



# Technical data sheet G15 CO2 generator R744

EN\_V1.00\_2022-02-01



# Physical limits of the G15 CO2 generator

Coolant type:



For the other coolants: contact Geneglance

Pression Maximale de Service (PMS) :

*"Permissible limits of pressure equipment" (bas)*

Température Mini. évaporation

Ambient air temperature: + 10 to + 35 °C (dry bulb)

Water quality Fresh water for human consumption

Temperature of water to be frozen +5 to +25 °C

Water supply pressure 0,6 to 1,5 bars

Supply water hardness TH 15 to 20° French

Supply water acidity pH 7/8

Sodium chloride content 100 g/m<sup>3</sup>

Protection index: IP44

Electrical power supply: Read information on maker's plate and comply with applicable standards.

Value airborne noise >70 dB

## Permissible limits of pressure equipment

Type	Volume	PS (Min/Max)	T° (Min/Max)
	(L)	(Bar)	(°C)
G15 CO2	1,8	-1/+27	-30/+45

Type	Coolant	D.E.S.P. Category	Coolant group	Load (kg)	T. eq CO2
				(kg)	
G15 CO2	R744	Art. 4.3	2	0,5	0,001

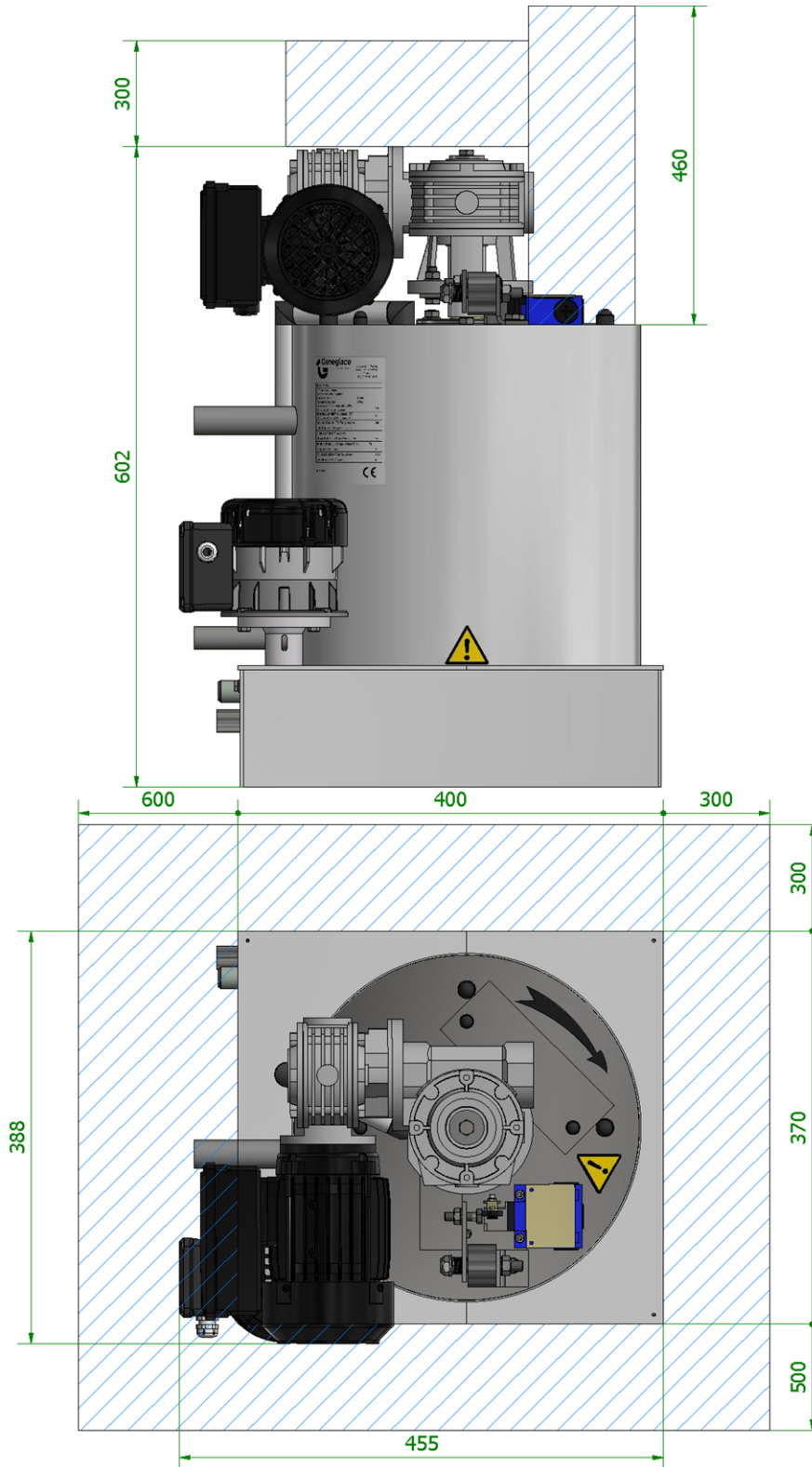
# G15 CO2 generator supply limit

<b>Cylinder</b>	<ul style="list-style-type: none"><li>• Double-walled cylinder: Machined steel, Genecoat® coating.</li><li>• Thermal insulation of the cylinder: Expanded polyurethane injection.</li><li>• External cylinder coating: White lacquered aluminium sheet.</li></ul>
<b>Base</b>	<ul style="list-style-type: none"><li>• Lower base: Stainless steel</li><li>• Thermal insulation of the base: White PVC coated panels.</li><li>• Base cover: White polyethylene.</li><li>• Water supply float valve .</li><li>• Submersible water pump</li><li>• Water tube between water pump discharge and distribution bowl.</li></ul>
<b>Rotating part</b>	<ul style="list-style-type: none"><li>• Central shaft: Stainless steel.</li><li>• Lower central shaft bearing assembly: Stainless steel box, spherical plain bearing.</li><li>• Upper central shaft bearing assembly: Stainless steel box, spherical plain bearing.</li><li>• Lower water collection bowl: stainless steel.</li><li>• Upper water distribution bowl: stainless steel.</li><li>• Vertical deflector: stainless steel.</li><li>• Overflow tube water distribution bowl</li><li>• Helical reamer: stainless steel.</li><li>• Eccentric reamer approach adjustment arrangement.</li><li>• Scrapers for limiting the watering area: EPDM.</li><li>• Top part with inspection hatch: Stainless steel.</li></ul>
<b>Rotating part drive</b>	<ul style="list-style-type: none"><li>• Direct drive gear motor assembly.</li></ul>
<b>Safety</b>	<ul style="list-style-type: none"><li>• Safety by force limiter on electrical contact (manual reset)</li></ul>
<b>Refrigeration supply</b>	<ul style="list-style-type: none"><li>• Coaxial exchanger (not mounted): copper</li><li>• G15 CO2 Electronic expansion valve, driver, pressure sensor, temperature sensor.</li></ul>
<b>Misc.</b>	<ul style="list-style-type: none"><li>• Refillable salt dosing tube + 25 kg of sodium chloride tablets</li></ul>

# Generator G15 with refrigerant R744 (CO2)

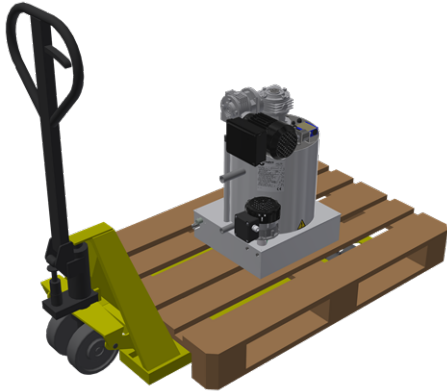
Characteristics	Units			
Water to be frozen	°C	15		
	°F	59		
Production	T /24h	0,700	0,720	0,730
	UST/24h	0.77	0.79	0.80
Cooling capacity	KW	3,5	3,6	3,7
	BTU/h	11942	12283	12624
<b>Frequency</b>	<b>Hz</b>	<b>50</b>		
Speed of rotation	tr/h	121	121	121
Thickness of ice flakes	mm	2	2,1	2,1
	inch	0.08	0.08	0.08
Evaporation temperature at the generator	°C	-23,6	-25,5	-26,5
	°F	-10,48	-13,9	-15,7
<b>Frequency</b>	<b>Hz</b>	<b>60</b>		
Speed of rotation	tr/h	116	116	116
Thickness of ice flakes	mm	2,1	2,2	2,2
	inch	0.08	0.08	0.08
Evaporation temperature at the generator	°C	-25	-27,2	-28,6
	°F	-13	-16,96	-19,48

# Dimensions



\*Values in millimetres

# G15 CO2 generator Shipment



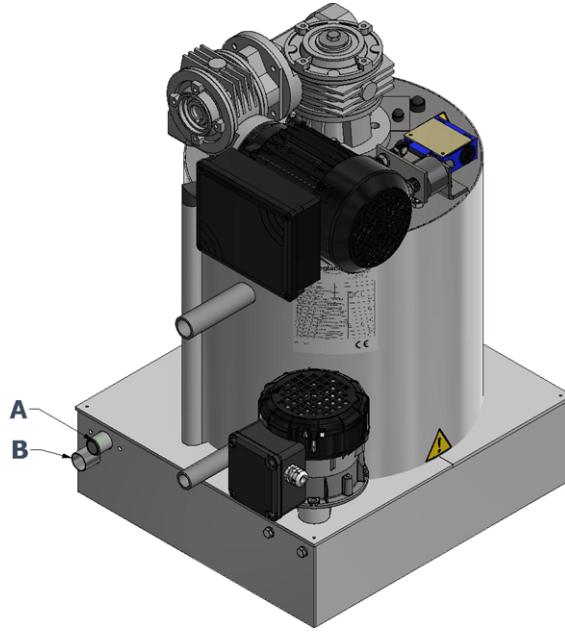
The packaging is hydrophobic and moisture resistant,  
The packaging is used for air, sea and road shipments.

Volume	0,6 m <sup>3</sup>
Length	840 mm (33 inches)
Width	740 mm (30 inches)
Height	960 mm (38 inches)
Net weight	50 Kg (111 lbs)
Gross weights	102 Kg (225 lbs)

## Geneglace SAS

# G15 CO2 generator Hydraulic characteristics

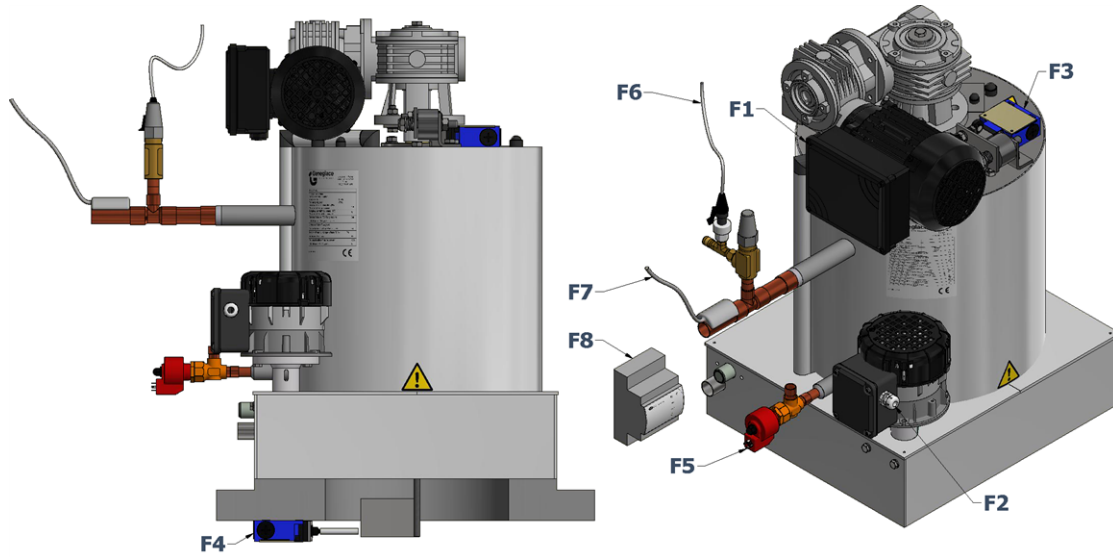
*Generator G15 CO2*



Generator	Ref.	Designation	Qty	Connections		
				Dimensions	Type	Material
G15 CO2	A	Water supply	1	1/2 " gaz	Threaded	PVC
	B	Overflow	1	20/22 mm	Smooth tube	Stainless steel

# G15 CO2 generator Electrical characteristics

Generator G15 CO2

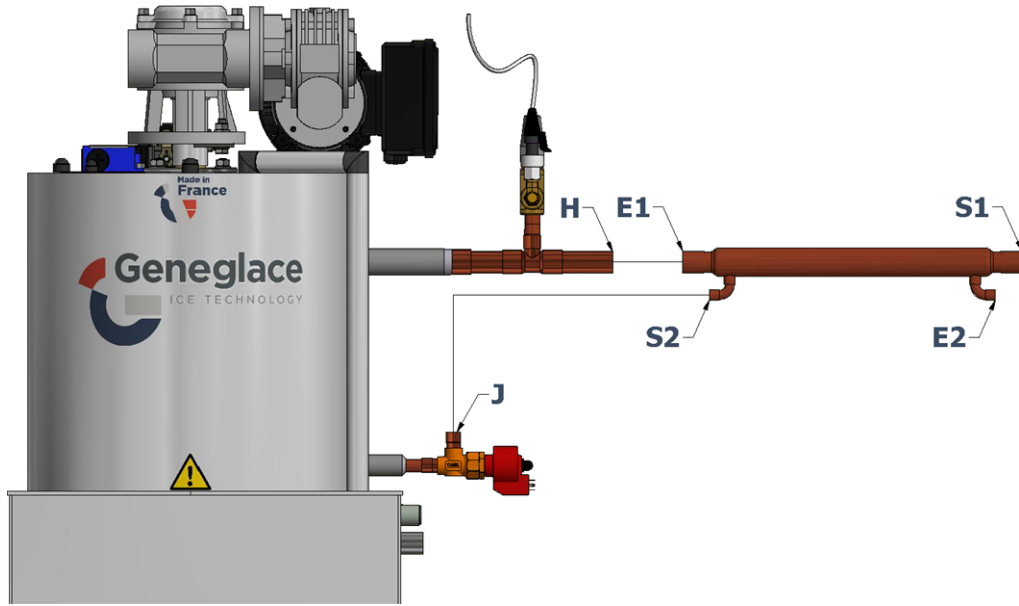


Ref.	Designation	Qty.	Electrical power supply	Nominal power	Nominal current	Contact
F1	Scraper motor	1	400V - 3 - 50Hz	90W	0,62A	-
	Scraper motor	1	230V - 1 - 50Hz	110W	1,2A	-
F2	Water pump	1	230V - 1 - 50Hz	16W	0,14A	-
F3	Torque limiter contact	1	-	-	-	1NC/1NO
F4	Ice level safety contact	1	-	-	-	1NC/1NO
F5	Pressure reducer	1	24V	-	-	-
F6	Pressure sensor	1	-	-	-	-
F7	Temperature sensors	1	-	-	-	-
F8	Driver	1	24V	-	-	-



# Cooling characteristics

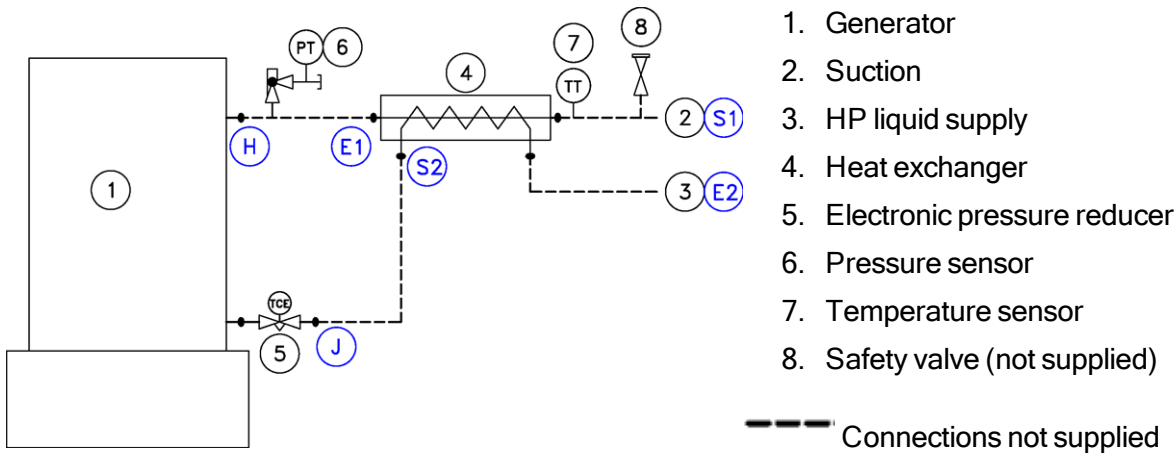
Generator G15 CO2



Ref.	Designation	Qty.	Connections	G15 CO2
E1-S1	Heat exchanger Suction line	1	Dimensions	7/8"
			Type	O.D.F.
			Material	Copper
E2-S2	Heat exchanger Liquid line	1	Dimensions	3/8"
			Type	O.D.F.
			Material	Copper
H	Suction	1	Dimensions	7/8
			Type	O.D.M
			Material	Copper
J	Liquid supply	1	Dimensions	1/2"
			Type	O.D.M
			Material	Copper

# Cooling diagram G15 CO2 generator with exchanger

The generator with exchanger is designed to be connected to a refrigeration system supplying the generator with HP liquid.



# Options G15 CO2 generator

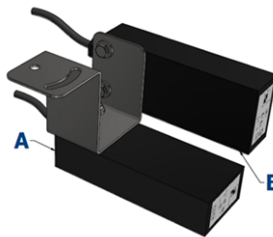
## Salt dosing pump

- Power supply 100÷240 Vac - 50/60 Hz - 15 W
- Flow rate range: (0.1 % to 100%)x 2 L/h.
- IP65
- Fuse 1.6 A (20 W).
- 50 L reserve
- 25 Kg salt tablets



## Ice level detection

- IP: 67
- CE and UL standards
- Power supply : 10-30 VDC
- 2 Infrared sensor:
  - A: Infrared sensor for security level
  - B: Infrared sensor for control level
- 1 Ice level sensors holder in inox steel



## Electrical panel PGS\_2 CO2

- IP: 55
- CE or UL standards
- Available power supply voltages:
  - 400 V-3+Neutral / 50 Hz
  - 400 V-3 / 50 Hz
  - 575 V-3 / 60 Hz
  - 460 V-3 / 60 Hz



## Remote control for PGS\_2 Electrical panel

- IP: 65
- CE or UL standards
- An On button
- An Off button
- A green On indicator light
- A red fault indicator light
- A weekly programmable clock
- An emergency stop button

