# BTV900, PMV120

## KNURLING AND LINING MACHINES

## PRODUCTIVITY UP TO 1,300 PCS/MIN

### ALU-CAP KNURLING MACHINE

PRODUCTIVITY UP TO 1,300 PCS/MIN

Machine with vertical turret to slit the tamper evident band and knurl the aluminum cap edges. The BTV900 consists of 9 rotary heads which work against fixed tools to knurl and horizontally/vertically slit the cap as per requested specifications.The machine integrates smoothly with the rest of the line in terms of both output capacity and automation.

### IN SHELL LINING MACHINE FOR ALU-CAPS

PRODUCTIVITY UP TO 1,000 PCS/MIN
CAP DIAMETER UP TO 38MM

Automatic lining machines designed to extrude pellet-form material (e.g. PVC-free, PE, EVA), cut it into single doses, insert them into aluminum screw caps and mold the liner according to a clearly defined profile. Machine productivity is strongly influenced by the material type and the weight and profile of the liner. By using non-PVC raw materials the lining machine is able to form the liners directly inside the cap shell. Resins allow manufacturers to overcome the limits posed by PVC-based compounds (e.g. toxicity, odor emissions), thus providing a new solution for the PET and GLASS bottle closure sector. In-shell casting technology allows liners to be shaped to maximize closure performance and minimize the weight of the used compound.

The machine features a CVS3000 Quality Control Vision System equipped with a high resolution color camera to check the decorated public side and a high resolution monochrome camera to check the product side at maximum machine speed.

# PTV119

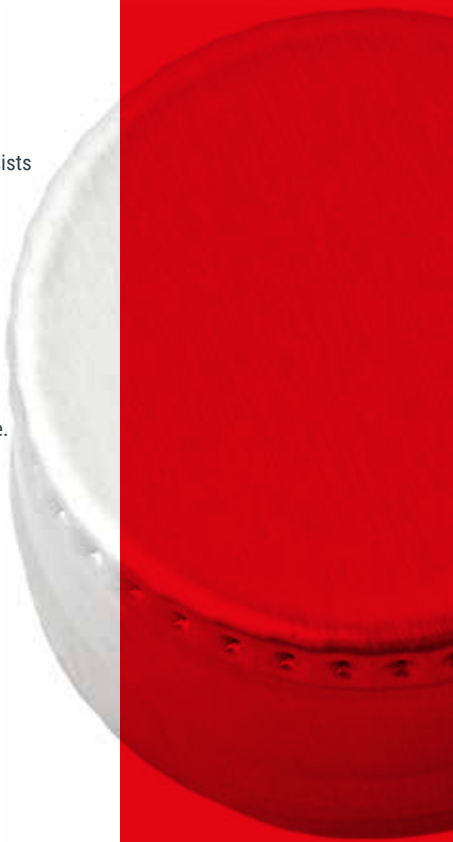
## ALU-CAP PRESS
## PRODUCTIVITY
## UP TO 2,500 PCS/MIN

Double-action mechanical press for the manufacture of alu-caps, suitable for use with multi-punch dies. The production process consists of picking the sheets, blanking them and molding the caps.

Press for the manufacture of alu-caps using pre-painted sheets
This machine is a more advanced version of the PTV019 currently in production
Key characteristics:

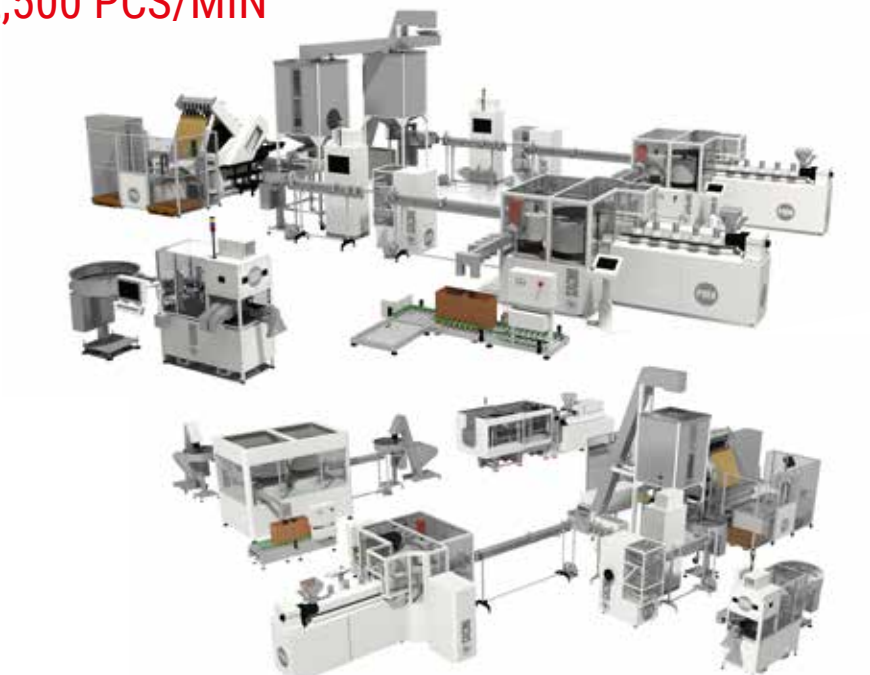
- Maintenance of current output rates.
- Pallet can be positioned with ease.
- Ready for system automation.
- Sheet positioning adjustment can be performed in automatic mode.
- Electronically controlled sheet feed.
- Safety guards with improved access and ergonomics.
- Blanking compatible with current process.

The optional units concern the automatic sheet positioning device.



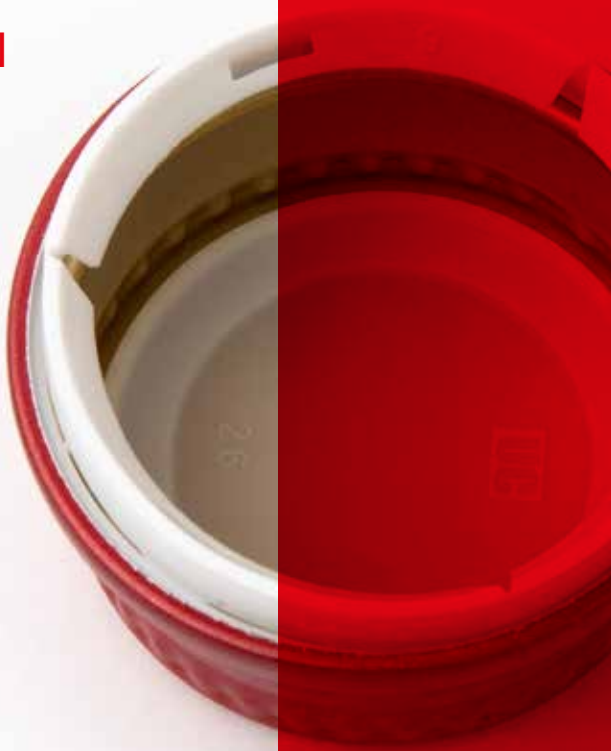
# ROPP AND MASC CAP PRODUCTION LINES

## PRODUCTIVITY
## UP TO 2,500 PCS/MIN



# ROPP AND MASC CAP PRODUCTION LINES

PRODUCTIVITY
UP TO 2,500 PCS/MIN



# PMC600

## IN-SHELL LINING MACHINE FOR CROWN CAPS

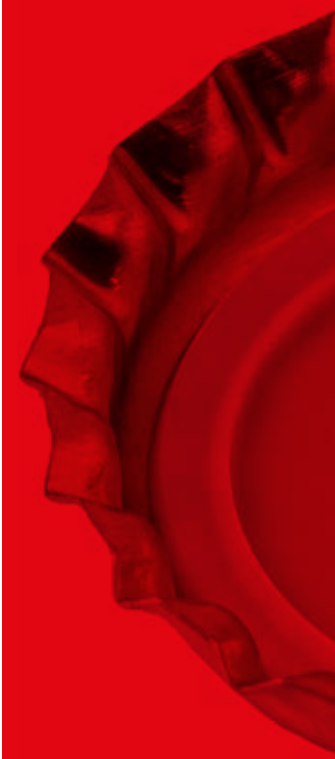
## PRODUCTIVITY UP TO 6,000 PCS/MIN

The new Sacmi PMC 600 is an automatic crown cap lining machine that is highly suited to the new market trend of downgauging crown caps, thus guaranteeing high productivity and efficiency.

The machine operates in line with the new Sacmi PTC 600 and has specifically been designed to sustain increased productivity.

Compared to previous versions, this solution is characterised by higher productivity and better, more linear cap handling, with positive effects on process efficiency.

The automatic machine is suitable for extruding granulated material (i.e. PVC, PE, EVA), slitting the material into single pellets, inserting the pellet in the crown cap and moulding the liner according to a well-defined profile.



# CCD300

## EMBOSSING PRESS
## CROWN CAPS BECOME 3D
## PRODUCTIVITY UP TO 3,000 PCS/MIN

Rotary machine to carry out plastic deformation
(or embossing) on the moulded crown cap shell bottom.
Type of shell: standard, short, intermediate.
20 forming tools.
Fully equipped machine (embosseing matched with lithograpy
via CVS3000 Vision System): 2500 pcs/min
Standard machine (embossing without timing): 3000 pcs/min.

# PTC600

## CROWN CAP PRESS
## PRODUCTIVITY
## UP TO 6,000 PCS/MIN

Max. rotation speed: 230 rpm
Max. blanking diameter: 38 mm
Max. shell height: 6.63 mm
Max. sheet width: 909 mm
Max. sheet length: 1040 mm
Max. number of tools: 27
Max. height of sheet pallet: 550 mm

**Strokes per sheet:**
SHORT and INTERMEDIATE crown:
min. 25 max. 27 (upon request: 29 strokes/sheet)
STANDARD crown: min. 24 max. 26

**Pneumatic system:**
Peak consumption (at 0.5 Mpa): 1600 Nl/min
Average consumption (at 0.5 MPa): 800 Nl/min
Average absorbed power: 12.5 KW at 50 Hz

The machine features a CVS3000 Vision System equipped with a high resolution color camera suitable for precise alignment of the decoration of the sheet with the molds.

# PMA24L

## PVC-FREE IN-SHELL ANULAR LINING MACHINE

## PRODUCTIVITY UP TO 1,000 PCS/MIN

**Productivity:** the machine is available in 2 configurations, one with a maximum output rate of 1000 cpm and the other with a maximum output of 500 cpm. A special kit lets manufacturers upgrade from 500 cpm to 1000 cpm.

**Sizes:** the new Sacmi ring lining machine can handle caps from 38 to 82 mm (nominal diameter), with the application of a PVC-free liner.

**Results:** outstanding flexibility allows use of materials other than PVC to make the liner, thus eliminating the Plasticol/PVC migration issues, extending shelf-life and saving energy (no curing oven is required).
Fully guaranteed sealing performance and protection of the product's organoleptic qualities.

The machine features a CVS3000 Vision System equipped with a patented Chrometriq image acquisition unit with an ultra-high resolution color camera to check the product side. Optionally, a second image acquisition unit with a high resolution color camera to check the decorated public side can be added.

# PTS001

## BLANKING PRESS FOR RING-PULL CAPS

Single-action mechanical press for the production of ring-pull caps suitable for multi-tool molds. The production process consists of taking pre-cut aluminum sheets with a scroll profile and molding the caps.

- Metal sheet feed in strips, 7 punches x 22 strokes for ring-pull cap.
- Mold control and monitoring (if equipped with sensors).
- Lubrication via thermo-regulated circuit.
- Ram with independent vertical adjustment of the 4 columns.
- Rev counter with 1/100 resolution on each point of ram adjustment.
- Sheet feed with electronic system.
- Pneumatic ram movement compensators.
- Easy machine levelling.
- Main linkage supports temperature monitoring.

# PMV136

## IN-SHELL LINING MACHINE FOR ALUMINUM CAPS

## PRODUCTIVITY UP TO 1,300 PCS/MIN

Automatic lining machines designed to extrude pellet-form material (e.g. PVC-free, PE, EVA), cut it into single doses, insert them into aluminum screw caps and mold the liner according to a clearly defined profile. Machine productivity is strongly influenced by the material type and the weight and profile of the liner.
By using non-PVC raw materials the lining machine is able to form the liners directly inside the cap shell.
Resins allow manufacturers to overcome the limits posed by PVC-based compounds (e.g. toxicity, odor emissions), thus providing a new solution for the PET and GLASS bottle closure sector. In-shell casting technology allows liners to be shaped to maximize closure performance and minimize the weight of the used compound.

The machine features a CVS3000 Vision System equipped with a high resolution color camera to check the public decorated side and a high resolution monochrome camera to check the product side at maximum machine speed.

# RCM48S

## PLASTIC RING MOLDING MACHINE

## PRODUCTIVITY UP TO 1,300 PCS/MIN

Automatic molding machine suitable for extruding granulated material (e.g. PE), cutting it into pellets, inserting the pellet into the aluminum cap and molding the ring according to a well-defined profile. The output of the machine strongly depends on the type of resin used for the ring.

**THE MACHINE IS EQUIPPED WITH:**

Independent temperature control systems for molding punches and accessories.
Device to eliminate burrs that appear in the band during the molding process.
Compressed air is connected to the air heater.
Turret suitable for installation of a quality control vision system (CVS) for liner/ring inspection and lithography checks (optional).
Pneumatic-driven waste rejection of defective caps.
Cap output counter with flow diverter in boxing area.
Screw extruder for plastic granulated material (e.g. PE), equipped with:

- Extruder with 45 mm diameter screw, equipped with A/C motor and controlled by inverter, for melted compound feed. Temperature and screw rpm are managed by control system.Volumetric pump for consistent plastic quantity at extruder exit to guarantee constant ring weight (300 mg).
- Melted compound by-pass valve for cleaning the extruder and machine start-ups/stops.
- Profibus automation and control system.
- Wiring kit.
- PC operator interface.

The machine features a CVS3000 Vision System equipped with 3 cameras to check the shell, the liner, the plastic ring and the artwork at maximum machine speed. An optional fourth camera can be applied to read the artwork number.

# CONTINUE USING YOUR CROWN CAPPING SYSTEM

**Adaptability:**
Readily available kit that can be retrofitted on any existing crown capping unit.Alternatively, Sacmi can provide a complete, fully ready capping unit for the application of ring-pull caps.

**Accessibility, ergonomics and worker safety:**
Floor-mounted positioning device and feed tracks can easily be reached by workers without any need for ladders or platforms.

**Fast changeover from crown to ring-pull format:**
15' to remove the crown cap pick&place system and position the track system for ring-pull caps.
1' per piston to remove the crown cap die and position the ring-pull cap kit.

**Crown cap closure die material:**
Standard: hardened martensitic steel 58HRC.
Optional: sintered tungsten carbide (WIDIA) 75 HRC.

| n° of heads | | GAUGES [mm] | | |
|---|---|---|---|---|
| [bph] | | 94 | 113 | 126 |
| DIAMETERS [mm] | 360 | 12 | 10 | 9 |
| | | 33600 | 28000 | 25200 |
| | 540 | 18 | 15 | 15 |
| | | 50400 | 42000 | 42000 |
| | 720 | 24 | 20 | 18 |
| | | 67200 | 56000 | 50400 |
| | 900 | 30 | 25 | - |
| | | 84000 | 70000 | - |