

Press Release

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Romaco at CIPM in Chongqing

Economical processing technologies for high-quality products

Romaco will be taking advantage of the 66th China International Pharmaceutical Machinery Exposition (CIPM Spring) in Chongqing to showcase its broad processing portfolio for the production and coating of granulates, pellets and tablets. Production and laboratory-scale technologies from Innojet, Kilian and Tecpharm will be among the exhibits there.

Romaco stands out with its very broad processing portfolio. The pharmaceutical machinery manufacturer will be taking advantage of the 66th China International Pharmaceutical Machinery Exposition (CIPM Spring) in Chongqing to show technologies for granulating, tableting and coating pharmaceutical solids. The exhibits will include a tablet coater from Romaco Tecpharm, tablet presses from Romaco Kilian and processing machines from Romaco Innojet – from laboratory-scale models to high-volume production equipment. The one stop solutions supplier's technologies are offered as standalone machines or as fully integrated pharmaceutical lines, depending on the application and the customer's needs.

HSE 150 high-shear mixer from Romaco Innojet

The HSE 150 high-shear mixer from Romaco Innojet is used to produce wet granulate, which is then dried and compressed in downstream process steps. The technology convinces with extremely homogeneous granulation, even if the product only has a very small proportion of active pharmaceutical ingredients (API). The HSE 150's very short processing times are due in part to the impactor blade's higher top speed of max. 10 m/s. The small distance between the impactor blade and the bowl base reduces product loss to a minimum, resulting in a higher yield from the mixer coupled with shorter cleaning times. Furthermore, the conical upper part of the bowl design enables working at capacities from 25 to 80 percent,

providing maximum batch size flexibility. In addition, the linear bowl geometry also makes it easier to carry out scale-ups. Various spray nozzle tips offer very fine droplet distribution as well as uniform application of the binding liquid. Spray liquid losses are consequently reduced and the quality of the wet granules improved. Overall, Romaco Innojet's HSE 150 processes filling volumes from 40 to 120 liters. The technology is optionally designed for integration into a complete granulation line including a fluid bed dryer as well as one wet and one dry mill. The wet granulate is dried by the Innojet FBE fluid bed processor, which is equipped with a sieve or Conidur plate to gently move the product while drying it. A centrally controlled WIP system permits GMP-compliant cleaning of the HSE 150 high-shear mixer along with all other line components.

VENTILUS® Lab fluid bed processor from Romaco Innojet

Designed for laboratory-scale applications, the VENTILUS® Lab fluid bed processor from Romaco Innojet is used for granulating, drying and coating particles of any size from 10 µm to 2 mm. This multipurpose lab unit is intended for batch sizes from 0.7 to 7.0 liters. With its innovative process air distribution system inside the cylindrical product container, the VENTILUS® Lab shortens batch processing times by up to 25 percent as the required power can be used far more efficiently. The process air is introduced through the circular ORBITER® booster, ensuring homogeneous flow conditions and extremely gentle intermixing of the batch. In combination with a central bottom spray nozzle, the ORBITER® booster plate forms a unique functional unit enabling much simpler scale-up processes. When it comes to nozzle technology, users can choose between the proven ROTOJET® spray nozzle and the new FLEXIJET®, which was specifically developed for granulation processes and is not only very easy to handle but also quick to clean. The patented fluid bed components invented by Dr. h. c. Herbert Hüttlin are the basis for the remarkably accurate application of the spray liquid with a precisely defined droplet size. With controlled release formulations, for instance, the modified release profiles are achieved using 10 to 15 percent less material. This targeted reduction in spray liquid usage also means less power consumption, so that the VENTILUS® Lab results in substantially fewer carbon dioxide emissions during fluid bed processes. Furthermore, the rotating SEPAJET® filter system minimizes overall product loss by returning particles retained by the filter to the process, rather than discharging them.

E 710 Smart double-sided rotary press from Romaco Kilian

The E 710 Smart expands Romaco Kilian's product portfolio with a new double-sided rotary press that was particularly developed for high production volumes with low margins. This economical tablet press for mono- and bi-layer production is based on Kilian's proven four-column design. The single-piece, deep-drawn process area ensures hermetical separation between the compaction and technical areas. A closed V-ring seal underneath the die table additionally prevents tablet dust from entering the "grey" area. With between 39 and 85 press stations and a pitch circle diameter of 712 mm, the Kilian E 710 Smart achieves a maximum output of up to 1,020,000 tablets per hour. Brake magnets permit absolutely homogeneous filling of the dies without any wear on the punch shafts. Moreover, special Kilian bellows protect the tablets from contamination in the form of black spots. The fill shoe is quick and easy to clean because the gear is external. Due to the small number of interchangeable parts and the good accessibility to individual components, retooling and cleaning times are significantly reduced. The tablet scraper and chute are mounted together on a swivel arm for easy removal. Product loss is minimized thanks to the floating product scraper with magnets. The sparing use of natural resources is in line with Romaco Kilian's sustainability strategy.

Romaco Kilian KTP 1X compaction simulator

The KTP 1X is Romaco Kilian's smart compaction simulator for tablet development using digital tools. This all-in-one instrument was designed for research and development activities, but also allows targeted troubleshooting and process optimization as well as upscaling. The single-stroke press is capable of simulating any standard rotary press, making it much easier to conduct technology transfer and scale-up trials, among other things. The versatile measurement system is perfect for designing and analyzing mono-layer, bi-layer and triple-layer tablets as well as tab-in-tab formats. The KTP 1X determines the ideal compression force/hardness profile for any tablet design, taking account of the various ingredients and parameters. Its compression studies are highly automated, and so only a few test series are needed to obtain meaningful results when characterizing a formulation. This high measuring accuracy goes hand in hand with extremely low product consumption – a significant factor when it comes to economy and sustainability. A special data module gives users worldwide secured access to raw measurement data at any time, even when the press is not in operation. Decentralized data analysis and processing has numerous advantages and

enables research projects to be implemented more efficiently. Thanks to its very small compaction area, this space-saving instrument fits conveniently into any laboratory and can be cleaned quickly and easily. Depending on the model, Romaco Kilian's KTP 1X achieves compression forces of up to 80 kN with a maximum output of 1,800 tablets per hour.

Romaco Tecpharm TPE 200 tablet coater

The TPE 200 from Romaco Tecpharm is the ideal solution for standard coating processes with a single pan and a high filling volume variability. Thanks to the perforated pan design, the process air is guided directly through the tablet bed for maximally effective coating and drying. The process air flow and temperature can be automatically adjusted on the HMI without stopping the machine. This minimizes spray loss and avoids overwetting of the tablet bed. The high level of process control thus improves coating quality and shortens batch processing times. With its exchangeable deflectors, the tablet coater can be used for a very wide range of products. Its rotating spray arm, featuring four spray nozzles, allows simple manual adjustment of both the spray distance and the spray angle. The temperature of the tablet bed is measured without any product contact using an infrared sensor system and is displayed on the HMI. The individually controllable peristaltic pumps and the spray rate monitoring with flowmeter ensure highly accurate dosing. Furthermore, the in-wall design of the coating pan enables a smaller machine footprint in the air-conditioned clean room, reducing HVAC consumption up to 35 to 40 percent. The substantial energy savings not only result in lower operating costs, but also in greater sustainability. Last but not least, Romaco Tecpharm's TPE 200 meets all the requirements for fully automatic cleaning with WIP (washing in place).

On show from April 23 to 25, 2025 at the 66th CIPM Spring in Chongqing (China), Booth S1-28.

Romaco Group

Romaco is a leading international supplier of processing and packaging equipment specializing 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 Truiking Technology, a globally operating high-tech enterprise based in Changsha (China). Truiking's core competency is handling and filling pharmaceutical liquids.

Romaco operates from six production sites worldwide, 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 930 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 ten Sales & Service Centers and a dense network of local agent organizations. Over 12,000 installations delivered by Romaco are currently in use in more than 180 different countries.

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

The following pictures are enclosed with the press release:

1. HSE 150 high-shear mixer from Romaco Innojet
HSE-150_Innojet_Romaco.jpg



2. VENTILUS® Lab fluid bed processor by Romaco Innojet
VENTILUS-Lab_Innojet_Romaco.jpg



3. E 710 Smart double-sided rotary press by Romaco Kilian
E-710-Smart_Kilian_Romaco.jpg



4. KTP 1X compacting simulator by Romaco Kilian
KTP-1X_Kilian_Romaco.jpg



5. TPE 200 tablet coater by Romaco Tecpharm
TPE-200_Tecpharm_Romaco.jpg



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