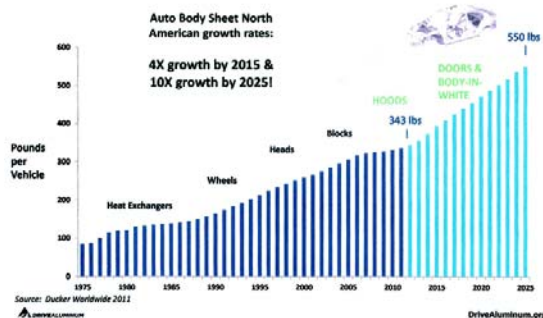


## End-of-Line Systems

- As stamping presses have become faster and able to handle a variety of parts the End-of-Line System (EOL) has become an impediment to achieving target run rates
- Thinner, varying types of metal have contributed to quality issues especially at higher run rates
- Racking requirements limit part quantity per rack; the entire EOL unloading process and area must be much more efficient
- Ergonomic considerations have required the EOL to deliver the part to the operator (not operator to part)
- **Mark One has resolved these issues through the use of high speed, conveyor based EOL Systems**



### Aluminum Use in Vehicles Accelerating

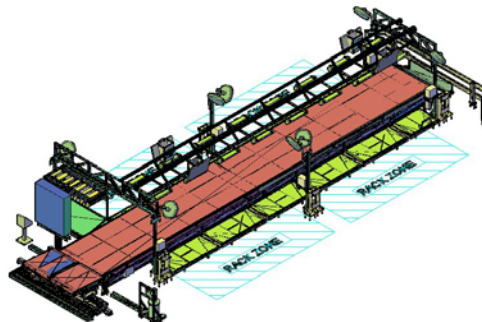




## End-of-Line Systems

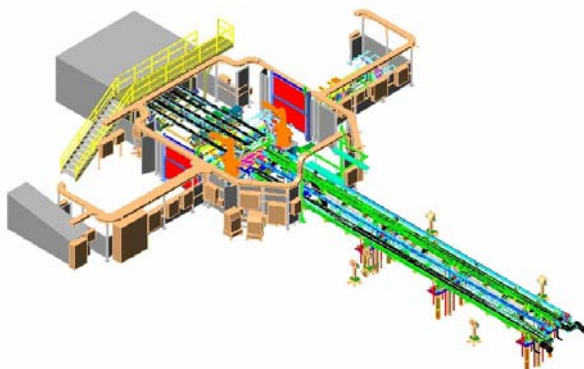
### • Pack-Out Conveyor System

- Exit Conveyors
- Cross Shuttle Conveyors
- Pack-Out Conveyors
- Operator Platforms
- Catch Trays
- Overhead Lighting Systems



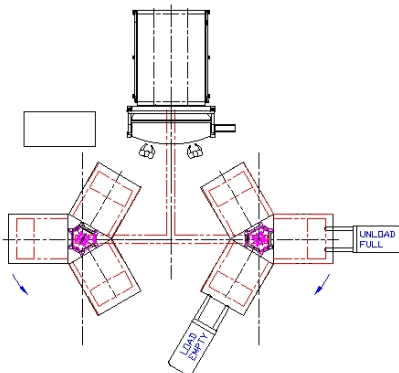
### • Transformer System

- Exit Conveyors
- Centering Stations
- Transformer Conveyors
- Catch Trays



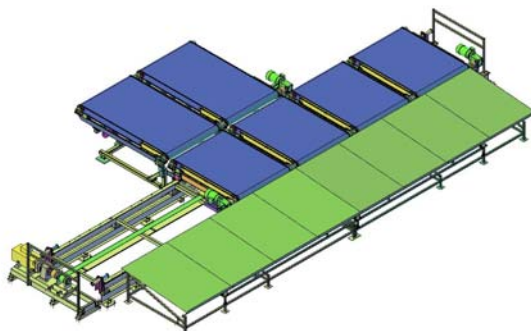
### • Catch Tray System

- Exit Conveyor
- Catch Tray
- Inspection Table
- Rack Turntables



### • Cross Shuttle System

- Adjustable Height Exit Conveyor
- Cross Shuttle Conveyors
- 3-Position Catch Tray

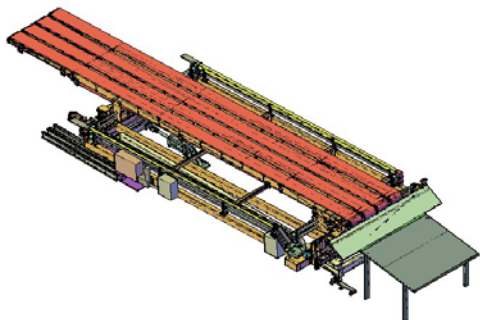




## Pack-Out Conveyor System Components

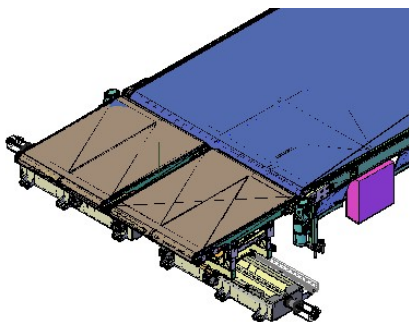
### • Exit Conveyor

- Fully Adjustable Lane Positions
- Programmable Height Adjustments
- Leading End Telescope



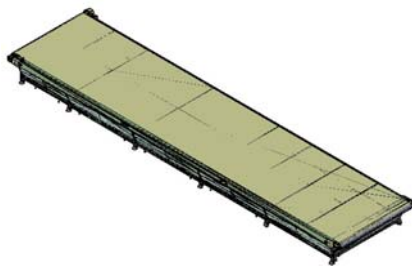
### Cross Shuttle Conveyors

- Move Parts Exiting Press for Ergonomic Unloading
- High Speed Shuttle
- Servo Belt Drive
- Servo Positioning Drive



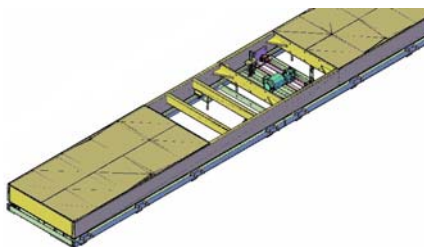
### • Pack-Out Conveyor

- “Lego” Style Belting
- Variable Speed Drive
- Indexing Capable
- Automatic Lubrication



### • Operator Platform

- Fixed Height
- Adjustable Height
- Plywood Top
- Ergonomic Matting





# Pack-Out Conveyor System Options



**Quality Inspection Station**



**Fixed Catch Tray**



**Adjustable Catch Tray**



**Rollout Operator Platform**



**Guard Rail**



**Bollards**



**Part Diverter**



**Operator Fans**