

# FANAVARAN GROUP OF INDUSTRIES

## Powder Coating Supplier

Line, Equipment and Powder Paint



**ELcoat**  
Powder coating Equ. ®  
Powder Coating Equipment





Go on! I'm listening!



Committed to Quality and High Performance  
of Powder Coating Equipment  
for more than

**20** years

Supplying Powder Coating Equipment for

- Aluminum industry,
- Home Appliance industry,
- HVAC System industry,
- Job coaters and others.

Fanavar Group of Industries, founded in 2005, has become a leading manufacturer and supplier in the powder coating industry. With over two decades of expertise, Fanavar provides high-quality powder coating equipment and coatings to domestic and international markets. The company's commitment to innovation, quality, and customer satisfaction has made it a key player in the field.

Fanavar's ELCOAT products include powder spray guns, reciprocators, Central control unit, and other systems designed for modern manufacturing needs. Their equipment combines quality and affordability, catering to both small and large businesses.

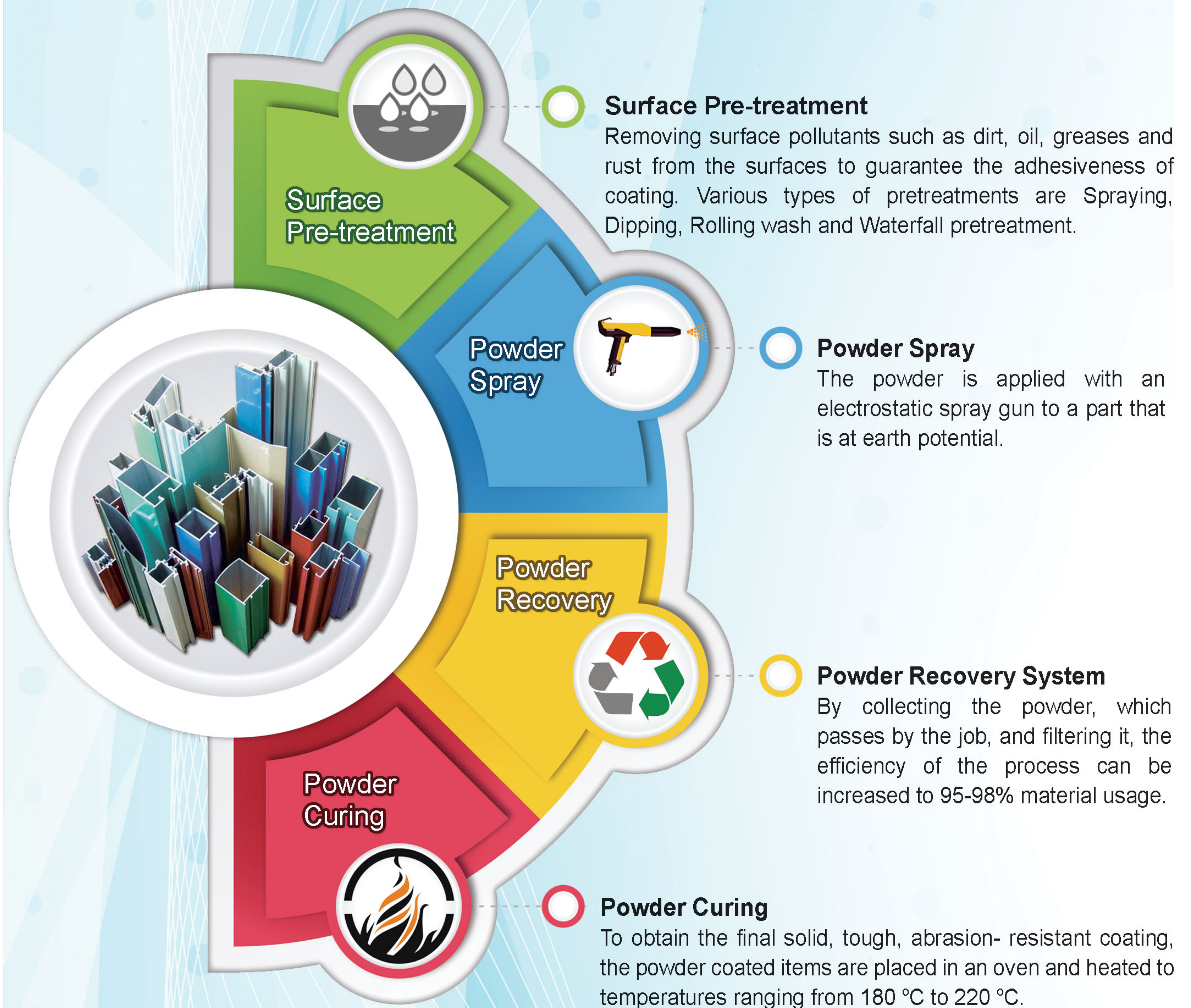
Additionally, Fanavar's engineering department excels in designing and installing customized powder coating plants, ensuring maximum efficiency for each client.

Fanavar serves industries like aluminum manufacturing, home appliances, and metal products, offering not just equipment but tailored consulting services. A major achievement is being the first Iranian company to implement a vertical powder coating line, with a system capable of coating 60 tons of aluminum profiles in a 10-hour shift.

Focused on quality, Fanavar meets stringent industry standards and offers ongoing support to ensure smooth operations. By fostering strong, long-term relationships with clients, the company continues to grow its global presence. Fanavar welcomes visitors to its manufacturing site to showcase the precision and excellence of its products.



# Powder Coating Process







## ELCOAT Powder Spray System - Sigma Plus

Sigma Plus system is equipped with a digital control panel and the operator can powder coat the parts' corners and angles by adjusting voltage and electrical current. Thanks to the stability of the system structure, two units can be assembled one over another using one powder container. Likewise, it is a suitable choice for metallic, textured and special powder coating by increasing powder adhesiveness through high voltage. For constant color change, vibrator can be replaced by powder container to ease the operation. The system can be used for enamel coating by adding Enamel powder gun.



We offer you the best key!



### Technical Specifications

- Gun's length: 360 mm
- Gun's weight: 430 gr
- Input voltage: 220 v, 50-60 Hz
- Output voltage: 100 Kv
- Frequency output: 17 KHz
- Polarity: Negative
- Air input pressure: 6-8 bar
- Max. air consumption: 12 m<sup>3</sup>/h
- Max. powder output: 600 gr/min
- Protection class: IP54



Sigma Plus System Installation Video





No	Item name
1	Manual gun shell
2	Cascade
3	Round Nozzles
4	Treaded Sleeve
5	Small deflector
6	Gun microswitch
7	Gun trigger holder
8	Gun trigger
9	Cleaning Air hose connection
10	Powder hose connection
11	Gun socket
12	Gun plastic spring
13	Grounding plate
14	Gun back cover



Sigma Plus spray gun system is of high quality and efficiency, environment and user friendly. Other advantages are as follows:

- Reduced orange peel phenomenon, and surface uniformity
- Integrated Design
- Excellent Electrostatic safety
- Easy Control /Maintenance / Movement
- Replaceable Cascade (High voltage generator) inside the gun

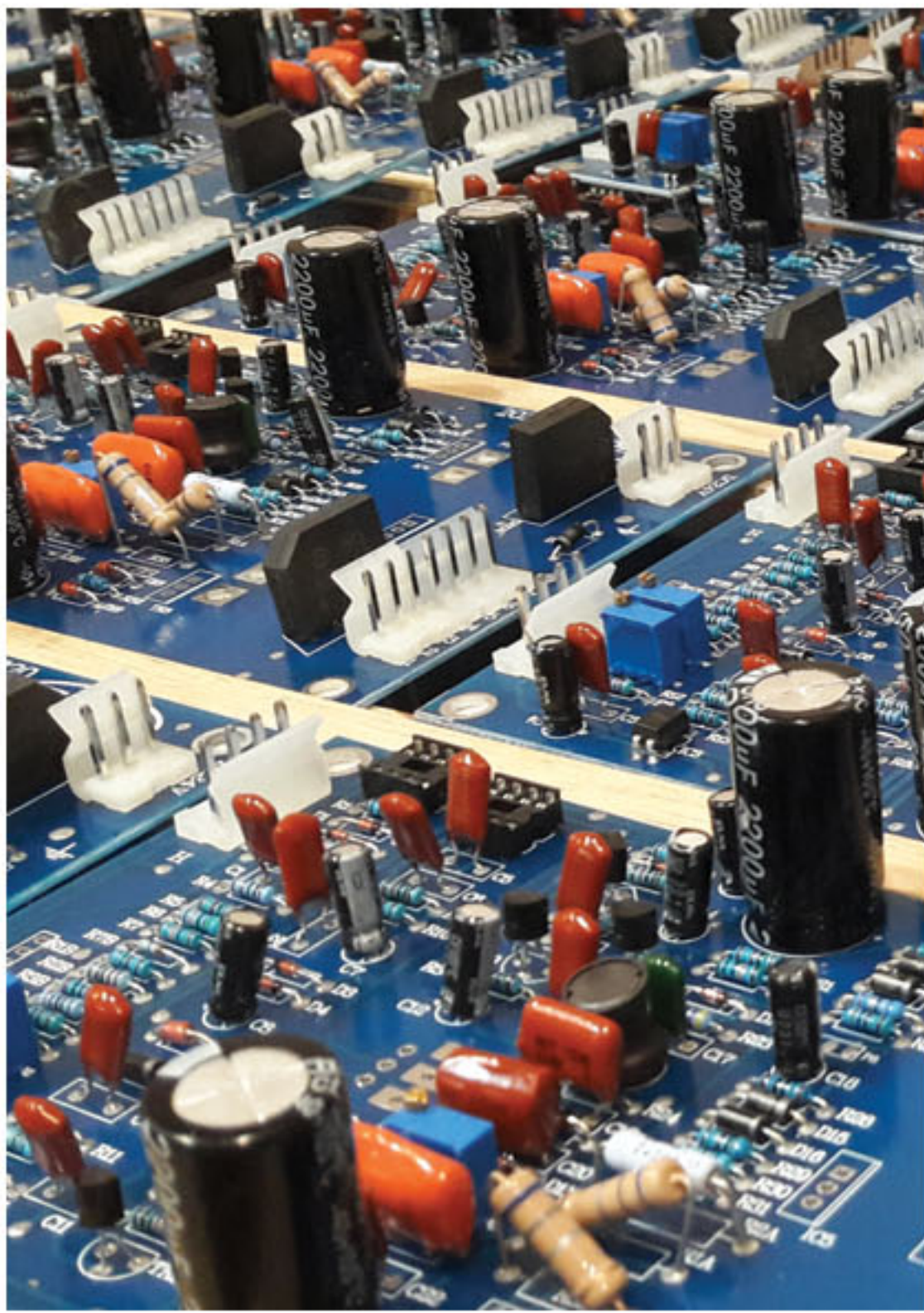




## ELCOAT Powder Spray System - Sigma 2

Among other powder coating systems, Sigma 2 system is suitable to use for the following reasons:

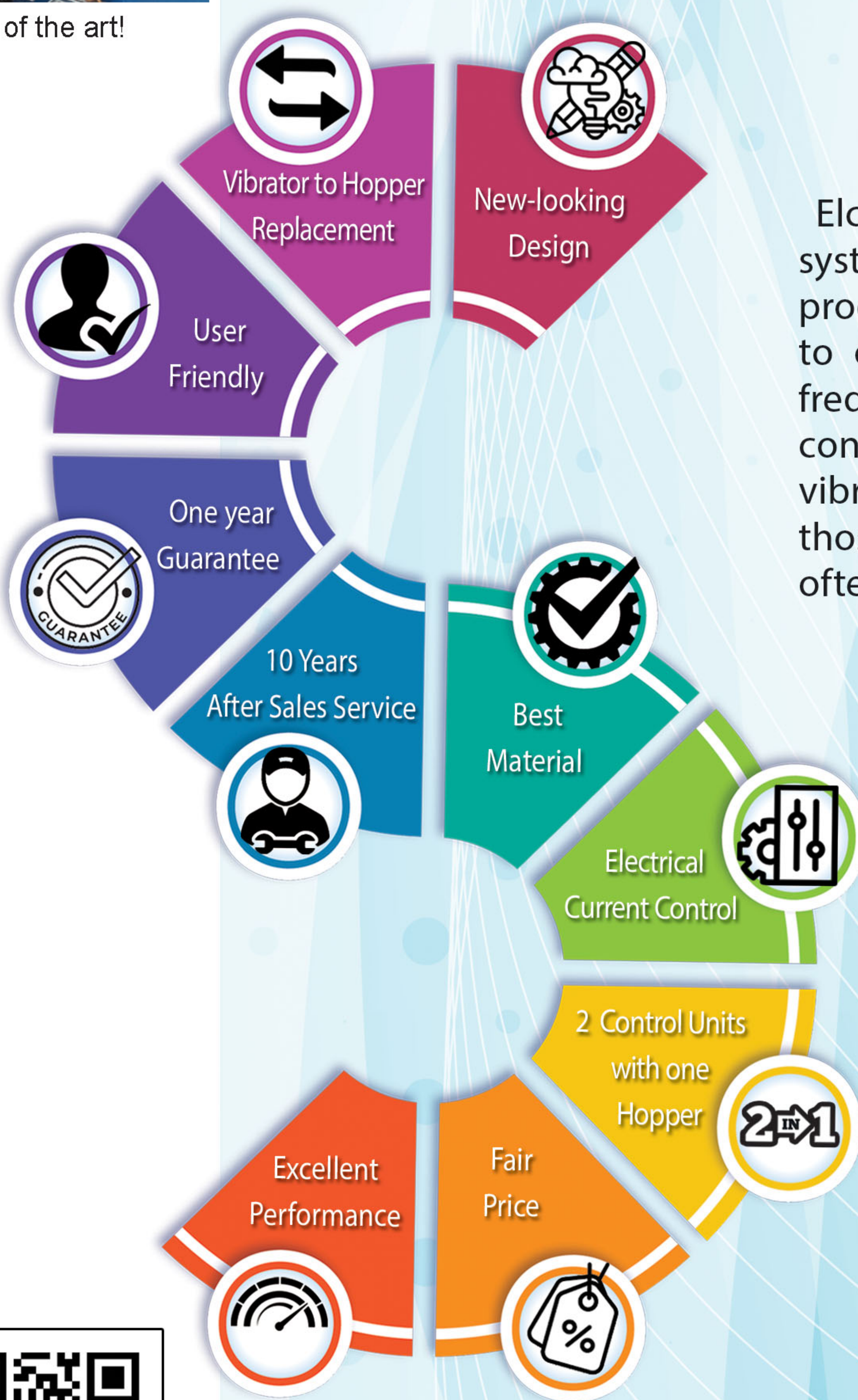
- High quality of all components applied in the system
- Light-weight spray gun
- Low maintenance costs
- suitable for automatic systems



State of the art!



Elcoat powder spray gun is an efficient system for small to medium sized series production runs. The apparatus is easy to clean since color changes may be frequent. Meanwhile, it is simple to convert the powder supply system to vibrator. It is a common solution for those who has to change color most often.



Sigma 2 System Installation Video





## Reciprocator Sigma Plus

The Elcoat reciprocator system aims to provide precise and uniform spraying of powder or paint on moving objects by adjusting the up-and-down motion of the spray guns. This is achieved by mounting the guns on an arm extended from a carriage, which can move vertically at variable speeds and stroke lengths. The system adapts to the height and dimensions of the object being sprayed to ensure even coverage.

Key features of the Elcoat reciprocator include:

### **Programmed Control via PLC:**

The system is controlled by a fully programmed PLC (Programmable Logic Controller), allowing the operator to store and easily select different spraying programs for various parts.

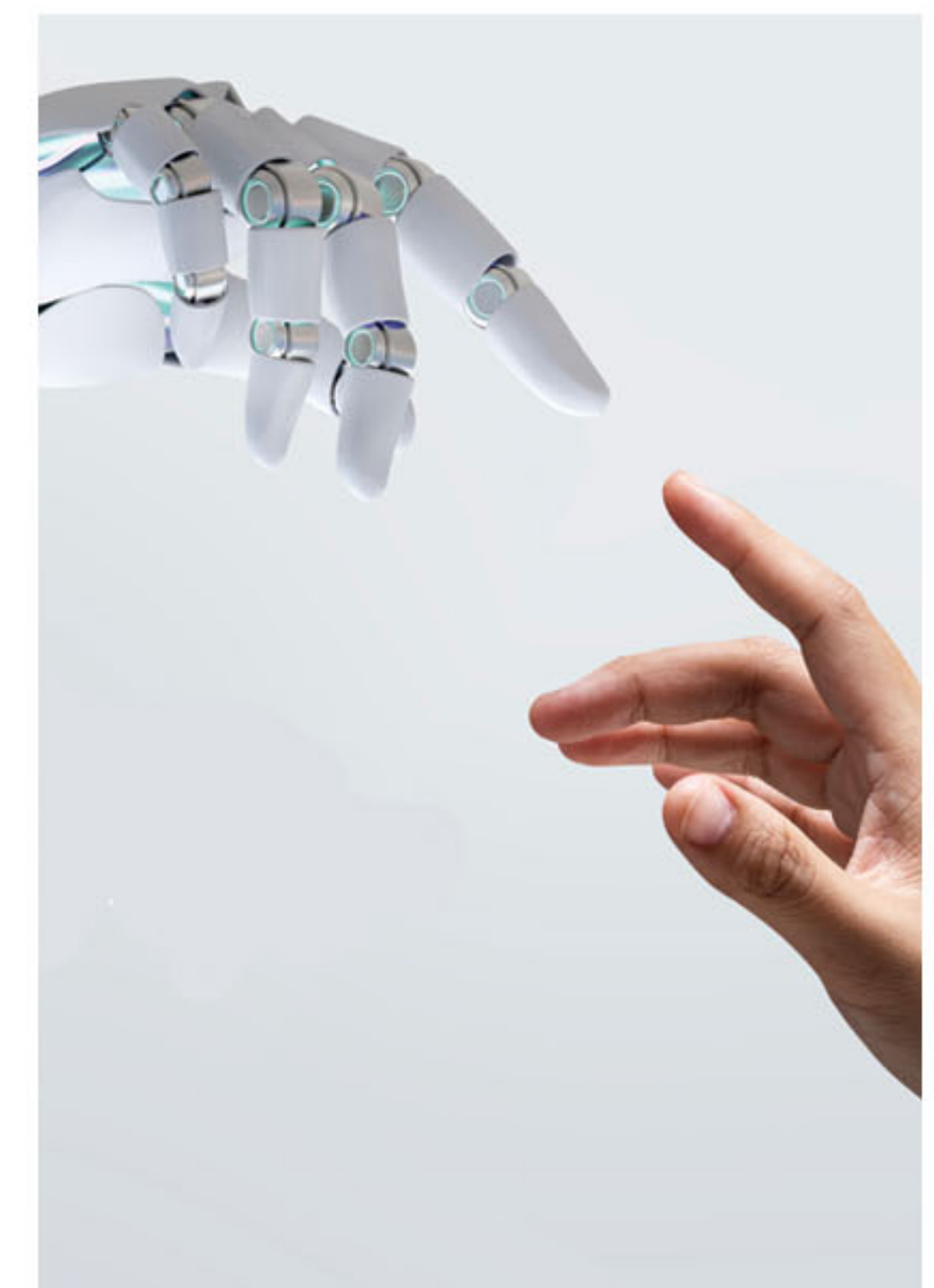
### **Customizable Stroke and Speed:**

The reciprocator adjusts stroke lengths and speeds based on the object's height, ensuring optimal spray patterns.

### **Integration with Conveyor and Powder Spray Rate:**

The PLC also allows adjustments to conveyor speed and powder spray rate, enabling the system to accommodate different operational conditions and product requirements.

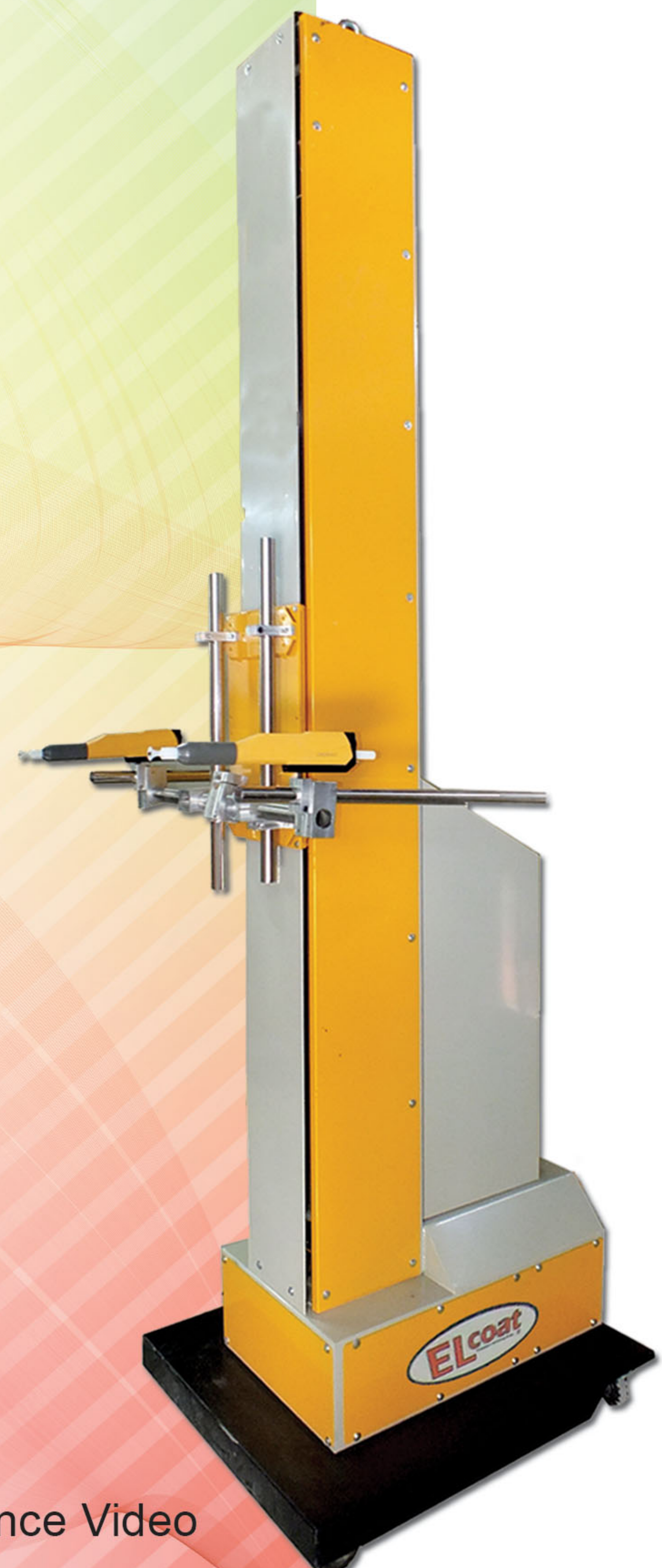
This setup ensures consistent and efficient spraying results, minimizing material wastage and improving overall process control.



All your needs are met.



ELCOAT Reciprocator System Performance Video







### Main advantages

- Easy to set/change the stroke by finger touch
- 25 storable programs can be executed
- Extremely smooth running through high-precision and wear resisting metal chain transmission, unaffected by temperature change
- Eight nylon wheels are adopted with ingenious mechanical structure, ensure equal pressure on the four sides of the column, and minimize vibration during reciprocation.

### Reciprocator Technical Data

Controller System	PLC
Motor power	1.1 Kw
Motion System	Chain
Input Voltage	220 V, 50-60 Hz
Stroke	2000 mm
Max. weight on arms	30 Kg
Dimensions	310*90*75 Cm
Weight	180 Kg





## Sigma Plus Central Control Unit (CCU)

It is the heart of an automatic powder coating line. It directly controls the powder coating whole process, and the rate of powder coating, so that the operator can monitor the whole coating zone operations easily and closely.

In ELCOAT system, up to 8-10 powder spray guns can be monitored and necessary changes can be made in line within a minute.



Coating Management



Fast Start up



System Efficient Protection

Considering the ease of operation with Elcoat control, you have a grip on all coating parameters. Clear symbols, and a perfect reproducibility of your results contribute to measurably increase your coating quality. Elcoat central control is suitable for all kinds of applications. Its compact design is very easy to adapt into any plant layout.



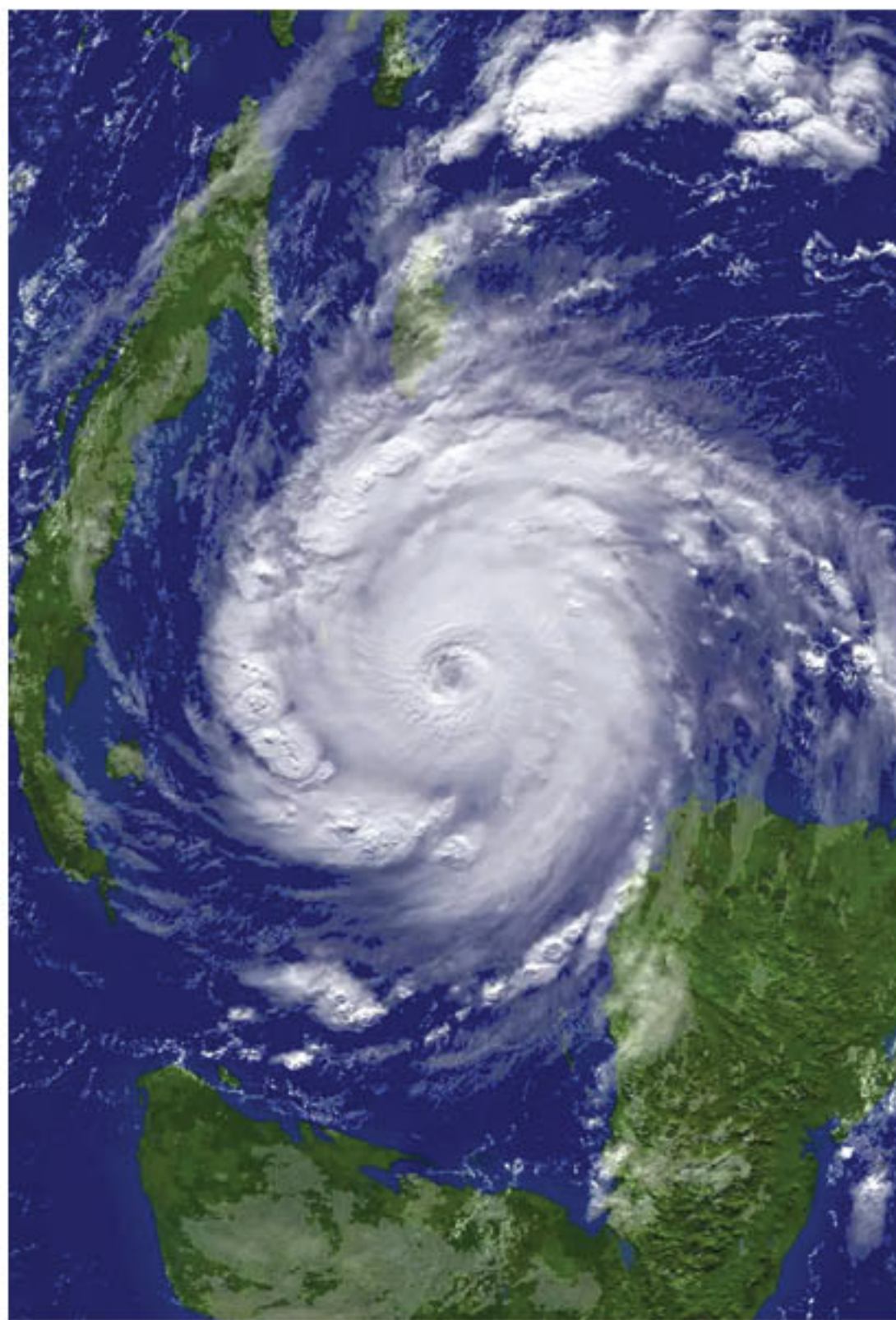


## Mono Cyclone

The function of a powder recovery system is to collect the over sprayed material and render it suitable for recycling and at the same time to remove the powder particles from the exhaust air stream before discharging into the atmosphere. There are multitude systems for recovering powder and these fall broadly into two types:

### Cyclones and Filters

Suppliers often employ both principles together to manufacture mono cyclone. The efficiency of such systems reaches 99%. The powder and air mixture enters the cyclone tangentially and thus assumes a spinning pattern. The centrifugal force resulting from the high inlet velocity separates the powder from the air. As it loses speed the powder sinks towards the discharge unit in a spiral pattern. When the air enters the cyclone, its cross-section changes, causing the air velocity to drop. Powder can be recycled from the base of the cyclone through a sieve and back to the powder supply feed.



Inspired by Nature!



### Technical Specifications

Capacity: 10-12 m<sup>3</sup>

Including Powder Hopper

Made of Stainless Steel

No. of filters: 12

Equipped with filter cleaning system

12 Solenoid Valve

Motor : 15 KW







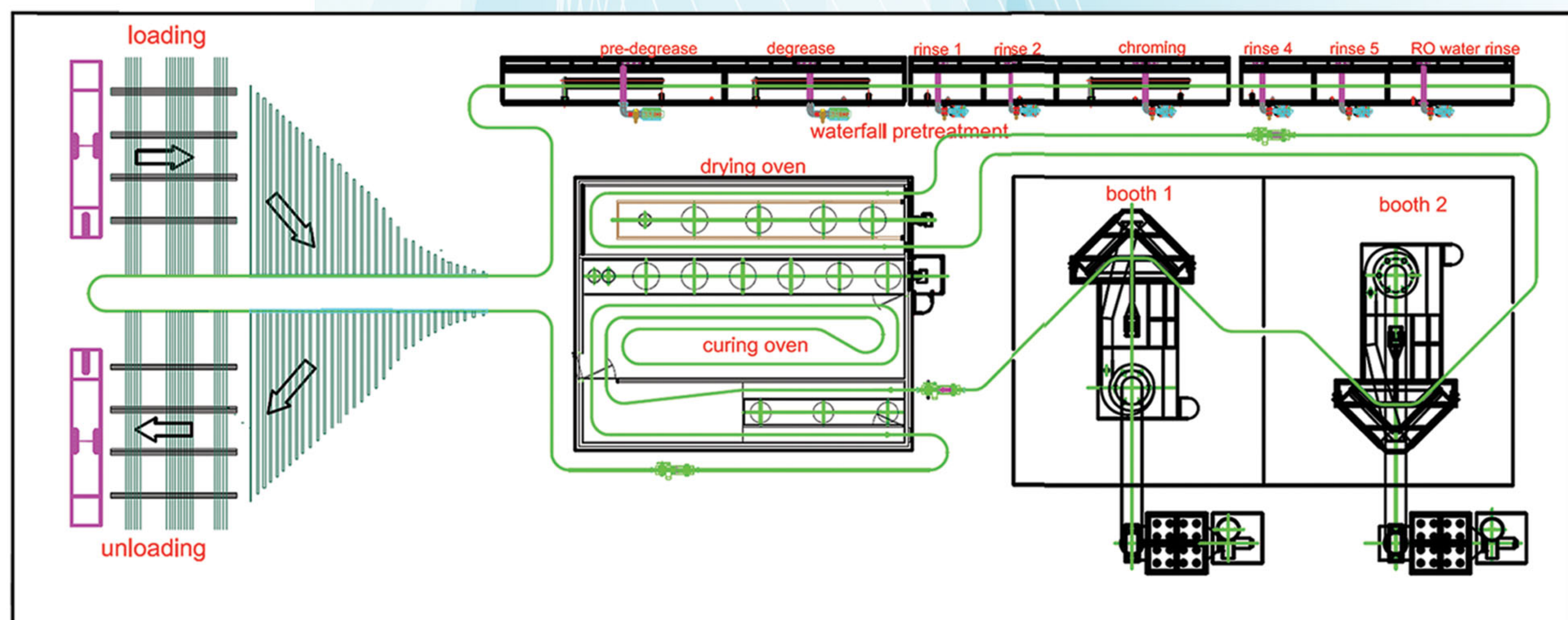


## Vertical Powder Coating Line

This type of powder coating line is especially designed for aluminum profile. The nominal capacity of such line can reach to 40-60 tons per 10 working hours, considering the weight of 4 Kg for a profile of 6 m long. In vertical line, the aluminum profiles position are changed in loading section from horizontal into vertical. Then the profiles go through the coating process and finally at unloading section, the profiles' position changes into horizontal again.



Quite excruciating ,  
but we did it!



Vertical Powder Coating Line Performance Video









## ELCOAT Powder Coating

Metal objects are electrostatically coated with powder paint. Usually you have seen its use in Home Appliances, office furniture, Garden equipment, Car accessories, connections, Wire goods and Metalworks. There is a variety of powder, from which you can choose. The final selection depends on the final use requirements of the coated surface.



ELCOAT  
is dedicated to Quality!

RAL 1001	RAL 1013	RAL 1014	RAL 1015	RAL 1018	RAL 1021	RAL 1028
RAL 1035	RAL 1036	RAL 2004	RAL 3000	RAL 3004	RAL 3012	RAL 3015
RAL 3020	RAL 4004	RAL 4007	RAL 4008	RAL 5002	RAL 5005	RAL 5015
RAL 5018	RAL 6005	RAL 6018	RAL 6021	RAL 6024	RAL 6029	RAL 7001
RAL 7005	RAL 7016	RAL 7021	RAL 7024	RAL 7032	RAL 7035	RAL 7040
RAL 7043	RAL 8017	RAL 8019	RAL 9005	RAL 9006	RAL 9007	RAL 9016





## Fanavar Group of Industries

Powder Coating Equipment Supplier

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