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捷佳伟创
SHENZHEN S.C.

股票代码: 300724

200,000+ m²

PVCellTech USA Conference



SHENZHEN S.C NEW ENERGY TECHNOLOGY CORPORATION

S.C's equipment is used in nearly **every solar cell** produced worldwide.

- **1st** in Asian market.
- **>50%** market share of the main processing equipment. About **70%** global market share for TOPCon lines.
- **200** cell manufacturers and **2,000** solar cell lines worldwide.
- **16** countries/regions footprint: India, Thailand, Korea, Vietnam, Russia, Singapore and Laos, etc.



- Number of Employees: **5,000+**
- R&D Staff: **1,300+**
- **500+** patents
- 185 patents under application
- 53 software copyrights



The Leader in Innovation of Solar Cell Manufacturing Equipment



PERC

- ❑ Market shares for PERC wet-texturing equipment and PECVD equipment have both exceeded 80%;
 - ❑ PERC cell manufacturing equipment is the undisputed leader in the PV industry;
-



PERC+/TOPCon

- ❑ The company has successfully developed PERC+ and TOPCon full process equipment with multi process routes, which could meet the mass production requirements and the technical specifications are ahead of other similar equipment manufacturers;
 - ❑ Building on its leading position in PERC cell manufacturing equipment, S.C has become China's only leading provider of turnkey solutions for PERC+ and TOPCon production lines;
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HJT

- ❑ The RPD series, in-line PECVD, horizontal PECVD, CATCVD and other core equipment are driving the transition from conventional HJT to high-efficiency HJT technology;
 - ❑ A provider of integrated turnkey solutions for HJT projects;
 - ❑ A pioneer in developing core equipment for HJT-Perovskite solar cell in the industry;
-

Solar Cells Comparison

Parameter	Solar Cell Category	TOPCon	HJT(SHJ)	TBC
Theoretical Max. Efficiency		28.7%	27.5%	28.98%
Laboratory Max. Efficiency		26.65%	26.81%	27.06%
Current Mass Production Efficiency		25.5%	25.5%	26.0%
Potential Mass Production Efficiency		26.8%	27.0%	27.2%
Production Yield		97.5%	96.0%	92.0%
Equipment Investment Ratio		1	x2.6	x1.5
Max. Production & Ready for Production		>800GW	~60GW	~40GW
Current Ag Paste Consumption		13mg/W	8mg/W _(low temp)	18mg/W
Labour Force (Head Count)		100men/GW	90men/GW	120men/GW
Non-wafer Cost (Mainland China Situation)		US\$2.0cent/W	US\$3.1cent/W	US\$2.6cent/W

Selected TOPCon Customers Using the PECVD Route



140+ GW
15+ Turnkey Customers

adani



M·Cells
鸿禧能源

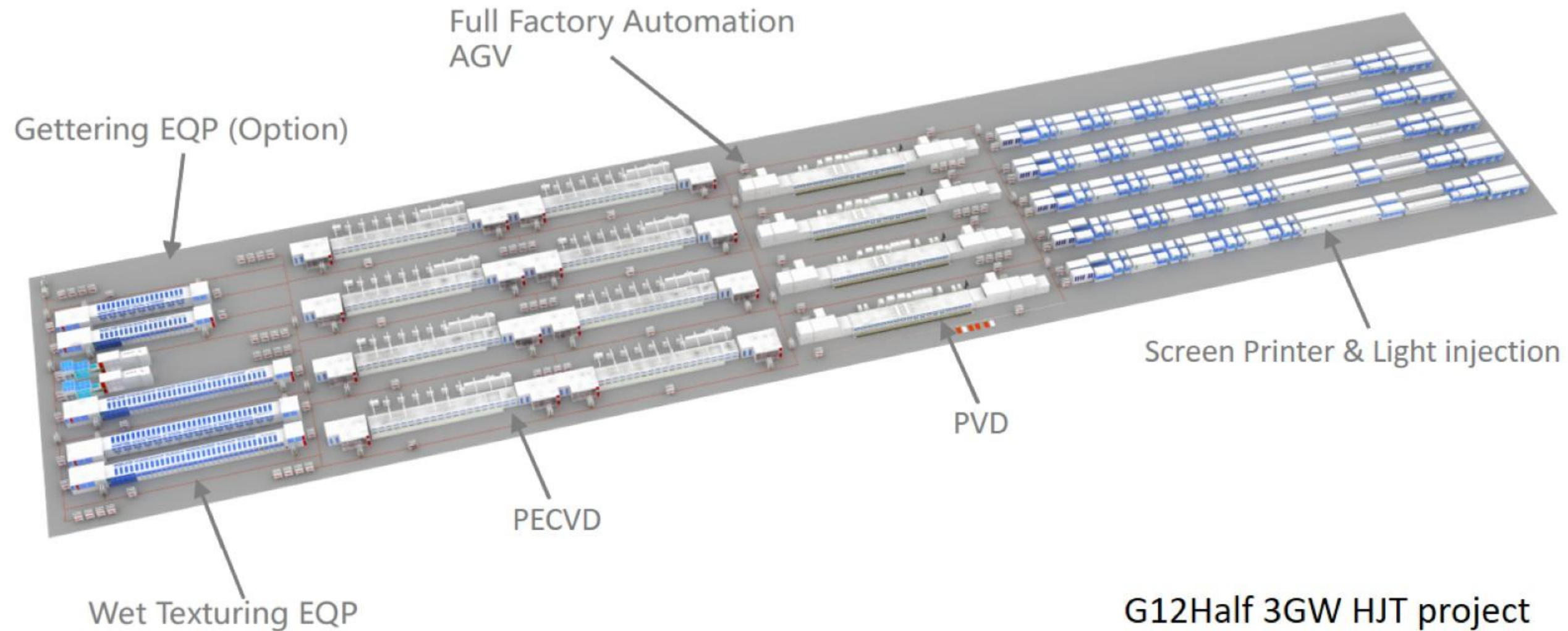


WAAREE®
One with the Sun



No.	Customer	Country	Process	Capacity	Year
1	Jupiter	India	Poly	200MW	2015
2	Adani	India	Poly	700MW	2016
3	Tata	India	Poly	500MW	2017
4	Premier	India	PERC	1GW	2020
5	Adani	India	PERC	2GW	2020
6	CECEP	China	PERC	1GW	2021
7	Smart	Turkey	PERC	500MW	2024
8	Waaree	India	PERC	1.5GW	2024
9	Solarspace	LAOS	TOPCon	12GW	2023
10	Adani	India	TOPCon	2GW	2023
11	Waaree	India	TOPCon	5GW	2024
12	Ori solar	China	TOPCon	4GW	2023
13	Luni solar	China	TOPCon	7GW	2023
14	Safety New Energy	China	TOPCon	2GW	2023
15	M-Cell	China	TOPCon	4GW	2023
16	ZQi solar	China	TOPCon	3.5GW	2024
17	BAJ solar	China	TOPCon	12GW	2023
18	Voyager PV	China Taiwan	TOPCon	500MW	2024
19	HYUNDAI	Korea	TOPCon	1GW	2025
20	TOYO	Etheapia	TOPCon	3GW	2025
21	CW	Turkey	TOPCon	1.2GW	2025
22	BYD	China	HJT	250MW	2024
23	Solarspace	USA	HJT	1.2GW	2025

HJT Turnkey Solution



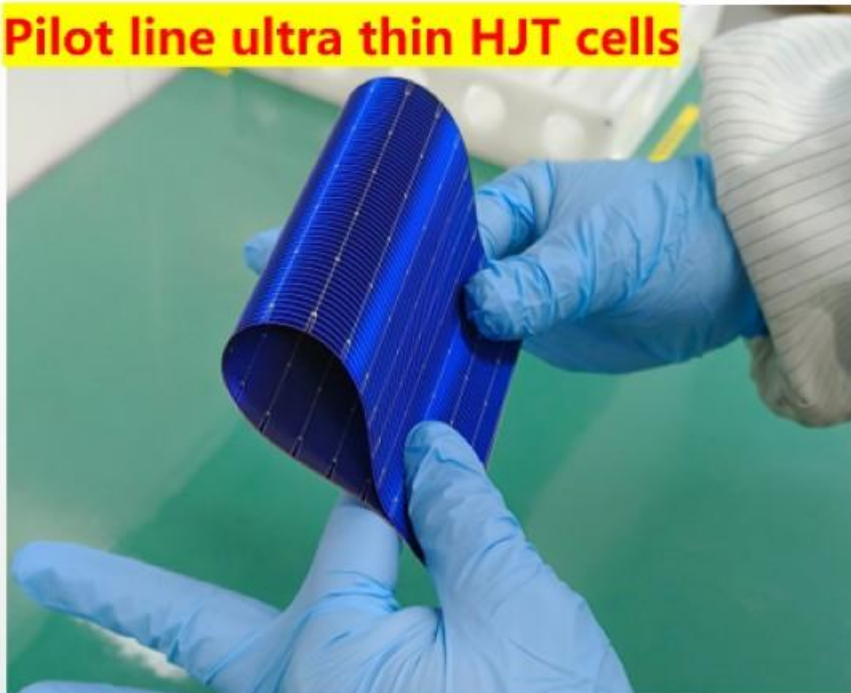
G12Half 3GW HJT project

50um Ultra-Thin HJT Cells

Pilot line ultra thin HJT cells



Pilot line ultra thin HJT cells



	Data
Size	N type 210 half cell
Thickness	50-60um
Weight	~2.9g
CE	25.50%
Power	5.6W
Power/Weight	1.9W/g

N-type HJT

- Efficiency: **25.5%**
- 210 half-cell (2.9g) → **5.6W output**

P-type HJT Progress

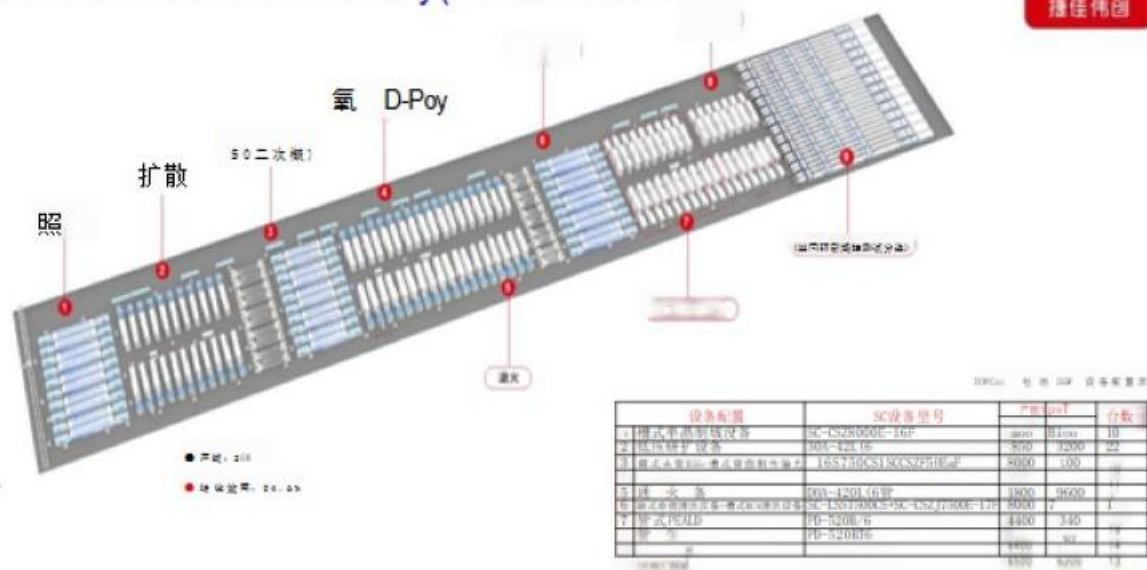
- Based on existing equipment + front junction structure
- Thickness: **60μm**
- Efficiency: **~24.5%**
- Ongoing optimization across all processes

N-TOPCon Production Line

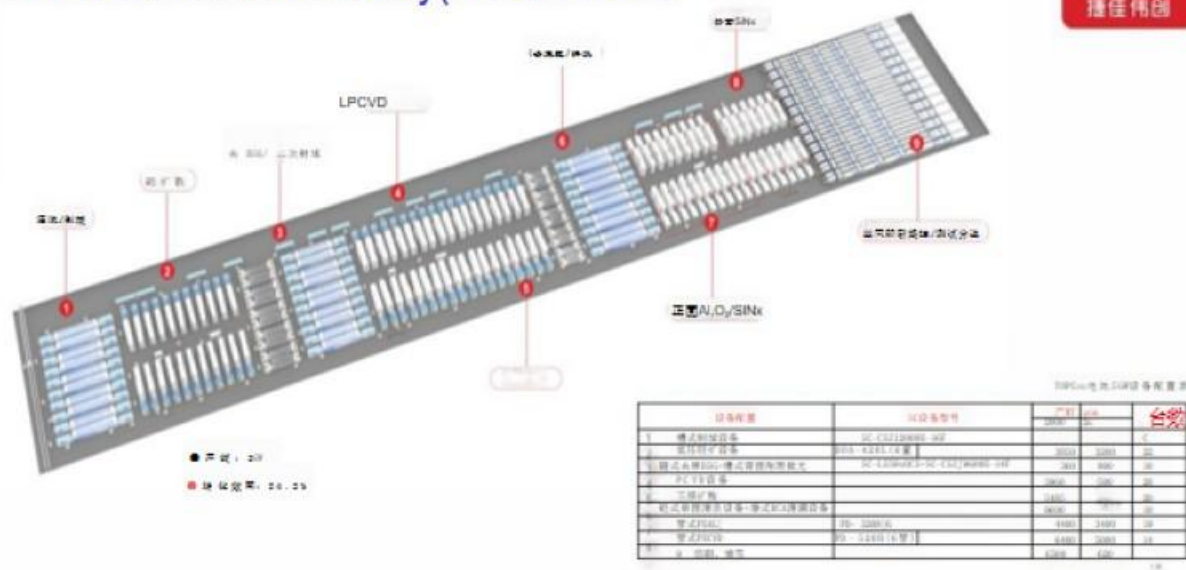
No.1 supplier in the world for TOPCon cell equipment
More than 800GW TOPCon equipment order received so far
One-stop turnkey solution with KPI guarantee

N-TOPCon Smart Factory

N-TOPCon Smart Factory(PECVD route)



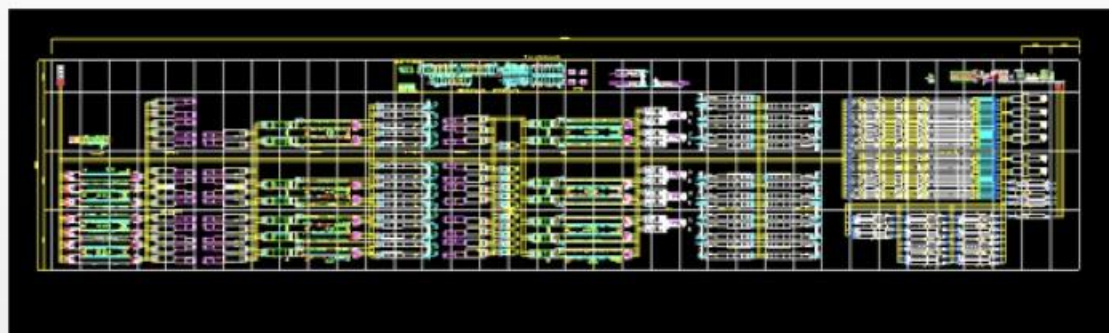
N-TOPCon Smart Factory(LPCVD route)



One Stop Solution

- ❑ KPI: Process transfer
- ❑ LAYOUT
- ❑ FUM
- ❑ Option: Facility & Utility design and construction (Partner)
- ❑ Option: Production support

Item	KPI for TBC
Annual Wafer Input	968,451,392 [pcs/y]
Annual Qualified Output	900,659,795 [pcs/y]
Yield	93%
Breakage	1.00%
Efficiency	26.50% [ave.eff]
Power	5.84 [ave.Wp]
Annual Production Hours	7705 [h/y]
Annual Output	5.26230 GW/y

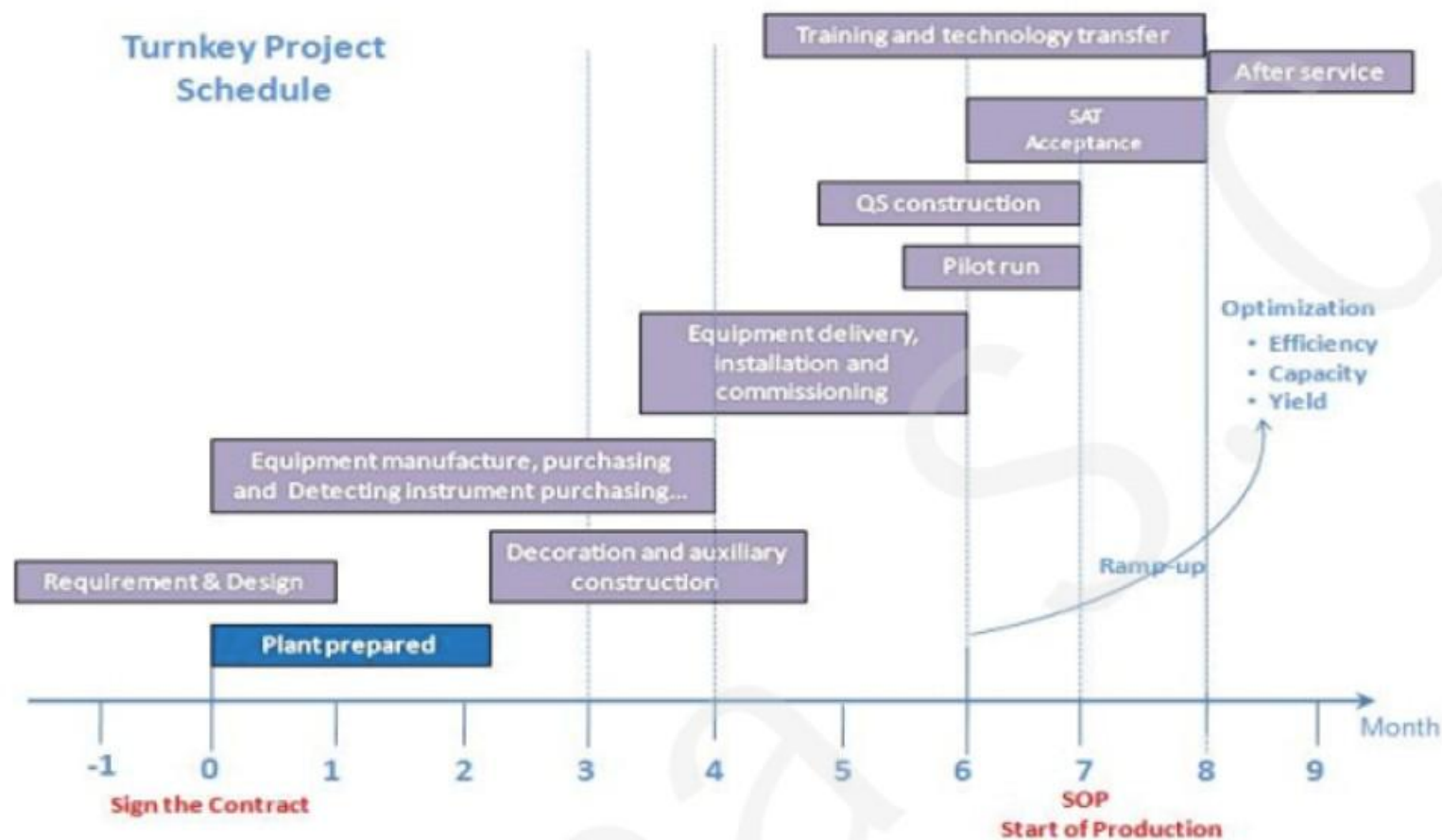


The screenshot displays a highly detailed spreadsheet, likely a project management or financial tool. The interface includes a top navigation bar with tabs for 'Project', 'Financials', 'HR', and 'Operations'. The main data area is organized into several vertical sections, each with a distinct background color: grey, blue, orange, and yellow. The columns are densely packed with text, numbers, and dates. Notable features include:

- Grey Section:** Contains columns for dates (e.g., 1/1/2020, 1/2/2020) and numerical data.
- Blue Section:** Features columns with headers like 'Project Name', 'Start Date', and 'End Date', followed by rows of project-related data.
- Orange Section:** Includes columns for 'Project Name', 'Start Date', and 'End Date', with rows of project data.
- Yellow Section:** Contains columns for 'Project Name', 'Start Date', and 'End Date', with rows of project data.

 The spreadsheet is filled with numerous rows of data, some of which are highlighted in red or yellow. The overall layout is complex and appears to be a comprehensive data management system.

One Stop Solution

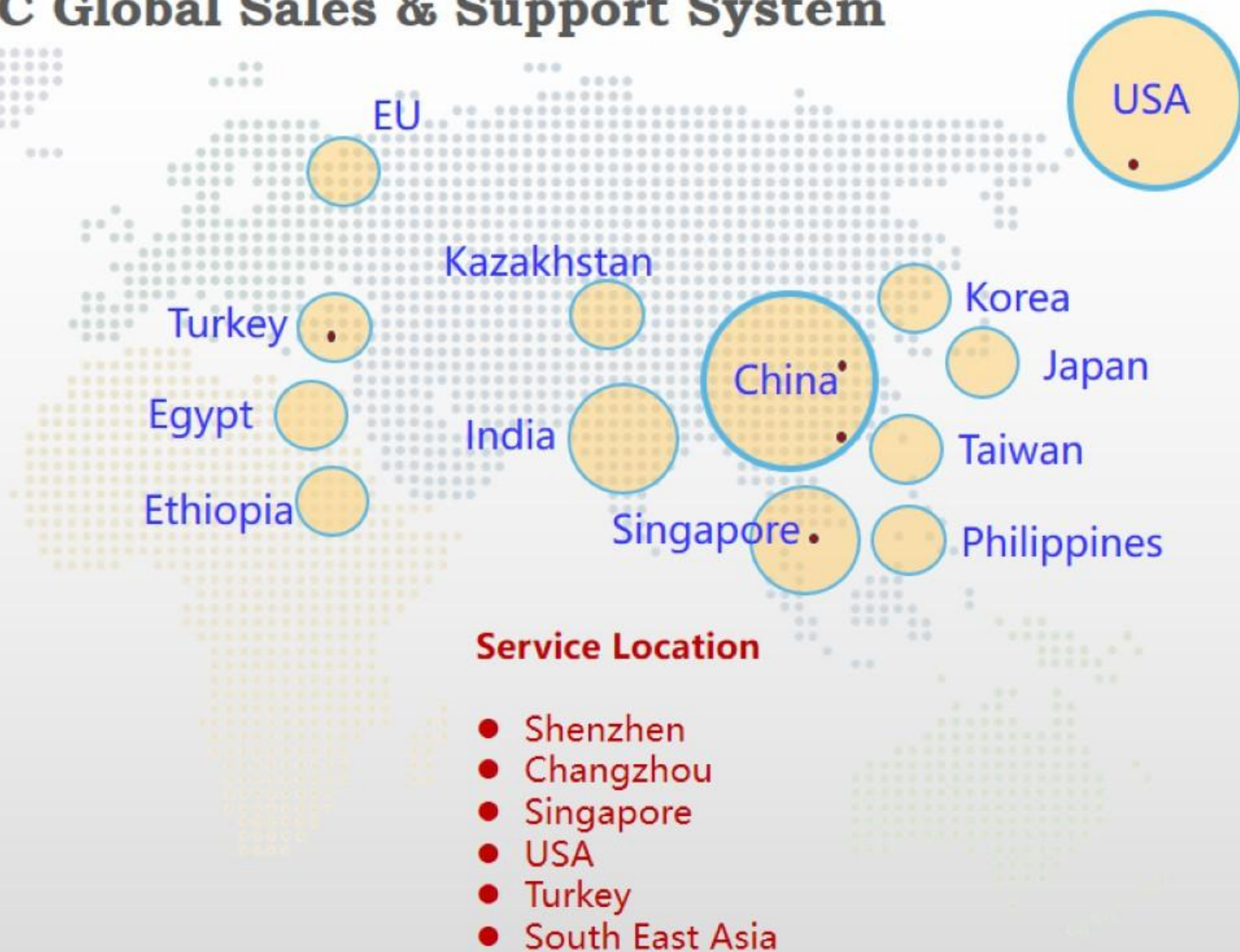


From design

To operation

KPI achieved within 3 months ramp up

SC Global Sales & Support System



- Global EQP customers more than 20 countries
- Standalone equipment, production line, turnkey solution and smart factory with AGV & MES
- Accumlated installation over 1TW

Next Generation Vertical LPCVD

Basic Parameters

Key Physical Parameters

Reaction Tube Inner Diameter: $\Phi 1440\text{mm}$

Max. Compatible Wafer Size: 230mm

Throughput

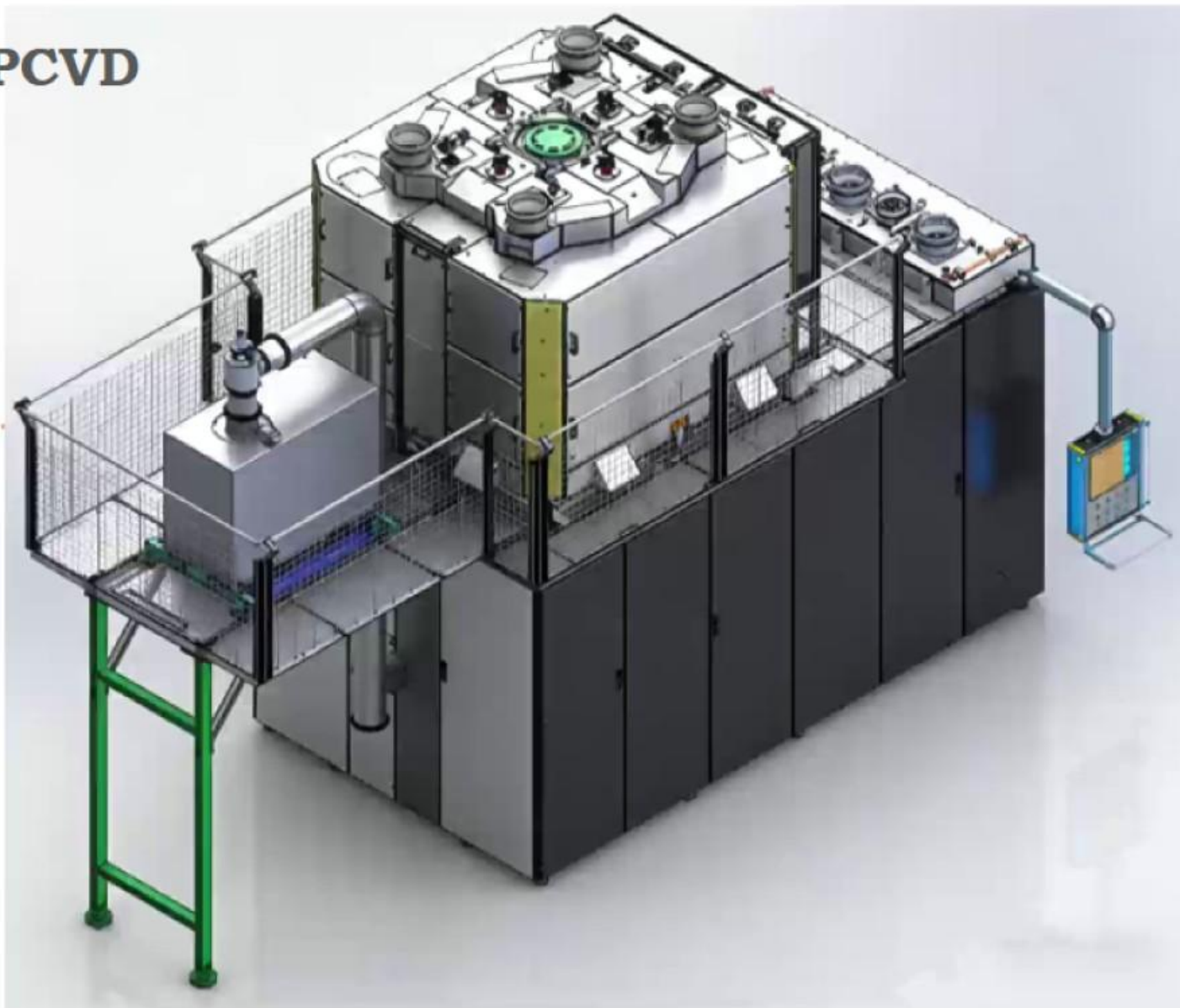
Single-tube loading capacity (dual-wafer single-sided coating): **8640pcs**

Other Key Parameters

Footprint

Vertical LPCVD (8-tube) :

L30000 mm*W8420 mm*H4670 mm

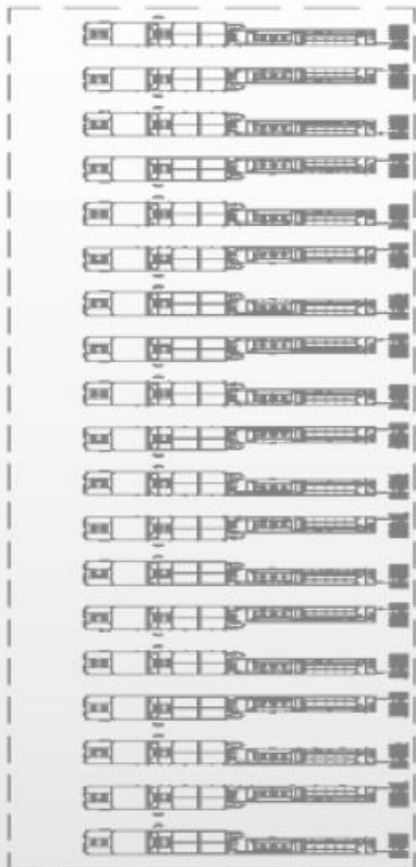


Initiative of Large-Batch Vertical Cylindrical LPCVD Furnace



- **20+ Years** in PV equipment design and system integration.
- **140 GW** of global solar cell turnkey line capacity delivered.
- **Integrated Circuit Furnace Expertise** in annealing and oxidation systems.
- **Large-Scale Equipment** for sputtering and roll-to-roll applications.
- **Reduced Downtime** to boost production capacity.
- **Optimized CAPEX** and manufacturing costs.
- **Space-Efficient, High-Throughput Equipment.**

Footprint Comparison for 10GW

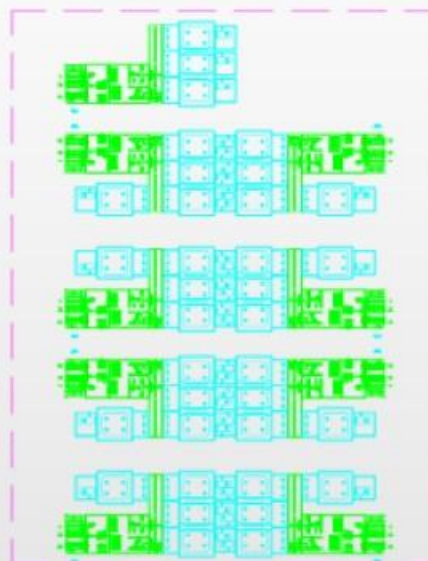


19 units of
6-tube horizontal LPCVD

Horizontal Tubular LPCVD

118m x 27.6m (3,257m²)

-33%



8 units of
4-cylinder vertical LPCVD
+ 1 unit of
3-cylinder vertical LPCVD

Vertical Cylindrical LPCVD

54.5m x 40m (2,180m²)

Layout can be arranged to fit customer site

Eliminating LPCVD Quartz-tube Maintenance Hassles



Horizontal Tubular LPCVD

Complicated Tube-Exchange
(8-labor Works Exchange)
For Every 3-4 months

Quartz-tube Accident

Vertical Cylindrical LPCVD

Quartz-tube Free
(Semi-Automated Exchange)
PM cycle > 12 months

(S.C Pat. WO2025218431A1, WO2025218441A1)



Highlights of Vertical LPCVD

300%↑

Increased Single-tube Capacity
(G12 X3.9&G12R 3.1X)

-32%

Optimized Gas Usage &
Temperature Field Performance

1/3↑

Improved Lifetime of
Wear Parts

-15%

Reduced Energy
Consumption per Cell

-1/3

Reduced Footprint

-78%

Reduced Operation &
Maintenance Difficulty

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THANK YOU