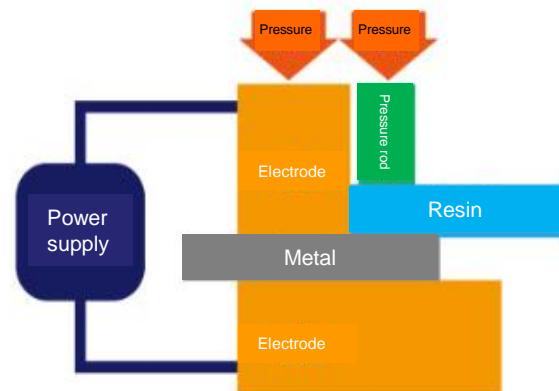


Momentum heating apparatus used for bonding resin and metal !

This is an energization heating system used for bonding the shaped resin and metal. By using this energization heating system, flexibility of product design is expanded , and various benefits can be obtained such as simplification of shape, reduction of assembling man-hour, reduction of screw fastening points, weight reduction, differentiation from competing products, etc.



**Energization heating bonding apparatus,
Conceptual diagram**



Features of 『R-2000』

① Realized a high precision instantaneous heating system

By utilizing the heat (Joule heat) generated by flowing electrical current into the metal, R-2000 heats up the contact surface between metal and resin instantaneously and efficiently. Metal temperature is measured and fed back to control the temperature with high precision.

② Easy operation with touch panel

Possible to setup the bonding conditions by touch panel operation. By setting the bonding conditions, bonding status can be reproduced perfectly. By which, it became possible to execute condition setting easily and quickly.

③ Possible to execute jig design tailored to the workpiece

Since the electrode jig that supplies electricity to the metal workpiece is exchangeable, it is possible to bond various work shapes by preparing a jig that conforms to the workpiece's shape.

④ Possible to bond various types of resin and metal

To execute resin and metal bonding, the following intermediate material is required:

- ① Adhesive ② Hot melt film
- ③ Special surface treatment of metal

Operation process of 『R-2000』

- First, set the bonding conditions; 『Pressure』, 『Heating temperature』, 『Current value』, 『Heating time』, and 『Cooling time』
- Supply a workpiece and press "Start" switch.
- The upper electrode descends and contacts with the metal.
- Then, the resin pressurizing unit descends and automatically searches until the set pressure is reached.
- When the applied pressure is reached, energization is started.
- After energization bonding is finished, the upper electrode and the resin pressurization unit return to their original positions and the operation is completed.

Materials to be bonded by 『R-2000』

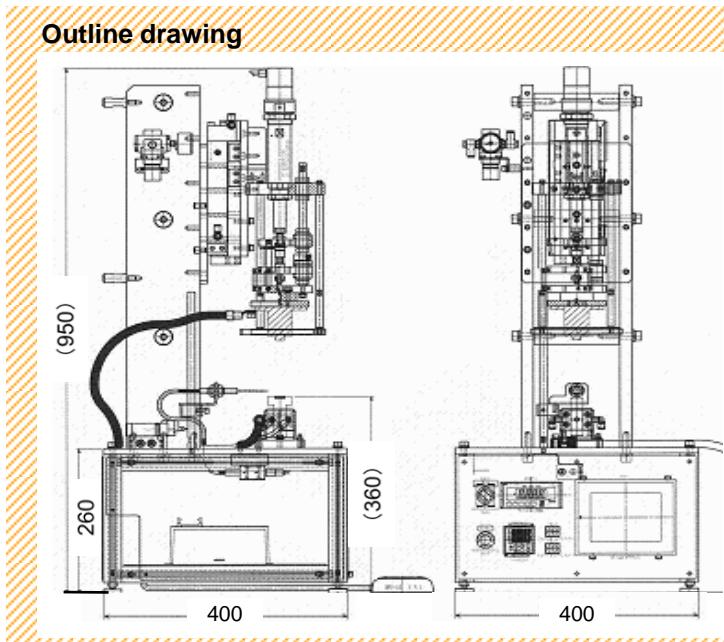
Material	Name of material
Resin	PPS, PBT, PA6, ABS, PVC, PET, PC, Acrylic resin, etc.
Metal	Aluminum, Copper, Stainless steel, Iron, etc.,

- Bonding may not be done depending on the surface condition of the metal, the characteristics of the resin, the properties of the intermediate material, and the compatibility between materials.
- It is recommended to evaluate the bonding performance by customer himself by preliminary prototyping and verification.

Specification of 『R-2000』

Item	Specifications
Display/Operation part	5 inch touch panel (various operations and display)
Servo stroke	500mm
Power Supply	Control part Single phase AC100V±10% 50/60Hz 5A
	Power supply part 3 Phase AC180~240V±10% 50/60Hz 55A
	Cooling system (Option) Single phase AC100V±10% 50/60Hz 11A 1.1kVA
Weight	150kg (main body + welding power supply)
Air source	0.5Mpa
Operating environment temperature	5 ~ 35°C

『ELEBON』 is a trademark or registered trademark of products using the energization diffusion (heating) bonding technology.



! When using this product, please read the operation manual carefully.

Manufacturer

ECO-A Co. Ltd.

〒302-0127

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Please look at the information on the Internet.
<http://www.eco-a2010.co.jp/>