STRONG3000

TECHNICAL DATA SHEET

Product Data Sheet · Revision: November 2026

APPLICATION EQUIPMENT

OWL Intelligent Motion Powder Coating Gun

A smart articulating powder gun whose head turns up to 75° in every direction. It goes inside deep parts and directs powder straight onto corners, edges and inner surfaces.

Open online

strong3000.com/en/products/owl/

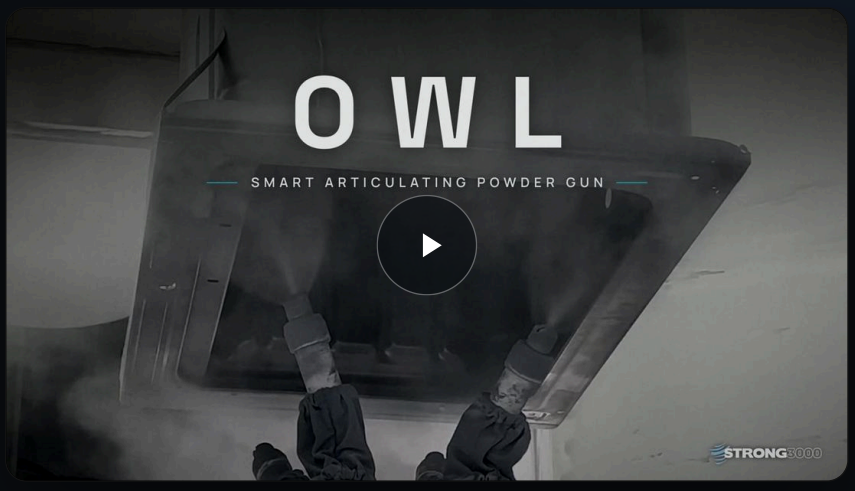
KEY FIGURES

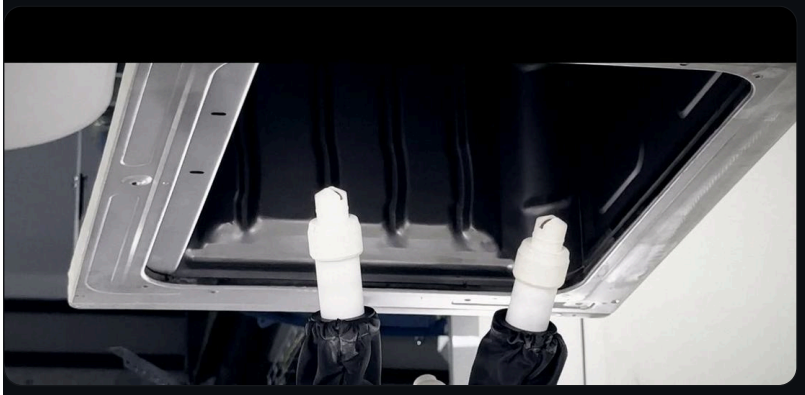
Motion	Control	Motion Profiles	Processes
Head turns up to 75° in every direction	**Up to 6 OWLs from one screen, each with its own settings**	**Inside tube, spot focus, flat sweep, edge sweep, cycle**	**Powder coating and powder enamel; horizontal application and deep-drawn parts**

OWL FILM

Watch OWL on film.

Real footage from inside the cavity, 3D explanation and the OWL interface. Below, we follow the story of the film step by step.





01

THE PROBLEM

The hardest process in enamel coating: deep cavity parts.

In oven cavities and deep-drawn parts, powder does not reach inner corners, edges and inner surfaces evenly. These zones decide the coating quality.

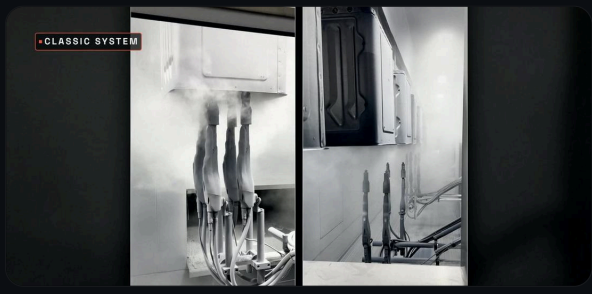
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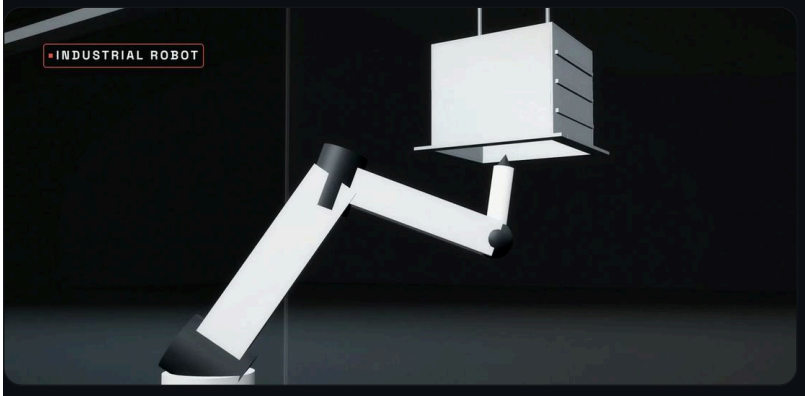
CLASSIC SYSTEM

In classic lines, the gun enters the cavity straight.

Powder goes in one direction. Corners stay thin, edges build up. The result: excess powder consumption and uncontrolled film thickness.

- One-direction spray
- Thin coating in inner corners
- Excess powder consumption
- Uncontrolled film thickness





03

INDUSTRIAL ROBOT

So is a robot the answer?

A robot moves its whole arm to find the right angle, and its motion is limited in narrow recesses. The line slows down, the booth gets longer and every new part needs programming. Extra guns are often needed after the robot for touch-up. And all of this means a large investment.



The visible cost is the robot. The hidden ones: ATEX-compliant design, software and programming, system integration, operator training.

04

OWL · AN INDUSTRY FIRST

With OWL, the movement is in the gun itself.

The head group turns up to 75 degrees in every direction, directing powder straight onto corners, edges and inner surfaces.

- ±75° in every direction
- Direct to corners
- Even thickness on inner surfaces





05

REAL FOOTAGE · INSIDE THE CAVITY

From inside the cavity.

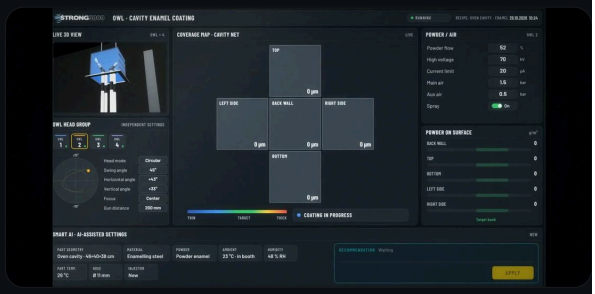
Real footage shot from inside the cavity: the OWL heads work inside the part, turning towards the surfaces as they apply.

06

LIVE COVERAGE MAP

See how much powder reaches each surface.

The interface shows in real time how much powder reaches every surface of the cavity. The back wall, top, bottom and side surfaces are tracked separately.





07

SMART AI

Smart AI suggests the settings.

Smart AI evaluates the part geometry and ambient conditions, and recommends gun distance, head group, kilovolt, microampere and air settings.

Smart AI is offered as a kit.
A version with line optimization is also available.

Explore Smart AI →

08

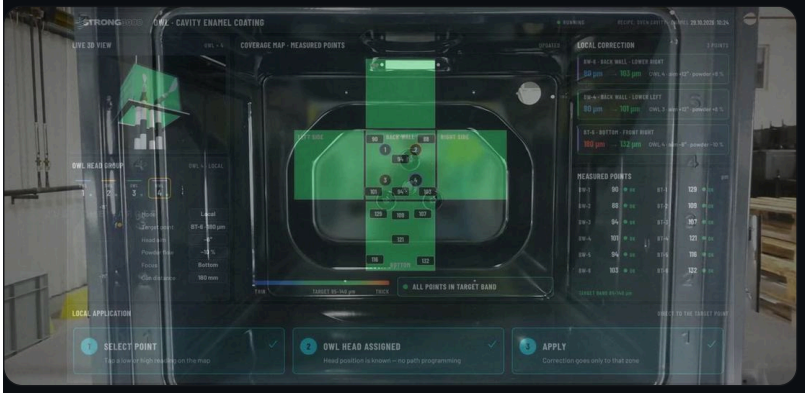
LOCAL APPLICATION

Is the thickness low at one point? Or high?

The position of every OWL head is known, so the correction goes straight to that point. Local application in a few taps — without complex robot interfaces.

1. Select the measured point
2. The matching OWL head is assigned
3. Apply the correction





09

STRAIGHT TO THE TARGET

The right micron. Less powder. Consistent quality.

An enamelled oven cavity coated with OWL: the target is the same film thickness on every surface.

COMPARISON

No need for large robot investments.

CLASSIC CAVITY
SYSTEM

- ✕ One-direction spray
- ✕ Thin coating in inner corners
- ✕ Excess powder consumption
- ✕ Uncontrolled film thickness

ROBOT
SYSTEM

- ✕ Limited motion in narrow recesses
- ✕ Slower line, longer booth
- ✕ Programming for every part
- ✕ Touch-up with extra guns
- ✕ High investment

OWL
SMART ARTICULATING POWDER GUN

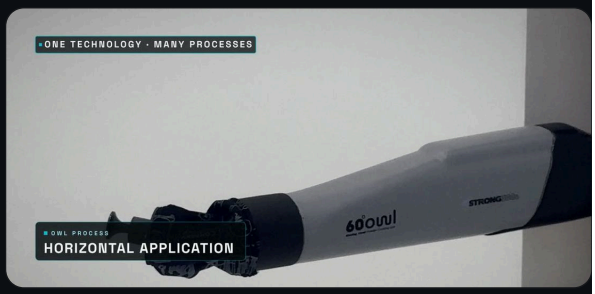
- ✓ Head group ±75° in every direction
- ✓ Direct to corners and inner surfaces
- ✓ Live coverage map
- ✓ Smart AI setting recommendations
- ✓ Local correction in a few taps
- ✓ 25% powder savings
- ✓ Low investment

ONE TECHNOLOGY · MANY PROCESSES

One technology, many processes.

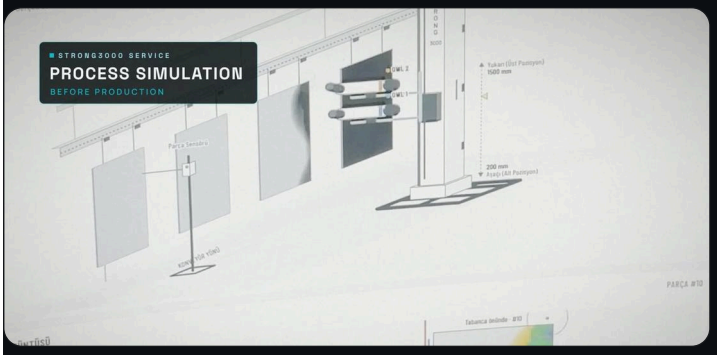
OWL works in powder coating and powder enamel processes, in horizontal application and on deep-drawn parts.

Powder coating | Powder enamel | Horizontal application | Deep-drawn parts



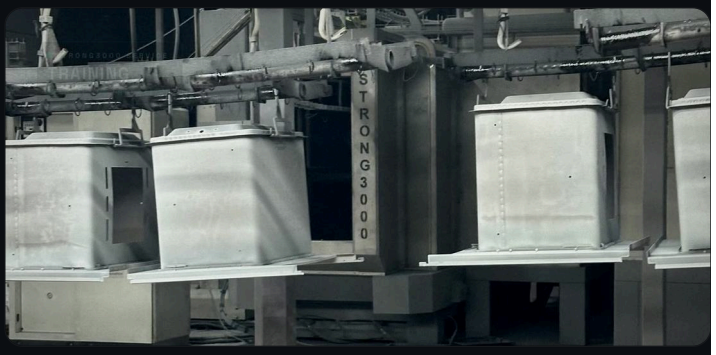
STRONG3000 SERVICE

Simulation before production, training before installation.



Process simulation

We simulate your process before production.



Training

We train your team before installation.



LIFE TESTS

Long-term life tests completed under real production conditions.

25%
Proven powder savings

ATEX · CE
Standards compliant



World patented. ATEX and CE compliant.

APPLICATION SHEETS

One Gun, Many Geometries.

Each geometry has different difficult zones; Smart AI manages angle, distance, speed and powder amount for each zone as a recipe.



Cavity

Top bends, corners and the opening; powder enamel and powder coating.

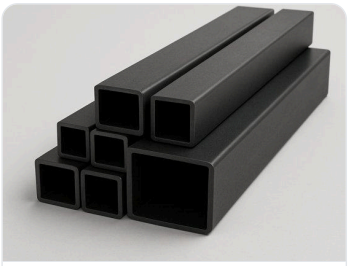
Application sheet (PDF) ↓



Wheels

Spoke roots, inner well and hub transitions.

Application sheet (PDF) ↓



Profiles & Pipes

Inner corners and ends; measured powder on long flat surfaces.

Application sheet (PDF) ↓



Wire & Mesh

Wraps the wire for coverage; targeted application at the cross-joints.

Application sheet (PDF) ↓

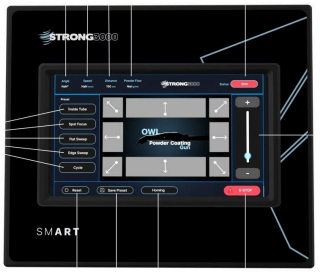
CE ATEX EN 50177 EN 50050-2

GALLERY

Take a Closer Look.





TECHNICAL SPECIFICATIONS

OWL — Technical Specifications.

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

Motion	Head turns up to 75° in every direction
Control	Up to 6 OWLs from one screen, each with its own settings
Motion Profiles	Inside tube, spot focus, flat sweep, edge sweep, cycle
Processes	Powder coating and powder enamel; horizontal application and deep-drawn parts
Integration	Smart AI kit · line-optimization version
Interface	Live coverage map, local correction
Standards	CE · ATEX
Patent	World patented

CONFIGURATIONS

Choose Your Setup.

OWL Single Station

Single OWL mounted on your existing booth.

OWL Multi-Station

Up to 6 OWLs from one screen, each with its own settings.

Smart AI Kit

Smart AI offered as a kit: setting recommendations for the part and conditions.

Smart AI Line Optimization

The line-optimization version of Smart AI.

COMPATIBLE EQUIPMENT

Part of the STRONG3000 System.

- ✓ **Smart AI Control** — AI & mobile monitoring
- ✓ **Powder Enamel Booths** — cavity enameling
- ✓ **Monocyclone Booths** — powder coating application
- ✓ **Color Centers** — fast color change
- ✓ **Line PLC** — fully synchronized operation

FAQ

Frequently Asked Questions.

How much powder does it save?

Field measurements under real production conditions have proven a 25% powder saving. Results vary with part geometry and the existing line; we evaluate it for your project together with a simulation.

Why is it preferred for enamel?

Uniform film on cavity internals defines first-pass quality in enamel; OWL provides that access.

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.