



Plastics Finishing



PLASTICS FINISHING - THE CHALLENGES

Air quality regulations are important in every industrial segment, but the release of VOCs and other hazardous materials can be particularly troublesome for plastic and fiberglass manufacturers. Given the potential release of toxins during the core manufacturing process, it's important that the coating process not add to the problem.

Fortunately, the DUX spray guns are the most environmentally efficient guns available. By reducing booth fog and bounce-back, they radically reduce the amount of coatings waste. Obviously, lower coatings use results in lower VOC emissions. Plants that may be struggling to stay within their combined total emissions limits may find that reductions in coating operation emissions allow for expanded production in other areas of the facility. Finally, in many cases, plastic and fiberglass parts are coated primarily for cosmetic reasons. Finish quality is therefore of paramount concern. However, with much of the coatings industry moving toward water-based coatings, manufacturers are finding it harder and harder to maintain or improve critical finish characteristics such as gloss levels.

Again, the DUX guns excel in this area. Because it uses a much lower air volume for atomization, less air is trapped in the paint when it hits the target surface. This is particularly important with water-borne coatings, since air bubbles that escape during the drying process are a leading cause of finish defects such as orange peel and sagging.

THE DUX TECHNOLOGY

Efficient air transfer is the key to the Dux Technology. Conventional spray guns of both standard and HVLP types suffer from a considerable reduction of air pressure through their guns. Losses of greater than 80% are not uncommon. The HVLP gun has a very large clearance between the air cap and fluid tip. These guns require very large volumes of air to maintain an acceptable atomization. The result is atomized paint that is blown in all directions due to the expansion of air. The HVLP type of spray gun is limited by a lack of internal airflow efficiency.

The Dux airflow pattern and efficiency are patent-protected and, along with the air cap, are key to the performance of the Dux gun. Dux achieves an optimal 90% spray efficiency during the air and fluid movement through its gun.

REGULATORY AND ENVIRONMENTAL ISSUES

Looking at the big picture of the coating industry, regulators, health and safety managers, and environmentalists have two overriding concerns. The first issue is the level of Volatile Organic Compounds (VOCs) that are released into the workplace. This is due to the composition or ingredients of the coating materials used throughout the industry. The second key issue is the level of VOCs that are released because of the low transfer efficiency of the spray guns used to apply the coatings. From an environmental and health and safety perspective, Dux solves this second issue. The Dux Technology has achieved a transfer efficiency rating greater than 90% at less than 10psi. Lower pressure means less overspray. Better design means: higher transfer efficiency; less wasted material; and a reduction of VOC's. That's a win for any operator.

• IMMEDIATE ROI

- Reduced coating usage
- Decreased cleanup costs
- Faster production speed
- Energy savings

• EASY TO USE

- Ergonomic design
- Lightweight and balanced
- Reduced booth fog and overspray

• AIR QUALITY & SAFETY COMPLIANCE

- Drastic reductions in VOC emissions
- Reduced HazMat clean-up and disposal
- AQMD compliant by definition
- Fully CE marked & ATEX approved

• ADVANCED TECHNOLOGY

- Laminar airflow
- Low pressure with high velocity
- Exceptional atomization
- Outstanding utility across coatings and applications