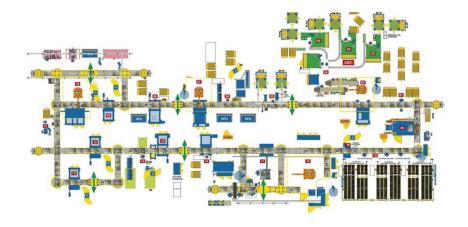


ROBOTICS

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.
	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
Equipment	Integrated motion transmission error (MTE) machine - audit High quality gauge and assembly processes assure product quality and throughput Lean assembly approach adjusts manpower to production volume and minimizes direct labor costs
Customer Benefits	Small system footprint – fits easily into customer plant





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

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