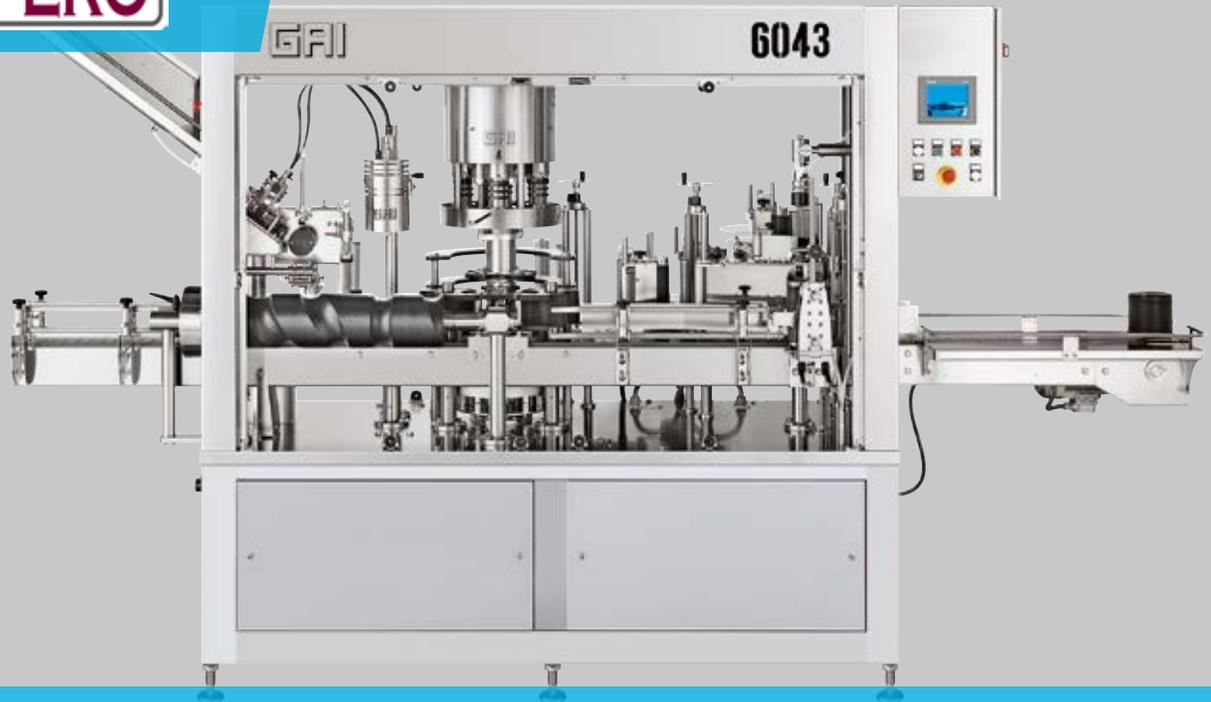


# PROSPERO



## GAI

## A MULTIFUNCTION MONOBLOC WITH CAPSULE DISPENSER, CAPPING AND SELF-ADHESIVE LINEAR LABELLER.



### 6000 FAMILY

From 1,000 to 3,000 b/h.

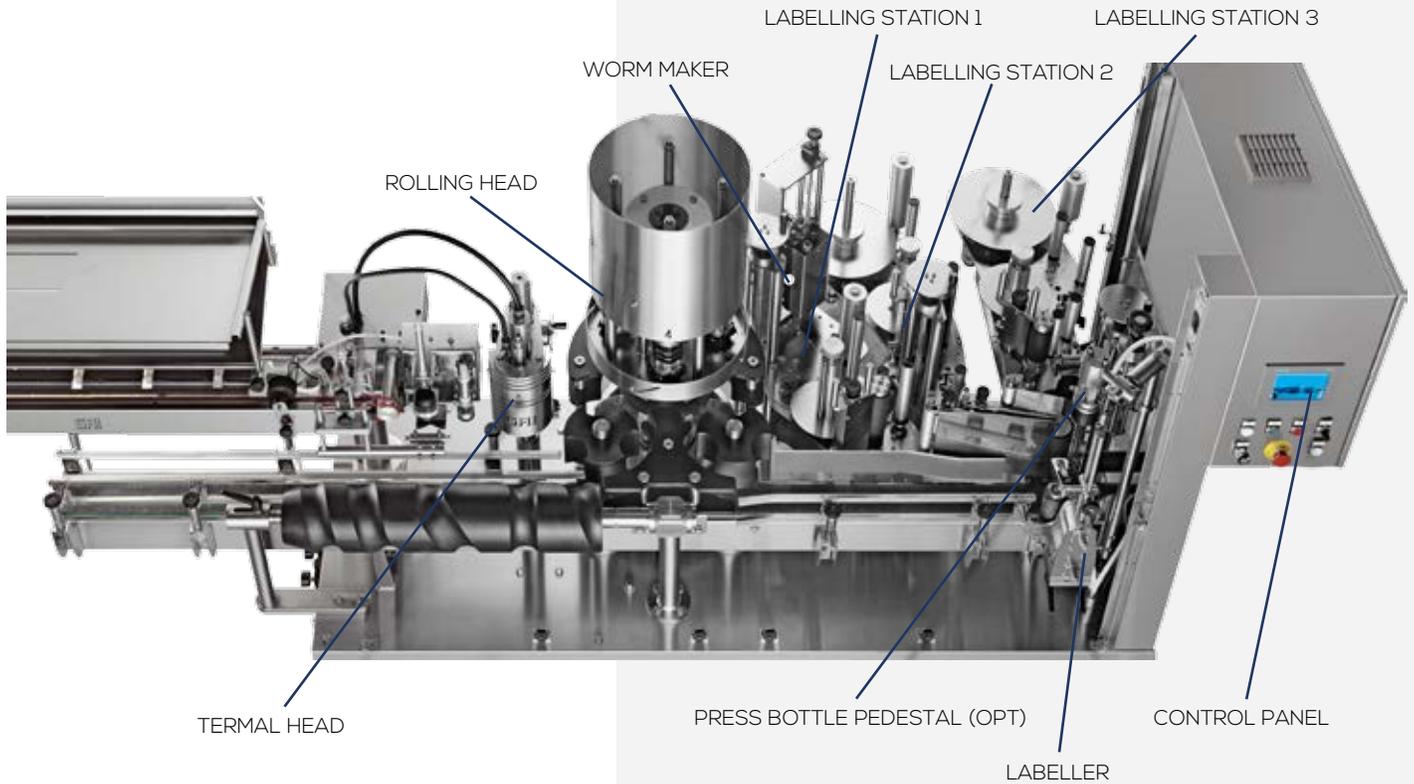
These efficient and easy-to-use machines ensure high and consistent quality, thanks to their ability to store bottles data in order to repeat them over time. They are a valuable investment thanks to their renowned sturdiness and long lifetime.

#### CAPSULE SUPPLIER

Capsule distribution is performed while the bottle is in the in-feed screw, and the bottle is centered by a gripping device. A capsule will only be distributed if the photoelectric cell detects that a cork is present.

The operation of the dispenser is controlled via a PLC. The capsule is pushed over the bottle neck by a pneumatic piston, ensuring capsules with fine tolerances are correctly positioned, before final placement is effected by a second pneumatic piston. Changes of capsule material, and length of capsule are easily accommodated by quick and precise screw regulation. The cap distribution cup needs to be changed for different diameter and length caps. On the 4606D the cap feed is by a conveyor system, while the 4603D is by gravity feed. Magazine capacity is 300-600 for the 4603D, and 600-1200 for the 4606D.

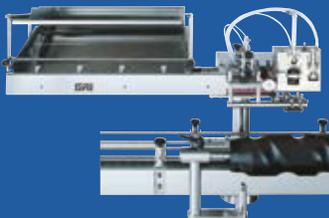
If requested, the device 4606D-407 can be equipped with needles system with a supplement.



### 4603D-406 CAPSULE DISPENSER



### 4606D-407 CAPSULE DISPENSER



### SHRINK AND POLYLAMINATE CAPSULE HEAD



### SHRINK CAPSULES HEAD

Good heat-shrink capsuling requires the following:  
Capsules of good quality; Correct coupling between capsule and bottle; a good shrinker

The main advantages of our heat-shrink capsuling heads are:

- high unitary rating of 1,5 kW
- extended irradiation surface area
- precise temperature regulation by means of an electronically-controlled resistance. The temperature reached can be read on a display
- accurate ventilation. The flow of air accompanying the movement of the bottle is adjustable in terms of both phase and intensity
- a pneumatic safety device raises the heads when the capsuling machine stops to avoid burning and breaking.

### TIN AND POLYLAMINATE CAPSULES HEAD

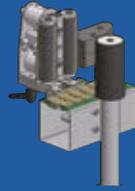
The requirements for good sleeaking of tin and poly laminate capsules are:

- capsules of good quality
  - bottles of good quality
  - minimum clearance between capsule and bottle neck and precise fit on bottle mouth
- To summarize, the ADVANTAGES of GAI sleekers are:
- the ROLLERS are made from very hard and high wear resistant material, with bushes made from self-lubricating material
  - the RODS on the rollers are made of stainless steel, and pins which are ground, rolled and hardened
  - the SPINDLE holding the rods is a single piece made of stainless steel
  - the CAPSULE PRESS is large with a hexagonal section
  - the ROTATION SPEED of the spindles is 1000 to 2000 r.p.m, controlled by inverter
  - the DIRECTION OF ROTATION can be clockwise or counter-clockwise
  - the CAMS used to move the head down, or bottles up, is slow one way, and fast the other, ensuring good roll-on

On the 6013-6014-6023-6024 units, the bottle is secured during capsuling by a pneumatic mechanism, stopping bottle rotation.

The 6043 unit ensures superior capsule application by using 4 roll-on heads.

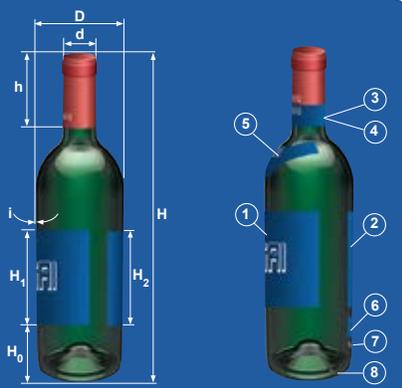
#### THRUST TROLLEY AND BOTTLE ROTATION ROLLER



#### LABELLING STATION



#### LABELLING STATION FEATURES



#### THRUST TROLLEY AND BOTTLE ROTATION ROLLER

The combined construction qualities of GAI machines, and their extensive labelling knowledge has resulted in a new, high quality linear labelling machine.

A photoelectric cell detects bottle presence, and the thrust carriage pushes the bottle against the rotation/press roller to apply the label. The robust thrust carriage slides on ball bushes, and is adjustable with double tilt to accommodate bottles with a taper of 1.5 degrees.

The bottle rotation roller has its own drive-motor controlled by inverter and combined with an encoder linked with the dispensing speeds of the label stations, which in turn are controlled by the PLC. The PLC in turn controls all other signals for notch detection, cap spots etc. The complete machine is managed by the PLC, controlled by a touch screen panel. Each model has two options, with 3 or 4 labelling stations.

#### LABELLING STATION

Labelling machine quality is determined by labelling head quality. GAI labelling stations made are manufactured after great analysis, without compromise and utilising modern technology.

The supports ensure no vibration. Easily visual number indicators assist with precise height adjustments.

Angular adjustment of the certification station allows for easy application of shoulder labels, combined with numerical measuring precision.

A second angular adjustment aids in the correct positioning of a neck label.

The stepper motors on each station cater for  $\pm 1$  mm application tolerance.

Station construction ensures rigidity, with precise labelling application. The paper route is clearly marked on each station, aiding operator efficiency.

#### LABELLING STATION FEATURES

##### 1. PHOTOCELL UNIT

With the new support, an ultrasonic photocell (optional) can be fitted to read clear labels together with an optical photocell to read non-transparent labels. Which photocell to use can be selected on the panel and stored for each bottle format.

##### 2. PAPER INFEED UNIT

The paper infeed unit is the heart of the labelling station. It has been designed with a profile that maximizes the grip and prevents the paper from slipping on the roller. Special springs recover any play, guaranteeing consistent operation over time and in different working conditions.

##### 3. REEL BRAKING/PAPER TIGHTENING UNIT

This innovative independent spring-operated unit is used to brake the reel and then tighten the paper. This means that the tightness of the paper is constant, which is a fundamental requirement for high quality labelling.

##### 4. PAPER RECOVERY UNIT

GAI is introducing a new technique for the recovery of the paper after the label has been peeled off. A connecting rod system facilitates both the blocking and releasing of the paper. The difference in internal diameter produced makes it easy for the paper to be removed at the end of operations.

STANDARD		
D	inch (mm)	2.36 (60) + 4.52 (115)
H WITH CAPS SUPPLIER	inch (mm)	9.05 (230) + 15.74 (400)
H WITHOUT CAPS SUPPLIER	inch (mm)	6.69 (170) + 15.74 (400)
d	inch (mm)	1.10 (28) + 1.37 (35)
h	inch (mm)	1.37 (35) + 2.75 (70)
i	*	1.5 MAX
H <sub>0</sub>	inch (mm)	0.39 (10) + 10.62 (270)
H <sub>1</sub>	inch (mm)	7.48 (190) MAX
H <sub>2</sub>	inch (mm)	7.48 (190) MAX
L <sub>1</sub>	inch (mm)	0.98 (25) + 11.81 (300)
OPTIONAL		
3 - NECK LABEL		
4 - DOUBLE SIDE ADHESIVE NECK LABEL		
5 - SHOULDER LABEL COLLAR		
6 - SECOND BACK LABEL		
7 - SIDE REFERENCE MARK SEARCH UNIT		
8 - BOTTOM REFERENCE MARK SEARCH UNIT		
9 - PRESS BOTTLE PEDESTAL		
10 - "2" CENTERING WITH "1" ALREADY EXISTING		
11 - LABELS CENTERING ON CAP SPOT		
12 - WARM MARKER		

Not binding datas



		6013	6014
CAP DISTRIBUTION	N°	300 - 600	300 - 600
SLEEKING HEADS	N°	1	1
THERMAL HEADS	N°	1 Opt.	1 Opt.
LABELLING STATIONS	N°	3 MAX	4 MAX
LABELLING ROLL DIAMETER	inch (mm)	11.02 (280) MAX	11.02 (280) MAX
THERMAL TRANSFER PRINTER	N°	1 Opt.	1 Opt.
AIR PRESSURE	bar	4-6	4-6
SLEEKER-THERMAL AIR CONSUMPTION	Gal/b (Lt)	0.6 (2,5) - 1.2 (4,8)	0.6 (2,5) - 1.2 (4,8)
SLEEKING HEADS SPEED	b/h	800 ÷ 1200	800 ÷ 1200
THERMAL HEAD SPEED	b/h	800 ÷ 3000	800 ÷ 3000
WEIGHT	Lbs (kg)	1433 (650)	1587 (720)
SLEEKER-THERMIC	HP(kW)	2.3 (1,75) - 4.2 (3,15)	2.3 (1,75) - 4.2 (3,15)

Not binding datas



		6023	6024
CAP DISTRIBUTION	N°	300 - 600	300 - 600
SLEEKING HEADS	N°	2	2
THERMAL HEADS	N°	1 Opt.	1 Opt.
LABELLING STATIONS	N°	3 MAX	4 MAX
LABELLING ROLL DIAMETER	inch (mm)	11.02 (280) MAX	11.02 (280) MAX
THERMAL TRANSFER PRINTER	N°	1 Opt.	1 Opt.
AIR PRESSURE	bar	4-6	4-6
SLEEKER-THERMAL AIR CONSUMPTION	Gal/b (Lt)	0.5 (2,2) - 1.3 (5,2)	0.5 (2,2) - 1.3 (5,2)
SLEEKING HEADS SPEED	b/h	1000 - 2000	1000 - 2000
THERMAL HEAD SPEED	b/h	1000 - 2500	1000 - 2500
WEIGHT	Lbs (kg)	1653 (750)	1807 (820)
SLEEKER-THERMIC	HP(kW)	3.1 (2,2) - 4.6 (3,45)	3.1 (2,2) - 4.6 (3,45)

Not binding datas



		6043	6044
CAP DISTRIBUTION	N°	300 - 600	300 - 600
SLEEKING HEADS	N°	4	4
THERMAL HEADS	N°	1 Opt.	1 Opt.
LABELLING STATIONS	N°	3 MAX	4 MAX
LABELLING ROLL DIAMETER	inch (mm)	11.02 (280) MAX	11.02 (280) MAX
THERMAL TRANSFER PRINTER	N°	1 Opt.	1 Opt.
AIR PRESSURE	bar	4-6	4-6
SLEEKER-THERMAL AIR CONSUMPTION	Gal/b (Lt)	0.5 (2) - 1.1 (4,4)	0.5 (2) - 1.1 (4,4)
SLEEKING HEADS SPEED	b/h	800 - 2500	800 - 2500
THERMAL HEAD SPEED	b/h	800 - 2500	800 - 2500
WEIGHT	Lbs (kg)	2314 (1050)	2469 (1120)
SLEEKER-THERMIC	HP(kW)	3.6 (2,7) - 4.7 (3,5)	3.6 (2,7) - 4.7 (3,5)

Not binding datas



Available 2 new monoblocks 6063W and 6064W, with 6 sleeeking heads, with speeds of 1000-3000 bottles per hour, for both shrinking capsules and poly laminate and tin.



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