

## USE AND MAINTENANCE MANUAL



### GEO PRE-MIX



Horizontal  
Version



Vertical  
Version



Streamlined  
Version



Mobile  
Version

ORIGINAL INSTRUCTIONS

Ed. 2  
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## 1 - General information

The Use and Maintenance Manual is an integral, essential part of the machine and must be given to the user. It must be kept in a safe place and read carefully, since it provides specific information concerning the operation, maintenance and safety of the machine, and the safety of persons and/or objects that come into contact with it.

If in doubt concerning the instructions supplied in the manual, contact CELLI S.p.A..

The manufacturer cannot be held liable, within or outside the terms of the contract, for any damage caused by inappropriate machine usage and installation or failure to observe the instructions given.



*The manufacturer reserves the right to modify the product and the relative technical documentation at any time and without notification, and cannot be held liable for any errors or inaccuracies in the contents of this manual.*

*This version of the Use and Maintenance Manual describes the characteristics of the standard production machine as of the date of printing.*

### 1.1 Manufacturer's details

#### **CELLI S.p.A.**

Via Casino Albini, 605  
47842 - S. Giovanni in Marignano - Rimini - Italy  
Tel. (+39) 0541 755211 Fax (+39) 0541 759735  
www.celli.com  
celli@celli.com

Contact CELLI S.p.A. for any queries or to order spare parts.

Use only original spare parts; the manufacturer cannot be held liable for any loss in machine performance or damage caused by the use of non-original parts.



*This manual refers to the standard version of the machine.*

*Non-standard machines may display minor differences not described in this manual.*

*If you have any doubts, please contact CELLI S.p.A.*

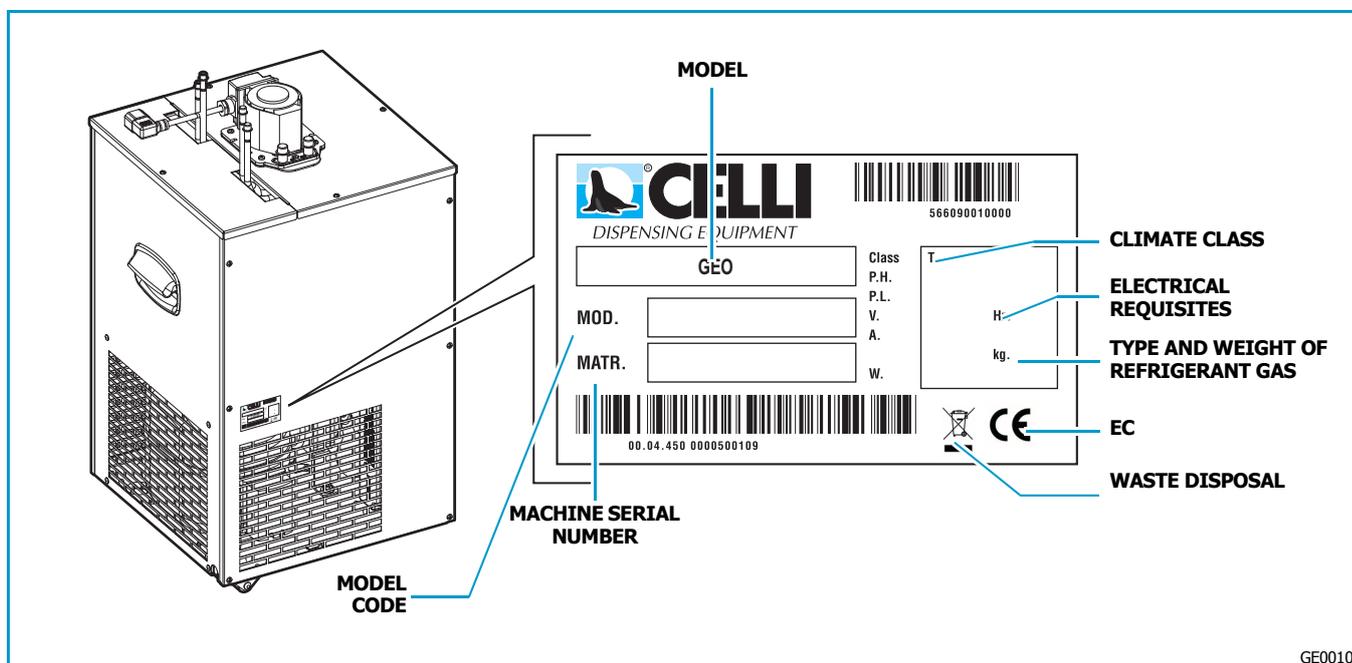
## 1.2 Machinery identification

This manual refers to the following machines:

### GEO PRE-MIX UNDERCOUNTER and ON WHEELS COOLER range

- Models:
- GEO 20
  - GEO 30
  - GEO 50
  - GEO 75
  - GEO 50 COOLER ON WHEELS
  - GEO 75 COOLER ON WHEELS

Check that the machine delivered to you carries the nameplate (EC nameplate) shown below:



This indicates the model, the serial number, and all the machine technical data necessary for ordering spare parts or reporting technical problems to the technical support service.

## 1.3 Warranty

For the warranty terms, please refer to the general conditions of sale in the CELLI S.p.A. price list.

## 1.4 Declaration of Conformity



Cod. 042921 - Rev. 04 - 06/05/2013

### DICHIARAZIONE DI CONFORMITÀ CE

Il fabbricante **Celli S.p.A.** con sede in via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italia), **dichiara** che la macchina per spillatura di bevande (riferimento in alto a destra) è **conforme** alle seguenti Direttive:

- **2006/42/CE** del Parlamento Europeo e del Consiglio del 17 maggio 2006 relativa alle macchine e che modifica la direttiva 95/16/CE.
- **2004/108/CE** del Parlamento Europeo e del Consiglio del 15 dicembre 2004 concernente il riavvicinamento delle legislazioni degli Stati membri relative alla compatibilità elettromagnetica.
- **2006/95/CE** del Parlamento Europeo e del Consiglio del 12 dicembre 2006 concernente il riavvicinamento delle legislazioni degli Stati membri relative al materiale elettrico destinato ad essere adoperato entro taluni limiti di tensione.
- **1935/2004/CE** del Parlamento Europeo e del Consiglio del 27 ottobre 2004 riguardante i materiali e gli oggetti destinati a venire a contatto con i prodotti alimentari.
- **D.M. 174/2004** Regolamento concernente i materiali e gli oggetti che possono essere utilizzati negli impianti fissi di captazione, trattamento, adduzione e distribuzione delle acque destinate al consumo umano.

Persona autorizzata a costituire il fascicolo tecnico: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

### EC CONFORMITY STATEMENT

The manufacturer **Celli S.p.A.** seated in via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italy), **declares** that the beverage dispensing machine (reference serial number on top right side of this page), **complies with** the following Directive:

- **2006/42/EC** of the European Parliament and of the Council of 17 May 2006 on machinery and amending Directive 95/16/EC.
- **2004/108/EC** of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility.
- **2006/95/EC** of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.
- **1935/2004/EC** of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food.

Authorized person to draw up the technical construction file: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

### KONFORMITÄTSEKTLÄRUNG EG

Der Hersteller **Celli S.p.A.** mit Sitz in via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italien), **erklärt** dass das Gerät zum Zapfen von Getränken (Referenznummer oben rechts) den folgenden Richtlinien **entspricht**:

- **2006/42/EG** des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG.
- **2004/108/EG** des Europäischen Parlaments und des Rates vom 15. Dezember 2004 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit.
- **2006/95/EG** des Europäischen Parlaments und des Rates vom 12. Dezember 2006 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten betreffend elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen.
- **1935/2004/EG** des Europäischen Parlaments und des Rates vom 27. Oktober 2004 über Materialien und Gegenstände, die dazu bestimmt sind, mit Lebensmitteln in Berührung zu kommen.

Autorisierte Person für die Erstellung technischer Dokumentation: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

### DECLARATION DE CONFORMITÉ CE

Le fabricant **Celli S.p.A.** avec siège en via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italie), **déclare** que la machine pour le tirage des boissons (numéro de série en haut à droite de cette page) **est conforme** aux directives suivantes:

- **2006/42/CE** du Parlement Européen et du Conseil du 17 mai 2006 relative aux machines et modifiant la directive 95/16/CE.
- **2004/108/CE** du Parlement européen et du Conseil du 15 décembre 2004 relative au rapprochement des législations des États membres concernant la compatibilité électromagnétique.
- **2006/95/CE** du Parlement européen et du Conseil du 12 décembre 2006 concernant le rapprochement des législations des États membres relatives au matériel électrique destiné à être employé dans certaines limites de tension.
- **1935/2004/CE** du Parlement Européen et du Conseil du 27 octobre 2004 concernant les matériaux et objets destinés à entrer en contact avec des denrées alimentaires.

Personne autorisée à dresser le dossier technique de construction: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

### DECLARACIÓN DE CONFORMIDAD CE

El fabricante **Celli S.p.A.** con lugar en calle Casino Albini, 605 San Giovanni in Marignano (Rimini - Italia), declara que el equipo para dispensar bebidas (referencia arriba a la derecha) **corresponde a** las siguientes instrucciones:

- **2006/42/CE** del Parlamento Europeo y del Consejo, de 17 de mayo de 2006, relativa a las máquinas y por la que se modifica la Directiva 95/16/CE.
- **2004/108/CE** del Parlamento Europeo y del Consejo, de 15 de diciembre de 2004, relativa a la aproximación de las legislaciones de los Estados miembros en materia de compatibilidad electromagnética.
- **2006/95/CE** del Parlamento Europeo y del Consejo, de 12 de diciembre de 2006, relativa a la aproximación de las legislaciones de los Estados miembros sobre el material eléctrico destinado a utilizarse con determinados límites de tensión.
- **1935/2004/CE** del Parlamento Europeo y del Consejo, de 27 de octubre de 2004, sobre los materiales y objetos destinados a entrar en contacto con alimentos.

Persona autorizada a construir el expediente técnico de construcción: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

San Giovanni in Marignano, 06.05.2013

CELLI S.p.A.  
 GOFFREDO CELLI  
 Executive President




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GE0010



Rev. 01 - 06/05/2013

#### DICHIARAZIONE DI CONFORMITÀ CE

Il fabbricante **Celli S.p.A.** con sede in via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italia), **dichiara** che la macchina per spillatura di bevande (riferimento in alto a destra) è **conforme** alle seguenti Direttive e standard armonizzati EN:

- **2006/42/CE** del Parlamento Europeo e del Consiglio del 17 maggio 2006 relativa alle macchine e che modifica la direttiva 95/16/CE.
- **2004/108/CE** del Parlamento Europeo e del Consiglio del 15 dicembre 2004 concernente il riavvicinamento delle legislazioni degli Stati membri relative alla compatibilità elettromagnetica.
- **2006/95/CE** del Parlamento Europeo e del Consiglio del 12 dicembre 2006 concernente il riavvicinamento delle legislazioni degli Stati membri relative al materiale elettrico destinato ad essere adoperato entro taluni limiti di tensione.
- **1935/2004/CE** del Parlamento Europeo e del Consiglio del 27 ottobre 2004 riguardante i materiali e gli oggetti destinati a venire a contatto con i prodotti alimentari.
- **D.M. 174/2004** Regolamento concernente i materiali e gli oggetti che possono essere utilizzati negli impianti fissi di captazione, trattamento, adduzione e distribuzione delle acque destinate al consumo umano.
- **EN 60335-1** Sicurezza degli apparecchi elettrici d'uso domestico e similare.
- **EN 60335-2-75** Norme particolari per distributori commerciali e apparecchi automatici per la vendita.
- **EN 60335-2-89** Norme particolari per apparecchi per la refrigerazione commerciale comprendenti un unità di condensazione del fluido frigorifero, o un compressore, incorporato o remoto.

Persona autorizzata a costituire il fascicolo tecnico: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

#### EC CONFORMITY STATEMENT

The manufacturer **Celli S.p.A.** seated in via Casino Albini, 605 San Giovanni in Marignano (Rimini - Italy), **declares** that the beverage dispensing machine (reference serial number on top right side of this page), **complies with** the following Directive and harmonised EN standard:

- **2006/42/EC** of the European Parliament and of the Council of 17 May 2006 on machinery and amending Directive 95/16/EC.
- **2004/108/EC** of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility.
- **2006/95/EC** of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.
- **1935/2004/EC** of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food.
- **EN 60335-1** Safety of household and similar electrical appliances.
- **EN 60335-2-75** Particular requirements for commercial dispensing appliances and vending machines.
- **EN 60335-2-89** Particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor.

Authorized person to draw up the technical construction file: Celli Goffredo, via Casino Albini 605 (47842 - San Giovanni in Marignano, RN).

San Giovanni in Marignano, 06.05.2013

**CELLI S.p.A.**  
**GOFFREDO CELLI**  
Executive President




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GE0010

## 1.5 Symbols used in the manual

The manual uses the following safety symbols to draw the operator's attention to all operations which must be strictly observed in order to prevent injury to persons or damage to the machine.

---

### DANGER

---



Indicates the existence, on or around the machine, of an imminent risk of death or severe injury for the operator and persons in general; it is therefore essential to take the greatest care and proceed with the greatest caution.

---

### WARNING

---



Indicates the existence, on or around the machine, of a potential risk of death or severe injury for the operator or persons in general; it is therefore essential to take great care and proceed with the greatest caution.

---

### CAUTION

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Indicates the existence, on or around the machine, of a potential risk of minor injury for the operator or persons in general; it is therefore essential to take great care and proceed with the greatest caution.

## 2 - Description of the machine

The machines of the **GEO** range are coolers designed to dispense pre-mix drinks stored in suitable containers (kegs).

This manual deals with the machines of the **GEO PRE-MIX UNDERCOUNTER and COOLER ON WHEELS** range.

They allow the dispensing of:

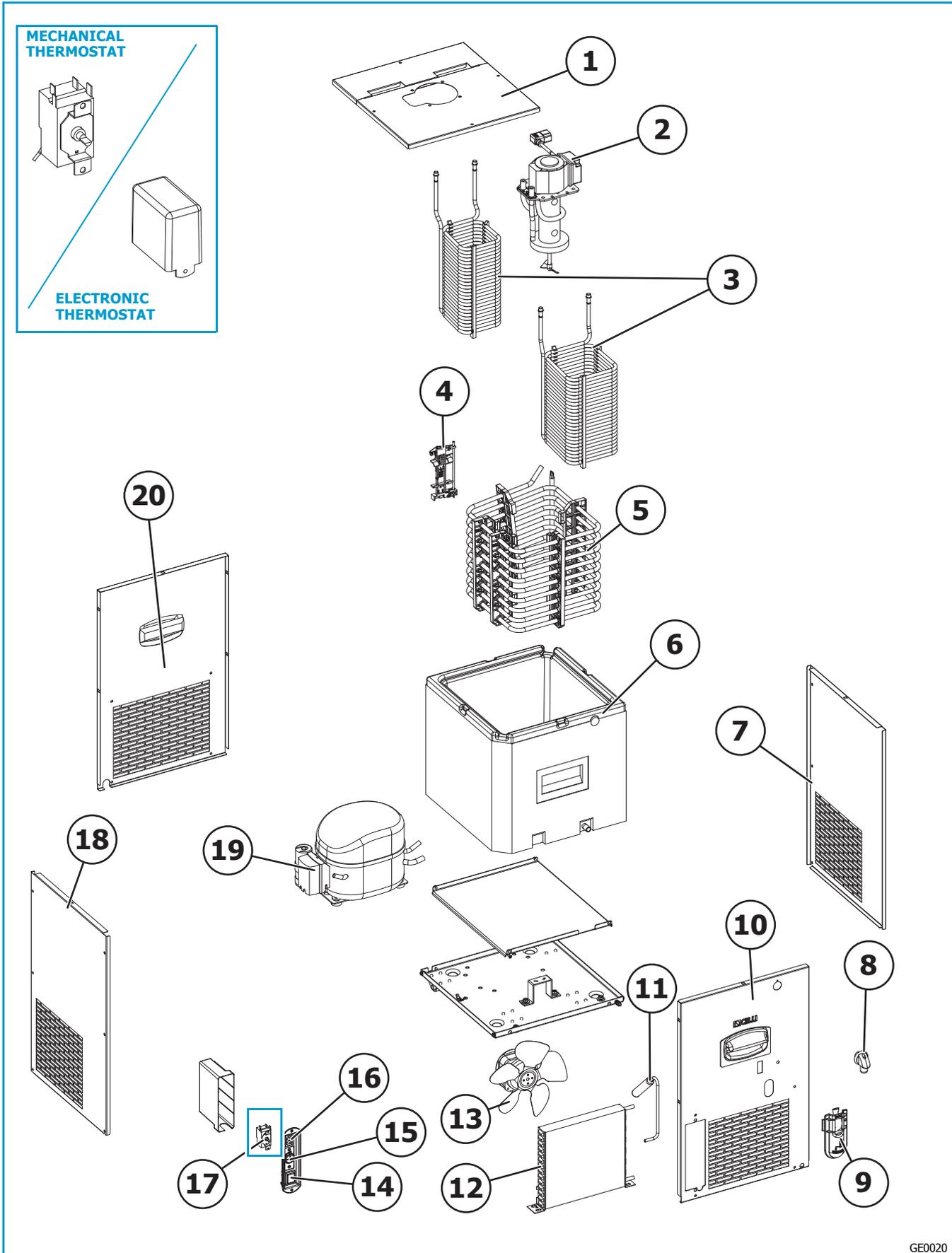
- cold pre-mix drinks.

Inside the machine, the drinks are cooled with the aid of a cooling unit. The drinks are carried - via thermally insulated plastic tubes - from the external environment to the dispensing tower. The insulating tube (known as the "python") and the dispensing tower are not included with the machine.

"Pre-mix drinks" means drinks that are ready for consumption, without needing any further additions or mixing.

Beer, soft drinks and wine are all typical pre-mix drinks.

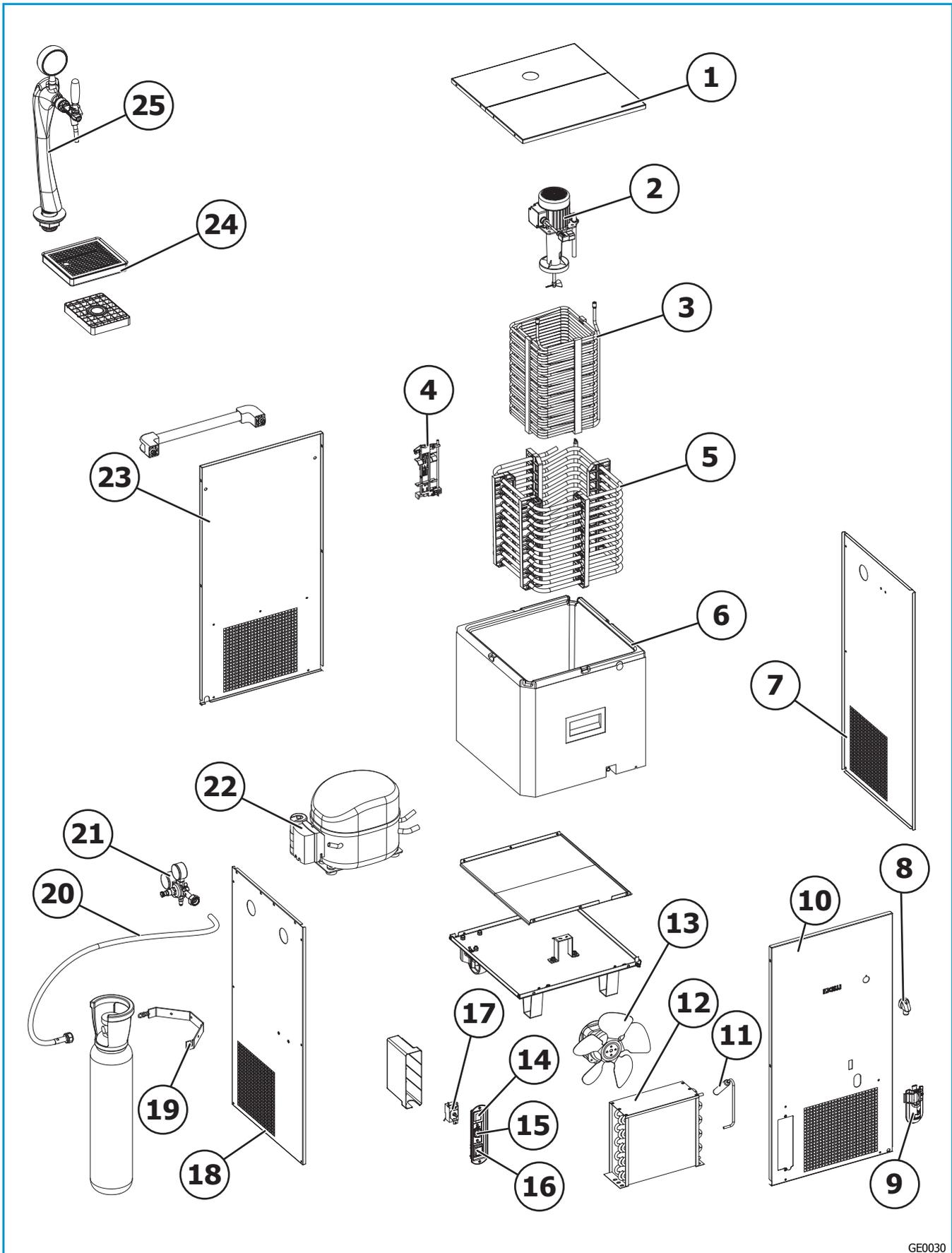
## 2.1 Main components of the GEO range



GE0020

- 1 - UPPER COVER**
- 2 - RECIRCULATION PUMP**
- 3 - COILS**
- 4 - BRACKET FOR THERMOSTAT CAPILLARY TUBE**
- 5 - EVAPORATOR**
- 6 - INSULATING TANK**
- 7 - SIDE PANEL**
- 8 - OVERFLOW DRAINAGE**
- 9 - DRAINAGE POINT FOR EMPTYING TANK**
- 10 - FRONT PANEL**
- 11 - DEHYDRATOR FILTER**
- 12 - CONDENSER**
- 13 - FAN UNIT**
- 14 - ON/OFF LIGHT SWITCH**
- 15 - THERMOSTAT KNOB**
- 16 - RECIRCULATION PUMP SOCKET**
- 17 - MECHANICAL THERMOSTAT/ELECTRONIC THERMOSTAT**
- 18 - SIDE PANEL**
- 19 - COMPRESSOR**
- 20 - REAR PANEL**

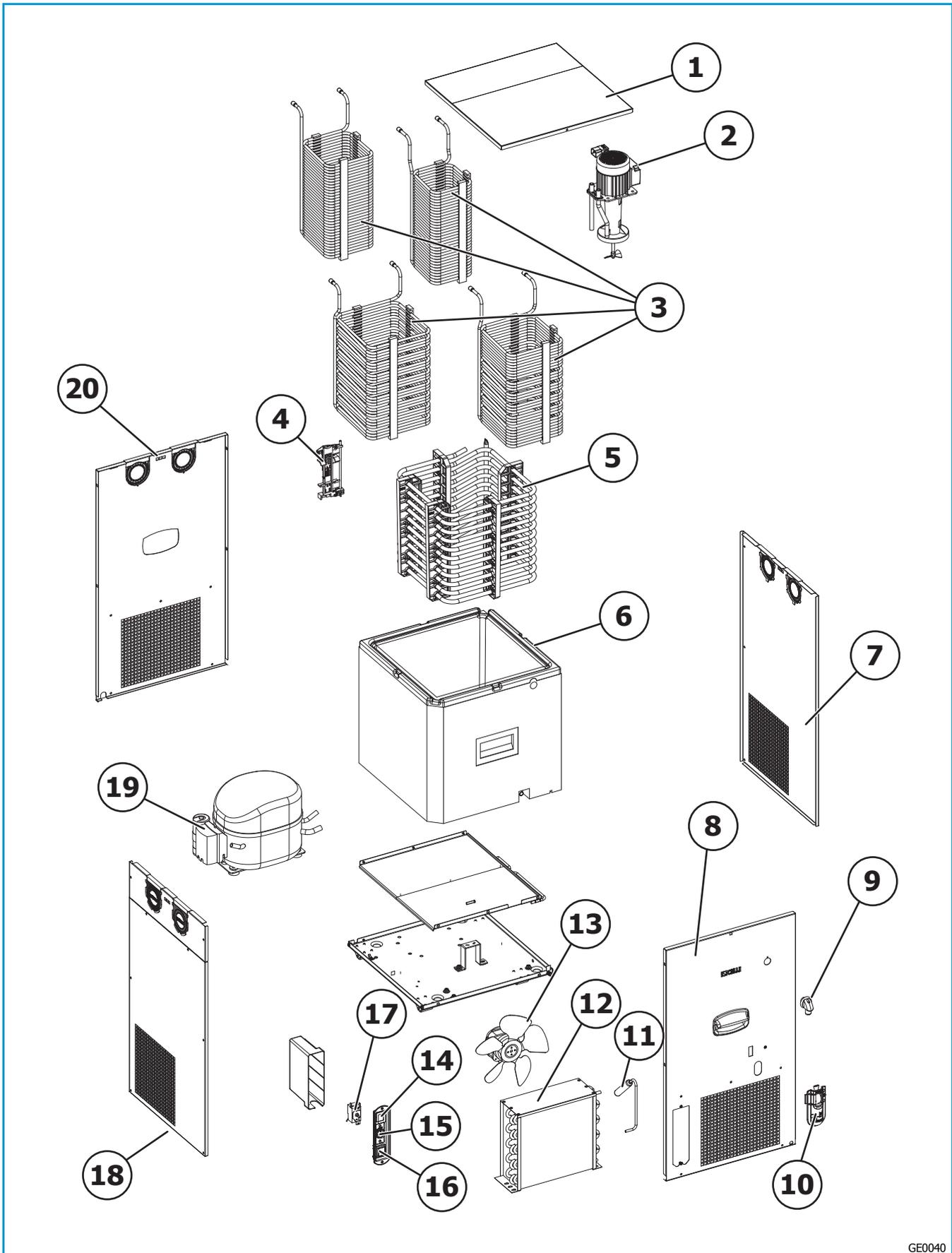
## 2.2 Main components of the GEO Cooler on wheels range



GE0030

- 1 - UPPER COVER**
- 2 - RECIRCULATION PUMP**
- 3 - COILS**
- 4 - BRACKET FOR THERMOSTAT CAPILLARY TUBE**
- 5 - EVAPORATOR**
- 6 - INSULATING TANK**
- 7 - SIDE PANEL**
- 8 - OVERFLOW DRAINAGE**
- 9 - DRAINAGE POINT FOR EMPTYING TANK**
- 10 - FRONT PANEL**
- 11 - DEHYDRATOR FILTER**
- 12 - CONDENSER**
- 13 - FAN UNIT**
- 14 - RECIRCULATION PUMP SOCKET**
- 15 - THERMOSTAT KNOB**
- 16 - ON/OFF LIGHT SWITCH**
- 17 - MECHANICAL THERMOSTAT**
- 18 - SIDE PANEL**
- 19 - BRACKET WITH CHAIN FOR FIXING CO<sub>2</sub> CYLINDER (optional)**
- 20 - HIGH PRESSURE TUBE (optional)**
- 21 - CO<sub>2</sub> REDUCER (optional)**
- 22 - COMPRESSOR**
- 23 - REAR PANEL**
- 24 - DRIP-TRAY**
- 25 - DISPENSING TOWER (not included)**

### 2.3 Main components of the GEO Streamlined range



GE0040

- 1 - UPPER COVER**
- 2 - RECIRCULATION PUMP**
- 3 - COILS**
- 4 - BRACKET FOR THERMOSTAT CAPILLARY TUBE**
- 5 - EVAPORATOR**
- 6 - INSULATING TANK**
- 7 - SIDE PANEL**
- 8 - FRONT PANEL**
- 9 - OVERFLOW DRAINAGE**
- 10 - DRAINAGE POINT FOR EMPTYING TANK**
- 11 - DEHYDRATOR FILTER**
- 12 - CONDENSER**
- 13 - FAN UNIT**
- 14 - RECIRCULATION PUMP SOCKET**
- 15 - THERMOSTAT KNOB**
- 16 - ON/OFF LIGHT SWITCH**
- 17 - MECHANICAL THERMOSTAT**
- 18 - SIDE PANEL**
- 19 - COMPRESSOR**
- 20 - REAR PANEL**

## 2.4 Operating principle

The machine consists of a cooling unit and a hydraulic unit. The cooling unit cools the water in the insulating tank, thanks to an evaporator (**A**) immersed in the tank itself.

The water in the insulating tank acts merely as a means of heat exchange between the coils and the evaporator.

The evaporator is cooled until its temperature is lower than zero, so a layer of ice (the "ice bank") then forms around it; this is in practice a cold reserve, to be used when consumption levels increase.

The thickness of the ice bank is controlled by the thermostat (**B**), which starts and stops the compressor (**C**) as necessary.

The mechanical thermostat is fitted with an adjustment knob which, when turned to its maximum setting, allows the ice bank to form. The mechanical thermostat has a capillary tube, located on a bracket (**D**); the position of this bracket determines the thickness of the ice bank.

The coils (that the drinks pass through) are immersed in the water in the tank. One or more stainless steel coils can be housed in the tank. Beer coils usually have a diameter of 7x8mm, while soft drinks coils have a diameter of 5x6mm.

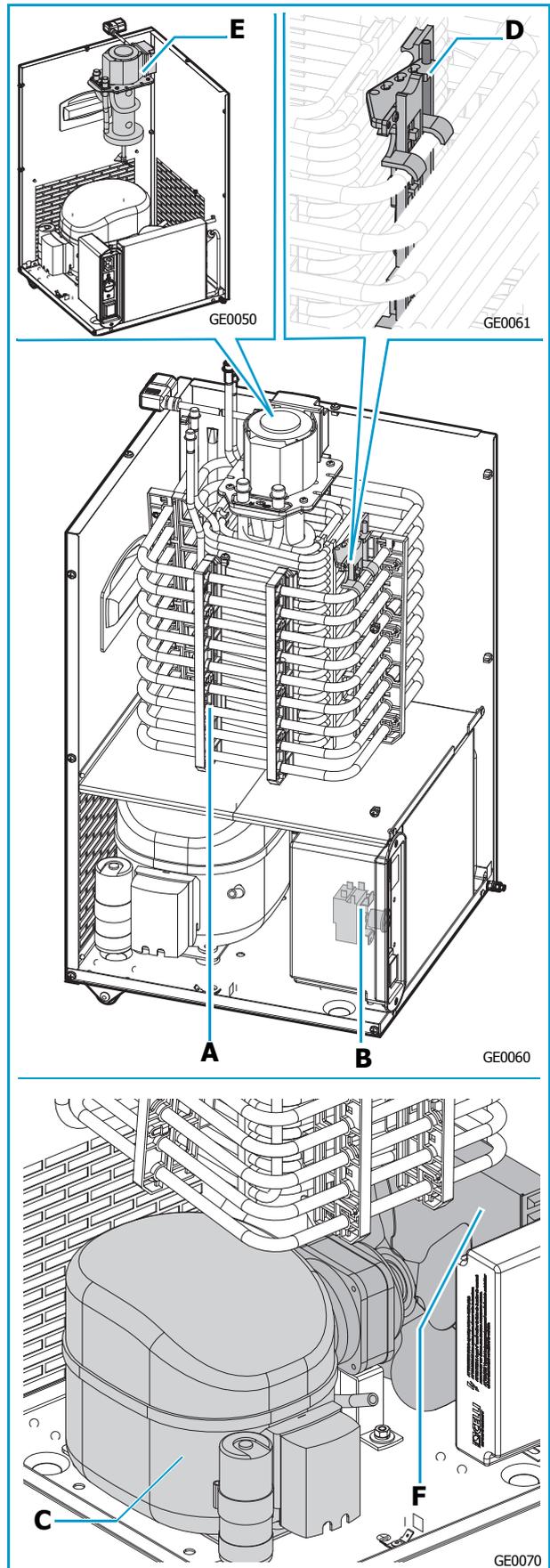
The water in the tank is always kept moving thanks to the recirculation pump (**E**); this facilitates the heat exchange between the coils and the ice bank.

The drinks are contained in steel kegs (outside the machine).

The condenser (**F**) dissipates the heat extracted from the water and generated by the compressor motor.

For more effective heat dispersal, the condenser has a cooling fan unit.

*It is important not to obstruct the condenser surface, and regularly inspect it for dirt so it can always function well (see 6.6 - "Cleaning the condenser").*



In order to operate well, the machine must be continuously powered; switching off the pump-stirrer motor, or the machine itself, during brief periods of non-use will jeopardise both the machine's lifespan and the quality of the first drinks subsequently dispensed. What's more, the machine consumes much more energy to restore the ice bank than to maintain it, so you are advised to leave the machine switched on during the night and during any brief periods of non-use.

To keep the drinks cool on their journey from the machine to the dispensing tower, they pass through plastic tubes with a thermal insulation cover of suitable thickness (the so-called "python"). Inside the python, the drinks tubes are in contact with two tubes with a bigger diameter; these carry cold water pumped from the tank by means of a recirculation pump.

### 2.4.1 Stirring and water recirculation

To ensure that cold drinks are always dispensed from the taps, the water in the insulating tank is continuously stirred and recirculated in the python with the aid of the recirculation pump. This keeps the temperature of the drink at a constant level - something that is important in the case of beer, for example, where the right temperature is fundamental.

You are advised to choose a recirculation pump suited to the size of the tank and the distance (and difference of level) between the machine and the dispensing tower.



CELLI S.p.A. can supply the right model for your own specific needs.

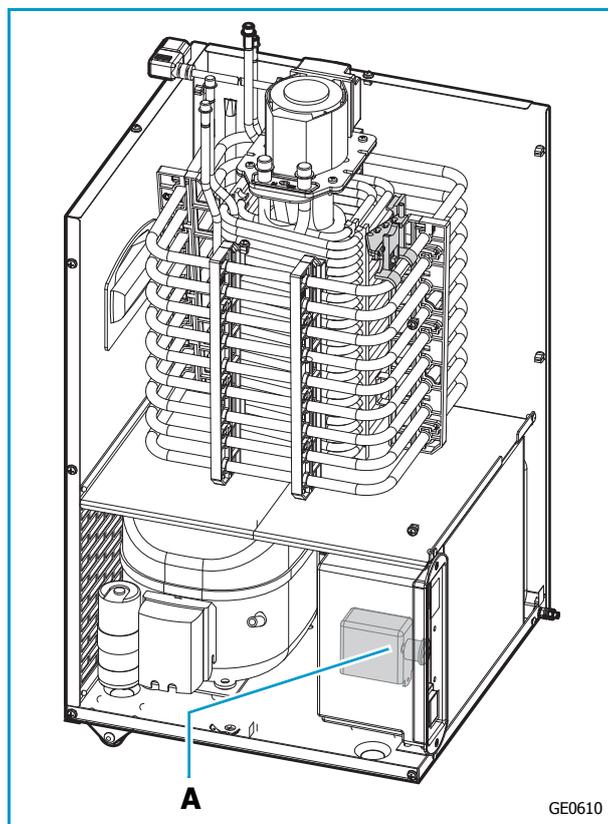
## 2.5 Unit with electronic thermostat

The cooling system is controlled by the thermostat, that stops the compressor when the ice bank has formed or when the water in the tank has reached a certain temperature. The electronic thermostat (**A**) is fitted with a sensor with terminals at its end points. The thermostat measures the electrical resistance between the two terminals, thereby recognising the presence of ice (insulator) and water (conductor).

When both pins are covered with ice, the thermostat stops the compressor.

If the tank is empty, the thermostat measures a high degree of electrical resistance between the two terminals (air is an insulator) so the compressor does not start up.

*Compressor start-up is always delayed by 4 minutes to ensure that pressure in the refrigerator circuit is balanced in all conditions (even if the electricity supply is momentarily disconnected). This reduces the mechanical stress sustained by the compressor, and prolongs its working life.*



## 2.6 Technical data

		<b>GEO20 (a)</b>	<b>GEO30 (b)</b>	<b>GEO50 (c)</b>	<b>GEO75 (d)</b>
Housing		STAINLESS STEEL / AISI 430	STAINLESS STEEL / AISI 430	STAINLESS STEEL / AISI 430	STAINLESS STEEL / AISI 430
Power supply		230V 50/60Hz	230V 50/60Hz	230V 50/60Hz	230V 50/60Hz
Height	Vert. vers.	581mm (22.8 in)	664mm (22.1 in)	709mm (27.9 in)	712mm (28 in)
	Horiz. vers.	474mm (18.6 in)	538mm (21.1 in)	542mm (21.3 in)	564mm (22.2 in)
	Streamlined	676mm (26.6 in)	760mm (29.9 in)	801mm (31.5 in)	807mm (31.7 in)
	Cooler on wheels *	N.A.	N.A.	982mm (38.6 in)	1008mm (39.6 in)
Width	Vert. vers.	357mm (14 in)	383mm (15 in)	439mm (17.2 in)	556mm (21.8 in)
	Horiz. vers.	557mm (21.9 in)	583mm (22.9 in)	645mm (25.3 in)	767mm (30.1 in)
	Streamlined	358mm (14 in)	384mm (15.1 in)	439mm (17.2 in)	557mm (21.9 in)
	Cooler on wheels	N.A.	N.A.	439mm (17.2 in)	556mm (21.8 in)
Depth	Vert. vers.	357mm (14 in)	383mm (15 in)	439mm (17.2 in)	556mm (21.8 in)
	Horiz. vers.	359mm (14.1 in)	384mm (15.1 in)	441mm (17.3 in)	557mm (21.9 in)
	Streamlined	538mm (21.1 in)	384mm (15.1 in)	439mm (17.2 in)	557mm (21.9 in)
	Cooler on wheels	N.A.	N.A.	515mm (20.2 in)	557mm (21.9 in)
Shipping weight		30kg (66.1 lb)	33/37kg (72.7/81.5 lb)	34/38kg (74.9/83.7 lb)	48/50kg - 55kg (owc) (105.8/110.2 lb)
Tank capacity		18 L (4.7 U.S. gal)	32 L (8.4 U.S. gal)	48 L (12.6 U.S. gal)	77 L (20.3 U.S. gal)
Ice bank		8kg (17.6 lb)	15kg (33 lb)	22kg (48.5 lb)	34kg (74.9 lb)
Compressor		1/5 (Hp)	1/4-1/3 (Hp)	1/3-1/2 (Hp)	3/4 (Hp)
Compressor cooling power		401W (**)	513/571W (**)	571/905W (**)	1282W (**)
Refrigerant		R134a / R290	R134a / R290	R134a / R290	R134a
Coil material		AISI 304 STAINLESS STEEL ***	AISI 304 STAINLESS STEEL **	AISI 304 STAINLESS STEEL **	AISI 304 STAINLESS STEEL **

(\*) EXCLUDING DISPENSING TOWER

(\*\*) AMBIENT TEMPERATURE 32°C

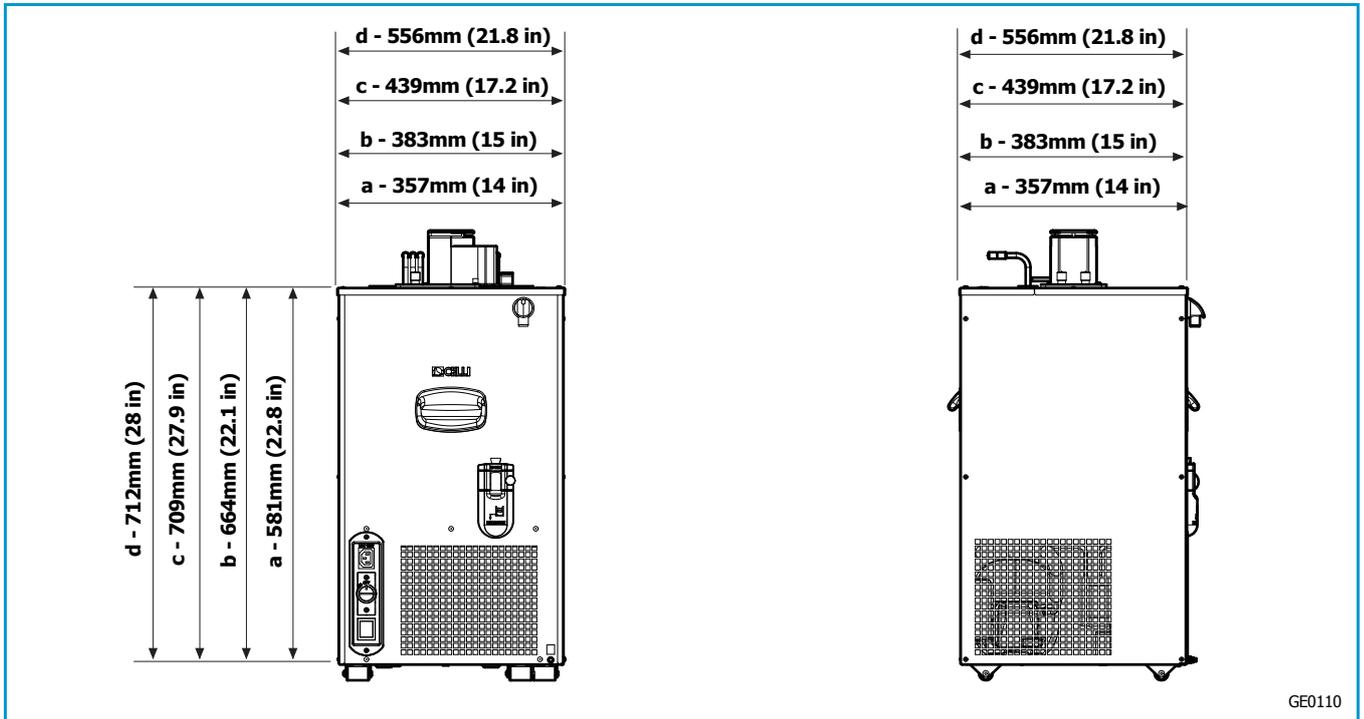
(\*\*\*) PICKLED AND PASSIVATED

### 2.6.1 Sound emissions

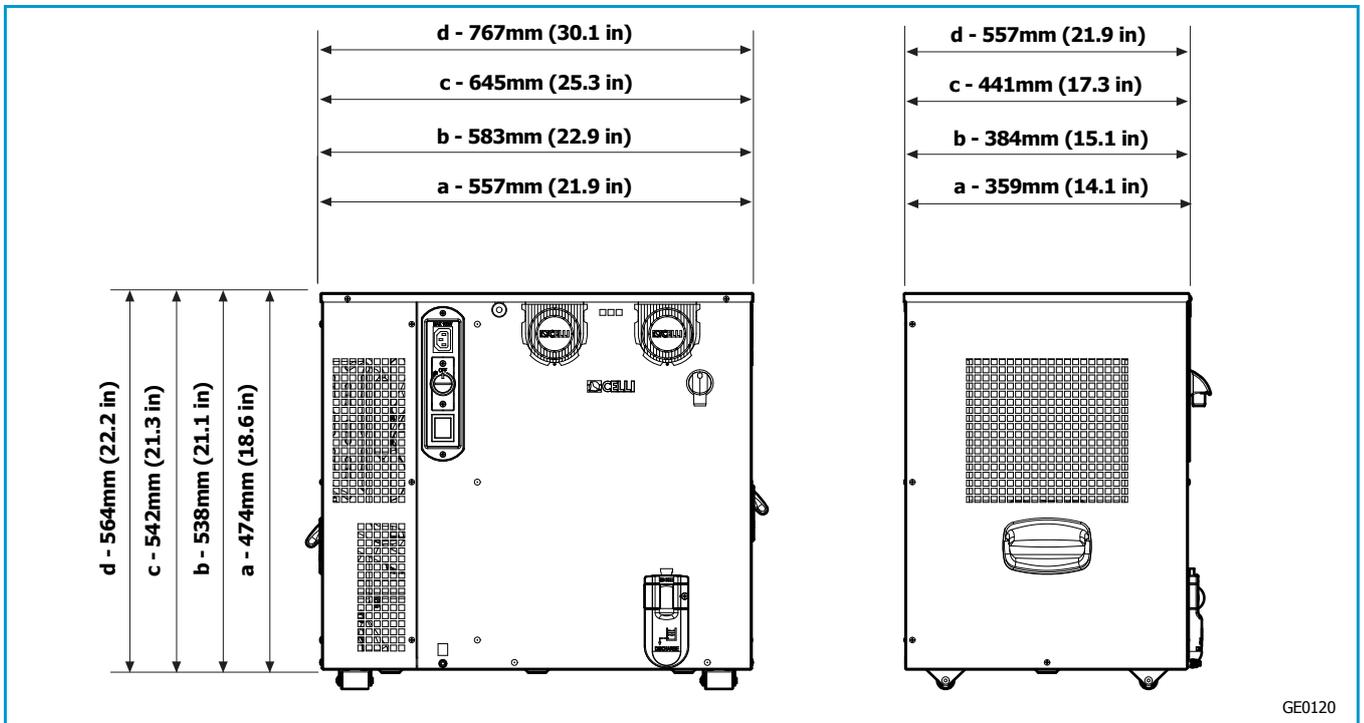
The machine is designed and built in such a way as to reduce the noise level at the source. The weighted sound pressure level "A" is lower than 70 dB (A).

## 2.7 Dimensions in mm

### 2.7.1 GEO vertical

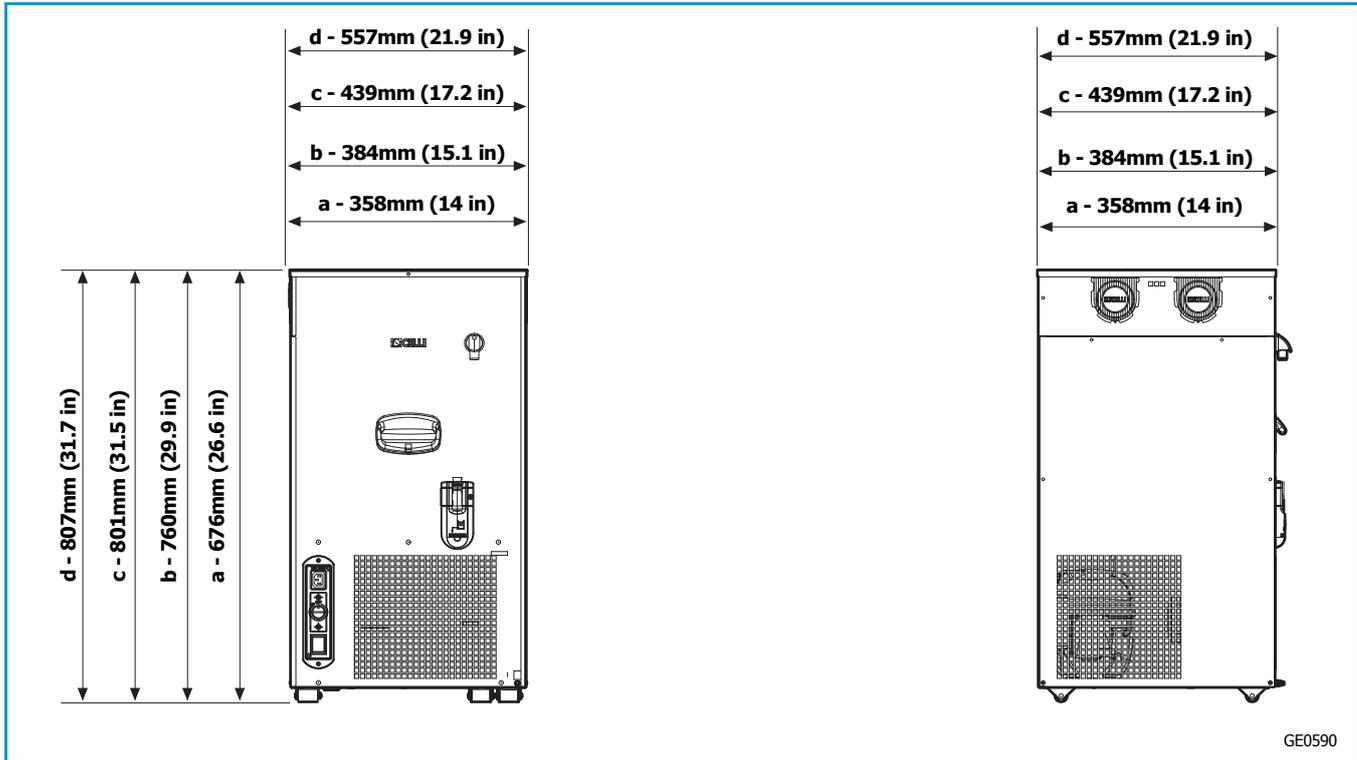


### 2.7.2 GEO horizontal



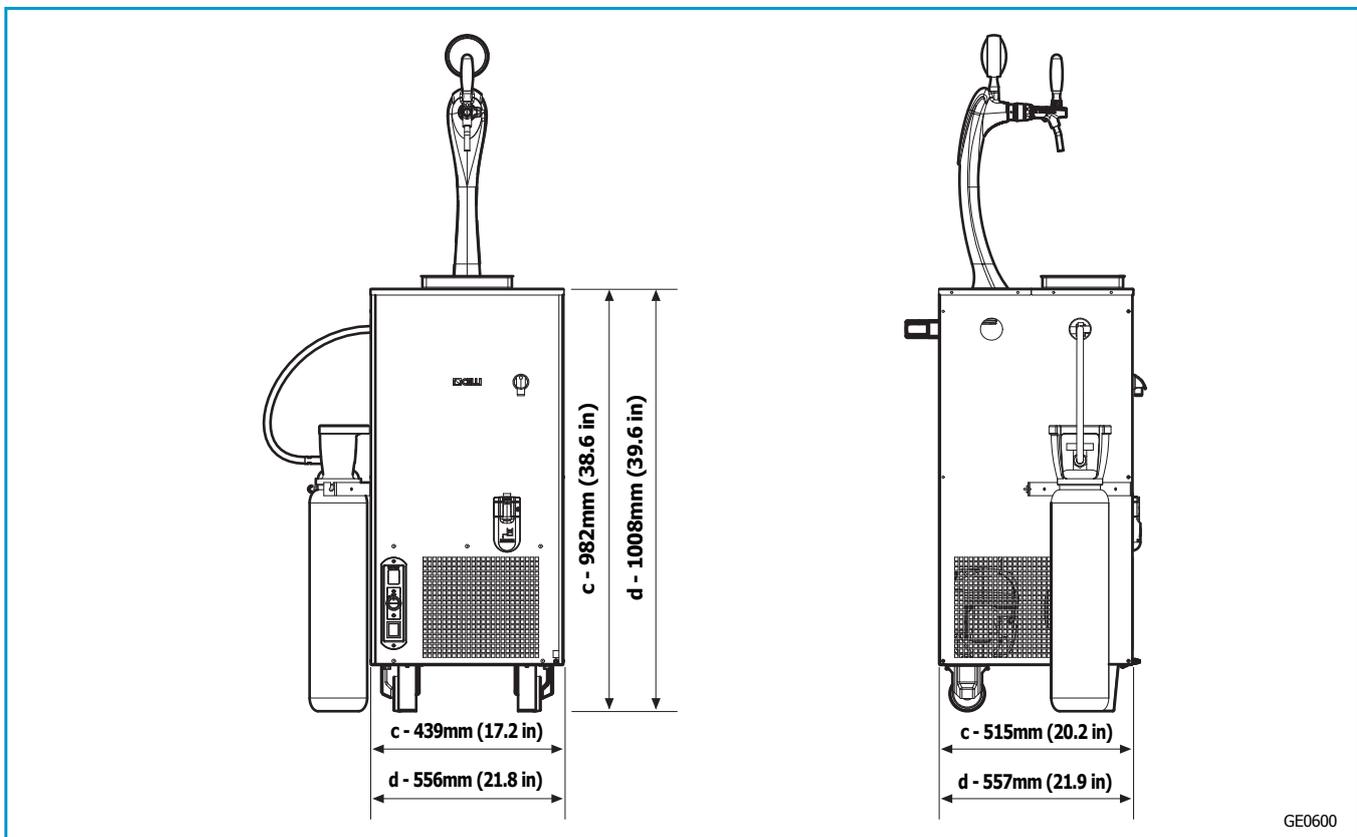
- a = GEO20
- b = GEO30
- c = GEO50
- d = GEO75

### 2.7.3 GEO Streamlined



GE0590

### 2.7.4 GEO Cooler on wheels



GE0600

## 3 - Safety

Do not allow anyone to operate the machine unless suitably trained.

Keep the machine in good working order and do not allow any modifications to be made to it unless these have been authorised by the manufacturer.



---

*Before using the machine, read this section of the manual carefully; it informs operators how to use the machine correctly, and warns of improper use which may be hazardous.*

---

### 3.1 Intended use

The PRE MIX system is used to cool and dispense cold pre-mix drinks.

The machines described in this manual are used to cool and dispense pre-mix drinks.

### 3.2 Improper use

These machines are designed for the use and conditions envisaged in this manual, in compliance with Machine Directive 2006/42/EC.

The use of the dispensers for any purposes other than those for which they were designed is not allowed, under any circumstances. Likewise, their use in any way other than that indicated in this manual is forbidden.

These machines are not intended to be used by people (including children) with reduced physical or sensory capacities, or with a lack of experience and knowledge, unless under supervision and with the instructions of someone responsible for their safety.

For the purposes of your safety, and in accordance with the current legislation, any repair operations on the machines must be carried out by the Service Centre.

- Do not alter or tamper with the internal dispenser components; if they do not work well, contact the Service Centre.
- Do not place anything on top of the dispensers.
- Do not place the dispensers on top of any other object.
- Do not use liquids other than those indicated.
- If you believe the dispenser to be damaged, contact the Service Centre.

### 3.3 List of hazards

The following list of hazards draws attention to safety aspects which must be considered at all times by anyone using the machine.

---

#### DANGER

---



##### **CO<sub>2</sub> (CARBON DIOXIDE)**

CO<sub>2</sub> cylinders must always be stored in a well-ventilated place where the air can flow in and out. Great care must be taken to prevent CO<sub>2</sub> leaks throughout the system, including the gas cylinders. If a CO<sub>2</sub> leak is suspected, especially in a small area, ventilate the contaminated area at once. Persons exposed to high concentrations of CO<sub>2</sub> will experience trembling, swiftly followed by unconsciousness and suffocation.

---

#### DANGER

---



##### **MAINS ELECTRICITY**

Always disconnect the machine from the electricity supply before doing any work on it, to prevent damage and health hazards.

---

#### DANGER

---



##### **GAS CYLINDER LOCATION**

To prevent the risk of injury or damage, the CO<sub>2</sub> cylinder must always be kept in a vertical position against a wall, held in place by a chain fixed to a bracket. Do not expose the gas cylinder to heat sources or very low temperatures. If a disposable CO<sub>2</sub> cylinder is used, secure it vertically to prevent it from falling or overturning.

---

#### DANGER

---



##### **REFRIGERANT**

The refrigerant used is R290 or R134a. To verify which of these two is used, refer to the compressor label inside the machine, and the nameplate. In the case of R290 refrigerant, this is a natural gas with a high degree of environmental compatibility, but it is also combustible. During the transport and installation of the machine, be careful not to damage any part of the refrigerating circuit. If the refrigerant spurts out, it may catch fire or cause injury to the eyes. If you notice a leak, do not take any naked flames or potential ignition sources near the machine; air the room for a few minutes.

---

## WARNING

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### REFRIGERANT

To avoid the formation of an inflammable mix of gas and air in the event of a leak in the refrigerating circuit, the size of the room where the machine is located will depend on the amount of refrigerant used.

Never switch the machine on if you notice any trace of damage. If you have any doubts, please contact CELLI S.p.A.

The room must measure at least 1m<sup>3</sup>. for every 8g of R290 refrigerant used in the machine. The amount of refrigerant in the machine is shown on the nameplate.

---

## WARNING

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### AUTHORISED TECHNICAL STAFF

Only technical staff skilled in the electric, hydraulic or refrigeration field may carry out work on the machine. All wiring and plumbing components must comply with national and local legal requirements (when replacing components, use only genuine parts certified by CELLI S.p.A.).

---

## CAUTION

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### ELECTRICAL REQUISITES

The electrical circuit must be correctly earthed and connected by means of a suitable differential safety breaker.

---

## CAUTION

---



### PLUG SUPPLIED

Connect the machine to the electricity mains using the plug provided.

If you need to replace the plug, use an equivalent model type-approved for the country of use.

---

## CAUTION

---



### SANITISATION

Before sanitising the machine, carefully read the instructions given by the sanitisation product manufacturer and make sure all personal protective equipment (gloves, masks, etc.) is worn correctly. Ensure that the premises are well ventilated.

Sanitisation procedures must only be carried out by skilled technical service staff.

---

## CAUTION

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### LOW TEMPERATURE

If the machine is exposed to temperatures below 0°C, the water inside it may freeze and cause damage to the machine itself.

---

## CAUTION

---



### **DRINKS CONTAINED IN PRESSURISED KEGS**

To avoid any harm to people or damage to property, do not remove the cover from the keg until you have discharged the CO<sub>2</sub> pressure inside.

## **3.4 Residual risks**

In operating conditions, the machine is safe and does not present any residual risk.

If it is not used in accordance with this Use and Maintenance Manual, hazards to people or property may arise.

## 4 - Installation

### 4.1 Checks and Unpacking

Always check that the machine received corresponds to the model indicated in the accompanying document. The machine is shipped in a cardboard box. Once the packaging has been removed, check the machine has not been damaged in transit; if damage is found, notify the carrier.

**CELLI S.p.A. declines any liability in the event of damage in transit.**

Users are advised to contact CELLI S.p.A. or authorised dealers for genuine components or spare parts.



GE0200

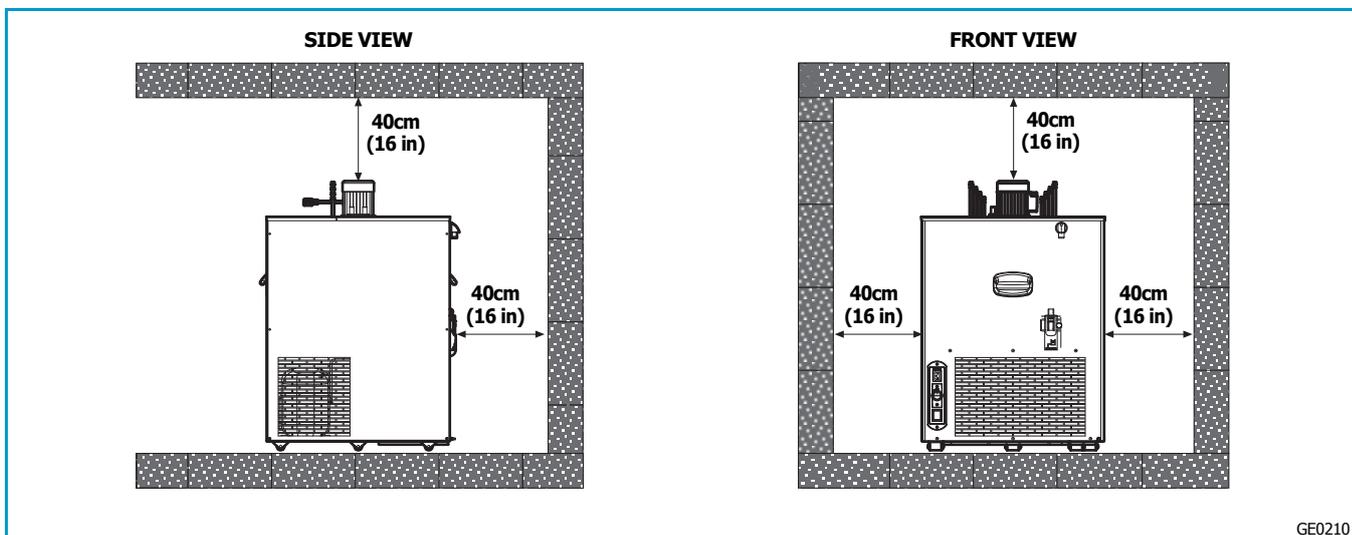


*The machine's packaging consists of a cardboard box and a suitable amount of padding material. Dispose of this in accordance with the relevant local legislation. Do not burn packaging components or dump them in the environment.*

### 4.2 Positioning

The machine must be placed on a surface capable of bearing the weight of the dispenser complete with water. The chosen position must in any case allow satisfactory ventilation; in particular, there must be a gap of at least **40cm** (16 in) around the back and top for ventilation.

The machine must not be placed close to direct or indirect heat sources (ovens, stoves, radiators, etc.). The electricity and water supply points must be close to the dispenser, and located so that the power cable and water hose do not form an obstruction.



GE0210

### 4.3 Ambient conditions

The machine must be positioned so it is protected from rain and water splashes, in a location with the temperature appropriate to its climate class (stated on the EC nameplate); otherwise warranty rights are forfeited and malfunctions may occur.

The possible climate classes are:

SN - For ambient temperatures from 10°C to 32°C

N - For ambient temperatures from 16°C to 32°C

ST - For ambient temperatures from 18°C to 38°C

T - For ambient temperatures from 18°C to 43°C

---

#### CAUTION



##### LOW TEMPERATURE

If the machine is exposed to temperatures below 0°C, the water inside it may freeze and cause damage to the machine itself.

### 4.4 Electrical requisites



*Check the electrical requisites correspond with the data provided on the machine nameplate.*

---

#### DANGER



##### MAINS ELECTRICITY

Always disconnect the machine from the electricity supply before doing any work on it, to prevent damage and health hazards.

---

#### CAUTION



##### ELECTRICAL REQUISITES

The electrical circuit must be correctly earthed and connected by means of a suitable differential safety breaker.

---

#### CAUTION



##### PLUG SUPPLIED

Connect the machine to the electricity mains using the plug provided.  
If you need to replace the plug, use an equivalent model type-approved for the country of use.

**If you need to use extensions, multiple sockets or adapters in general, use only material with a quality certification mark; the power rating of such material must always be higher than the machine's rated power absorption.**

## 4.5 Connections

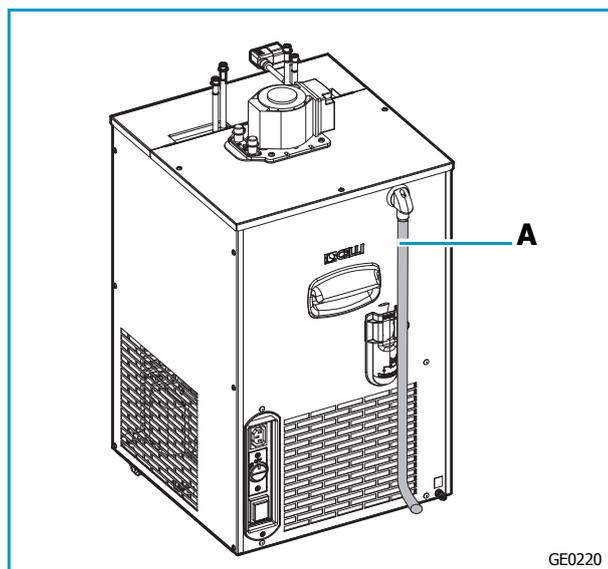
This type of machine has a series of couplings for the inflow and outflow of drinks.

### 4.5.1 Preparing the machine

#### Overflow connection

Use a tube to connect the overflow drainage connector (**A**) of the tank to a drainage point or a large container.

Check the overflow connector is not obstructed.

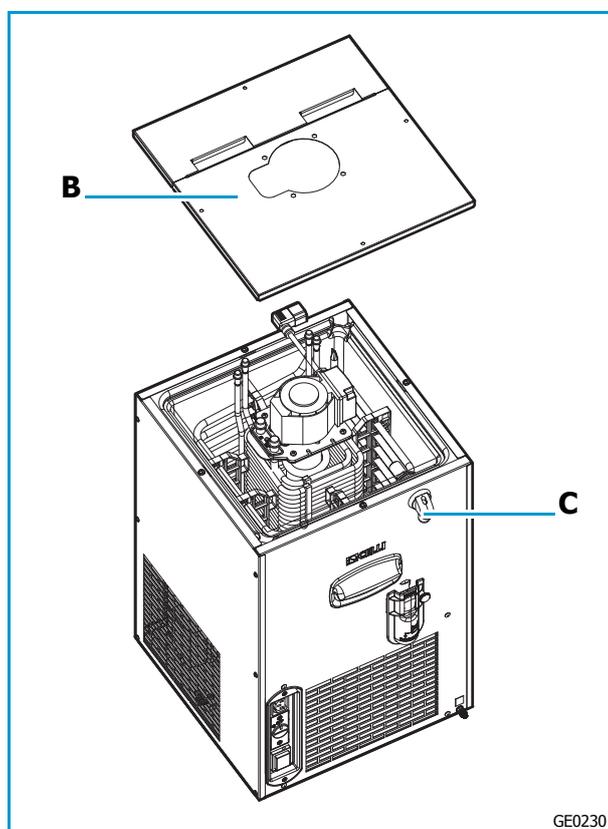


#### Filling the water tank

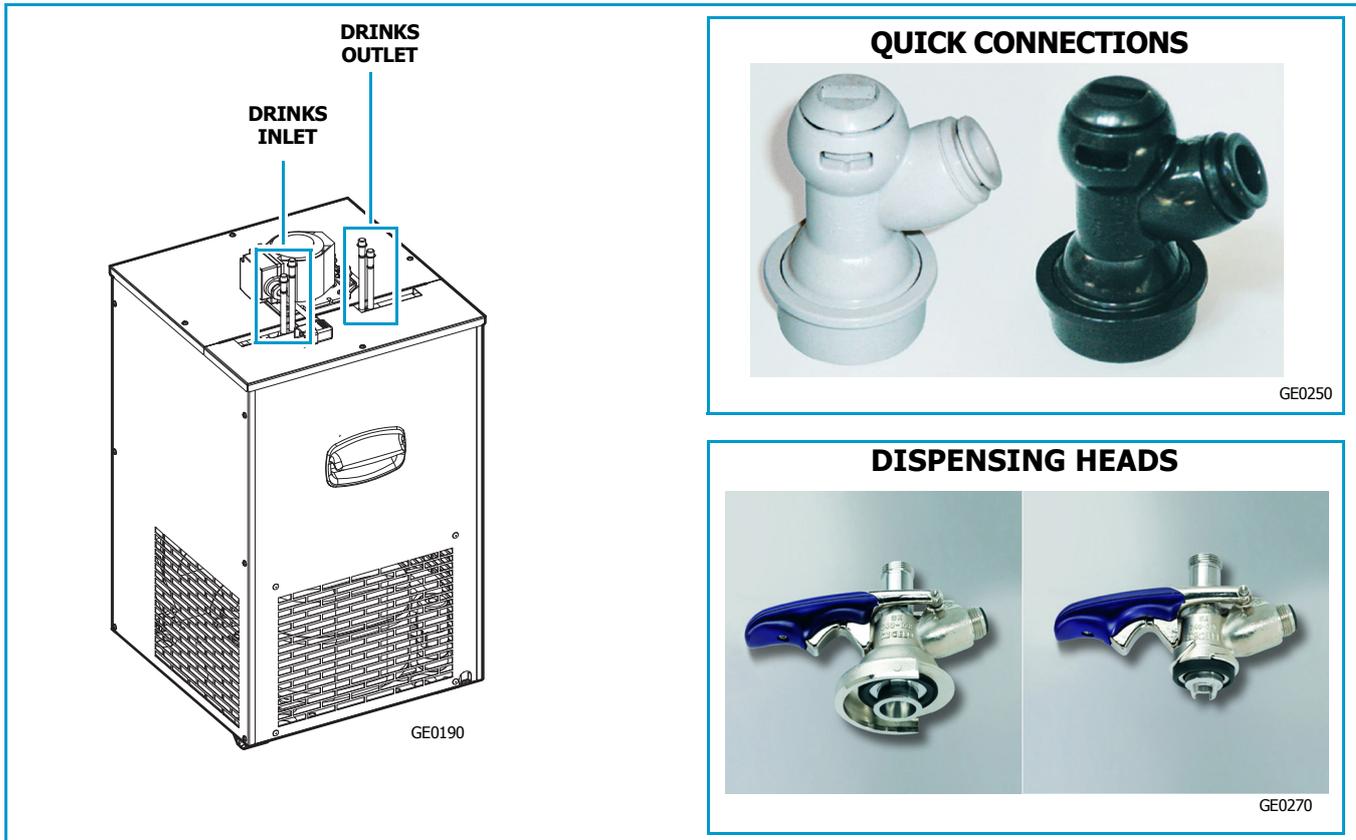
**1** - Remove the upper cover (**B**) by loosening the fixing screws.

**2** - Fill the tank with clean water until the level is about 2cm (1in) below the hole (**C**) of the overflow connector.

Make sure no foreign bodies are left in the tank.



### 4.5.2 Connection to the drinks kegs



The connection to the keg is made by means of the "heads" or "quick connections". Connect the drink inlet couplings on the machine to the relative kegs. As far as possible, avoid section changes and restrictions that could lead to dispensing problems and also create areas where bacteria could build up and then be difficult to remove (see 6.3 "Replacing a steel keg").

 *If you use carbon dioxide (CO<sub>2</sub>), be sure to air the room.*

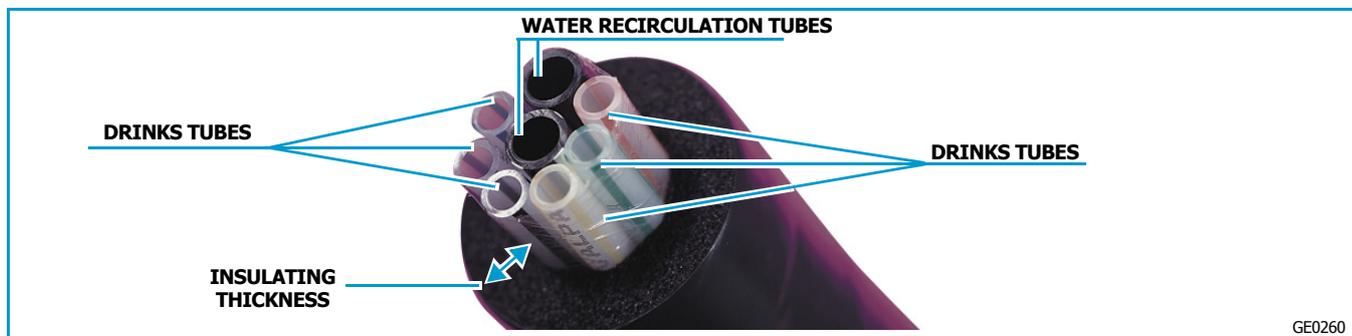
### 4.5.3 Connecting the recirculation lines

The water recirculation tubes in the python can be recognised by their larger diameter; they are usually red (IN recirculation) and blue (OUT recirculation). Connect the water system output and input to the two python tubes with the bigger diameter.

#### 4.5.4 Connecting the python

Connect the python (with the water recirculation line) to the dispensing tower (not included). When positioning the python, keep it away from heat sources, particularly tight bends, or any point where it may get crushed.

The tubes in the python are marked with numbers (or different colours) to facilitate the connection between the coils and the respective dispensing valves.



The thickness of the python insulation depends on the environmental temperature and the degree of humidity.

Refer to the tables below.

INSULATING THICKNESS (mm)	HEAT ACQUIRED BY THE DRINK (W/25m)	
	ENV.TEMP. / DRINK AT 32°C	ENV.TEMP. / DRINK AT 43°C
9	388	521
13	288	387
19	197	265
25	141	189
32	97	131

#### ENVIRONMENTAL TEMPERATURE OF 30°

NOMINAL INSULATING THICKNESS (mm)	RELATIVE HUMIDITY				
	60%	70%	75%	80%	85%
9	✓	x	x	x	x
13	✓	✓	x	x	x
19	✓	✓	✓	✓	x

#### ENVIRONMENTAL TEMPERATURE OF 23°

NOMINAL INSULATING THICKNESS (mm)	RELATIVE HUMIDITY				
	60%	70%	75%	80%	85%
9	✓	✓	x	x	x
13	✓	✓	✓	x	x
19	✓	✓	✓	✓	✓

#### 4.5.5 Connecting the carbon dioxide CO<sub>2</sub> (N<sub>2</sub> for wine)



*To facilitate the connections, the inlets and outlets are identified by special adhesives.*

#### DANGER



##### CO<sub>2</sub> (CARBON DIOXIDE)

CO<sub>2</sub> cylinders must always be stored in a well-ventilated place where the air can flow in and out. Great care must be taken to prevent CO<sub>2</sub> leaks throughout the system, including the gas cylinders. If a CO<sub>2</sub> leak is suspected, especially in a small area, ventilate the contaminated area at once. Persons exposed to high concentrations of CO<sub>2</sub> will experience trembling, swiftly followed by unconsciousness and suffocation.

#### DANGER



##### GAS CYLINDER LOCATION

To prevent the risk of injury or damage, the CO<sub>2</sub>/N<sub>2</sub> cylinder must always be kept in a vertical position against a wall, held in place by a chain fixed to a bracket. Do not expose the gas cylinder to heat sources or very low temperatures.



*Only super-dry food grade CO<sub>2</sub> should be used.*

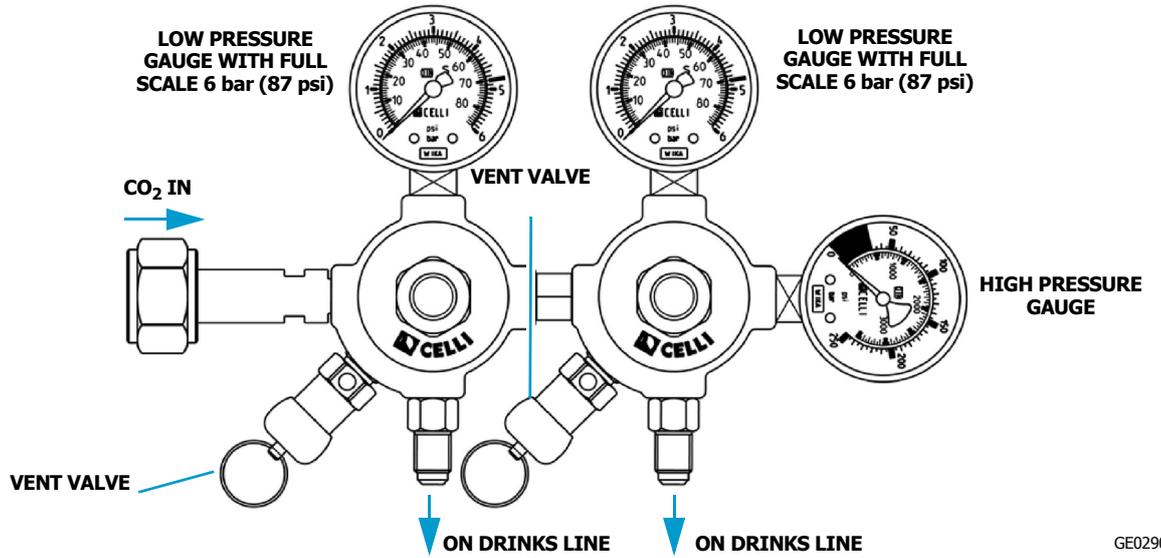
*Before connecting the pressure reducer to the gas cylinder, always vent any dirt from the valve. Close the cylinder valve after a few seconds.*



*There are different types of CO<sub>2</sub> / N<sub>2</sub> cylinders on the market.*

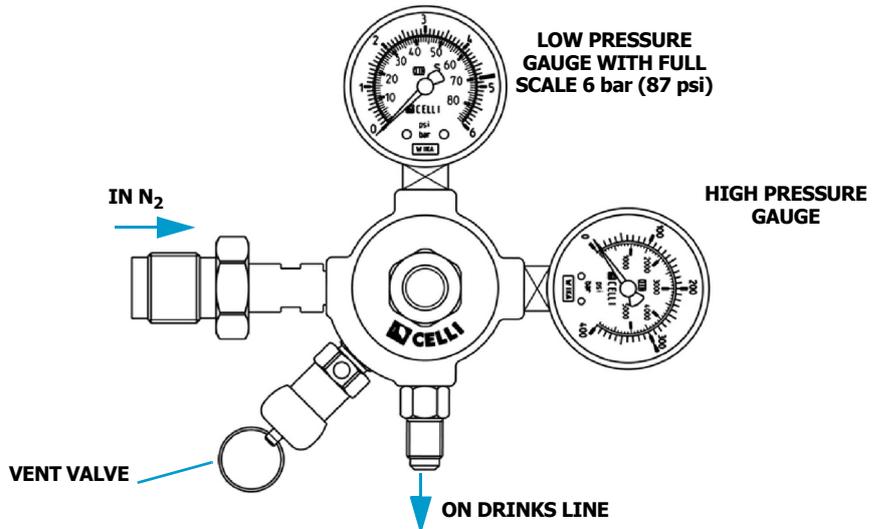
*Always obtain a pressure reducer suitable for the type of valve on the cylinder.*

**CO<sub>2</sub> REDUCER**



GE0290

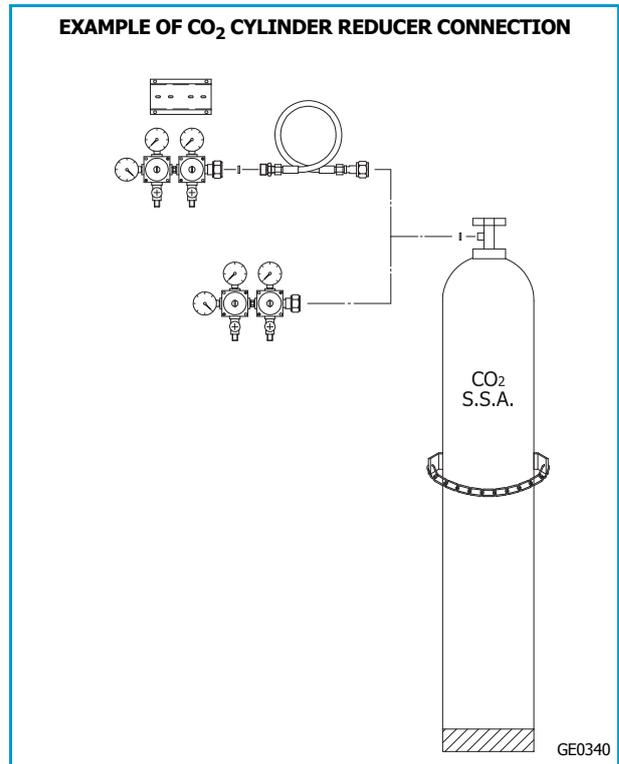
**N<sub>2</sub> REDUCER**



GE0330

To make the carbon dioxide (or nitrogen) connection correctly, proceed as follows:

- 1 -** In the case of pressure reducers with more than 2 shells, you are advised to fix them to the wall with a bracket, and connect them to the cylinder with a high pressure flexible tube.
- 2 -** Connect one end of the CO<sub>2</sub> (N<sub>2</sub>) tube to the reducer (nut + nipple + conical gasket), and the other end to the drinks keg, using the specific head or a quick connection.
- 3 -** Slowly open the cylinder valve as far as possible, to avoid any leakage of CO<sub>2</sub> (N<sub>2</sub>) from the seal.
- 4 -** Adjust the equilibrium pressure and delivery pressure by means of the screw on the reducer (turn it clockwise to increase the pressure, or anticlockwise to reduce it).



## 4.5.6 Electrical connection

### CAUTION



#### ELECTRICAL REQUISITES

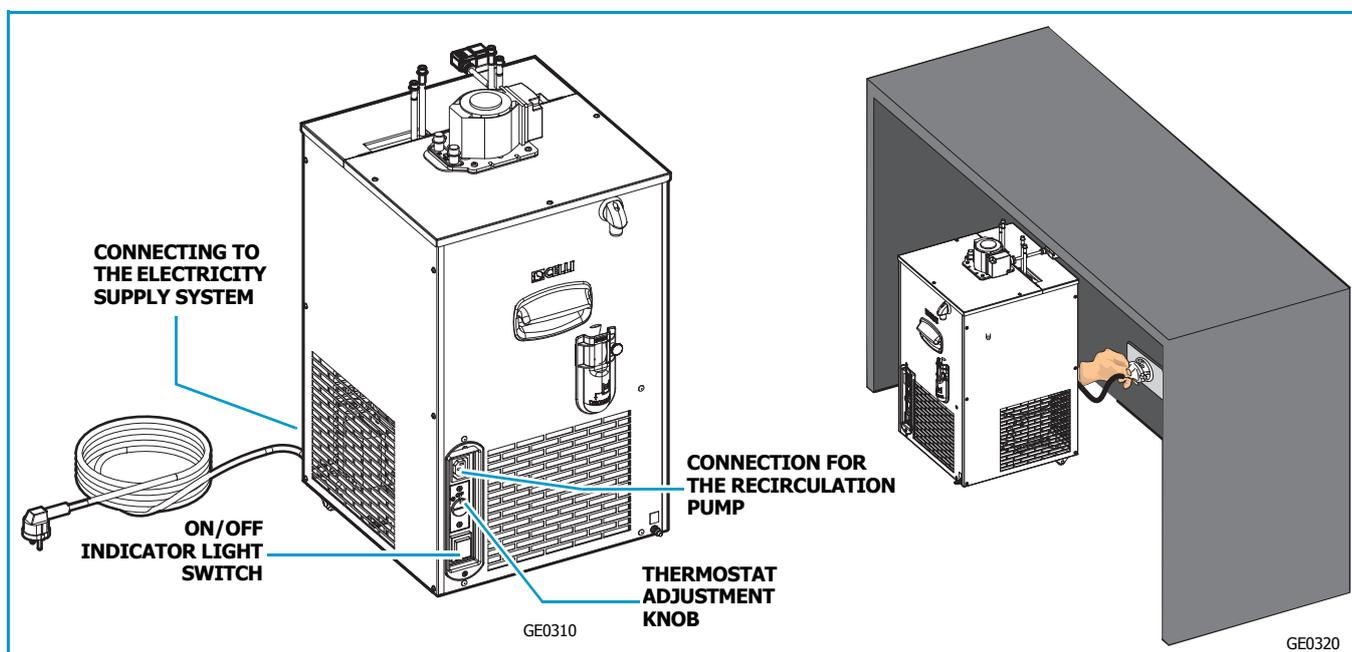
The electrical circuit must be correctly earthed and connected by means of a suitable differential safety breaker.

### CAUTION



#### PLUG SUPPLIED

Connect the machine to the electricity mains using the plug provided.  
If you need to replace the plug, use an equivalent model type-approved for the country of use.



The machines of the GEO range comply with the safety standards in force, and carry the EC mark.

### CAUTION

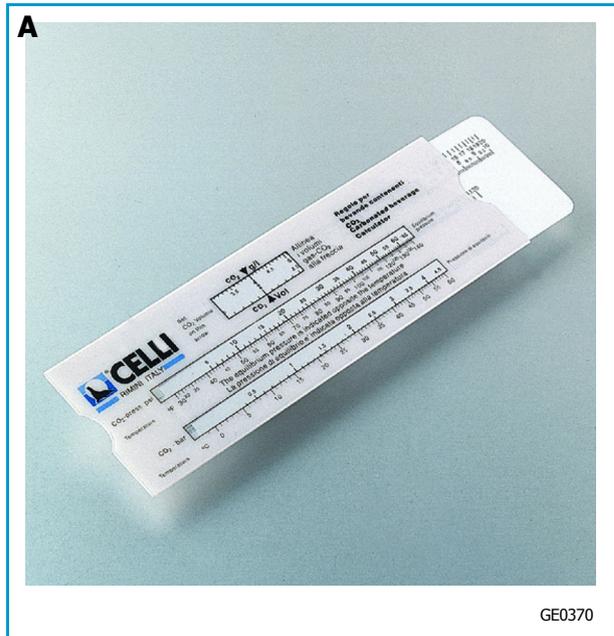
If the machine is installed in a kitchen, European Standard EN 60335-2/75 specifies that it must be connected to an equipotential circuit via a wire with a section measuring 2.5-10mm<sup>2</sup>. This connection must be made by a skilled technician, in compliance with the regulations in force.

## 4.6 Adjusting the carbon dioxide (CO<sub>2</sub>) and nitrogen (N<sub>2</sub>)

The CO<sub>2</sub> adjustment pressure depends on the amount of CO<sub>2</sub> in the drink to be dispensed (request the information from the drink distributor), the temperature of the working keg, and the difference in level between the keg and the dispensing tap.

The information about the CO<sub>2</sub> content in the drink must be requested from the drink manufacturer, as it is one of the production parameters of the drink itself. It is good practice to position the keg on a wooden platform and leave it in the work area for at least 24h before connecting it to the dispensing head: this guarantees that the set CO<sub>2</sub> pressure corresponds to the actual keg temperature.

The temperature of the room where the working kegs are housed must be kept constant; strong temperature swings may lead to the over-saturation or under-saturation of the drink. If the temperature tends to fall at night, it is a good idea to either disconnect the CO<sub>2</sub> cylinder from the keg (using a reducer output tap) or disconnect the dispensing head from the keg (simply by raising the head lever). To calculate the equilibrium pressure, special slide rules are used (A).



When the pressure applied to the keg is high (on the basis of the value calculated with the slide rule) and the flow to the tap creates dispensing difficulties, you must use the tap with a compensator. The use of the compensator slows down the flow of the drink, thereby ensuring professional dispensing.

PLASTIC TAP WITH COMPENSATOR



GE0390

BRASS TAP WITH COMPENSATOR



GE0490

For drinks such as still wine (where no CO<sub>2</sub> is involved in their manufacture), nitrogen must be used. Nitrogen is an inert gas and so it does not modify the characteristics of the drink. In this case, the pressure must be sufficient to push the wine as far as the tap, so it can be dispensed.

Connect the plug to a suitable power supply socket, checking that the characteristics of the electricity supply system correspond to the machine's technical data.

Check the **ON/OFF** switch is on **ON**.  
Check that the fan and compressor are working.  
After a few minutes, the surface of the condenser starts to heat up; check that this is happening.  
If the fan unit and/or compressor are not working, call the after-sales service.

## 4.7 Checking for leaks

- 1 - Check for gas leaks by pressurising the system and closing the gas cylinder valve.  
Wait a couple of minutes, then check whether the reading on the pressure reducer pressure gauges has dropped below the set value.
- 2 - Check there are no CO<sub>2</sub> / N<sub>2</sub> /drink leaks in the system. Check the recirculation line as well.
- 3 - If there are no leaks, re-open the valve on the CO<sub>2</sub> / N<sub>2</sub> cylinder.

## 5 - Using the machine

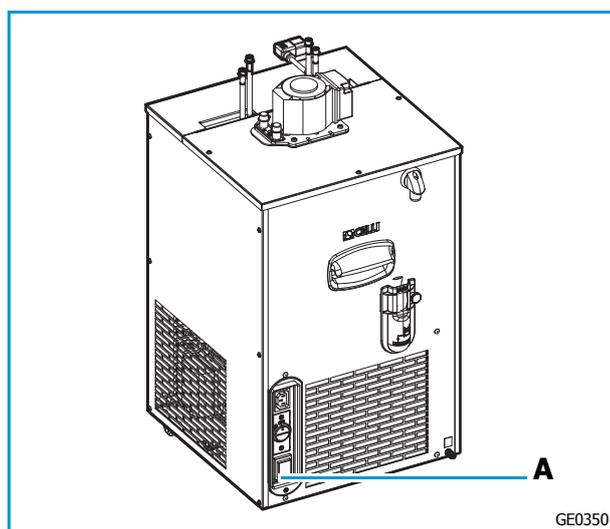
### 5.1 Start-up

1 - After checking that all the connections and adjustments are correct, connect the machine to the electricity supply by inserting the plug in the nearest suitable socket.

2 - Place the ON/OFF switch on **ON (A)**.

3 - Wait the length of time needed for the ice bank to form (about 3 hours), and for the cooling unit to get up to its optimum working speed.

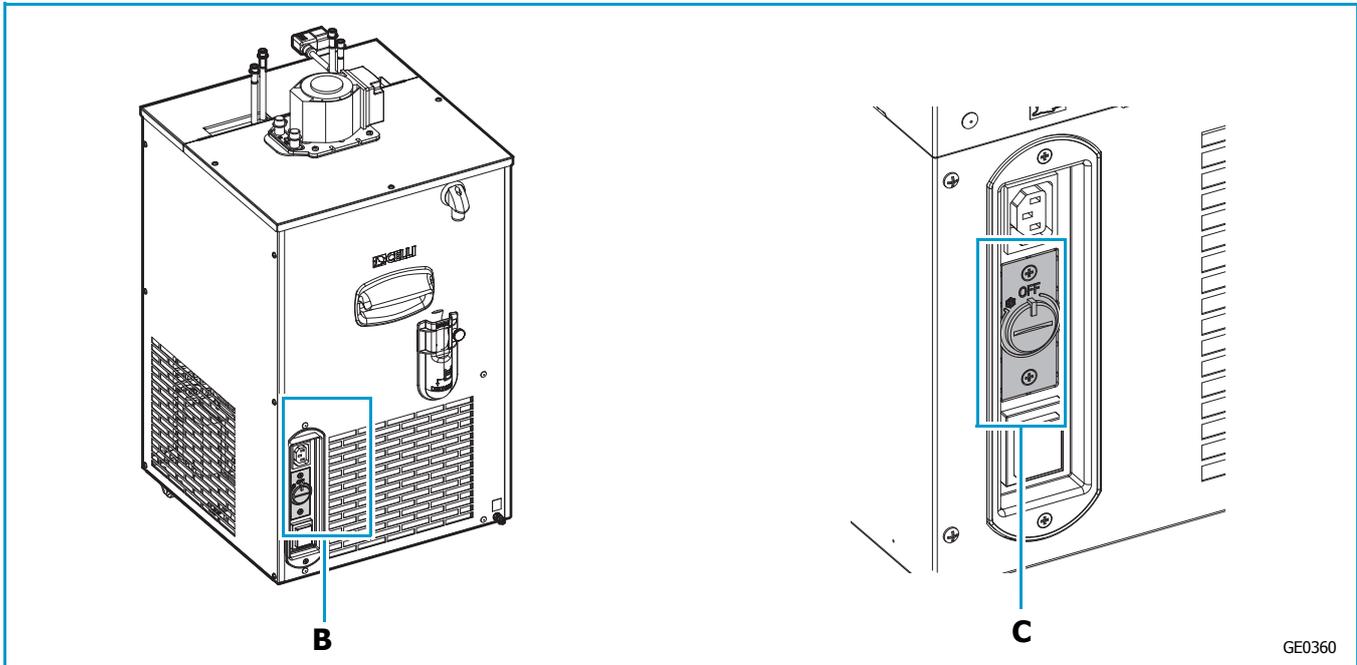
At this point, you can dispense the drinks.



*Remember that, to dispense well, you must turn the tap fully on.*

## 5.2 Setting the temperature

The temperature of the dispensed drinks can be adjusted by means of a thermostat (**B**) located on the front of the machine. Turn the knob (**C**) clockwise to obtain colder drinks, or anticlockwise to raise the temperature. If the thermostat knob is turned fully clockwise, the ice bank will form. For the version with electronic thermostat, the temperature cannot be set because the machine always works with an ice bank.



## 5.3 Stopping the machine

### REGULAR STOPS

If the machine is to be left unused for a medium-long period, disconnect the plug from the electricity mains. Disconnect the machine from electricity sources and protect from heat and bad weather. Cover it so that dust and/or splashes of any kind cannot damage it.

Turn off the water supply and the valve of the CO<sub>2</sub> cylinder.

Remove the drink container connections, and wash them.

**If the machine needs to be shipped, stored or moved, the circuit must be sanitised (see 6.7 - "Sanitising the drink lines").**

**All the water must be removed; very low temperatures might freeze any residues of sanitiser solution or water, which are hazardous since they may damage internal components.**



*If the machine is out of order due to a fault or maintenance, or for any other reason, you are advised to inform everyone of this fact by affixing a sign.*

Make sure the drink tanks respect the conditions indicated by their suppliers, so the characteristics of the product inside are not jeopardised (check the conditions for proper conservation, and the expiry dates on the products).

## 6 - Maintenance

This chapter contains the complete list of requisites and procedures relating to machine maintenance. Proper maintenance requires daily checks and inspections by the operative and/or staff trained in routine maintenance, and regular procedures including cleaning, adjustment and replacement operations carried out by authorised skilled technical staff.

**When replacing components, use only genuine CELLI spare parts.**

**If the information or procedures in this chapter are not clear, contact CELLI S.p.A. for explanations before proceeding.**

**If machine maintenance is carried out in such a way as to breach the instructions supplied, using non-original parts or without the written authorisation of the manufacturer, or in any way such as to damage the machine or modify its characteristics, CELLI S.p.A. will not be held responsible for people's safety or machine malfunctioning.**

**Any unauthorised modification invalidates the contractual warranty.**

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**DANGER**

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**MAINS ELECTRICITY**

Always disconnect the machine from the electricity supply before doing any work on it, to prevent damage and health hazards.

**6.1 Routine maintenance**

To always ensure good machine operation, certain maintenance procedures (described below) are required.

**DAILY MAINTENANCE PROCEDURES:****1 - clean the tap spout**

the tap (and especially the spout) must be cleaned every day with warm or hot water, but without using detergents or abrasive sponges.

**2 - drip-tray basin**

the drip-tray basin under the taps must be emptied every day, and washed with hot water.

**3 - rinse out the beer lines**

when each keg is finished, rinse out the beer lines with clean drinking water.

**4 - clean the dispensing tower**

the towers must be regularly cleaned with a damp cloth, without using detergents or abrasive sponges. The brass parts not subjected to treatment or gilding must be regularly cleaned with a soft cloth dipped in a specific cleaning liquid; this will keep them shiny and bright. The treated brass parts must be cleaned with warm water and, if necessary, neutral detergents (do not use solvents).

**5 - check the CO<sub>2</sub> / N<sub>2</sub> supply and pressure levels**

check the CO<sub>2</sub> / N<sub>2</sub> sources are full and in good working order, and that the set pressure values are correct (see 4.6 - "Adjusting the carbon dioxide (CO<sub>2</sub>) and nitrogen (N<sub>2</sub>)").

**6 - check the expiry date on the drinks**

check the conditions for proper conservation, and the expiry dates on the drinks.



*Do not clean the machine with water jets, which might reach electrical parts.*

---

## 6.2 Table of procedures

The table below details the maintenance procedures required at the stated intervals. These periods refer to normal conditions of use.

Maintenance Check Table								
Component	Operation required				To be carried out...			
	Inspection	Replacement	Sanitisation	Cleaning	at the end of the day	every 3 months	every 6 months	once a year
<b>ROUTINE MAINTENANCE</b>								
Steel kegs (chapter "6.3" page 39)		✓						as necessary
Cylinder - CO <sub>2</sub> / N <sub>2</sub> (chapter "6.4" page 39)		✓						as necessary
Tap spout (chapter "6.5" page 40)				✓	✓			
Condenser (chapter "6.6" page 40)				✓		✓		
Drinks lines (chapter "6.7" page 41)			✓					every 15/30 days
Tap (chapter "6.7.2" page 42)				✓				every 15/30 days
Tank water (chapter "6.8" page 43)		✓						as necessary
Rinse out the beer lines (chapter "6.9" page 45)				✓				at the end of each keg
Check for leaks	✓							✓
<b>EXTRAORDINARY MAINTENANCE</b>								
	Specialised CELLI technician							

### 6.3 Replacing the steel kegs

If the drink comes to an end, you must replace its tank (steel keg).  
 To replace it, proceed as follows:

#### CAUTION



#### DRINK CONTAINED IN PRESSURISED KEG

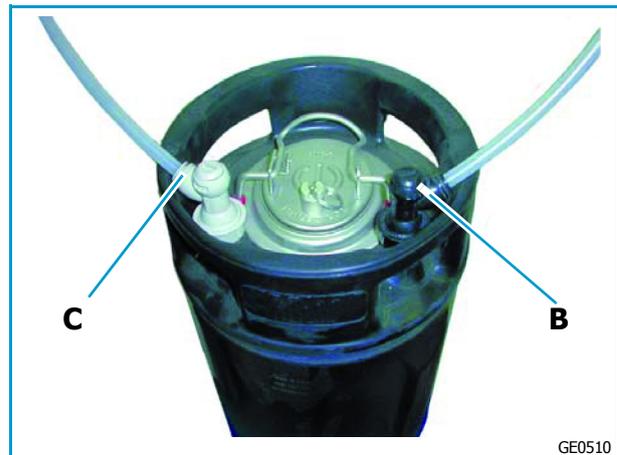
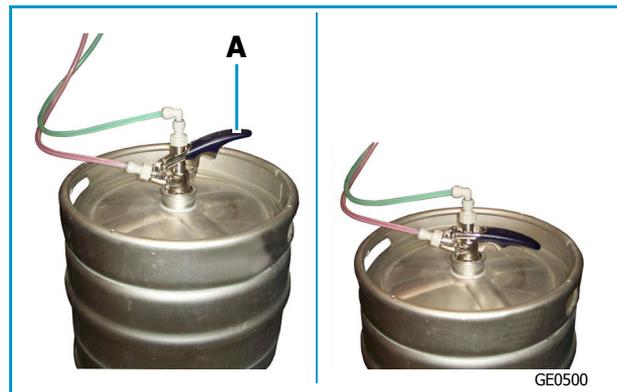
To avoid any harm to people or damage to property, do not remove the cover from the keg until you have discharged the CO<sub>2</sub> pressure inside.

**1** - In the case of beer kegs, raise the head lever (**A**) then remove the head from the keg.

In the case of drinks kegs, remove the empty steel keg by first disconnecting the drink tube (**B**) (black), then the CO<sub>2</sub> tube (**C**) (grey).

**2** - Rinse the connections or head in hot water to remove all the drink residue.

**3** - In the case of beer kegs, position the head on the connector and lower the lever to connect it.  
 In the case of drinks kegs, position a full steel keg and connect first the CO<sub>2</sub> tube, then the drink tube.



### 6.4 Replacing a carbon dioxide (CO<sub>2</sub>) or nitrogen (N<sub>2</sub>) cylinder

When the needle of the reducer high pressure gauge is in the red segment, the cylinder needs replacing.

- 1** - Note down the pressure values set on the pressure reducer, then fully close the cylinder using its valve.
- 2** - Remove the pressure reducer (or disconnect the high pressure tube from the cylinder, if fitted). Check the condition of the gaskets between the reducer and the cylinder, replacing them if necessary.
- 3** - Replace the CO<sub>2</sub> / N<sub>2</sub> cylinder, slowly open the valve to its fully open position, and check that the pressure values are as originally set.

## 6.5 Cleaning the tap spout

Clean the outside of the spout with a cloth. Dip the spout in a glass of clean water to rinse the inside as well.



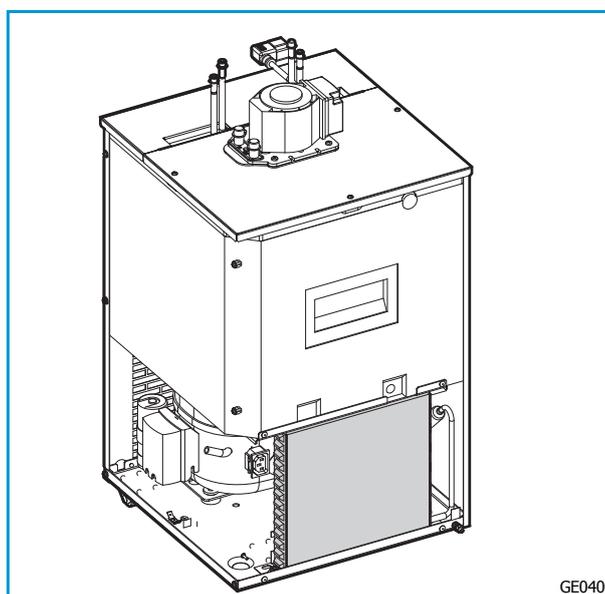
## 6.6 Cleaning the condenser



*The build-up of dust and grease on the cooling condenser may cause overheating, and this in turn could damage the compressor beyond repair.*

*The condenser must always be cleaned when necessary.*

- 1 - Disconnect the machine from the electricity supply.
- 2 - Remove the front/side panel.
- 3 - Use a soft brush, a vacuum cleaner or low-pressure compressed air to clean the condenser fins.
- 4 - Remove any dust from the cooling and electrical components.
- 5 - Refit the upper panel.
- 6 - Reconnect the machine to the electricity supply.



*Do not use high pressures, as they may bend the condenser fins.*

## 6.7 Sanitising the drink lines

### CAUTION



Before carrying out the following operations, carefully read the instructions given by the sanitisation product manufacturer and make sure all personal protective equipment (gloves, masks, etc.) is worn correctly. The sanitisation of the product lines must only be carried out by specialised TECHNICAL SERVICE staff. During the sanitisation operations, attach a warning sign to the taps of the lines concerned, to inform any other personnel that this operation is in progress, and that it is forbidden to dispense drinks.

### 6.7.1 Sanitisation of the lines for pre-mix systems

Use a suitable product that is both a detergent and a sanitiser, to be mixed with water in the proportions recommended by the manufacturer. We recommend you change the product type on a regular basis, to prevent resistant bacteria from becoming established. Never exceed the contact times and maximum dosage concentrations recommended by the manufacturer. Once the sanitising fluid has flowed through and cleaned the lines, they must be thoroughly rinsed with mains water until all the sanitiser has been completely eliminated. Check the pH of the outlet water is the same as the pH of the inlet water (use litmus paper or a pH meter).

- Disconnect the dispensing heads from the beer kegs (disconnect the quick connections, if the kegs contain soft drinks).
- Insert the heads (or quick connections) in the specific CELLI wall-mounted rinsing heads. Otherwise, rinse with the aid of a steel drum with the same connections and heads (filled with clean drinking water).
- Turn the dispensing taps until only water flows out.
- Disconnect the heads (or connectors) from the rinsing heads, and connect them to the sanitisation drum (or empty the drum and replace the water with the sanitisation liquid). This operation is necessary to avoid any direct contact between the sanitisation liquid and the product, as the reaction between the two may give rise to harmful caustic gases.
- Turn the tap corresponding to the line you want to sanitise: dispense until you can smell the sanitising product (which may have a chlorine smell), or see the colour of the liquid (in the case of coloured products), to be sure the entire line is filled with the sanitising liquid.
- Be careful: respect the concentration and contact time recommended by the manufacturer; using extra liquid will neither improve nor speed up the treatment process.
- Alternate the dispensing operations every 15 seconds, respecting the maximum product usage time indicated by the manufacturer (failure to respect the exposure time may cause damage to the system).
- Once the necessary contact time has elapsed, rinse the line thoroughly using the rinsing heads or another drum filled with clean drinking water. Check that the pH of the outlet water is the same as the pH of the inlet water.

### CAUTION

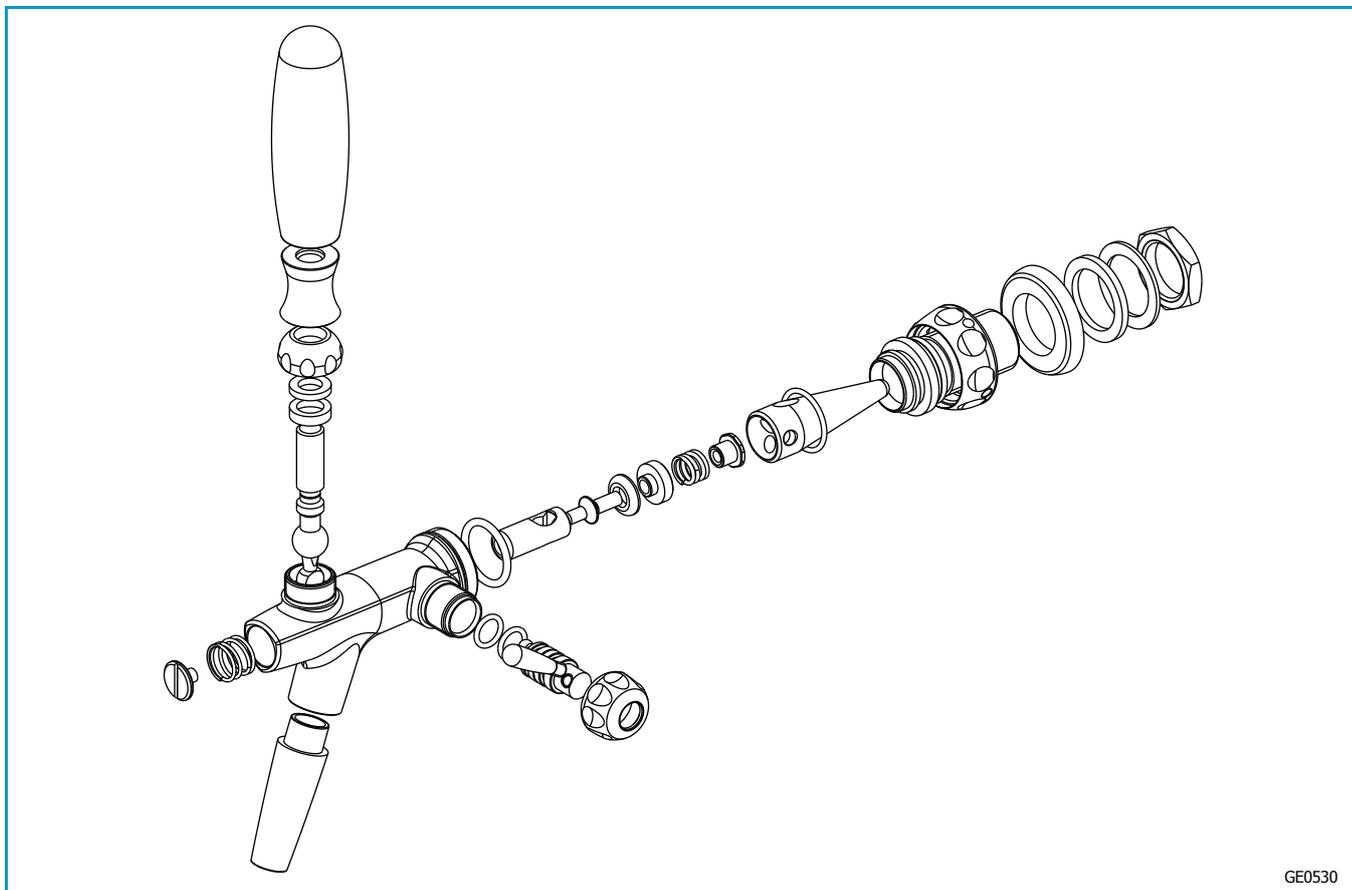


Do not open the pressurised drum containing the sanitisation liquid during the cleaning operations. Close or disconnect the supply of CO<sub>2</sub> to the drum, and depressurise it before opening it to replace the liquid.

**CELLI S.p.A. shall not be liable for any damage to people or objects, due to failure to follow the applicable regulations.**

### 6.7.2 Regular cleaning of the taps (pre-mix systems)

The tap is one of the main system parts where bacteria may build up and jeopardise the taste, quality and lifespan of the product. It is therefore important to keep it in good working condition, cleaning and greasing it regularly to avoid any malfunctioning. Use alimentary grease supplied by CELLI SpA.

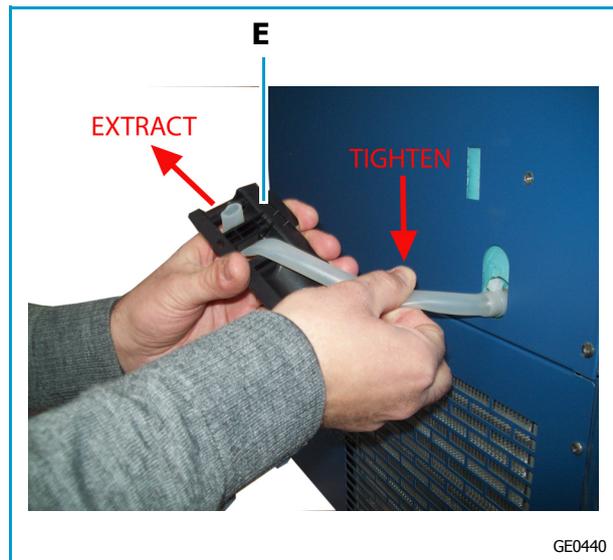
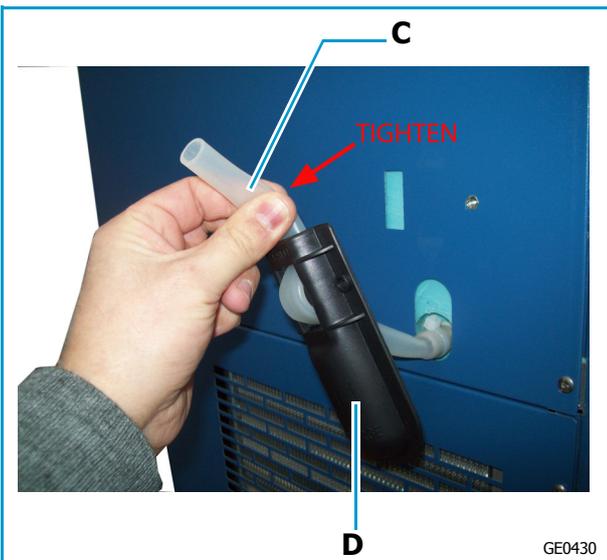
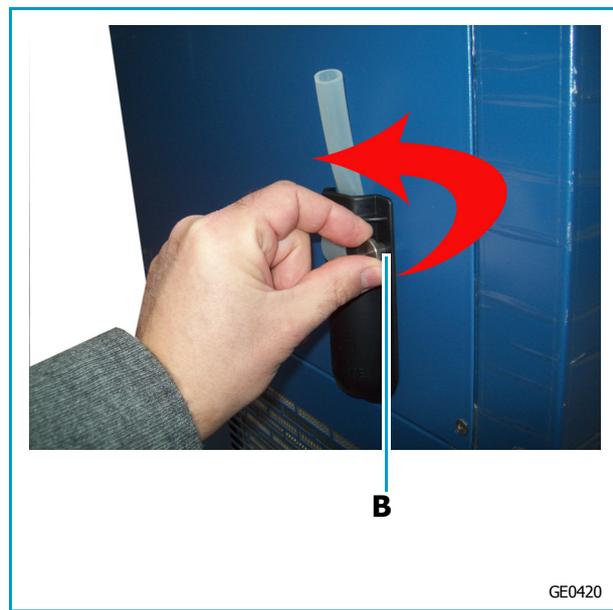


GE0530

- Disconnect the dispensing head (or quick connections) from the keg. Discharge the residual pressure from the product lines.
- Use the appropriate ring nut spanner to separate the tap sleeve from the tap itself.
- Separate the knob from the tap, turn on the tap and put the main part and components in a container filled with clean water and disinfectant (in the proportions indicated by the manufacturer). Use concentrations lower than those indicated for cleaning the lines (if the recommended concentration for the lines is 5%, then 2% will be enough for the taps). Wait about 30 minutes, then rinse all the parts with clean water and dry them with white absorbent paper before reassembling them (lubricating the gaskets and using a toothbrush to remove any residue from the inner parts).
- Reassemble the sleeve and ring nut on the main part of the tap. Tighten with the appropriate spanner. If the tap is with compensator during this operation, fully open it to avoid any mechanical interference and ensure the correct closure of the parts. Replace the O-ring if necessary.
- Connect the dispensing heads and dispense the product as usual, adjusting the tap compensator.

## 6.8 Replacing the water in the tank

- 1 - Disconnect the machine from the electricity supply.
- 2 - Remove the upper cover.
- 3 - Wait until the ice bank has fully melted.
- 4 - Empty the tank via the drainage system (A).
- 5 - Loosen the fixing screw (B).
- 6 - Hold the upper end of the tube (C) firmly to avoid any liquid seeping out, then remove the plastic clip (D) from its seat, sliding it along the rubber tube.
- 7 - Firmly hold the tube upstream from the clip to avoid any liquid seeping out, then remove the plastic clip from the tube (E).



- 8** - Drain the liquid from the tank by releasing the tube (**F**).
- 9** - Once the tank has been emptied, insert the tube in the lower slot of the plastic clip (**G**).
- 10** - Turn the tube and insert it in the front of the upper slot (**H**). Slide the tube so you can insert the plastic clip in its seat.
- 11** - Press the clip and insert the fixing screw (**I**). Tighten the screw, making sure the clip stays firmly in contact with the panel it is fixed to.



**F**

GE0450



**G**

GE0460



**H**

GE0470



**I**

GE0480



*If the machine is to be left unused for a long time, always empty the tank.*

## 6.9 Rinsing out the beer lines

This operation should ideally be performed every time a keg is emptied, to prevent the formation of beer deposits that could lead to the growth of infections. If it becomes normal practice, it may also be a source of savings: when a new keg is connected to a depressurised line, there is a high quantity of head on the first glasses which cannot therefore be sold. By rinsing between one keg and the next, the line is kept pressurised and there are no head problems. It's important to remember that the rinsing operation helps to keep the lines clean, and means less frequent sterilisation interventions. It also prevents the new keg becoming polluted due to contact with polluted lines.

To rinse out the beer lines, proceed as follows:

- 1 - disconnect the dispensing head from the keg and connect it to a rinsing head linked to the mains water supply; alternatively, you can use a drum filled with clean drinking water.
- 2 - turn on the tap and let water flow out for about 30 seconds, then reconnect the dispensing head to a new keg.

WALL-MOUNTED RINSING HEADS



GE0560

SANITISATION DRUMS



GE0570



GE0580

## 6.10 Extraordinary maintenance

Extraordinary maintenance procedures are those performed in response to failures or malfunctions; they may involve the replacement of certain components by authorised, skilled technical staff.



*All extraordinary maintenance interventions must be carried out by CELLI-authorised technical personnel.*

## 7 - Troubleshooting

PROBLEM	PROBABLE CAUSE	REMEDIES
<b>The dispenser does not start up</b>	Power supply failure	Check that power is present. If the power is OK, call an authorised technician.
	Thermostat failure	Call an authorised technician
<b>The cooling unit is working and the stirrer starter motor is idle</b>	No power supplied to the stirrer starter motor	Check the electricity supply system
	Stirrer starter motor failure	Replace the stirrer starter motor
<b>The cooling unit does not cool (the fan, compressor and stirrer starter motor are working)</b>	Refrigerant gas leak	Call an authorised technician
<b>The cooling unit does not cool (the fan is idle while the compressor and stirrer starter motor are working)</b>	No power supplied to the fan unit	Check the electrical system
	Fan unit failure	Replace the fan unit
<b>The cooling unit does not cool (the fan and compressor are idle, while the stirrer starter motor is working)</b>	Thermostat failure	Replace the thermostat
	No water in the tank (for electronic thermostat only)	Top up the water level
<b>The cooling unit never stops, and so freezes the drink</b>	Thermostat failure	Replace the thermostat
<b>The stirrer starter motor is noisy</b>	Ball bearing failure	Replace the ball bearings
	Worn brasses	Replace the stirrer
<b>NB: IN THE CASES MENTIONED ABOVE, CUT OFF THE POWER SUPPLY BEFORE ACCESSING THE ELECTRICAL PARTS. ALWAYS REQUEST THE INTERVENTION OF SKILLED TECHNICIANS.</b>		

PROBLEM	PROBABLE CAUSE	REMEDIES
<b>The drink does not flow out of the tap</b>	Product frozen in the coil	Use a thermometer to check the temperature of the water in the tank; if it is lower than 0°C, there may be some drink in it, so replace the water (checking for any leaks)
	Connection on keg not firmly in place	Make the connection
	Connection lever not hooked up	Hook up the lever
	Drink keg empty	Replace it with a full one
	CO <sub>2</sub> / N <sub>2</sub> cylinder empty	Replace it with a full one
	CO <sub>2</sub> / N <sub>2</sub> cylinder valve closed	Open the valve
	No pressure on the keg	Restore the operating pressure
	Drink tube bent	Check the path of the tube
	Drink tube obstructed	Wash out the drink lines and remove any obstructions
	Tap compensator blocked in the compensator-holder	Disconnect the connection on the keg, then disassemble the tap and remove the compensator. Wash everything, then reassemble (following the above steps in the reverse order)
	Adjustment screw (plastic tap) fully tightened	Loosen the adjustment screw by turning it anticlockwise
Compensator adjustment bolt in "fully closed" position	Turn the tap bolt anticlockwise	
Ball stuck inside the keg connection (check valve)	Disconnect the connection on the keg, disassemble everything and wash with detergent. Reassemble (following the above steps in the reverse order).	
<b>The drink flows slowly from the tap</b>	Drink tube bent	Check the path of the tube
	Tap compensator blocked in the compensator-holder	Disconnect the connection on the keg, then disassemble the tap and remove the compensator. Wash everything, then reassemble (following the above steps in the reverse order)
	Tap compensator adjusted in semi-closed position	Turn the tap bolt anticlockwise (open)
	Drink tube obstructed	Wash out the drink lines
	Connection on keg not well inserted	Insert the connection firmly on the keg
	CO <sub>2</sub> / N <sub>2</sub> pressure too low	Restore the CO <sub>2</sub> / N <sub>2</sub> pressure (the cylinder may be empty)
<b>The drink is too cold</b>	Temperature too low in keg storage place	Change the keg storage place, or raise the keg off the floor (onto a platform)

PROBLEM	PROBABLE CAUSE	REMEDIES
<b>The drink has a poor-quality taste</b>	Dirty tubes, keg connection and tap	Wash immediately with a suitable detergent, then rinse
	Drink keg too old	Replace the keg with a new one
	Drink keg faulty	Replace the keg with a new one
	CO <sub>2</sub> / N <sub>2</sub> not for alimentary use	Check the CO <sub>2</sub> used is alimentary (i.e. CO <sub>2</sub> S.S.A.). If it is not, replace the CO <sub>2</sub> cylinder
<b>The drink has too much head</b>	Dirty tubes, keg connection and tap	Wash immediately with a suitable detergent, then rinse
	CO <sub>2</sub> pressure too low	Calibrate to the correct equilibrium pressure
	Drink over-saturated with CO <sub>2</sub> gas	a) nothing can be done except replace the keg b) excessively high pressure: - calibrate to the correct equilibrium pressure - keep the temperature in the keg storage place as constant as possible throughout the day - raise the kegs from the floor, sitting them on a platform
	Storage room temperature too low or too high	Install air-conditioning, or change the storage place to a more suitable one
	Drink keg connected to the system for too long	Nothing can be done except use it up as quickly as possible and then replace the keg with a new one. Decide whether it's worth keeping a slow-selling drink available on draught
	Drink tube bent	Check the path of the tube, and resolve any anomalies
	Drink too hot	There may be various causes: - faulty cooling unit - faulty stirrer starter motor - system not aligned with real consumption levels - excessive distance between serving tap and cooler (in this case, it is necessary to install a python line with recirculation, so the cold water from the tank is in contact with the drinks line and keeps it cold; you are advised to cool the tap as well)
	Pressure reducer failure	Check the tool reads the correct counter-pressure; if it does not, replace it
<b>The drink flows out clear, but creates a large head in the glass</b>	Glass too hot	Dip the glasses in cold water to lower their temperature (use the glass-fountain)
	Incorrect dispensing technique	Use the correct dispensing technique for the specific product

<b>PROBLEM</b>	<b>PROBABLE CAUSE</b>	<b>REMEDIES</b>
<b>The drink has too little head</b>	Drink temperature too low	Store the kegs in places with a suitable temperature
	Leak of CO <sub>2</sub> gas from the keg, before dispensing	No solution - replace the keg
	Keg connection badly inserted	Insert the connection firmly on the keg
	Empty CO <sub>2</sub> cylinder	Replace the cylinder
	CO <sub>2</sub> cylinder valve closed	Open the valve
	CO <sub>2</sub> pressure reducer calibrated at an excessively low value	Restore the CO <sub>2</sub> equilibrium pressure
<b>Quick loss of head</b>	Traces of grease or detergent on the glasses	Wash the glasses well with a suitable detergent (in a glass-washer with brushes, if possible), then rinse thoroughly under running water. You are advised to use a glass-fountain.
	Old drink keg	Replace keg
<b>The drink emerges with an uneven head</b>	Keg connection badly inserted	Insert the connection firmly on the keg
	Drink line in contact with a heat source	Check the path of the product line, and change it if necessary (or insulated the tube in question)
	Keg connection gasket worn or faulty	Check and replace with a new one
	Empty keg	Replace keg
<b>The CO<sub>2</sub> / N<sub>2</sub> cylinder runs out too quickly</b>	Leak on some point of the CO <sub>2</sub> / N <sub>2</sub> circuit	Use a brush and soapy water solution to wet the outer parts of the entire CO <sub>2</sub> / N <sub>2</sub> circuit (CO <sub>2</sub> / N <sub>2</sub> cylinder valve, pressure reducer, keg connections, various gaskets, etc.) in order to identify and eliminate the leak
	Leak from the seal of the cylinder valve	Replace the empty cylinder with a full one. To avoid leaks from the cylinder seal, always open the valve fully.
<b>The tap drips</b>	Semicircular sealing gasket worn or faulty	Replace with a new one
	Drainage holes (on tap head) blocked	Clean the drainage holes
<b>FOR ANY OTHER PROBLEMS NOT COVERED HERE, CONTACT THE SERVICE CENTRE</b>		

## 8 - Additional instructions

### 8.1 Waste disposal

CELLI S.p.A. urges users to comply with environmentally friendly waste storage and disposal practices. Do not discharge liquids into the ground, into sewers or into tanks. Collect liquids in suitable containers then store and/or dispose of the waste using approved, safe procedures. Check and comply with all government and/or local waste storage, disposal and recycling regulations.

#### **Information for correct disposal of the product in accordance with European Directive 2002/96/EC:**

The symbol of the waste bin with a line through it, which appears on the machine and the packaging, indicates that the product must be disposed of separately from other waste at the end of its working life.



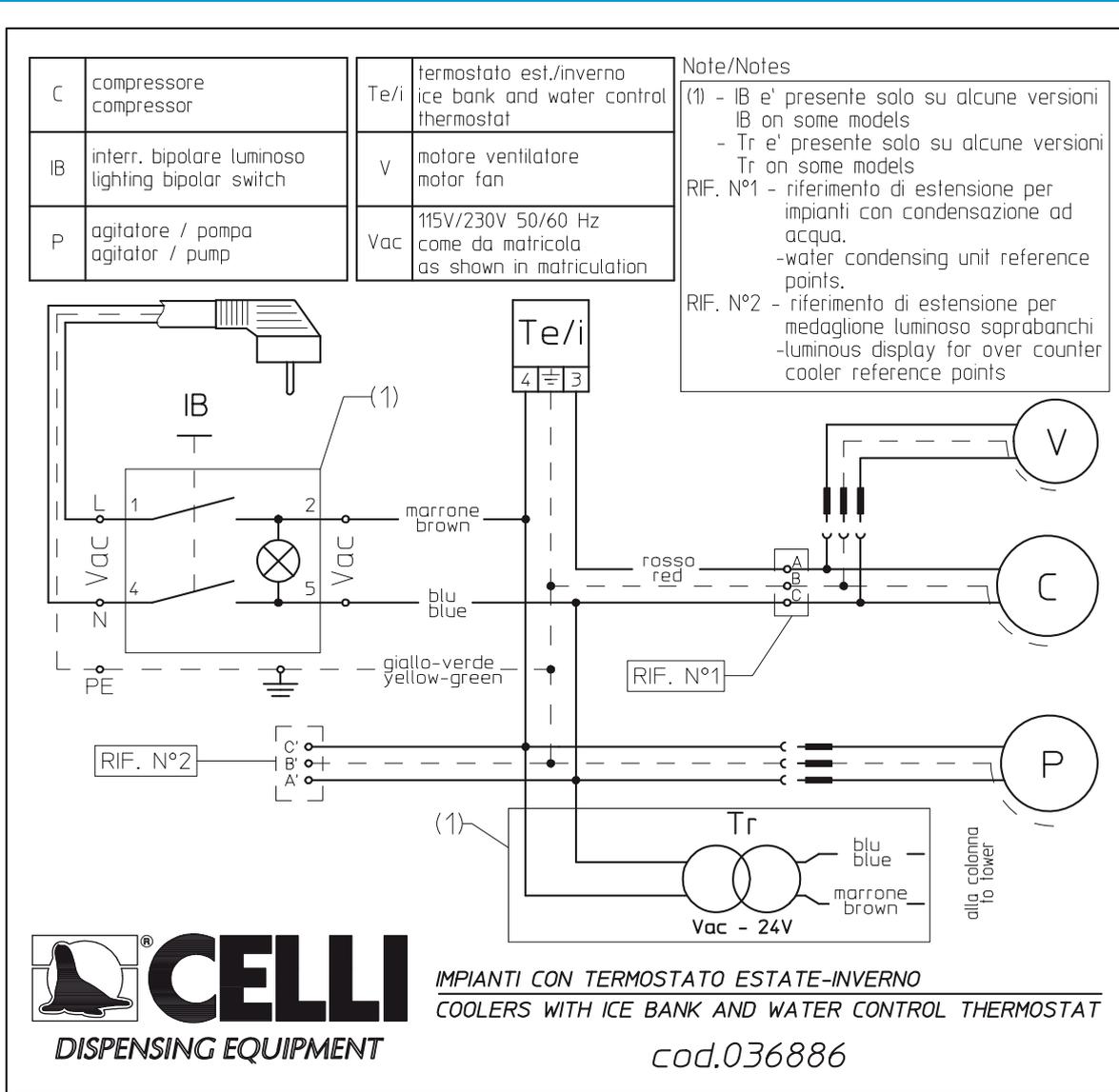
The separate disposal of this machine at the end of its lifetime is organised and managed by the manufacturer. Any user wishing to dispose of this machine must contact the manufacturer and follow the established system for the separate disposal of the machine at the end of its life.

Appropriate separate disposal, allowing the scrapped machine to be recycled, treated and disposed of in an environmentally friendly manner, helps to prevent any harmful effects on the environment and health and helps to ensure the recycling of the machine's component materials.

The illegal disposal by the owner will lead to prosecution under the relevant legislation.

## 9 - Annexes

### 9.1 GEO range - electrical diagram Version with mechanical thermostat

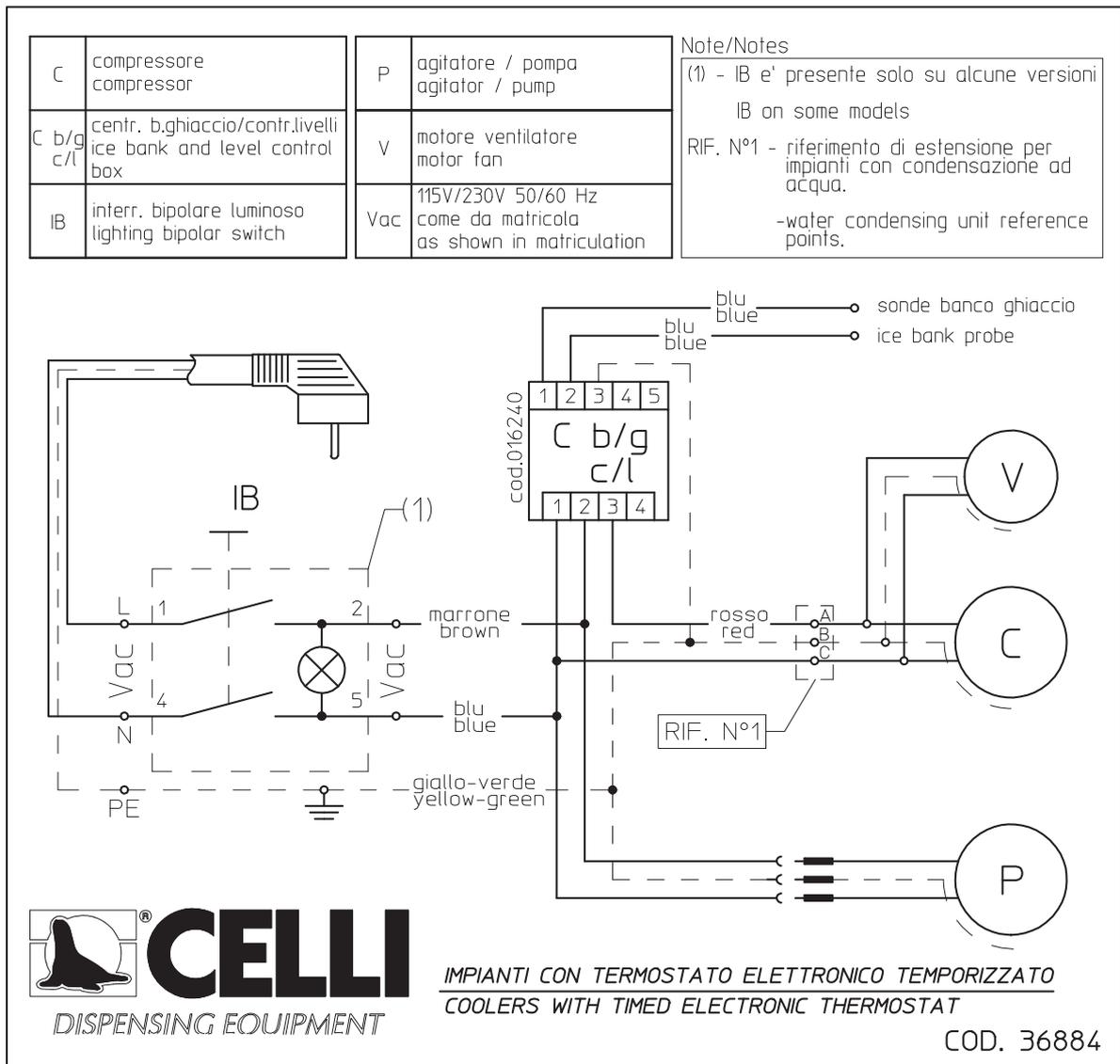


GE0620



The electrical diagram can also be found on the inner part of the insulating tank cover. Refer to that diagram if there are any differences compared with the one above.

## 9.2 GEO range - electrical diagram Version with electronic thermostat



GE0630



The electrical diagram can also be found on the inner part of the insulating tank cover. Refer to that diagram if there are any differences compared with the one above.





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WE RESERVE THE RIGHT TO MODIFY OUR PRODUCTS IN ANY WAY WE CONSIDER USEFUL, WITHOUT PREWARNING

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