



# Case Study

## Dramatic Booth Balance Improvement in OEM Bumper Systems after Conversion from Emulsion Chemistry and Equipment Change

### Situation

- OEM was operating 6 bumper booths using a high cost emulsion-based program which suspends the paint
- Sludge was building up in the small integrated booth tanks, which had very limited access for cleaning or sludge removal

### Background

- The paint booths were set up to run on an emulsion system rather than traditional water chemistry
- Thus the tanks had very small tank volumes with no way to access them while the booths were in operation
- Static pressures ran as low as 0.2 inches WC in the scrubber – very poor booth air flow

### Solution

- Galaxy consulted with a prominent consolidator manufacturer and recommended the addition of a weir and an oversized consolidator to each system
- This added water volume/retention time as well as a means to remove sludge continuously

### Results

- Static pressures in the scrubber average 3.5 to 4.0 inches WC (design 4.0)
- Galaxy converted the first line and was able to successfully operate these systems using traditional water chemistry – now removes the paint sludge on a consistent basis
- Sludge is dewatered in bags and further dewatered in covered roll off boxes – no wet sludge
- Mist eliminator cleanings dropped from twice weekly to once per month – and in most cases, once a quarter
- Booth cleanouts are now done by 3 people digging out the booth - in the past, the sludge was pumped into vac boxes
- The Galaxy program is 25% lower in cost than the prior emulsion chemistry