HICAPSEAL
Fully Automatic Hard Capsule Sealing Machine
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Qualicaps Co. provides high quality hard capsules in response to customers’ request, with which all the customers will be satisfied. This sealer is a small-sized capsule sealer developed for precisely sealing the connection between the cap and the body of a hard capsule filled with oily liquid or solid drug products. Qualicaps has investigated drug formulation so as to make fat-soluble drugs or hardly-soluble drugs effectively act in human bodies, and has provided the oily drug filler and the high-speed fully-automatic hard capsule sealing machine.

The sealer has realized improvement in stability of drug products by preventing leak from the capsules filled with oily drug, preventing oxidation of the drug, and having deodorization effect. Hence, it enables high precision sealing of hard capsules, allowing manufacturing of drugs with excellent physical stability.

● **Compact size**
  This sealing machine is compactly designed with the footprint of about 3 m².

● **High-precision sealing**
  The sealing machine enables high-precision sealing by adopting the two-stage sealing method.

● **Laborsaving in size changing work**
  ◇ Because the transfer slat is common to the capsules of size 1 to size 4, labor can be saved in size change work.
  ◇ This sealing machine can be used for concurrent manufacturing of multiple types of capsules of small quantities by mounting multiple line change parts for sizes 000, 00, 0, and 1, or sizes 2, 3, 4, and 5 for each line.
1 Novel Capsule Rectification
The capsule rotary rectification system was developed by Qualicaps and has been patented in many countries. This system uses the minimum of mechanical force and capsules are not dented and damage to the printing does not occur.

2 Capsule Transport
(Automatic capsule positioning)
The slats of the conveyor belt automatically position the capsules in the correct location for precise uniform sealing. Any variation in closed joined capsule length is overcome.

3 Sealing (Double band)
Two seals are applied to each capsule. This ensures that if there is an air bubble or unevenness in the first band it will be eliminated by the second application.

4 Drying (Room-temperature air blow)
The sealing machine can dry the capsules without reduction water content in capsules because it dries capsules with filtrated room air without heat applied.
Structure

1. Each capsule in the hopper is subjected to orientational control using the supply – orientational control – transfer roller, and is fit in the pocket in the transfer slat continuously.

2. The capsule in the transfer slat is positioned with the tip of the cap guided, and all around sealing is performed by turning the capsule right round with the roller at the first seal section. The capsule is further sealed at the second section in the same way, realizing completely sealed condition.

3. Because liquid sealant is continuously circulated through the line between the auxiliary tank and the seal pan being kept at a predetermined temperature, a constant condition of the liquid sealant can be always retained.

4. The sealed capsules are transferred with the capsules on the slat to the drying unit. The air obtained by filtrating room air is sent to the drying unit, and blown onto the sealed portion for drying it.

Specifications

- Dimension of the main body: 2,000 mm wide × 841 mm deep × 1,550 mm high
- Weight: Main body 700 kg
- Production capacity: 15,000 capsules/h (in the case of 5-line operation use)
  3,000 capsules/h for each line
- Installation condition: To be installed in a clean room at 25°C and not more than RH 50%
- Power source: 2φ, AC200 to 240 V, 50-60 Hz, 1.5 KVA
- Ancillary facilities: Compressed air 0.5 Mpa, 0.4 Nm³/min
  Vacuum 2 KPa, 3 m³/min
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