

A dream team for productive and space saving stacking

For its latest glass handling machines for stacking sheets of glass, SCHOTT chose the space saving, six axis robot from Comau, which also included the complete integration of Siemens' Sinumerik Run MyRobot / Direct Control in the robot arm. Tobias Wachtmann reports.

As one of the world's leading technology groups in the fields of specialty glass and glass-ceramic, SCHOTT – with headquarters in Mainz, Germany – is an innovative partner for many sectors, including the home appliance, pharmaceutical, electronics, optics, life sciences, automotive and aviation industries. Its success means that the company often faces the task of expanding its production capacities. SCHOTT has always placed great importance on a homogeneous IT environment – and deployed an internally consistent controller portfolio from Siemens for its automation tasks.

Robot for glass handling

That is why the company chose a six axis robot from Comau for one of its new line concepts for stacking flat glass as one of its latest investments. The Italian industrial automation specialist is known for its efficient solutions that cover the entire manufacturing process for a number of industries. It is active in three business segments: Automation systems (assembly lines for vehicle body assembly), powertrains (assembly lines for the powertrain) and robotics (sale of industrial robots). Robotics was exactly what was needed for the SCHOTT project, because the technology group was seeking a space saving robot, as well as a solution with an integrated, open Siemens control system that SCHOTT could also flexibly intervene in and programme at any time.

Direct link between robot kinematics and drives

SCHOTT found the ideal partner in Siemens, which has been pursuing an integrated robot strategy for many years. What this involves is the complete integration of the Comau robot arm in Siemens' Sinumerik system environment.

The robot arm can be controlled directly via Sinumerik Run MyRobot /Direct Control, with no need



SCHOTT's main factory in Mainz, Germany (source: SCHOTT).

for external or embedded robot controllers or drives. With Sinumerik Run MyRobot /Direct Control, the mechanical robot model is integrated in Sinumerik CNC.

The direct control concept considerably simplifies the configuration of the controller hardware and optimises the spare parts management process. The Sinumerik-controlled robot technology provides further improvements in terms of accuracy and dynamics, as well as the benefits that come from a single-source controller concept.

Numerous benefits

This solution benefitted SCHOTT in a number of ways. It saved the company additional engineering costs, because it relies on existing tools from Sinumerik and the TIA portal. It also eliminated the need to develop more expertise and the training outlay associated with a robot controller. As a result, maintenance can be performed by the company's own personnel, which has made SCHOTT faster and more flexible in terms of its troubleshooting. And finally, plant and

machine operators can continue to work in their familiar plant and machine control environment, thus eliminating the need for familiarisation time or additional training. ●



The project involves the complete integration of the robot arm from Comau in Siemens' Sinumerik system environment, which is made possible by the technological partnership between Comau and Siemens (source: Comau).

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