



STORAGE & HANDLING

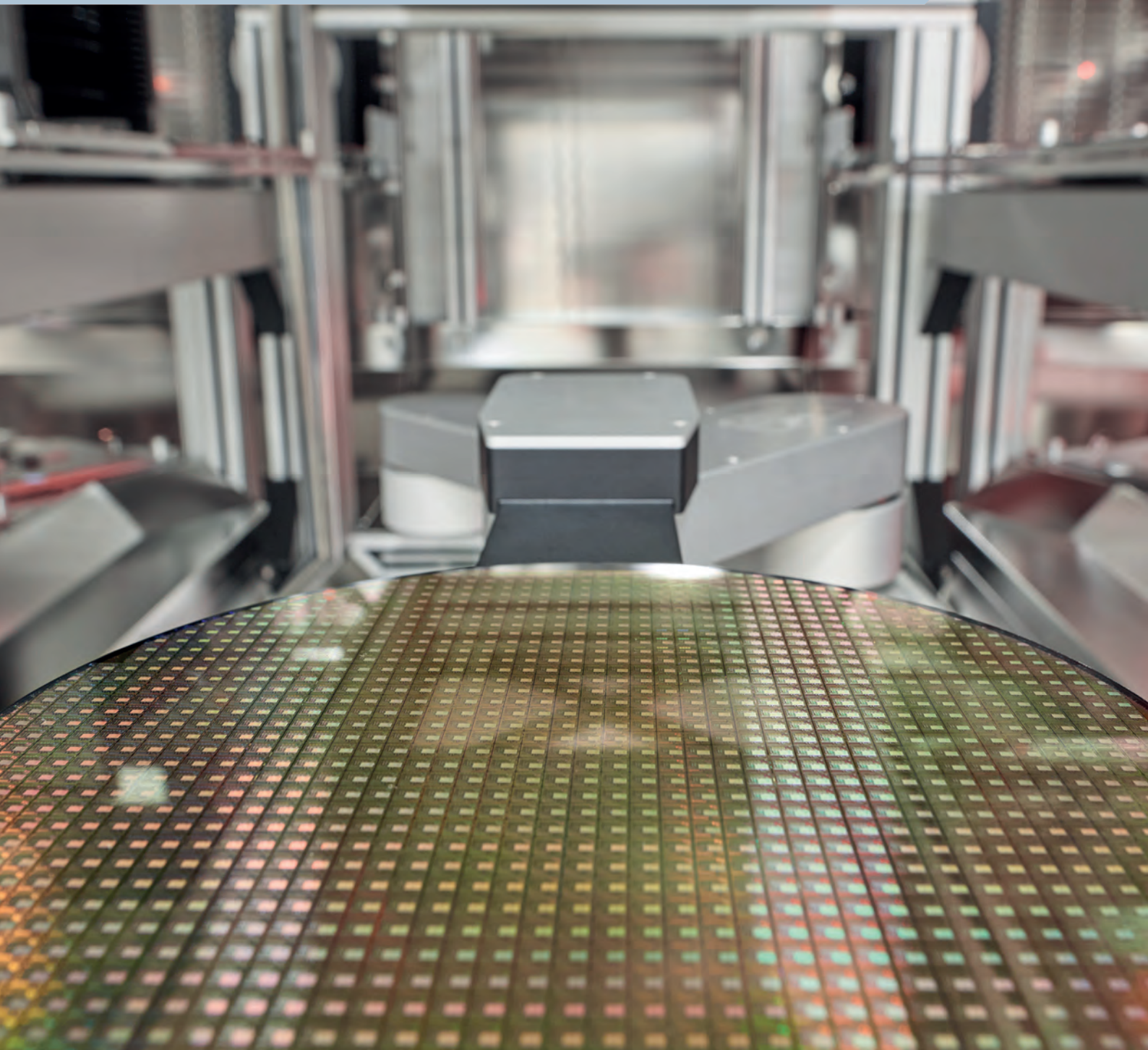


FABMATICS

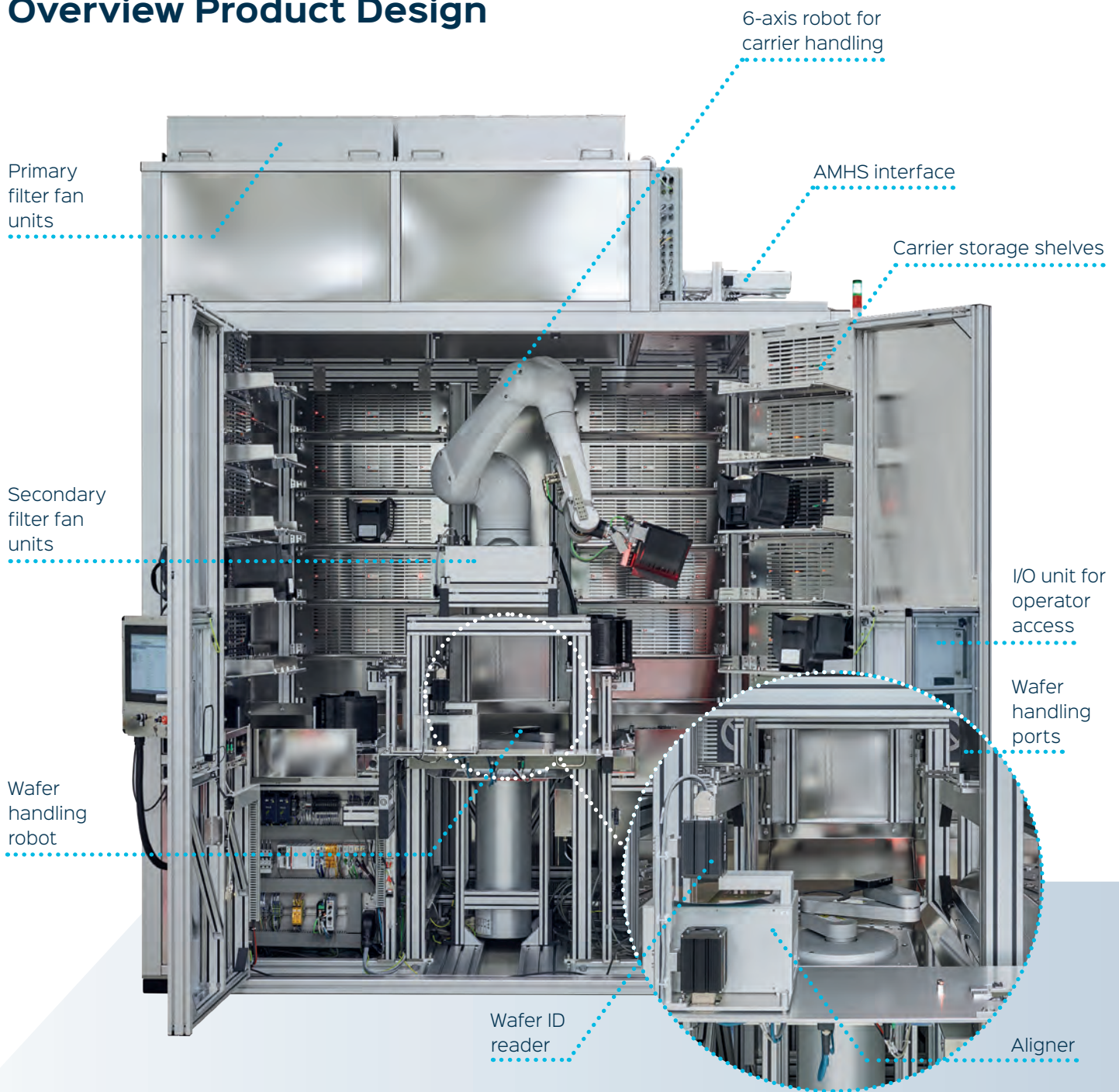
Automate your success

TEST WAFER CENTER

The All-In-One Test Wafer Management Solution



Overview Product Design



TEST WAFER CENTER

Revolutionizing test wafer management in semiconductor manufacturing

Test wafers are indispensable for semiconductor manufacturing, crucial for equipment qualification and process monitoring. They constitute up to 50% of a fab's wafer inventory. Managing test wafer lots manually is time-consuming and prone to errors.

The Test Wafer Center (TWC) fully automates kitting and de-kitting of test wafer lots as well as their storage. Its compact and highly flexible layout allows up to 93 storage bins and up to 14 material handling locations making it the perfect solution for complex equipment qualifications scenarios. It gives you complete (remote)

control for determining timing and content of each test wafer lot & enables just-in-time delivery to your process equipment.

Featuring SECS host communication, camera-based robot routing, optional wafer alignment & identification, and various carrier identification options, the TWC ensures safe, accurate, & fully traceable material control.

Connecting to any Automated Material Handling System (conveyor or vehicle based) as well as allowing manual carrier input or output, the integration with your fab is seamless & quick.

Key Features & Benefits

Speed & Efficiency

- Commissions test & qualification lots fully automated, just-in-time and with complete traceability
- Reduces carrier transfers freeing up AMHS or manual transport capacity

Cleanliness & Material Protection

- Operates within its own ISO 3 mini environment, suitable for gray space installations & boasting a dedicated ultra-clean wafer handling area
- Detects handling errors (cross-slotting, double slotting etc.) & data inconsistencies (missing wafer, extra wafer, wrong wafer)

Space & Footprint

- Frees up expensive cleanroom space with a centralized test wafer management solution instead of numerous scattered handling tools
- Allows layout optimization with an advanced design ideal for tight spaces, suitable even for a wall or corner installation

Resource Optimization

- Builds a complete wafer history with uninterrupted substrate tracking per SEMI E90
- Features automated error recovery & speeds up maintenance procedures providing best-in-class OEE via its auto-inventory function

Technical Data

Test Wafer Center	
Dimensions (LxWxH)	2,840 x 2,040 x 3,491 mm (112" x 80" x 137")
Weight	2,500 kg
Substrate type	200 mm wafers / 8" wafers
Carrier type/capacity	Up to 93 open cassettes (2,325 wafers)
Internal handling ports	Up to 14
Throughput	Carrier transfers: ~ 150/h Wafer transfers: ~ 360/h
Power supply	400 VAC (3 phase) / 50 – 60 Hz / 12 A
Nominal power	4.12 kW
Cleanroom class	ISO 3 / FED Class 1
Host interface	SEMI E153
Options	Wafer aligner, Wafer ID reader, Manual load ports

Up to two manual input/output stations allow operator access. Standard loading/unloading scenarios use the AMHS interface (for conveyor or vehicle based systems) on top of the TWC.



The TWC maximizes throughput utilizing up to 14 wafer handling ports. The optional prealigner including wafer ID reader enhances material tracking capability.



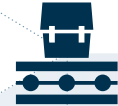
STORAGE
ZERO FOOTPRINT STOCKER
PURGE SYSTEMS
RFID RACKS



HANDLING
MOBILE ROBOTS
ROBOT CELLS
EFEMS



TRANSPORT
CONVEYOR SYSTEMS
AGVS / RGVS
PGVS



UNIQUE PRODUCT PORTFOLIO FOR THE **COMPLETE MATERIAL HANDLING AUTOMATION**



IDENTIFICATION
RFID SYSTEMS
RFID RETROFITTING
RFID BASED LOGISTICS SYSTEMS



SOFTWARE
FLEET MANAGER FOR MOBILE ROBOTS
SOFTWARE INTEGRATION
WEB GUIs



SERVICE
CONSULTING & FEASIBILITY STUDIES
TECHNICAL SERVICES
THIRD PARTY SUPPORT

 **FABMATICS**



Member of
SCIO
AUTOMATION

Europe

HQ: Dresden, Germany
Phone: +49 351 65237-0
E-mail: info@fabmatics.com

USA

Location Utica, NY
Phone: +1 315 316 1480
E-mail: info.usa@fabmatics.com

www.fabmatics.com

Partners in Asia

Singapore & Malaysia
Phone: +65 9106 2386
E-mail: joseph.soo@micro-optics.com.sg

Taiwan & China

Phone: +886 912531863
E-mail: jeff.chen@gbgtek.com.tw

Japan

Phone: +81 92 473 6455
E-mail: info@brux.jp