Complete Solutions for Pipe & Tube Coating

Member of Venjakob Group

Whether your requirement is short term rust prevention or long term full corrosion protection, we design and manufacture Pipe & Tube coating systems for solvent based, waterborne, UV and powder coatings.

Nutro Pipe & Tube coating systems are fully engineered, custom-designed solutions to suit your production needs. Customers can take advantage of our **in-house pilot tube coating line** to produce coating samples for testing and to test different spray application technologies. We systematically look at your raw product, coating, allowable footprint, and your budget and needs to help make sound process choices. Based on your process development, Nutro will recommend key system features as described below.

PIPE & TUBE COATING SYSTEM FEATURES

CLEANING

Deduster: Remove accumulated dust & dirt from pipe.

Hi Pressure Pipe Washing with Heated Blow Off: Removes dust, dirt, loose scale & light oil produced by upstream processes.

COATING BOOTHS

The Dry Filter Pipe Coater spray chamber is equipped with an airless spray ring designed around the desired pipe diameter range and can be a single or dual ring design. The material is pumped, heated, filtered and is typically sprayed between 450-1000 psi, depending on the desired coating thickness as well as the material characteristics. Overspray is collected in a sump and pumped via a scavenger pump back to the bulk supply vessel. Overspray that migrates outside the spray chamber is captured by a vestibule on the entrance and exit of the spray chamber. The roll-away vestibule design allows easy access to the spray ring for nozzle maintenance, transfer roll (if necessary), and daily cleaning operations.

The spray chamber and all wetted parts are stainless steel to ensure a wide range of material compatibility with waterborne or solvent based coatings.

The Coolac® Pipe Coater is designed for waterborne and fast drying acrylics coatings. The Coolac® coater cabinet minimizes coating build up thru keeping the booth wall temperature slightly below the relative dew point. The differential prevents the coating material from drying on the walls by creating a moisture barrier, causing the material to sheet off. A variety of application methods can be used such as HVLP or heated airless. By controlling the drying process inside the cabinet, nearly all overspray is collected and reclaimed maximizing the usage of the material **to achieve 90+% transfer efficiency resulting in significant reduction in paint usage.**

The Ven Spray UV coat and Cure system manufactured by Venjakob GmbH provides an environmentally friendly coating method while maximizing corrosion protection and operating efficiencies. Cured pipe can immediately be handled without fear of marring the surface. The field proven design addresses UV light capture as well as reclaim of overspray from the coating process for safe and repeatable operation.

Dry Filter Extremity Booths with inverted paint robots for spraying pipe ends with and without couplings and applying white stripe to locate buttress mark.

CURING

Induction Pre-Heat and Post Cure: Ideal for hi speed lines and/or where space is limited.

Convection or Conventional cure ovens: Ovens can be configured for Natural Gas or Electric. For fast dry water base pipe coatings, we can provide multi-zone airflow control.

Humidification Control: Required for waterbased coatings in humid climates to ensure complete curing.

SYSTEM CONTROLS – Allen-Bradley or Siemens

Standard Base Controls: Includes an HMI with basic functions to enable motor starters for exhaust fans, verify the exhaust fan(s) is running thru air flow switches, enable air solenoid for reclaim pump based on level sensor input, enable main air to pump, power to material heaters, necessary interlocks and E-stop functions.

Optional Advanced Controls: Precise process management eliminating excessive material usage, and operator set-up error. Systems can include remote system diagnostics and data collection for process quality control. Typically a 30+% reduction in material usage is realized by applying coatings from a controlled recipe for each pipe/tube diameter in production.

RELATED PROCESSES

Stencil processes – Stencil reciprocators, in-line stenciling and bar coding

Internal lancing operations for ID Coating

Pinch rollers – Control small pipe diameter flexing that can occur at high line speeds

Paint Mixing Rooms – Custom designed with easy access to fit your system footprint

If you need to update your current pipe coating line or need a brand new line, please contact:

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