

Vacuum and Charging Injectors

HCFC, HFC Application



Hansen Connector

- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- 1/4" SAE quick coupler with Schrader valve



Gustav

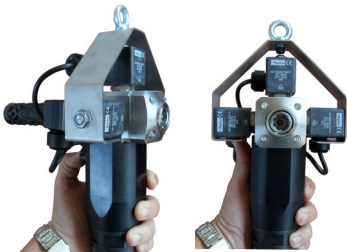
- 1/4" Hansen quick coupler (ISO 7241B)
- Only vacuum coupler



PLUVIO V2

- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- 1/4" SAE quick coupler with Schrader valve

High Performances HC Applications, Multi Refrigerant



PLUVIO V3

- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- 1/4" SAE quick coupler with Schrader valve
- Start Button integrated
- Charge speed 40 g/s (Refrigerants HCFC)



PLUVIO V4

- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- 1/4" SAE quick coupler with Schrader valve
- Start Button integrated
- Charge speed 80 g/s (Refrigerants HCFC)

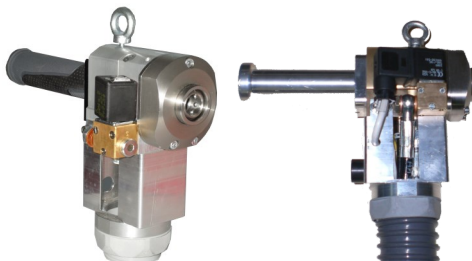


PLUVIO V5

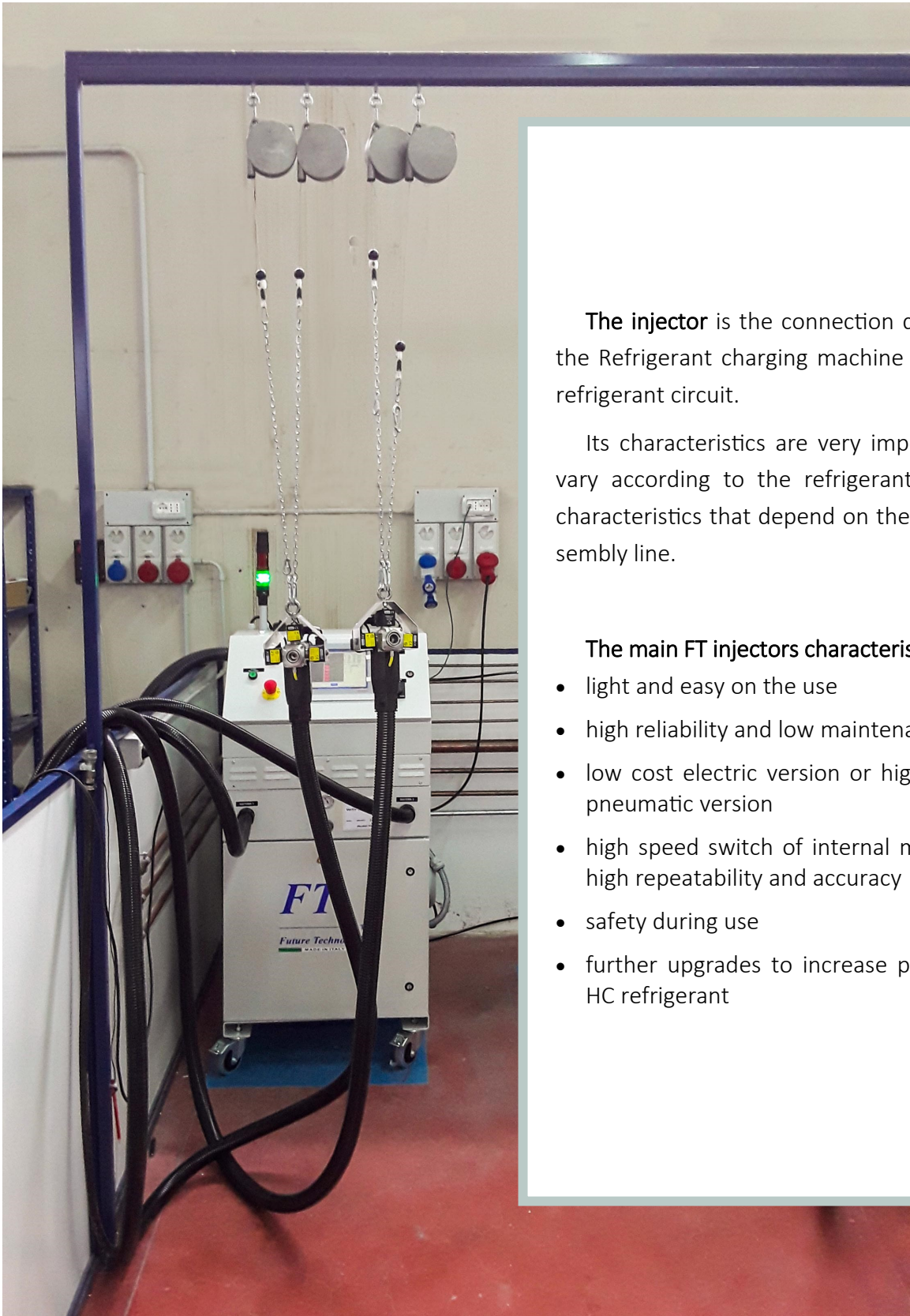
- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- 1/4" SAE quick coupler with Schrader valve
- Start Button integrated
- Charge speed 40 g/s (Refrigerants HCFC)

MFIL

- High mass production and high precision
- 1/4" or 3/8" Hansen quick coupler (ISO 7241B)
- automotive connection (suction or send side)
- Start Button integrated
- Charge speed 60 g/s (Refrigerants HCFC)



General overview



The **injector** is the connection device between the Refrigerant charging machine and the cooler refrigerant circuit.

Its characteristics are very important and can vary according to the refrigerant charging unit characteristics that depend on the production assembly line.

The main FT injectors characteristics are:

- light and easy on the use
- high reliability and low maintenance frequency
- low cost electric version or high performance pneumatic version
- high speed switch of internal micro-valves for high repeatability and accuracy
- safety during use
- further upgrades to increase performance on HC refrigerant

Vacuum and Charging Injectors

HCFC, HFC Application



Hansen Connector

The **Hansen Connector** is used for pressurization systems up to 55 bar. The diameter is $\frac{1}{4}$ " or $\frac{3}{8}$ " Hansen quick coupler (ISO 7241B).

- This connector is used only with **iAmiata** units.

The **Gustav** injector is used to speed up vacuum performance of the vacuum and charging unit. The diameter is $\frac{1}{4}$ " Hansen quick coupler (ISO 7241B) with automatic pneumatic needle control.

The **PLUVIO V2** is part of the PLUVIO injectors series, which are electromagnetic piloted to better control the vacuum and refrigerant charge.



Gustav



PLUVIO V2

It is equipped with $\frac{1}{4}$ " Hansen quick connector or optionally with $\frac{1}{4}$ " SAE Schrader.

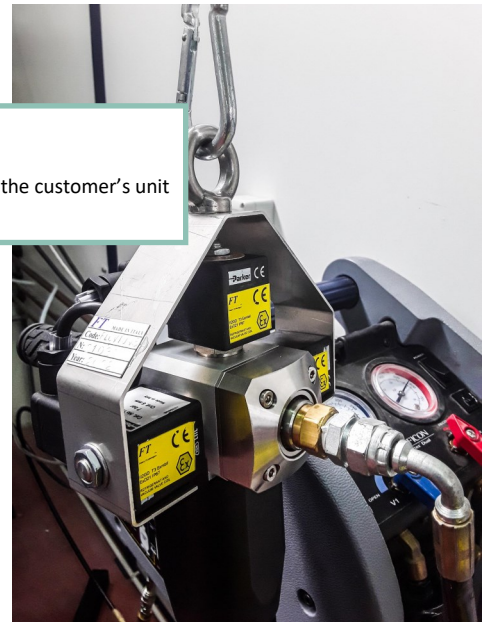
PLUVIO V2 is equipped with an ergonomic handle and START button, and can be supplied on request with an Automatic quick release

- **PLUVIO V2** is supplied as standard injector in **iTeide TTD** and **iRockall** units.

- * The standard length of the injector is 3,5 m but longer ones are available on request.



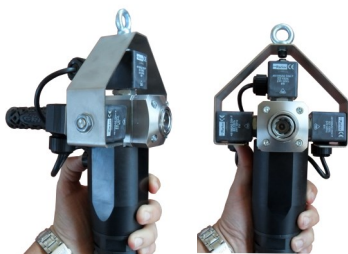
iAmiata unit pressurization systems
The Hansen Connector



PLUVIO V3
connected to the customer's unit



High Performances HC Applications, Multi Refrigerant



PLUVIO V3



PLUVIO V4



PLUVIO V5

PLUVIO series (V3, V4, V5) are vacuum and charging injectors with pneumatic/electromagnetic control, which minimize any dead spaces to ensure the maximum compactness and lossless transfer towards the group circuit from the charging station.

PLUVIO is an injector with no refrigerant release to the environment, designed for medium/low throughput production lines.

The pneumatic needle valve and automatic connection used are 1/4 "or 3/8" Hansen (ISO 7241B). Alternative 1/4 "or 3/8" SAE Automotive connections are also available on request.

* The standard length of the injector is 3.5 m but longer ones are available on request.

PLUVIO is supplied as standard in iRockall HC, but it can be specially configured for other applications

such as the CO2 or High Speed applications.

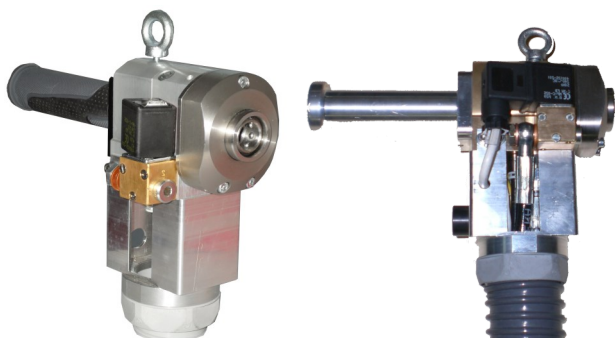
Multi Refrigerant Injectors (V5) (1/4" quick connectors)

These multi refrigerant injectors are designed for special applications where the customer requires a more compact solution in a limited space, or a general multi stadium filling mixture composed by two or more refrigerants.

The solution can be used for two or three refrigerants, vacuum and service exhaust, thanks to its modular design, to host the related Electric Valves, also available in ATEX configuration.

The Automatic coupling and the needle are pneumatically operated.

MFIL



For High Productivity processes FT suggests the use of the MFIL Injector.

Thanks to its micro pneumatic technology combined with the speed of the Electric Valves, this Injector is capable to manage very frequent charge cycles without problems. The typical use, for instance, is mass production where it is strictly required to continuously work h-24 with small quantity charges high reliability.

Company Profile

Vacuum and Charging units

HC Refrigerants handling systems

Special Units

Vacuum and Charging Injectors

Refrigerant transfer pump

Pressure test units leak detectors

Preliminary evacuation

Electrical and functional test

Ultrasonic tube sealers

IPCS & IPCS PLUS