Item No.	Quantity	Description
1	1	8 stage Cleaning System as described above with Beckhoff PLC and HMI upgrade and conductivity meter for DI water quality
1d	1	Light tower, Safety Interlocks, LED panel light in enclosure
1b	8	Stainless steel carriers. Design TBA. To use existing Wafer carrier. Different or additional carriers can be quoted extra.
2	2	Auto chemical dosing with Conductivity Meter
3	5	Digital flow meter on all stages
4	2	Float switch in bund
5	1	Standard Barcode reader and data logging. Advanced data logging negotiable
6	1	SECS GEM Protocol Integration
7	1	PLC software back up on Memory stick
8	1	HEPA Blower for air Knife*
9	1	Packing and Crate
10	1	Installation & Commissioning for 1 UK engineer for 5 days

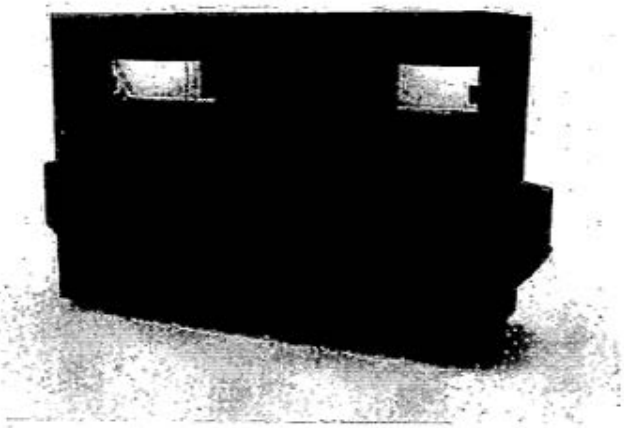
Summary of Features

- Auto fill and drain on all wet stages
- Fast drain via 22mm pipe
- Front and rear axial support on agitation
- Auto chemical dosing on stages 1 and 2 with 1l dosing bottle (Optional features)
- Water flow meter on wet stages (Optional features)
- Dual stage HEPA filter recirculating hot air drier
- Servo controlled, high accuracy X – Y automatic work handling HMI + PC based control
- Standard Barcode Reader and datalogging as option. Advanced Barcode Reader
- and datalogging(Optional features)
- Float switches in Bund for leak detection
- Carbon block cartridge for ease of exchange
- Safety interlock on enclosure doors and load and unload covers Flexible process control
- Remote network support
- Facility to design carriers to use existing basket design
- Three colour tower light
- Enclosure to include Class 100 HEPA filter
- Enclosure to include LED panel light
- 3 basket load and unload conveyors
- Provision for exhaust outlet

Overview

- Approx 8 - 10 baskets per hour.
- Compact - Small footprint fully enclosed automatic cleaning system.
- Fully integrated cleaning process.
- Fully enclosed in class 100 environment.

Figure 1 – Rendered CAD image of W200



Key Features

- The W200-9SP has been designed and developed to provide a comprehensive cleaning process for the modern factory. Its use is primarily for the customer wishing to control substrate cleaning quality
- Attention to detail has been foremost in the design brief closely followed by ease of use for the operator.
- All processes are fully validated by Shyre and critical process criteria are locked into the system to prevent any modification, a common cause of reduced first pass rate.
- The complete system is enclosed in a HEPA filtered environment with long life, low maintenance LED lighting.
- The small footprint of the system encompasses the complete process.
- The system is designed to support processes for all varieties of cleaning processes.

Process

Cleaning

- The cleaning process is fully flexible to allow optimum surface preparation.
- Baskets are manually loaded on the left hand side of the machine and unloaded to the right.
- The Cleaning stages include automatic temperature and chemical control and are fitted with Ultrasonics, and particulate filtration.
- While in the cleaning stages batches are mechanically oscillated to enhance the process.
- The final rinse is performed in ultra-pure water generated within the machine.
- This tank is fitted with a dedicated lift out mechanism to remove almost all water from the substrate surface and aid in spot-free drying.
- The cleaning tanks operate closed loop and for ease of use top-up is automatic.
- Drain and refill control is all via the HMI.

Process Tanks: Tank Size: 350 x 170 x 350mm effective depth excluding weir. All tanks to have 22mm fast drain

Load conveyor		
Tank 1 and 2: Clean	2 Position – 40 litres Ultrasonics - 40kHz. 10 transducers Level Control Temperature Control	Filtration 1µm Oscillation Auto-Fill
Tank 3: Ultrasonic Rinse	1 position – 21 litres Ultraasonics – 40kHz Auto-Rinse Level control	Oscillation Auto-fill Filtration
Tank 4: Spray Rinse	1 Position – 2 spray bars	Filtration 10µm Oscillation Auto-Fill
Tank 5a : Pure Water Rinse	1 Position – Level Control Temperature Control	Filtration 1µm and water purification Conductivity Control Auto-Fill
Tank 5b: Pure Water Rinse	1 Positions Level Control Temperature Control Slow lift with robot	Filtration 1µm and water purification Conductivity Control Auto-Fill
Tank 7: Air knife	Horizontal Traversing air knife	
Tanks 8 & 9: Drying Zone	2 Positions	Recirc hot air Thermostat control HEPA filter
Unload conveyor		

