

# SOLAR InCellPlate

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## Light induced deposition by inline plating

Innovative single side solar cell metallisation: efficiency increase and cost reduction - using a high volume production platform. Optimised liquid flow and light sources ensure a homogeneous high speed metal deposition of Ag on Ag paste and Ni/Ag directly on silicon.

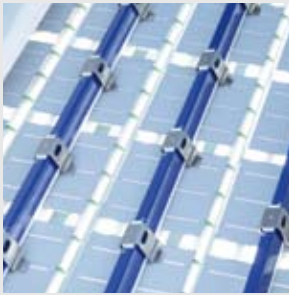
### Areas of application

- LIP = Light Induced Plating
- LIEP = Light Induced Electroless Plating
- Ag plating on screen printed Ag paste
- Ni/Ag plating for direct metallisation on laser structured solar cells
- Cell recovery of B-class cells

### Features and benefits

- Ni, Ag plating
- Suitable for Cu-technology
- Patented single side inline plating
- No backside protection required
- Reduction in Ag consumption compared to purely printed contacts
- High uptime due to dry soft touch backside contacting
- Low contact finger broadening
- Efficiency increase up to 0.5% for Ag on Ag paste, depending on fine line printing
- Efficiency increase up to 1% for Ni/Ag directly on silicon, depending on laser process
- Self aligning metallisation into laser opened structures
- Modular production system - customised for your application

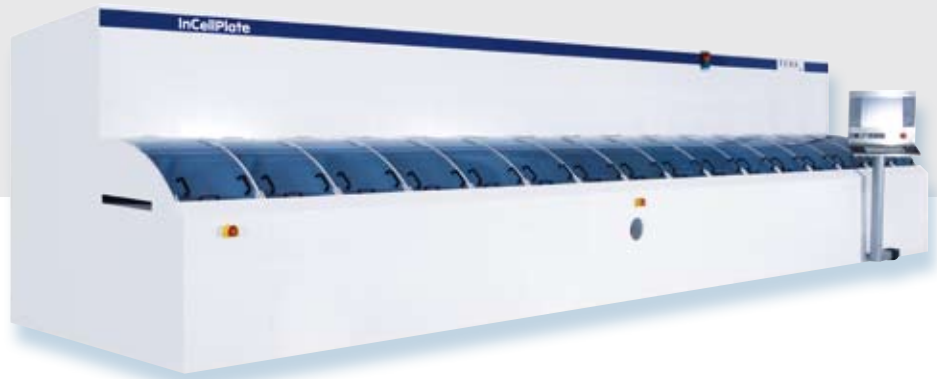




Inline plating



Dry contacting



Front view InCellPlate

## Technical Data InCellPlate

<b>Platform</b>	NIAK 5 lanes for 156 mm wafers	
<b>Process</b>	<ul style="list-style-type: none"> <li>• Dry loading</li> <li>• Electrochemical deposition of metal layers</li> <li>• Cascade rinsing</li> <li>• RENA AirChannelDryer technology</li> <li>• Dry unloading</li> </ul>	
<b>Dimensions</b>	6000 - 24000 x 2150 x 2350 mm (length x width x height)	
<b>Throughput</b>	Production tool      gross throughput up to 3000 wafers/h depending on process parameter Pilot tool              gross throughput up to 500 wafers/h depending on process parameter	
<b>Wafer thickness</b>	> 150 µm	
<b>Media consumption</b>	<ul style="list-style-type: none"> <li>• DI water</li> <li>• Compressed air for drying</li> <li>• Exhaust</li> <li>• Electricity</li> </ul>	150 - 350 l/h 10 - 20 Nm <sup>3</sup> /h 2000 - 7000 m <sup>3</sup> /h 230/400 V, 50 Hz, 60 - 200 kW