



SRO-716

IR VACUUM REFLOW SYSTEM



**THERMAL
PROCESSING**

TECHNOLOGY.
INNOVATION.
MADE WITH PASSION.



SRO-716

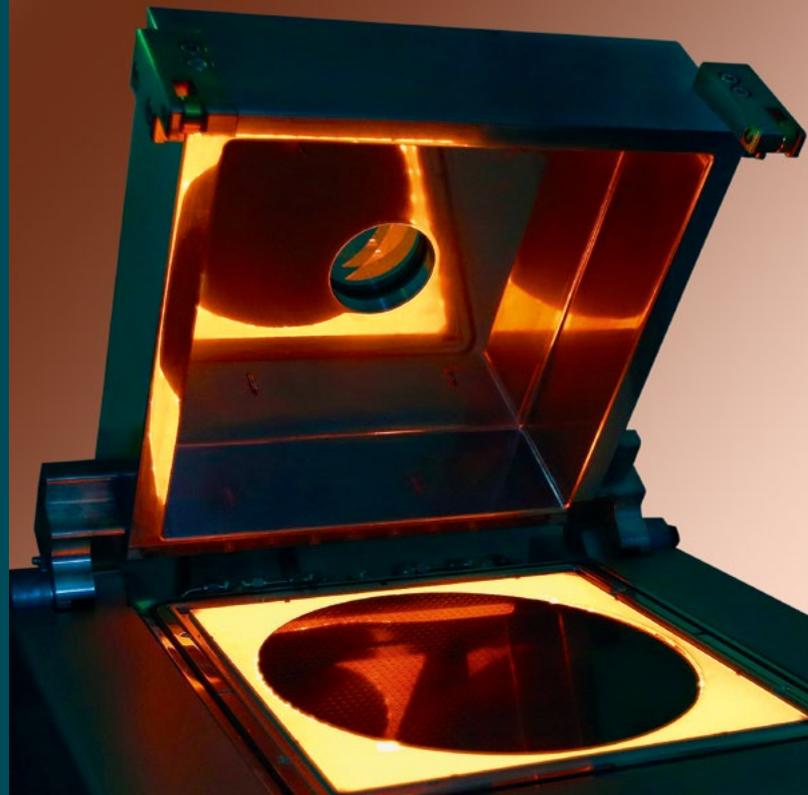
With its Single Cold Wall Process Chamber approach ATV is setting the benchmark in both the R&D and Pilot Line Production markets. Here our highly successful SRO-716 series IR vacuum reflow oven marks the heart of ATV's reflow soldering ovens and proves ready for any and all of your process requirements.

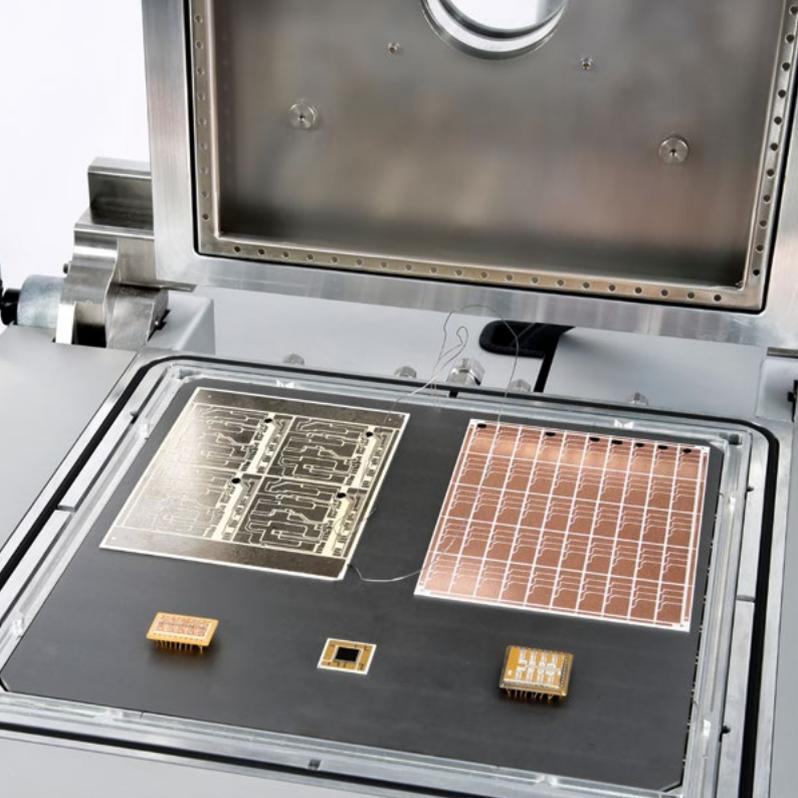
The Solder Reflow Ovens (SRO) 716 offers the perfect tool for reflow soldering applications, rapid thermal annealing and brazing capabilities. Moreover the direct IR lamp heating technology will provide you with a maximum heated surface of 314 mm². With its outstanding process stability and repeatability this tool is found in almost every major R&D center and pilot line production. In order to achieve void free and perfect solder joints ATV applies all of its know-how in cold wall technology, IR heating, vacuum assembly and formic acid.

Due to its high clearance above the heated surface the system allows for easy handling of IGBT and power electronics packages while the large heated area, the SRO-716 (314x314mm) offers excellent flexibility. As a result the SRO-716 can be utilized in every conceivable semiconductor and MEMS application – whether using flux, fluxless or solder paste for your reflow process. When working with the SRO-716, our 100-Step-Recipe will make programming easy and guarantee superb process results.

Just imagine creating a fluxless process via a formic acid enriched atmosphere and receiving perfect void free soldering results – again and again. Due to its very low nitrogen consumption the SRO-716 are prepared for the latest generation of flux-based solder pastes which depend on low oxygen content during the process run.

With the single chamber process approach as its core competence ATV is determined to achieve the best reflow soldering results – for the past 30 years and many years to come!





FEATURES

FLUX-LESS

DIRECT IR HEATING

SURFACE TOUCH TC

MULTIPLE TC MONITORING

CERAMIC HEATER PLATE

PROCESS TEMPERATURE 450°C UP TO 750°C

TEMPERATURE RAMP-UP RATE 3,5K/SEC.

TEMPERATURE COOL-DOWN RATE 2K/SEC.

RAPID SINGLE WAFER PROCESSING < 20°C/SEC.

OXYGEN < 1,0PPM WITH PURIFIED N₂

HELIUM LEAK RATE 5 X 10⁻⁹ MBARL/SEC.

100 STEP RECIPE

Common Applications

- ▷ IGBT/DBC
- ▷ Power Semiconductors
- ▷ Sensors/IR Bolometer Detector
- ▷ MEMS Devices
- ▷ DIE Attachment
- ▷ High Power LED
- ▷ Hybrid Assembly
- ▷ Flip Chip
- ▷ Package Sealing
- ▷ MMICs
- ▷ Transient liquid phase soldering/bonding
- ▷ Ag sintering
- ▷ Thermo compression bonding
- ▷ CPV, Laser bar

Options

- ▷ Spring pin array (in chamber lid)
- ▷ Custom tailored substrate fixture
- ▷ Flux management
- ▷ Flux and solder paste
- ▷ 300 kPa
- ▷ Top heater:
 - Up to 1000°C
 - Rapid single wafer processing < 50°C/sec.

Options

- ▷ Lift pins
- ▷ Formic acid enriched atmosphere
- ▷ Diaphragm/Scroll/turbo pump < 5 x 10⁻⁶ mbar
- ▷ Gas plasma atmosphere
- ▷ H₂O / O₂ analyzing
- ▷ RGA/Mass spectrometer
- ▷ Process development



ATV Headquarter Europe

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**THERMAL
PROCESSING**

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