

HEREC K 75

HELIUM RECOVERY SYSTEM



GALILEO TP PROCESS EQUIPMENT S.r.l.

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Introduction

HEREC K 75: System is designed for recovery, storage at medium pressure (maximum 10 bar pressure) and the reuse of the helium used for closed circuit leak detection systems. The **HEREC 75** constantly monitors pressures and automatically replenishes helium levels as needed. The system is composed by two stages: low pressure and high pressure. This system has been design for medium/small production line with helium test pressure lower than 10 bar.

Technical features

Embedded control system

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

User interface

- **LCD 4,8"** monochromatic Display LCD 4.8" (320x240) with keyboard 29keys



Low pressure line

The **HEREC K Hp100/200** has a low pressure line which work under vacuum from 0 to 1 bar abs to guarantee a faster and higher efficient recovery. This line is composed by a tank (S1) under vacuum and a vacuum pump which transfer the helium to a second stage tank (S2).

Medium pressure line

The compression stage, composed by the compressor (MC1 allows to store the helium at high pressure into the high pressure tank (S3). The high pressure line can work at a Pmax up to 10 barg. From the S3 tank/s the helium can be delivered to the factory distribution network or to the leak test equipment directly.

The system is provide with a pressure switch (PR1) which turns off the power supply to the electronic control system and to the compressors when the pressure is over the adjustable trip point.

Helium concentration measurement line

The system is provided with an automatic analysis system which controls the helium concentration into the tanks, so allowing the unit to keep the purity of the delivered helium at the desired value and to give alarms in case of possible anomalies.

Upgrade accessories list:

- ✓ Additional low pressure tank
- ✓ Additional high pressure tank

Serial ports and interfaces

- ✓ COM3: serial port RS485 for communication with Galileo Tp leak detection machines;
- ✓ USB port for mass storage connection (only for maintenance service)

Data sheets

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|---|---|
| Overall dimensions | 1100 x 1100 x 1350 h mm |
| Weight | 230 kg |
| Capacity of tanks (S1, S2, S3) | 50 l + 50 l + 50 l |
| Compressor/pump stages | 2 |
| Max pressure tank | 1000 kPa(equivalent to 10 bar) |
| Recovery rate | 75 NI/min |
| Recovery depression | 10 to 100 kPa ABS |
| Recovery efficiency | > 85 % |
| Operating temperature range | + 5 °C to + 45 °C |
| Storing temperature range | - 25 °C to + 70 °C |
| Voltage supply | 400 V 50 Hz 3 phases or 460 V 60 Hz 3 phases |
| Power consumption | 2,5 kW |
| Total helium capacity | 100 NI at 800 kPa |
| Inlet helium pressure (from refilling bottle) | 500 ÷ 800 kPa abs (5 ÷ 8 bar abs) |
| Inlet compressed air pressure | 500 ÷ 800 kPa abs (5 ÷ 8 bar abs) |

**data subject to change*

Built in compliance with the Pressure Equipment Directive 97/23/EC, Machinery Directive 2006/42/EC, Low Voltage Directive 2006/42/EC, Directive on Electromagnetic Compatibility 2004/108/EC.