

Renewal and extension of robots, PLC technology, conveyor systems, material supply systems and application technology including programming: A hot summer job for alpha-tec.

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The Eisenach Summer Challenge

Just four weeks of the Opel Eisenach plant's summer shutdown: Enough time for alpha-tec to rebuild the paint shop automation systems in two entire areas.

It was truly another kind of challenge to rebuild and extend the automation systems at Opel Eisenach in two areas in parallel - the automated sealing as well as the automated PVC line.

The renewal and extension of robots, PLC technology, conveyor systems, material supply systems and appli-



© ALPHATEC Four combined applications: FlatStream, Airless-flat and -wide plus extrusion

cation technology incl. programming and start-up had to be realized during four weeks of the plant's summer shutdown. The short time for project preparation posed an additional challenge.

It went well – all systems started up on Monday, August 22, meeting Opel's precise demands on application quality for both car body types. Working hand in hand, the current Corsa was programmed in cooperation with Opel's robot department. The new model, to be shown at the IAA, was a job for alpha-tec alone.

Project details / facts and figures:

PVC Systems

- dismantle six PVC robots (maintenance dept. Opel Eisenach)
- dismantle material supply and application system

- > extend static substructure of spray booth
- install eight new PVC robots incl. new material supply and new application technology
- dismantle existing PLC controllers, cabling and sensors
- install new PLC system (S7) incl. software, vision system related communication and visualisation
- > programming of eight robots (two car models) incl. optimisation to achieve required application quality

Sealing Systems

- dismantle existing conveyor system and install new conveyor system
- install additional booth and support devices
- > install 7th robot axis incl. industrial robot
- > adapt and extend PLC system

incl. visualisation and vision system as well as required software programming

- > extend material supply system and install new application technology
- programming of robots incl. optimisation to achieve required application quality

"We deliver manufacturing quality in cyclic time", states Manfred Krimpmann, managing director and owner of alpha-tec. "As in quite a lot of other similar projets, the complete systems were installed on site. Only robot programming was prepared before on site project implementation".

A Job Well Done

Peter Weinbeck, Opel Project Manager: "For quite some time now, Opel's philosophy of introducing new car-model types into production has been one of a phase-out and phase-in of current and future models.

As a consequence, our manufacturing lines have to support additional models for a certain period of time.

In this specific case, all automation systems at our paint-shop in Eisenach had to be reworked and programmed in a very short space of time. The fact that we could start production without losing a single car body speaks for itself: a job well done!"