Aldorfer Maschinenbau Gmehling e.K., MaGme for short, manufactures customized solutions in the extrusion technology sector. Extruders with integrated automation based on Totally Integrated Automation (TIA Portal V12) are an innovation that can be operated either as stand-alone systems or networked with a main extruder via Profibus. During a recent customer project, the systems were fitted with Siemens drive technology, automation hardware, and extrusion software based on the EXT3170 automation solution. In addition to the Sinamics S120 drive solution and Profinet interface, the installation includes a Simatic S7 IM151-8 PN/DP control and a Simatic TP700 operator panel.

Convenient access to all operator functions

In the TIA Portal engineering framework, the Step 7 engineering tool and the Simatic WinCC visualization software access a common database and are programmable via a uniform user interface. All the extruder functions are easy to access via WinCC. Intelligent editors have context-sensitive displays to show exactly what the operator needs for his or her task. The common database ensures consistency in the automation project, thus reducing error probability and creating compact, transparent projects. Bettina Gmehling, owner of MaGme, says: “Working jointly with Siemens on the project was extremely efficient. The customer only had to link the ready-to-operate system to the main extruder via Profibus and optimize it for his process using auto-tuning.” TIA Portal enables flexible changes in the extruder source code and the integration of valuable expertise into the software without the help of third parties. The fact that the end customer can carry out the commissioning and integration of the extruder independently is an enormous gain in efficiency.

Perfect combination of machine building and automation

MaGme was extremely satisfied with the first automated extruders based on the EXT3170 solution. Combining state-of-the-art control and drives with MaGme’s outstanding machine building results in maximum efficiency and flexibility for customers. The Simatic S7 line of controls makes sure that the material feed, extruder, and downstream units are perfectly coordinated and work cost-efficiently. The machine builder benefits from automation based on industrial and open standards that provide maximum flexibility and eliminate the need for individual development.

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