

Press Release

Karlsruhe/Germany, 2022-07-19

Romaco atACHEMA 2022

Sustainable processing, tableting and packaging technologies all from one source

The one stop solutions supplier Romaco will take advantage of Achema 2022 to show sustainable processing, tableting and packaging technologies for use in the pharmaceutical, nutraceutical, food, cosmetics and chemical industries. The highlight at the upcoming exhibition will be the new Macofar E aseptic liquid filling line, which trade visitors will have a chance to see there for the first time.

Under the motto “Together towards a sustainable future”, one stop solutions supplier Romaco will demonstrate its various approaches for more sustainable production and to reduce carbon dioxide emissions: Amongst other things, the innovative process control achieved with these technologies means significantly shorter processing times, so that energy and material can be economised in a targeted manner. Space-saving design results in machines and lines with a lower carbon footprint. And thanks to safe processing of eco-friendly packaging materials, for instance for the production of paper blisters, the packaging process as a whole can be made more sustainable. In addition, all of the manufacturer’s machines can be supplied in a carbon-neutral version and be equipped with an energy monitor for sustainability reporting.

At the trade fair, Romaco will be presenting a large selection from its portfolio, including the VENTILUS® Pilot fluid bed processor by Romaco Innojet, the KTP 1X and KTP 590X tablet presses by Romaco Kilian and the TP R Optima coating pan by Romaco Tecpharm. Romaco Noack’s Unity 300 blister packaging line and the new Macofar E aseptic liquid filling line will likewise be exhibited – impressive confirmation of the engineering specialist’s line competence.

Macofar E – Romaco’s newest aseptic liquid filling line

The Macofar E series is Romaco’s cost-efficient turnkey solution for aseptic filling of injectables into vials. The integrated lines each consist of a rotary washer, a depyrogenation tunnel, a liquid filling and stoppering machine plus a final capping machine. Romaco Promatic cartoners can also be seamlessly connected downstream if required. The ability to choose from various standard configurations cuts the delivery time from order receipt to ten months at most. The technology meets all the requirements of the revised Annex 1 of the EU GMP Guidelines on the manufacture of sterile medicinal products. All in all, the Macofar E achieves a maximum output of 24,000 vials per hour. Depending on customer needs, the line can be equipped with oRABS, cRABS or isolation technology. The filling machine’s weighing system moreover ensures one hundred percent weight control of the vials, including automatic adjustment of the filling volume. Thanks to an inertisation system, the residual oxygen particles in the vials amount to less than three percent, which attests to a high level of process safety during filling with either peristaltic or volumetric pumps. To minimise product loss, each batch is fully processed, for instance by completely draining the liquid tank and piping. The Macofar E aseptic liquid filling line can optionally be shipped with an energy monitor that measures the machine’s energy consumption and detects carbon dioxide emissions to facilitate sustainability reporting.

Unity 300 blister packaging line from Romaco Noack

The integrated Unity 300 blister packaging line from Romaco Noack is designed for the low to medium speed segment and meets all the requirements for more climate-friendly pharmaceutical production. For the first time, a sustainability monitor with smart standby functions has been implemented to oversee the power and air consumption of the single-track blister line and reduce the base load of the machine without any negative impact on overall equipment effectiveness (OEE). At less than eight metres long, the monobloc is comparatively short, so that carbon dioxide emissions are much lower, especially in the cleanroom for the primary packaging. The space-saving design is due, amongst other things, to a swing-out IPC magazine, which ensures convenient access to the die-cutter behind it in case of format changes. And there is also the option of repositioning the forming foil reel inside the machine. An extremely compact, energy efficient indexing wheel transfers the blisters from the rotary sealing machine to the continuous motion cartoner. All in all, the Unity 300 achieves a maximum output of 300 blisters and,

depending on the cartoner, either 200 or 300 cartons per minute. The blister line is fitted with one hundred percent recycled acrylic glass panes and is additionally available in a carbon-neutral version on request. Romaco Noack's quality promise for the Unity 300 is underlined with a three-year warranty on all spare parts, and the manufacturer also guarantees to take back the machine free of charge at the end of its service life in the interests of a circular economy.

TP R Optima tablet coater from Romaco Tecpharm

The TP R Optima perforated coating pan from Romaco Tecpharm genuinely processes any batch size from 10 to 100 percent with one and the same drum and achieves optimum coating results, no matter how small the filling volume. Its wide range of applications is the outcome of the full automation of the tablet coater with its GMP-compliant in-wall design. An extendable spray arm with movable spray nozzles ensures not only the correct spray distance but also the ideal spray angle. Both the batch volume and the tablet bed inclination, which varies according to the turning speed of the pan drum, are measured continuously using sonar technology. The patented spray system is thus capable of aligning the nozzle distance and angle automatically throughout the entire process. Furthermore, air exhaust flaps that can be opened steplessly allow exact adjustment of the air path inside the drum. This precise flow control provides loss-free application of the coating suspension and efficient drying of the tablet bed. Apart from shorter processing times, this simultaneously reduces energy consumption and cuts coating liquid usage by up to 60 percent. In short, the TP R Optima supports sustainable production of pharmaceuticals and nutraceuticals. Last but not least, Romaco Tecpharm's smart coating technology includes a system for detecting and accurately identifying blocked spray nozzles.

KTP 1X R&D tablet press from Romaco Kilian

The KTP 1X is the newest generation of Romaco Kilian's R&D tablet presses for laboratory use. This single-stroke press was designed as an all-in-one instrument for research and development activities. It is suitable for pressing mono-layer, bi-layer and triple-layer tablets as well as tab-in-tab formats. It achieves a maximum output of 1800 tablets per hour and compression forces of up to 80 kN. This versatile R&D press enables the various tableting parameters, such as compression force or the possible tableting speed, to be determined automatically. The smart measurement system evaluates huge amounts of data in next to no time for this purpose. The KTP 1X is moreover capable of replicating any standard

rotary press, making it much easier to conduct scale-up trials. In addition to the production of clinical samples, the technology also allows detailed troubleshooting and hence supports process optimisation. Thanks to the machine's very good rigidity, the punch position in particular can now be measured more precisely. This high measuring accuracy goes hand in hand with extremely low product consumption – so that the KTP 1X is not only cost-efficient but also sustainable. Only a few test series are required to obtain meaningful results because compression studies are highly automated. With its very small compaction area, Romaco Kilian's KTP 1X has a small footprint and is quick and easy to clean – for even bigger time and energy savings.

KTP 590X single-sided rotary press from Romaco Kilian

The KTP 590X is a single-sided, versatile rotary press which is used to manufacture both mono-layer and bi-layer tablet formats. Three pairs of compression rollers allow the machine to be changed over between mono-layer and bi-layer mode without time-consuming conversion of the compression stations. The single-sided rotary press reaches a maximum total output of 511,200 tablets per hour. The fill shoe distributes the powder absolutely uniformly in the die. Thanks to the optimised paddle design, even poorly flowing or sticky powders can be processed without any problem and compressed homogeneously. The Kilian KTP 590X is therefore ideal for manufacturing effervescent tablets. In this case, the powder is simply tamped initially, then pre-compressed and finally converted into finished tablets in the main compression unit – air pockets and the resulting capping are thus prevented. The dwell time is significantly longer owing to the use of Kilian 28/41 tooling, meaning harder tablets can be made and product quality improved. Patented bellows moreover protect the tablets from contamination in the form of black spots. The KTP 590X stands for low process temperatures, efficient cleaning and retooling and a mature hygiene concept – in conformity with the design principles of Romaco Kilian's KTP product family: "Cool, Fast & Clean".

VENTILUS® Pilot fluid bed processor from Romaco Innojet

The VENTILUS® Pilot fluid bed processor from Romaco Innojet is a mobile all-rounder for pilot scale applications or small batches. The technology impresses with excellent results in terms of flow properties as well as powder and granulate compressibility. 100 percent natural granulation is now possible without any chemical additives. Mounted on four wheels, this compact machine fits through any standard door frame and is designed for plug & play installation. An all-in-one

solution intended for batch sizes from 4 to 25 litres, it granulates, dries or coats particles of any size from 10 µm to 2 mm. The technology meets all the requirements for laboratory use as well as for GMP-compliant production of clinical samples. The spray liquid is applied with the central ROTOJET® nozzle using a bottom spray system or alternatively by means of the conventional top spray method. The cylindrical container featuring the ORBITER® booster permits controlled, gentle batch intermixing. The homogeneous flow conditions improve product quality and reduce the spray liquid consumption while simplifying scale-ups. In addition, the VENTILUS® Pilot is suited for hot melt coating processes, which merely requires connection of the patented Innojet IHD hot melt system. The processing time is consequently up to 85 percent shorter and the processor's carbon footprint is significantly lower.

On show at Achema in Frankfurt/Main (Germany) from 22 to 26 August 2022 (Messe Frankfurt, Hall 3.0, Stand B49).

For more information on Romaco, visit our website and social media channels: www.romaco.com – [Showroom](#) – [LinkedIn](#) – [YouTube](#)

Romaco Group

Romaco is a leading international supplier of processing and packaging equipment specialising in engineering technologies for pharmaceutical products. The Group provides individual machines, lines and turnkey solutions for manufacturing, filling and packing powders, granulates, pellets, tablets, capsules, syringes, liquids and medical devices. The company also serves the food and chemical industries. Through its various technologies, Romaco is committed to sustainable production and to systematically reducing CO₂ emissions.

The Romaco Group has its headquarters in Karlsruhe (Germany) and is part of the Truking Group, a globally operating high-tech enterprise based in Changsha (China). Truking's core competency is handling and filling pharmaceutical liquids.

Romaco operates from five European business sites, with a broad portfolio comprised of seven established product brands. Noack and Siebler (Karlsruhe, Germany) supply blister, heat-sealing and rigid tube filling machines. Macofar (Bologna, Italy) markets technologies for filling sterile and non-sterile powders and liquids. Promatic (also Bologna, Italy) specializes in cartoners, track & trace systems and case packers. Kilian (Cologne, Germany) is a leading manufacturer

of tablet presses. Innojet (Steinen, Germany) is in the business of granulating and coating fine solid particles. Tecpharm (Barcelona, Spain) offers tablet coating technologies.

More than 850 highly skilled and committed Romaco employees are dedicated to the development of future product technologies and to the continuous implementation of internal improvement processes. The Romaco Group's multi-brand system solutions are sold worldwide through eight Sales & Service Centres and a dense network of local agent organisations. Over 12,000 installations delivered by Romaco are currently in use in more than 180 different countries.

The following pictures are enclosed with the press release:

1. Macofar E – Romaco's newest aseptic liquid filling line
Macofar-E_Romaco.jpg



2. Unity 300 blister packaging line from Romaco Noack
Unity-300_Noack_Romaco.jpg



3. TP R Optima tablet coater from Romaco Tecpharm
Optima_Tecpharm_Romaco.jpg



4. KTP 1X R&D tablet press from Romaco Kilian
KTP-1X_Kilian_Romaco.jpg



5. KTP 590X single-sided rotary press from Romaco Kilian
KTP-590X_Kilian_Romaco.jpg



6. VENTILUS® Pilot fluid bed processor from Romaco Innojet
VENTILUS-Pilot_Innojet_Romaco.jpg



Company contact

Susanne Silva
Market Communications
Romaco Group
Am Heegwald 11
76227 Karlsruhe
Germany
T +49 (0)721 4804 0
E susanne.silva@romaco.com

Press contact

Micha L. Harris
Senior PR Consultant
Carta GmbH
Iggelheimer Str. 26
67346 Speyer
Germany
T +49 (0) 6232 100 111 20
E harris@carta.eu