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PRESS RELEASE

新聞稿

WITTMANN BATTENFELD at the Plastpol in Kielce

威猛巴頓菲爾在 Kielce 的 Plastpol 展覽

WITTMANN BATTENFELD with sustainable high-tech products at the Plastpol

威猛巴頓菲爾在 Plastpol 展出其可持續發展的高科技產品

At the Plastpol taking place from 24 to 27 May, WITTMANN BATTENFELD Polska will present to interested trade visitor ultra-modern injection molding systems as well as state-of-the-art robots and auxiliary appliances at booth No. F11 in hall F.

在 5 月 24 日至 27 日舉行的 Plastpol 展覽上，威猛巴頓菲爾波蘭公司將在 F 廳的 F11 號展位向感興趣的參觀者展示超現代的射出系統以及最先進的機械手臂和輔助設備。

For many years, the WITTMANN Group has been active in Poland, an important market for the company. Since the beginning of 2016, it has been operating its own sales and service subsidiary there as well. Together with its subsidiary WITTMANN BATTENFELD Polska, the WITTMANN Group will demonstrate its latest developments to visitors of the Plastpol.

多年來，威猛巴頓菲爾集團一直活躍在波蘭，這是公司的一個重要市場。從 2016 年初開始，在波蘭經營自己的銷售和服務。威猛巴頓菲爾集團將與其波蘭公司一起，向 Plastpol 的參觀者展示其最新發展。

At this year's Plastpol, the main focus in the area of machinery lies on showing fully integrated injection molding cells. For example, the exhibits will include a machine from the all-electric *EcoPower* series with WITTMANN 4.0 integration, as well as a servo-hydraulic machine from the *SmartPower* series in Ingrinder version. One outstanding feature of both these machines is their extremely high energy efficiency achieved by latest servo drive technology.

在今年的 Plastpol 展會上，機械領域的主要焦點在於展示完全集成的射出單元。例如，展品將包括一台集成了 WITTMANN 4.0 的全電動 *EcoPower* 系列的機器，以及一台 Ingrinder 版本的 *SmartPower* 系列的伺服液壓機器。這兩台機器的一個突出特點是通過最新的伺服驅動技術實現了極高的能源效率。

Complete integration with *EcoPower* 55 production cell

與 *EcoPower* 55 生產單元完全整合集成

WITTMANN BATTENFELD will demonstrate its digitization expertise with the production of a medical part with an *EcoPower* 55/350, equipped with the software packages HiQ Flow for

compensating viscosity fluctuations, HiQ Melt for material quality monitoring and HiQ Metering for active closing of the check valve.

威猛巴頓菲爾將通過使用 EcoPower 55/350 生產醫療部件來展示其智能化自適應調整技術，該設備配備了用於補償粘度波動的 HiQ Flow 配置、用於材料質量監測的 HiQ Melt 配置和用於主動關閉止回閥的 HiQ Metering 配置。

Equipment integrated in the machine's UNILOG B8 control system via WITTMANN 4.0 will include a WITTMANN W918 robot, a gravimetric dosing unit GRAVIMAX 14, an ATON plus 70 segmented wheel dryer and three temperature controllers from the TEMPRO plus D series, as well as the TEMI+ MES system. The web browser included in the UNILOG B8 control system also provides access to the TEMI+ MES system. The production cell interlinked by WITTMANN 4.0 supports electronic mold data sheets, and is thus able to check whether the auxiliary appliances connected to it are sufficient for the selected product data set, or whether additional equipment is needed.

通過 WITTMANN 4.0 集成到機器的 UNILOG B8 控制系統中的設備將包括一台威猛 W918 機械手臂、一台秤重式計量機 GRAVIMAX 14、一台 ATON plus 70 分段輪式乾燥機和三台 TEMPRO plus D 系列的模具溫度控制器，以及工廠智能管理系統 TEMI+ MES 系統。UNILOG B8 控制系統中的網絡瀏覽器也可以連結 TEMI+ MES 系統。通過 WITTMANN 4.0 相互連接的生產單元支持電子模具數據表，因此能夠檢查與之相連的輔助設備是否足以滿足所選產品數據集的要求，或者是否需要額外的設備。

The automation system is implemented via an Easy Cell developed and manufactured by WITTMANN BATTENFELD Deutschland in Nuremberg. The Easy Cell requires no safety gate and thus takes up only a minimal amount of space beside the injection molding machine. In spite of its compact design, customers receive the complete range of CE-compliant safety features.

該自動化系統是通過紐倫堡的 WITTMANN BATTENFELD 德國公司開發和製造的 Easy Cell 實現的。Easy Cell 不需要安全門，因此在射出機旁邊只需要佔用最小的空間。儘管其設計緊湊，但客戶可以獲得符合 CE 標準的完整安全功能。

Ingrinder

The Ingrinder is an injection molding system with integrated sprue picker, granulator and vacuum conveyor. The granulator and the sprue picker can be operated via the machine's UNILOG B8 control system. The Ingrinder solution is designed for smaller injection molding machine models from the *EcoPower* and *SmartPower* series, since these machines are used in particular together with molds incorporating cold runner technology, thus producing sprue which must either be scrapped or passed on to a recycling system following injection molding.

Ingrinder 是一個集結了膠口分流、粉碎機和真空輸送機的射出系統。粉碎機和膠口分流可通過機器的 UNILOG B8 控制系統進行操作。Ingrinder 解決方案是為 EcoPower 和 SmartPower 系列的小型射出機設計的，因為這些機器特別是與採用冷流道技術的模具一起使用，因此產生的膠口必須報廢或在射出成型後轉入立即回收系統。

At the Plastpol a can with a lid is produced from PS on a *SmartPower* 60/210 with a 2-2-cavity mold. A WP50 sprue picker from WITTMANN with swivel drive removes the sprue and passes it to

the G-Max granulator integrated in the system. The material recycled by the granulator is then transported to the machine's material hopper by a FEEDMAX S 3-net vacuum conveyor. The WITTMANN vacuum conveyors equipped with an optional material separator enable alternating conveyance of virgin material and regrind, so that a thorough blend is created by this process, together with discharge of the material into the hopper.

在 Plastpol 展覽中，一個帶蓋的罐子在 SmartPower 60/210 的 2-2 腔模具上用 PS 生產。威猛公司的 WP50 型膠口取出機械手通過取旋轉驅動將膠口取出，並將其傳遞給集成在該系統中的 G-Max 粉碎機。然後，由粉碎機回收的材料被 FEEDMAX S 3net 真空輸送機輸送到機器的料斗中。威猛的真空輸送機配備了一個可設定比例的材料分離器進料裝置，可以交替輸送新材料和再粉碎的材料，這樣就可以通過這個過程形成一個混合，同時將材料輸送至料斗。

To equalize viscosity fluctuations caused by the recycled material, the WITTMANN BATTENFELD HiQ Flow software package is used on the machine. With HiQ Flow, viscosity fluctuations detected during the injection phase are actively corrected directly within the same shot.

為了平衡由回收材料引起的粘度波動，在機器上使用了威猛巴頓菲爾 HiQ Flow 配置。通過 HiQ Flow，在注射階段檢測到的粘度波動會在同一次注射中直接得到校正。

Automation and auxiliaries

自動化和輔助設備

In addition to the robots and auxiliary appliances connected to the machines on display, numerous robots and auxiliaries from WITTMANN will also be shown as stand-alone solutions at the Plastpol in Kielce.

In the area of automation, WITTMANN BATTENFELD Polska will show the linear robot models WX138 with an A-C Servo axis and WX142 with an A-B-C Servo axis.

The additional rotation axes just mentioned stand out in particular by their extremely compact design. This reduces their space requirements inside the mold to a minimum, together with a significant increase in the robots' flexibility. The robots of the WX series are equipped with the high-performance CNC9 robot control system, to which a large number of new functionalities have been added, including the digital twin. This function enables anticipatory and interactive testing of the robot's movements and functions to almost completely eliminate the negative consequences of programming errors.

除了與展出的機器相連接的機械手臂和輔助設備外，威猛的眾多機械手臂和輔助設備也將在凱爾采的 Plastpol 展會上作為獨立的解決方案展出。

在自動化領域，WITTMANN BATTENFELD Polska 將展示帶有 A-C 伺服軸的 WX138 型線性機械手和帶有 A-B-C 伺服軸的 WX142 型機械手。

剛才提到的附加旋轉軸因其極其緊湊的設計而特別突出。這將其在模具內的空間要求降至最低，同時也大大增加了機械手的靈活性。WX 系列機械手配備了高性能的 CNC9 機械手控制系統，該系統增加了大量的新功能，包括數字雙胞胎。該功能能夠對機械手的運動和功能進行預測和互動測試，幾乎完全消除了編程錯誤的負面影響。

In addition to the robots from the WX series, the high-speed robot models SONIC 108 and SONIC 131 will be presented. The robots of the SONIC series have been optimized for maximum-speed

parts removal in packaging and pick-and-place applications. They are designed for cycle times below 4 seconds.

除了 WX 系列的機械手外，還將展出 SONIC 108 和 SONIC 131 高速機械手模型。SONIC 系列機械手已被優化為在包裝和取放應用中以最高速度取出零件。它們的設計循環週期低於 4 秒。

Moreover, a CODEMAX RFID-coded coupling station including its M8 network control system will be shown. The latter prevents the supply of wrong materials to a processing machine caused by an operating error.

此外，還將展示一個 CODEMAX RFID 編碼的中央供料系統選料站，包括其 M8 網絡控制系統。後者可以防止因操作錯誤而向射出機供應錯誤的材料。

WITTMANN BATTENFELD Polska will also present a wide range of auxiliary equipment. The dryers to be shown include an ATON primus 120-300 segmented wheel dryer, a compact DRYMAX primus 30-70 dryer and a CARD 10S compressed air dryer. The ATON segmented wheel dryer consists of numerous chambers loosely filled with desiccant balls, which ensure in combination with the innovative 3-Save process efficient utilization of energy as well as a continuous drying process with a constant dew point. The DRYMAX dryers are dry air dryers equipped with two desiccant cartridges, which deliver a continuous flow of process air with consistent drying air quality for perfect drying of plastic granulate.

The compressed air dryers from the CARD G series are small and efficient. They are ideally suited for drying applications with low throughput rates.

WITTMANN BATTENFELD Polska 公司還將展出各種輔助設備。將要展示的乾燥機包括 ATON primus 120-300 分段式輪式乾燥機、緊湊型 DRYMAX primus 30-70 乾燥機和 CARD 10S 壓縮空氣乾燥機。ATON 分段式輪式乾燥機由許多乾燥劑球的腔室組成，與創新的 3-Save 工藝相結合，確保了能源的有效利用以及露點恆定的連續乾燥過程。DRYMAX 乾燥機是配備了兩個乾燥劑盒的除濕乾燥空氣乾燥機，它提供了一個連續的工藝空氣流，具有穩定的乾燥空氣質量，可以完美地乾燥塑料顆粒。

CARD G 系列的壓縮空氣乾燥器體積小，效率高。它們非常適用於低用料產量需求的乾燥應用。

As representative examples of temperature control technology, WITTMANN BATTENFELD Polska will show its appliance models TEMPRO primus C90, TEMPRO basic C120 and TEMPRO plus D140. The outstanding features of TEMPRO temperature controllers are reliability and easy operation. A smaller heat exchanger requires less circulating water, with the result of much shorter heating and cooling times.

作為溫度控制技術的代表例子，WITTMANN BATTENFELD Polska 將展示型號 TEMPRO primus C90、TEMPRO basic C120 和 TEMPRO plus D140。TEMPRO 溫度控制器的突出特點是可靠和易於操作。較小的熱交換器需要較少的循環水，結果是加熱和冷卻時間大大縮短。

In addition, the volumetric blenders DOSIMAX MC Balance and DOSIMAX Basic will be showcased at the Plastpol. The specific design of these blenders provides even, extremely accurate dosing of colorants. Pulsation in dosing and in the raw material is completely eliminated, which enables maximum process control and makes for a perfect end product.

此外，體積式計量機 DOSIMAX MC Balance 和 DOSIMAX Basic 也將在 Plastpol 展會上展出。這些計量機的特殊設計提供了均勻的、極其精確的著色劑計量。計量和原料中的脈動被完全消除，從而實現了最大程度的過程控制，使最終產品更加完美。

Materials handling is represented by a FEEDMAX S 3-net standalone material loader. The FEEDMAX S 3-net offers the benefits of maintenance friendliness, high process reliability and easy operation.

材料處理是由 FEEDMAX S 3-net 獨立材料裝載機來代表。FEEDMAX S 3-net 具有易於維護、工藝可靠性高和操作簡便等優點。

The range of exhibits is rounded off with granulators from the G-Max and S-Max series. The G-Max series consists of beside-the-press granulators specially designed for in-line recycling of sprue from injection molding machines with clamping forces of up to 4,000 kN. G-Max granulators are energy-efficient and come with a small footprint as well as a sound-insulated cutting chamber, which significantly reduces sound emissions. The S-Max screenless granulators feature toothed rollers with low motor speeds (27 rev/min at 50 Hz) for efficient, low-cost granulating of engineering plastics as well as styrene, acrylic and fiberglass-reinforced materials.

G-Max 和 S-Max 系列的粉碎機使該系列的展品更加完善。G-Max 系列由機邊粉碎機組成，專門用於射出機膠口的在線回收，鎖模力高達 4000kN。G-Max 系列粉碎機能效高，佔地面積小，並配有隔音切割室，可大大減少噪音排放。S-Max 無篩分粉碎機採用齒形輥，電機轉速低（50 Hz 時為 27 轉/分鐘），可高效、低成本地粉碎工程塑料以及苯乙烯、丙烯酸和玻璃纖維增強材料。



Fig. 1: EcoPower 55 with WITTMANN 4.0 integration

圖 1: EcoPower 55 整合 WITTMANN 4.0



Fig. 2: SmartPower 60/120 Ingrinder
圖 2: SmartPower 60/120 Ingrinder



Fig. 3: WITTMANN robot WX142
圖 3: WITTMANN 機械手 WX142



Fig. 4: Segmented wheel dryer ATON primus 30-70
圖 4: 分段式輪式除濕乾燥機 ATON primus 30-70



Fig. 5: FEEDMAX S 3-net
圖 5: 單機式吸料機 FEEDMAX S 3-net



Fig. 6: Granulator G-Max 13
圖 6: 粉碎機 G-Max 13

The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recycles and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate eight production plants in five countries, and the additional sales companies at their 34 different locations are present in all major industrial markets around the world.

WITTMANN BATTENFELD pursues the continued strengthening of its market position as a manufacturer of injection molding machines and supplier of comprehensive modern machine technology in modular design. The product range of WITTMANN includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. The combination of the individual areas under the umbrella of the WITTMANN Group enables perfect integration – to the advantage of injection molding processors with an increasing demand for seamless interlocking of processing machines, automation and auxiliaries.

威猛集團

威猛集團是一家全球領先的射出機、機械手和周邊設備的製造商，用於加工各種可塑材料(包括塑膠和非塑膠)。威猛集團總部設在維也納/奧地利，由兩個主要部門，威猛巴頓和威猛組成。遵循環境保護、節約資源和循環經濟的原則，威猛集團從事最先進的工藝技術，以實現射出成型的最大能源效率，並加工標準材料和含有高含量回收物和可再生原材料的材料。威猛集團的產品是為橫向和縱向整合到智能工廠而設計的，並且可以互相連接，形成一個智能生產單元。威猛集團在全球5個國家設有8個生產工廠，另外在34個直屬子公司在全球所有主要工業市場都有銷售。威猛巴頓作為射出成型機製造商和模塊化設計的綜合現代機械技術供應商，追求持續加強其市場地位。威猛的產品系列包括機械手和自動化系統，中央供料系統，除濕乾燥機，秤重式和體積式的計量機，粉碎機，模具溫度控制器和冷卻器。威猛集團旗下各個領域的組合實現了完美的整合—這對於加工機械、自動化和輔助設備的無縫連鎖需求日益增長的射出加工企業來說是有利的。

更多信息可參訪我們的網站www.wittmann-group.tw

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