Electrostatic Powder Coating System

K1 Series Innovative Powder Coating System

-Remarkable reduction of powder consumption due to excellent transfer efficiency!

-The anti-static powder hose eliminates risk of shock to workers and removes possible safety hazards, such as gap sparking or fire.

-Rapidly cleans and purges all powder from inside of the gun and powder hose with a one touch button!

-Maximizes electrostatic efficiencies due to improved methods of electrostatic generation.

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K1 Control Unit

– Conveniently select between coating modes with the touch of a button.

- ❖ Complex Mode
- ❖ Recoat Mode
- ❖ K–Pulse Mode
- ❖ Flat Coating Mode

K1 Series

It adopted easy method for convenience of user

- Well balanced analog & digital system!
- Maximum electrostatic power and control for reproducible uniform coatings!
- Greatly improved performance and efficiency with KCI's integrated technology!
- One step upgraded differentiation from existing powder coating system!

K1

K1-6

K1 Manual Coating System

- KCI's newly integrated technology can lead to powder savings due to excellent transfer efficiency, easily penetrating corners
- KCI Anti-static powder hose is developed with KCI technology and it can prevent risk of fire by removing spark or electrical arc.
- Prevents safety accidents caused by electrostatic shocks to the worker.
- The new technology of one touch button installed in the gun enables you to clean inside of the gun and powder hose easily and quickly.

K1-6 Box Feeder Coating System

- Convenience at frequent color replace
- Quick color replace
- Powder box is possible to use itself
- Noise is less by vibration of electric vibrator and perfectly use powder in box

Technical Data

- Weight : 460g(16.2oz.)
- Length : 340mm(1.1ft.)
- Power Source : AC220/110V
- Frequency : 50~60Hz
- Power Consumption : 30W
- Voltage Output : 100kV
- Max. Current Output : 180㎂
- Polarity : Negative
- Max. Injection Capacity : 650g(22.9oz.)/Min.
- Air Consumption : Max. 13N㎥/h
- Temperature Rage in use : −10~50℃(14~122°F)

K1-3

K1-4

K1-3 Mini Hopper Coating System

- Convenient at tiny products coating
- Mini hopper choice of small capacity (4 liters)
- Size of hopper is small that removal is convenient
- Assembly and dissolution are easy that clean is easy

K1-4 Cup Gun Coating System

- It is small cup type hopper and use at sample coating of small quantity at laboratory
- Discharge rate control by simple operation
- Spraying powder evenly automatically
- Coating powder quantity by 20~250g(0.7~8.8 oz.)
- Cleaning is easy and convenient to separate

K1 Disassembled Manual Gun Unit

K1-7

Automatic Coating System (Installed on reciprocator)

- Performs flawlessly, producing a uniform and smooth finish.
- Remarkable reduction of powder consumption due to excellent transfer efficiency!
- Rapidly cleans and purges all powder from inside of the gun and powder hose with a one touch button!
- Removes spark and reduced cleaning time using KCI anti-static powder hose
- Maximizes electrostatic efficiency due to new electrostatic generation method

New Antistatic Powder Hose

Powder Coater can work safely using the anti-static powder hose developed by KCI removing any spark phenomena created by powder friction.

Model No. A1116
Diameter (Φ11 X 16 mm), Antistatic

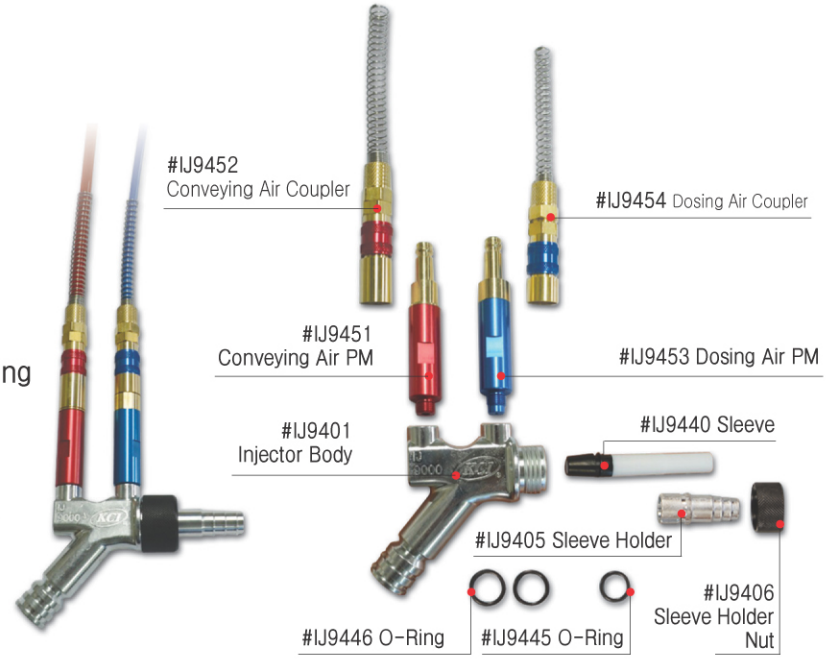
〈Advantages of anti-static powder hose〉

- It prevents safety accident caused by electrostatic shock.
- The powder in the KCI's antistatic powder hose can be easily cleaned by removing static force and allows for rapid color change.
- Prevents electro-static build up in the hopper during powder coating and reduces powder build up inside the powder hose.
- New powder hose design greatly increases work life expectancy

New

IJ9000 Injector Unit

- Its output of powder is bigger than that of existing injector.
- Powder can easily penetrate every corner during powder coating.
- Injector pump produces high quality coatings
- Worker can easily control the spray pattern of powder.

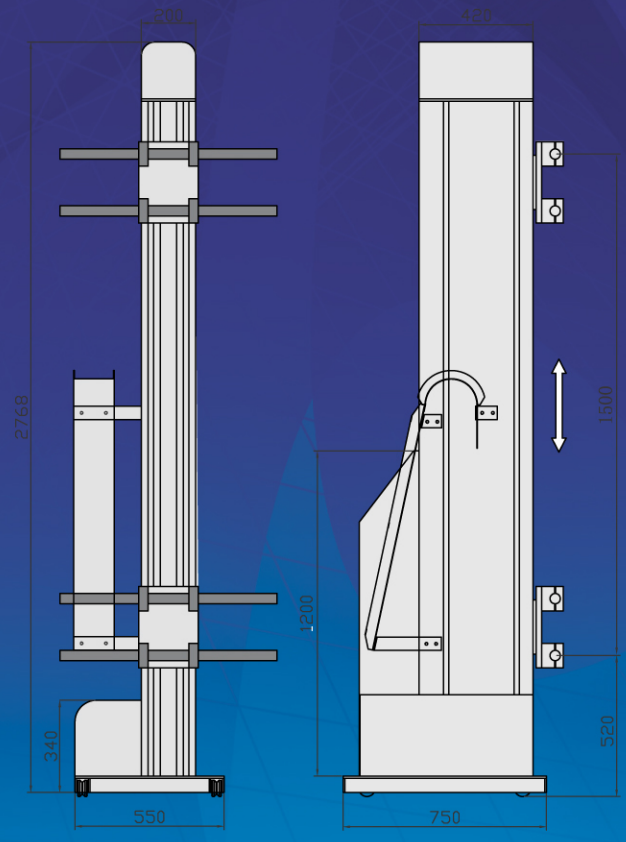


Reciprocator

Precise and consistent system

PLC Touch Screen

-Memory Function



KCI - KSR1, KSR2 Reciprocator Applies servo motor and timing belt

- Various sizes depending on the size of coating objects (Up/down stroke: 1500, 2000, 2500, 3000mm)
- Can vary up/down stroke freely depending on the size of coating objects and either manual or automatic forwarding/backwarding is possible.
- Precise reciprocating motion and free speed adjusting by using servo motor and timing belt present optimized quality.
- Gun shaking during up/down motion has been minimized by using robust and smooth profile for central axis.
- User can select mode type or manual type depending on desired convenience and convenient PLC touch panel is applied.
- Malfunction caused by sensor trouble has been outstandingly eliminated by applying servo motor.

*KCI-KSR1 : Up/down Auto-Reciprocator
*KCI-KSR2 : Up/down, forwarding/backwarding (Y, Z axis) Auto-Reciprocator

Technical Data

■ Voltage : AC200~240V / 50~60Hz ■ Speed : 10~60m/Min. ■ Power Consumption : 1kw ■ Working Temperature : -10~50℃(-4~140°F)

KCI-ATS-2101
Automatic Powder Sieving System

❶ Recovery Hose Nipple
❷ Mini-Cyclone
❸ Driving Motor
❹ Centrifugal Separator
❺ Control Unit
❻ Waste Bin
❼ Hopper Unit(200L)
❽ Auto Sensor

KCI-P-605

KCI-ATS-2101 Automatic Powder Sieving System

- Automatically separates and removes foreign materials
- Excellent large volume transport capacity
- Automatic supply of powder
- Easy to operate and clean
- No vibration, noise or dust
- Safety features and easy to access for maintenance
- Automatic control by powder sensing sensor

Technical Data

- Voltage : AC380V, 3P4W / 50~60Hz
- Shifting Rate : Max. 176.4oz/Min.
- Hopper : 200L
- Power Consumption : 1.5kW
- Sieve Screen : 30~120 Mesh
- Size(WxLxH) : 1,862 x 815 x 2,515 mm

KCI-P-605
Automatic Control Cabinet

- Control cabinet of automatic control unit for dust prevention

  * KCI-P-605 : Cabinet with a built-in touch screen
  * KCI-P-605-1 : Standard cabinet

Technical Data

- Voltage : AC220/110V
- Size(WxLxH) : 1,300 x 550 x 1,825 mm(P-605)
  1,060 x 550 x 1,825 mm(P-605-1)
- Control Unit(Max.12units)

KCI Easy powder coating system

Quick and clean color change, clean working environment

1. ENGINEERING PLASTIC BOOTH

- Engineering special plastic used for KCI plastic booth minimizes coat settlement on the surface of the booth so fast cleaning is possible.
- Cleaning air system in the booth floor prevents powder accumulation and makes fast cleaning.
- Customized production for customer specifications is possible.

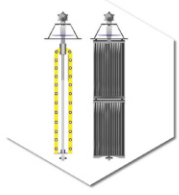
2. CYCLONE

- Cyclone of which inside is specially coated performs excellent color change and powder sieving.
- Sieving machine (a double mesh is applied) integrated in cyclone guarantees high efficient powder sieving and convenient working condition.
- Uses peach valve (made in Germany) which is high efficient powder carrier.

3. CLEANING BOOTH

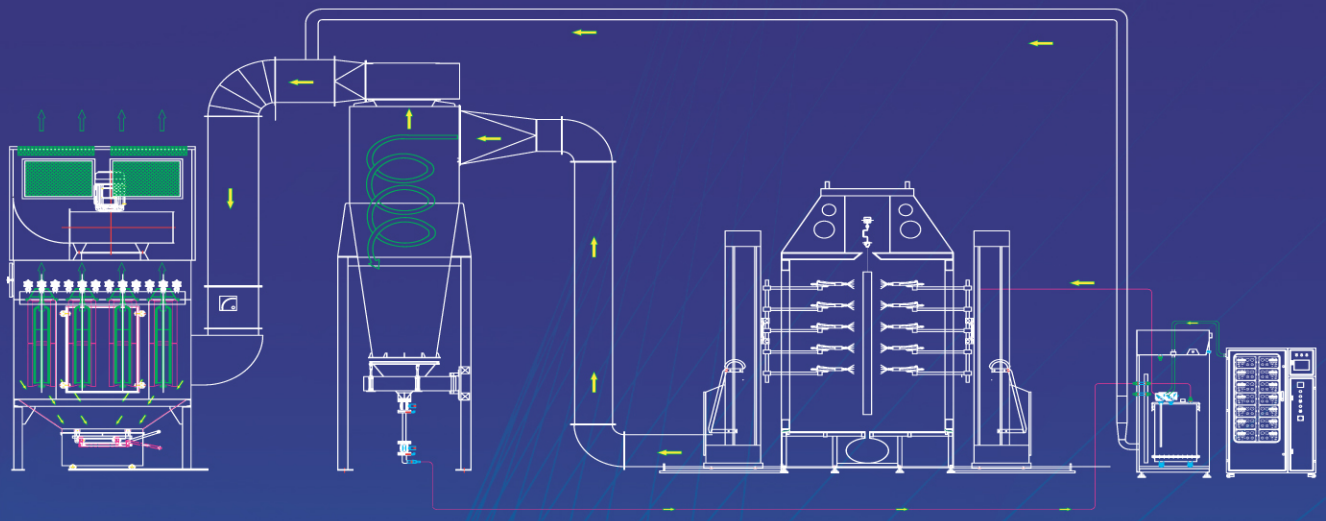
- Continuous and consistent powder spraying.
- Quick cleaning system, clean working environment is guaranteed.
- Perfect harmonization of cleaning booth, injector and collecting system.

4. DUST COLLECTOR



- High speed air device in the filter prevents powder adhesion and increases dust collecting capability.
- By using PTEF filter, the dust collector prevents powder adhesion so quick cleaning is possible and life cycle of the filter is long.
- Uses fan which has long life cycle due to low noise and less vibration (Siemens motor is applied to the fan).

• Installation area (WxLxH) : 5,600 x 9,300 x 6,000 mm
• Inside of the booth (WxLxH) : 2,000 x 6,500 x 2,400 mm
• Power consumption : 40kW, 3P4W, 50Hz~60Hz
• Compressed air consumption: 5.3N㎥/min.
• Air pressure : 7kg/㎠



KCI's EASY powder coating system is program mode system for various coating objects. It performs quick color change and high efficient powder sieving by applying special coating inside cyclone and using engineering special plastic booth. It is most ideal and modernized system as forwarding/backwarding and up/down of reciprocator is automatically converted and auto-gun minimizes powder waste in unnecessary space by sequential spraying.

- Engineering special plastic booth
- Cyclone of which inside is specially coated performs excellent powder sieving
- Can integrate and control all components and range in touch screen
- Design which minimizes powder waste
- Optimized powder coating condition for high quality coating
- High efficient dust collector with high speed rotation air device embedded

5. POWDER COATING SYSTEM (KCI – K1-7)

- Even powder spraying and maximized settlement efficiency.
- Saving powder and sophisticated coating.
- Various kinds of parts with quick delivery, economic parts cost.

6. CONTROL PANEL (KCI – EP – 607)

- Centralized controlling over all components by using PLC and touch panel.
- Moded program detects various coating objects and changes of conveyor speed automatically and selects up/down stroke, forwarding/backwarding of reciprocator and coating gun automatically to assure consistent coating quality and convenient working condition.
- Classifies by mode depending on the size of coating objects to memorize (up to 200 models).

7. RECIPROCATOR

Up/down Auto-Reciprocator (KCI-KSR1)
Up/down, forwarding/backwarding (Y, Z axis) Auto-Reciprocator (KCI-KSR2)

- Solid and simple design guarantees semi-permanent durability and convenient maintenance.
- Servo motor and timing belt assure correct and smooth motion as well as low noise.
- Convenient and consistent working condition is guaranteed by
  applying moded program for various coating objects.
- Switching from manual mode to auto-mode and vice versa is easy and simple.
- Stroke: 1500, 2000, 2500 and 3000mm