

AquaEC™

Ecoat Service Package





At Axalta Industrial Coatings, we view ourselves as a global supplier of coatings solutions for a range of 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 expertise 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.

DISCLAIMER:

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The background of the entire page is a high-quality, close-up photograph of water splashing, creating numerous bubbles and ripples. The color palette is various shades of blue, from light sky blue to deep navy blue. The water droplets are in sharp focus, showing their spherical shape and the way they catch and refract light.

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

01

Securing a high level of quality for production output

02

Continual monitoring of the plant, control and system documentation

03

Optimised ecologically and economically in a product - plant interface

04

Continuous dialogue/communication with plant operators to provide a continuous level of quality

Commissioning of the paint line facilities

The paint line facilities are commissioned in sections:

- **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 optimisation**
- **Transfer**

Commissioning of electrocoat tank in the paint line

After the system is accepted, the schedule is issued:

- **Emptying and cleaning individual plant parts**
Time required: approx. 1-3 days
- **Checking for contamination**
Time required: approx. 1/2 day
- **Functional testing and inspection. Comprises leak testing, reliability of fittings, inspection structures and display**
Time required: approx. 1 day
- **Filling and commissioning the individual plant systems (barrier liquid, dialysis, electrocoat tanks, ultra-filtration (demi water) rinsing areas, dryers)**
Time required: approx. 1-2 days
- **Commissioning of ultra-filtration plant**
Time required: approx. 1/2 day
- **Test run and optimisation of the entire plant**
Time required: 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 subjects include:

- **Working method for the plant process steps**
- **Dependence of different process steps on the paint line**
- **Optimising the impact on quality and efficiency**
- **Troubleshooting 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 the following points:**
 - Electrocoat bath current (bottom current, surface current)
 - Electrocoat 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 optimisation study

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**

The study examines as a minimum some ways to eliminate the vulnerabilities:

- **Plant optimisation**
- **Refitting**
- **Retooling of plant components (list of priorities)**

Optimisation of overall costs for painting

The objective of the process optimisation study is to detect weak points and to determine the potential savings in the total coating costs of the paint line.

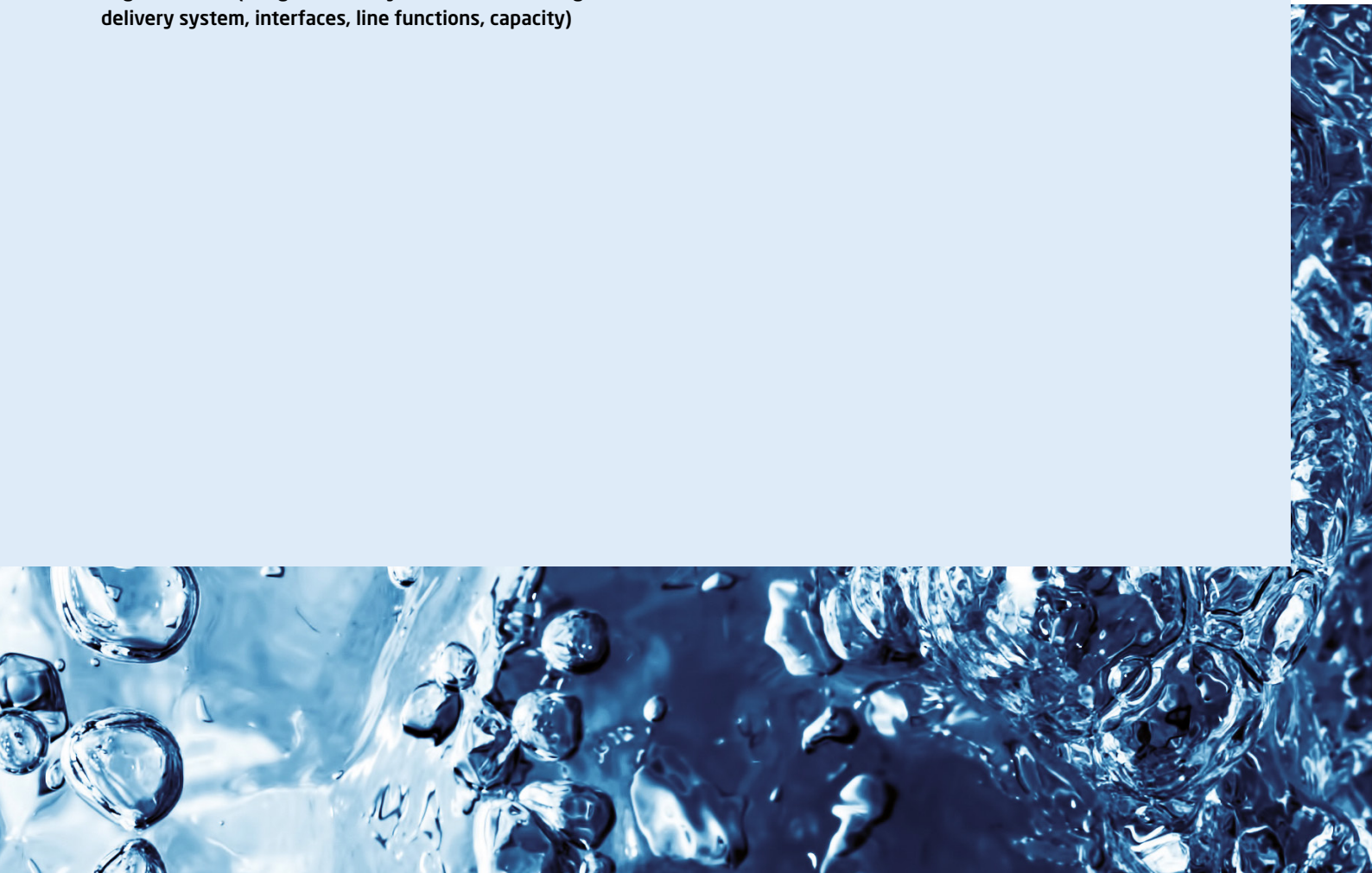
The basis of the study is the actual system of the paint line and its ancillary equipment and auxiliary equipment, in particular the costs of:

- **Energy (electricity, heating) operating**
- **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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