

PROSPERO



GAI

SERIES "LP"

STILL WINES

FROM 1000 TO 15000 BOTTLES / HOUR

UNICA VALVE

The satisfaction of our customers confirms the success of the electropneumatic valve UNICA, patented in the whole world (N° 1413689-1417119 and extensions). The valve features are: From 0 to 8 bar working pressure; 25 to 100 mm filling level from the rim; Approximately 0.5 mm filling precision; Extremely low oxidation; Easy and complete sterilization.

The filling valve is suitable for an extensive range of products, such as sparkling wines, still wines, high quality beers and other beverages that require extreme care in terms of oxidation, foam formation and sterilization.



Since 1946 GAI Macchine Imbottigliatrici S.p.A. has been designing and building machinery for the bottling of quality wines. E HP, E LP and E BIER series is the high-tech evolution to bottle liquids with CO2 like sparkling wines and beers. The projects of the monoblocs have been constantly updated. Thanks to our policy of continuous research and extensive investment, more than 90% of the components of our machines are realized within the company. As a result, we can offer high quality products at competitive prices, and guarantee the availability of spare parts over time. In 2015, GAI has nearly doubled the surface of the plant, so increasing the production capacity, and the area devoted to the research and to do the tests on the machines. The expansion has also led to a further improvement of the internal logistics, reducing the delivery times and giving more space to the exhibition area, to support our customers in their choices.

Rinsing, complete filling cycle at a low pressure with the electropneumatic spout, vacuum corking, capping.

The LP series machines have been designed for still or lightly sparkling products.

Filling valves are similar to the valves present in the HP series without the degassing circuit.

In this case, the operating pressure goes from 0 to 1 bar. De-aeration, filling, gas injection are all carried out on the filling turret.

In addition to all the advantages of the electric spout, these machines bring other two main advantages: greater compactness and optimal working conditions compared to traditional machines.

In particular, the seal is always tight on the bottle preventing the product from getting in contact with air between one phase and the another.

FUNCTIONS:

RINSING AND BLOWING



From 12116 to 12148

The bottles are gripped around the neck by a clamp and rapidly turned upside-down by means of a rack and pinion system. The speed of this system enables longer cycles, dependant of the number of clamps. The nozzle penetrates the bottle-neck by 75 mm; this depth assures the absence of turbulence inside the bottle neck and therefore improves the blowing efficiency.

The nozzle will only open when there is a bottle present, with no contact being made between the mouth of the bottle and the injector. The injection of microfilter-sterilized water is followed by a series of blasts of air which has also been sterilized by microfiltration.

The water and air circuits are completely separate. Forced draining alternated with draining by gravity, allows for a better water discharge thereby minimizing the residue of water in the bottle and the air consumption.

The rinsing liquid is recovered in a closed circuit, which keeps the machine dry during the normal work conditions. It is also possible to flush the bottles with product, i.e. wine, recirculating the appropriate product. It allows, essentially, to completely sterilize the rinser with an appropriate liquid which could recirculate through the dummy bottles supplied with the machine.

The rinser can be even in the electro-pneumatic version.

FILLING WITH ELECTRO-PNEUMATIC VALVE



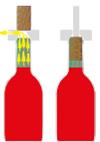
200-040

Electro-pneumatic fillers are extremely robust, complete and easy to clean. The wine is fed centrally from below to ensure no oxidation, and above all the tank is completely emptied. The tank is annular for each model and is completely machine-tool worked with a mirror-finished interior and conical bottom to facilitate cleaning and emptying. The cover is also machine-tool worked with a mirror-polished interior; mechanical fastening of the cover guarantees a perfect seal. Analog probes regulate the level in the tank and control both the in-feed solenoid valve and a feed pump with inverter if necessary. The height of the filler is adjusted electrically by PLC.

The centralized level adjustment and the introduction of dummy bottles are performed electrically (from 20 filling valves). The bottle-raising pedestals are pneumatic with cam return and automatic lubrication. The filler is completely arranged for a sterilization CIP circuit.

All models can be in HP version for bottling of sparkling liquids with a working pressure between 0 and 8 bars or in **LP version for still liquids or slightly sparkling with a working pressure from 0 to 2 bars.**

CORKING UNDER VACUUM

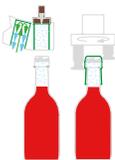


4140

Four prismatic guide stainless steel studs close the cork to a diameter of 16 mm. Extreme care is taken over the construction of the corking head: the roughness of the surfaces in contact with the cork is less than 0.1 micron. The closure of the cork is slow (105°), while its insertion is fast (32°). Vacuum corking is standard on our corkers (37°). The advantages of this system are:

- a) no pressure is created in the bottle when the cork is introduced
 - b) the oxygen imprisoned between the cork and the wine is reduced from 0.25 to 0.08 mg/l.
- The corking of sparkling and champagne wines is carried out through natural or champagne corks. The turret can be manually adjusted until 6 heads or automatically adjusted through touch-screen panel in case of 8 heads.

SCREW CAPPING



4295

The caps are fed by vibrating base or a mechanical honeycombed feeder. The feeder is normally positioned above the capping turret.

In the event of height limitations, the vibrating base can be positioned behind the capping turret.

The system must be integrated with a large feeder located low down to make it easy to fill.

The caps are dispensed "on the fly" onto the capper inlet star. The cap distribution head is fitted with a nozzle with a solenoid valve for the internal purging of the caps with neutral gas prior to their dispensing. There are two types of turret: the 42900 for threadless caps only, and the 43900 for both pre-threaded and threadless caps. The threadless cap closure device has 4 rollers: two for the thread, and two for bottom closure. The closure head is fitted with a "no cap no roll" device.

The pre-threaded cap closure device has a gripper that screws the caps onto the bottles with an adjustable torque, and two rollers which crimp the caps below the rim. Threadless caps can also be used on the 43900 turret by replacing the closure device.

CROWN CAPPING

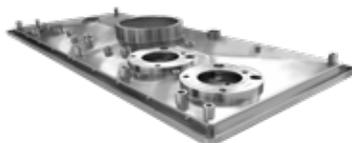


4270

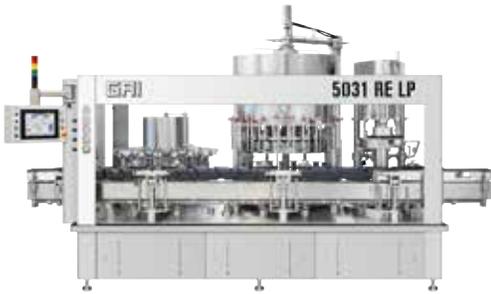
Crown caps are loaded into a centrifugal feeder, which directs them down the channel. The centrifugal feeder is not independent, therefore it is necessary an external automatic caps feeder (optional) to load the caps. Correctly oriented caps go down the channel up to the capping device, which automatically collects them. The channel is provided with a photocell to check the feeder and another photocell to stop the machine when the cap is missing. In the end part of the channel, an air blow enables the introduction of the cap into the capping device and a pneumatic piston stops the caps flux according to the working conditions. The capping device is lowered by a cam and seals the cap on the bottle.

The crown capping is strictly limited to a cap with a diameter of 26 or 29 mm. When both caps with different diameter are used on the same turret, a special conveyor disc is needed.

ROOF BASEMENT

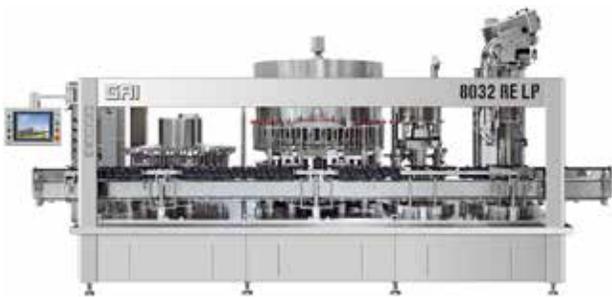


The roof basement is the ideal choice because all the upper surfaces are slanted toward the perimeter collection channel, there are no points where fluids can stagnate and all the washing fluids can quickly drain. It is also easier to clean the machine. The entire structure is made of AISI304 stainless steel. The lower plate is 15 to 20 mm thick sized up to 4,000 x 8,000 mm. The cylinders, that hold the monobloc turrets in position, are welded onto the frame. The upper section (skin) is a 5 mm thick glazed AISI304 stainless steel sheet that links the lower part to the turret basements. This whole structure is rigid and reasonably light. All the upper and lower connections are NC machine-tool worked, they are therefore extremely precise. These parts are all produced in-house, which confirms the greater flexibility of our labor force and our state-of-the-art equipment.



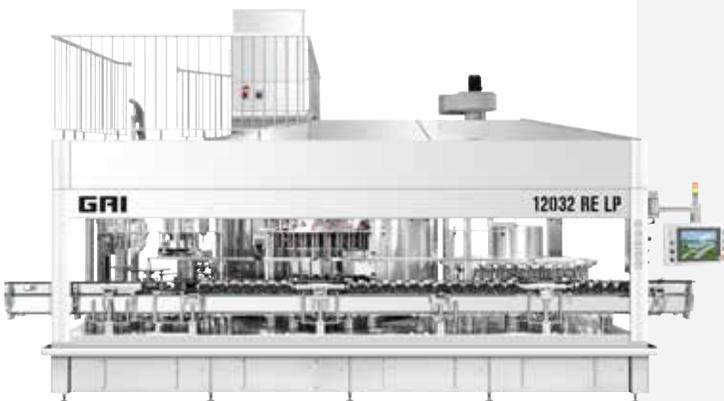
FUNCTION		3032RELP	3632RELP	4032RELP	5032RELP
Rinser	n	12	16	16	20
Filler Valves	n	20	20	24	28
Corker	n	1	3	3	4
Capper	n	1	3	3	4
Still wine production	gal/h	792	792	977	1162
	l/h	3000	3000	3700	4400
Speed	bott/h	600-3000	1000-4500	1000-4500	1200-6000
	bott/min	16-50	16-50	16-75	20-100

Not binding data.



FUNCTION		6032RELP	7032RELP	8032RELP	9032RELP
Rinser	n	20	24	28	32
Filler Valves	n	32	36	40	44
Corker	n	4	5	6	6
Capper	n	4	5	6	6
Still wine production	gal/h	1347	1532	1717	1902
	l/h	5100	5800	6500	7200
Speed	bott/h	1200-6000	1500-7500	1800-9000	1800-9000
	bott/min	20-100	25-125	30-150	30-150

Not binding data.



FUNCTION		1032RELP	12032RELP
Rinser	n	36	40
Filler Valves	n	48	60
Corker	n	8	8
Capper	n	8	8
Still wine production	gal/h	2086	2641
	l/h	7900	10000
Speed	bott/h	2400-12000	2400-12000
	bott/min	40-200	40-200

Not binding data.

Prospero Equipment Corp.

www.prosperequipment.com

Corporate Office

123 Castleton Street
Pleasantville, NY 10570
Phone: (914) 769-6252
Fax: (914) 769-6786
info@prosperequip.com

West Coast

7787 Bell Road
Windsor, CA 95492
Phone: (707) 838-2812
Fax: (707) 838-3164
westcoast@prosperequip.com

Northwest

1722 SW HWY 18 Suite B
McMinnville, Oregon, 97128
Phone: (503) 472-6767
Fax: (503) 472-6768
northwest@prosperequip.com

North

2204 State Route 14 N
Geneva, NY 14456-9510
Phone: (315) 719-0480
Fax: (315) 719-0481
geneva@prosperequip.com

Canada

8100 Trans Canada Hwy Unit I
Montreal, Quebec, H4S 1M5
Phone: (514) 336-7117
Fax: (514) 418-2605
canada@prosperequip.com

British Columbia Authorized Agent

Stefan Buhl
Phone: (250) 317-4378
bc@prosperequip.com