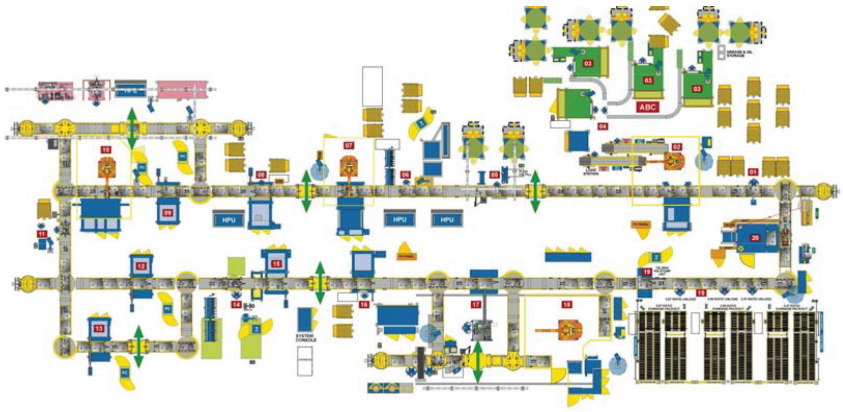
ROBOTICS

Independent Rear Axle Assembly Line



Facts	
Industry	Automotive OEM
Product	Independent Rear Axle
Installation Date	2003
Description	Independent rear axle assembly line for a high performance automobile. Non-synchronous power roll MS-7 transport system. Assembly of the dual snap-ring style axle housing in pinion nose up and nose down positions. Currently assembles (94) different axle types with weekly production reaching 4,500 units with two-shift operation.
Equipment	10 automatic stations 5 manual stations 10 semi-auto stations 5 robots ABB pinion shim gage and bearing drag torque machines ABB collapsible spacer preload machine ABB pinion head height and flange runout machine 2 ABB case shim gage machines ABB robotic pallet wash cell Integrated motion transmission error (MTE) machine - audit
Customer Benefits	High quality gauge and assembly processes assure product quality and throughput Lean assembly approach adjusts manpower to production volume and minimizes direct labor costs Small system footprint – fits easily into customer plant

Facts	
Technical Data	Capacity: 215,000/year (2-shift production) Cycle time: 47 seconds System Cpk: 1.67
Unique Elements:	Low lash-selectable shim differential case build Integrated bearing drag torque philosophy
Customer Provided Equipment	MTE tester
Project/Steps to Implementation	Concept Specification Prototype Engineering Project management Manufacturing Installation supervision Installation Training
Project Responsibility:	Powertrain
Video/Photos/Reference:	Yes

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30-1200, Rev.A October 2019