



# RECIRCULATING PAINT BOOTHS

## A SYSTEM DESIGNED FOR ALL TYPES OF WET COATINGS

A Must with temperature & humidity control, regenerative thermal oxidizers and other VOC abatement equipment. Custom designed system features up to 100% VOC control.

### CUSTOM DESIGNED SYSTEMS – ACHIEVE UP TO:

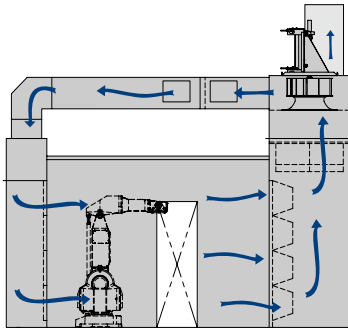
- 80% Reduction in Exhausted Air
- 80% Reduction in Heated Air Make-Up
- 99.9% Particulate Removal Down to .5 Microns
- Major Cost Reduction in Energy Usage & Emission Control Equipment



### AUTOMATIC PAINT SPRAY BOOTHS

Total Re-Circulating	16,000 CFM
Exhaust	4,000 CFM
Total Air Flow	20,000 CFM

Automatic Re-Circulating capacity with conveyor opening

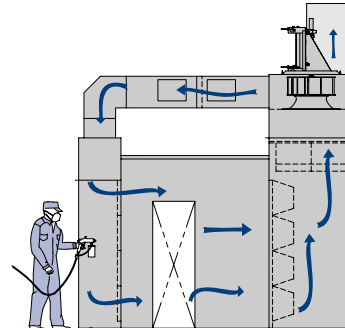


Example:  
By Re-Circulating 16,000 CFM this system reduces exhaust by 88%

### MANUAL PAINT SPRAY BOOTHS

Total Re-Circulating	5,000 CFM
Exhaust	3,000 CFM
Total Air Flow	8,000 CFM

Manual Re-Circulating capacity with conveyor opening



Example:  
By Re-Circulating 5,000 CFM this system reduces exhaust by 62.5%



# RECIRCULATING PAINT BOOTHS

## RE-CIRCULATION SYSTEM

### ENCLOSED BOOTHS

The system operates with a recirculation loop and an exhaust/fresh air loop. Both are separately controlled. The exhaust loop is controlled from an Auto-Balance system that maintains a constant pressure in the booth cabin regardless of filter loading. The fresh air system may also be controlled to provide a constant airflow. The recirculation loop is controlled by a Consta-Flow system that will maintain a constant airflow in the recirculation ducts regardless of filter loading.

All fan motors are controlled by variable frequency drives that change the fan motor speed as the filters load. The result is a booth with constant recirculation rate and a perfect booth balance with exhaust perfectly balancing the fresh air intake.

### CONVEYORIZED BOOTHS

The primary fan/motor unit is designed to provide an internal cross ventilation airflow through the booth. The Consta-Flow™ system is designed to automatically adjust the recirculation fan to the changing conditions of the exhaust filters. This system consists of a variable frequency drive that controls the recirculation fan motor, differential pressure gauge and sensing probes that monitor the static pressure. The result is a booth with constant airflow as the filters load up with paint and will increase useful filter life.

## HIGH QUALITY STANDARDS

The Re-circulating Paint Spray Booth is designed to meet the requirements of OSHA, NFPA-33, and HAP (Hazardous Air Pollutants). NFPA-33 states: "A paint spray booth must provide adequate ventilation to control the concentration of flammable vapors below 25% of the lower explosive limit and it maintains the toxicity and permissible exposure limits below levels as stated in OSHA 1910.1000".

## DESIGN PERFORMANCE & BENEFITS

This system dramatically reduces the amount of exhausted air. This is especially important if abatement is required by local authorities. In this case the air is rich in solvents and the volume sent to the abatement device is much lower. Abatement machinery is much more efficient when operating at higher concentrations of exhaust gas.

Use of energy in paint booth is a serious concern in this era. Energy use is at a minimum when using a recirculation booth. At a recirculation ratio of 80:20% energy use is reduced by a factor of five. This is especially important when the booth is temperature and humidity controlled. Not only is energy use reduced greatly, but so is capital expense because the equipment (air handling and abatement) is also reduced in size.

