

# HSG-3 & HSG-5 Gradient Heat Sealer

PRECISION LABORATORY HEAT SEALER FOR ACCURATE AND REPEATABLE DETERMINATION OF HEAT SEAL THRESHOLD, WITH 3 OR 5 SETS OF SEALING JAWS. PRODUCES SEALS 15MM WIDE AND 30MM LONG.



The satisfactory development, manufacture, conversion and application of flexible packaging films necessitates the implementation of precise methods of quality control systems. Efficient determination of heat seal thresholds is achieved with this multi-jaw heat sealer. Up to 5 pairs of jaws can be fitted with independent temperature control providing a temperature gradient on the film. Especially suited for flexible packaging materials, laminates, foils and paper, the HSG-3/5 multi-jaw features accurate control of temperature, pressure and dwell time of a standard surface area sealing jaw.

With the introduction of a standard test method ASTM F2029-00 and our heat sealer HSG-3/5, you can be confident that your heat seal threshold measurement is common to all producers, converters and end users of flexible packaging materials and their eventual applications.

Meets ASTM F-2029-00 (only when top/lower jaw heated)



# Specification

**Temperature Control:** 0 - 300°C (0 - 572°F) 0.1°C resolution +/- 0.5% +/- 1 digit accuracy. Operating temperature accuracy +/- 2°C. Resistance Type 'J' thermo-couple sensing. Single independent or dual independent control.

**Pressure:** 0 - 100psi (0 - 6.8 bar, 0 - 689 Kpa) via digital display and transducer. Pressure control through precision regulator. Repeatability +/-0.02 PSI Operation accuracy +/- 5% Supply via factory compressed air line or nitrogen or compressed air bottles min 6 bar (90 psi) max. 7 bar(100 psi). Pressure medium must be clean and dry.

**Dwell Time:** 0.01 - 99.9 sec. 0.01 sec resolution real time base via quartz crystal +/- 0.01% of range. Operating accuracy +/- 5% (taking into account friction in piston movement).

**Footswitch:** Connection port for footswitch operation. Optional footswitch.

### Sealing Jaw Std:

Single jaw option: Top heated with silicone rubber (60 shore hardness) 15mm wide x 30mm long. Jaws made from brass with machine ground flat face.

Dual jaw option: Top and Lower heated 15mm wide x 30mm long. Jaws made from brass with machine ground flat face.

**Environment:** 5-50°C ambient operating temperature, RH 75% max (non-condensing) Power: 240V AC 50/60 Hz (110V AC voltage available on request).



Five brass sealing jaws



Control panel showing ten temperature controllers, plus digital pressure and digital dwell time controllers.

# Options

- Single (Upper) sealing jaw temperature control or Dual (Upper & Lower) sealing jaw temperature control
- Sealing jaw dimension/profile as required (inc. Matched crimp 120° x 1.8mm pitch)
- Teflon Coated Tape or Teflon Coated Jaws
- Footswitch
- PVC Dust Cover
- Cold seal system (temperature circuit removed)
- Digital thermometer with s/s band probe to check jaw temperature (see image)



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