

Capacity increase: nine at once

- US company Monoflo ordering two MX and seven GX with automation from KraussMaffei
- Automatic quick mold change as a production highlight:
 "Two machines do the work of three."
- Successful cooperation since 2015

(Munich, September 6th, 2021) The building where they will be housed is not quite completed, but the new arrivals are already being eagerly awaited in Winchester, Virginia. They include two injection molding machines from the MX series (one MX 1600 and one MX 2300) and seven from the GX 1100 series, which Monoflo – a family-owned company – has ordered from KraussMaffei. The machines will produce reusable transport packaging at this location.

It is a highly competitive market with products that are standardized to a high degree and therefore comparable. For this reason, high value is placed on efficiency in production through fast cycle times and a high degree of automation. Monoflo specializes in articles such as pallets, pallet boxes and transport totes with and without lids and successfully supplies them to globally recognized companies such as Amazon, General Motors, Mercedes, and Aldi. The customers are predominantly from the logistics industry, followed by the automotive sector, automation sector, and the food industry.

Mold change within 9 minutes

Since 2015 KraussMaffei has been the machinery partner for systems with advanced technology. Currently 10 injection moldings machines of the MX series with clamping forces from 10,000 to 32,000 kN are operating 24/7. Two of them feature a highlight: an automatic quick mold change system that Monoflo CEO Henning Rader thinks is "the coolest thing in the world". As automotive customers of Monoflo sometimes need only 500 or 1000 units of a particular box, these molds must be changed relatively frequently. The

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net time for a mold change was previously 45 minutes, but it often took several hours of downtime before a skilled mold setter was available – especially during night shift. Now everything is automated, and – amazingly enough – only nine minutes pass between the last part from the old mold and the first part from the new mold. Henning Rader is a fan of the solution, saying that "two machines do the work of three."

Other special applications from KraussMaffei are also at work in Winchester. In an MX 3200 TwinForm, two components of a collapsible bulk box are created in one shot. The components are bonded to each other afterward and since the charged material is often abrasive and sometimes highly viscous, the screws are designed and coated accordingly.

Focus on In-Mold-Labeling and recycled material

Monoflo pursues a highly proactive strategy in building up capacity and technologies. Thus, the company wants to use the new injection molding machines of the GX series to further establish the in-mold labeling technology in the US, where transport crates are usually still labeled with adhesive barcode labels even though an IML barcode application would be significantly more durable.

As Monoflo operates recycling plants on its own and blends 50 to 100 percent of regrind into its articles, the APC plus machine function is used with high intensity. Based on the melt viscosity and stored material parameters, the function re-regulates the shot weight for each cycle. While the industry assumes an average scrap rate of two percent, Monoflo consistently stays below one percent – and thanks to the precise part weight, the company also saves material that would be wasted by overpacking the part. Due to the current high material prices and the high production volumes, this definitely has an effect.

The collaboration between Monoflo and KraussMaffei began with a fivemillion-dollar investment on 2015 when Monoflo needed new machines for a new application. Ever since, the two companies have been developing in tandem, and Monoflo expects that the market will consistently grow over the

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next five years. Thus, further heavy machinery will surely make its way to Winchester in the future.

Captions

KM_IMM_2021_09_Monoflo Production.jpg Nine at once: The US company Monoflo is investing in nine additional KraussMaffei injection molding machines at the Winchester site. The machines will produce reusable transport packaging.

KM_IMM_2021_09_Monoflo products.jpg

Monoflo specializes in articles such as pallets, pallet boxes and transport totes with and without lids and successfully supplies them to globally recognized companies such as Amazon, General Motors, Mercedes, and Aldi.

KM_IMM_2021_09_Monoflo Quick Mold Change.jpg Two machines do the work of three: The automatic quick mold change at two of the MX injection molding machines save valuable time when changing molds and thus increase efficiency Photos: Monoflo

You can obtain further information and photos in print quality at: www.kraussmaffei.com

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KraussMaffei – Pioneering Plastics

KraussMaffei is among the world's leading manufacturers of machinery and systems for the production and processing of plastics and rubber. Our brand stands for cutting-edge technologies – for more than 180 years. Our range of services covers all areas of injection molding machinery, extrusion technology and reaction process machinery. This gives KraussMaffei a unique selling point in the industry. With the high innovative power of our standardized and individual product, process, digital and service solutions, we can guarantee customers sustained additional value over the entire value-adding chain. Our range of products and services allow us to serve customers in many sectors including the automotive, packaging, medical and construction industries, as well as manufacturers of electrical and electronic products and household appliances. KraussMaffei employs around 4.700 people all over the world. With more than 30 subsidiaries and over 10 production plants, as well as about 570 commercial and service partners, we are represented internationally close to our customers. Since its foundation in 1838, the company's headquarters have been in Munich.

In April 2016, the Chinese state-owned company China National Chemical Corp. Ltd. ("ChemChina"), one of the leading chemical companies in China, became the majority shareholder of KraussMaffei Group. At the end of 2018, ChemChina listed the KraussMaffei Group as KraussMaffei Company Ltd. in Shanghai. The listing opened up access to the Chinese capital market and local investors.

For more information: www.kraussmaffei.com

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