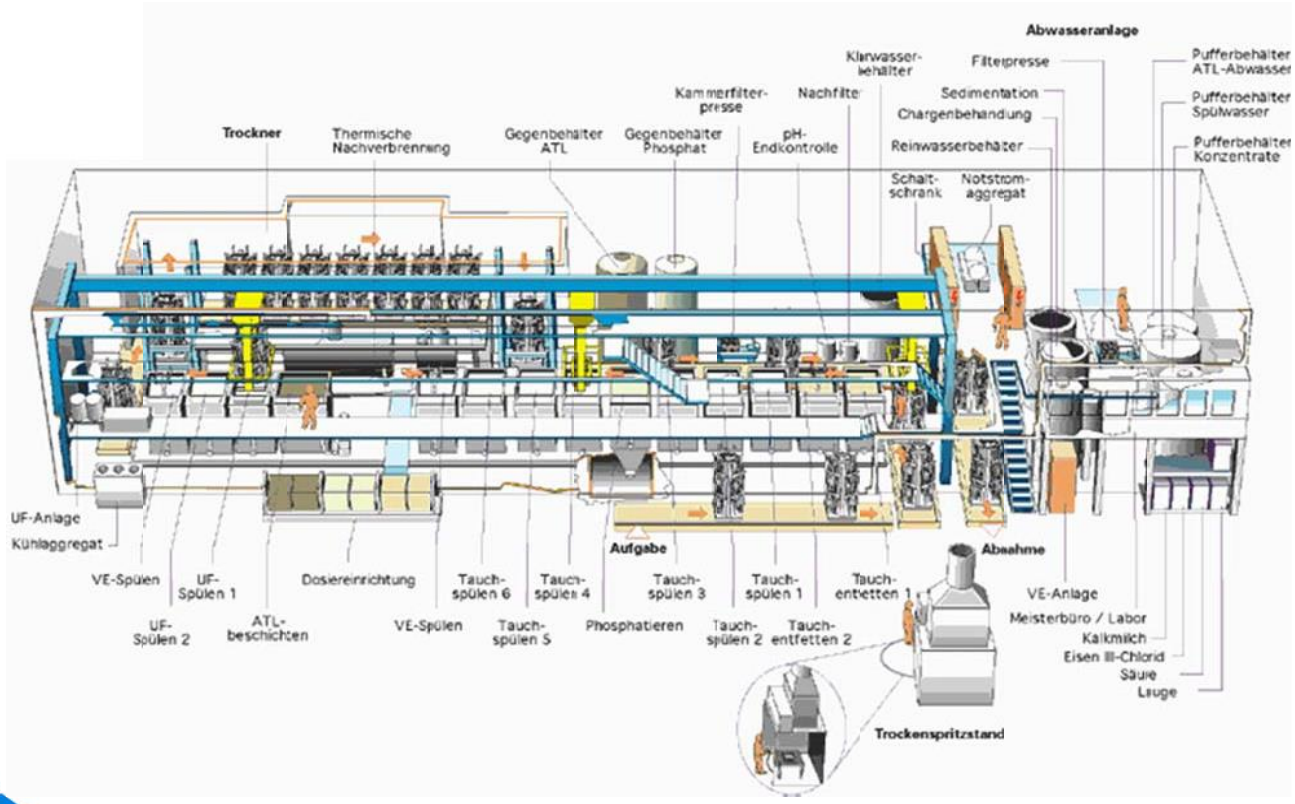

COATINGS IS OUR PASSION

We at Axalta Industrial Coatings see ourselves as a global supplier of coatings solutions for various substrates based on decades of experience in various industrial painting productions. We focus on our customers to establish a long-term partnership so that we together can develop tailor-made solutions with a focus on the latest technologies, ecology and productivity. We have solutions and know- how that will benefit our customer grow their market position.

This service package demonstrates our commitment to building partnerships with our customers and helping them to succeed today and be prepared for the challenges of tomorrow.

CONTENT

Introduction

The Axalta Coating Systems Service Package represents an optimised use of the products in the production processes.

The key aspects are:

- Securing a high level of quality for production output
- Continual monitoring of the plant, control and system documentation
- Ecological and economic optimum in a product - plant interface
- Continuous dialogue/communication with plant operators to provide a continues quality improvement process for the paint line

Commissioning of the Paint line facilities

The Paint line facilities are commissioned in segments:

- Current status review and operation sequencing
- Cleaning of individual plant equipment/process steps
- Checking for contamination
- Functional testing and inspection
- Functionality and adjustment
- Loading and commissioning of system components
- Test run and optimization
- Transfer of the system to production start-up

Commissioning of Electro Coat Tank in the Paint Line

After the system is accepted, the schedule is issued:

- Emptying and cleaning individual plant parts
  Time needed: approx. 1-3 days

- Checking for contamination
  Time needed: approx. 1/2 day

- Functional testing and inspection
  Comprises leak testing, reliability of fittings, inspection structures and displays
  Time needed: approx. 1 day

- Filling and commissioning the individual plant systems (barrier liquid, dialysis, Electro Coat Tanks , Ultra Filtration (Demi Water) rinsing areas, dryers)
  Time needed: approx. 1-2 days

- Commissioning of Ultra Filtration plant
  Time needed: approx. 1/2 day

- Test run and optimisation of the entire plant
  Time needed: approx. 1 day

Electro-deposition training

The operating staff has a crucial part to play in the quality of the painted products, in the economically efficient working method of the paint system and the impact of the paint process on the environment

Training – in the form of introductory and advanced courses – focuses mainly on practice.

Topic complexes are:

- Working method of the plant process steps
- Dependence of different process steps on the paint line
- To optimise the impact on quality and efficiency
- Trouble-shooting and fault rectification
- Environmental relevance and ecology

Production start-up

Every part of the paint line must be functional in order to guarantee the economy and quality of the production. Before the system starts up, the following checks must be done:

- Optical inspection of pre-treated parts
- Adjustment of ...
  - Electro Coat bath current (bottom current, surface current)
  - Electro Coat bath volume adjustment (minimum, maximum)
  - Refill dosage
  - Rinsing areas (spray pattern, spray nozzles, operating pressure, tank recirculation, cascade control)
  - Dialysis cycle (current, conductance control)
  - Ultra-Filtration cycle (pressures, sprayer output)
- Optimising layer thickness
  - Adjusting the temperature
  - Specifying adjustment of the rectifier
  - Specifying adjustment of the current density control
- Adjusting the dryer

This all will be done in close cooperation with the E-Coat system builder

Process optimization

The first step in this study involves collecting data about the paint line. These data already exist in most cases because they were recorded during the commissioning process.

During a line audit , the actual status of various aspects of the system will be recorded. It includes plant functions such as pre-treatment, ED process, drying, ancillary equipment, logistics and capacity.

This is followed by a weak point analysis.

The next step is to compare the actual state of the system with:

- the state of the art in terms of process flow, consumption of energy, water, chemicals and logistics
- the procedural requirements of the paint system
- the environmental requirements

At least , the study examines ways to eliminate the vulnerabilities:

- Plant optimization
- Refitting
- Retooling of plant components (list of priorities)

Optimization of overall costs for painting

The objective of the process optimization study is the detection of weak points and the determination of the potential savings in the total coating costs of the paint line. The basis of the study is the actual system of the paint line and its ancillary equipment and auxiliary equipment, in particular the costs for:

- Energy (electricity, heating) operating costs
- Materials used (chemicals for Ecoat process)
- Waste disposal, cleaning costs
- Maintenance costs
- Staffing costs
- Logistics costs (hanger assembly, infeed and discharge, delivery system, interfaces, line functions, capacity)

Maintenance

Maintenance and servicing are crucial for the smooth and economical operation of the paint line. We take care of:

- Rinsing and passivation of the dialysis cycle
- Functional testing and adjustment of flow conditions
    - Electro-deposition paint tanks
    - Heat exchanger circulation loop
    - Ultra-filtration rinsing areas
    - Filter system
- Functional testing of the dryer system
- Testing the temperature distribution on the coating product

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