TECHNICAL DATA SHEET

Product Data Sheet · Revision: November 2026

AUTOMATION & ROBOTICS

Three-Axis Systems

Three-Axis Systems add a third axis to vertical stroke and in/out motion — positioning automatic guns with greater freedom to deliver broader, more uniform coating coverage across parts of varied profile.

Open online

strong3000.com/en/products/three-axis-system/



KEY FIGURES

Axes	Speed	Gun group	Control
3 axes — gun group manipulation	**Adjustable per axis**	**Multi-gun manifold**	**PLC + recipe-based motion profiles**

OVERVIEW

A Third Axis, More Reach.

Three-Axis Systems introduce an additional axis of motion on top of vertical and in/out movement, letting guns position more flexibly relative to part geometry so surfaces of differing profiles are coated consistently.

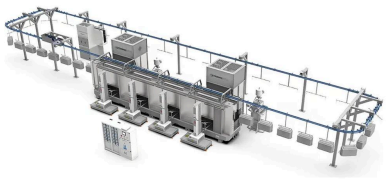
They offer flexibility on lines running mixed product groups and pair with Smart and Smart AI control as part of a coordinated line.



APPLICATIONS

The Gun Goes Inside the Part.

When the vertical, in/out and third axes work together, the guns can move not only in front of the part but inside it. Examples from STRONG3000 systems that coat deep parts and inner surfaces:



DEEP PARTS (CAVITY)

Deep-Part (Cavity) Enameling System

An automatic powder enamel system for deep parts such as oven cavities. Parts pass through the booth on an overhead conveyor while automatic gun reciprocators apply the enamel.

Read about oven cavity enameling →

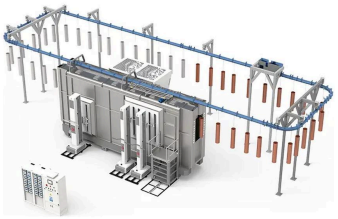


BOILER INNER TANK

Boiler Inner-Tank Powder Enamel Plant

An automatic powder enamel plant for boiler and water heater tanks. The lance gun enters the tank through the bottom flange; excess powder is extracted from inside the tank and recovered.

Explore boiler solutions →



PIPE INSIDE & OUT

Pipe Interior and Exterior Enamel Coating System

A system that applies powder enamel to the inside and outside surfaces of pipes. The pipes hang vertically on the conveyor as they pass through the booth, and automatic gun reciprocators apply the enamel.

Explore flue pipe solutions →

KEY BENEFITS

Extended Reach.

Three Axes

Vertical, in/out and a third motion axis.

Flexible Positioning

Orients guns to part geometry.

Varied Profiles

Uniform coating across mixed part groups.

Control Compatibility

Works with Smart and Smart AI control.

TECHNICAL SPECIFICATIONS

Three-Axis Systems — Technical Specifications.

Values are typical ranges; final values are confirmed per project by STRONG3000 engineering.

Axes	3 axes — gun group manipulation
Speed	Adjustable per axis
Gun group	Multi-gun manifold
Control	PLC + recipe-based motion profiles

WHY STRONG3000?

The Engineering Difference.

We don't sell equipment and walk away; we stay with your line from design through commissioning and beyond.

Integrated Engineering
Machinery, electrical, automation and software under one roof — not sourced and assembled.

In-House Technology
Smart AI and OWL are original STRONG3000 technologies developed in-house.

Proven Experience
25+ years of engineering; installation, commissioning and service in 40+ countries.

24/7 Support
Phone, remote connection and 24/7 live support via WhatsApp.

Quotes & Technical Consulting

Tell us about your part, capacity and process. A STRONG3000 engineer will get back to you with a tailored proposal.

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FOR A QUOTE, PREPARE

Product to Be Coated · Max. Part Dimensions · Required Capacity · Number of Colors · Daily Color Changes · Coating Process · Project Timeline

Values are typical ranges; final values are confirmed per project by STRONG3000 engineering. This sheet summarises the product page on our website; scan the QR code for the latest information.