
Project Name: Honey Bee Manufacturing Ltd. Automated Paint Booth

Location: Frontier, Saskatchewan

Owner: Honey Bee Manufacturing



Company Profile: Honey Bee Manufacturing is a family owned business manufacturing various agriculture equipments. It has more than 100,000 square feet of production and warehouse facility. It manufactures tractor swathers, rice belt headers/swathers, grain belt headers/swathers and rod weeders.



Delco Automation's Scope of Work: An important step in the construction of the agricultural equipment is the protective paint. The paint booths apply the powder coating to the parts and then they are baked in the oven. There is a paint recovery system that saves material costs. A self cleaning filter is also controlled in the system. Delco began the project by being involved in the design of the electrical system. The panels were manufactured by Alcraft. Delco also had to program the PLC and PanelViews to make the process work properly. Commissioning of the automation system was completed and since that time minimal servicing has ever been required.



Technology:

The system is made up of three units consisting of the oven panel and two paint booth panels. There is a PanelView at each location and each displays the same data for the system. The oven panel contains the Flexlogix5434 PLC as well as five modules. The processor module holds a 1788-DNBO DeviceNet card. There is also a 1770-KFD RS-232 converter on the bottom of the cabinet. A USR Robotics modem on the bottom of the cabinet can be used to connect directly to the PLC or to the network through the 1770-KFD. The oven panel controls both of the paint booths. The paint booths are slaves on the network with several modules connected through DeviceNet

