



# Wood Finishing



## WOOD FINISHING - THE CHALLENGES

In response to ever tightening air quality rules, the furniture finishing industry is currently experiencing a major shift away from solvent-based coating materials. Unfortunately, while coatings manufacturers have developed new compliant water-based coatings, few spray equipment suppliers have de-signed equipment that adequately applies it. The DUX gun, however, is the perfect fit. The DUX gun operates at much lower pressures and with approximately half the airflow of HVLP guns and other conventional spray technologies. This provides for a more uniform and softer application of the coating material and does not result in rising grain in wood. Second, gloss levels are extremely important in many segments of the furniture finishing industry, especially when these water-based coatings are used. Unfortunately, spray guns with high air volumes have a tendency to trap air beneath the coating as it is applied to the target surface creating orange peel, thereby reducing gloss levels. Because the DUX gun uses less than half the air volume and much less pressure than HVLP guns, this effect is virtually eliminated.

## 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