

## Nordson Colormax PE Enamel Powder Paint Booth

**Powder Coating Type:** Inorganic

**Design Conveyor Speed:** Variable 10 - 25 FPM

**Conveyor System Type:** Monorail

**Parts Coated:** Oven Cavities

**Coating Thickness Desired:** 5 - 9 mils Average on Selected Surfaces

**Largest Part Size:** 2'5" W x 2'1" H

**Profile End Opening:** 3'6" W x 3'6" H

**Number of Reclaimed / Recycling Powders:** 4

**Number of Powders:** 4

### **Robot Powder Gun Equipment**

#### **Prodigy™ Dual Long Gun Wall Mount System with HDLV™ Technology**

- \* Softer spray at gun tip provides higher first pass transfer efficiency
- \* Softer spray with more powder means better coverage in cavities and corners
- \* Paints faster at high line speeds with higher powder output
- \* Auxiliary high-low flow adjustment trigger
- \* Innovative HDLV conical and flat spray nozzle technology
- \* Individual and global set-up and monitoring of all gun parameters and presets
- \* 10 user configurable presets
- \* Purgeable pump design provides ultra-fast color change
- \* See-through pump design for quick, easy diagnostics

**1** - *Prodigy™ II Dual Gun Wall Mount System with HDLV™ Technology*

**2** - *Cable, Prodigy, Auto, 16M*

**2** - *Prodigy PLC Gateway*

**2** - *Prodigy™ Automatic Bar Mount Powder Gun with HDLV™ Technology*



- *Designed for use with HDLV™ powder transport technology*
- *Contoured body*
- *Lightweight*

- *Innovative HDLV™ Air Cap Nozzle Technology*
- *Smaller Transport Tubing*

### **Smart Coat Control System**

- \* Allen Bradley Panelview Plus 15" with Pedestal
- \* Thirteen dual iFlow closed-loop mass flow meters (accuracy +/- <1%)
- \* Thirteen dual gun driver cards
- \* *(Same features as item "C" above)*

**24** - *Encore P.E. Guns, Mounts, Cables*



### **Gun Mounting Equipment to Include:**

**Heavy Duty Fixed Gun Stand** for mounting of automatic guns.

- 2** - *Heavy Duty Fixed Gun Stand*
- 2** - *24" Belt Driven In/Out Positioner Base, DC drive*

### **Fanuc Robot Equipment to include:**

- 2** - *Fanuc M-710/C /50 Foundry Pro Six Axis Mechanical Unit*
- 2** - *Fanuc M-20iA/10L Six Axis Mechanical Units*
- 4** - *Product Documentation CD's*
- 4** - *2-year warranty for Robots*
- 1** - *2 Weeks supervision at Nordson, Amherst, Ohio lab for process validation.*
- 1** - *2 Weeks supervision at Nordson, Amherst, Ohio for validation runoff*
- 1** - *6 Weeks installation startup support at Electrolux, Memphis, TN*
- 1** - *2- 32 hour training classes at Fanuc for operator training*
- 4** - *General purpose access gate dual channel interlock w/ mt bracket*
- 4** - *General purpose emergency stop (E-Stop) dual channel push button*
- 4** - *General purpose warning beacon*
- 4** - *Custom Robot riser*

### **Poly Plus Canopy**

- \* High performance non-conductive material
- \* Ceiling panels include translucent light panels.

- \* Two (2) automatic gun slots, 3.93" w(100mm w) x 60"h (1524mm h)
- \* Four (4) robot spray gun stations with floor blowoff and access doors
- \* Exit end doors for booth clean down
- \* Ten (10) Four tube fluorescent fixtures T5 lamps

## **COLORMAX P.E. BOOTH BASE ASSEMBLY**

5'-9" wide by 44'-9" long (1750mm x 13649mm)

- \*Modular design base assembly with continuous centerline extraction hood and single extraction duct connection.
- \*Extraction hood panels formed to optimize the shear forces along the bottom edge of the panels. Each panel having a unique slot width to ensure proper draw along the entire length of the extraction hood.
- \* Colormax powered roller base with 4 wheel drive system
- \* High load lateral roller carriages to prevent crabbing
- \*Separate drive "cells" to prevent misalignment due to torsional twisting of drive shaft.
- \*Roller base utility deck system has a series of channels with routinely spaced pass-through openings for service access of powder hoses, pneumatics and electrical services.
- \*Roller base assembly will be pre-fitted with all gun movers, feed centers, operator painting platforms and other devices, complete with all utilities and appropriate cross-over points prior to shipping.
- \*Roller base sections will be coupled together with a series of coupling pins.
- \*Additional structural elements will be included to accommodate the static and dynamic loads of the painting robots for this booth.
- \* Operator pendant for mover control
- \* Booth positioning and Alignment Stop Accurate to +/- 1/16" at the pin point.
- \* Stainless Steel Ductwork from Base to Module Replaceable wear liner in the ductwork from the base to the color module.
- \*Integral floor blow-off thresholds will re-entrain any powder that may collect on the service floor during routine powder application.
- \* Booth Base Hose and Cable Trays with cam clasp lids for easy access
- \* Engineered hose routing and hose/cable identification system

## **12,000 CFM High Flow Fan Assembly**

- \*20 HP belt driven fan, 95.3% efficiency with loss of phase protection
- \*Noise abatement design high flow exhaust fan

- 1** - *Excel 2003 Fan Assembly(s)*
- 1** - *Level Sensor(s)*
- 6** - *Final filters no tools required for final filter removal. Filters are 95% efficient at .30 microns*

### **Reclaim Cartridge Modules Features:**

- \* Designed to assemble as either a cartridge filter or a sintered thermoplastic Teflon coated rigid panel filter module.
- \* Non-integrated final filter/fan section is required to allow the system to roll on/off onto either conveyor line for this stream.
- \* Enlarged face opening to reduce load on fan and provide more uniform air flow.
- \* Inflatable pneumatic seal provides air-tight connection between collector module and fan section.
- \* Center-mount cartridges automatically set gasket compression without torque specifications to eliminate leaks and ensure faster filter changes.
- \* Quick disconnect design
- \* Fitted with low rolling resistance wheel assemblies and are capable of being propelled by an external powered hand tug.

- 1** - *Powder Coated Collector Module per booth*
- 30** - *36" PowderGrid<sup>®</sup>™ Plus Cartridges*
- 2** - *HDLV High-Capacity pump stations*
- 1** - *Backup HDLV pump and stand*



### **Powder Supply Equipment for 26 Guns**

- 1** - *Model HTM-36 350# Capacity Hopper*
- 1** - *AZO 650 Sieve*
- 1** - *Fluidized Bed Heater*
- 1** - *Magnetic Separator*
- 1** - *Endress Hauser Level Control*
- 24** - *P.E. Pump*
- 1040-** *Tubing, Polyurethane, High-Flow*

## Tilt Table Bulk Feed System

\*Provides cleaner, easier transfer of powder materials directly from 3,000 pound fiber containers to the hopper/feeder in a constant, more efficient operation.

- 1 - Tilt Table Assembly
- 2 - HDLV High-Capacity pump stations for Virgin Feed
  - \*Greater output for higher productivity rates- up to 360 lbs per hour
  - \*Improved savings in compressed air usage
  - \*Lower powder velocity with less air to propel the powder
- 125'- Tubing, Polyurethane, Transfer



## Standard Electro-Pneumatic Control Panel Featuring:

*\* (Same features as item "L" above)*

## Automatic Air Flow Control

- 1 - 30 HP 95.3% efficient VFD
  - \* Includes one touch clean-up mode for full exhauster power to assist in color change.
  - \*Includes automatic exhauster idle mode for extended line gaps

## Part Identification System

- 1 - Parasitic "CAT" Drive
- 1 - Part Identification Stand(s)
- 2 - 48" Vertical Emitter Scanner, 3/4" Resolution
- 2 - 48" Vertical Receiver Scanner, 3/4" Resolution
- 2 - 24" Horizontal Emitter Scanner, 3/4" Resolution
- 2 - 24" Horizontal Receiver Scanner, 3/4" Resolution
- 1 - Incoming part crash avoidance interlock
- 1 - Bent hangar part out of position detection system

## Enhanced Lean Recipe Selector (LRS)

- \* Parts will be measured in three dimensions
- \* A recipe number will be assigned to the part based on unique part dimension assigned by Nordson and EHP.

\* Provides the ability to manually select a color group that can be used in conjunction with automatically generated recipe number.

### **Automated Booth Control Functions Including:**

*\* (Same features as item "P" above)*

### **Additional Reclaim Module:**

*\* (Same description as item "X" above)*

- 1** - Powder Coated Collector Module(s)
- 30** - 36" PowderGrid<sup>®</sup>™ Plus Cartridges each
- 1** - Model HTM-36 350# Capacity Hoppers
- 1** - AZO 650 with Mag Separator
- 1** - Quick disconnect plate for gun purge

