

# Technical data sheet G200 Generator (SBF-ABF) R744

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# Physical limits of the G200 Generator(SBF-ABF)

Coolant type: • According to the configuration of the G200 : R744



For the other coolants: contact Geneglace

Maxi allowable pressures (PS) :	<i>"Permissible limits of pressure equipment" (below)</i>
Mini allowable temperature	
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	1 to 2 bars
Supply water hardness	TH 15 to 20° français
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 (L)		PS (Min/Max)	T° (Min/Max)
			(Bar)	(°C)
G200 ABF*	52	BP	-1/+40	-30/+50
		HP	-1/+60	-30/+50
G200 SBF**	21		-1/+40	-30/+50

\* Generator equipped with a flood bottle for direct expansion / \*\* Generator without flood bottle for pump recirculation.

Type	Coolant	D.E.S.P. Category	Coolant group	Load (kg)	T. eq CO2
G200 ABF*	R744	III	2	22	0
G200 SBF**	R744	II	2	11	0

\* Generator equipped with a flood bottle for direct expansion / \*\* Generator without flood bottle for pump recirculation.

# Supply limit G200 Generator SBF/ABF

<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: RAL 9006 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: polyurethane panels and PVC coating.</li> <li>• Base covers: PVC foam.</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>• Lower central shaft bearing assembly: Stainless steel box.</li> <li>• Upper central shaft bearing assembly: Stainless steel box.</li> <li>• Lower water collection bowl: stainless steel.</li> <li>• Rear reamer deflector: stainless steel.</li> <li>• De-icing tube rotating part</li> <li>• Helical reamer: stainless steel.</li> <li>• Lower reamer bearing assembly: Stainless steel box.</li> <li>• Upper reamer bearing assembly: Stainless steel box</li> <li>• Reamer approach adjustment arrangement.</li> <li>• Scrapers for limiting the watering area : natural rubber.</li> </ul>
<b>Rotating part drive</b>	<ul style="list-style-type: none"> <li>• Geared motor with pulley-belt transmission.</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Motor and gearbox casing: stainless steel.</li> <li>• Safety by force limiter on electrical contact (manual reset)</li> <li>• Mushroom switch "Scraper stop" on electric contact (manual reset)</li> </ul>
<b>Refrigeration supply</b>	<ul style="list-style-type: none"> <li>• (G200 Generator ABF) Insulated "flood" supply bottle.</li> <li>• (G200 Generator ABF) Liquid level control device of the "flood" supply bottle.</li> <li>• (G200 Generator ABF) Liquid supply solenoid valve.</li> <li>• (G200 Generator ABF) Liquid supply regulator</li> </ul>
<b>Addition of salt</b>	<ul style="list-style-type: none"> <li>• Refillable salt dosing tube + 25 kg of sodium chloride tablets</li> </ul>

# Generator G200 ABF with refrigerant R744 (CO<sub>2</sub>)

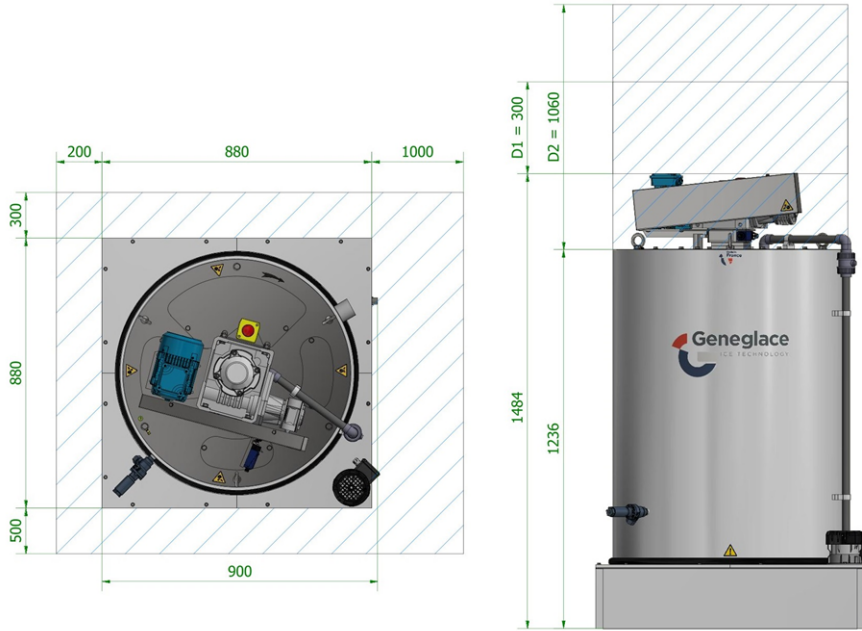
Characteristics	Units	
Water to be frozen	°C	15
	°F	59
Production	T /24h	7
	UST/24h	7.7
Cooling capacity	KW	35
	BTU/h	119425
<b>Condensation temp. (ABF)</b>		
Max.: (Liquid hammer)	°C	15
	°F	59
<b>Frequency</b>	<b>Hz</b>	<b>50</b>
Speed of rotation	tr/h	93
Thickness of ice flakes	mm	2,2
	inch	0.08
Evaporation temperature at the generator	°C	-23
	°F	-9.4
<b>Frequency</b>	<b>Hz</b>	<b>60</b>
Speed of rotation	tr/h	113
Thickness of ice flakes	mm	1,9
	inch	0.07
Evaporation temperature at the generator	°C	-21
	°F	-5.8

# Generator G200 SBF with refrigerant R744 (CO<sub>2</sub>)

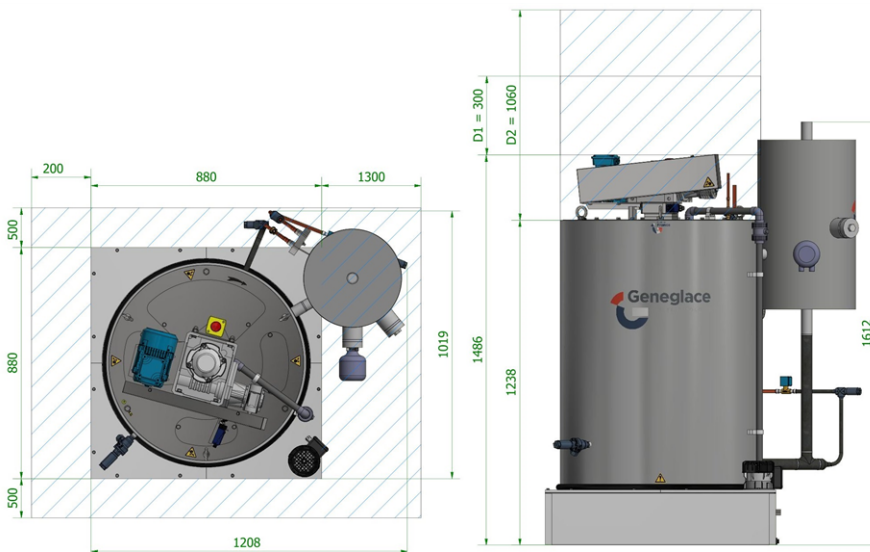
Characteristics	Units	
Water to be frozen	°C	15
	°F	59
Production	T /24h	7
	UST/24h	7.7
Cooling capacity	KW	35
	BTU/h	119425
<b>Frequency</b>	<b>Hz</b>	<b>50</b>
Speed of rotation	tr/h	93
Thickness of ice flakes	mm	2,2
	inch	0.08
Evaporation temperature at the generator	°C	-23
	°F	-9.4
<b>Frequency</b>	<b>Hz</b>	<b>60</b>
Speed of rotation	tr/h	113
Thickness of ice flakes	mm	1,9
	inch	0.07
Evaporation temperature at the generator	°C	-21
	°F	-5.8

# Dimensions

## Generators SBF



## Generators ABF

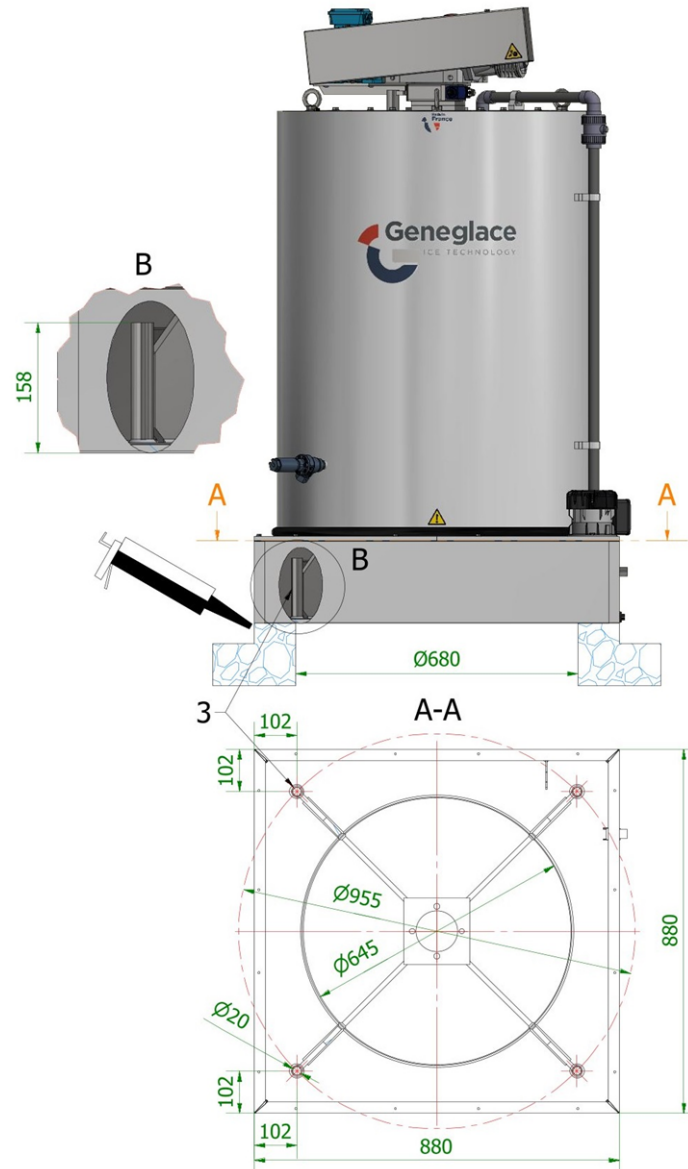


\*Values in millimetres

D1 = Minimum space required to dismantle the gear reducer.

D2 = Minimum space for dismantling the reamer.

# G200 attachments



Ref. 1 = Seal around the hole.

Ref. 2 = Raised floor to avoid accidental ingress of water into the ice storage tank.

Ref 3 = Tubular fixing spacer. Qty 4.

# G200 Generator (SBF-ABF) Shipment



The packaging is hydrophobic and moisture resistant.

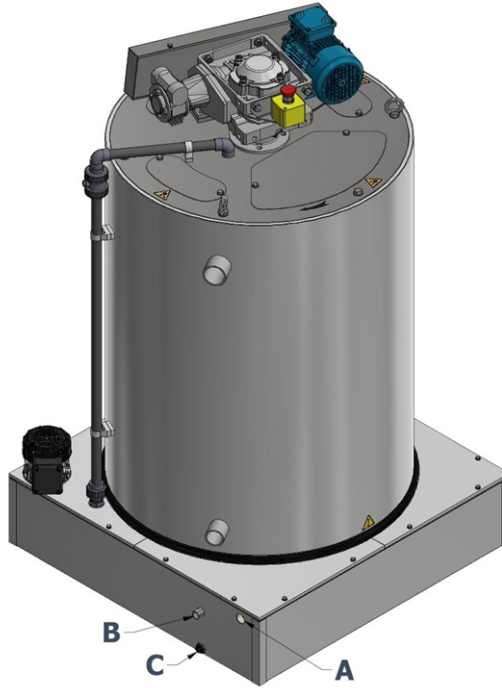
The packaging is used for air, sea and road shipments.

G200 Generator	SBF	ABF
Volume	3,2 m <sup>3</sup>	3,2 m <sup>3</sup>
Length	1430 mm (57 inches)	1430 mm (57 inches)
Width	1180 mm (47 inches)	1180 mm (47 inches)
Height	1920 mm (76 inches)	1920 mm (76 inches)
Net weight	689 Kg (1519 lbs)	716 Kg (1579 lbs)
Gross weights	700 Kg (1543 lbs)	766 Kg (1689 lbs)



# G200 Generator (SBF-ABF) Hydraulic characteristics

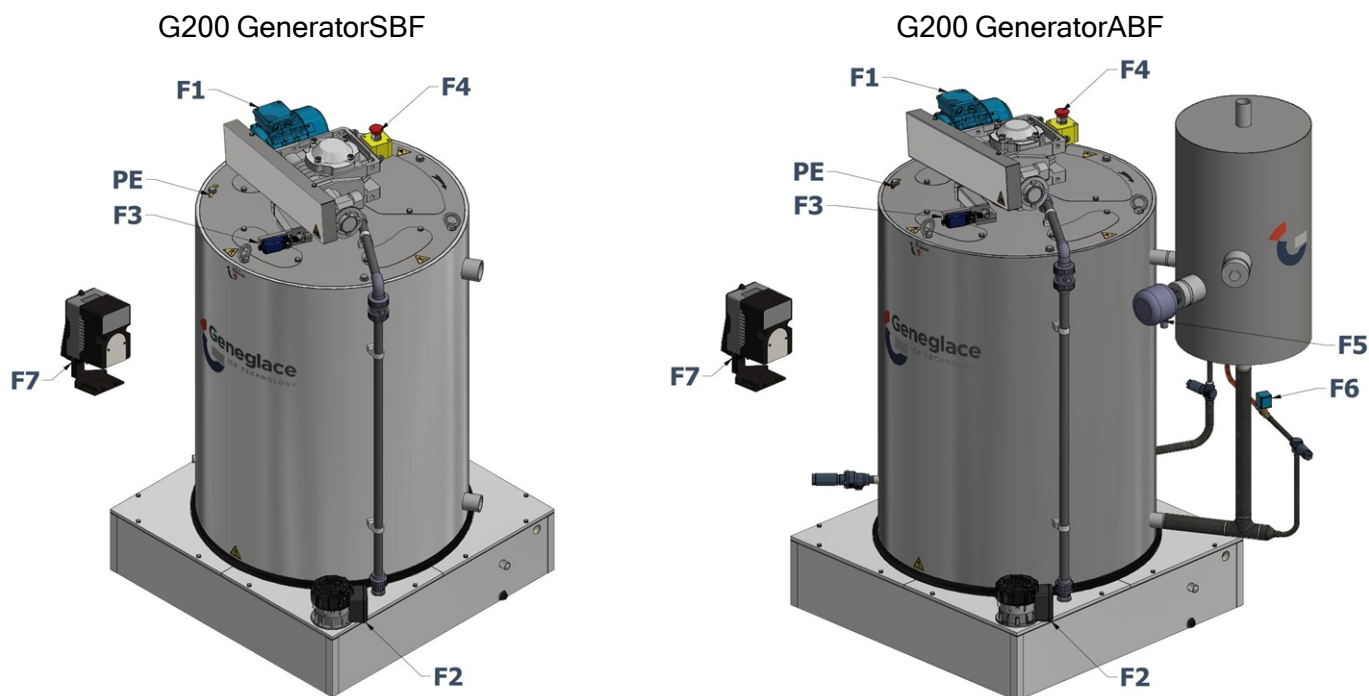
*G200 Generator*



*Hydraulic connections*

Ref.	Designation	Qty.	Connections		
			Dimensions	Type	Material
A	Water supply	1	1/2 " gaz	Threaded	
B	Overflow	1	22x1 mm	Smooth tube	Stainless steel
C	Draining	1	1/2 " gaz	Tapped	Stainless steel

# G200 Generator (SBF-ABF) Electrical characteristics

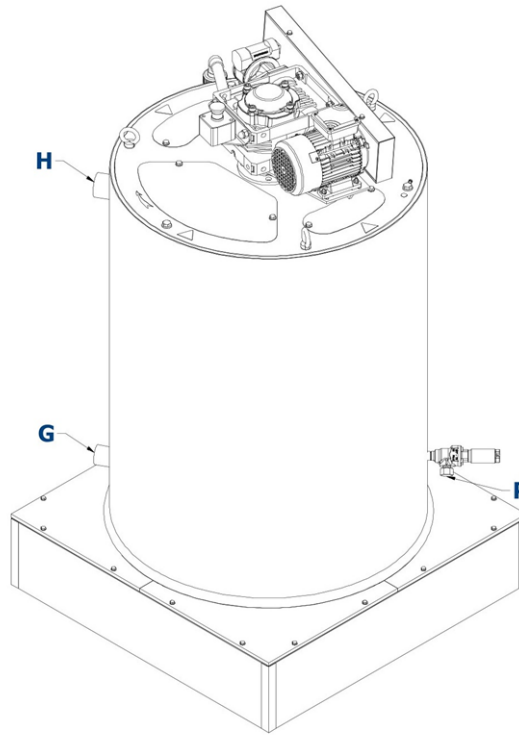


Ref.	Designation	Qty.	Electrical power supply	Nominal power	Nominal current	Contact
F1	Scraper motor	1	400V-3-50Hz	250 W	0,95 A	-
			460V-3-60Hz	370 W	1,3 A	-
			575V-3-60HZ	370 W	0,91 A	-
F2	Water pump	1	230V-1-50Hz	40 W	0,3 A	-
F3	Torque limiter	1	-	-	-	1 NC/1 NO
F4	Emergency stop for torque limiter	1	-	-	-	1 NC/1 NO
F5	Solenoid valve*	1	220-230V-1-50Hz	17 W	0,1 A	-
			220-230V-1-60Hz	14 W	0,1 A	-
			115V-1-60Hz	10 W	0,1 A	-
F6	Liquid level controller*	1	(dc) U= 20 - 60V	-	I < 6 mA	1 NC/1 NO
F7	Salt Dosing Pump (Option)	1	120-240V - 1 - 50/60HZ	15 W	0,1/0,2 A	-
PE	Equipotential earth bonding socket	1	-	-	-	-

\*Delivered only in ABF version

# G200 Generator (SBF) Cooling characteristics

G200 Generator SBF

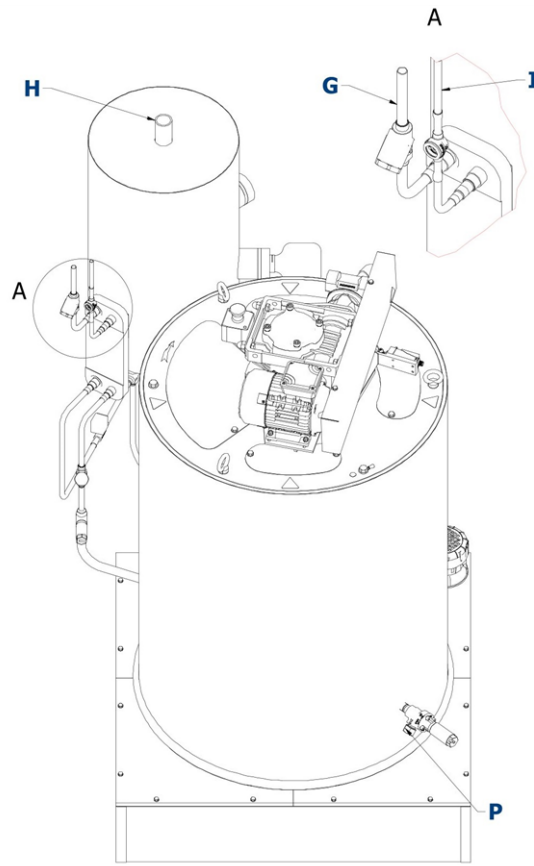


*Cooling connections*

Ref.	Designation	Qty.	Connections	
G	Liquid supply	1	Dimensions (mm)	42,4x3,2 mm
			Type	Smooth tube
			Material	Steel
H	Suction	1	Dimensions (mm)	42,4x3,2 mm
			Type	Smooth tube
			Material	Steel
P	Oil purge	1	Dimensions	1/2"
			Type	O.D.M.-G
			Material	Steel

# G200 Generator (ABF) Cooling characteristics

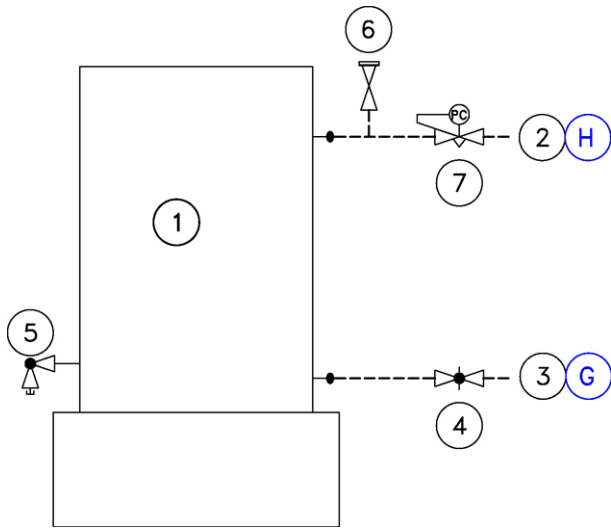
G200 GeneratorABF



Ref.	Designation	Qty.	Connections	
G	Liquid supply	1	Dimensions (mm)	1/2"
			Type	O.D.F
			Material	Copper
H	Suction	1	Dimensions (mm)	42,3x3,6 mm
			Type	Smooth tube
			Material	Steel
I	Oil return	1	Dimensions (mm)	3/8"
			Type	O.D.F
			Material	Copper
P	Oil purge	1	Dimensions (mm)	1/2"
			Type	O.D.M.-G
			Material	Steel

# Cooling diagram G200 Generator SBF

is intended to be connected to a refrigeration system supplying the generator with HP liquid by pump recirculation.



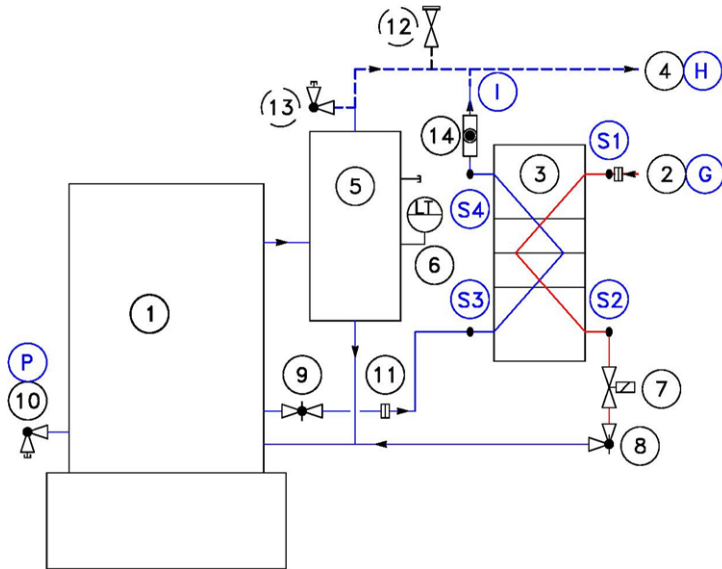
1. Generator
2. Suction
3. LP liquid supply
4. Adjuster (not supplied)
5. Oil purge
6. LP valve (not supplied)
7. Constant pressure valve (not supplied)

--- Connections (not supplied)

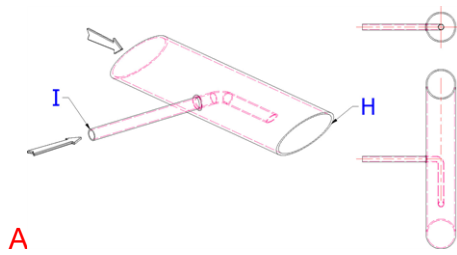
# Cooling diagram G200 Generator ABF

The G200 GeneratorABF is intended to be connected to a refrigeration system supplying the generator with HP liquid.

Cooling diagram G200 ABF



- 1. Generator
  - 2. HP liquid supply + filters
  - 3. Oil return exchangers
  - 4. Suction
  - 5. Flood bottle
  - 6. Liquid level controller
  - 7. Solenoid valve
  - 8. HP Liquid Manual Regulator
  - 9. Manual oil return regulator
  - 10. Oil drain
  - 11. Filters
  - 12. Safety valve (not supplied)
  - 13. Pressure test (not supplied)
  - 14. Indicator light
- Connections (not supplied)



# Options G200 Generator (SBF-ABF)

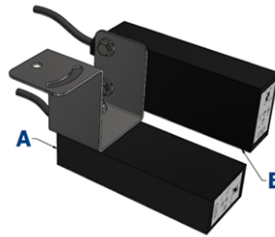
## Salt dosing pump

- 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 sensors:
  - 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

