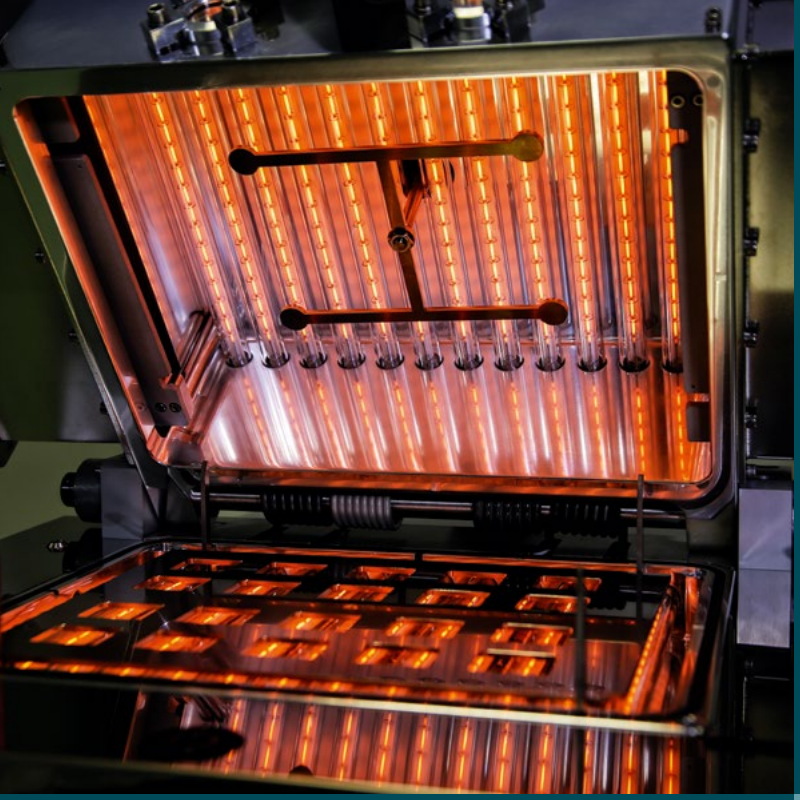


SRO-706 Getter

PROGRAMMABLE SOLDER REFLOW OVEN

THERMAL REACTOR

HIGH VACUUM PACKAGE LID SEALING SYSTEM

THERMAL GETTER ACTIVATION

ATV

THERMAL PROCESSING

TECHNOLOGY.
INNOVATION.
MADE WITH PASSION.

SRO-706 Getter (the picture may show optional equipment)

SRO-706 Getter

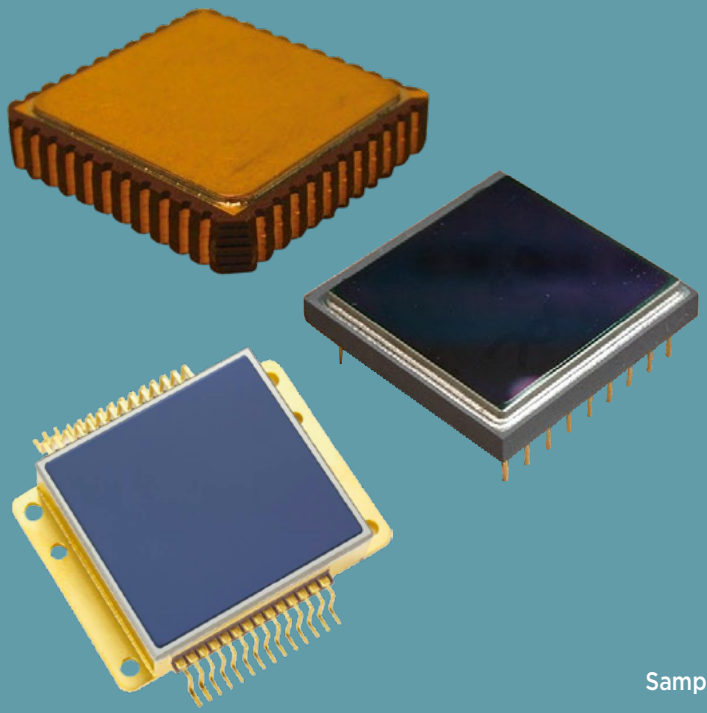
ATV's approach using the Cold Wall Process Chamber is also applied in the SRO-706 Getter system. This system can be applied for Thermal Getter processes in R&D and Production line applications. The basis for the Getter system is the successful SRO-706 series IR vacuum reflow oven. Common applications are sealing of packages with kovar caps or optical windows for gyroscopes, microbolometer and various MEMS sensors under high vacuum by applying thermal GETTER activation.

With its proven direct IR heating approach, ATV applies for the SRO-706 Getter system a top and bottom heating. The IR lamp arrays are independently monitored and controlled as 2 separate heating zones. This results that there is an excellent heating uniformity under vacuum when reaching a maximum temperature of 450°C during the Thermal getter process. The sensor or chip temperature remains below 100°C during the getter activation process. Optionally, a mass spectrometer can be added for residual gas analysis during the sealing process.

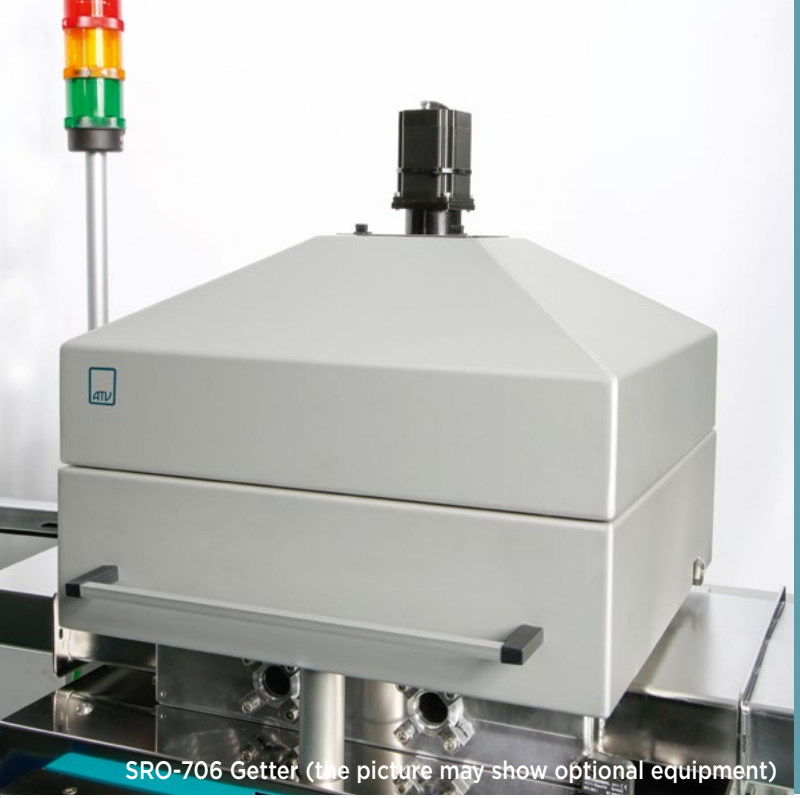
With the special tooling for each different package to be processed a precise package/lid alignment is achieved. Depending on the package size, a load per run can go up to 28 devices.

The SRO-706 Getter is a result of in-depth cooperation with our customer base and listing to the needs of the market as you may expect form ATV.

ATV has over 40 years experience in designing, developing equipment and process know-how which underlines our philosophy offering premium equipment and services to the semiconductor and microelectronics industry. Our scientists and support team are dedicated to help our users getting the best return from investment of the ATV equipment.



Samples



SRO-706 Getter (the picture may show optional equipment)

OPTIONS

MAXIMUM TEMPERATURE: 450 °C

HIGH VACUUM CAPABILITY: < 5 X 10^{-6} mbar

PACKAGE AND LID SEPARATED DURING HIGH VACUUM GETTER ACTIVATION

RGA SYSTEM FOR GAS ANALYSIS (OPTIONAL CONFIGURATION)

Technical Data

- Footprint: 960 x 720 x 1340 mm (L x W x H)
- Weight: 240 kg (minumum configuration)
- Working Height: 950 – 1050 mm adjustable
- Heated Area: 313 x 240 mm
- Chamber Lid Open/Closing:
  Manual open/close; Automatic lock/un-lock
- Heating Method:
  Two IR Lamp arrays within quartz tubes
- Heating Zones: 6; PID controlled
- Cooling water supply:
  Cold wall technology: Inlet max. 4 bar;
  diff. pressure min. 2 bar

Common Applications
(depending on final configuration)

- Package sealing with high vacuum encapsulation
- MEMS Cap/package lid sealing
  - Microbolometers
  - IR detectors
  - Gyroscopes
- Thermal getter activation

Options for extensions
(depending on application and final configuration)

- RGA/ Mass spectrometer
- Noble gas atmosphere
- Chamber pressure control
- Chiller
- Heated chamber walls
- Barcode reader
- Earth quake protection

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