GALILEO TP
PROCESS EQUIPMENT

AGILIS C11 / C22

EVACUATION & REFRIGERANT CHARGING EQUIPMENT

GALILEO TP PROCESS EQUIPMENT S.r.l.
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Introduction

Its versatility makes the **AGILIS C** compatible with a variety of manufactures HVAC/R production lines (refrigerators, deep freezers, air conditioners etc...).To help ensure that consistency is maintained in your product, the **AGILIS C** utilizes a three stage charging system (**Evacuation, Vacuum Decay Test, and Refrigerant Charge)**. This system has been designed to meet the needs of medium/high productions that require a highly accurate refrigerant charge. Thanks to the dosing cylinder metering technology (featuring a special double-effect piston), the dosing cylinder will control exactly the amount charged from the beginning until the end of the injection phase by means of a potentiometer The **AGILIS C can work with all kinds of CFC, HCFC, HFC and nonflammable blends in general**.

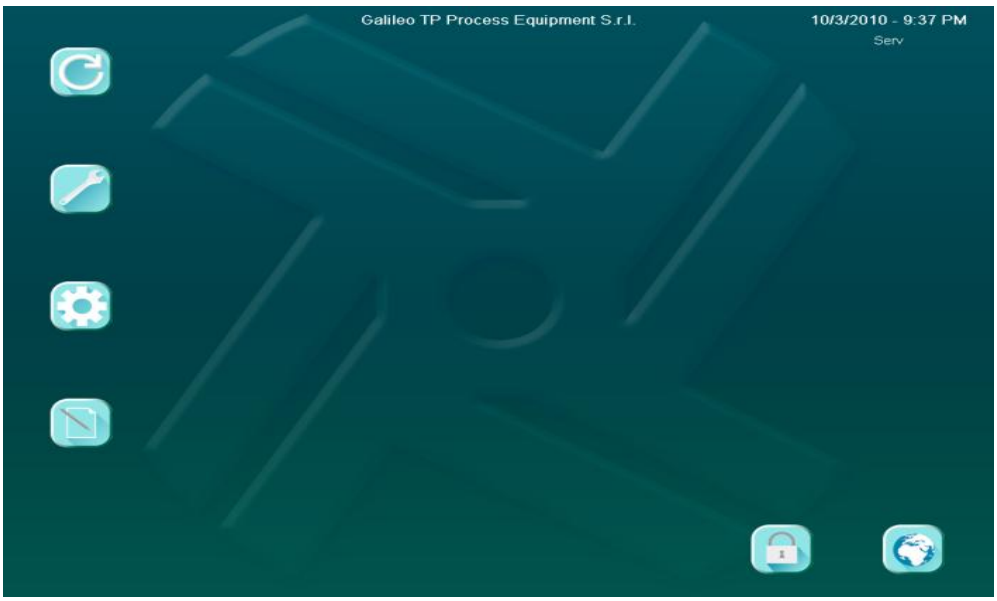
Technical features

Embedded control system

PC board GALILEO TP SGP32 V2 with microprocessor RISC 32 bit Freescale ColdFire® 5372L

User interface

- **Capacitive color touch screen LCD 7”** (800X480) high brightness
- Designed for industrial environment with **extreme temperatures and high humidity.**
- **Durable, dirt and moisture resistant and very responsive.**



Vacuum line

- The **AGILIS C** is equipped with a D18 m3/h double stage rotary vacuum pump, capable to reach a final vacuum of 1 x 10-2 Pa (1 x 10-4 mbar) with solenoid valves and Pirani sensor, as well as a piezo resistive pressure sensor 0-50 bar (4-20 ma) to verify whether the cooling circuit under test is already filled or evacuated.

Metering device

- The **AGILIS C** uses the **GDC TECHNOLOGY**, the uncontested Galileo **D**osing **C**ylinder metering device granting you the most accurate dose while respecting the highest safety standards.

Filler gun "COBRA_E"

- Protective shell of plastic/ thermosetting resin
- ergonomic handle and a key-pad
- START/EXIT buttons to start and stop the working cycle.
- All solenoid valves are located inside the protective shell that prevents any kind of damage caused by impact with the ground. The Protective shell can be easily disassembled to manage any maintenance operation.
- **Optimized dead volume inside the manifold injector.**
- **Zero gas release upon disconnection**

Main programmable process phases

- ✓ Auto-lock Hansen quick coupler
- ✓ Verify compressed air
- ✓ Filling gun leak test and pre-evacuation
- ✓ Pre-charge unit test
- ✓ Pre-evacuation
- ✓ Vacuum Rise Test
- ✓ Compression
- ✓ Refrigerant filling with clog test
- ✓ Discharge gas injector (zero gas release guarantee)
- ✓ Auto unlock Hansen quick coupler

Software features

Two different privileged login levels with password:

1) Operator: working cycle access;

2) Maintenance/production/quality managers: diagnostics and programming access

Refrigerants programming

You can set new refrigerants with a density in a range of 0-50 °C.

Language programming

You can choose your language using the program that includes: Italian, English, Chinese, Spanish, Portuguese and Russian. Other languages available upon request.

Serial Communication

You can choose the communication speed of the serial ports COM1 and COM2;

Display calibration values

All calibrations parameters can be displayed

Serial ports and interfaces

- ✓ COM1: serial port RS232 for barcode
- ✓ COM2: serial port RS232 for printer
- ✓ COM3: serial port RS485
- ✓ **Ethernet interface for software GEDA* (Galileo Equipment Data Acquisition) and/or data report to the PC.**
- ✓ USB port for mass storage connection (only for maintenance and service)

GEDA management software

*The **AGILIS C** comes completely ready for integration with the **GEDA** system for data acquisition, statistics, remote programming, as well as external supervision of the line:

-Cycle reports sent directly from the machine to your computer (always updated) in real time;

-Possibility to program the machine from the computer and vice versa;

- Working cycle start inhibition;

-Search by bar code, date and time or by model of machine;

-Production/maintenance/quality queries (alarm, cycles, failed pieces, passed pieces etc…);

-Possibility to print all information and report displayed;

-Possibility to export the cycle report to other programs like Office Excel;

- SQL interface;

Available models and accessories

Models	No. Injectors	No. Dosing systems
AGILIS C11	**1**	**1**
AGILIS C22	**2**	**2**

Upgrade accessories list:

- Hand-held bar code laser reader (cable or wireless)
- Overhead filler kit

- Kit 3/8” connection
- 5 meters injector hose
- Light tower
- Mini printer and much more….

Data sheets

No. filling injectors	**1÷2**
Length filling hose	**3.5 m (others upon request)**
No. Programmable cycles	**200 (more upon request)**
Connections	**¼”+ 3/8” Hansen™ female quick coupler,** **¼ PCU 62 Series, ¼”+ 3/8” NITTO SP Cupla Type A**
No. Dosing systems	**1 ÷ 2**
Metering device	**Volumetric dosing cylinder with double effect piston**
No. Programmable bar codes	**1000 (more upon request)**
Units of measurement:	
Weight	**g, oz**
Vacuum	**Pa, µHg, mbar**
Pressure	**kPa, psi, bar**
Temperature	**°C, °F**
Vacuum pump	**Double stage, 18 m^3/h (others upon request)**
Final vacuum	**<1x10^{-2} Pa (1x10^{-4} mbar)**
Dimensions (HxLxW)	**1350x700x810 mm**
Weight	**180 kg (model C22)**
Working temperature	**0 ÷ +50 °C**
Electric power supply	**Δ 200 ÷ 230 / Y 380 ÷ 415 V 50 Hz 3 Ph** **Δ 200 ÷ 230 / Y 460 V 60 Hz 3 Ph** **(others upon request)**
Power consumption	**900 W**
Compressed air	**500 ÷ 700 kPa (5÷7 bar)** **The air must be filtered and dehumidified 20µ**
Noise level	**< 70 dB (A)**
Refrigerants	**CFC, HCFC, HFC, non flammable blends**
Refrigerants supply pressures	**1000 ÷ 2000 kPa (10 ÷ 20 bar)** **max 2500 kPa (25 bar) with compressed air max 5 bar**
Programmable dose	**10.0 ÷ 99999.9 g**
Accuracy (<200 g)	**±1.0 g (@ 20 bar refrigerant e 6 bar compressed air)**
Accuracy (>200 g)	**±0.5 % (@ 20 bar refrigerant e 6 bar compressed air)**
Maximum charging speed	**Up to 30 g/s**

**data subject to change*

Built in compliance with the Machinery Directive 2006/42/EC, Low Voltage Directive 2006/42/EC, Directive on Electromagnetic Compatibility 2004/108/EC.