Smart Factory / Industry 4.0

Amatrol's "Smart Factory" is a fully connected and flexible manufacturing system that connects its physical systems, operational information, and human assets to control manufacturing, maintenance, inventory, and supply chain operations. Amatrol's in-depth curriculum teaches all aspects of smart factory maintenance and operation in a self-directed, interactive format.

Smart Product ID

Amatrol's Smart Factory incorporates smart product identification devices, such as vision systems and bar code readers, which trigger "intelligent" actions including parts tracking, production history, sorting, part accept/reject, and inventory control.

Smart Sensors

Amatrol utilizes multiple smart devices on the Smart Factory that communicate via Ethernet and I/O Link protocol providing flexible manufacturing, predictive maintenance, and data analytics capabilities.

Network Communications

Amatrol's communication system connects students with a fully functional production system using industrial protocols, for real-time control, program transfer, data collection, and changing programs on the fly.

Network Security

Amatrol's network security system teaches how to keep data safe and securely extend operational data to suppliers and customers. Communications security protects the smart factory from unauthorized outside access and provides secure data communications between the plant-wide network and the Internet.

Smart Production

Amatrol's Smart Production software teaches how smart factories perform customized (personalized) manufacturing and make data and data analytics available via the Internet to improve system performance. Amatrol's Smart Factory assembles a pneumatic valve in various configurations on orders entered. The valve can be ordered with a plastic or metal valve body and either a 3-way or 4-way spool.

Smart Maintenance

Smart Maintenance software utilizes smart device information to automatically trigger maintenance operations. Amatrol's Smart Factory uses industry standard software to connect users directly to the automated system and each other to create a real-world environment where maintenance team members can collaborate to resolve issues quickly and effectively.