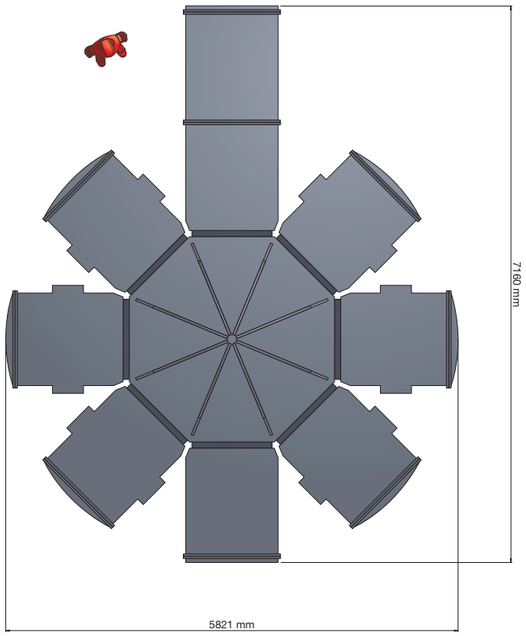
Overall system dimensions



Length ..... 7’160 mm
Width ..... 5’821 mm
Height ..... 1’860 mm

Ancillary systems, i.e. pumps,
control units or automated loading stations
are not shown.

Note: Dimensions and system configuration may be subject to change without prior notice.

System key data

Throughput, nominal	2’400 wafers/hr (and scalable)
Footprint L x W x H	7’160 x 5’821 x 1’860 mm
No. cells per carrier plate	24
PECVD deposition mode	RF - 13.56 MHz, capacity coupled
Process temperature	> 200°C (permanent mode)
System base pressure	< $5x10^{-6}$ bar
Chamber cleaning	In-situ (NF3)
Wafer size	6’’ (M0 .. M2 .. M4)
Film thickness	10 .. 20 nm (per substrate side)
Thickness uniformity	< 5 % (across entire carrier plate)
Thin film type	a-Si:H (intrinsic and doped)
Minority carrier lifetime	> 7 ms (intrinsic), > 5 ms (intrinsic + doped)

Contact Offices

Headquarters

Indeotec SA
Rue du Puits-Godet 12A
2000 Neuchâtel
Switzerland

+41 32 545 3024
sales@indeotec.com

China

DKSH China Co., Ltd.
Unit 605-507, Bldg. 2,
Xinglian Bldg. No. 1535,
Shanghai 200233, PRC

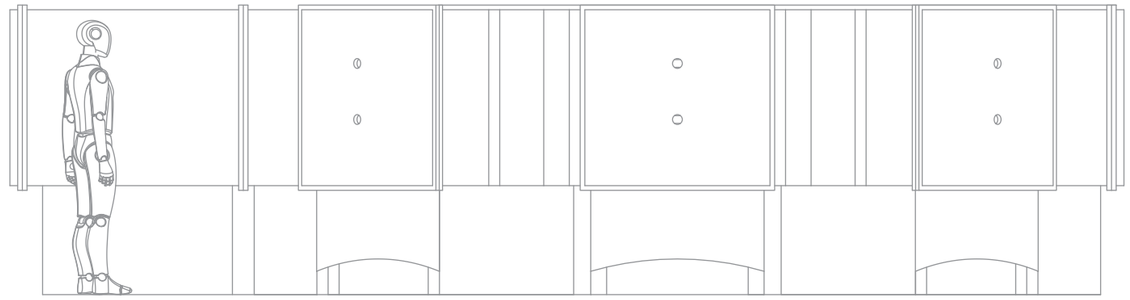
+86 (21) 5383 8811 Ext 160
christy.liu@dksh.com

Taiwan

DKSH Taiwan Ltd
10th floor, No. 22, Lane 407, Sec. 2
Tiding Blvd., Taipei 114-93
Taiwan

+886 (2) 8752 6666 Ext 674
nick.chen@dksh.com

SWISS MADE
INDEOtec
PLASMA PROCESS EQUIPMENT



Octopus III

PECVD Cluster Deposition System for Heterojunction Cell Devices

REACTOR MIRROR TOP
REACTOR MIRROR BOTTOM

PRODUCT INFORMATION

Cross Contamination Free

SWISS MADE
INDEOtec
PLASMA PROCESS EQUIPMENT

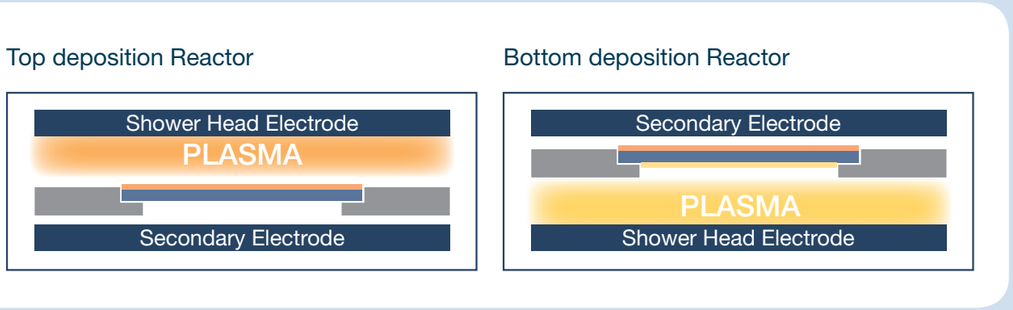
Octopus III

is a fully automated thin film deposition system for the mass production of high-efficiency cell devices (HJT cells). The cluster platform configuration and the proprietary PECVD process chambers have been optimized for excellent passivation layer quality, low footprint and significantly reduced handling steps.

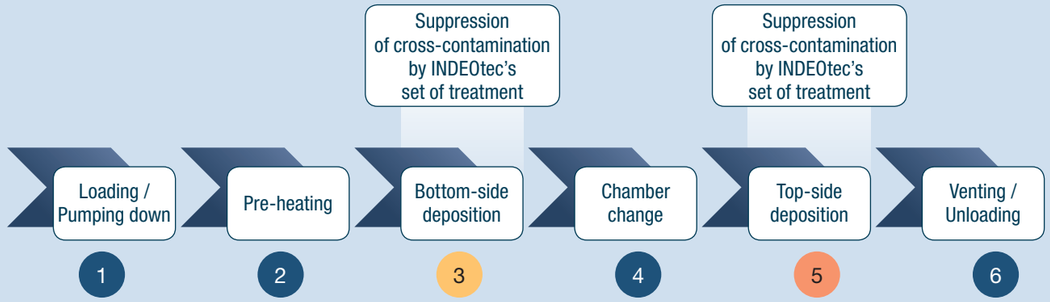
System features

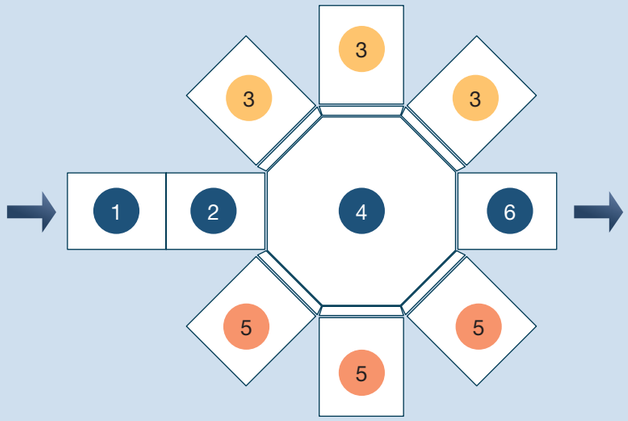
- Cluster system platform, proprietary RF-VHF deposition design
- Top and bottom side deposition by proprietary Mirror Reactor concept
- No wafer flipping necessary between top & bottom deposition
- Intrinsic and doped layers deposition into the same reactor thanks to Anti Cross-Contamination Treatment
- Pre-heating chamber for simultaneous wafer and carrier heating
- Fully automated carrier loading
- Throughput can be upscaled
- Mirror Reactor concept compatible with thin wafer

Mirror Reactor concept



Process flow with mirror concept and Anti Cross-Contamination Treatment

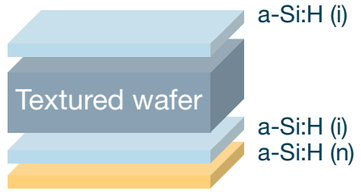




The process flow illustrates the key steps. The configuration allows a certain overlapping of key process steps for enhanced throughput. Flexible positioning of Infeed and Outfeed with respect to facility conditions (opposed or neighboring loading/ unloading).

Deposition stack

Standard/Bifacial-HJT



IBC-HJT
Mask and carrier in one single piece, with deposition from bottom