



# Macofar CSP

Intermittent and Continuous  
Automatic Capping Machines

**Packaging - Processing**

**Bid on Equipment**

1-847-683-7720

[www.bid-on-equipment.com](http://www.bid-on-equipment.com)

 **Romaco**  
EXCELLENCE THROUGH INNOVATION

## A new generation of vial capping machines

CSP capping machines offer the latest state-of-the-art technology for vials sealing after they are filled with injectable drugs. They are suitable to handle various types of caps and have been developed respecting the most recent regulations associated with aseptic processing.

### Two different capping operation principles

#### Fixed blade

Each vial entering the machine is locked in place by a bottom lifting and rotating plate and a fixed idle top plate; during the rotation a stationary side blade bends the cap bottom, sealing the vial.

Or

#### Rotating heads

Each vial entering the machine is locked in place by a bottom stationary plate and a three blade rotating head that bends the cap previously placed on the stationary vial and seals it.

#### Main Features

- Compact structure with AISI 304 stainless steel plates
- AISI 304 stainless steel and anodized aluminum caps contact parts feeding system or AISI 316L stainless steel available as option
- 'White' and 'grey' areas are separated by seals
- Maximum ergonomomy
- Gentle vial handling



ESCS

## Key Benefits

- Extremely compact footprint
- Mechanical design with minimal number of particles generated by caps (suction system of particulates produced during capping is an available option)
- Caps feeding location maximizes vials protection from non-viable particles
- Easy access to 'white' and 'grey' areas
- Easy cleanability of 'white area' surfaces
- Quick and easy removal/assembly of cap contact parts
- Very quick and repeatable semi-automatic size parts change-over with minimum manual interventions

## Automation and Human Machine Interface (HMI)

- User-friendly touch screen HMI panel
- Production settings recipe management
- Production data recording and management
- Compliance to FDA 21 cfr part 11 (option)

## Capping pressure control

Macofar CSP capping machines can be equipped with several "on lines" inspection systems to ensure proper vial sealing, in compliance with the recent PAT (Process analytical technology) directives of US FDA.

Most importantly is the capping pressure control. Vertical pressure is applied to each vial stopper cap system during the sealing process. The pressure can be set via the HMI to a nominal force between 20 and 200N. The system continuously verifies to keep the pressure to the set point during operation.

## Barrier and containment technology

- CSP machines can be supplied with a simple safety guard for installation in pharmaceutical or secondary packaging areas without laminar flow
- Macofar CSP machines can also be supplied in a configuration suitable for easy installation of RABS (Restricted Access Barrier Systems) and/or isolators to protect operator and environment from dangerous and active product
- Laminar Air Flow guards are available for traditional Clean Room aseptic processing

## Additional on line quality control

- Stopper presence check and rejection before capping (option)
- Cap presence check is located at the end of the feeding chute with machine stop
- Cap presence check above vial located just before sealing and complete with machine stop (option)
- Cap presence check located above vial just after capping complete with vial rejection
- Final vial capping quality check (option)

## Machine configuration

CSP machines are available in the following configurations to satisfy any line or layout need:

- Cap pre-feeding hopper
- Cap pre-feeding elevator
- Belt exit for in line application
- Tray feeding exit
- Center room installation
- Through wall installation

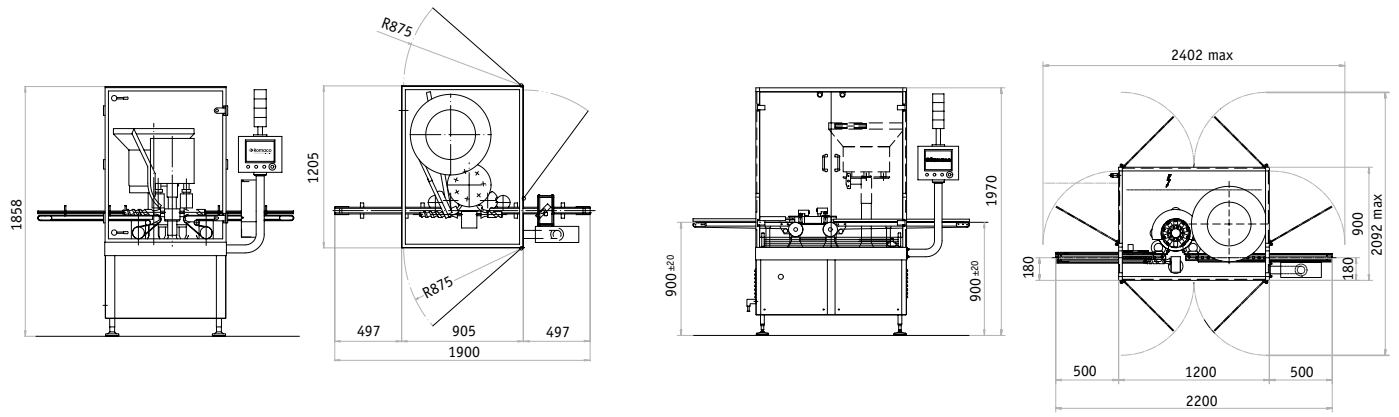


**Packaging - Processing**

**Bid on Equipment**

**1-847-683-7720**

**www.bid-on-equipment.com**



Key Technical Data

	CSP 6	CSP 10	CSP 18	CSP 24
Vial diameter (with Alu-caps and flip-off), in mm	16 ÷ 70	16 ÷ 53	18 ÷ 52	14 ÷ 53
Vial diameter (with PFP – Press on), in mm	23 ÷ 60	23 ÷ 53	20 ÷ 52	–
Vial diameter (with Screw cap), in mm	24 ÷ 60	24 ÷ 53	20 ÷ 52	–
Vial height (with Alu-caps and flip-off), in mm	35 ÷ 160	40 ÷ 160	35 ÷ 160	36 ÷ 140
Vial height (with PFP – Press on), in mm	40 ÷ 160	40 ÷ 160	40 ÷ 160	–
Vial height (with Screw cap), in mm	60 ÷ 120	60 ÷ 160	40 ÷ 160	–
Mechanical output pieces/h	6.000	10.000	18.000	24.000
Closing Head	1	5	7	–
Motion	Intermittent	Continuous	Continuous	Continuous
Rated power, in kW	2.5	2.5	2.5	2
Net weight, in kg	720	850	860	850

Pharmaceutical expertise

Romaco Macofar has built its reputation in over 30 years of outstanding performance, with over 1.800 installations worldwide and an exceptional record in service and support. Macofar is a recognized global

supplier of capsule fillers, liquid fillers, powder microdosing machines, powder macrodosing machines, aseptic liquid fillers, vial and ampoules washing machines as well as sterilization tunnels.

Macofar is the expert partner to assist any pharmaceutical company in the process of installing a new aseptic filling line, from feasibility study to validation. Our Romaco Macofar team is looking forward to the next challenge.

Romaco  
Macofar

Romaco S.r.l.  
Via Marzabotto, 5  
40065 Pianoro Bologna – Italy

Phone +39 051 620 2611  
Fax +39 051 620 2600

macofar@romaco.com  
www.romaco.com

A Unit of Robbins & Myers, Inc.

Paper and printing ink from sustainable sources

**Packaging - Processing**  
**Bid on Equipment**  
**1-847-683-7720**  
**www.bid-on-equipment.com**