

Lonza Engine™
Accelerate Innovation

CFS 1200™

Capsule Filling and
Sealing machine



Lonza

Realize the potential of lipid-based formulations for poorly soluble compounds and achieve Faster Time to 'First in Man'

Our offer

- Lab scale capsule liquid filling and sealing machine, combined in one piece of equipment
- Enables tamper-proof, semi-solid or liquid filled capsule dosage forms
- Nominal throughput of 1,200 filled and sealed capsules per hour
- Designed for ease-of-use and high reliability, with the ability to quickly clean and change capsule sizes with available change parts.
- Product integrity ensured with gentle handling of capsules before sealing and during the drying cycle.
- A robust filling pump with accurate temperature control.
- Improved capsule manipulation before sealing and during drying using 'Cap-edge' handling system. This allows minimal contact of sealing fluid with capsule outside wall, and facilitates improved delivery of sealing fluid to the capsule.
- Improved design of filling and sealing process ensuring better control and cleanliness.

Features and Benefits

Provides consistency and reliability

Reproducible and accurate over time capsule sealing process

Ease of use

Simple Human Machine Interface

Provides protection against product oxidation in the capsule and filling tank

Nitrogen purge available (option available)

Easy to dismantle and to clean

All parts easily accessible and removable

A full range of CFS accessories, parts and spares are available upon request.

CFS 1200™



Specifications

Dimensions

72 x 38 x (H) 52 cm

Weight

100 Kg (220 lbs)

Operating Speed

Up to 1,200 capsules per hour, regulated by a PLC controller

Capsule Size Range

Sizes 00el, 00, 0, 0el, 1, 2, 3, 4

Sealing Technology

A precise microspray of hydroalcoholic solution is used to fuse the body and the cap of the capsule

Fill Volume Range

0.1 - 1.2 ml

Fill Viscosity Range

50 - 3,000 mPa-s

Filling Temperature

20 - 70° C; Temperature-controlled liquid fill tank and dosing pump

Variable Stirred Speed

20 - 180 rpm

Power Requirements

Electricity: 110V, single phase, 14A or 220V,

single phase, 7A (1500V)

Frequency: 50/60 Hz

Compressed Air

6 bars

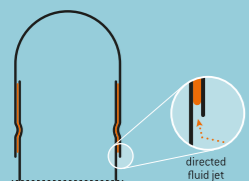
Contract Parts

Stainless steel (grade AISI 316L) and food contact approved materials

Warranty

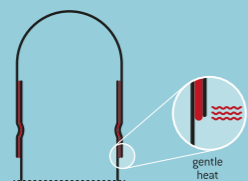
One year

LEMS® (Liquid Encapsulation Microspray Sealing) proprietary technology



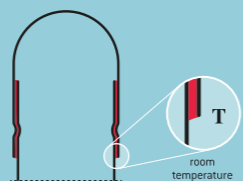
STAGE 1: SPRAYING

Sealing fluid is sprayed onto joint between cap and body. Capillary action draws fluid up between the cap and the body. Suction removes excess fluid.



STAGE 2: WARMING

A gentle heat application completes melting and fusion. Gentle heat melts the two layers which fuse together to form an impervious seal.



STAGE 3: SETTING

Capsules equilibrate at room temperature.

The setting and hardening can be accomplished within one hour in open trays, and is completed while the product returns to room temperature; alternatively, to maintain productivity, the capsules can be subjected to the vacuum chamber on open trays as soon as they leave the sealing system. The larger size of the sealed area, compared to traditional banding processes, contributes to a robust and impervious seal.

Licaps® capsules

Licaps® capsules are compatible with a wide range of excipients, which may improve bioavailability for poorly soluble drugs. Their key benefits include:

- Unique capsule design that maximizes seal integrity to prevent leakage after sealing
- Low oxygen permeability
- Can be filled with hotmelts (up to 70° C)



Scale Up Solution

The CFS 1200™ sealing system is also scalable to commercial levels using the LEMS® 70 system.

- The cost effective way to handle in-house production for Capsugel® Licaps® Drug Delivery System (Licaps® capsules and LEMS® technology)
- Seals up to 55,000 capsules per hour
- Totally enclosed working area to prevent contamination
- GMP compliant

CFS 1500™



Lab scale automated capsule liquid filling and sealing machine, combined in one piece of equipment with a nominal throughput of 1,500 filled and sealed capsules per hour.

Technical Support and Service

Lonza's experienced service and support team will provide installation, validation packages and on-site training as requested. Also available are ongoing support and preventative maintenance agreements to keep your Lonza Engine™ equipment operating at optimal efficiency. For more information on services by our dedicated team of engineers and technicians contact your Lonza sales representative or visit www.lonza.com.

LEMS® 70





Lonza

To order now or to obtain more information
about the equipment:

Visit: www.capsugel.com

Email: solutions.emea@lonza.com /
solutions@lonza.com

Call: +33 3 89 20 57 25 / 800-845-6973

Or contact your Lonza representative

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