## ✓ Specifications

Table 2: Specifications of the device

| Specifications of the Desk Sputter Coater/Carbon Evaporator | |
|---|---|
| Weight(without pump) | 26 kg |
| Carbon Evaporator (without pump) | 30 kg |
| Vacuum Pump weight | 16 Kg |
| Instrument Case | 500 mm wide × 350 mm deep × 450 mm high |
| Vacuum chamber | Pyrex glass (diameter: 140 mm, high: 170 mm) |
| Ultimate vacuum pressure | 30 mtorr |
| Layering cathode diameter | 2 inches |
| Applicable voltage (Sputter Coating) | 300-700 V DC |
| Applicable voltage (Carbon Coating) | 0-25 V DC |
| Working pressure | 50 - 70 mtorr |
| Target | 2 inches dia × 0.1~ 4 mm thick |
| Carbon Fiber | 0.8 mm |
| Specimen stage | 50 mm dia. |
| Vacuum gauge range | ATM - $1x10^{-3}$ torr |
| Current range (Sputter Coating) | 0-100 mA |
| Current range (Carbon Coating) | 0-100 A |
| Control of Argon supply | Needle valve |
| Electrical specification (Sputter Coating) | Input : 220-240 V/50Hz – 6A |
| Electrical specification (Carbon Coating) | Input : 220-240 V/50Hz – 10A |
| Control & interface | Semi-automatic control with HMI interface |

The DSR1 includes the following components: Glass chamber, aluminum cap with installed magnetron cathode, carbon coated head, high current power supply and aluminum base plate with installed of the following accessories:

## Internal components of glass chamber

In order to prevent the coating of the inner wall of the glass chamber during the sputtering process, the interior parts of the glass chamber must be covered by aluminum foil.




Fig.3-4: Inside the vacuum glass chamber

### Base plate

The base plate is made of aluminum. The component shown in Fig.3-4 includes:

1. Shutter
2. Sample holder
3. Vent filter
4. Quartz crystal thickness sensor
5. Pressure gauge inlet filter
6. Argon and reactive Inlet filter