

## SPRAY BOOTHS

### WHAT TO CONSIDER IN SELECTING A SPRAY BOOTH

#### MATERIALS SPRAYED

The viscosity, drying speed, corrosiveness, and abrasiveness of the material must be taken into account when specifying a spray booth.

#### METHOD OF SPRAYING

How the material is sprayed is another factor because of the different degree of overspray which each method produces. There are three basic spray application techniques.

**Air Atomization:** The coating particles ride on an air stream from spray gun to product being painted.

**Airless Atomization:** The material is atomized and propelled by hydraulic pressure.

**Electrostatic Spraying:** material atomization may be either air or airless. But, deposition of the coating on the product being sprayed is by electrical attraction of the coating particles which have been charged with the opposite polarity from that of the product.

#### PRODUCTION RATES

The quantity of overspray material that must be removed is a condition that also governs the size and performance requirements of the booth. This condition is directly related to the number of spray guns being used and to whether such use is continuous or intermittent and, if intermittent, to what interval.

#### STANDARD VS CUSTOM

There will be instances where plant layout, product size, and other factors will require that a spray booth be custom engineered. However, in the majority of cases, one of the many types and styles of standard spray booths will serve very satisfactorily. Standard booths have the advantages of ready availability and lower installed costs.

KMI will gladly answer all questions concerning booth selection and its relationship to a specific material application and production rate requirement. After you have made your selection,

KMI's engineering staff stands ready to advise and assist you in planning your OSHA-approved work practices for operation and maintenance of this equipment.

### WHY USE A SPRAY BOOTH

#### SAFETY OF PERSONNEL AND PROPERTY

The spray booth provides a working environment that is clean and fume free – in many cases operators need not use face masks. Employee relations and productivity benefit directly and continuously.

The rapid and thorough removal of volatile paint, solvent, and vehicle fumes from the premises prevents their accumulation and concentration to hazardous levels. The correct selection and installation of spray booths assures approval by occupational and safety health authorities (OSHA) and prime consideration for preferred insurance rates.

#### QUALITY ASSURANCE OF PRODUCT FINISH

The air moving through the spray booth carries coating overspray away from the product, avoiding the finish-marring consequences of semi-dry coating particles settling on already-coating surfaces. With well-engineered mass air flow and directional characteristics, a spray booth very tangibly promotes product quality.

#### POLLUTION PREVENTION OF OUTDOOR ATMOSPHERE

By effectively removing coating particles from the air being discharged to the outside, the spray booth eliminates a common cause of air pollution. This has very real significance for plant management. It fosters and maintains good relations with neighbors and with the community. It avoids risking violations of legal requirements. And it prevents staining and dirtying of immediately adjacent property.