STRONG3000

TECHNICAL DATA SHEET

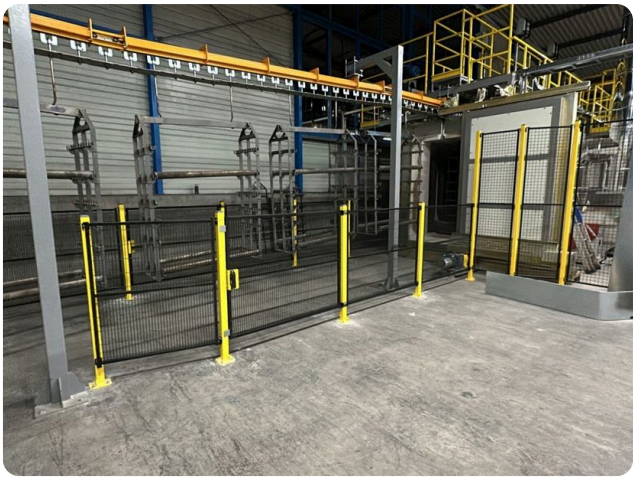
Product Data Sheet · Revision: November 2026

INDUSTRIAL OVENS

Powder Enamel Firing Ovens

STRONG3000 Powder Enamel Firing Ovens fire the applied enamel powder (glass frit) at approximately 780–850°C to fuse it onto the steel surface. Enamel is a glass — never paint — and at this high temperature the molten glass chemically bonds to the metal. The ovens are engineered with refractory-grade construction and high-temperature durability.

Open online
strong3000.com/en/products/powder-enamel-firing-ovens/



KEY FIGURES

Firing temperature	Temperature uniformity	Heating	Type
780 – 860 °C	**± 5 °C**	**Natural gas / electric**	**Box / conveyorised / U-type**

OVERVIEW

The Temperature Where Glass Fuses to Steel.

Powder enamel firing is the process of melting glass frit powder applied to steel and fusing it to the metal at high temperature. For steel, the typical firing temperature is ~780–850°C, where the frit melts, spreads and — as it cools — forms a hard, glass-like enamel layer that is chemically and heat resistant. Enamel is a glass coating — never paint.

This temperature range demands a refractory brick or ceramic-fiber lining, high-temperature-rated structural elements and stable temperature control. Available with gas or electric heating, the ovens work in coordination with the STRONG3000 enamel application line.



KEY BENEFITS

High-Temperature Resistance.

High-Temperature Firing

~780–850°C capability to fuse glass frit to steel.

Refractory-Grade Construction

Heat-resistant refractory lining and enclosure built for firing temperatures.

Stable Temperature Control

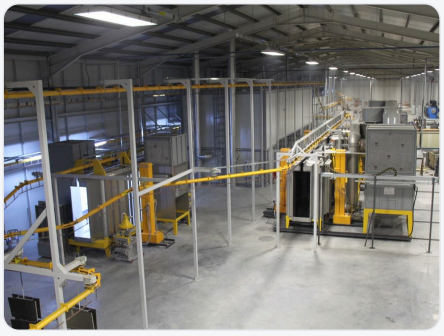
Precise, balanced firing profile for repeatable frit fusion.

Flexible Heat Source

Gas or electric heating to suit your plant infrastructure.

GALLERY

Take a Closer Look.





TECHNICAL SPECIFICATIONS

Powder Enamel Firing Ovens — Technical Specifications.

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

Firing temperature	780 – 860 °C
Temperature uniformity	± 5 °C
Heating	Natural gas / electric
Type	Box / conveyorised / U-type
Insulation	High-temp ceramic fibre + rockwool
Control	PLC, zone temperature control

THE WHOLE SYSTEM

Order of the Powder Enamel Line.

The firing oven is the last step of the enamel line: here the applied glass frit fuses to the steel.

1



PRETREATMENT

Industrial Washing Systems

Oil, grease and swarf are removed by multi-stage spray washing; an optional phosphate / nano-ceramic stage is added.

Explore →

2



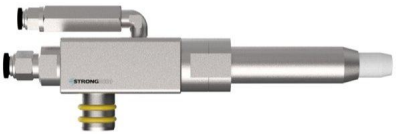
DRYING

Dry-off Oven

Water and moisture left on wet parts from pretreatment are driven off before coating (typically ~100–160 °C).

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3



FEEDING

Powder Enamel Injectors

Abrasive glass-frit powder is fed steadily to the guns through a wear-resistant flow path.

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4



APPLICATION

Powder Enamel Booths

Enamel powder is applied in a booth built for the part, using OWL or automatic guns.

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You are here

FIRING

Powder Enamel Firing Ovens

The enamel powder melts at ~780–850 °C and fuses to the steel.

VIDEO

See It in Action.



Enamel Firing Oven Line

Watch on YouTube ↗

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.