Extrusion

Fast, faster, fastest

For extrusion pioneer TwinScrew, manual calibrations have been a notorious source of difficulties. Achieving the fine balance between the speed of the main extrusion head and the other systems was time consuming and required an experienced technician on site. TwinScrew began looking around for a more refined solution – and found it at B&R.

Customers' extrusion requirements change frequently. Different sets of requirements demand different machine configurations and different process parameters. It's an all too familiar challenge for extruder manufacturer TwinScrew. Their machines must therefore be especially adaptable to give users the flexibility they need to meet their production goals.

Perfect temperature control with Automation Studio

B&R's X20 controller and the temperature control functions integrated in the B&R automation studio development environment offer an optimal solution for the multi-zone temperature control processes in an extruder. Precise temperature control makes it possible to quickly compensate for disturbances without overshooting. The temperature control modules provide interfaces for trends, alarms and protocols for easy integration into the system. Library functions simplify and accelerate the process of implementing new extruder requirements.

Perfect synchronization with POWERLINK

POWERLINK plays a decisive role when it comes to networking plant systems – providing, among other things, automatic configuration of automation components. When there are process changes on the machine, POWERLINK allows operators to reconfigure the parameters quickly and easily for maximum flexibility and minimum downtime.

Integrated development platform

Automation Studio provides a universal platform for all the most important development tasks. TwinScrew used Automation Studio to optimize the efficiency of its development process. From writing the machine and motion control logic to configuring the process and managing recipes – B&R offered state-of-the-art development for TwinScrew's state-of-the-art machines.

Mercedes Su
Sales Representative, TwinScrew

"Our cooperation with B&R has put us on the right path going forward. The integration of software functions on a hardware platform allows us to not only expand the functionality of our machines, but also to reduce costs and fully integrate the machines into an overall production system. We are happy to be collaborating with an innovative partner like B&R."

By enabling the machines to react quickly and flexibly to changing requirements, it also makes them more competitive.

Remote maintenance and diagnostics with B&R

Since TwinScrew sells its machines all over the world, remote maintenance and diagnostics capabilities are among the most important requirements. Efficient remote diagnostics lower maintenance costs dramatically. Based on an open platform, a web server and VNC server can be embedded in the X20 controller. The status of the machine, I/Os and motion control technology can be diagnosed quickly and systematically from a PC, tablet or smartphone with a standard web browser. All software can also be updated via the FTP server.

Advancing machinery into the future

In the course of development, TwinScrew engineers were able to rapidly turn their ideas for the extruder into working solutions. The existing weighing system, for example, has been integrated in other machines. But TwinScrew's ambitious goals don't end there. Other plans include implementation of EUROMAP functions to meet the most demanding customer requirements for extruder control and make TwinScrew more competitive on the European market. The B&R system offers all the software libraries they will need for this.