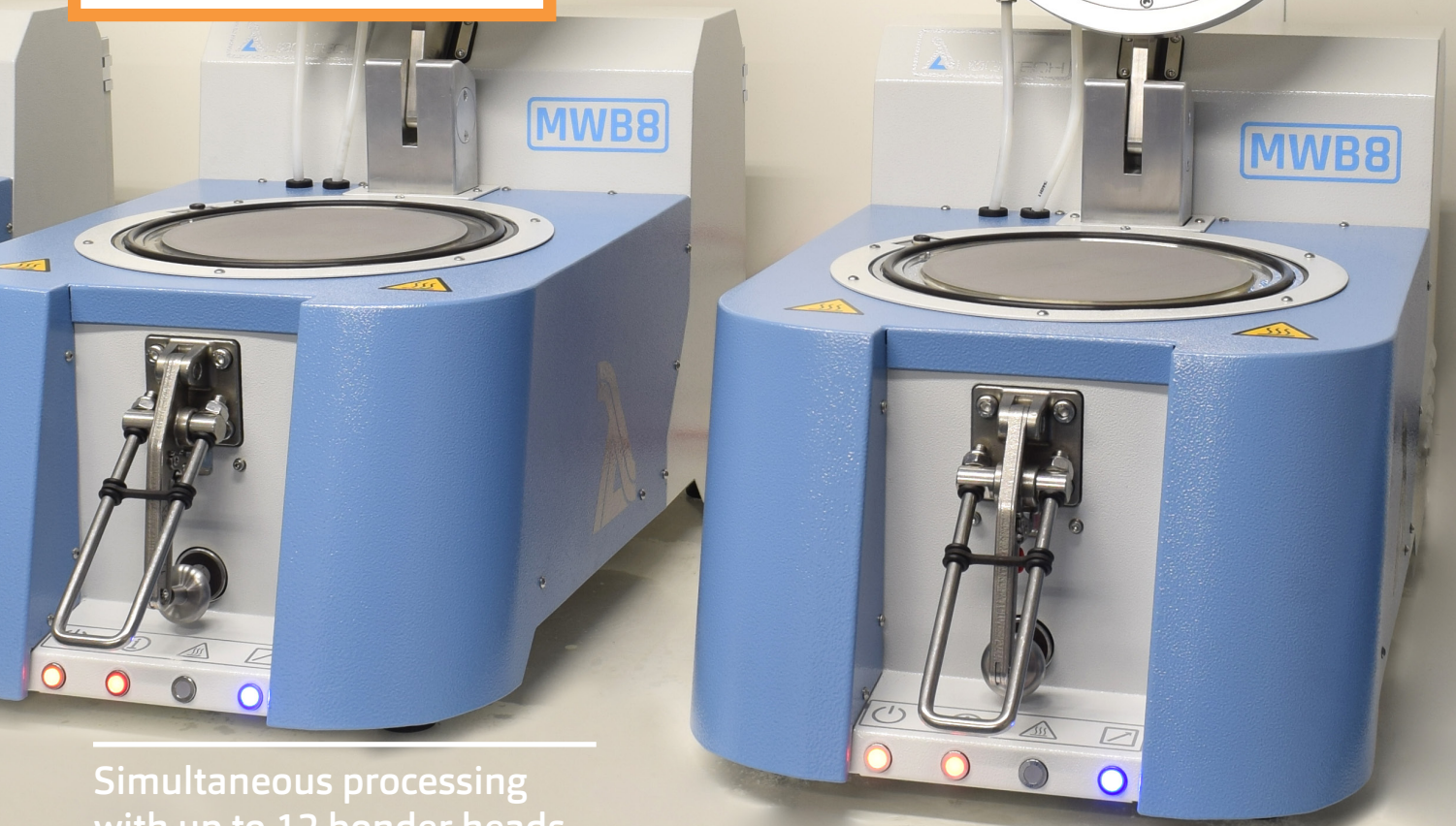


MODULAR WAFER BONDING SYSTEM

OBSESSIVE
SINCE
1965
PRECISION



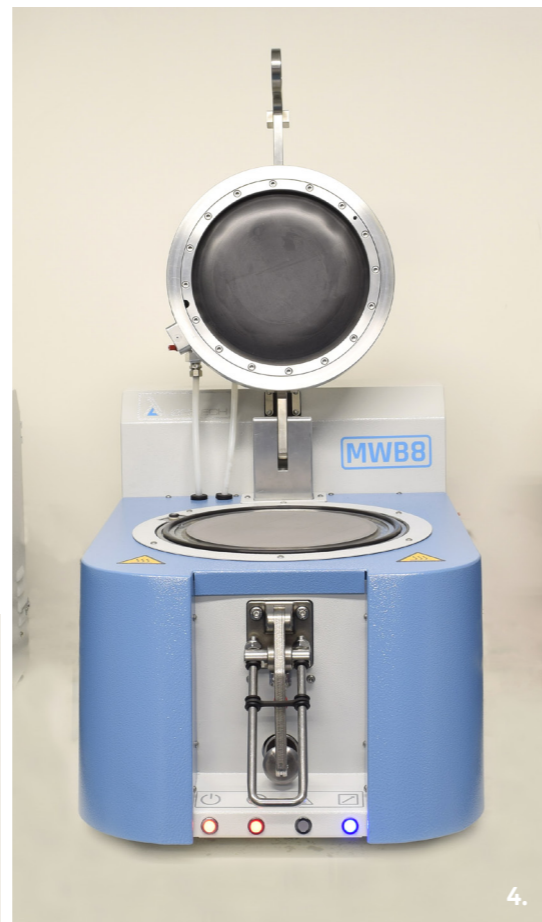
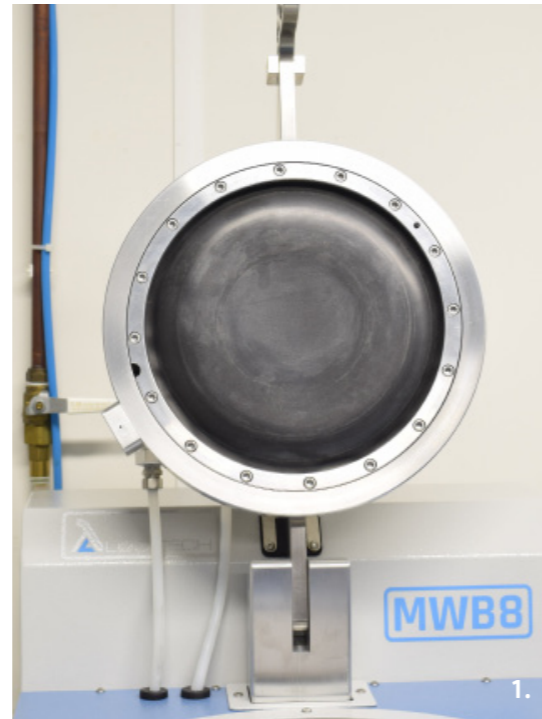
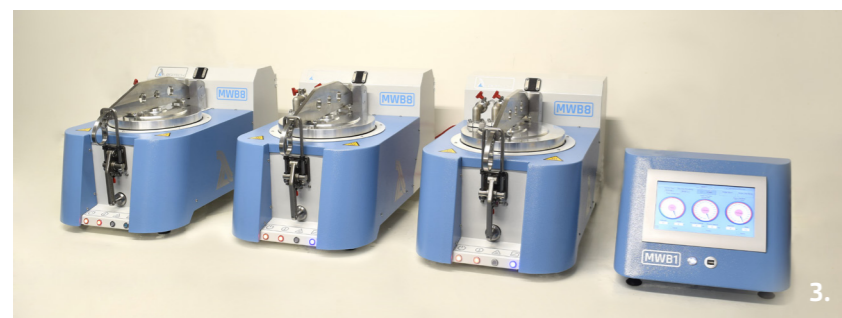
Simultaneous processing
with up to 12 bonder heads
being controlled from one
system

MODULAR WAFER BONDING SYSTEM

Introducing the most recent addition to our range of premium wafer bonders, the Modular Wafer Bonding System (MWBS). The MWBS offers a bonding capacity of small pieces of wafers and wafer sizes, from 2" up to 8" wafers. The modular design allows for up to 12 heads (with the capacity for expansion) from one single control unit. This saves valuable bench space and allows for easy, synchronous and asynchronous processing.

Due to the fully expandable modular design of this system, it is ideal for both R&D and production level facilities. Allowing a cost effective solution the system is fully tailored to the exact bonding and throughput requirements of the customer.

The MWBS provides the same premium bonding service as our other wafer bonders – improved software options allow for full customisation of the process and recipe sequence, allowing for greater operator control and process repeatability.



KEY FEATURES & FUNCTIONALITY

- Wafer process capacity of small wafer pieces and wafer sizes from 2" up to 8" per bonding head.
- Modular design with expansion capacity allowing a cost effective solution tailored to your exact bonding and throughput requirements.
- Control up to 12 bonding heads (with the capacity for expansion) from a single control unit, saving valuable bench space and allowing for easy synchronous and asynchronous processing.
- Easy-to-use fully customised recipe controlled process cycles for greater operator control and process repeatability. Recipes can be stored and recalled for future use and also exported and uploaded via the USB port.
- Process conditions set and controlled via the Graphical User Interface – including the bonding temperature up to 240°C and required vacuum. Can also include a temperature offset to allow for substrate/ carrier thickness difference.
- Due to the process capacity of the MWBS it is the ideal solution for both low throughput R&D to high throughput production level facilities.
- For high volume production level users, a SECS/GEM compliant option is available on request.

- Consistent bond thickness and excellent dimensional accuracy due to precise control of a flexible diaphragm within the bonding chamber.
- Full pressure bonding process completed within the bonding chamber:
 1. MWBS reaches bonding temperature set by operator, mounting adhesive is applied to the sample and it is placed upon the carrier within the chamber.
 2. Air is then evacuated from the chamber creating a vacuum.
 3. The unit then enters the 'soak' phase, where the bonding temperature is maintained along with the vacuum.
 4. In the 'bond' phase a uniform downward pressure is then applied to the sample from the diaphragm chamber, while maintaining constant temperature.
 5. Once the bond has completed, the system enters the 'cooling' phase to the predetermined temperature set by the operator.
 6. The bonded sample can then be safely removed from the chamber.
- The full bonding process – evacuation of wafer chamber, heating, pressure bonding and cooling can be completed automatically by the MWBS in 15 - 45 minutes (depending on mounting media and wafer size).

Image 1:
Consistent bond thickness due to precise control of the flexible diaphragm.

Image 2:
Full bonding process completed in 15-45 minutes

Image 3:
Control up to 12 bonding heads from a single control unit

Image 4:
Wafer process capacity from 2" up to 8" per bonding head

TECHNICAL SPECIFICATIONS

1MWB1 CONTROL UNIT:

Power supply:	Single Phase, Earth. 110-240V 0.8A (24V DC 1.25A Input cable)
Control unit Height:	270mm
Control unit Depth:	285mm
Control unit Width:	395mm
Control unit Weight:	7kg

1MWB8 BONDING UNIT:

Power supply:	Single Phase, Earth. 240V
Fuse rating:	13A RCBO
Earth leakage:	Less than 30mA
Bond unit Height:	405mm
Bond unit Depth:	700mm
Bond unit Width:	410mm
Bond unit Weight:	60kg
Sample size capability:	Up to 8" single
Total Packed weight:	Dependent upon number of units (1+1 units = 90kg approx.)
Cabinet details:	Benchtop modular setup (control panel plus (max 12) bonding units)