



A12-COATING INSTALLATION

Project team as a foundation for model installation

Chromalloy, specialist in aviation engine parts, turned to long-term project partner RVS NON FERRO for a new A12-coating installation. Forming a project team during the quotation phase enabled us to positively surprise our customer. The result: smart solutions and a perfect implementation.

Chromalloy uses a patented coating principle to apply aluminium coating to crucial engine parts for the aviation industry. This is done using an A12-coating installation. For the Chromalloy location in Tilburg we realised the entire transport system and all parts of the new A12-coating installation, from design to realisation.

In order to convince the client at an early stage, the project team of RVS NON FERRO and sister company RIJKERS came up with a carefully considered action plan, including 3D presentation. An excellent start to the first major joint project of these two SLB GROUP business units, because the CEO of Chromalloy's parent company considers our A12-coating installation to be the model for a similar installation within the American head office.



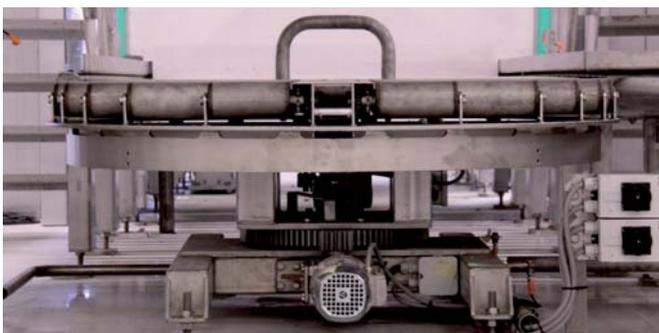
A powerful combination

Completely under own management

RVS NON FERRO manufactured the entire transport system for the new A12-coating installation from stainless steel, while RIJKERS provided the powder handling and the dosing. In addition to the transport system, this project includes a mixing tower, a furnace and a cooling unit. The entire system is fully automated, from dosage to transport. A challenging project, realised completely under own management thanks to the RVS NON FERRO and RIJKERS combination.

From design to turnkey installation

We were able to limit the project's total lead time to six months. The entire A12-coating installation was, as planned, completed and operational by the end of 2015. Following production and assembly activities in our assembly hall in Uden, the installation was transported in parts to Tilburg. There we provided the turnkey installation, including controls and cabling and the commissioning.



Eye for environmental factors

The aluminium coating is semi-automatically applied to the engine parts using the A12-coating installation. All environmental factors are of course taken into account, such as the release of hazardous substances. To prevent dust formation during the filling of coating boxes, we implemented a proper exhaust system. The furnace was equipped with a similar filter system with fan, which extracts hazardous gases through the air washer.

Powder handling and coating

The aluminium powder is delivered in the correct dosage from the weighing hopper, through a ribbon mixer, to the coating box. This allows each engine part to be fully coated. A roller conveyor transports the box through a separator and to the furnace, where it is heated for over 30 hours at a temperature of around 500 degrees Celsius. Argon is added to prevent fire hazard.



Room to grow

The next step is the cooling unit. After 10 hours, the cooled product returns to the first room through the second throughput, after which vacuum transport returns the powder surplus to the hopper for re-use. An ingenious transport system that is easy to expand due to our design and modular structure, for example with a second furnace and cooling unit and larger coating boxes. This allows Chromalloy plenty of room to grow.

Important facts

- A12-coating installation
- Client: Chromalloy Holland BV
- Sustainably built installation, from design to realisation
- Easy to adjust and expand due to modular structure
- Semi-automatic installation with minimum personnel
- Consistent process quality
- Safe and ergonomic work environment due to separation of powder handling and coating

RIJKERS

It's all about details. 

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