

AGILIS CO2

EVACUATION & REFRIGERANT CHARGING EQUIPMENT



GALILEO TP PROCESS EQUIPMENT S.r.l.

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Introduction

Since 2000, Galileo TP is focusing its research on the realization of more advanced and performance systems capable to charge CO2 refrigerant.

In 2005 arrives the first patented charging system for R744, the model HABILIS CO2, after the first orders coming from the pioneers of the gas R744, on 2008 The Coca Cola Company buys the HABILIS CO2 for its research department in Atlanta (USA).

Nowadays, the HABILIS K CO2 is the most common machine in the market and it's the reference for the major commercial refrigerators manufacturers.

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 and designed for industrial environment with **extreme temperatures and high humidity. Durable, dirt-resistant and very responsive.**

e.g. screenshot:



Vacuum line

The **AGILIS CO2** is equipped with a D18 m3/h double stage rotary vacuum pump, capable to reach a final vacuum of 1×10^{-2} Pa (1×10^{-4} mbar) with solenoid valves and Pirani sensor.

Metering device

The **AGILIS CO₂** uses the Galileo **patented dosing system with loading cell for CO₂ refrigerant fluid**.

Filler gun “NE CO₂”

Manual filler gun multifunction with aluminum body and ergonomic handle, with buttons for START and EXIT. The gun is equipped with a injection solenoid valve closed by the quick coupler in order to minimize any eventual leakages.



Main programmable process phases

- ✓ Pre-evacuation
- ✓ Rise vacuum test
- ✓ Filling up
- ✓ Injection
- ✓ Discharge gas injector (zero gas release guarantee)

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 set your own language, the program includes: Italian, English, Chinese, Spanish, Portuguese and Russian. Others 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 CO₂** comes with a complete integration with the **GEDA** system for data acquisition and 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 reader, 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 CO ₂	1	1

Upgrade accessories list:

- Hand-held bar code laser reader (cable or wireless)
- Light tower
- Magnetic led light for electrical cabinet
- Mini printer and much more...

Data sheets

No. filling injectors	1	
Length filling hose	2.5 m (others upon request)	
No. Programmable cycles	200 (more upon request)	
Connections	¼" Hansen™ female quick coupler	
No. Dosing systems	1	
Metering device	Patented loading cell	
No. Programmable bar codes	1000 (more upon request)	
Units of measurement:		
Weight	g, oz	
Vacuum	Pa, µHg, mbar	
Pression	kPa, psi, bar	
Temperature	°C, °F	
Vacuum pump	Double stage, 18 m³/h (others upon request)	
Final vacuum	<1x10⁻² Pa (1x10⁻⁴ mbar)	
Dimensions (HxLxW)	1350x700x810 mm	
Weight	180 kg	
Working temperature	+10 ÷ +50 °C	
Electric power supply	Δ 220 ÷ 230 / Y 380 ÷ 415 V	50 Hz 3 Ph
	Δ 220 ÷ 230 V	60 Hz 3 Ph
	(others upon request)	
Power consumption	1750 W	
Compressed air	500 ÷ 700 kPa (5÷7 bar)	
	The air must be filtered and dehumidified 20µ	
Noise level	< 70 dB (A)	
Refrigerants	CO₂	
CO ₂ supply pressures	80 ÷ 100 bar	
	max 2500 kPa (25 bar) with compressed air max 5 bar	
Programmable dose	10.0 ÷ 99999.9 g	
Accuracy (<500 g)	± 10 g	
Accuracy (>500 g)	± 2%	
Maximum charging speed	Up to 15 g/s	

**data subject to change*

The whole electrical supply and control part has been manufactured in compliance with the EN60204-1 standards, (Electrical equipment of machines) and in compliance with the electromagnetic compatibility (EMC).