

# Infusion

YOUR QUALITY PARTNER



[www.infusionsol.com](http://www.infusionsol.com)

## ABOUT US

Infusion Green Solutions Pvt. Ltd. is a reputable supplier known for its wide range of products including Automatic solar module production lines, solar PV labs, EVA testing equipment, solar cell testing tools, solar inverter & battery testing devices, onsite PV module testing solutions, electrical safety testers and consumables for solar module laminators.

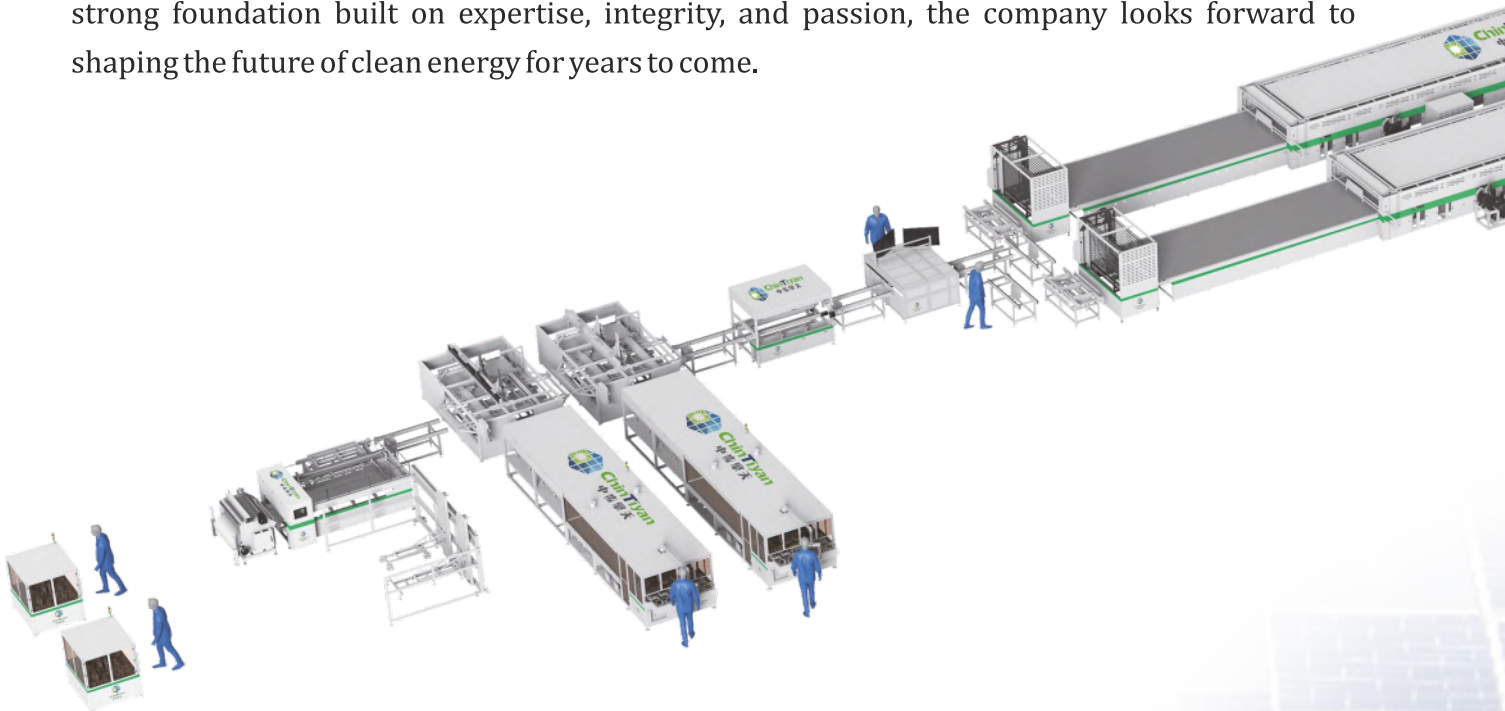
Founded by a team of passionate individuals with extensive expertise in solar technology, the company set out to address the growing demand for sustainable energy solutions.

Driven by a commitment to innovation and excellence, Infusion Green Solutions quickly gained recognition for its high-quality products and comprehensive range of offerings. From solar module production lines to advanced testing equipment, the company catered to the diverse needs of the industry, providing turnkey solutions with after sales installation and maintenance services.

What set Infusion Green Solutions apart was not just its products, but also its unwavering dedication to customer satisfaction. The company prioritized building long-term relationships with clients, offering personalized support and guidance every step of the way.

As the renewable energy market continued to evolve, so did Infusion Green Solutions. With a focus on continuous improvement and staying ahead of industry trends, the company remained at the forefront of innovation, introducing new technologies and solutions to meet the changing needs of its customers.

Today, Infusion Green Solutions stands as a symbol of excellence in the renewable energy sector, recognized for its quality products, exceptional service, and commitment to sustainability. With a strong foundation built on expertise, integrity, and passion, the company looks forward to shaping the future of clean energy for years to come.



## BUSINESS PROFILE

1

Solar PV Reliability Lab

2

Solar PV Assembly Line

3

Solar PV Inverter Testing

4

Battery Testing

5

EVA, POE & Backsheet Testing

6

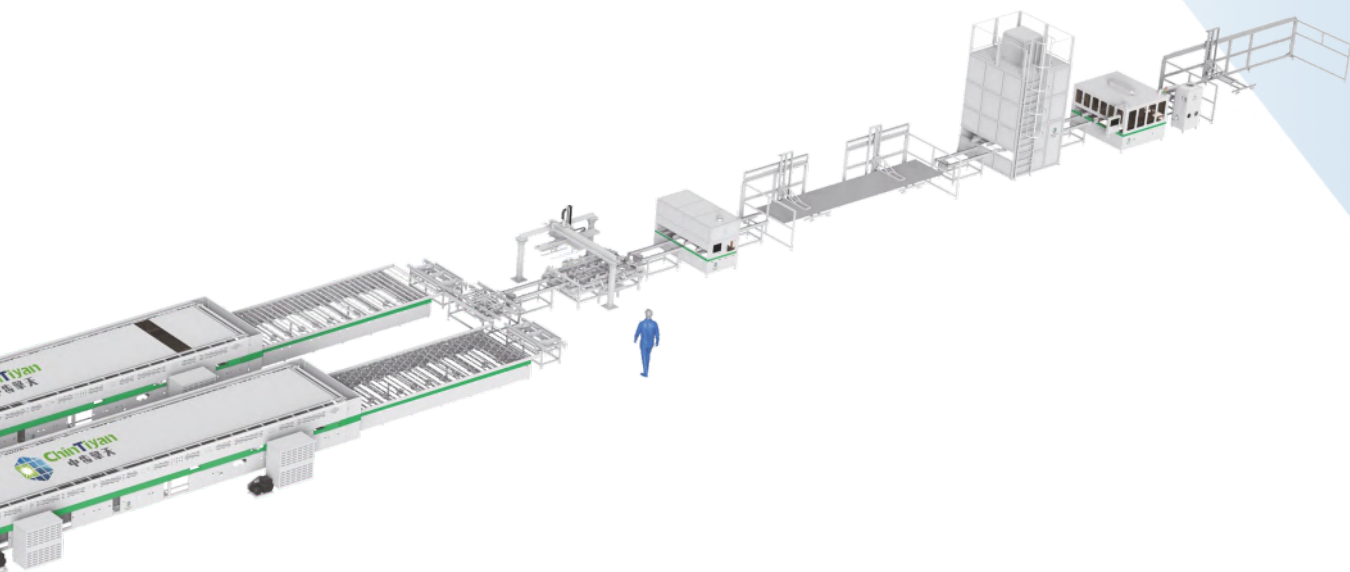
Onsite Testing

7

IQC, PQC & FQC Testing

8

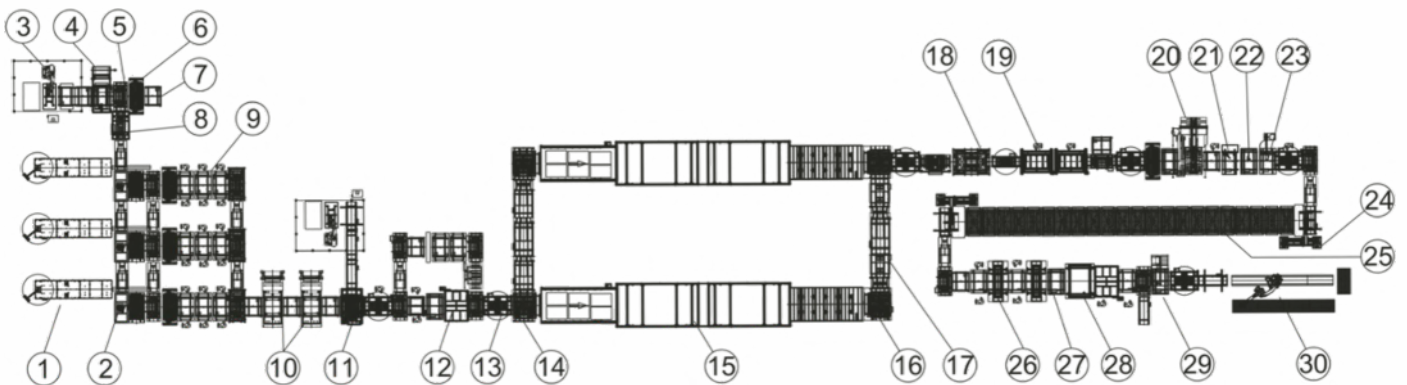
Consumable & Machine Parts



## OUR BUSINESS PARTNER



# Automatic Production Line CAD Layout Diagram



- |  |   |   |
|--|---|---|
| ① Fully Automatic Stringer                     | ② Robot Layup Machine                                 | ③ Automatic Glass Loading Machine                       |
| ④ EVA Cutting and Laying Machine               | ⑤ 90° Turning Transfer Machine                        | ⑥ Buffer Machine  |
| ⑦ Transfer Machine                             | ⑧ Automatic Template Placement Machine                | ⑨ Busbar Soldering                                      |
| ⑩ Secondary EVA/TPT Cutting and Laying Machine | ⑪ Double-Glass Laminator                              | ⑫ EL Testing Machine                                    |
| ⑬ Horizontal Rotation Machine                  | ⑭ Mixture Feeder                                      | ⑮ Lamination Machine                                    |
| ⑯ Layup Machine                                | ⑰ Post-Lamination Transverse Folding Transfer Machine | ⑱ Automatic Edge Trimming Machine                       |
| ⑲ Flip Testing Table                           | ⑳ Gluing and Framing Integrated Machine               | ㉑ Junction Box Glue Dispensing and Installation Machine |
| ㉒ Junction Box Welding Machine                 | ㉓ Automatic Junction Box Glue Filling Machine         | ㉔ Curing Loading/Unloading Machine                      |
| ㉕ Curing Chain Plate Machine                   | ㉖ 180° Flip Machine                                   | ㉗ Alignment Machine                                     |
| ㉘ Insulation IV Tester                         | ㉙ Automatic Labeling Machine                          | ㉚ Robot Sorting and Packing Machine                     |

# MODULE MANUFACTURING PROCESS



**Auto Slicing Machine**  
Cell slice



**Soldering Bussing Machine**



**Auto Layup Machine**  
Cell in series to form a cell ray



**Laminator**  
Laminator the stacks




**EL Detector**



**Auto Busbar Welding Machine**  
Stacking rows to form a battery array




**Edge Trimming Machine**



**Fully Auto Frame Machine**  
Framing increase module intensity



**Junction Box Equipment**  
Link with external line



**Auto Sorting Machine**



**Online Marking Machine  
Labelling Machine**  
Attaching product information



**IV Detector**  
Output power detection

## SOLAR PV RELIABILITY LAB EQUIPMENT



Mechanical Load Tester IEC61215,  
UL1703, IEC62782 & IEC TS 62782



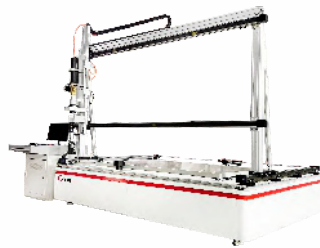
Thermal Cycling / Humidity  
Chambers IEC61215, UL1703



UV Preconditioning Testing Machine  
IEC61215, IEC61646



Steady State Sun Simulator  
IEC61215, IEC61646



Hail Impact Testing Machine  
IEC61215, IEC61646, UL1703



Cord Anchorage Torsion Testing  
Machine IEC61215, IEC61646



Bypass Diode Thermal Test



PID Test Power Supply



Ball Drop Tester

# IEC61215 & IEC61730 PV Module Testing



Peeling Strength and Lap shear Testing Machine IEC61730-2



Module Breakage Tester IEC61730



Reverse Current Overload Tester



Wet Leakage Current Testing Machine IEC61215



PV Module Cut Susceptibility Testing Machine IEC61730-2, UL1703



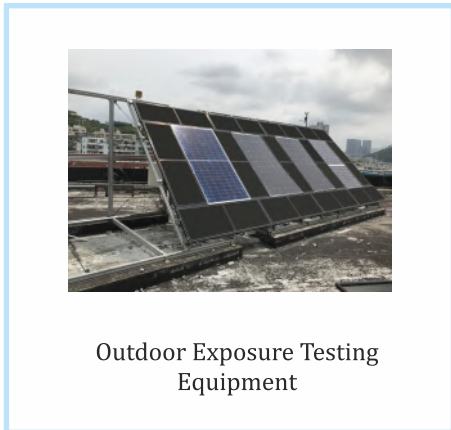
PV Module Salt Mist Aging Testing Machine IEC61701



Conduit Bending Tester



Terminal Box Knockout Tester



Outdoor Exposure Testing Equipment

## EVA, POE & BACKSHEET TESTING



Lab Scale Laminator



Yellowness Test Chamber



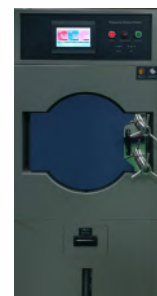
UV Aging Test Chamber



Tensile & Elongation Test



Soxhlet Extraction Unit



Pressure Cooker Test



Peel Strength Testing



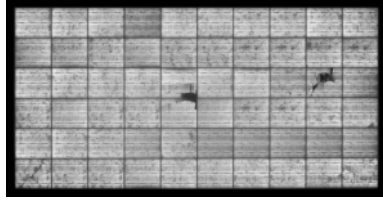
Hot Air Oven



Backsheet Scratch Test

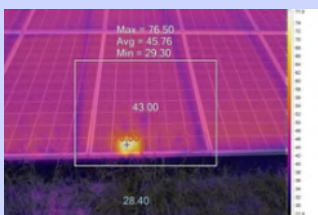

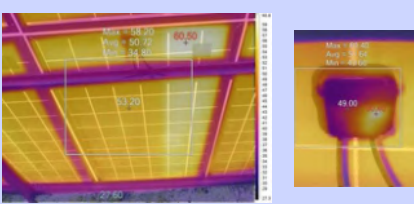



# ONSITE TESTING EQUIPMENT



Portable EL Inspection System

VERSION		ECONOMY	STANDARD	PREMIUM
Camera Base Model		Nikon D5300	Nikon D5300	Nikon D5600
Laptop & Software		No Laptop, Wireless Camera Control App	Intel Core i3 4 GB RAM, Wireless App + ELAssistant software	Intel Core i5 8 GB RAM, Wireless App + EL Assistant software
DC Power Supply	Input (AC)	230V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
	Output (DC)	0-60 V, 0-20 A	0-60 V, 0-20 A	0-60 V, 0-20A
Battery & Charger (Spare)		1 set	1 set	2 set

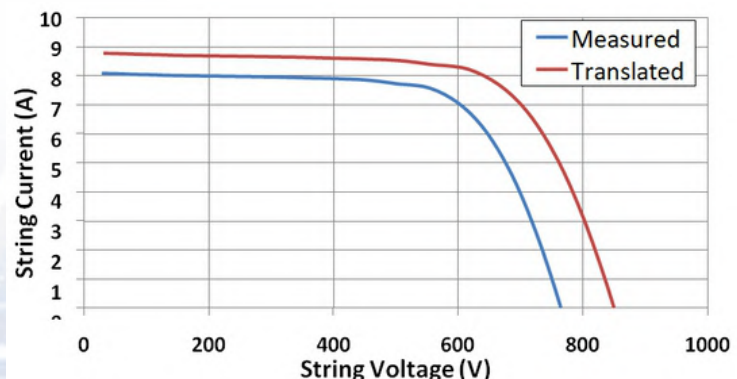
Thermal Image	Visual Image of Panel	Remarks
		Partial shading is causing hot spot in bottom row cell
		Bypass Diode shorted (needs replacement)



Thermal Imager



IV Curve Tracer



# IQC, PQC & FQC TESTING



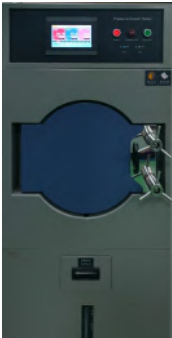
Automatic Solar Cell Peel



Ball Drop Test



Cell EL



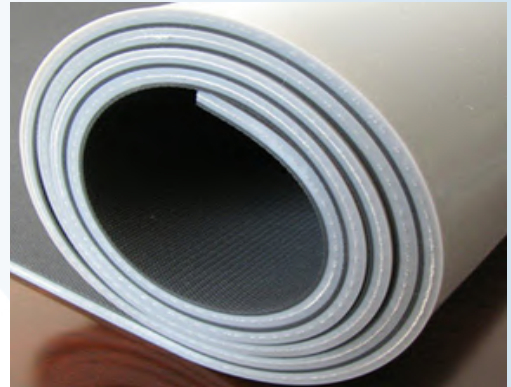
Pressure Cooker Test



Solar Cell Tester

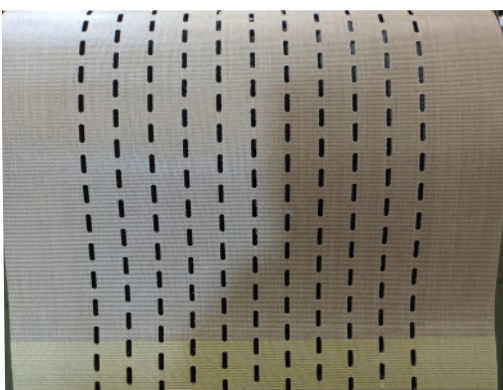
## CONSUMABLES FOR SOLAR PANEL INDUSTRY

**Silicone Membrane  
for Solar Module  
Laminator**



**PTFE Coated Fiberglass  
Fabrics Sheet for Solar  
PV Module Laminator**

**Silicon O Ring for  
Solar PV Module  
Laminator Shape :  
Circular & Square  
Range : 2 MM-24MM**



**Stringer  
Belts**

# INFUSION KEY CUSTOMERS

## 1. PV Reliability Lab Equipment

- Steady State Solar Sun Simulator
- UV Preconditioning Test Chamber
- Mechanical Load Tester
- Hail Impact Testing
- Damp Heat Test Chamber
- Salt Mist Aging Test Chamber
- Robustness of Termination Test
- Peel Strength Tester
- Module Breakage Tester
- Thermal Cycling & Humidity Freeze Test Chamber
- Cut Susceptibility Testing
- Bypass Diode Thermal Test
- Reverse Current Overload Test
- Wet Leakage Current Tester
- Outdoor & NMOT Measurement

## 2. Solar PV Inverter

- AC Power Source
- AC & DC Load
- Solar Array Simulator
- Electrical Safety Tester
- Grid Simulator
- Power Analyzer

## 3. Automatic Solar Module Assembly Line

- Solar Module Laminators
- Tabber Stringer
- Auto Bussing
- Automatic Layup Station
- NDC
- Cell Cutting
- A+A+A+ Solar Sun Simulator
- EVA & TPT Cutting Machine

## 4. Onsite Solar Panel Testing Equipment

- IV Curve Tracer
- EL Inspection
- Thermal Imager

## 5. EVA, POE & Backsheet Testing

- Lab Scale Laminator
- Yellowness Test Chamber
- UV Aging Test Chamber
- Tensile & Elongation Test
- Soxhlet Extraction Unit
- Pressure Cooker Test

## 6. EVA, POE & Back Sheet Testing

- Gel Content Test
- Lab Scale Laminator
- Pressure Cooker Test
- Tensile & Elongation Test
- UV Aging Test Chamber
- Yellowness Test Chamber

## 7. IQC, PQC & FQC TESTING

- Automatic Solar Cell Peel
- Ball Drop Test
- Cell EL
- Pressure Cooker Test
- Solar Cell Tester

## 8. Consumable & Machine parts

- Silicon Membrane
- O Ring
- Teflon Sheet
- Stringer Belt

## Infusion Green Solutions Private Limited

Office Add: 524 Aditya High Street, Delhi-Meerut Expressway NH24,  
Lalkuan Ghaziabad India - 201009

Reg. Office: C-1 Plot No. 898 Sector- 5 Vaishali, Ghaziabad Uttar Pradesh India 201010

Mo: +91-9457987075, +91-9716066071 | Tel: +91 120 6924588

Mail: sales@infusionsol.com | Web: www.infusionsol.com