ARTECH SOLAR

Artechs automatic system for coating of crucibles helps you reduce costs and improve the quality of your final product.

Artech Coating systems

- Every crucible will be coated with high repeatability and uniform thickness ensuring consistent quality on every crucible.
- Avoid costly furnace repairs due to cracked crucibles.
- Minimize pollution of ingots and inclusions by reducing oxygen entering through the coating layer.
- Full process control reduces slip usage per crucible.
- Flexible, fast and easy to change or modify spray patterns.
- Full control of coating thickness on different crucibles areas. In-built flexibility to make corner reinforcement or other variations.

Three different systems, with different capacities are available to fit your production need.



System	Crucible size	Capasity per day, 8 hour	Degree of automation	Data
Mini	G4 or G5	8*	Coating by robot, manual loading	Logging
Medium	G4 or G5	16*	Coating by robot, manual loading	Logging
Large	G4 and G5	48*	Fully automated	Logging and tracing

* based on 4 layer recipee



Large

One cabinet with four separate crucible coating stations.

One coating robot on rail inside cabinet.

One loading robot outside of cabinet.

Coating feed system which delivers coating-slip to the spraying robot.

Flexible robot program makes it possible to compose individual spraying patterns.

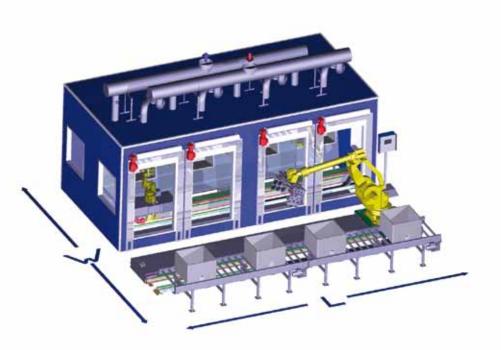
Full tracing and logging of crucible related data.

Options:

- Tracking
- Temperature and humidity control

Artech Coating systems

- Slip viscosity control
- Integrations with other systems
- 0EE
- Maintenance plan



Technical data

System	Dim	Dim	Dim
Footprint	L = 8500 mm	W = 8700 mm	H = 4800 mm
Power Supply	400 V, N+G	63 A (2x)	
CDA	7 Bar		
Loading robot on rail	Fanuc	M900iA	260L
Spraying robot on rail	Fanuc	МбіВ	6S
PLC	Siemens	300 Series	



Artech Coating systems

Medium

Cabinet with one coating station and one drying station.

One coating robot inside cabinet.

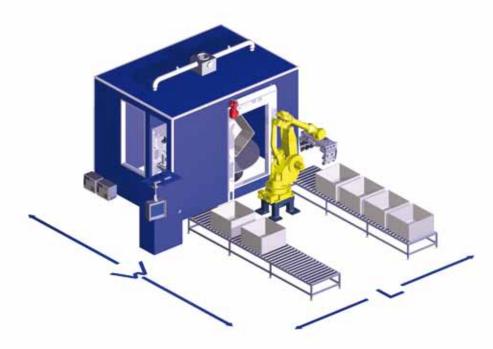
One loading robot outside of cabinet.

Coating feed system which delivers coating-slip to the spraying robot.

Flexible robot program makes it possible to compose individual spraying patterns.

Can be expanded with full tracing and logging of crucible related data.

Can be expanded with more cabinets and conveyors to handle higher volumes.



Technical data

System	Dim	Dim	Dim
Footprint	L = 6000 mm	W = 8700 mm	H = 4800 mm
Power Supply	400 V, 63 A		
CDA	7 Bar		
Loading robot	Fanuc	M900iA	260L
Spraying robot	Fanuc	МбіВ	65
PLC	Siemens	300 Series	



Artech Coating systems

Mini

Cabinet for one crucible.

One coating robot inside cabinet.

Can be expanded expand with one loading robot outside of cabinet.

Can be expanded with more cabinets and conveyors to handle higher volumes.

Coating feed system which delivers coating-slip to the spraying robot.

Flexible robot program makes it possible to compose individual spraying patterns.

Can be expanded with full tracing and logging of crucible related data.



Technical data

System	Dim	Dim	
Footprint	L = 5000 mm	W = 3200 mm	H = 4800 mm
Power Supply	400 V, 63 A		
CDA	7 Bar		
Loading robot	Optional		
Spraying robot	Fanuc	M6iB	65
PLC	Siemens	300 Series	



Artech Solar is a division in the Artech Group. Since 1998 we have developed and delivered manufacturing solutions for ingot cutting, grinding, brick gluing, crucible coating and ingot side-cut recycling to leading solar companies worldwide.

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