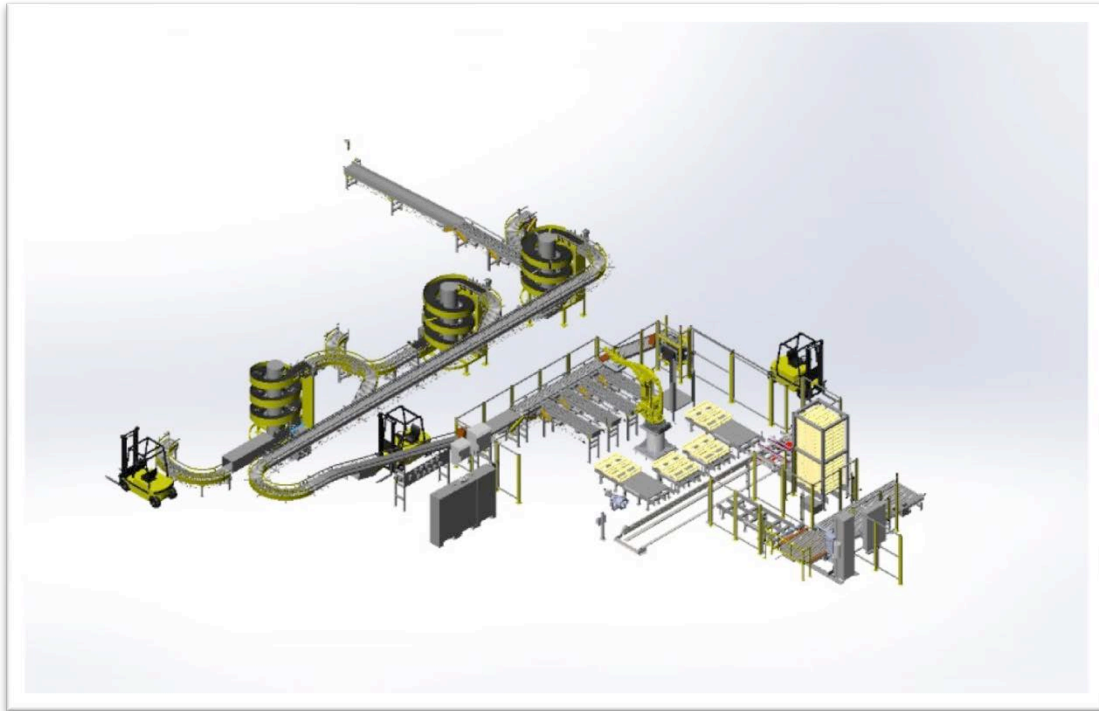




Conveyor Systems & Components



As part of the development of any automation solution, all of our systems are modeled in a comprehensive 3D design software called SolidWorks. This gives the project and plant manager the ability to complete a virtual walk through of the project. During this review, often forgotten component placements can be viewed prior to construction. As an example: location of HMIs, control stations, walk ways, head room clearance, lift truck aisles, conduit and tubing runs – to list a few.

Maintenance managers see this as a valuable tool for reviewing access to equipment prior to installation for maintenance purposes. As an example, checking to insure there is room to remove or maintain a component. Or insure other components are not in the way.



Conveyor Systems & Components



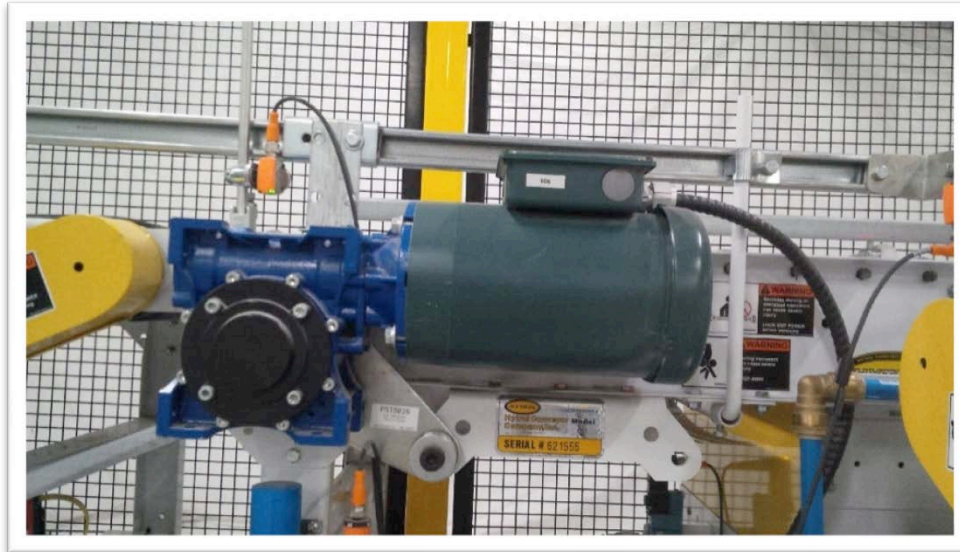
Pneumatic air supply with pressure sensor. Used to alert system to low air pressure.



Case pusher cylinder with case presence proximity switches. Case pushers adjustable design for case change overs. Sensor bracketry allows for easy movement of sensors.



Conveyor Systems & Components



JAE preferred direct drive high efficient motor & gear box. Eliminates chain guards, chain maintenance, safety concerns with guards and is smoother and quieter.



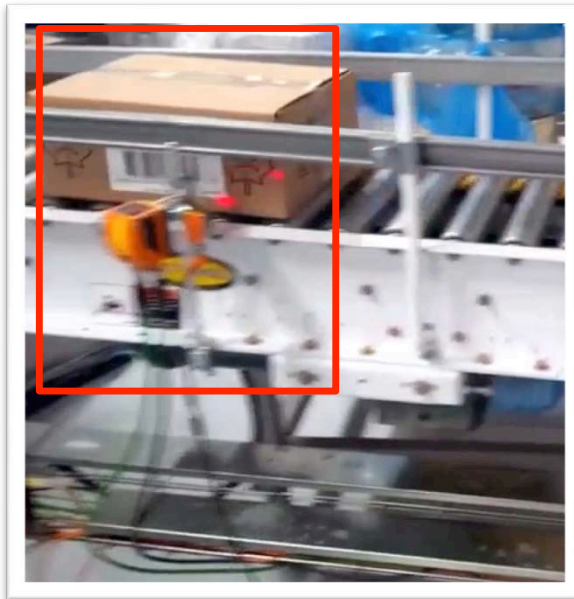
Shown above is an example of where we use distributed I/O – in this case AS-i. This reduces installation time and eliminates conveyor vendor proprietary black box programming. In this example a pneumatic zoned conveyor was shipped less the OEM valves. The above AS-i block contains four inputs and two valves, and was installed to replace OEM zone controls. Any PLC can be used to control the zones. Allen Bradley is our preferred PLC.



Conveyor Systems & Components



An example of JAE conveyor control where pneumatic components had a maximum design pressure. JAE installed a lockable pressure regulator to insure set pressure could not go above 15 psi. As a fail safe a pressure sensor was added to shut down the system if pressure went above 15 psi.



Most conveyor systems have bar code case scanners which are utilized to verify correct product and to direct cases to correct pick up lanes for palletizing.



Conveyor Systems & Components



JAE Automation Panels



Conveyor Systems & Components



An example of a JAE conveyor control station. Control is by an IFM AS-i network. The design intent of the clamp bracketry allows us to easily relocate the station to a more operator friendly location during or after start up without any wiring or mechanical work. The cable is a quick connect cord set (M12), so if a new location is further way than the original location simply replace the cable.



An example of a high speed camera and bracketry. Sometimes installed on lines to verify the presence of a date codes at speeds of up to 250 CPM.