



## Guitar Maker Improves Pass Rate by 90%

### CUSTOMER

Wood Products Manufacturer

### GRACO EQUIPMENT

ProMix PD2K Automatic Proportioner  
ProBell Rotary Applicators

### CHALLENGE

Guitar makers pride themselves on their ability to create a long-lasting, aesthetically pleasing product. A solid finish doesn't just make a guitar look good; it protects the material underneath from moisture.

A leading manufacturer originally used robots with air mix guns to paint three urethane topcoats on each of their six different guitar bodies. But their air mix guns, fed by an automatic plural component mixing system, did not consistently finish each guitar.

This made them switch to HVLP spraying, giving up on automation and leaving perfectly good robots to collect dust.

Although hand spraying seemed more efficient, they still struggled with paint defects, inconsistent film build, and less than 30 percent transfer efficiency. Overspray caused spray booth filter changes at least once a day.

### SOLUTION

Needing to improve the entire finished product, the maintenance manager contacted his Graco account representative. A new finishing setup had to deliver these results:

- Improved transfer efficiency
- Consistent mil build through out the entire guitar body
- No paint defects like bubbling, orange peel and drips

The account rep. recommended a ProMix PD2K Automatic Proportioner paired with a ProBell Rotary Applicator. The equipment would integrate seamlessly with the robots they already owned. The proportioner and sprayer would talk with the robot to change preset paint settings like flow control, kV, inner and outer shaping air, depending on which part of the guitar was being painted.

Wary of going back to automation, the production manager required testing to make sure the equipment truly fit the guitar maker's needs.

### RESULTS

Several rounds of testing identified more than 30 presets – six or eight for each of the six different guitar body shapes – that delivered drastic improvements

Each preset included variations in flow, kV, bell speed, inner/ outer shaping air that changed according to the robot's path. This guaranteed consistent film build on every surface and curve of each guitar.

Since the ProMix PD2K and ProBell put robots back into action, the spray booth's pass rate has improved 85 to 90 percent.

- Orange peel and drips are a non-issue.
- Film build is consistent throughout the entire guitar.
- Booth filter changes have gone from many times a day to only once every other day



For more information, contact us at 1-800-533-9655. Visit [www.graco.com/ProBell](http://www.graco.com/ProBell).

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