

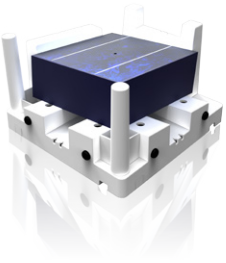


STORAGE AND TRANSPORTATION

Jonas & Redmann provides components for the gentle transport and storage of c-Si wafers and cells. The products are highly suitable for the automated loading and unloading of photovoltaic manufacturing processes and designed to prevent breakage and to reduce the impact of mechanical influences on wafers and cells. The Jonas & Redmann transportation and storage solutions thus satisfy the highest demands in terms of material protection and efficiency.

- components designed to provide the highest level of wafer and cell protection
- designed to prevent wafer bending and vibration and to minimize the risk of edge defects or breakage
- very stable solutions suited for most processes in photovoltaic manufacturing
- integrated RFID transponder for efficient material tracking

| | TECHNICAL DATA | | | | FEATURES AND OPTIONS |
|---------------------|---|--|--------|---------------------------|--|
| | CAPACITY | MATERIAL | WEIGHT | WAFER, CELL | |
| AUTOMATION CARRIER |  100 wafers | Aluminium hardcoated POM, rubber | 5 kg | 125/ 156 mm, 130-240 μ | <p>patented design for transportation and buffering very stable with a high positional accuracy required for automated loading</p> <p>RFID transponder in both head plates</p> <p>upright transport possible - protective mechanism retains wafers in the carrier</p> <p>toothed shafts provide the pitch tolerance required for automation</p> |
| AUTOMATION MAGAZINE |  600 wafers | Aluminium hardcoated POM, rubber | 3 kg | 125/ 156 mm, 130-240 μ | <p>designed to stack wafers in preparation for processing</p> <p>special belt construction enable gentle automated unloading of wafers out of magazine</p> <p>RFID transponder on both sides</p> |
| AUTOMATION BOX |  250 cells | acetal | 800 g | 125/ 156 mm, 130-240 μ | <p>designed to stack c-Si cells and perfectly suited for automation/ linking between cell and module fab – direct and automated transportation from Cell Tester and Sorter to Stringer</p> <p>RFID transponder on both sides</p> <p>stackable (with and without material) box covering available special box design to build optimum cell stacks</p> |