

Automatic labeling machine

SANYO DENKI

Description

Automatic labeling machines are used to place labels onto bottles, paper products, cartons, and other products. Various label shapes and adhesives are available to match customer needs.

Automatic labeling machines are widely used in the food, beverage, and pharmaceutical industries..

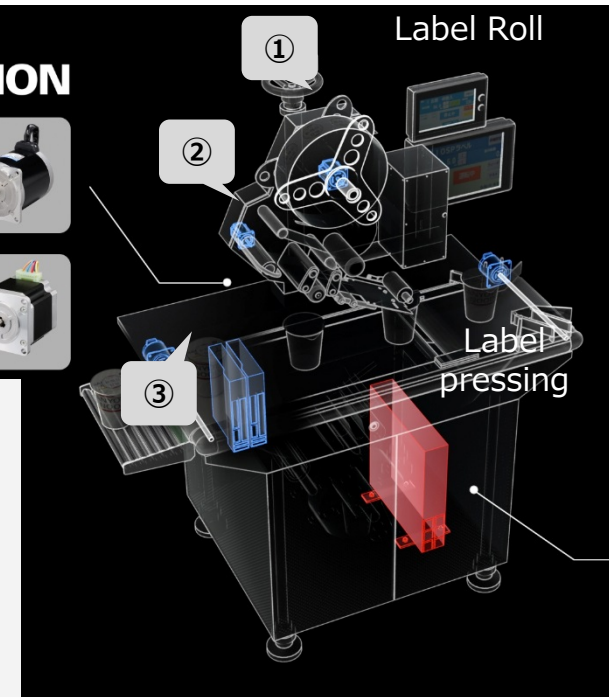
There are varieties which attach the appropriate label or film to a product while other types roll out thermal films then cut and compress the film to match the shape of various products.

SANMOTION R
AC SERVO SYSTEMS

3E Model

SANMOTION F
STEPPING SYSTEMS

SANMOTION



SANYO DENKI Proposal

Axis	Motor	Specification	No. of axis	Amplifier
1. Label Feeder	SANMOTION R AC Servo Motor	60 mm sq. 200 W or 400 W	1	SANMOTION R 3E Model
2. Release liner pulling axis	SANMOTION F2 2-Phase Stepping Motor	60 mm sq.	1	SANMOTION F2 Stepping Driver
3. Conveyor	SANMOTION F2 Synchronous Motor	Φ 56 mm	2	—

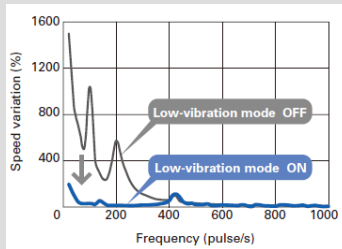
Features

■ AC servo motor + amplifier

- High precision battery-less absolute encoder (HA035)
- The 3E Model has a speed frequency response of 2.2 kHz, approximately twice that of our conventional product. Position settling time has been shortened to 1/3 of the original time

■ 2 Phase stepping motor + driver

- Motor size ranges from 14 mm sq. to ϕ 106 mm.
- Bipolar and unipolar drives are available for each size.
- Low vibration mode provides one (full step) or two (half step) division coarse resolution setting for smooth machine operation.
- Resolution setting up to 16 divisions of the basic step angle 1.8° can be used, enabling smooth equipment operation with low vibration.



■ Synchronous motor

- Motor operates under constant rotation speed that is synchronized to the AC power frequency.
- Extra driver circuit is not required as its directly run by AC power.
- Same rotor and stator as stepping motor are used. It has the same merits such as synchronized operation and stable stopping.

Merits

■ Wide range of product choices

- Different product could be selected for individual axis with different requirements.

■ Improved device performance

- Servo products are used in the label roller (feeder axis) of the labeling machine. Tension of the labels are adjusted according to the weight of the remaining labels in the machine. Optimum amount of tension and labels are maintained.
- Labeling quality is improved by the low vibration 2-phase stepping motor. Noise of the labeling machine is also decreased.
- Synchronous motor is able to operate in constant speed under disturbance and load fluctuations. Problem such as motor slip which is usually seen in induction motors will not happen.
- Synchronous motor is run by inverter. Simplified system design is possible as drivers are not required.