

Vacuum and charging unit

iRockall HC

HC Charge

Vacuum and Flammable Refrigerant Charging Unit

Vacuum

iRockall HC is an evacuation and charging station for A2L, A2 A3 Class refrigerants and not flammable classes. It is easy to handle and has high charging accuracy. It is intended for medium and high throughput production lines of domestic and commercial refrigerators / freezers and other fields of application. It is designed and tested for making use of isobutane (R600a) and propane (R290). Assembly lines making use of most recent refrigerants such as R1234yf and R1234ze are also suggested for the iRockall HC.

Characteristics

- Microprocessor or smart OS (optional) controlled
- Charging speed: up to 25 g/s for HC/HFO refrigerants and up
- Charging capacity: according to local limitations
- High charging accuracy
- Built-in vacuum pump (20,5 m³/h)
- Available with integrated Refrigerant transfer Pump
- Interactive Colour Touchscreen

- Data Collection Application over TCP/IP protocol
- Up to 1000 programmable work cycles Microprocessor controlled
- Microprocessor controlled
- Built in according to the European Machinery Directive, Safety
- standards for Potential Dangerous Areas

The equipment is designed and assembled for the area of assembly of refrigeration units which are going to be charged with flammable gases according to the indications of the ATEX Directive 99/ 92/ EC. As the working areas are classified as hazardous, these equipment must be installed within a ventilated enclosure able to withhold any refrigerant leaks. The electric and hydraulic components of the vacuum and charging station have been chosen by FT to comply with ATEX for the classification of areas at high risk of explosion and thus make the whole system suitable for working with flammable liquids.



Main using applications

- Domestic refrigerators and deep freezers
- Professional Refrigeration
- Refrigerated show cases and cooling cabinets
- Deep Cooling for Medical Products

- Automatic food and beverage dispenser machines
- Ice-cream machines
- Dehumidifiers
- Domestic air conditioners

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iRockall HC Technical Characteristics			Company Profile
Injectors/Type	PLUVIO V3		Vacu
Injector length	3,5 m		Vacuum and Charg- ing units
Refrigerant metering systems	1		
Charging capacity	Max 10 kg for HC		
Charging speed	up to 25 g/s (HC refrigerants) up to 40 g/s (HFC refrigerants)		handling systems
Charging accuracy	±0,5 g (<100 g HC), ±0,5 % (>100 g HC) ±1,0 g (<200 g HFC), ±1%(>200 g HFC)		tems Special Units
Injector connection	¼" Hansen F (ISO 7241B)		l Units
Refrigerant supply connection	¼" Hansen M (ISO 7241B)		
Refrigerants	HFC/HC/HFO/A2L		Vacuum and Charg- ing Injectors
compressed air supply	6÷7 bar not lubricated		
On-board alarms	3 light alarms (green/white/red) on column		
Programmable work cycles	Up to 1000		Ref
Nominal Vacuum pump rate	20,5 m ³ /h		rigerant ti pump
Control unit	TS690		Refrigerant transfer pump
Working temperature	5 °C 45 °C		
Requested Refrigerant supply	Pressurized, in liquid state		Pressure test units leak detectors
Power Consumption	0,6 kW, with 20,5 m ³ /h vacuum pump		
Power Supply	400 V @ 50 Hz – 3ph + GND		
Dimensions (L x W x H)	850 x 600 x 1430 mm		Pre
Weight	~170 kg		eliminary tion
			Preliminary evacua- tion

Optional features and devices

HS version with extra charging speed up to 90 g/s

Up to four different refrigerant dosing system (HC1/HC2/HC3/HC4)

Additional light and Acoustic Alarm

PLUVIO HF injector for High production lines

Refrigerant dosing system with Massic Coriolis flowmeter

30,2 m³/h Vacuum pump

Automatic working cycle selection performed by barcode reader

Remote Printer

* FT software department develops customized software on request

Electrical and func-tional test

Ultrasonic tube sealers

IPCS & IPCS PLUS



Vacuum and charging unit

iRockall HC-B

IHC-B Charge

Vacuum and Flammable Refrigerant Charging Unit

Vacuum

iRockall HC-B is an evacuation and charging station for A2L, A2 A3 Class refrigerants and not flammable classes. It is easy to handle and has high charging accuracy. It is intended for medium throughput production lines of domestic and commercial refrigerators / freezers and other fields of application. It is designed and tested for making use of isobutane (R600a) and propane (R290). Assembly lines making use of most recent refrigerants such as R1234yf and R1234ze are also suggested for the iRockall HC-B.

Characteristics

- Microprocessor or smart OS (optional) controlled
- <u>Charging speed: up to 15 g/s for HC/HFO refrigerants</u> and up
- Charging capacity: according to local limitations
- High charging accuracy
- Built-in vacuum pump (20,5 m³/h)
- Integrated Refrigerant transfer Pump
- Interactive Colour Touchscreen

- Data Collection Application over TCP/IP protocol
- Up to 1000 programmable work cycles Microprocessor controlled
- Microprocessor controlled
- Built in according to the European Machinery Directive, Safety
- standards for Potential Dangerous Areas

The equipment is designed and assembled for the area of assembly of refrigeration units which are going to be charged with flammable gases according to the indications of the ATEX Directive 99/ 92/ EC. As the working areas are classified as hazardous, these equipment must be installed within a ventilated enclosure able to withhold any refrigerant leaks. The electric and hydraulic components of the vacuum and charging station have been chosen by FT to comply with ATEX for the classification of areas at high risk of explosion and thus make the whole system suitable for working with flammable liquids.



Touch screen machine Controller





Main using applications

- Domestic refrigerators and deep freezers
- Professional Refrigeration
- Deep Cooling for Medical Products
- Automatic food and beverage dispenser machines
- Ice-cream machines
- Dehumidifiers
- Domestic air conditioners

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iRockall HC-B Technical Characteristics		Company Profile	
Injectors/Type	PLUVIO V3	Vacuu	
Injector length	3,5 m	Vacuum and Charg- ing units	
Refrigerant metering systems	1	charg-	
Charging capacity	Max 10 kg for HC	_	
Charging speed	up to 10 g/s (HC refrigerants) up to 15 g/s (HFC refrigerants)	HC Refrigerants handling systems	
Charging accuracy	±0,5 g (HC) ±1,0 g (HFC)	ems Special Units	
Injector connection	¼" Hansen F (ISO 7241B)	ts	
Refrigerant supply connection	¼" Hansen M (ISO 7241B)	Vac	
Refrigerants	HFC/HC/HFO/A2L	Vacuum and Charg- ing Injectors	
compressed air supply	6÷7 bar not lubricated	d Charg ctors	
On-board alarms	3 light alarms (green/white/red) on column		
Programmable work cycles	Up to 1000	Refrige	
Nominal Vacuum pump rate	20,5 m ³ /h	Refrigerant transfer pump	
Control unit	TS690	nsfer	
Working temperature	5 °C 45 °C	Pre	
Requested Refrigerant supply	Tank or pressurized, in liquid state	eak det	
Power Consumption	0,6 kW, with 20,5 m ³ /h vacuum pump	Pressure test units leak detectors	
Power Supply	400 V @ 50 Hz – 3ph + GND		
Dimensions (L x W x H)	850 x 600 x 1430 mm	Prelim	
Weight	~170 kg	Preliminary evacua- tion	

Optional features and devices

Up to four different refrigerant dosing system (HC1-B/HC2-B/HC3-B/HC4-B)

Additional light and Acoustic Alarm

PLUVIO HF injector for High production lines

30,2 m³/h Vacuum pump

Automatic working cycle selection performed by barcode reader

Remote Printer

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Ultrasonic tube sealers

Electrical and functional test



Vacuum and charging unit

iRockall HC-M

Charge Vacuum

Vacuum and Flammable Refrigerant Charging Unit

iRockall HC-M is an evacuation and charging station for A2L, A2 A3 Class refrigerants and not flammable classes. It is easy to handle and has high charging accuracy. It is intended for medium throughput production lines of domestic and commercial refrigerators / freezers and other fields of application. It is designed and tested for making use of isobutane (R600a) and propane (R290). Assembly lines making use of most recent refrigerants such as R1234yf and R1234ze are also suggested for the iRockall HC-M.

Characteristics

- Microprocessor or smart OS (optional) controlled
- <u>Charging speed: up to 15 g/s for HC/HFO refrigerants</u> and up
- Charging capacity: according to local limitations
- High charging accuracy
- Built-in vacuum pump (20,5 m³/h)
- Integrated Refrigerant transfer Pump
- Interactive Colour Touchscreen

- Data Collection Application over TCP/IP protocol
- Up to 1000 programmable work cycles Microprocessor controlled
- Microprocessor controlled
- Built in according to the European Machinery Directive, Safety
- standards for Potential Dangerous Areas

The equipment is designed and assembled for the area of assembly of refrigeration units which are going to be charged with flammable gases according to the indications of the ATEX Directive 99/ 92/ EC. As the working areas are classified as hazardous, these equipment must be installed within a ventilated enclosure able to withhold any refrigerant leaks. The electric and hydraulic components of the vacuum and charging station have been chosen by FT to comply with ATEX for the classification of areas at high risk of explosion and thus make the whole system suitable for working with flammable liquids.



Touch screen machine Controller





Main using applications

- Domestic refrigerators and deep freezers
- Professional Refrigeration
- Deep Cooling for Medical Products
- Automatic food and beverage dispenser machines
- Ice-cream machines
- Dehumidifiers
- Domestic air conditioners

FT



iRockall HC-M Technical Characteristics		Company Profile
Injectors/Type	PLUVIO V3	Vacu
Injector length	3,5 m	Vacuum and Charg- ing units
Refrigerant metering systems	1	Charg- s
Charging capacity	Up to 100 kg for HC	_
Charging speed	up to 10 g/s (HC refrigerants) up to 15 g/s (HFC refrigerants)	HC Refrigerants handling systems
Charging accuracy	±0,5 g (HC) ±1,0 g (HFC)	ams Special Units
Injector connection	¼" Hansen F (ISO 7241B)	S
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Refrigerants	HFC/HC/HFO/A2L	Vacuum and Charg- ing Injectors
compressed air supply	6÷7 bar not lubricated	d Charg ctors
On-board alarms	3 light alarms (green/white/red) on column	
Programmable work cycles	Up to 1000	Refrigerant transfer pump
Nominal Vacuum pump rate	20,5 m ³ /h	erant tra pump
Control unit	TS690	nsfer
Working temperature	5 °C 45 °C	Pre
Requested Refrigerant supply	Tank or pressurized, in liquid state	Pressure test units leak detectors
Power Consumption	0,6 kW, with 20,5 m ³ /h vacuum pump	est unit ectors
Power Supply	400 V @ 50 Hz – 3ph + GND	
Dimensions (L x W x H)	850 x 600 x 1430 mm	Prelimi
Weight	~170 kg	Preliminary evacua- tion

Optional features and devices

Up to four different refrigerant dosing system (HC1-M/HC2-M/HC3-M/HC4-M)

Additional light and Acoustic Alarm

PLUVIO HF injector for High production lines

30,2 m³/h Vacuum pump

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Electrical and functional test