

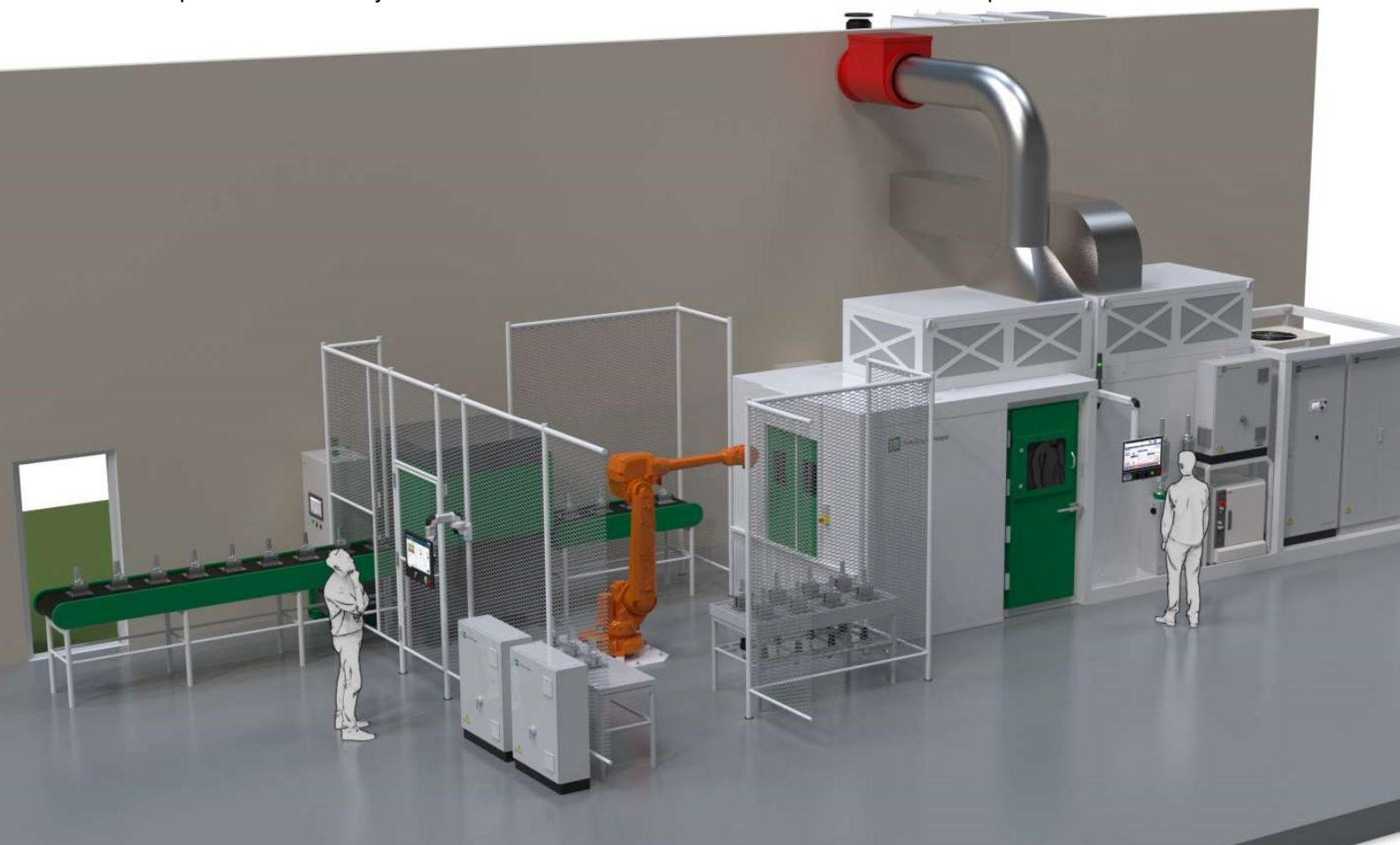
AUTOMATED PRODUCTION CELL The Coating Machine™

The Coating Machine™ is the perfect machine for mid- to high- volume production applications of a wide scale of products including:

- Aero Engine Parts
- Turbine Blades
- Ball Valves and Seats
- Biomedical Implants
- Hydraulic Plungers
- Pump Parts

The Coating Machine™ greatly improves your productivity. Once The Coating Machine™ is programmed the operator (or robot) loads and unloads the parts from the outside in a continuous flow; maximizing the torch on time as the process does not need to stop. Productivity will be maximized and costs reduced. Externally loading and unloading also greatly reduces the exposure of the operator to dust and fumes as they do not have to enter the coating zone.

A further advantage of the system is that the torch will not shut down until a batch is finished or the operator shuts the system down. This will increase the lifetime of the torch components.



FST | THE COATING MACHINE™

The Coating Machine™ is a very complete - plug and play - flame spray production unit designed to service a wide variety of markets. The autonomously operating units are engineered with standardization in mind, whilst providing customers multiple options to accommodate their specific needs.

The Coating Machine™ is available in three different configurations and is fully compatible with all conventional coating processes including: APS, HVOF, Flame Wire, Flame Powder and Arc-Spray. Typically, the system will be operated using FTS's state of the art Digital 50 Series process controllers.

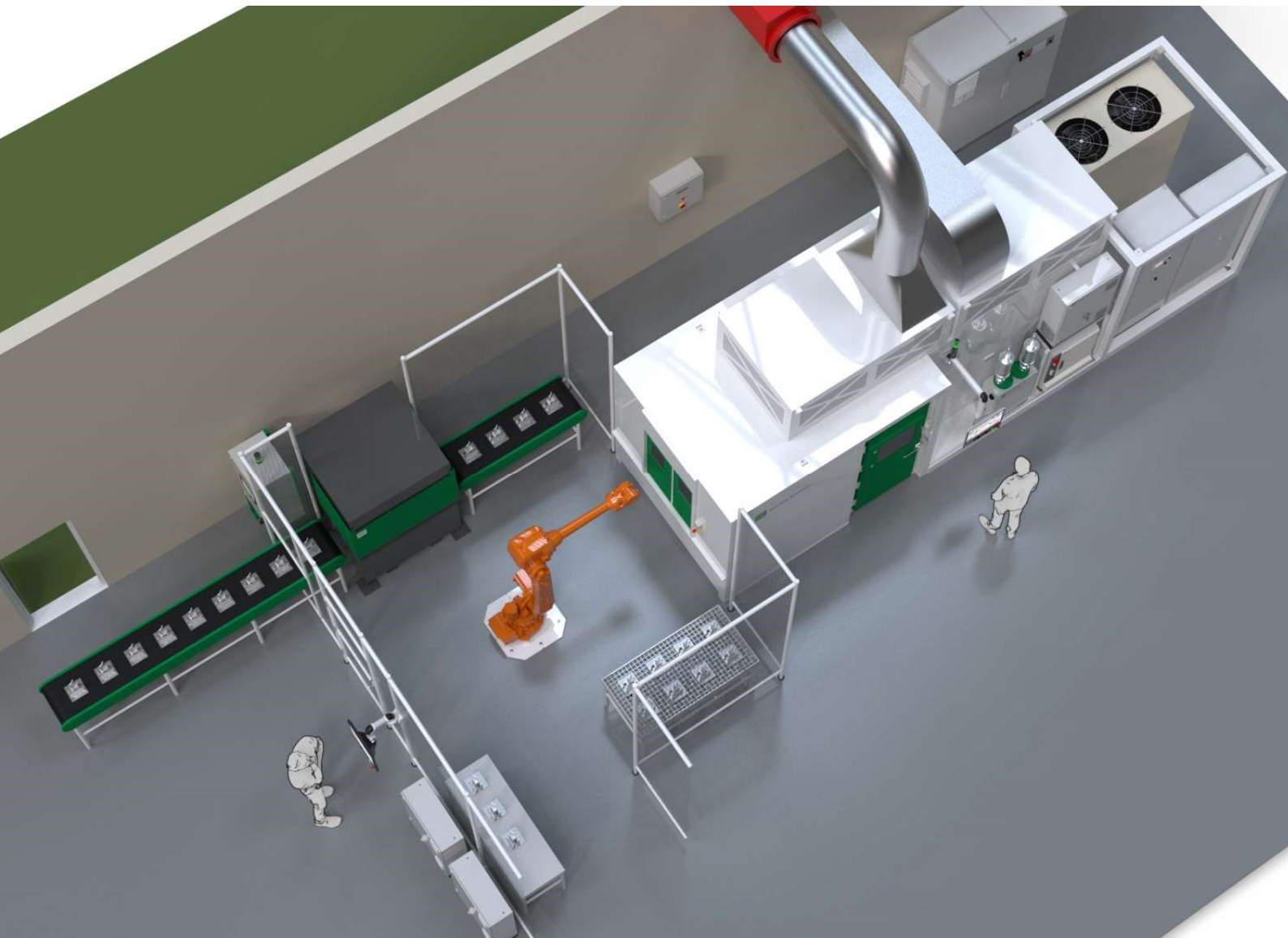
The Coating Machine provides the following benefits:

- Cost reduction due to standardization, with options to choose from
- Pre-installed and commissioned equipment
- Shipped as a fully operational unit, production ready
- Essentially plug and play spray facility
- Robustly built to the highest standard



MAIN FEATURES

- **No process limitation.** All thermal spray processes can be incorporated in The Coating Machine™
- **Compact construction,** fits in a shipping container and requires significantly less floor space.
- **Mobility,** can be easily relocated to other areas on the shop floor or another facility.
- **Fast** installation and coating production start-up
- **Digital,** Incorporating FST proven 50 series digital platform and Horizon™ software
- **Safety** Features that protect people and equipment are designed in.
- **Hoses and Cables** management, cables arrive pre-installed in accessible cable trays
- **State-of-the-Art** technologies and components used
- **Customizable,**
 - Go-No Go process control system
 - FST I Remote Assistance™
 - Data logging and reporting



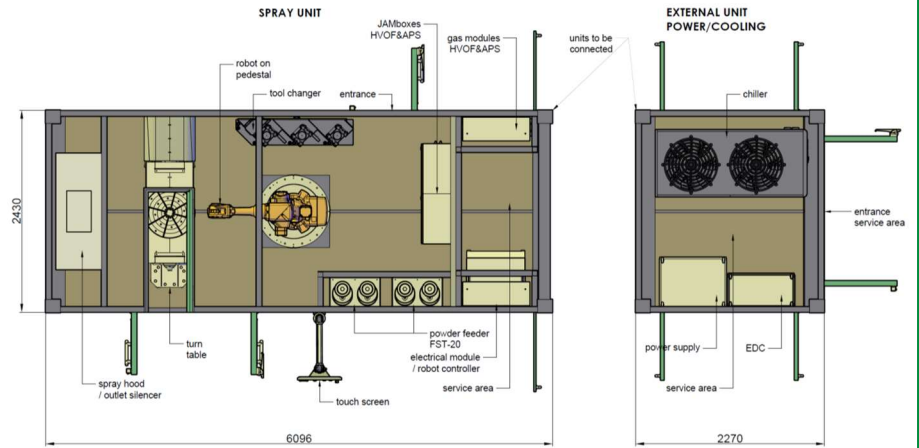
Why the coating machine™

To respond to current market developments and customer requests Flame Spray Technologies developed The Coating Machine™. A Compact, Ease of Mobility and Latest Digital Technology. Serving a wide variety of markets, The Coating Machine™ has been developed with three (3) standard configurations whilst allowing enough freedom to fit customer specific needs.

The Coating Machine™ Type I

Turn Table & Robot

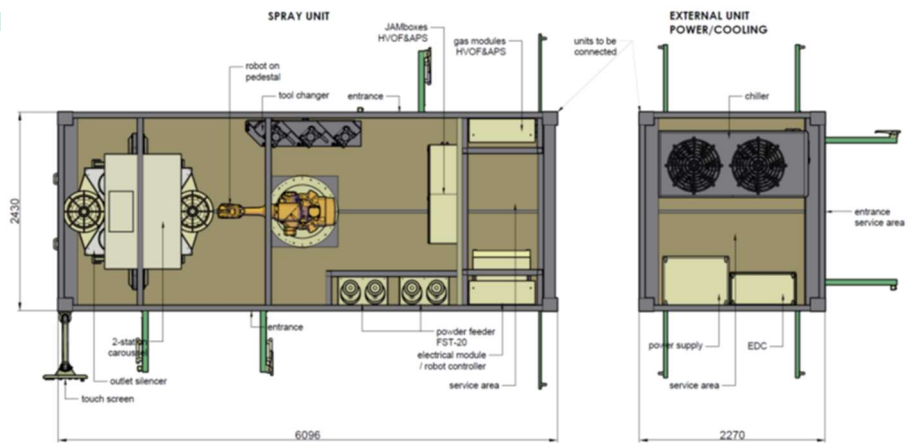
- A. ABB IRB 4600 45/2.05 Robot, T1200 Non-Tilting Turn Table 1.200kg
- B. ABB IRB 4600 45/2.05 Robot LTT1200 Tilting Turn Table 1.200kg



The Coating Machine™ Type II

Carousel & Robot

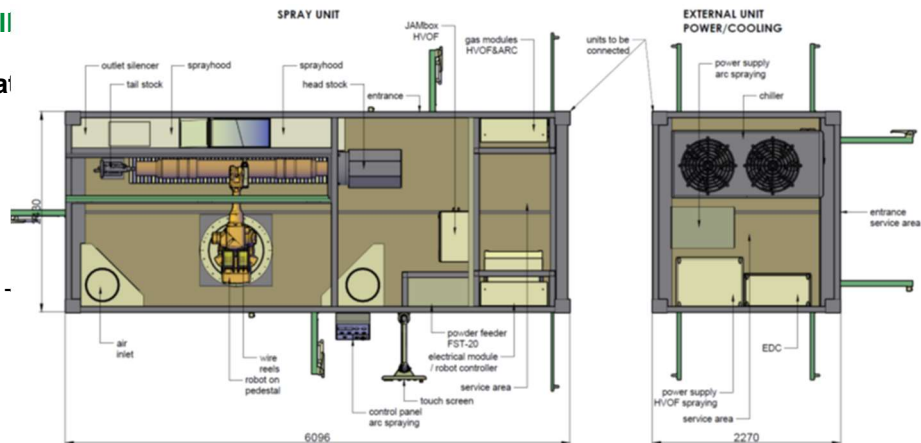
- A. ABB IRB 4600 45/2.05 2 Station Carousel 100kg
- B. ABB IRB 4600 45/2.05 8 Station Carousel 25kg



The Coating Machine™ Type III

Spray Lathe & Robot combination

- A. ABB IRB 4600 40/2.05 L2500 Spray Lathe 2500mm, 1000kg
- B. ABB IRB 4600 40/2.05 L2500 Spray Lathe & Turn 1000kg



ADDITIONAL FEATURES

Product loading robot

A pick and place robot to further automate your coating production. Run multiple production units with the support of a robot to load and unload your components. Also handling your components for quality control checks and product identification.

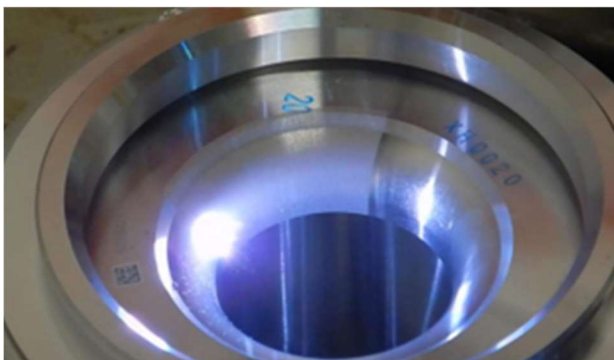


Barcode/QR scanner

By the integration of a product identification scanner it's possible to automatically load robot programs and store the process operation data and store it on part level. A perfect tool to have full traceability on your components with is mostly required in automated production line.

Surface activation by laser ablation

Laser ablation is a fast and easy to automate tool to clean and generate the ultimate surface profile for an optimum coating adhesion. It is also very a clean process in which there are no issues with unwanted inclusions in the surface to be coated.



AccuraSpray 4.0 – GO-NOGO

The Accuraspray 4.0 is a sensitive Go-No Go sensor that will trigger alarms as soon as the spray plume properties step out of the pre-determined acceptance range.



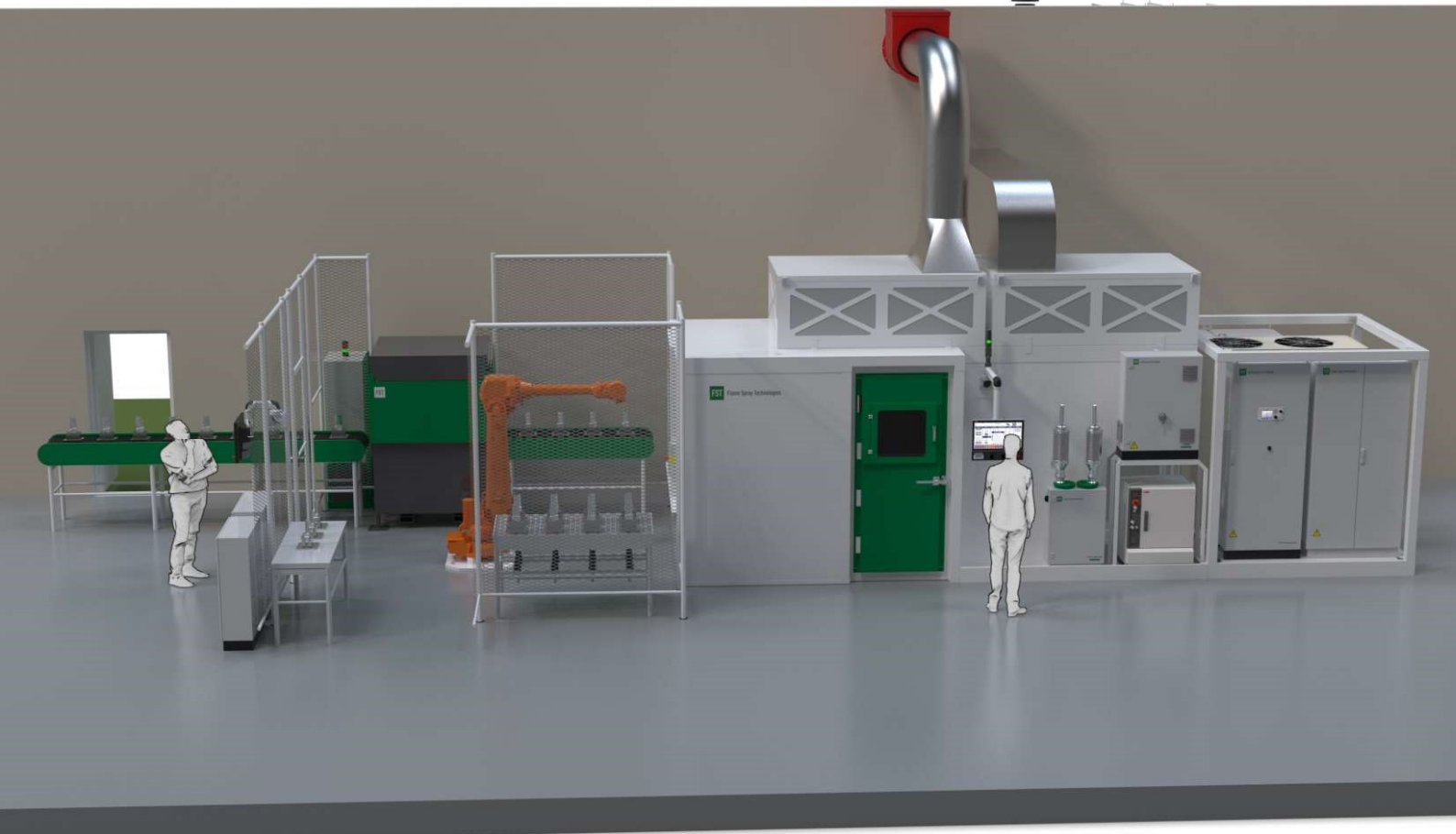
This minimizes the risk of spraying non-conforming coatings on expensive parts. Ensure consistent coatings by continuously monitoring the properties of the sprayed material, either in manual or automatic mode.



Layer thickness measurement by laser

An inline contactless, non-destructive, and fast layer thickness measurement. Possible to measure high temperature parts (just after coating) with a high repetition rate for continuous following of the thickness. Available for metallic and ceramic coatings





For more information, please contact your local sales representative or visit our website www.fst.nl

Added value through know-how | www.fst.nl

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