TECHNICAL DATA SHEET

Product Data Sheet · Revision: November 2026

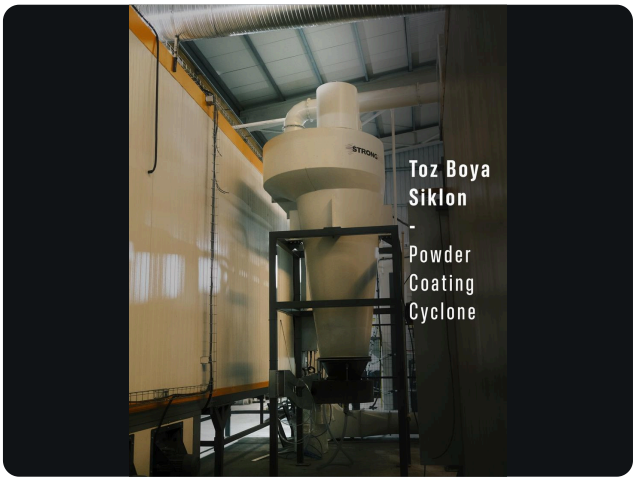
BOOTHS & RECOVERY

Cyclones

Cyclones recover overspray powder by separating it from the airflow using the cyclone separation principle — they sit at the core of the powder recovery chain and feed the after-filter for clean air return.

Open online

strong3000.com/en/products/cyclones/



KEY FIGURES

Separation efficiency	Pressure drop	Flow range	Body
≥ 95% (particles above 10 µm)	**800 – 1,200 Pa**	**5,000 – 20,000 m³/h (per project)**	**Stainless steel, seamless interior surface**

OVERVIEW

The Core of Powder Recovery.

Cyclones separate the overspray powder carried by the airflow using the cyclone separation principle; the separated powder is returned to the production flow, while the remaining fines are routed to the after-filter for clean air return.

The cyclone is the core unit of the powder recovery chain and is completed with after-filter cartridge filtration so clean air is returned to the shop floor. It works as a coordinated line with STRONG3000 booths, filter units and the powder feed system.



INSIDE THE SYSTEM

The Cyclone in a Mono-Cyclone PVC Booth.

A cyclone does not work on its own. In a STRONG3000 automatic powder coating line, powder drawn from the booth is separated in the cyclone; the cleaned air leaves through the after-filter and the recovered powder returns to the guns via the powder center.



1 PVC Booth

Powder that does not stick collects on the booth floor and is drawn into the mono-cyclone through the suction ducts.

Explore the PVC booth →

2 Monocyclone

Separates the powder from the air; the separated powder returns to production from the bottom of the cyclone.

This page

3 After-Filter

Holds back the very fine powder the cyclone cannot separate in its cartridges; the cleaned air returns to the shop floor.

Explore the filter unit →

4 Powder Center

The TP-2 transfer pump moves the powder in the cyclone straight into the powder center hopper, where it mixes with virgin powder.

Explore the powder center →

5 Reciprocators and Guns

The mixed powder goes to the automatic guns through the injectors and is applied to the part again.

Explore the reciprocators →

MONO-CYCLONE PVC BOOTH

From the Booth to the Cyclone, from the Cyclone to the Gun.

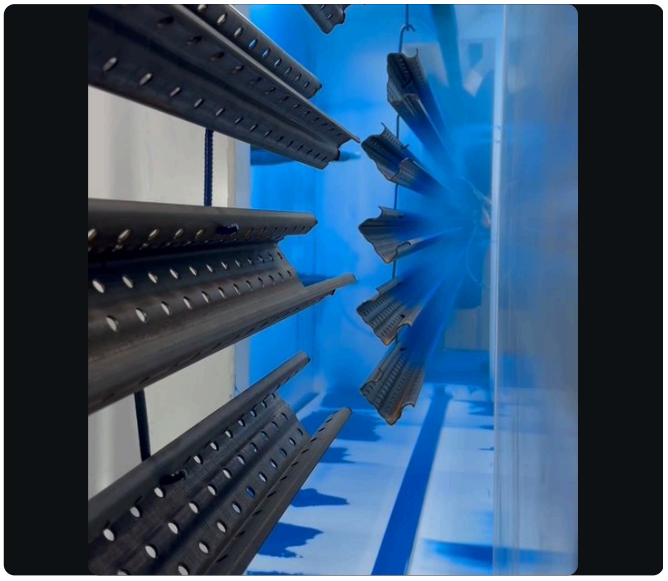
1 **Application**
Most of the powder from the guns adheres to the part; the small amount that does not falls to the booth floor.

2 **Floor evacuation**
Air valves along the centre of the floor periodically push the powder towards the wall bases.

3 **Extraction**
Powder is drawn through the extraction ducts under the booth to the monocyclone.

4 **Separation**
The monocyclone separates powder from the air; very fine particles go to the after-filter and are collected in the hopper below it.

5 **Return**
The TP-2 transfer pump sends powder from the cyclone straight to the powder center hopper, where it mixes with virgin powder and goes back to the guns.



Explore the mono-cyclone PVC booth →

KEY BENEFITS

Efficient Separation and Recovery.

Powder Separation
Powder is separated from the airflow by the cyclone principle.

Overspray Recovery
Overspray powder is recovered and waste is reduced.

After-Filter Feed
Feeds the after-filter; clean air returns to the shop floor.

System Compatible
Works together with booths and filter units.

TECHNICAL SPECIFICATIONS

Cyclones — Technical Specifications.

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

Separation efficiency	≥ 95% (particles above 10 µm)
Pressure drop	800 – 1,200 Pa
Flow range	5,000 – 20,000 m³/h (per project)
Body	Stainless steel, seamless interior surface
Bottom discharge	Rotary valve / powder center integration

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.

Production Center Ömerli Mah. Elektro 2000 Sanayi Sitesi B18 Blok, Tunaboyu Sk. No:1AZ, 34555 Arnavutköy / Istanbul, Türkiye
Phone +90 212 438 56 94 · +90 534 037 98 10
E-mail info@strong3000.com
24/7 WhatsApp +90 537 353 54 19
Web strong3000.com/en/products/cyclones/

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.