

HSG-C **Heat-Sealing Machine**

The Heat-Sealing Machine HSG-C allows you to determine the heat-sealability of coated paper, aluminium foils and laminates as well as other heat-sealable multi-layer films. You can also quickly detect the suitable sealing parameters for these film types.

Our concept is based on proven technology to fulfil the following requirements:

- Quality control during the production process
- Tests for research and development

Special features

- **Wide range of sealing parameters:** The HSG-C allows you to set the dwell time between 0.1 to 50.0 seconds. The sealing temperature can be set separately for the top and bottom sealing jaws from ambient temperature up to 300°C. The sealing force covers a range from 40 N to 990 N. Using different sealing jaws with sealing areas of various sizes you can adjust almost any common sealing pressure.
- **Replaceable sealing jaws for any requirement:** To meet specific customer demands, we offer a variety of different sealing jaws. All sealing jaws can be quickly swapped.
- **User-friendly and secure:** A clearly laid out control panel and a large LCD display guarantees a safe and reliable work environment.
- **Long life:** High-quality manufacturing adds value and reduces overall downtime and guarantees good sealing quality over time.
- **Software for quick and easy recording (optional):** To guarantee a seamless tracing of your test results, we have developed a special software. The user input and the automatically retrieved sealing parameters are saved to a Microsoft Access database.
- **Reliable Test Equipment Monitoring (optional):** With our calibration system HSG-P you can easily verify that your HSG-C is working within the acceptable tolerances. Additionally, you can use the HSG-P to calibrate the displayed sealing force. The HSG-P is also available as a loaner.
- **Determining the Hot Tack properties (optional):** The Hot Tack accessory allows for a reliable quality determination of the hot sealed seam. For almost any film type, you can also easily determine the appropriate sealing parameters for the highest Hot Tack value.



Figure: HSG-C and optional Hot Tack Device

Functionality

The HSG-C simulates the heat sealability under real-life conditions. The sealing parameters - Temperature, Time and Force - can be exactly set by the user. The parallelism of the two sealing jaws is ensured thanks to an elaborate design.

Thanks to a special design you can swap the various sealing jaws in no time. We offer a variety of sealing jaws with different sealing surfaces.

Customised sealing jaws with a maximum sealing length of 150 mm and a sealing width of up to 20 mm are also available upon request.

A large LCD display shows the current sealing parameters for the temperature, sealing force and dwell time as well as the operating state.

To assure a high reproducibility of the sealing results even at short dwell times, the press goes down in two stages: First, the press goes down using with the force adjusted in the factory settings. Then, the actual pressure set by the user is used in stage 2 immediately before the press gets in contact with the specimen. This two-stage process guarantess that the set sealing parameters are exactly used as set.

Using an optional load cell the sealing force can be checked and quickly re-adjusted (if necessary).



Using an interface connector, the current sealing parameters may be retrieved by our software for easy documentation.

Specifications

Compressed-air supply	10 bar max
Sealing Jaws	150 mm x 10 mm smooth (standard). Other specifications upon request
Sealing temperature	From ambient temperature to 300°C (top and bottom temperatures can be separately adjusted)
Tolerance from the set value	< 1.5 % from the end value
Sealing force	40 N to 990 N for the entire sealing area
Tolerance from the set value	< 1.5 % from the end value
Dwell time	0.1 s to 50.0 s
Tolerance from the set value	< 0.3 % from the end value
Maximum thickness of the specimens	3 mm (total)
Dimensions	68 x 35 x 44 cm
Weight	24 kg
Operating temperature	15°C to 35°C
Electrical connection	230 V/50 - 60 Hz, power consumption approx. 500 W

Standard

Following ASTM F 2029 - 00

Optional Accessories

- Variety of sealing jaws with different surfaces
- Load cell for adjusting the force
- Calibration system HSG-P for test equipment monitoring
- Documentation software
- Hot Tack accessory for determining the Hot Tack behaviour
- Strip Cutter STR for the preparation of the specimens
- Universal Tensile Tester VNG-E for the determination of the seam strength