

# Benchmark VS1000/PV3000

Vacuum / Pressure Chambers

*vacuum & pressure processing*

## VS1000 Vacuum/Sealer and Chamber

The VS1000 vacuum sealing system provides for a configurable platform for precision sealing of components in a low vacuum atmosphere. Applications include MEMs, frequency control, crystal oscillator, sensors, and other technology devices. A VS1000 system, with easy-to-use Windows® user interface, can be configured to include a glovebox, vacuum oven, and application specific tooling. The integrated inverter power supply performs closed loop controlled welding, brazing, and soldering processes.



## Key Features

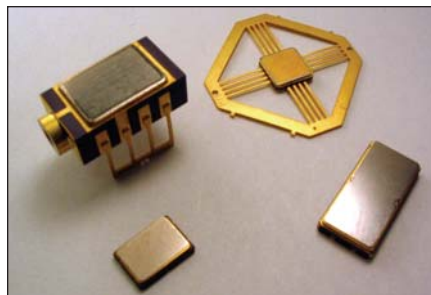
- Computer controlled integrated system: Enables easy operation and reliable process control.
- Package sizes from 1.5 mm to 25 mm
- Standard part profile up to 12 mm tall
- Achieves vacuum levels in chamber down to 10<sup>-7</sup> Torr
- Weld speeds up to 20 mm per second
- Advanced Inverter power supply with closed loop control for high process yields
- Roughing and cryogenic vacuum pumps for fast pump down
- Very accessible mechanics for easy maintenance and troubleshooting
- Precise servo-driven linear motion synchronized with welding inverter power supply operation
- Accurate, consistent electrode force through mechanical flexures which apply variable force under software control



## Components

- Vacuum sealing chamber
- Two stage vacuum pumping system
- Glovebox with optional vacuum oven
- Computer controlled automated door
- Pallet loader mechanism
- Three glass viewing ports for process observation
- Real Time Controls with Windows user interface

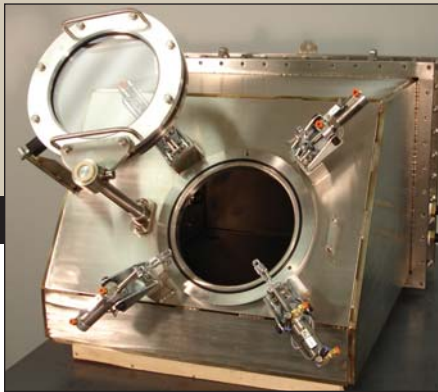
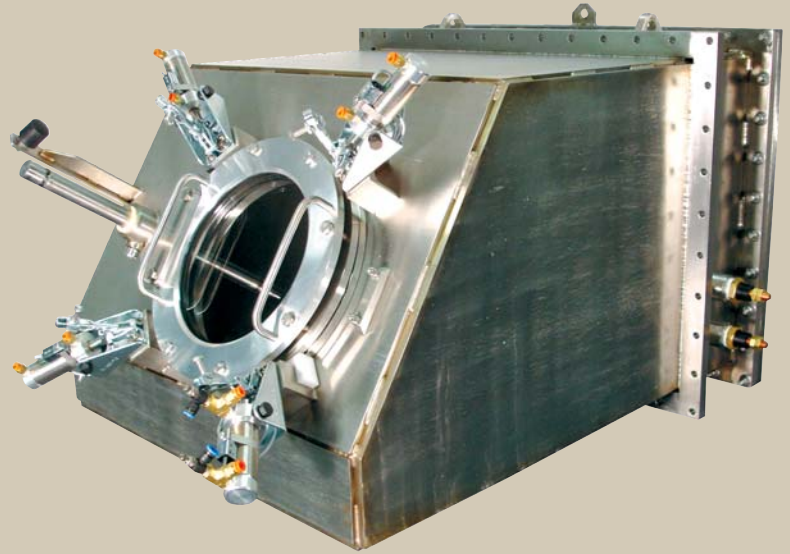
## TYPICAL APPLICATIONS



# PV3000 Vacuum/Pressure Chamber

Environmentally controlled family of enclosures for seam sealing and other process applications

- Provides vacuum or over-pressure process environment (100 mTor to 1.5 atmospheres)
- Seam sealing in specific gas or vacuum environment
- Minimizes consumption of expensive specialty gases with small chamber size and gas recycling
- Can hold SM8000 and Autoflow sealing systems

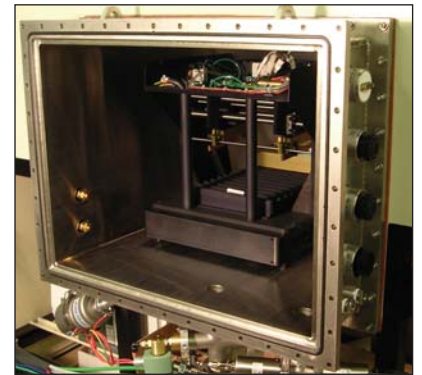


## Key Features

- Modular design for easy integration into glovebox or stand-alone benchtop use
- PLC controlled
- Rear access panel provides access outside of glovebox for easy maintenance
- Vacuum and over pressure set points
- Atmosphere cycling sequencing
- Multiple process inhibit I/O signals
- Safety controls
- Robust construction
- Hermetic specified hardware and feed throughs

## PRODUCT CONFIGURATIONS

<b>Chamber Size</b>	26.5 x 20.0 x 33.7 (670 x 510 x 855) for Autoflow
<b>W x H x D Inches (mm):</b>	22.0 x 17.0 x 26.0 (560 x 430 x 660) for SM8000
<b>Environments Available:</b>	Vacuum to 100 mTor Vacuum to 100 mTor and over pressure to 1.5 atmospheres
<b>Front Access Door:</b>	Manual operated Pneumatic automatic operated
<b>Vacuum Pump:</b>	Selected to meet application requirements



Glovebox Installation

Your Local Representative



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