2. Load Cell Production Process

- **Finishing the surface of the spring material**
  To enhance its adhesive strength, the surface of the spring material is sandblasted to a suitable level of roughness.

![Figure 4.7](image)

- **Bonding**
  After the surface of the spring material is washed, the spring material and the gauge are coated with an adhesive. The gauge is then attached to the spring material.

![Figure 4.8](image)
• Curing
A jig is used to apply pressure to the gauge and spring material. The jig is placed in a high temperature oven to cure the adhesive.

![Figure 4.9](image)

• Four-corner adjustment
A pan is attached to the load cell. The spring material is grinded and adjusted until the output is the same when a weight is placed on any corner.

![Figure 4.10](image)

• Testing the temperature characteristics on zero balance
The load cell is placed in a thermostatic chamber, and its output voltages are measured at a low temperature and a high temperature. If the temperature characteristic specifications are not satisfied, a resistor with a high temperature coefficient is incorporated into the bridge circuit for adjustment.
• **Moisture-proof coating**
A moisture-proof agent such as silicone is applied to the gauge and the circuit.

• **Inspection**
A power supply and a multimeter are connected to the load cell, and input and output resistance, insulation resistance, etc are inspected.