



porvair
sciences

ULTRASEAL PRO

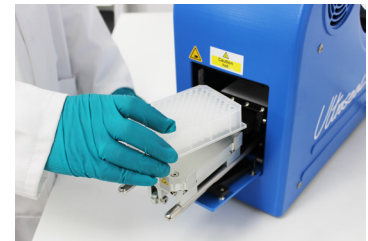
THE FULLY AUTOMATED HEAT SEALER
FOR PLATES AND TUBES

Porvair Sciences Ultraseal Pro is the new fully automated heat-sealing instrument designed to consistently seal and protect a wide range of microplates and tubes.

Protecting precious samples during storage and transportation is an essential final step for a wide range of laboratory and clinical applications. The Ultraseal Pro is the latest heat sealing instrument designed to effortlessly seal microplates and tubes while ensuring maximum protection with a tighter seal. With its classic blue design, Ultraseal Pro is compact, versatile and fully automated for reliable and consistent sealing.

Key Features

- Fully automated
- Compact and lab bench friendly
- Seals up to 6 plates per minute
- Built-in sensors to monitor seal integrity
- Customisable, password-protected programs for consistent sealing
- Gas purge option for greater protective barrier



Versatile and Compatible

Microplates

- Compatible with ANSI standard plates
- Suitable for polypropylene, polystyrene and polycarbonate and cyclin olefin copolymer (COC) plates
- Seals 24-, 48-, 96- and 384-well microplates
- Ideal for PCR, qPCR and other assays and storage-based applications

Tubes

- Compatible with tubes placed in ANSI standard plates
- Seal up to 24 tubes at once
- Suitable for tubes with heights up to 45mm

Seals

- Wide range including optically clear, low temperature films, gas permeable films and foils
- Selection suited for laboratory, cell culture, high and low temperature storage and transportation



System Requirements

Note: Both electric and gas supplies are required for the unit to be fully operational.

Electric	The unit can handle both 110 / 220 VAC supplies but must be rated to min 6Amp
Pneumatic	The unit requires a supply rated to min 5.5bar max 6.5bar 50 litres per min.
Weight	Approx. 12 kgs
Dimensions	630mm L x 195mm W x 450mm H (Inc. film roll)
Comms lead	3m RS232 (3 wire 2,3 and 5 connection non twisted)
Comms driver	Supplied with communication protocol
Shuttle extension	Offers greater access to plate nest extends + 34mm
Gas perm seal*	Requires high LPM air supply rated too a min of 140 LPM at 5.5 bar
Gas Purge*	Requires Heavy Gas supply 6mm pipe with 0 to 10 PSI control, additional gas safe monitoring will be needed or suitable fume hood
Heat sealer ambient	Up to 199°C
Optical seals	Yes
Automation level	Automatic cut and apply seals
Working height	Plate height: 7mm to 48mm, Tubes: Compatible with tube in ANSI standard plate.

**optional – please contact us for further details*

Hands-free Sealing Mechanism

The Ultraseal Pro system applies the heat-activated sealing film by automatically pulling and maintaining control of a reel of film and precisely cutting the seal to the desired length and apply to the top surface of the microplate or tube rack. With an operator friendly user-interface, programs are easily customisable to suit desired sealing requirements and password protected to ensure repeatable settings for consistent sealing every time.

Gas Purge Option

For greater protection of samples, the gas purge option apply heavy gas coating to the well surface prior to sealing. This offers greater protective barrier against air voids often left between sample and seal. The addition of gas prior to sealing creates an oxygen-reduced or virtually oxygen-free space environment that offers tighter and greater reassurance of a tight seal.

Heat Sealing Films

Porvair Sciences offers a range of films for plates and tubes suited for many types of plates and tubes. There are 4 main types of heat sealing films; clear, strong (Dura), heavy duty and gas permeable with several variations to add flexibility and compatibility to suit all requirements for sample storage and collection.

When heat is applied, a tight seal is formed on polypropylene, polyethylene, polystyrene, polycarbonate and cyclin olefin copolymer (COC) plates. These seals prevent atmospheric contamination, moisture ingress or further drying of the sample, especially in low temperature storage conditions.

Clear Seals

Optically clear films are available in a variety of formats including peelable and pierceable and strong non-peelable. These seals are ideal for a wide range of applications including imaging, fluorescence colorimetric assays and PCR/qPCR.

- All clear seals are also compatible with instruments that use a heat pressurized lid.
- Pierceable formats allows for automation with autosampler needles/ABI® 3730 and needle, capillary and tip based liquid handling systems.
- Stronger seals form a permanent seal to polypropylene plates and demonstrates higher solvent resistance. It's difficulty to pierce and autoclavable makes it ideal for long term storage and transportation of hazardous material.

Dura Range Heat Seals

These durable foil-based heat-sealing films are ideal for high temperature applications and room temperature storage. They come in a variety of formats from peelable, pierceable and solvent resistant including DMSO.

The Dura range also has a selection of aluminium heat-sealing foils (Dura Pierce and Peel) which come in pierceable, peelable and foil on foil resealable formats. Along with specific Dura seals for polystyrene plates.

- All the Dura seals are autoclavable.

HD Heat Seal

For long-term storage and transportation, we would recommend HD Heat seal. Which is the strongest protective seal of the range that offers high solvent resistance, wider seal integrity range (-200 °C to 110 °C) for polypropylene plates that is impenetrable by pipette tips and liquid handling systems.

Gas Permeable

The Bio Pierce and Peel seal is a non-woven gas permeable material which limits evaporation specially designed for use in cell culture. Its porous properties allow gas exchange to occur whilst providing an inert surface and no adhesive to interfere with the well contents. We also offer a Gas Pierce and Peel version; a film is composed of paper with a grid lacquer coating to enhance porous and gas permeable properties. This is modified slits across the seal to enable efficient gas exchange and are available in peelable, pierceable, and autoclavable formats.

All rolls of films (78mm wide) are available in 5m rolls. Please contact sales to request.

All seals are compatible with 78mm rolls for Wasp, Chameleon XT, Kube, Flexiseal, ThermoALPS300/3000, REMP (PHS)

Ordering Information

Ultraseal Pro Instrument

Product #	Description
500290	Ultraseal Pro: The Fully Automated Heat Sealer for Tubes Racks and Plates

Heat Sealing Films

All rolls of films (78mm wide) are available in 5m rolls. Please contact sales to request.

All seals are compatible with 78mm rolls for Wasp, Chameleon XT, Kube, Flexiseal, ThermoALPS300/3000, REMP (PHS)

Product #	Description	Sterile	Dimension (Roll)
500293	Clear and Peelable	500294	500M x 78mm
500296	Clear and Pierceable (for Abi 3730)	500297	610M x 78mm
500299	Clear and Strong	500300	610M x 78mm
500302	Clear and Perforated	500303	610M x78mm
500305	Dura Peel Foil	500306	610M x78mm
500308	Dura Peel Foil Super	500309	500M x 78mm
500311	Dura Peel DMSO Super	500312	610M x 78mm
500314	Dura Pierce Foil	500315	610M x 78mm
500317	Dura Pierce and Peel Foil	500318	610M x 78mm
500320	Dura Pierce Foil PS	500321	610M x 78mm
500323	HD Heat Seal Foil	500324	500M x 78mm
500326	Gas Pierce and Peel	500327	200M x 78mm
500329	Bio Pierce and Peel	500330	610M x 78mm

Contact Information

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About Us

Porvair Sciences, and sister company, JG Finneran, design, develop and manufacture high-quality microplates, instruments and glass vials for analytical and life science laboratory applications.