

Progress through Innovation







WITTMANN – Innovations since over 30 years

Since its establishment by Dr. Werner Wittmann with the production of water flow regulators, WITTMANN – a family owned company – has succeeded to become the leading manufacturer of automation and peripheral equipment to the plastics industry through relentless product development and highest product quality.

As a worldwide manufacturer WITTMANN offers a complete range of innovative peripheral equipment to the global plastics industry. The product range includes robots and automation systems as well as products for automated material supply and drying, the recycling of plastic parts and mold heating and cooling.

With this complete peripheral equipment product range WITTMANN offers plastics processors innovative solutions covering all their needs – from autonomous work cells with a single zone temperature controller, screenless granulator, sprue picker and integrated vacuum loader to centrally managed and controlled system solutions with fully integrated materials handling and drying along with robots and automation for flexible handling and removal of plastic parts.

The international network of the WITTMANN group allows superior sales and service support in all major worldwide plastic markets.

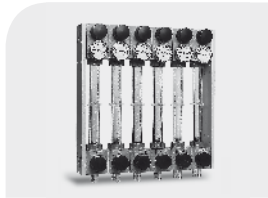
WITTMANN – Focused on the requirements and expectations of its customers.

The President and the WITTMANN Team



Dr. Werner Wittmann

The first 30 years ...



Beginning with **Water Flow Regulators** and **Temperature Controller** 1976–1982



Entering the **Robot-Technology** 1983



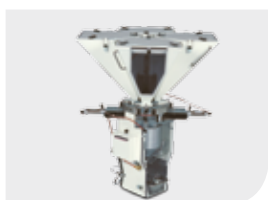
DRYMAX D60 Entering into the drying market 1998



ML-33 Entering into the granulators market 2000



M7 TeachBox for central conveying systems 2002–2006



GRAVIMAX 14R 2007

WITTMANN – your partner in the plastics industry!

- In 1976 Dr. Werner Wittmann started the company with the manufacture and sale of the first WITTMANN water flow regulator. Only two years later the first WITTMANN temperature controllers with integrated water flow regulators for direct mounting on the molding machines went in production.
- In 1983 WITTMANN entered the robot market and in 1987 introduced the first removable teach pendant to the plastics industry.
- From 1989 to 1992 WITTMANN further proved themselves with the introduction of the patented vertical telescopic axis, the high-speed servo robot and the development of a Real-Time CAN-Bus for the realization of decentralized controls.
- In 1998 they entered into the drying market for plastic resin. In the same year WITTMANN makes use of carbon fiber for the light weight construction of robots.
- Further expansion of the product offering occurred with the entrance into the material handling market in 1999. In the same year the **SmartFlow** valve was developed to allow the intelligent distribution of dry air for drying systems.
- In 2000 they enter the market for granulators, further providing WITTMANN with a wide range of products to offer the plastics industry.
- In 2001 a graphical editor for robot sequences, as well as, **FLOWCON** microprocessor based water flow regulators are introduced to the market.
- In 2002 WITTMANN begins the creation and programming of the **M7** control, an advanced decentralized network control system for central material handling.
- From 2003 to 2006 WITTMANN develops the energy saving and highly efficient molecular sieve regeneration – in short called **SmartReg**. WITTMANN introduces screenless granulators with reversible combs and counter-combs. Further development also occurs with the **M7.2** – a more advanced version of the material handling control system which supports the integration of central drying systems and the use of **RFID** for the contactless recognition of end-of-arm tools and connections on coupling stations.
- In 2006 IML mold production starts and the introduction of the **W7XH**, a robot with **SCARA** kinematics for the fastest possible horizontal removal.
- From 2007 WITTMANN has been very busy with further development of another branch of the peripheral equipment market – that of gravimetric blending.
- In 2008 WITTMANN purchased the injection molding machine manufacturer **BATTENFELD** located in Kottlingbrunn, Austria to become the world's first and only supplier of complete solutions to the plastics industry.



Water flow regulator 301 Series



CAN-Bus



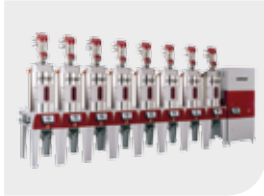
SUMO Minor 2 screenless granulators



GRAVIMAX blending valve



W633 Carbon robot



Intelligent air distribution SmartFlow



R8 robot control



TEMPRO plus C with DUO-cooling

The relentless drive for innovation by the WITTMANN development team has helped mark the history of the company. The slogan "Progress through Innovation" represents the inventive spirit, which has and continues to lead to numerous industry firsts and patents in the field of peripheral equipment.

— Water Flow Regulators

The first generation of WITTMANN water flow regulators defined the world standard in mold cooling and remains valid today. The second generation of water flow regulators in 1992 provided further simplification of the cleaning process.

— CAN-Bus

At the "K 1992" show WITTMANN was the first robot manufacturer in the plastics industry to introduce decentralized control logic with real time data exchange. The significant reduction in the number of cables and at the same time secure data transmission set a new standard in the industry.

— Carbon-Fiber Technology

The consistent pursuit of lightweight robot construction and reduction of moveable masses brings ever shorter part removal times. In 1998 the first use of carbon fiber materials on the vertical axis allowed speed profiles that up until then were unheard of.

— SmartFlow

In 2000 SmartFlow was introduced for the intelligent distribution of air in central drying systems to ensure the optimum amount of dry air volume is independently provided to each drying hopper. Optimum drying results with the lowest energy consumption guaranteed.

— Screenless granulators

In 2003 a completely revamped generation of low speed screenless granulators with reversible combs and counter-combs was offered to the market. This resulted in extended maintenance intervals and the highest quality regrind possible.

— Gravimetric Blending

In 2007 the GRAVIMAX series blenders with Real Time Live Scale (RTLS) measurement were introduced. The RTLS technology provides free flow, coarse and fine pulsing for the highest blending precision every single batch.

— Segmented wheel dryer

A further innovation in 2007 was the world's first segmented wheel dryer, combining the advantages of twin desiccant bed type dryers and wheel dryers. This completely new compact dryer design offers constant dew point and energy saving operation combined with the simplest maintenance.

— DUO-Cooling

In 2008 WITTMANN introduced the first temperature controller offering both direct and indirect cooling. DUO-cooling offers on one hand the highest cooling capacity and on the other hand, the most precise cooling through an integrated cooling coil.

Cutting Edge Production Methods

Seven manufacturing facilities in Austria (2), Hungary, France, USA, Canada and China guarantee the best utilization of local resources and know-how.

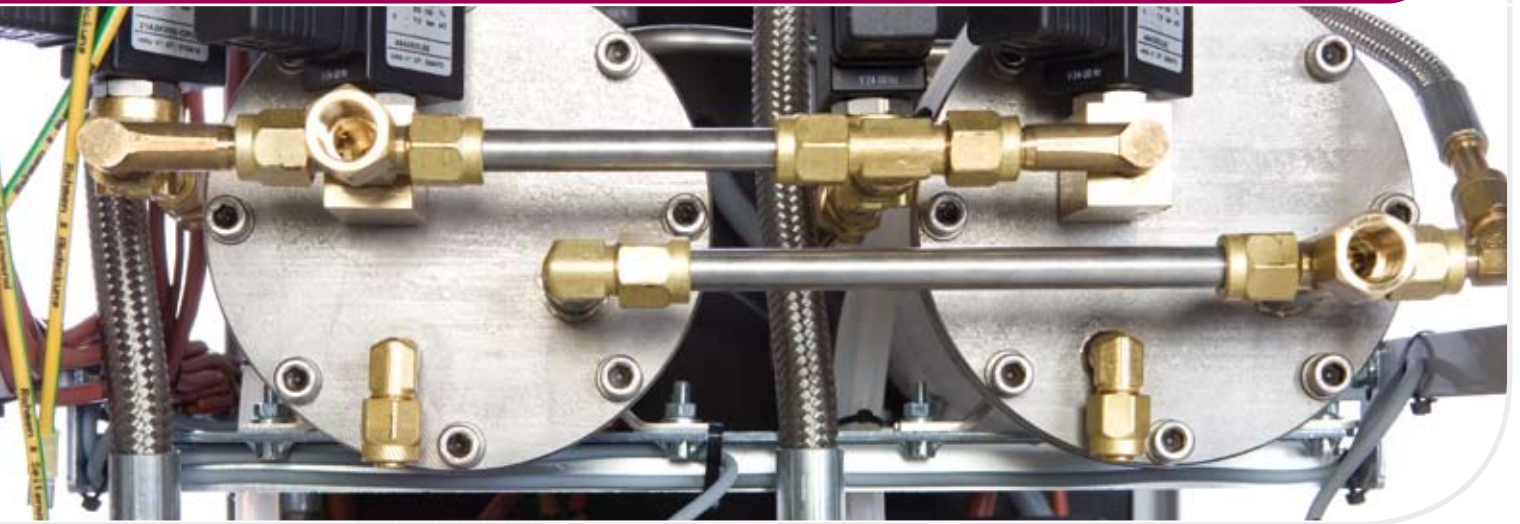
The machining and assembly of the various products is performed in series production to achieve economies of scale for the lowest prices and highest quality.

The product range includes robots and automation systems as well as products for automated material supply and drying, the recycling of plastic parts and mold heating and cooling. With this all encompassing peripheral equipment product range WITTMANN offers plastic processors complete solutions for virtually any application.

The worldwide efforts in product development and the necessary financial investment have lead to numerous patents and purchase recommendations based on independent reviews that have made WITTMANN what it is today – the market leader in the peripheral equipment field!



Water Flow Regulators and Temperature Controllers



Water Flow Regulators

WITTMANN's first product, the water flow regulator, has proven itself worldwide for over 30 years and is the standard of leading molding machine manufacturers.

TEMPRO primus & basic

The economical choice for precise temperature control and highest user comfort offers functionality and outstanding quality standards at affordable prices.



TEMPRO plus C

The single and dual zone TEMPRO plus C temperature controllers are designed for precise temperature control up to 250°C (for oil) or 180°C (for water). Standard features with TEMPRO plus C units are additional cost options for other manufacturers.



COOLMAX Chillers

High performance, portable chillers provide cooling capacities ranging from 10 to 89kW. The units are equipped with generously dimensioned air condensers, automatic filling, hermetically sealed compressors and anti-freeze control.



Reliable

WITTMANN robots have achieved a leading market position through their innovative technology, performance and reliability.

The optimum design of these robots is based on 25 years of practical experience and tens of thousands of applications in molding shops around the world. WITTMANN offers its customers the best performing robots and axes with the fastest motions.

Flexible

The robots series covers a complete range, with numerous models and optional features. WITTMANN is able to offer every user the optimum robot with the best price/performance ratio.

In addition to sprue pickers for the removal of sprues and small parts from injection molding machines, WITTMANN designs and builds innovative servo driven robots which are ideally suited for use on molding machines of all sizes.

Modular

Economical serial production and technically perfect implementation are without question for WITTMANN robots: whether for robots with telescopic vertical axis, robots for the fastest horizontal removal, robots for stack molds, Ultra-High Speed robots or robots with rotational axes for applications requiring the maximum degree of freedom.



— *Pneumatic Robots*

As the entry level into the extensive WITTMANN robot series the pneumatic robots offer solid construction, designed for a long life span and can be specified to suit most applications.

— *Servo Robots*

The servo robot series span a range of payloads from 3 to 125 kg, permit fastest part removal times and therefore, quick amortization of the investment. All robots are equipped as standard with three highly dynamic servo motors and cutting edge control components, allowing a complete range of time saving motions.



— *Special solutions*

The modular design allows for special configurations like robots for horizontal removal and **SCARA** robots for the fastest removal of thin wall parts.

— *Controls*

The innovative WITTMANN **TeachBox** has defined the industry standard in regards to simplest use and flexibility, without the need for an external control cabinet.





— **DRYMAX Compact Dryers**

The advanced, energy efficient technology of the compact desiccant bed dryers reaches ambient independent dew points of -60°C . The optional integrated blower package allows the flexible conveying of dried material to one or two machines.

— **DRYMAX Battery Dryers**

The most advanced drying technology on the market is packaged in the battery dryers, including energy saving counter air flow regeneration (**SmartReg**) and a material protection function for drying capacities up to 1,000 kg/h.



— **SILMAX Drying Hoppers**

SILMAX drying hoppers feature integrated microprocessor control for automatic air distribution and temperature control to adjust to different materials and fluctuating demands.



— **Network Control Systems**

The WITTMANN eMax and M7.2 control systems are sophisticated, distributed control systems for central material handling and allow for the connection of 24 or 240 system components respectively. The M7.2 control allows for the integrated connection of DRYMAX drying systems, external silos and arbitrary I/O-modules. The various possibilities and flexible configuration of the components provides solutions for practically any resin handling application.



— **FEEDMAX Loaders**

Individual loaders for the flexible conveying of smaller material volumes for up to 100 kg/h. These stainless steel units are perfectly suited for critical and abrasive applications.



— **FEEDMAX Central Loaders**

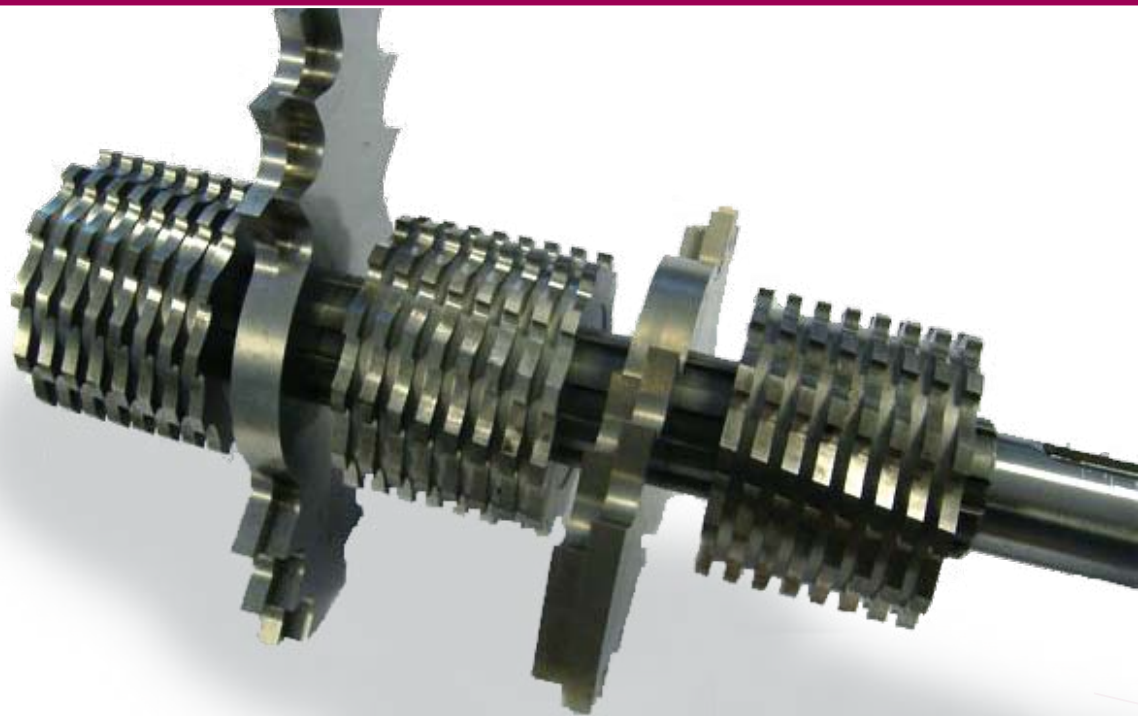
Central applications require the high reliability of FEEDMAX central loaders with stainless steel construction and equipped with pneumatically actuated discharge valves for complete sealing.



— **Blenders**

Volumetric and gravimetric blenders with precise material throughput for up to 5,000 kg/h. GRAVIMAX blenders provide Real Time Live Scale (RTLs) measurement and are equipped with an adaptive 3-step dispensing valve to precisely blend every single batch.





— *SUMO Series*

The low speed screenless granulators are designed for hard to process plastic materials and to minimize wear of cutting chamber components, knives, rollers and combs. The specialized design of the rollers reduces fines and guarantees quiet operation.



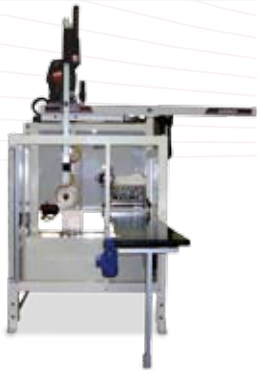
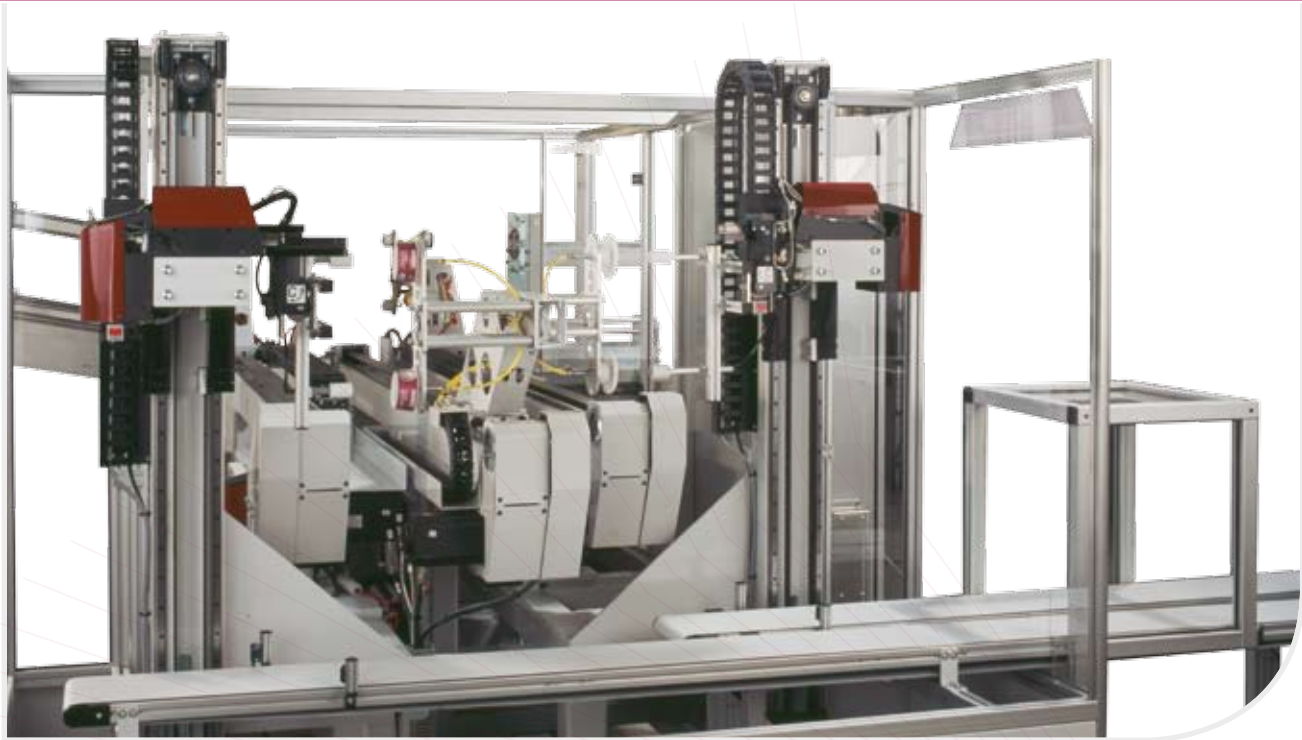
— *MAS Series*

The *MAS* series compact granulators have conventional knives and a screen for the versatile granulation of plastic materials. Pre-adjustable knives allow for excellent quality uniform regrind during the lifetime of the unit. Tangential feed cutting chambers improve the intake of parts.



— *MC Series*

The *MC* series granulators are intended for both beside-the-press and central granulation of runners, parts and various scrap. Quick and easy knife maintenance with pre-adjustable knives, guarantees constant rotor diameter for the highest regrind quality.



— **IML – Standard Robots**

WITTMANN's extensive line of automation systems covers the entire range of IML applications. Top entry robots are best suited for the medium to longer overall cycle times and offer the greatest motion flexibility. The package includes end-of-arm-tooling, label magazine, electrostatic charger and integrated guarding and conveyor.



— **IML – Side-Entry Robots**

Side-entry robots offer the optimum solution for very demanding, fast cycling applications including stack molds and where cycle times are less than five seconds. Even with all the optimization for the highest speed operation, these units still feature simple adjustability and flexibility.



— **Mold Making**

Turnkey IML systems including the molds are the specialty of WITTMANN. Their hot runner molds are designed specifically for thin wall parts and offer extremely rugged mold construction and optimized cooling.



Austria – Headquarters

Lichtblaustrasse 10
1220 Vienna
Austria

Tel. +43 1 250 39-0
Fax +43 1 259 71 70
info.at@wittmann-group.com

Australia



3 Phoenix Court
Braeside Victoria 3195
PO Box 614

Tel. +61 (0) 3 9587 5211
Fax +61 (0) 3 9587 5225
welcome@wittmann-battenfeld.com.au



Brazil



Av. Francisco de Angelis
166 – Jardim Okita
CEP 13043 030 Campinas SP

Tel. +55 (19) 3234-9464
Fax +55 (19) 3234-3784
wittmann@wittmann-group.com.br

Canada



35 Leek Crescent
Richmond Hill
Ontario L4B 4C2

Tel. +1 905 887 5355
Fax +1 905 887 1162
TollFree: +1 888 466 8266
info@wittmann-group.ca



China



No. 1 Wittmann Road
Dianshanhu, Kunshan
Jiangsu Province, 215345

Tel. +86 512 5748 3388
Fax +86 515 5748 3399
info@wittmann-group.cn

Czech Republic



Pražská 286
397 01 Pisek
Czech Republic

Tel. +42 (0) 382-2772-995
Fax +42 (0) 382-272-996
info@wittmann-cz.com



France



27, Rue de la Tuilerie
Z.I. Tuilerie II
38170 Seyssinet Pariset

Tel. +33 (4) 7684 2727
Fax +33 (4) 7684 2720
info@wittmann-group.fr

Germany



Am Gewerbepark 1–3
64823 Groß-Umstadt
Germany

Tel. +49 607 893 390
Fax +49 607 893 3940
info.de@wittmann-group.com





Great Britain



Sanders Road, Finedon Road
Industrial Estate, Wellingborough
NN8 4NL Northants

Tel. +44 193 327 5777
Fax +44 193 327 0590
info@wittmann-group.co.uk

Hungary



Gabonarakpart 6
9200 Mosonmagyaróvár
Hungary

Tel. +36 9657 7470
Fax +36 9657 7471
info.hu@wittmann-group.com



Mexico



Av. Rafael Sesma Huerta No. 21
Parque Industrial FINSA
C.P. 76246 El Marqués Querétaro

Tel. +52 (442) 10 17 100
Fax +52 (442) 10 17 101
info@wittmann-group.mx

Scandinavia



Kratbjerg 202
3480 Fredensborg
Denmark

Tel. +45 4846 6500
Fax +45 4846 6519
info@wittmann-robot.dk



Spain



Pol. Ind. Plans d'arau
C/Thomas Alva Edison Nr. 1
08787 La Pobla de Claramunt

Tel. +34 93 808 7860
Fax +34 93 808 7197/7199
info@wittmann-group.es



Switzerland



Uznacherstrasse 18
8722 Kaltbrunn
Switzerland

Tel. +41 55293 4093
Fax +41 55293 4094
info@wittmann-group.ch



Turkey



Egitim Mahallesi Poyraz Sokak
Sadikoglu Plaza 5 No. 17
34722 Kadiköy Istanbul

Tel. +90 216 550 9314
Fax +90 216 550 9317
info.tr@wittmann-group.com



USA



1 Technology Park Drive
Torrington, CT 06790
USA

Tel. +1 860 496 9603
Fax +1 860 482 2069
info.us@wittmann-group.com





Technology working for you.

WITTMANN Kunststoffgeräte GmbH

Lichtblaustrasse 10

1220 Vienna | Austria

Tel.: +43 1 250 39 0 | Fax: +43 1 259 71 70

info.at@wittmann-group.com

www.wittmann-group.com