DATA SHEET

SOLAR InOx InOxSide

Integrated PSG removal and junction isolation

The InOx series ensures the efficient removal of the PSG layer for high throughput solar cell production. The InOxSide tool performs PSG removal and junction isolation in one single tool, thus improving the process integration and workflow in the line. The junction isolation is performed by etching the rear side of the cells while leaving the front surface dry. The patented process not only leads to superior junction isolation performance but also simplifies the production of passivated rear side cells by entirely removing the emitter from the rear side.

Areas of application

- InOx: PSG removal
- InOxSide: PSG removal and junction isolation of solar cells
- Designed for multi- and monocrystalline wafers
- Automation systems available for loading and unloading

Features and benefits

InOx

- Wet chemical removal of the phosphorus glass layer (PSG)
- Efficient and gentle processing
- Drying without water marks
- Homogeneous and reproducible process
- End-to-end inline processing

InOxSide

- PSG removal and junction isolation in one single tool
  - Ideal process and work flow integration
- Junction isolation performed by rear side emitter removal
  - Enables processing schemes for rear-side passivated cells
  - Patented process
- Homogeneous processing
- Cell efficiency increase
- Technological leadership
  - Process start up by RENA
  - Best process yield
  - Outstanding process performance

Single side etching

Front view InOxSide

Technical Data InOx, InOxSide

	InOx, InOxSide ST	InOx, InOxSide HT
	5 lanes for 156 mm wafers	5 lanes for 156 mm wafers
Process InOx	Inline PSG removal	Inline PSG removal
Process InOxSide	Inline PSG removal and junction isolation	Inline PSG removal and junction isolation
Dimensions InOx	4200 x 2150 x 2350 mm (length x width x height)	5400 x 2150 x 2350 mm (length x width x height)
Dimensions InOxSide	8400 x 2150 x 2350 mm (length x width x height)	10800 x 2150 x 2350 mm (length x width x height)
Throughput	1875 wafers/h gross wafer size 156 mm	3600 wafers/h gross wafer size 156 mm
Wafer thickness	> 150 µm	> 150 µm

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