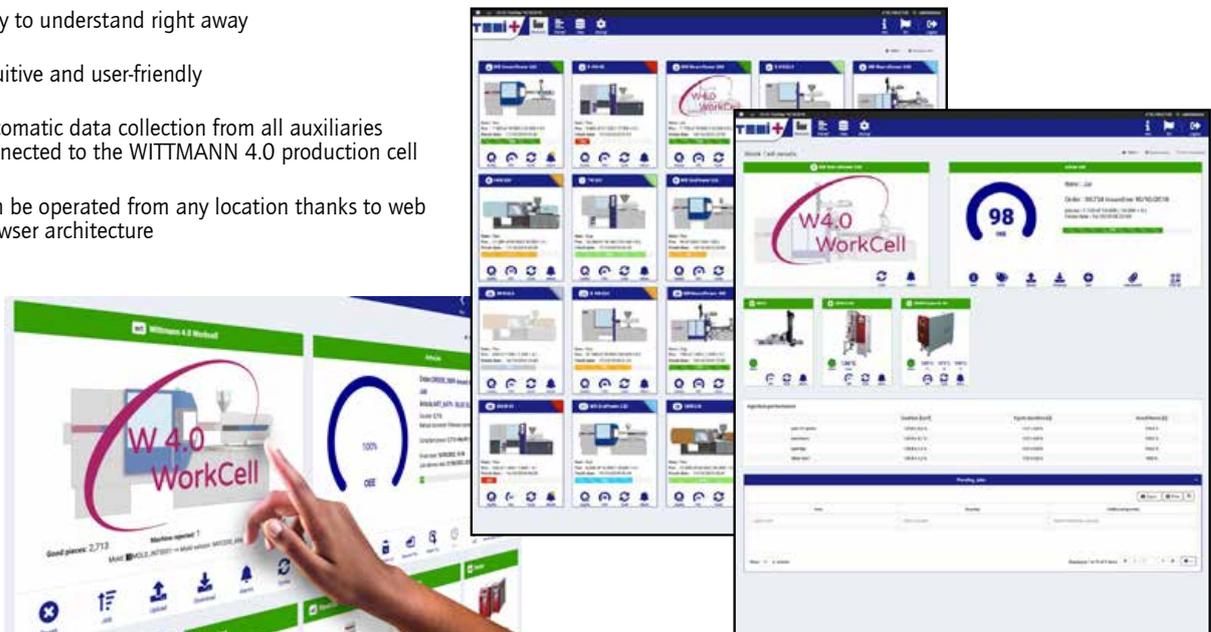
Manufacturing Execution System (MES) is a tool that provides real-time interactive communication and assists with data management. MES can track and document the whole process from the raw material to the final product.

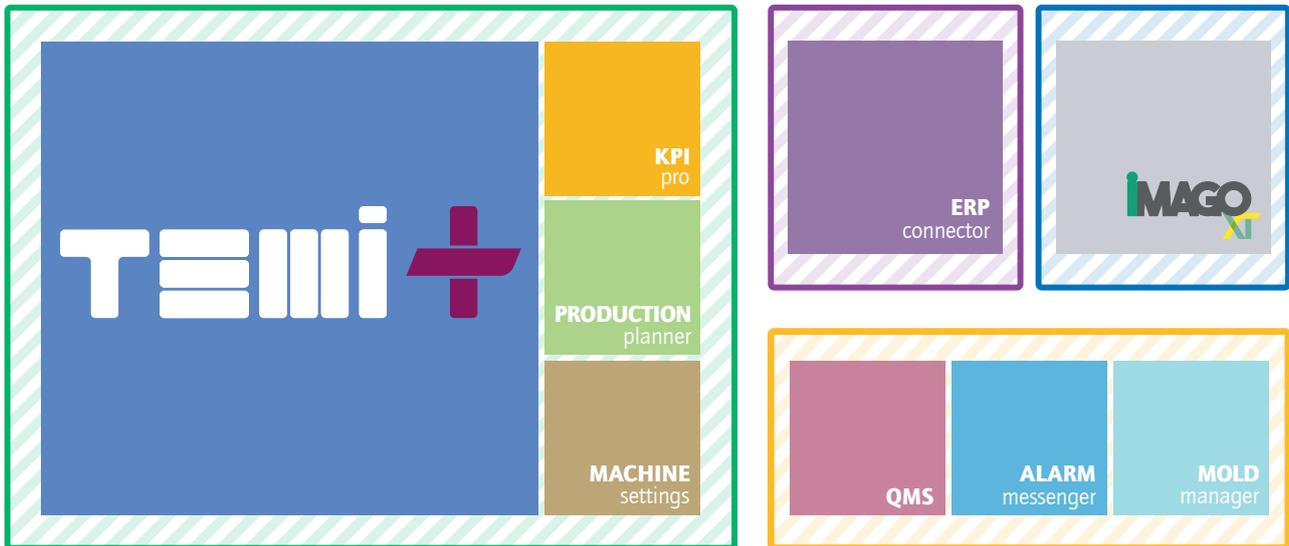
TEMI+ is a MES software specially developed for the plastics industry. It helps make the best use of time and resources through a highly efficient intuitive human-machine interface.

TEMI+ is the MES able to connect other brand machines, old injection molding machines and also the new WITTMANN BATTENFELD WorkCells based on the WITTMANN 4.0 router for the collection of auxiliaries production information.



- » Easy to understand right away
- » Intuitive and user-friendly
- » Automatic data collection from all auxiliaries connected to the WITTMANN 4.0 production cell
- » Can be operated from any location thanks to web browser architecture





Optional Hardware

-  TEMI+ Standard
-  Advanced Package
-  Connect Package
-  IMAGOxt Package

TEMI+ and its modules

Temi Plus is the standard package which includes all production planner, production monitor, data manager and OEE KPI pro functions. The data manager handles the administration of the production cell settings for the injection molding machine and the WITTMANN 4.0 auxiliary, as well as the PDF viewer for documents, working instructions and product drawings.

The **Advanced Package** is an extension which includes all functions and modules such as the alarm manager, the QMS module and the maintenance manager. These serve to improve both productivity and product quality by reducing downtimes in conjunction with digital quality inspection.

The **Connect Package** is an extension which adds the interface to connect the Temi Plus with ERP systems and cloud services.

IMAGOxt is an optional hardware and software package for measuring energy consumption and other external data. Thanks to the intuitive visualization of the measured data, energy peaks during the production process can be optimized and reduced.

The Wittmann logo is located in the bottom right corner of the page. It consists of the word "Wittmann" in a white, italicized, sans-serif font, set against a dark red, rounded rectangular background.

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