

### ORBIS ALPHA

memsstar's propriety range of new generation ORBIS platforms provide reliable, cost effective solutions for advanced processing from research, to commercial R&D through to high volume manufacturing providing a seamless transfer from lab to fab.

A low cost and compact footprint platform enabling the development of production-capable processes for the next MEMS generation devices within R&D.

**The Alpha Silicon Etch** provides continuous flow design for etch materials and has high selectivity towards  $\text{SiO}_2$ ,  $\text{Si}_3\text{N}_4$ .

**The Alpha Oxide Etch** offers complete abatement solutions and a gas detection system. It benefits from market leading selectivities towards  $\text{Si}_3\text{N}_4$  and is compatible with a wide range of materials.



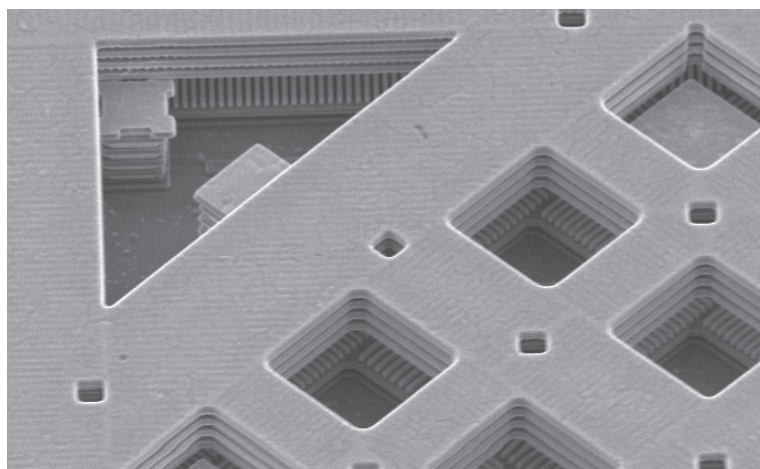
<b>R&amp;D platform</b>	<b>Easy to maintain</b>
<b>Low cost</b>	<b>Excellent selectivity to key materials</b>
<b>Small footprint</b>	<b>Silicon Etch-XeF<sub>2</sub></b>
<b>Easy to install</b>	<b>Oxide Etch-HF</b>

### Key Features

- Process samples from chip size up to 200 mm diameter
- Wafer temperature control
- Large process window to optimise for any structure

### Major Benefits

- Process control
- Industry leading etch rates
- Endpoint capability and in-situ monitoring
- No corrosion or stiction
- Automated chamber process



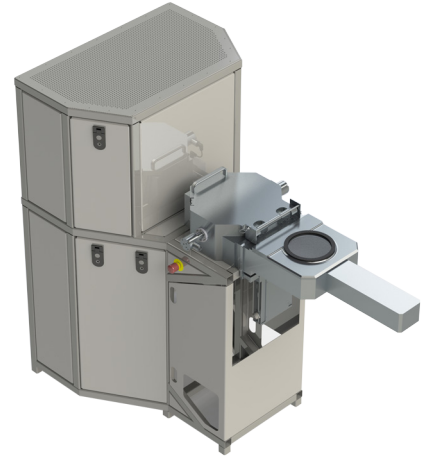
*Residue and corrosion free process, clean contact areas.*

Ideal for: Sensors, RF MEMS, micro-bolometer arrays, accelerometers, RF switches, temperature gauges

## ORBIS 1000

**A single-wafer vacuum loadlock which integrates with the XERIC Oxide Etch, XERIC Silicon Etch and the AURIX coating modules.**

Designed for commercial R&D and pilot line MEMS production, the ORBIS 1000 features fully-automated processing that dramatically improves cycle time between wafers, providing the ideal level of productivity for commercial development and low-volume production. The 1000 can be updated to the full ORBIS 3000 platform at a later date.



## ORBIS 1000

## ORBIS 3000

**Fully automated wafer handling platform enabling full process integration for volume MEMS manufacturing.**

With a proven track record in high volume production, the ORBIS 3000 platform provides fully automated single wafer processing. Its cluster capability allows for any combination of memsstar's XERIC and AURIX process modules. All process modules are based on memsstar's unique technologies for advanced process control, faster process times, superior within-wafer uniformity; and wafer-to-wafer repeatability.



## ORBIS 3000

### Key Features

- Suitable for commercial R&D with pilot line capability
- Integrate XERIC dry release process module with AURIX SAM coatings
- Industry standard components
- Large process window to optimise for any structure

### Major Benefits

- Highly reliable
- Easily connected to cleanroom facilities
- Easily maintained
- Backed by memsstar's comprehensive equipment service

### ISO 9001 Certified Manufacturing and Services

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