

Fast, reliable, and quiet automated plate sealing

ALPS 5000 Heat Sealer

The Thermo Scientific™ ALPS 5000™ Heat Sealer is the next generation in plate sealing equipment offering fast sealing times, increased process customisation and all electric operation improving reliability and reducing noise.

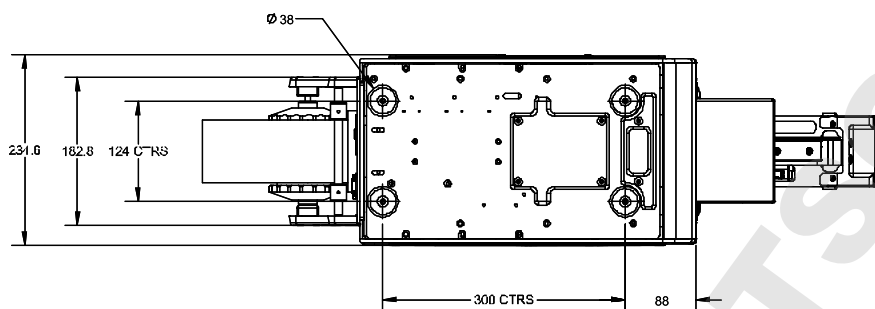
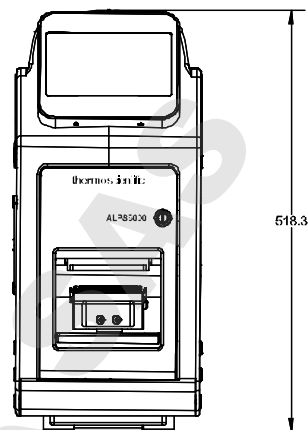
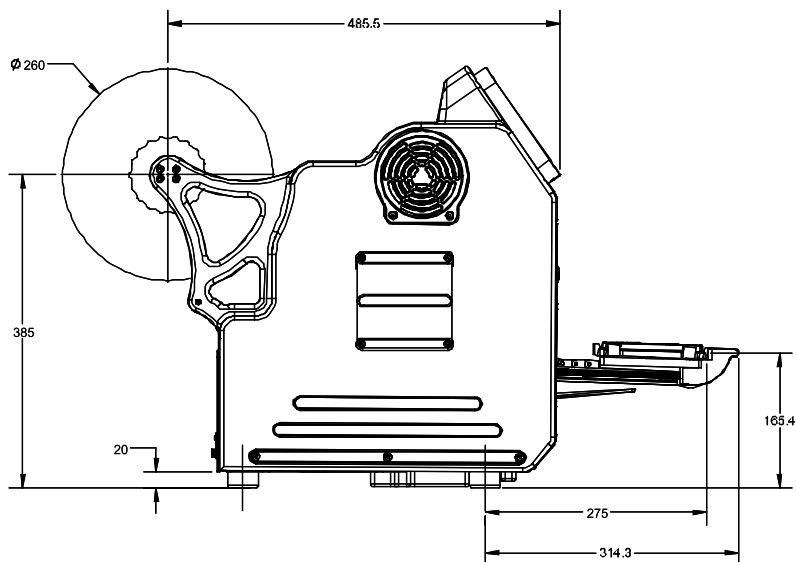
The ALPS 5000 Heat Sealer has a compact footprint to conserve precious bench space and top-loaded seals are easily accessible and can be loaded without the aid of a tool. With automated, electrically controlled microplate sealing, seal up to 2 plates per minute in a variety of hand-fed, benchtop or high throughput robotic applications.

Designed with the ability to program sealing time, temperature, pressure, foil length, and sealing distance the ALPS 5000 Heat Sealer allows for ability to offer complete customization of the sealing process for a wide range of applications.

The ALPS 5000 Heat Sealer is semi-automated, and equipped with both on-board touch screen operation, savable protocols for bench top use and an RS232 port and included programming parameters for robotic integration.



Features	Benefits
Fast sealing of multiple plate heights	<ul style="list-style-type: none"> • Increase productivity and throughput sealing up to 2 plates per minute • Seal plates from 8 mm to 46 mm in height with no adapters required • Compatible with high throughput automated applications
Touchscreen control and savable protocols	<ul style="list-style-type: none"> • Scalable to meet labs needs now and into the future • Precise control over sealing parameters to ensure repeatability • Easily integrated into an automation or a robotics workflow
Electrically driven with tool-free loading	<ul style="list-style-type: none"> • No need to connect to an external air source or replace expensive vacuum cups • Helps reduce risk of contamination inherent in pneumatically driven sealers • Quieter operation when compared to pneumatically controlled systems • Tool free loading makes reloading foil simple and repeatable



Dimensional drawings

ALPS 5000 Heat Sealer

Specification	Measurement	Cat. No.
ALPS 5000		AB-5000
Dimension (WxDxH)	232 mm (W) x 506 mm (D) x 518 mm (H)	
Weight	25 kg	
Speed	30 seconds per plate	
Power supply	110-240 V AC, 50-60 Hz	
Air requirement	N/A	
Air input pressure	N/A	
Sealing temperature range	Ambient to 199°C	
Operating temperature range	15°C to 40°C	
Operating humidity range	10-80% non-condensing	
Sealing plate height	7 mm to 46 mm	

Seals						Cat. No.
Description	Characteristics	Compatible plate material	Sealing conditions	Seal integrity temperature range	Applications	
Thermo-Seal	Foil laminate; very strong seal that can only be peeled using the Foil Stripper can be pierced with a single pipette tip or Pierce Plate; good solvent resistance; recommended for use with DMSO	PP	1.5 to 2.5 seconds at 165°C to 170°C	-80°C to 120°C	Long term storage including storage at low temperatures; transportation and high temperature applications such as PCR, including use in waterbath thermal cyclers	AB-3559
Easy Pierce	Foil material; easily pierced; peelable bond that can be removed by hand; second seal can be applied over existing seal; recommended for use with DMSO	PP, PE	0.5 to 3.0 seconds at 165°C to 175°C	-80°C to 80°C and up to 120°C with cyclers lid pressure	Well suited for 384-well formats where piercing is a useful method for sample retrieval; second seal can be applied over existing seal; suitable for PCR with screw-down lid	AB-3738
Easy Pierce 20 µm	Thin foil material; easily pierced; peelable bond that can be removed by hand; good solvent resistance; recommended for use with DMSO	PP, PE	0.5 to 2.0 seconds at 165°C to 175°C	-80°C to 80°C and up to 120°C with cyclers lid pressure	Well suited for 384-well formats where piercing is a useful method for sample retrieval; suitable for PCR with screw-down lid	AB-3720
Easy Peel	Foil laminate; difficult to pierce; peelable bond that can be easily removed by hand, but forms weld with PE plates; can be removed and new seal applied several times; some solvent resistance and suitable for DMSO use below 4°C	PP, PE, COC	1.5 to 2.5 seconds at 165 °C to 170 °C	-200°C to 90°C and up to 120°C with cyclers pressure	Ideal for long term storage at low temperatures; seal can be applied, removed, and a new seal applied several times; suitable for PCR with screw-down heated lid thermal cyclers only	AB-3739
Clear Seal	Thin polymer material; able to be pierced; peelable seal when layered; good optical clarity; some solvent resistance	PP, PS, PE	1.5 seconds at 170 °C	-80°C to 80°C and up to 120°C with cyclers pressure	Suitable for fluorescence and colorimetric applications; suitable for PCR applications with screw-down or clip-down heated lid thermal cyclers only	AB-3797
Clear Seal Diamon	Thin polymer material; peelable seal; good optical clarity; some solvent resistance	PP, PS, PE, COC	1.5 to 3.0 seconds at 170 °C	-80°C to 120°C	Ideal for fluorescence and colorimetric applications; suitable for PCR applications with screw-down or clip-down heated lid thermal cyclers only	AB-3799

Plate sealing settings guide

Plate material	Temperature setting	Time setting
Polypropylene	150°C - 175°C	3 seconds - 5 seconds
Polystyrene	145°C - 165°C	3 seconds - 5 seconds
Polyethylene	150°C - 170°C	3 seconds - 5 seconds

Find out more at thermofisher.com/samplestorage

This product is intended for General Laboratory Use. It is the customer's responsibility to ensure that the performance of the product is suitable for the specific use or application. © 2019 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. SSALPS5000 1019