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USER REPORT

Ever Rich Fountain Co., Ltd., Taichung, Taiwan

Premium-quality cosmetics packaging with injection molding technology from WITTMANN BATTENFELD

Ever Rich Fountain Co., Ltd. (ERF) based in Taichung, Taiwan, is a leading Taiwanese manufacturer of premium-quality cosmetics packaging. In addition to locally produced injection molding machines, the company uses state-of-the-art injection molding technology from WITTMANN BATTENFELD on its production floor.

ERF, established by the two brothers Mini and Max Liu in 1991, is today with its 110 employees one of the leading cosmetics packaging manufacturers in Taiwan. As an all-in-one supplier of packaging solutions, ERF offers its customers worldwide a complete service portfolio including counseling and design, as well as mold technology, production and printing of the products, using latest technologies such as metalizing, vacuum anodizing, hot stamping, screen printing, UV varnishing or soft-touch coating.

The company's product range includes Airless pump bottles made of PP and PETE, double-walled Airless bottles, lotion dispensers, PETG and PP extrusion molding bottles, PP and PETE cream jars, pipettes and many other items in a great variety of colors and shapes. Its main product line is Airless bottles. These were developed in-house by ERF. The technology of this product enables 100% removal of the liquid from inside the bottle. Consequently, these bottles are used primarily as packaging for lotions in the top price segment.

High quality standards and perfect service are the top priorities at ERF. This is why the company also insists on top quality in the choice of its injection molding equipment in terms of both the machines and the service provided by the supplier. In 2012, WITTMANN BATTENFELD successfully established business relations with ERF with the *MicroPower*, its machine series specially designed for injection molding of micro and nano parts. Today, ERF makes high-precision parts for dosing pumps in cosmetics bottles on two machines from the *MicroPower* series with 150 kN clamping force. The reliability and cost-efficiency of this innovative machine model, with whose two-step screw-and-plunger injection unit thermally homogeneous melt is injected

with shot volumes ranging from less than 0.05 up to 4 cm³, absolute process stability and short cycle times, has convinced ERF of the quality of injection molding technology from WITTMANN BATTENFELD. “With a single *MicroPower*, we have achieved the output of four standard machines previously used in this area”, says Mini Liu, Owner-Manager of ERF. “WITTMANN BATTENFELD is our partner, when it comes to innovative machine technology.” The machines are equipped with a W8VS2 Scara robot from WITTMANN as well as WITTMANN temperature controllers and dryers.

In December of last year, ERF added a hydraulic multi-component machine from WITTMANN BATTENFELD to its equipment. It is an HM 240/525H/525S with a vertical rotary unit. The multi-color machine is used in the production of PMMA cream jars. The outer layer of plastic is crystal-clear, the inner layer is pre-dyed, in order to create a piano finish effect. Mini Liu explains that this technology offers a number of major advantages compared to the previous varnishing of the cream jars by an external service provider. In this way, both transport damage to these sensitive products and down-stream finishing with chemical varnish can be avoided. The 2-component technology also enables a significant reduction in cycle times in contrast to injection molding of a single thick-walled part from one component, and consequently a much higher output. ERF acts as a pioneer in the production of cream jars in 2-C technology. Mini Liu regards the production of cream jars with this technology as a pilot project, with more products to follow if this project proves successful. The improvement in product quality combined with the reduction in cycle times, which enables shorter delivery times, constitutes for Mini Liu a major step towards a significant increase in market shares.

In addition to the 2-color products, crystal-clear containers are to be produced on this machine as well, which does not present any problems whatsoever with the multi-component machine from WITTMANN BATTENFELD.

In his selection of a suitable machine for multi-color injection molding, good service and the quality of the machines were the most important considerations for Mini Liu: “WITTMANN BATTENFELD is well known for the quality of its multi-component machines”, he comments. “We could also see this for ourselves on various reference visits to other users. Moreover, WITTMANN BATTENFELD maintains a subsidiary in Taiwan, which ensures immediate, direct support for us.” The engineering support provided by WITTMANN BATTENFELD Taiwan to ERF in its project, and by the team of experts in Kottlingbrunn, was one of the vital factors for ERF in its decision to invest in the multi-component system from WITTMANN BATTENFELD.



Fig. 1: (from the left): Roland Pechtl, WITTMANN BATTENFELD Regional Sales Director Asia, Mini Liu, Owner-Manager of ERF, Long Chiao Chen, Mold Designer ERF, David Chen, Managing Director of the WITTMANN BATTENFELD subsidiary in Taiwan at the commissioning of the multi-component machine at WITTMANN BATTENFELD in Kottlingbrunn

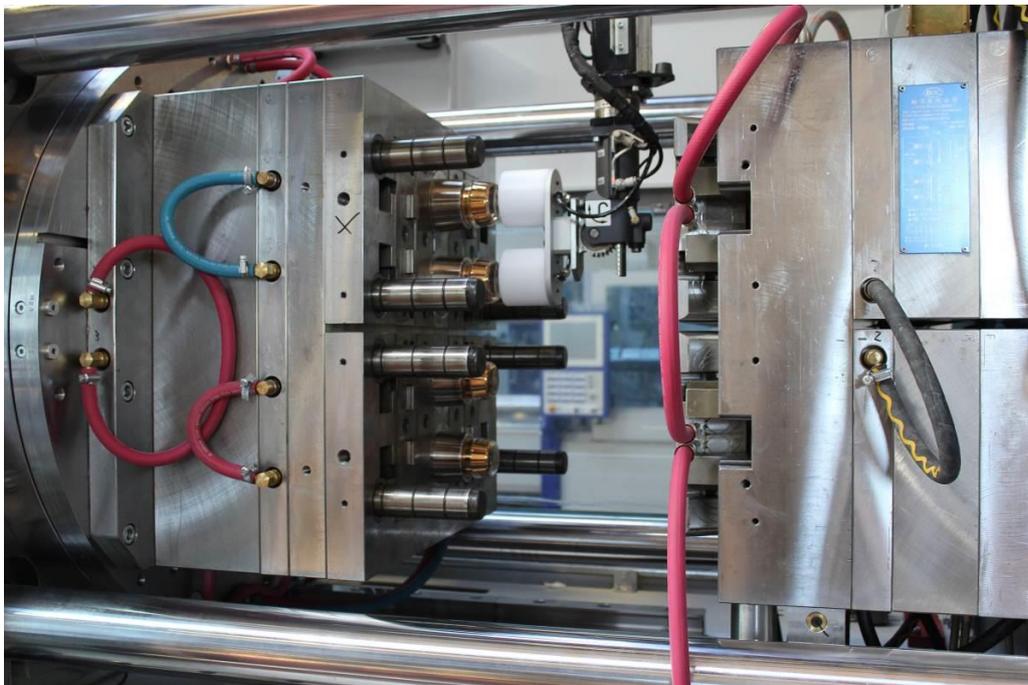


Fig. 2: Mold for the production of cream jars in 2-color technology



Fig. 3: PMMA cream jar – left: colored inner part, right: finished jar



Fig. 4: Cream jars – single-component variant (photo: ERF)



Fig. 5: Double-walled Airless bottles (photo: ERF)

The WITTMANN Group

The WITTMANN Group is a worldwide leader in the manufacturing of injection molding machines, robots and peripheral equipment for the plastics industry. Headquartered in Vienna/Austria, the WITTMANN Group consists of two main divisions, WITTMANN BATTENFELD and WITTMANN, which operate 9 production facilities in 6 countries, including 30 direct subsidiary offices located in all major plastics markets around the world.

WITTMANN BATTENFELD focuses on the independent market growth in the manufacturing of state-of-the-art injection molding machines and process technology, providing a modern and comprehensive range of machinery in a modular design that meets the actual and future requirements of the plastic injection molding market.

WITTMANN's product range includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, mold temperature controllers and chillers. With this comprehensive range of peripheral equipment, WITTMANN can provide plastics processors with solutions that cover all production requirements, ranging from autonomous work cells to integrated plant-wide systems.

The syndication of the WITTMANN Group has led to connectivity between all product lines, providing the advantage plastics processors have been looking for in terms of a seamless integration of injection molding machines, automation and auxiliary equipment – all occurring at a progressive rate.

In China, the WITTMANN Group is present with its own production plant in Kunshan, and a sales and service subsidiary in Shanghai, WITTMANN BATTENFELD (Shanghai) Co. Ltd., as well as offices in Shenzhen, Tianjin, Chengdu and Changchun.

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