System Profile
Independent Rear Axle Assembly Line

Industry: Automotive OEM
Part: Independent Rear Axle
Installation Date: 2002
Description: Assembly system for 205mm IRS axle for luxury/performance automotive market. The system utilizes ABB’s MS-7 conveyor system. Capable of producing over 1,000 axles per day on a standard 2-shift production. Assembles (8) different models for (2) unique vehicle platforms. Operators on inside of assembly system to service multiple work positions in one cycle

Equipment: 15 automatic and semi-automatic stations
2 manual stations
ABB DGS for pinion shim gauge
ABB DGS for pinion bearing preload
ABB DGS for case shim gauge
45 meters – 150 ft. of MS-7 limited torque roller conveyor
2 cross aisle shuttles

Customer Benefits: ABB standard modules provide customer repeatable process quality and throughput
Lean assembly approach adjusts manpower to production volume and minimizes direct labor costs
System can use from (2) to (13) direct operators at different production rates
Small system footprint – fits easily into customer plant
ABB DGS system provides a common platform for all critical gauging operations
Cross aisle shuttles provide “walk-in” access to both ends of line

ABB Inc.
www.abb.com/automotive
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Technical Data:
- 47 second cycle time
- 360 m² – 4,000 ft²
- System Cpk: 1.67+
- System G, R & R: 10%

Unique Elements:
- N/A

Customer Provided Equipment:
- End-of-line axle tester

Project/Steps to Implementation:
- Concept
- Specification
- Prototype
- Engineering
- Project management
- Manufacturing
- Installation supervision
- Installation
- Training

Project Responsibility: Powertrain
Video/Photos: No