

# ***SRO-714-TCB***

PROGRAMMABLE OVEN  
WITH MEMBRANE FOR  
THERMO COMPRESSION  
BONDING APPLICATION



**THERMAL  
PROCESSING**

TECHNOLOGY.  
INNOVATION.  
MADE WITH PASSION.

# SRO-714-TCB

ATV's successful SRO-714 series IR vacuum reflow oven is the heart of ATV's reflow soldering principle. Our SRO-714-TCB, Thermal Compression Bonding is also based on which this system is developed. The Single Cold Wall Process Chamber approach is a standard on itself and is also applied for the SRO-714-TCB which fulfills all your process requirements.

Our Thermal Compression Bonding system has an isostatic press in combination with an elastomer membrane. This patented technology gives you the opportunity to use a maximum pressing force of 0,5MPa. This pressure can be gradually built up to the desired process pressure under which you want to perform your process. With our applied membrane technology you will not be faced with product shifting from start to finish.

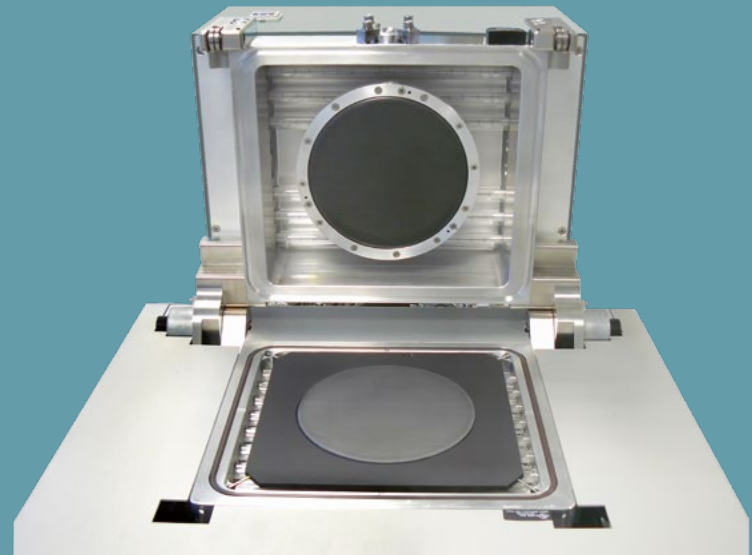


SRO-714-TCB (the picture may show optional equipment)

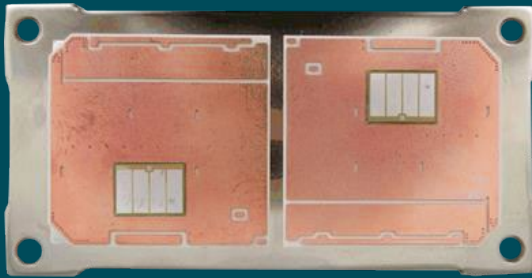
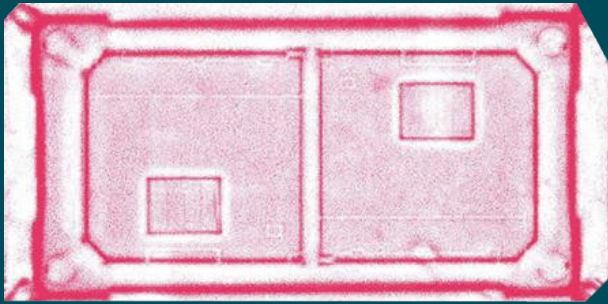
Another advantage for our technology is that you may process simultaneously products which have a different topography. This will have no influence on the expected final process results.

Also in this tool ATV uses all its know-how of the cold wall technology in combination with the IR heating concept, vacuum assembly as well as formic acid to achieve the perfect solder joints you need for a reliable product. Working with the SRO-714-TCB you will notice that programming is easy and with the 100 step programming steps you will be able to fine tune your process in such a way that a process success is guaranteed.

It is ATV's goal to always reach the market best soldering results using its proven single Chamber Process concept as its core competence for over 40 years.



SRO-714-TCB (the picture may show optional equipment)



## FEATURES

VIEWING WINDOW

MEMBRANE ASSEMBLY  $\leq$  5 bar GAS PRESSURE

COOLING RATE: MIN. 300° C DOWN TO 55° C IN 8 MINUTES

MAX. TEMPERATURE: 260°C (FKM PLATE) /  
300°C (FKM KALREZ PLATE) PERMANENT

O<sub>2</sub> RESIDUE: < 1 PPM WITH N<sub>2</sub> SUPPLY QUALITY MINIMUM 5.7

SAFETY ALARMS

FORMIC ACID SUPPLY ASSEMBLY

TWO GAS SUPPLY CONNECTIONS

## Technical Data

- ▷ Footprint: 760 x 960 x 1.800 mm (L x W x H)
- ▷ Weight: 240 kg (minimum configuration)
- ▷ Working height: 950 up to 1080 mm adjustable
- ▷ Chamber height: up to 100 mm
- ▷ Heated area: 217 x 227 mm; Ø 160 mm for the bonder configuration
- ▷ Chamber lid open/closing: Automatic lid closing/opening and locking/unlocking
- ▷ Heating method: PID controlled IR lamp array heating principle of heated plate
- ▷ Cooling: PID controlled cooling with Nitrogen
- ▷ Power Connection: 3 x 400 VAC, 32 A, 19 kW, 50-60 Hz, TN-C-S (other power options available)

## Common Applications (depending on final configuration)

- ▷ Transient Liquid Phase Soldering/Bonding
- ▷ Cu pillar/micro bump flip chip soldering
- ▷ Low pressure silver sintering
- ▷ Micro Peltier/TEC Soldering/Bonding

## Options for extensions (depending on application and final configuration)

- ▷ Customized Tooling
- ▷ Various vacuum pumps



### **ATV Headquarter Europe**

Germany, Vaterstetten/Munich

### **ATV Sales and Service Partners Europe**

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Ireland	Scandinavia
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**THERMAL  
PROCESSING**

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