

SOLAR NIAK NEW INLINE PLATFORM




Highest reliability for PV mass production

The new RENA inline platform NIAK is designed for easy use and best performance for PV mass production. Intelligent features ensure reliable and stable process control and allow an easy process transfer from one tool to another. Optimised media handling and fluid dynamics reduce the costs of ownership and improve the process performance.

Areas of application

- New Inline platform for wet processing
- InTex®: Texturing & Saw damage removal
- InOxSide®: Junction isolation and PSG removal
- InPolish: Single side polishing for high efficiency cells
- InDop: Phosphoric acid coating
- InOxSide® EB: Junction isolation, PSG removal and emitter etch back

Features and benefits

Protected equipment and processes



- Production and sales licences are granted to all InTex® machines

- Patented process for single side processing
- Proprietary tool design

Gentle transport system

- Roller system without side guides
- Gentle transport with solid rollers
- Breakage rate < 0.05 % for 180 µm wafer, with automation and µ-crack testing

Good accessibility

- Fast exchange of transport rollers and spray bars
- Open gear on front side
- User friendly access to all components

Straight line footprint

- Electrical cabinet and chiller integrated in the tool
- Fast tool start-up
- Total equipment depth only 2150 mm

Intelligent process control

- Relevant media settings via PLC
- Dosing system with < 1% reproducibility
- Media supply system and exhaust system insensitive to variation of facility flows and pressures
- Easy process transfer tool to tool

Low media consumption

- Optimised nozzles with smooth jet
- Multi stage rinse cascade
- DI water usage 270 ml/wafer
- Acid usage for texturing 8.5 ml/wafer
- Squeegee rollers after chemical processing

Throughput

- up to 3,600 wafers/h gross

Smooth drying

- Blower technology, without CDA usage

Homogeneous double side processing

- Optimised fluid mechanics

Efficient single side processing

- Homogeneous process results in one process step
- Patented process

User-friendly software

- Intuitive Operation
- Advanced data logging
- MES system (PPC, XML, SECS GEM)

Robust design

- High operation reliability by optimised mechanical design





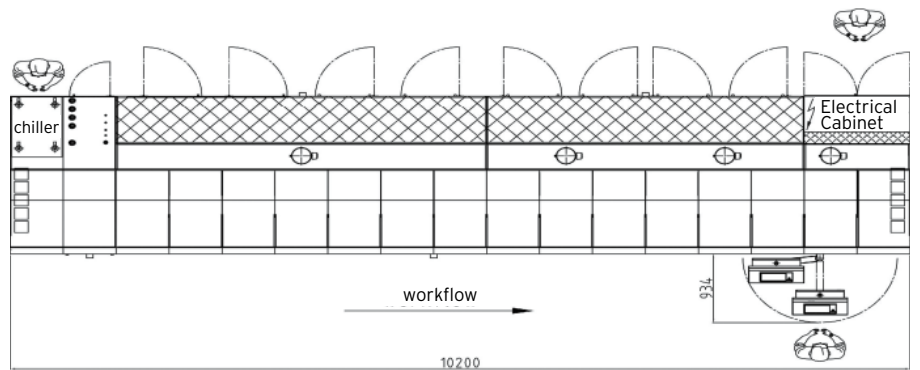
Spray nozzles



Open gear



Example: NIAK InTex®



Chiller and electrical cabinet integrated

Technical Data NIAK New Inline Platform

Example:	InTex® HT
Dimension examples	5 lanes for 156 mm 10200 x 2150 x 2350 mm (length x width x height)
Throughput	3600 wafers/h gross *)
Wafer thickness	> 150 µm
Media consumption	
DI-water	270 ml/wafer
Acid (for texturing)	8.5 ml/wafer

*) Tools with reduced throughput available upon request.