

Technical Data

SUSS MA 150

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|--------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------|
| Wafer Size | 3" – 150 mm | |
| Substrate Size | 3" x 3" – 6" x 6" | |
| Exposure Optics | | |
| UV 400 | 350 – 450 nm | Hg-Lamp 350 W/1000 W |
| UV 300 | 280 – 350 nm | Hg-Lamp 350 W/1000 W |
| UV 250 | 240 – 260 nm | CdXe-Lamp 350 W |
| UV 249 | 249 nm | Excimer Laser |
| UV 193 | 193 nm | Excimer Laser |
| | | 10 W average Power at 193 nm |
| | | 7.5 W average Power at 193 nm |
| | | Stabilized |
| Uniformity (150 mm dia.) | ± 5 % | |
| Exposure Modes: | | |
| Proximity: | | |
| Alignment/Exposure Distance (selectable in 1 μ m steps) | 0 - 999 μ m | |
| Soft Contact: | | |
| Adjustable Contact Pressure | 0.03 - 0.07 N/cm ² | |
| Hard Contact: | | |
| Adjustable Contact Pressure between Chuck and Wafer via Nitrogen | 0.04 - 0.16 N/cm ² | |
| Vacuum Contact: | | |
| max. diameter | 150 mm | |
| X-Y-θ Stage: | | |
| Alignment Range in X and Y | ± 3 mm | |
| Alignment Range in θ | ± 3 degrees | |
| Smallest Alignment Step in X and Y | 0.1 μ m | |
| Smallest Alignment Step in θ | 4.7 x 10 ⁻⁶ degrees | |
| Max. Alignment Speed | 0.4 mm/sec. | |
| Max. Mask Size | 7" x 7" | |
| Microscope Manipulator: | | |
| Movement Range in X | ± 20 mm | |
| Movement Range in Y | | |
| towards operator | 15 mm (Option: 65 mm) | |
| away from operator | 10 mm | |
| Rotation Range | ± 4 degrees | |
| Max. Microscope Speed | 2.4 mm/sec | |
| | M 206/M 236 | |
| Microscope | | |
| Cassette System with Prealignment Station | | |
| Maximum Wafer Size | 150 mm | |
| Maximum Substrate Size | 6" x 6" | |
| Cassettes | metal or plastic, adjustable | |
| Prealignment Accuracy (measured at the edge of a 150 mm wafer on the prealignment station) | ± 15 μ m | |
| On the exposure chuck | | |
| Machine Time | | |
| Machine Time without Alignment and Exposure | 26 sec/Wafer | |
| Throughput incl. Alignment and 5 s Exposure Time | 80 Wafers/Hour | |
| Utilities | | |
| Vacuum | < - 0.8 bar (200 mbar) | |
| Compressed Air | 5 - 7 bar, 1 m ³ /h | |
| Nitrogen | 2 - 3 bar, 0.5 m ³ /h | |
| Power Requirements | 1200 VA with 350 W Lamp 2000 VA with 1000 W Lamp | |
| Dimensions | | |
| Height x Width x Depth | 1680 x 1210 x 1180 mm | |
| Weight | approx. 500 kg | |