

# Paint Shop

## **North American Bus Industries, Inc.**

leads the way into the  
future with our newly  
installed robotic paint system

*- a first for the bus industry!*

Investment in a new paint process to increase our volume significantly is how we are looking into the future. Previously, our facility produced a volume of eight vehicles per week. But, after a return on investment analysis and a peek at potential industry volume it just made sense to invest in robotics. North American Bus Industries partnered with paint manufacturer Dupont and ABB Inc., a Connecticut-based robotics builder, to design a paint system for our Anniston, Ala., manufacturing plant. The new system does the job of eight manual painters. The hand spray cycle time is ten hours from start to finish, whereas the robotics does the same job in two hours. The robotic system, part of ABB's IRB 5400 series, features closed loop regulation and high-speed control for paint and airflow adjustment, which minimizes overspray. The transfer efficiencies with the robotic process increased dramatically, lessening the environmental impact.

Meet  
**IRB 5400**  
*the robot  
painter!*



The manual spray system had about a 20 percent transfer efficiency, while the robotics has an estimated efficiency of 80 percent therefore reducing the volume of paint utilized. We are also getting a better film build (*thickness of paint*), compared to the manual system.

**As we continue to work towards the future we will always find new ways to lessen our environmental impact.**

## The New Paint Process

Buses being painted with our facility's new robotic paint process enter a series of booths, each equipped with two painting robots. The first booth applies the primer in a process lasting about 14 minutes. Next up is a sanding booth, where employees spot-sand the primer. The vehicle is then masked to cover any areas not requiring paint. The bus then continues in the paint cycle, moving into the next series of booths where robots apply the first and second base coats before finishing the job with a clear coat. There are a total of eight robots involved, two per booth.



*On January 22, 2008, a North American Bus Industries' BRT model for the Los Angeles County Metropolitan Transit Authority was the first vehicle to enter our robotic paint booths emerging forty minutes later with a bright California Poppy shell.*

# Vision.



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