

# WIND I / II

## VENTILATION SYSTEM FOR FLAMMABLE GASES



**GALILEO TP PROCESS EQUIPMENT S.r.l.**

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# Introduction

The **WIND** systems have been designed to exhaust the flammable gases which might be present in working or storage areas where hydrocarbon gases are used.

WIND is available in two versions: WIND I (equipped with a single ventilation fan)

WIND II (equipped with a primary ventilation fan and a back-up fan)

## **WIND is composed of:**

- Electrical control panel
- Main ventilation fan with 2 speed electrical motor
- Back-up ventilation fan with 2 speed electrical motor (only for WIND II version)
- Ventilation detecting sensor (e.g. differential pressure switch)
- Ventilation hoods to be installed in the various areas where these gases might be present (charging machines, storage systems, detection valves, and recovery systems)
- Air connections and ducts to the aspirators and outside the working area into a safe zone

The electrical panel controls the ventilation functions according to the following incoming signals:

- Input to control the presence of a sufficient ventilation level.
- Input supplied by a gas detection system (CERBERUS) which indicates that a dangerous level of gas presence has been reached and passed.
- Input supplied by micro switches to ensure the Wind access doors remain closed during operation.

## **WORKING MODES**

The electrical control box is equipped with a switch that has two modes (“stand-by” or “working” mode).

- “Stand-by” mode allows for ventilation to be temporally shut off (where compliant) during facility down time. The Cerberus will continue to monitor for gas and will turn the Wind (I, II) back on if gas is detected.
- “Working” mode allows for constant ventilation and provides power to the electrical systems in your charging area. This will also provide the needed vacuum for the rest of your GTP equipment (not included).

## WIND (I,II)

An alarm is activated if after 30 sec. from the starting of the ventilation fan, the “OK” ventilation input is not given. If the pre-alarm gas contact is closed the ventilation fan starts working at a high speed. When the alarm is off, the ventilation fan returns to a low speed. As far as the overpressure fan is concerned, the electrical panel controls only the thermal magnetic protection of the electrical motor and starting when the working mode is selected.

## WIND II

The Wind II has an additional safety feature. In the event of a motor failure the system will automatically detect the problem and switch to the back-up motor. This not only minimises down time but it also adds another tier of safety to the system.

## Data sheets

<b>Power supply</b>	<b>400 V 3ph 50 Hz</b>
<b>Power consumption</b>	<b>4 kW</b>
<b>Fan speed</b>	<b>3000/6000 m<sup>3</sup>/h</b>
<b>Fan</b>	<b>Anti-spark</b>
<b>Electric motor</b>	<b>Explosion proof EEx d IIB T3</b>
<b>Suction points</b>	<b>4 suction hoods L = 2500 mm 1 suction pipe for charging machine</b>
<b>Main piping</b>	<b>40 m (Ø 300 mm)</b>
<b>Branches piping</b>	<b>50 m (Ø 125 mm)</b>
<b>Weight (WIND I/II)</b>	<b>200 kg / 350 kg</b>
<b>Dimensions (fan only WIND I/II)</b>	<b>700x970x870 mm / 800x1500x1700 mm</b>

*\*data subject to change*