

## *SED-TBJ Automatic Sleeve Labeling Machine for Bottle Neck*



The Bottle Neck Sleeve Machine is an automated packaging device specifically designed to apply heat-shrinkable labels onto the neck or mouth of bottles. This machine is widely used in beverages, food, pharmaceuticals, daily chemicals, and cosmetics for high-precision, high-speed label application on plastic or glass containers.

Compared to manual sleeving, this equipment offers significant advantages, including high production efficiency, accurate label positioning, stable operation, and reduced labor costs, making it an indispensable component in modern production lines.

### **Key Features**

- Fully Automatic Sleeving: Automated processes include label unwinding, cutting, expanding, and precise sleeving.
- High-Precision Stepper Control: Equipped with high-performance stepper motor drive systems to ensure accurate label feeding and positioning, minimizing errors.
- Strong Adaptability: Customizable for various bottle shapes, neck diameters, and label sizes to meet diverse production needs.
- Intelligent Detection System: To improve yield rates, integrated photoelectric sensors and missing-label detection.
- User-Friendly Interface: PLC control system + touchscreen HMI for intuitive parameter adjustment.
- Safety & Reliability: Emergency stop protection, overload alarms, and other safety features to safeguard equipment and personnel.

### **Working Principle**

- Label Feeding: Stepper motor-driven feeding mechanism continuously unwinds labels from the roll.

- Label Cutting: Pneumatic or stepper-driven shear system precisely cuts labels to preset lengths.
- Label Expansion: Guide mechanism expands and positions labels for application.
- Sleeving Action: Lifting cylinder-driven clamping mechanism sleeves the label onto the bottle neck/mouth.
- Bottle Discharge: Labeled bottles are conveyed out for subsequent heat-shrinking in a tunnel oven.

Technical Specifications

| Parameter               | Technical Specifications                      |
|-------------------------|-----------------------------------------------|
| Applicable Bottle Types | Round/square plastic/glass bottles            |
| Neck Diameter Range     | Φ25mm – Φ50mm (customizable)                  |
| Label Material          | Heat-shrink films (PVC, PETG, OPS, etc.)      |
| Bottle Dimensions       | Diameter: 30–100mm, Height: 50–180mm          |
| Production Speed        | 20–60 bottles/min (bottle-dependent)          |
| Control System          | PLC + Touchscreen                             |
| Drive System            | Stepper motors + pneumatic actuators          |
| Power Supply            | AC220V / 50Hz                                 |
| Power Consumption       | 1.1 kW                                        |
| Air Pressure            | 0.6–0.8 MPa                                   |
| Construction Material   | SUS304 stainless steel + engineering plastics |
| Dimensions (L×W×H)      | 1700×700×2300 mm                              |