

USER REPORT / 客戶報導

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Langlotz, Germany

德國 Langlotz 公司

Smart solutions with smart injection molding technology

採用智能注塑技術的智能解決方案

Langlotz based in Halver, South Westphalia, has made a name for itself with plastic parts and assemblies for water dispensers and bar systems. The company has brought state-of-the-art injection molding technology to its production floor with a servo-hydraulic SmartPower 300/1330 with insider solution.

總部位於德國南威斯特伐利亞州哈爾弗的 Langlotz 公司，該公司以生產用於飲水機和酒吧系統的塑料零件和組件而聞名。該公司採用通過內部解決方案並搭配威猛巴頓伺服液壓射出機 SmartPower 300/1330，將最先進的注塑技術引入其生產車間。

Langlotz, a family-owned company in the second and third generation, was established in Ruhla, Thuringia in 1910. Its first products were electrical consumer goods and radio accessories. Radio technology parts were already injection-molded from polystyrene in the 1930s. In 1950, the company was newly established at its present location and has been concentrating on the production of injection-molded parts made of virtually all thermoplastic materials ever since, including finishing processes and assembly. On a 3,000 m² production floor, parts ranging from 0.1 g to 2 kg in weight are made. The company's portfolio of services includes product development and prototyping as well as series production.

Langlotz 公司是第二代和第三代家族企業，於 1910 年在德國圖林根的 Ruhla 成立。其首批產品是消費電子產品和無線電配件。無線電技術零件已經在 1930 年代由聚苯乙烯注塑而成。1950 年，該公司在現在的位置重新成立，並一直專注於生產幾乎所有熱塑性材料製成的注塑零件，包括精加工和組裝。在 3,000 平方米的生產地板上，製造的零件重量範圍為 0.1 g 至 2 kg。該公司的服務組合包括產品開發和原型製作以及批量生產。

For many years, Langlotz had been a successful supplier of power plant cooling tower components for the European market. The massive changes in European energy policy, and above all in Germany, which started at the beginning of this decade, necessitated a complete realignment of the company. 85 % of its sales are now realized with new customers. The family-owned company with a workforce of 40 employees has shifted its focus to enclosure technology for water dispensers and bar systems, as well as pumps for drinking water systems. About 8 % of its sales are realized with products for the automotive industry. The company's main market is Germany. It delivers not only individual parts but complete assemblies. In this area, the company addresses its customers proactively, offering them its expert knowledge to improve their products or

manufacture them at lower cost. So, a metal adapter plate, for example, was replaced by a plate made of plastic, or threads dispensed with by using plastic-cutting screws.

多年來，Langlotz 公司一直是歐洲市場上電廠冷卻塔組件的成功供應商。歐洲能源政策的重大變化，尤其是德國的能源變化，始於本世紀初，因此公司必須進行全面調整。現在其銷售額的 85% 是通過新客戶實現的。這是一家擁有 40 名員工的家族企業，公司的重點已轉移到用於飲水機和酒吧系統的外殼技術，以及用於飲用水系統的泵。其約 8% 的銷售額來自汽車行業的產品。該公司的主要市場是德國。它不僅提供單個零件，而且還提供完整的組件。在此領域，公司會主動與客戶打交道，向他們提供專業知識，以改善其產品或以較低的成本製造它們。因此，例如，將金屬轉接板替換為塑料製成的板，或者通過使用塑料切削螺釘省去螺紋。

To produce the parts, Langlotz uses injection molding machines ranging from 250 kN to 5,000 kN in clamping force, among them three machines from the servo-hydraulic *SmartPower* series from WITTMANN BATTENFELD with clamping forces of 350 and 3,000 kN. These machines stand out primarily by their compact design, high energy efficiency, precision and user-friendliness. One of the two *SmartPower* 300/1330 machines is equipped with an insider cell. This means a production cell with an integrated robot, a conveyor belt and a protective housing firmly connected with the machine. This solution makes it possible to have all danger areas already secured and certified ex works. On the *SmartPower* 300/1330 at Langlotz, a W821 robot from WITTMANN is used. This robot is designed with a horizontal stroke profile with optimized rigidity and weight, which is positioned directly inside the main carriage and carries out the parts removal stroke. The robot's main axes are powered by servo drives via belt or rack transmission. Minimized moving masses allow for extremely high acceleration and deceleration rates. The W821 model comes with the latest robot control system of the R8.3 generation, which provides a wide range of programming options, and the patented SmartRemoval function for maximal shortening of the unproductive mold opening times.

為了生產零件，Langlotz 公司使用的鎖模力範圍從 250 kN 到 5,000 kN 的注塑機，其中三台來自威猛巴頓菲爾的伺服液壓 *SmartPower* 系列機器，鎖模力分別為 350 和 3,000 kN。這些機器的主要特點是緊湊的設計，高能效，精度和用戶友好性。兩台 *SmartPower* 300/1330 機器之一帶有物流系統化配備。生產單元具有集成的機器手，傳送帶和與機器牢固連接的保護性外殼，可以使所有可能危險區域都獲得保護並在出廠時獲得了安全認證。在 Langlotz 公司的 *SmartPower* 300/1330 上，使用了威猛的 W821 機器手。該機器手的水平行程結構具有最佳的剛性和重量，可直接位於主滑座內部並執行零件取出行程。機器手的主軸由伺服驅動器通過皮帶或齒條傳動裝置提供動力。最小的運動質量允許極高的加速和減速速率。W821 型號配備了 R8.3 代的最新機器手控制系統，該系統提供了廣泛的編程選項，以及獲得專利的 *SmartRemoval* 功能，可以最大程度地縮短非生產性模具的打開時間。

Ulrich Seibert, Managing Director of Langlotz, expresses great satisfaction with the machines from the *SmartPower* series, in particular the *SmartPower* with an insider cell, and primarily because of its small footprint and user-friendliness. "For us, this production cell is definitely an improvement in manufacturing technology. Its intuitive operation is also

greatly appreciated by our staff members.” But WITTMANN BATTENFELD impresses Ulrich Seibert and his son Christoph, who is responsible for the company’s commercial management, not only with the quality of its machines, but above all with fast response times and good service, which are essential factors in this business relationship already existing for more than 20 years.

Langlotz 的常務董事 Mr. Ulrich Seibert 對 SmartPower 系列的機器，特別是帶有物流系統化配備的 SmartPower 機器表示非常滿意，這主要是由於其占地面積小和用戶友好。“對於我們來說，這個生產單元絕對是製造技術的進步。WITTMANN BATTENFELD 給 Ulrich Seibert 和他的兒子 Christoph 留下了深刻的印象，他不僅對公司的機器質量，而且對快速的響應時間和良好的服務，這是已經存在 20 多年的這種業務關係中必不可少的因素。



Fig. 1 (from the left): Frank Höher, Sales WITTMANN BATTENFELD, Frederike Seibert, Project Management Langlotz, Ulrich Seibert, Managing Director Langlotz, Thomas Bertram, Sales WITTMANN BATTENFELD, Christoph Seibert, Commercial Manager Langlotz

(Photo: WITTMANN BATTENFELD)

圖 1: (左起)：威猛巴頓菲爾的銷售總監 FrankHöher / Langlotz 公司項目經理 Frederike Seibert / Langlotz 公司常務董事 Mr. Ulrich Seibert / 威猛巴頓菲爾公司銷售經理 Thomas Bertram / Langlotz 公司商業經理 Christoph Seibert (照片來源：威猛巴頓菲爾)



Fig. 2: Production of a housing component for a beverage dispenser with *SmartPower 300/1330* with insider cell (Photo: WITTMANN BATTENFELD)

圖 2：使用帶有物流系統化配備的 *SmartPower 300/1330* 生產飲水機的外殼組件（照片來源：威猛巴頓菲爾）



Fig. 3: Beverage dispenser (Photo: WITTMANN BATTENFELD)

圖 3：飲水機（照片來源：威猛巴頓菲爾）



Fig. 4: Christoph Seibert shows Frank Höher a chrome-plated pillar for a beverage dispenser
(Photo: WITTMANN BATTENFELD)

圖 4：Christoph Seibert 向 Frank Höher 展示了用於飲料水機分配器的鍍鉻支柱（照片來源：威猛巴頓菲爾）



Fig. 5: Pumps for drinking water systems (Photo: WITTMANN BATTENFELD)

圖 5：用於飲用水系統的泵（照片來源：威猛巴頓菲爾）



Fig. 6: Stems for safety valves (Photo: WITTMANN BATTENFELD)

圖 6：安全閥閥桿（照片來源：威猛巴頓菲爾）

The WITTMANN Group

The WITTMANN Group is a worldwide leader in the production of injection molding machines, robots and peripheral equipment for the plastics processing industry, headquartered in Vienna/Austria and consisting of two main divisions: WITTMANN BATTENFELD and WITTMANN. They jointly operate the companies of the group with eight production plants in five countries, and its additional sales and service companies are active with 34 facilities on all important plastics markets around the world.

WITTMANN BATTENFELD pursues the further expansion of its market position as an injection molding machine manufacturer and specialist for state-of-the-art process technologies. As a supplier of comprehensive, modern machine technology in modular design, the company meets both present and future market demands for plastics injection molding equipment.

The WITTMANN product portfolio includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. With this diversified range of peripheral units, WITTMANN offers plastics processors solutions to cover all production requirements, ranging from independent production cells to integrated plant-wide systems.

The syndication of the various segments under the umbrella of the WITTMANN Group has led to complete connectivity between the various product lines, for the benefit of plastics processors with an increasing demand for seamless integration of processing machinery with automation and peripherals.

威猛集團

威猛集團是塑料行業中製造射出機、機械手和周邊設備的全球領航者。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，他們共同經營集團旗下分公司，在全球 5 個國家設有 8 個生產工廠，其中超過 34 個直屬子公司位於世界各大塑料市場，並各自負責該區域的銷售及售後服務。

威猛巴頓致力於製造最先進的射出機和工藝技術的獨立市場增長，提供現代化和全面的機械模組化設計，滿足塑料射出成型的實際和未來要求。

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。憑藉這種全面的周邊設備，威猛可為塑料加工商提供涵蓋所有生產要求的解決方案，從自主工作單元到整個工廠範圍的系統。

威猛集團的結合已經使所有產品線連接為一體，提供塑料加工商在射出機、自動化和輔助設備的無縫接軌，為塑料加工廠帶來了益處，對加工機械與自動化和外圍設備的無縫集成日益增長。

更多信息可參訪我們的網站 www.wittmann-group.tw