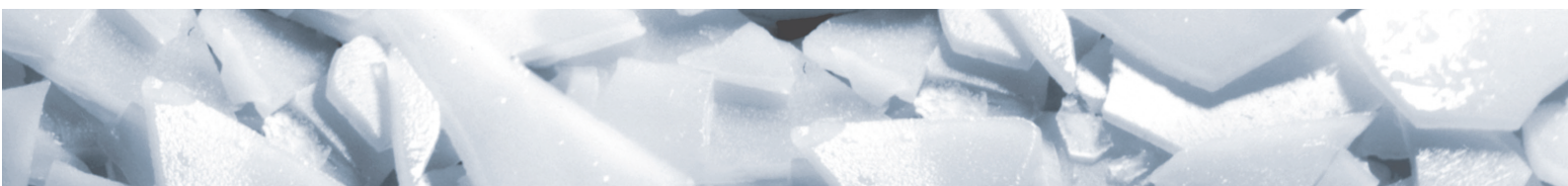


Technical data sheet F30 Generator R449A

EN_V1.00_2022-02-01



Physical limits of the F30 generator

Coolant type:

- According to the configuration of the F30 machine: R134a R404A R407F R449A R717



For the other coolants: contact Geneglace

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/m³

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) (Bar)	T° (Min/Max) (°C)
F30	3,2	-1/+18,5	-30/+45
F30 SH*	3,2	-1/+18,5	-30/+45

Type	Coolant	D.E.S.P. Category	Coolant group	Load (kg)	T. eq CO2
F30	R449A	I	2	2,5	3,49

Type	Coolant	D.E.S.P. Category	Coolant group	Load (kg)	T. eq CO2
F30 SH*	R449A	I	2	2,5	3,49

*Generator without exchange for recirculation by pump.

F30 Generator supply limit

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

Generator F30 with refrigerant R449A

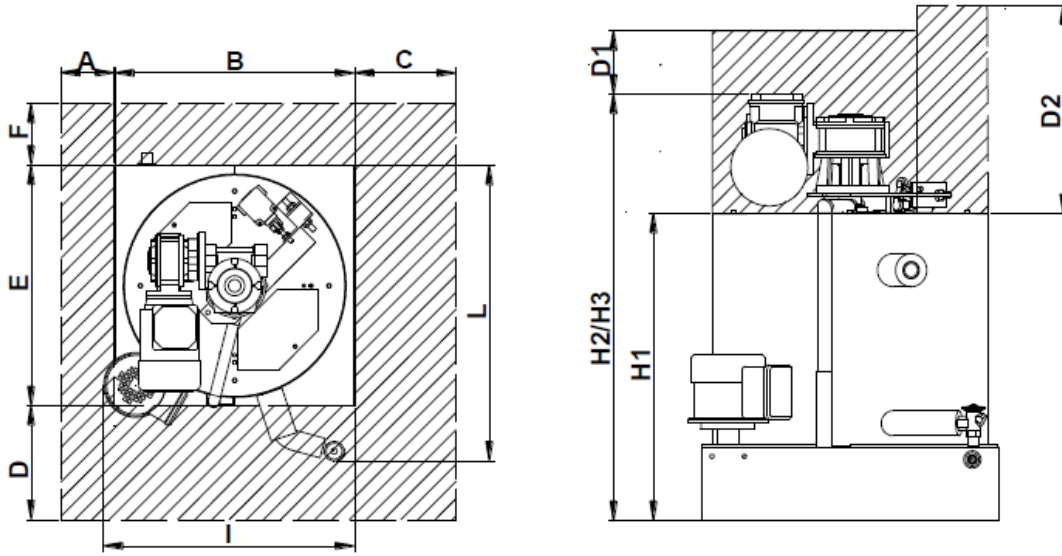
Characteristics	Units				
Approx. load	kg	<i>"Permissible limits of pressure equipment" (Page2)</i>			
Water to be frozen	°C	15			
	°F	59			
Production	T /24h	0,650	0,750	0,950	1
	UST/24h	0.71	0.83	1.05	1.10
Cooling capacity	KW	3,25	3,75	4,75	5
	BTU/h	11095.5	12802.5	16216	17070
Condensation temp.					
Max.: (Liquid hammer)	°C	55	55	55	55
	°F	131	131	131	131
Min.: (Oil return)	°C	30	30	30	30
	°F	86	86	86	86
Pressure reducer		T2	T2	T2	T2
Orifice (thermostatic pressure reducer)		2	2	3	3
Frequency	Hz	50			
Speed of rotation	tr/h	62	69	97	97
Thickness of ice flakes	mm	1,9	2	1,9	2
	inch	0.07	0.08	0.07	0.08
Evaporation temperature at the generator	°C	-21,2	-22,8	-22,9	-24,4
	°F	-6.2	-9.04	-9.22	-11.9
Frequency	Hz	60			
Speed of rotation	tr/h	75	75	97	97
Thickness of ice flakes	mm	1,6	1,9	1,9	2
	inch	0.06	0.07	0.07	0.08
Evaporation temperature at the generator	°C	-18,2	-21,2	-21,2	-24,4
	°F	-0.8	-6.2	-6.2	-11.9

Generator F30 SH with refrigerant R449A

Characteristics	Units				
Approx. load	kg	<i>"Permissible limits of pressure equipment" (Page2)</i>			
Water to be frozen	°C	15			
	°F	59			
Production	T/24h	0,650	0,750	0,950	1
	UST/24h	0.71	0.83	1.05	1.10
Cooling capacity	KW	3,25	3,75	4,75	5
	BTU/h	11095.5	12802.5	16216	17070
Frequency	Hz	50			
Speed of rotation	tr/h	62	69	97	97
Thickness of ice flakes	mm	1,9	2	1,9	2
	inch	0.07	0.08	0.07	0.08
Evaporation temperature at the generator	°C	-21,2	-22,8	-22,9	-24,4
	°F	-6.2	-9.04	-9.22	-11.9
Frequency	Hz	60			
Speed of rotation	tr/h	75	75	97	97
Thickness of ice flakes	mm	1,6	1,9	1,9	2
	inch	0.06	0.07	0.07	0.08
Evaporation temperature at the generator	°C	-18,2	-21,2	-21,2	-24,4
	°F	-0.8	-6.2	-6.2	-11.9

Dimensions

Generators F30



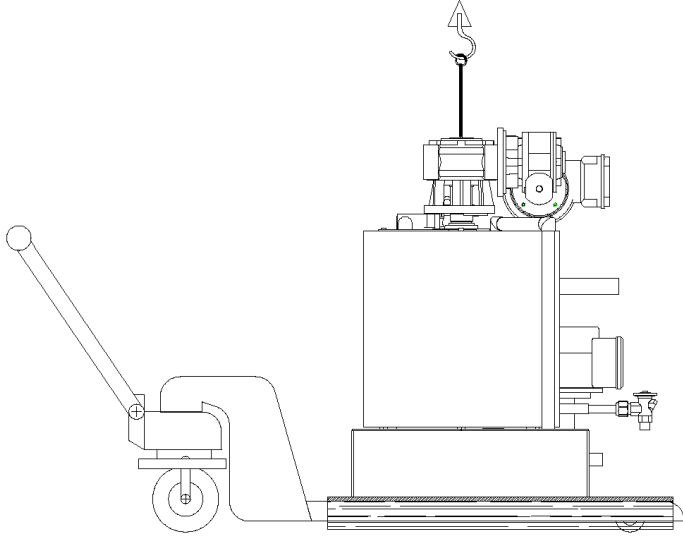
Generators	Units	F30
A		500
		19.68
B		470
		18.50
C		300
		11.81
D		700
		27.56
D1		300
		11.81
D2		500
		19.68
E	mm inch	470
		18.50
F		500
		19.68
H1		500
		19.68
H2		690
		27.17
H3		690
		27.17
I		500
		19.68
L		650
		25.59

*Values in millimetres

D1 = Minimum space required to dismantle the gear reducer.

D2 = Minimum space for dismantling the reamer.

F30 Generator Shipment



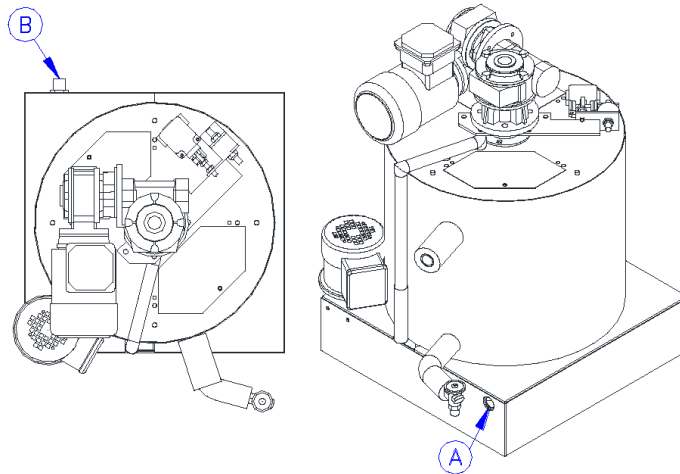
The packaging is hydrophobic and moisture resistant,
The packaging is used for air, sea and road shipments.

F30 Generator

Volume	0,6 m ³
Length	840 mm (33 inches)
Width	740 mm (30 inches)
Height	960 mm (38 inches)
Net weight	90 Kg (199 lbs)
Gross weights	126 Kg (278 lbs)

F30 Generator Hydraulic characteristics

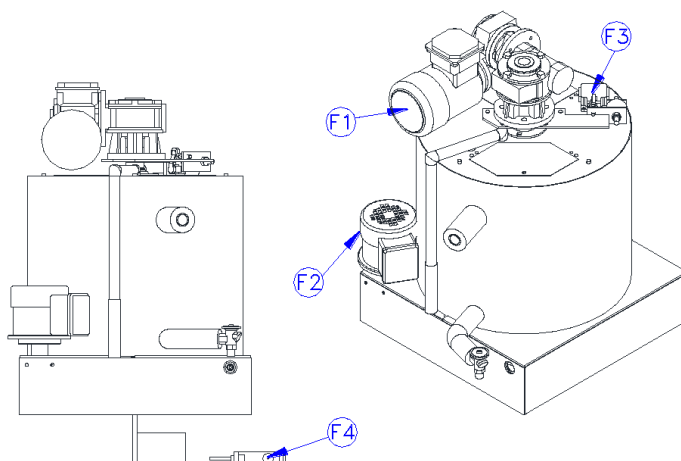
Generator F30



Generator	Ref.	Designation	Qty	Connections		
				Dimensions	Type	Material
F30	A	Water supply	1	1/2" gaz	Threaded	PVC
	B	Overflow	1	20/22 mm	Smooth tube	Stainless steel

F30 Generator Electrical characteristics

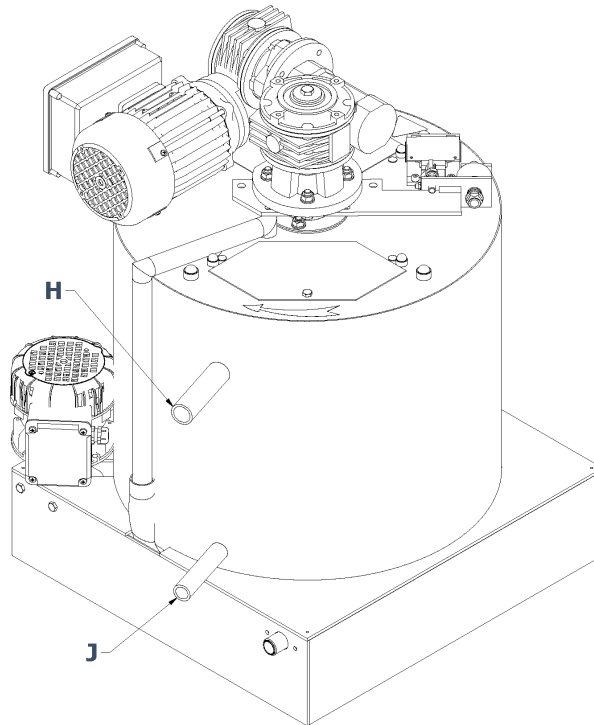
Generator F30



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

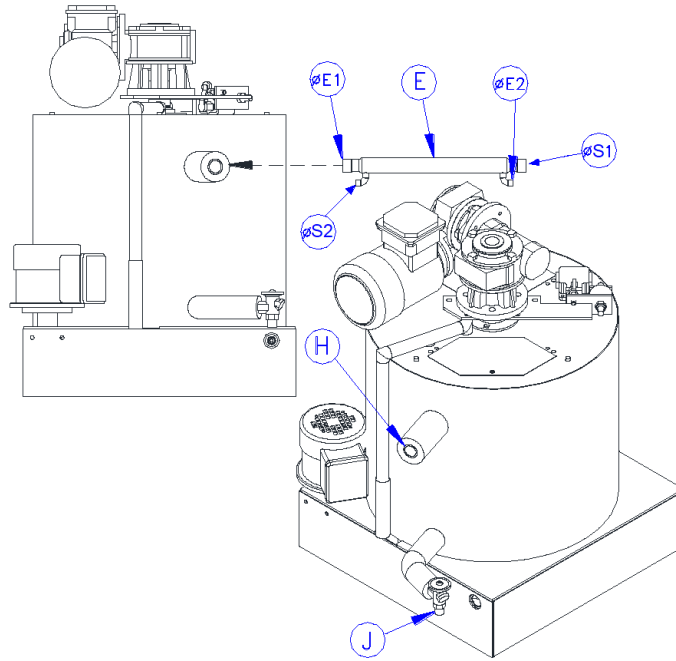
Cooling characteristics

Generator F30 SH



Ref.	Designation	Qty.	Connections	F30
H	Suction	1	Dimensions	26,7x2,9mm
			Type	Smooth tube
			Material	Steel
J	Liquid supply	1	Dimensions	21,3x2,6mm
			Type	Smooth tube
			Material	Steel

Generator F30

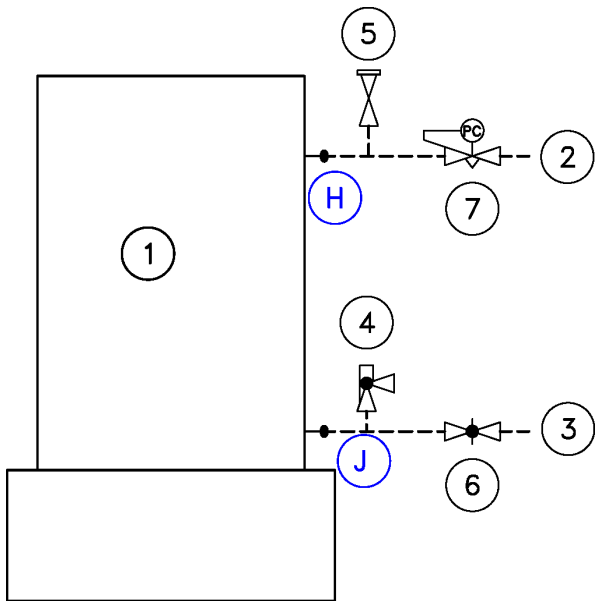


Ref.	Designation	Qty.	Connections	F30
E1-S1	Heat exchanger Suction line	1	Dimensions	1' 1/8"
			Type	O.D.F.
			Material	Copper
E2-S2	Heat exchanger Liquid line	1	Dimensions	1/2"
			Type	O.D.F.
			Material	Copper
H	Suction	1	Dimensions	26.7x2.9 mm
			Type	Smooth tube
			Material	Steel
J	Liquid supply	1	Dimensions	3/8"
			Type	Flare
			Material	Brass

Cooling diagrams F30 Generator without exchanger

«SH» Generator without exchanger is intended to be connected to a refrigeration system supplying the generator with HP liquid by pump recirculation.

F30 Generator SH

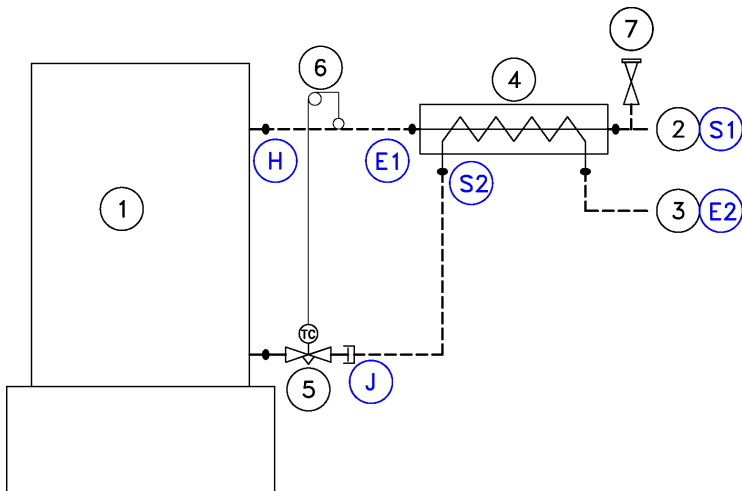


1. Generator
2. Suction
3. LP supply
4. Oil purge (only R717) (supplied/not installed)
5. Safety valve (not supplied)
6. Adjuster (not supplied)
7. Constant pressure valve (not supplied)

--- Connections not supplied

Cooling diagram F30 Generator with exchanger

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



1. Generator
2. Suction
3. HP liquid supply
4. Heat exchanger
5. Thermostatic pressure reducer
6. Bulb position
7. Safety valve (not supplied)

--- Connections not supplied

Options F30 Generator

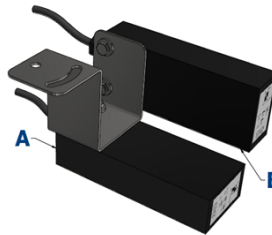
Salt dosing pump

- 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

- 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

