

Wittmann

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innovations

Techniques – Markets – Trends

Volume 10 – 2/2016

He made it like this!



10 Years of innovations Magazine!

Battenfeld

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Editorial

Content



Michael Wittmann

Dear Reader,

“One should celebrate the parties as they come”, says a German proverb. We are glad to choose this as our motto, since this year we have plenty of opportunities for celebrating. The date of our 40th anniversary celebration is approaching fast, and preparations for the events to be staged on June 8 and 9 are already in full swing. The planning sessions have been characterized by anticipation and excitement. We all look forward to welcoming our guests, for whom we are planning a comprehensive presentation of our work on this special occasion.

But those 40 years of WITTMANN's existence are not the only reason for joy. Via our magazine *WITTMANN innovations*, we supply our customers and staff members on a regular basis with internal information about our group of companies and interesting user reports reaching us from around the world. And now, in 2016, we are pleased to ring in the tenth volume of our medium!



Bernhard Grabner



Mitch Hannoosh



Gabriele Hopf



Adrian Lunney

From the very beginning, our *WITTMANN innovations* magazine has been published quarterly in three different languages. The German, English and Spanish editions are distributed by our subsidiaries in their local markets and thus reach several thousand readers. And the articles published here are frequently reprinted in the relevant trade magazines of major publishing houses.

At this point I would like to thank you, dear readers, for your interest and numerous pieces of feedback, not forgetting to thank also those responsible for creating each issue. Bernhard Grabner, who from the beginning has been in charge of the project in Vienna, is responsible for the editorial work, layout and artwork. Gabriele Hopf (Kottingbrunn) is constantly on the lookout for injection molding user reports, and Mitch Hannoosh and Adrian Lunney from the USA and the UK make sure that the English translations are correct.

Yours cordially, Michael Wittmann

Injection Molding

Precise automotive parts



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Innovative locking technology for the automotive industry

The REUTTER Group based in Leutenbach, Germany, is one of the leading producers of radiator caps, gas caps, oil pipe locking systems, and AdBlue® filling systems for the automotive industry. To manufacture these products, REUTTER relies entirely on injection molding machines from WITTMANN BATTENFELD.

Gabriele Hopf

Today's REUTTER GmbH started out as Reutter Metallwarenfabrik in Waiblingen, Germany, which was founded in 1912. In 1960, the company began to move towards the automotive industry. In 1980, production was started in Austria, where the first injection molding machines from BATTENFELD were installed at the St. Johann/Pongau facility only 7 years later. The acquisition of this technology marked the beginning of efficient mass production for REUTTER GmbH. At the turn of the millennium, the company's sales activities expanded to North America.

In 2008, REUTTER SK was established in Myjava, Slovakia, where it has been operating a completely new production plant since 2013. This was followed by additional production plants in Mexico and India. A joint venture in China and a possible extension of the Slovakian facility are planned for 2016.

The REUTTER group currently realizes more than 48 million Euros in sales with about 600 employees and maintains annual growth rates between 5 and 6%. With its innovative locking systems, it supplies both the passenger car and truck industries. REUTTER is also the global market leader in the production of cooling water tank caps equipped with a valve function for pressure compensation. Its locking systems go to automobile manufacturers around the world.

Systems solutions and gas caps

A special strength of REUTTER is their development and production of complete system solutions with their AdBlue® filling systems and tank locking caps for passenger cars, pickups, trucks and vans, as well as agricultural and construction machinery. To meet the stringent requirements from customers in all of these areas and to ensure safety,



Production floor at REUTTER SK s.r.o in Myjava, Slovakia.

REUTTER operates its own technical lab. Here, filling tests with all commonly available fuel nozzles are carried out via an in-house refueling system.

An integrated magnet inside of the filler neck ensures safe filling of the tank. Special locking cylinders prevent the highly corrosive medium from leaking out. The company works with special simulation systems to achieve optimization already at the development stage. The REUTTER group not only meets exacting demands from its customers, but also sees itself primarily as a product development partner



REUTTER are located in Myjava. The machines are hydraulic models of the BATTENFELD CDC series and successor models of the proven HM series, with clamping forces ranging from 45 to 180 tons. The machine delivered most recently, an HM 180/1000, is equipped with a W818 robot from WITTMANN and a *ServoPower* drive system, and thus corresponds to the state of the art standard with regard to handling and efficient energy management.

At REUTTER, the injection molding machines from WITTMANN BATTENFELD are appreciated in particular for their reliability, easy maintenance and simple operation via the UNILOG B6 control system. Short set-up times also play a major part for REUTTER and present no problems with the machines from WITTMANN BATTENFELD. "Making innovative products which meet the high quality standards of the automobile industry also requires innovative and reliable machine technology", explains REUTTER GmbH Managing Director Alexander Schuckmann. Besides the quality of the machines, customer support is another vital aspect for Schuckmann and his plant manager Juraj

From the left: Juraj Majersky, WITTMANN BATTENFELD Sales Slovakia; Bernd Aigner, WITTMANN BATTENFELD Regional Sales Manager Austria; Juraj Mala, REUTTER SK Plant Manager; Alexander Schuckmann, REUTTER GmbH Managing Director; Siegfried Köhler, WITTMANN BATTENFELD Sales Director.



Picture left: Radiator cap. Picture right: Gas cap for a truck.



Picture left: AdBlue® cap. Picture right: AdBlue® system with cap and tubing.

for its customers and strengthens its market position by setting benchmarks with its own product development projects.

WITTMANN BATTENFELD as a partner

In Slovakia, REUTTER currently employs 300 people. This makes REUTTER SK, based in Myjava, the largest production facility of the REUTTER group. 36 of the just under 70 BATTENFELD injection molding machines installed at

Mala. In addition to technical advice and customer service, this includes the on-site training programs for machine operators offered by WITTMANN BATTENFELD. "Quality standards include the quality of cooperation," says Schuckmann. "WITTMANN BATTENFELD has maintained its high standards over many years of cooperation with our company not just in terms of know-how and the quality of its machinery, but also in terms of after-sales service, and they will be our first choice of machinery partner for a possible extension of our production plant in Slovakia." ♦

Gabriele Hopf is the Marketing Manager of WITTMANN BATTENFELD in Kottlingbrunn, Lower Austria.

Solid partnership for the production of high-quality baby carriages

The Polish city of Czestochowa is the home of P.P.H. LIMAK. The plastics processor is using numerous injection molding machines from WITTMANN BATTENFELD to make components for manufacturing baby carriages.

Bogdan Zabrzewski



This picture, and picture on the opposite page: LIMAK plant in Czestochowa with the WITTMANN BATTENFELD machines in operation.

In baby carriage production, there are a large number of companies that are exclusively engaged in assembly. By comparison, the number of suppliers making the parts required for their end products themselves – or even manufacturing just these parts without assembling them – is relatively small. The Polish plastics processor LIMAK, founded in 1984, ranks among the largest manufacturers of individual components used in baby carriage production.

LIMAK is a family-owned company managed jointly by Wojciech Mrochen and his son Kamil Mrochen. As with most private, family-owned companies, the development of LIMAK has proceeded gradually, step by step. Today, LIMAK presents itself as a dynamic enterprise acting on an international level with a workforce of more than 100 employees.

Machinery from WITTMANN BATTENFELD

The machinery operating at LIMAK in Czestochowa consists of 52 WITTMANN BATTENFELD injection molding machines from the PLUS, TM, HM and *EcoPower*



LIMAK is a well-known manufacturer of high-quality plastic parts for baby carriages.

series, with clamping forces ranging from 25 to 250 tons. Gas-assisted AIRMOULD® technology from WITTMANN BATTENFELD, as well as 2-component injection molding, are used in some special processes.

In its product development and product design department, LIMAK also has ultra-modern equipment at its disposal. Its facility for extremely fast prototyping enables the company to respond immediately to the latest developments in baby carriage manufacturing.

The most recent major investment project realised by the LIMAK company was the construction of a 1,800 m² production hall in 2015.

For this new building, a central material feeding system and a modern cooling system for the machines and the molds were procured. The 11 new *SmartPower* injection molding machines from WITTMANN BATTENFELD with clamping forces from 60 to 120 tons arrived ahead of time. These 11 machines were required specifically to handle the production of a special new project. (The planned move of the existing HM, TM and *EcoPower* machines into the new hall will also be completed shortly.)

The acquisition of the *SmartPower* machines was preceded by a precise analysis of the production requirements and the performance features of this machine series.



In addition to their energy-efficient drive system and the key values reached by the clamping system, the availability of special optional equipment ensured that this was the optimal choice of machinery for this future production project.

**Partnership with WITTMANN BATTENFELD
as a success story**

For 15 years, LIMAK has been relying on injection molding machines from the same manufacturer. The first BATTENFELD machine, purchased in 2000, marked the beginning of this highly successful cooperation. LIMAK subsequently became one of the most important customers of the Polish BATTENFELD agency.

The business relationship between the two companies developed greatly, to the advantage of both partners: top-class processing machines made their contribution to the development of LIMAK, and WITTMANN BATTENFELD, the supplier of this equipment, can point to LIMAK as a first-class reference. ♦

From left to right: Wojciech and Kamil Mrochen, the Managing Partners of the family-owned company LIMAK, and Udo Rath from WITTMANN BATTENFELD.

Bogdan Zabrzewski is the Managing Director of WITTMANN BATTENFELD Polska based in Grodzisk Mazowiecki, Poland.

Indonesian molder uses WITTMANN Group machines and automation

Innoware Indonesia is, among other things, a well-known specialist in regard to the manufacturing of IML packaging (In-Mold Labeling). They are using equipment from WITTMANN and WITTMANN BATTENFELD for the production of high-quality cups and lids.

Fauzi Iskandar

PT Innoware Indonesia was founded in 2007 by Mr. Cirellus Hartono and Mrs. Hany Saliman, and since then has been based at the Jatake Industrial Estate in Tangerang, about 40 km from Jakarta. The company is one of the most innovative plastic packaging manufacturers in the entire region, and operates a total of 28 injection molding machines. Innoware provides a “one-stop service” for product design, production and delivery of high quality products – not only plastic packaging for food and beverages, but also non-food products, such as promotional gifts.

With a strong commitment to lead in product quality, innovation, and service quality, the company first understands the needs of their customers, and then they develop and supply the right product solution in terms of quality, cost and conditions of delivery. Innoware is moving confidently forward to become one of Indonesia’s leading players in the plastic packaging industry.

In an area of 2,500 m², Innoware has 190 employees. 40% of the company’s production volume consists of In-Mold Labeling (IML) products. Innoware supplies many major food and beverage companies with these parts, including Campina Ice Cream Industry, Diamond Cold Storage, Indolakto, Unilever, Frisian Flag, Indofood, GarudaFood, Mondelez, Nestlé, etc.

Equipment from WITTMANN BATTENFELD

Innoware bought 3 W717 top entry IML systems from WITTMANN BATTENFELD Singapore in 2009. In the same year, and again in 2012, they purchased some IML turnkey systems, 4 in total, each of which consisted of a TM Xpress injection molding machine (with clamping forces from 160 to 350 tons), W737 IML automation, and a respective mold. In 2015, they purchased a WITTMANN W818 top entry robot. These systems constantly produce ice cream containers and the corresponding container lids. Down to the present day, Innoware and WITTMANN BATTENFELD have been working together to achieve the best results for Innoware and their ambitious customers.

Joint venture and expansion

In October 2014, MIKO PAC NV – the biggest food and beverages packaging company in Belgium – became the 50% stakeholder of Innoware Indonesia, which resulted in considerable business growth for Innoware in



the Indonesian market. Innoware Indonesia will move to a new 31,000 m² factory in Tangerang at the end of 2016. According to Mr. Cirellus Hartono, because of the expansion of the company’s production, 8 more injection molding IML system (with clamping forces from 160 to 600 tons) will be purchased.

With regard to the very good business relations and the excellent after sales service that WITTMANN BATTENFELD is known for, the company is confident that they can serve Innoware Indonesia well in carrying out this upcoming project. ♦

Views of the Innoware production equipment in Tangerang near Jakarta, Indonesia, showing robots and a WITTMANN Group IML production cell.

Some examples of finished IML packaging.

Fauzi Iskandar is the Marketing Manager of WITTMANN BATTENFELD (Singapore) Pte. Ltd., based in the Indonesia Representative Office in Lippo Cikarang, Indonesia.

Two WITTMANN robots complement one another

At Sanwa in Singapore, the WITTMANN Group has arranged another showcase of their expertise. – Two robots working “hand in hand” to manage a demanding automation challenge.

Jimmy Teo

The Sanwa Group, based in Singapore, was established as Sanwa Plastic Industry Pte Ltd in 1977. The company specializes in providing one-stop manufacturing facilities including mold design and mold manufacturing, injection molding, and assemblies of injection molded products.

Their primary manufacturing capabilities are found in specialized technologies: high-tech sensor module insert molding for the automotive sector, high precision molding for the biomedical industry, and high volume precision parts for the energy sector.

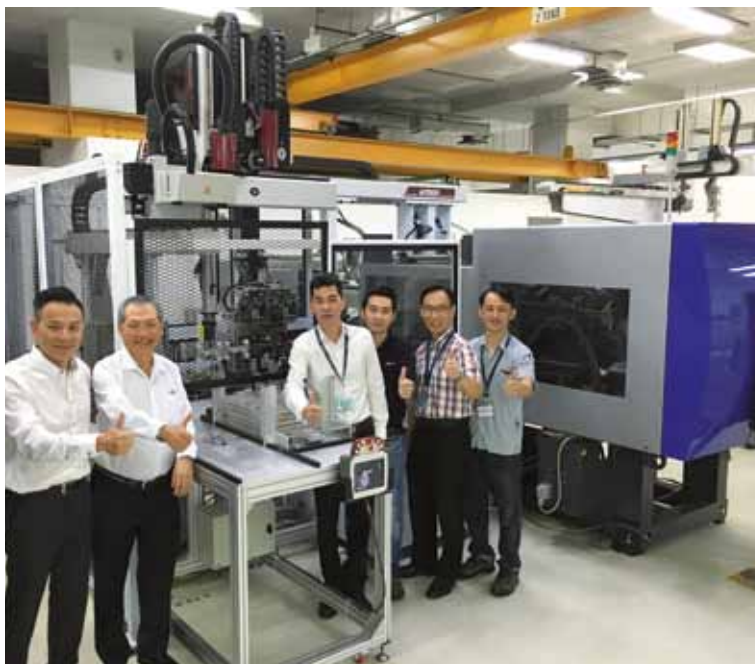
Less human intervention

Sanwa decided to make additional investments to increase efficiency and further improve the quality of their products. And they wanted to reduce the running costs, especially those that were due to time from poorly skilled labor. Automation was given the top priority when it came to planning the next investments. The highest level of production consistency, as well as minimal (at least reduced) human intervention, were the goals of Dr. Ricky Souw, the Sanwa Group CEO. In close cooperation, the Sanwa staff and WITTMANN BATTENFELD reached a solution that, in the beginning, was thought to be almost impossible. After several brain storming sessions, Sanwa and WITTMANN BATTENFELD agreed to further automate an already existing production cell.

The automation solution for this cell consisted of a W833 robot from WITTMANN that was equipped with a customized end-of-arm tooling (EOAT) for the removal of parts from two cavities, and a turntable for the placing of inserts. This installation was made in 2013. After the parts had been taken out of their respective injection molding machines (with a clamping force of 220 tons), they were placed on a conveyor belt that took them to an operator who brought the parts to their respective inspection stations. The same operator then took the good parts to the tray station, and from there they went further downstream.

An investment in the future

In November 2015, an additional WITTMANN W818 robot was installed. This robot was fully integrated in the production cell directly beside the already existing W833 robot. The new robot's task was to take over the handling



Left to right: Mr. Jimmy Teo, Managing Director of WITTMANN BATTENFELD Singapore; Dr. Ricky Souw, Group CEO of Sanwa; Mr. Lim SH, General Manager of Sanwa; Mr. Wee TJ, WITTMANN BATTENFELD Engineer; Mr. Alvin Tan, Operation Manager of Sanwa; Mr. Chou SC, Production Manager of Sanwa.

actions with regard to the manual inspection and the conveying of the parts to the tray station. This process now guarantees that the inspections of the molded parts are carried out in time and absolutely correctly, and also that all the good parts are placed onto the trays in the correct orientation.

This new solution has not only reduced the need for human intervention within the process, but also the required floor space by at least 30%. When executing this solution, the main, and challenging, concern was to avoid collisions. The WITTMANN BATTENFELD engineers matched them to ensure full protection for both the W833 and W818 operation areas.

Why the WITTMANN Group was chosen

Mr. Chou, the Sanwa Production Manager, points out: “The user-friendly WITTMANN R8.3 robot control was one of the main reasons for us to select WITTMANN BATTENFELD when realizing this application. Another key consideration was the superb availability and know-how of the local WITTMANN BATTENFELD service team.”

The business relationship between Sanwa and WITTMANN BATTENFELD Singapore started three years ago. Today, Sanwa is operating eight robots, seven low-speed granulators, four dual zone mold temperature controllers, and two dry air dryers from the WITTMANN Group. ♦

Jimmy Teo
is the Managing Director of WITTMANN BATTENFELD (Singapore) Pte. Ltd.

WITTMANN builds a central system for GOTMAR in Bulgaria

GOTMAR LTD turned to WITTMANN BATTENFELD Bulgaria as their one and only supplier of auxiliary equipment some years ago. In the year 2015, the start-up of an entirely new production hall was undertaken, for which a central drying and conveying system from the WITTMANN Group was installed.

Jassen Sterev



Battery of SILMAX drying Silos with FEED-MAX material loaders as part of the central material drying and conveying system at GOTMAR based in Saedinie in Bulgaria.

GOTMAR, based in Saedinie, Bulgaria, started in 1992 with the production of plastic packaging solutions for sunflower oil, including the bottling and marketing of this product. In 1998, the set-up for the production of PET preforms and bottles started. Subsequently, GOTMAR took over the production of technical parts for several well-known manufacturers of white goods, mainly refrigerator parts for Liebherr Bulgaria, but also, amongst others, for Schneider Electric, Steca, and ABB.

The Technical Department grew continuously, and in 2013 GOTMAR moved into a new production hall with two main sections that were separated from each other, one housing the processing machines, and the other housing the material supply equipment.

The idea was to keep the machine and assembly sections free from material dust that occurs when conveying virgin material and regrind. In addition, the forklift transport actions to the machines would be eliminated. This was seen as especially necessary for the large machines that were consuming more than 50 kg of material per hour, and that were primarily producing visible parts. For meeting these

production demands, the installation of a central material handling system turned out to be the only possible solution. As a result, there was a decision to be made between other suppliers of such systems and WITTMANN BATTENFELD Bulgaria. At that time, the peripheral units in GOTMAR's PET Department had been always delivered together with GOTMAR's usual brand of injection molding machines – and these peripheral units mostly were of Italian origin.

A new partner for GOTMAR's auxiliaries

The collaboration with WITTMANN BATTENFELD had begun in 2010, when the GOTMAR Technical Department already had started to grow steadily, and the produced parts had become more and more complex since then.

Along with the higher requirements of their customers and the ever growing complexity of the technical parts that had to be produced, GOTMAR began to look for a new supplier of auxiliary equipment. Specifically, GOTMAR needed granulators that could perfectly grind glass fiber reinforced materials, and they also needed dosing units. WITTMANN



BATTENFELD, being the only manufacturer that offers the most frequently needed auxiliaries as beside-the-machine solutions, clearly outperformed the other producers. Besides that, GOTMAR decided on the WITTMANN BATTENFELD team because of their vast experience in the fields of technical materials and technical parts.

GOTMAR had such great confidence in WITTMANN BATTENFELD that they handed over to them all the plant layouts of the new production facility. As a result, WITTMANN BATTENFELD was able to thoroughly do the planning and quoting for this project in accordance with the construction process of the new facility.

The view of the new GOTMAR production hall shows a part of the piping that is feeding the large injection molding machines.

Dimensions of the new system

At that time, the inquiry spoke of material drying and conveying equipment for 13 large machines with a material consumption of up to 50 kg/hr. In addition, 4 dosing stations for the needs of 8 middle sized machines with a throughput of up to 30 kg/hr and 10 small machines with a throughput of up to 10 kg/hr had to be delivered. The conveying distances ranged from 10 to 75 meters. The material that had to be conveyed was glass fiber reinforced polymer. All the machines were to be supplied with virgin material, but also with regrind, and also with a blend of both when required.

During the phase of planning, quoting, and negotiating in 2014, GOTMAR's requirements grew even more, and, at the end, WITTMANN BATTENFELD delivered a central material conveying system consisting of 5 vacuum lines, a CODEMAX coded coupling station with 16 material inlets and 57 RFID coded material outlets leading to the machines. It was equipped with a buffer vacuum circle with automatic start functionality, a central material drying station with three SILMAX drying hoppers (800 l + 800 l + 600 l), and with the WITTMANN M7.3 central network control.

CODEMAX RFID coded coupling station with filter stations below.

After delivery, the system was retrofitted, adding the connection of 2 middle sized and 5 small machines to the central vacuum lines, supplying them with material out of both containers and screenless granulators that were placed beside the machines.

Meanwhile, as listed here, GOTMAR has mostly peripheral equipment from the WITTMANN Group in their new production hall:

Back view of the filter stations showing piping details.



- ◆ DRYMAX and SILMAX units with a total capacity of 3,350 l
- ◆ 60 FEEDMAX B, BS, and S3 material loaders
- ◆ 10 GRAVIMAX material blenders
- ◆ 5 DOSIMAX MC Basic dosing units
- ◆ 15 TEMPRO primus and basic temperature controllers
- ◆ 15 Minor 2 granulators

GRAVIMAX blender with FEEDMAX loaders, located in the material stores.

As a result of their efforts, WITTMANN BATTENFELD is very proud to have become today the one and only company that delivers auxiliary equipment to GOTMAR's Technical Department. And of course, WITTMANN BATTENFELD will continue supplying GOTMAR with the latest of their always innovative solutions in the future. ◆

Jassen Sterev is the General Manager of WITTMANN BATTENFELD Bulgaria EOOD based in Kalekovets in Bulgaria.

Flow control for retrofitting – simple and inexpensive

Permanent monitoring of important process parameters in mold temperature control has continuously increased in importance over the last decade. It is the only way to ensure the best possible product quality at every stage of the production process. To this end, WITTMANN offers its customers a special control system – now also available as a retrofit kit for flow controllers.

Walter Lichtenberger

For 40 years, WITTMANN has been Number 1 in the development and manufacturing of water distribution systems for the plastics processing industry – with a total production of more than 600,000 units.

At last year's Fakuma, the company presented a special innovation to extend its tried-and-tested flow controller range. The WITTMANN flow controllers from the series 101, 301 and 200/230 can now be equipped with a special retrofit kit to monitor flow quantity and temperature.

With the WFC retrofit kit, both existing and new WITTMANN flow controllers can be equipped with an automatic monitoring system without great expense. Carried out for two flow circuits in this illustration.

High-precision measurement method

Contact-free flow measurement is the prerequisite for absolute failure-free monitoring – even if the quality of the water is not optimal. Flow measurement by means of a vortex system yields highly accurate readings up to a temperature of 100°C, and with the ultrasound measurement method, as high as 180°C. Up to now, both these measurement options could already be used either in conjunction with a WITTMANN temperature controller from the TEMPRO plus series or as a standalone solution (= WFC, Water Flow Control).

For the WITTMANN flow controllers from the 101, 301 and 200/230 series, which are equipped with only visual flow control (floats) and a bimetal thermometer as standard, no such possibility of electronic flow quantity and temperature monitoring existed. Communication with the injection molding machine via an interface was not possible either.

New retrofit kit for WITTMANN flow controllers

It has now become possible to retrofit the WITTMANN flow controllers from the series 101, 301 and 200/230 very simply with electronic units to measure flow quantity and temperature just by replacing the conventional flow tubes



with the new measuring units. Special brass adapter elements to hold the measurement units through which the water flows are mounted inside the top and bottom parts of the flow controller housing.

Here, the proven method of vortex flow measurement is applied. This measurement method enables the absolutely exact electronic evaluation of both: the flow quantity, and the temperature.

The manual control valves installed in the flow controller facilitate optimal adjustment of the flow quantity. The control unit makes it possible to define a tolerance margin.

In this way, targeted monitoring by the electronic evaluation system is ensured, which, if desired, also responds with an alarm signal whenever the upper or lower tolerance limits are exceeded. The control unit is mounted in a space-saving way

directly onto the flow controller. A power adapter and an interface are available as options. The latter operates with P2, the most commonly used communication protocol, which enables transmission of the actual values to the injection molding machine.

Effective and inexpensive

This retrofittable flow controller kit offers the extra advantage of extremely easy assembly, which can be carried out by regular company staff if necessary. Moreover, this solution is available at an extremely attractive price. In this way, a simple flow controller from WITTMANN can be transformed into a high-quality, low-cost monitoring system.

And of course the retrofit kit can be incorporated in any new flow controllers right from the start for up to eight circuits. ♦

Walter Lichtenberger is Temperature Control Department Manager of WITTMANN Kunststoffgeräte GmbH in Vienna.

Playing with quality plastic parts

JECOBEL bvba based in Asse, Belgium, manufactures customized plastic tokens and coins – and appreciates the production advantages that come from using a WITTMANN Minor 2 screenless granulator.

Denis Metral

JECOBEL's range of plastic tokens and coins offers a great choice of shapes, variety of colors, and effects that provide every single piece its very own differentiating factor. At the JECOBEL company, the technique of token and coin production can be adapted to the special needs of any customer to offer personalized and individual solutions for any intended use:

- Roulette and poker chips
- Dummy tokens
- Arcade machine coins
- Vouchers

Michel Bally, the company owner, chose the WITTMANN Group to supply 3 injection molding machines, each with a clamping force of 35 tons, as well as a W702 sprue picker, and a Minor 2 screenless granulator.

JECOBEL'S tokens and coins are made of PS, using molds with 2, 4 and 8 cavities. And due to the 35 different colors that are used for the parts, grinding the sprues becomes very crucial for every production run.

Praise for the Minor 2

Michel Bally pays a lot of attention to the fact that WITTMANN granulators can be cleaned very easily, thus saving a lot of production time: "We chose a Minor 2 screenless granulator really because of the advantages it offers when it comes to cleaning the unit, because this technology makes the cleaning much more convenient. Michel van der Motten, General Manager of WITTMANN BATTENFELD Benelux, and therefore JECOBEL's local contact, convinced us of this granulator model that reduces the cleaning time by 60% compared to the conventional blade granulator we had used in our plant."

The double opening of the Minor 2 cutting chamber allows perfect access to the cutting tools. Using a conventional granulator had caused substantial loss in time. Each stuck pellet had to be removed individually from the screen holes. And above that, the screenless technology produces much less dust. "So we are totally satisfied", Michel Bally adds. "We have clearly improved the quality of our regrind." Another matter of course was the opportunity to reduce



Views of the WITTMANN Minor 2 screenless granulator beside the processing machine at JECOBEL. A W702 sprue picker, also from WITTMANN, is mounted on the machine.



the energy consumption. The conventional granulator had an electric power of 4 kW, and the Minor 2 of only 1.5 kW, thus again saving money. And due to the low rotation speed of 27 rpm – compared to the 240 rpm of the conventional model – the Minor 2 operates very quietly. The granulator's compact footprint also makes it possible to move the unit easily from one injection molding machine to another.

Easy process through ARS

Michel Bally continues: "Considering the fact that we usually have to grind sprues that are injection molded, we took the Automatic Reverse System option (ARS) that is available for the Minor 2." The ARS provides optimal processing for continuous operation and to avoid shutdowns due to blocking.

If an overload is detected by changes in amperage or speed, the motor stops and reverses to remove the part that caused the blockage and then turns forward again. "Our sprues are crushed easily with this ARS function", says Michel Bally.

And he concludes: "It was interesting for us to be offered a complete range of products from WITTMANN BATTENFELD. We really simplified the installation work using components from the same supplier. And, finally, communicating and getting service features is much easier when there is only one contact." ♦

Some examples from the JECOBEL production of coins and tokens.

Denis Metral is International Product Manager for granulators at WITTMANN BATTENFELD France SAS in Moirans, France.

WITTMANN BATTENFELD expands USA headquarters again

As their injection molding and auxiliaries business in the United States continues to grow, WITTMANN BATTENFELD has committed to yet another large-scale expansion of their headquarters in Torrington, Connecticut.

WITTMANN BATTENFELD USA is still growing. With the papers officially signed as of October 5 last year, the US-subsi-dary of the WITTMANN Group purchased the adjacent building to their headquarters at One Technology Park Drive in Torrington, Connecticut. Construction began immediately. The move-in took place in February 2016.

David Preusse, President WITTMANN BATTENFELD USA, lists five key reasons for the expansion:

- Increased Robots Division production requirements; with upwards of 500 robots/year produced from just this plant, there is a need to add more painting, welding and machining centers.
- The material handling increased, and also the auxiliaries production requirements, to meet increased demand.
- The need for consolidation of ever-growing inventory, which has been housed both in-house and at offsite locations.
- Increased space for the company's Injection Molding Division to house additional operating work cells for both demonstration and customer run-offs.
- The time was right to spread out their plants to optimize efficiency through autonomy of different aspects such as shipping & receiving, inventory controls, and what serves the customers' needs best.

"Plant I", the building on the left, is the original headquarters building. The new building, "Plant II", is on the right with more land for future expansions.

"The beauty is that this property acquisition was right beside us, already built, so we could build a road-way and still have a common on site campus now for us and visitors", says David Preusse. "This space allows for our growth in the future –



for all three of our divisions (Injection Molding Machines, Robots & Automation, and Material Handling & Auxiliaries)."

A satisfying footprint

The new building, "Plant II", is a 50,000 square feet facility that is occupied entirely by WITTMANN BATTENFELD's Material Handling & Auxiliaries Division, headed by Divisional Manager, Michael Stark.

Of the 50,000 square feet, 7,000 is dedicated to offices for sales, engineering, and service, while the remaining 43,000 are used for production and warehouse space for the division and for occasions when "Plant I" requires additional staged storage space.

"This expansion really helps facilitating what has been rapid growth in our Material Handling & Auxiliaries

Division", says Michael Stark. And he adds: "With many new orders in place already and the nice prospects of more growth moving forward, and to add some dedicated manufacturing, also some assembly and repair lines, and for office staff plans, we need the space!"

As an offshoot of the expansion, WITTMANN BATTENFELD's current headquarters building, which was recently expanded to 90,000 square feet

in 2014, now will get its own renovations. New machinery and equipment will be added and WITTMANN BATTENFELD USA will incorporate some new steady production flow processes to better streamline manufacturing operations.

Of course, these forthcoming installations will help shorten lead times and keep up with increased demand.

"We are very excited about our continued growth. By expanding to the new building next door, we now have an impressive campus here in Torrington with almost 150,000 square feet of office and manufacturing space," says Sonny Morneault, VP Sales of WITTMANN BATTENFELD USA. "We are thankful to our customers and our dedicated employees and agents, who are second to none and continue to drive this growth." ♦

New building of WITTMANN GmbH in Wolkersdorf now occupied

After a construction period of less than a year, the new building in Wolkersdorf near Vienna has now been completed. The bulk material division, previously located in Vienna, was able to move in by mid-October last year. An ambitious goal has been set for this corporate business segment: its output is to be doubled!



View of the new building in Wolkersdorf near Vienna, now used by the bulk material division.

The very positive development of the bulk material technology sector in recent years led to the decision at WITTMANN's Viennese headquarters to build a separate new facility specifically for this business segment.

The new facility, which has been occupied since the middle of October 2015, is located in Wolkersdorf near Vienna, where dry-air dryers, material

loaders and blenders from WITTMANN are now being made. This new building not only meets the demand for additional production space in bulk material technology, but also reduces some of the work load on the Viennese plant which, thanks to the relocation of the bulk material technology segment, now has more space at its disposal for automation and temperature control technology.

In Wolkersdorf, an additional production space of 5,200 m² and office space of 1,650 m² have been created on a 23,500 m² site. About 90 associates are currently employed there.

The new facility of the Austrian branch has excellent transport connections to the motorway network as well as public transport and can be reached easily from the headquarters in Vienna. ♦

The Management Excellence Award 2015 goes to ...

... Jimmy Teo, the Managing Director of WITTMANN BATTENFELD Singapore! – Congratulations!

The inaugural Management Excellence Awards ceremony was organized by the Singapore Business Review with the aim of honoring the Singaporean Republic's most outstanding business leaders.

Nominations for the Management Excellence Awards were judged by Janson Yap, Enterprise Risk Services Leader & Southeast Asian Innovation Leader, Deloitte SEA; Henry Tan, Managing Director, Dexia TS; Adrian Chan, Partner and Head of Corporate, Lee & Lee; and Azman



Jaafar, Deputy Managing Partner, RHTLaw Taylor Wessing LLP. The most prominent business leaders of

Singapore met in the Shangri-La Hotel where the awards show was held on December 2nd, 2015.

The event was graced by over 160 attendees, including Janson Yap, and Azman Jaafar.

Jimmy Teo was decorated as the Executive of the Year 2015 in the category of Manufacturing, and this means a very clear signal of appreciation for what he does with regard to quality management and customer service.

His associates and the Management of the WITTMANN Group are proud to have Jimmy Teo with them, and express their compliments and gratitude for his hard work. ♦

Jimmy Teo, Managing Director of WITTMANN BATTENFELD (Singapore) Pte. Ltd., was awarded the Management Excellence Award.

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