

Sepro Robotique

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PRESS INFORMATION

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Sepro to Bring a New S5-25 Speed Robot to NPE; Also Demonstrating Agility, Automation Flexibility

The newest S5-25 Speed from Sepro Group, a top-entry robot solution for fast-cycling injection-molding applications, will be on display for the first time at NPE 2024. The international plastics exposition takes place May 6 – 10 at the Orlando Convention Center in Florida. Sepro is exhibiting in booth W143.

A more powerful servo motor and gear box on the horizontal (X) axis, resulting in 63% faster acceleration and faster overall cycle times, are among significant design improvements made since the S5-25 Speed's original introduction in 2019. The top-entry configuration allows for a smaller molding-cell footprint compared to side-entry robots often used in high-speed applications. It is the ideal solution for simple packaging applications like flowerpots, thin-wall food containers and tubs, and similar parts.

The S5-25 Speed is now also equipped with Sepro's new ECO Air feature, which reduces compressed-air requirements for vacuum part gripping by as much as 85%. Instead of using compressed air continuously, as had been the practice in the past, the ECO Air system now monitors vacuum levels and initiates vacuum generation only when required.

Demonstrating Speed and Agility

In one of three demonstration cells in the Sepro booth, the S5-25 Speed will be paired with a 5X-25 robot to compare performance in side-by-side tests of speed and agility. Both units are based on the same mechanical platform but, while the S5-25 Speed is built for fast acceleration and a short cycle time, the 5X-25 is a 5-axis-servo configuration with a 2-axis-servo wrist, so it excels at complex and precision part manipulation.

Multi-Robot Automation

Another cell in the Sepro booth will feature three robots operating in support of a 125-ton Q Series injection-molding machine from Milacron. A Success 11X 5-axis Cartesian robot, a 6-axis 6X-170 articulated-arm unit, and a cobot will handle not only part removal but also degating, laser marking, sorting (using 2D & 3D vision), label application and packing. All operations will be integrated by a Sepro Visual 3 control system.

Large-Part-Handling Flexibility

Sepro has always been the leader in large-part automation and so the third demonstration in their NPE booth features a 7X-55 robot designed to serve injection-molding machines as large as 2500 tons. It will be put through its paces by handling four different big parts: a roll-out garbage can, a large-diameter pipe fitting, an automotive component and a heavy dumbbell. Quick-change end-of-arm tooling (EOAT) will allow the robot to handle each part in succession, demonstrating how automation can support efficient short-run production of large components.

A Record Number of Robots on Display

As detailed above, 6 Sepro robots will be installed in booth W143. A further 13 units will be operating on the stands of other exhibitors serving the injection molding market. That's 19 Sepro robots in all – the largest number the company has exhibited at any tradeshow ever.

Milacron (W1601) will show four private-labeled robots supplied by Sepro: a Success 33, two 6-axis articulated arm units will operate together in a Sepro-automated cell, and an S5-15 will operate on another Milacron machine. A fifth Milacron/Sepro robot, a servo-driven S5 Picker, can be seen on a Milacron press demonstrating gas-assist molding at the Bauer Compressors booth (W1589). Sepro will also supply end-of-arm tooling and guarding for all these installations.

Maruka will operate a total of four Sepro robots in booth W1321. Cartesian units will include a 5-axis 5X-15, a Success 11 and a Success 22, and a 6-axis articulated-arm 6X-70 will also be exhibited.

Elsewhere, Shibaura (W2743) will operate a 5X-25 in axial configuration for clamp-end part deposition with Sepro-provided EOAT; Chen Hsong has a 5X-35 on a 700-ton press in booth W301; and hot-runner system supplier incoe (booth W3761) will demonstrate a Success 11X on an LS Mtron 240-ton machine, with Sepro-provided conveyor and guarding.

"NPE 2024 will be an opportunity for us to show off the full breadth of Sepro automation capabilities," says Jim Healy, Vice President Sales & Marketing — North America for Sepro Group. "The industry's most extensive line of 3-, 5- and 6-axis robots, sized for molding machines from 20 to 5000 tons, will be shown in integrated automation cells and standalone applications, along with controls and central-data-management systems, and ancillary equipment including end-of-arm tooling, insert feeders, fixtures, conveyers, stackers and safety guarding. We're excited for the opportunity to show the industry that Sepro can deliver a solution to any molder, for any application and any brand of molding machine, whether new or existing."

About Sepro Group:

Sepro Group has grown with the industry to become a leader in the automation of plastic injection processes. During its over fifty years of existence, Sepro Group has equipped more than 40,000 plastic injection machines worldwide. As an international company with subsidiaries and distributors in all the key markets of Europe, the Americas and Asia, Sepro Group is able to support its customers worldwide through the excellence of its after-sales service.



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