DATA SHEET

SOLAR

PVGlassClean
PVFlexxClean

Substrate cleaning for thin film solar cells

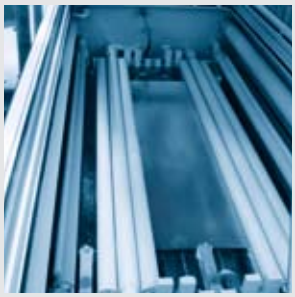
Production equipment for high effective and reproducible cleaning of glass or flexible substrates for thin film solar cell manufacturing. Optimised „contact free“ transport system.

Areas of application

- Horizontal inline cleaning of glass or flexible substrates
- Incoming cleaning
- High quality cleaning
- Cleaning after scribing
- Cover glass cleaning

Features and Benefits

- Modular PP-construction
- Alkaline/acidic cleaning or chemical free cleaning
- Cleaning with brush system and ultrasonic
- High pressure cleaning
- Nearly „contact free“ transport system
- Cascade rinse with separate supply of the final cascade zone
- Air knife drying system with integrated blower
- Air curtain for reduction of drag-out
- Adjustable process parameters for different substrate thicknesses
- Double glass covers with UV-light protection
- Innerside glass cover with security switch and mechanical lock
- Toolless maintenance of transport systems
- Water temperature up to 60 °C
- Removable inserted filter above the sump with security switch
- Minimum water consumption by optimised cascade rinsing
- Flat jet nozzles systems with bayonet connectors
- Maintenance opening on operation side for demounting of lower nozzle pipes, security switch
- Protection against dry running of pumps and heaters
- Short heating time of process module
- Front windows for easy maintenance access
- Stable ss-catch screen above sump



Ultrasonic bath

High efficient
air knife dryer
technology

Front view PVGlassClean

Technical Data PVFlexxClean

	PVFlexxClean	PVGlassClean
Process	• High quality substrate cleaning • Incoming cleaning of flexible substrate	• Income cleaning of glass substrates • Cover glass cleaning • High quality glass cleaning • Cleaning after scribing
Dimensions	approx. 12380 x 2750 x 2300 incl. winder and unwinder	approx. 7800 to 8900 x 2200 x 2200 mm (length x width x height)
Throughput	up to 3,5 m/min	> 90 substrates/hour
Substrate thickness	25 – 125 µm	2 – 5 mm (optional up to 12 mm)
Substrate size	up to 1200 mm width	1100 x 1300 or 1400 mm, other formats available, e.g. 600 x 1200 mm up to 2200 x 2600 mm
Media consumption	• DI water p_{min} = 2.0 bar; temperature [°C] > 20: 450 l/h • Compressed air p_{min} = 6 bar (oil-and waterfree): 1 m^3/h	500 l/h 1 m^3/h
	• Electricity: 400 V DC +/- 10% 50 Hz/60 Hz, approx. 110 kW	
	• Noise level dryer operation side max. 75 dB(A) backside max. 80 dB(A)	
Options	• 4 LED displays for brush calibration at operator side • Motor adjustment of upper brush rollers by PLC-operating system	

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