











PerfoTecO2Control

The Ultimate Gas Flush System

The PerfoTecO2Control is the ultimate gas flush system for vertical, horizontal and flow packing machines. It combines food grade compressed air, carbon dioxide and nitrogen to reach the desired gas mix. Fresh produce packers reach the required level of modified atmosphere in the packs from the moment they are packed, while reducing gas waste, increasing packing speed, reducing product in seal and achieving an accurate and stable $\rm O_2$ and $\rm CO_2$ levels with a deviation of less than 0.5% between packs.

PerfoTec's patented gas flush system with intelligent gas mix/flow software has three oxygen sensors which ensure pre-gas flushing takes place in the tube until the desired gas mixture is reached. After that the packaging starts with exact and consistent $\rm O_2$ and $\rm CO_2$ concentrations. Real time production and sensor data is recorded and displayed on the PerfoTecO2Control panel. The settings are adjusted automatically to ensure a maximum deviation of 0.5% in $\rm O_2$ levels.

Security checks are built into the system whereby the packing machine is stopped if the O_2 levels are too high

or too low, and additionally, even if the packing machine has to stop frequently due to product shortage, the $\rm O_2$ and $\rm CO_2$ levels still remain stable. When the packing machine is turned off, the gas flow will automatically be shut down. The result is a significant reduction in gas waste and reduced costs.

Food grade compressed air combined with a carbon filter replaces expensive and less safe O_2 gas cylinders, leading to reduced costs and improved production safety. The high flow and low-pressure gas flush reduces the turbulence and velocity of the gas going into the packs, resulting in a significant reduction of product-inseal and a higher packing speed. This leads to higher productivity and reduced overall costs.

Production data, sensor data, and operator actions are recorded while the O2Control is in production mode. This data is summarized in a report and accessible online. The reports can be downloaded for later analysis and local storage.





Gas flow software panel:

- Pre-gas flushing until the right level is reached.
 Then packaging can start
- So your first package already has the correct O₂ and CO₂ level
- · Real-time data display of three oxygen sensors
- Packs are filled with exact O_2 and CO_2 concentrations
- PerfoTec O2Control automatically adjusts O₂ and CO₂ levels
- Security check on all three gas flows and O_2 level, if O_2 level is too high or too low packing machine stops
- · No gas flow when packaging machine is off
- Even if the machine has to stop frequently due to product shortage, the O₂ and CO₂ levels remain stable
- Online data storage of production and sensor data

Sensors:

To ensure uniformity of the gas in the tube during production, the PerfoTecO2Control is equipped with 3 sensors.

- Sensor 1: Measures the input O2 level
- Sensor 2: Measures the O_2 level near the sealing jaws
- ullet Sensor 3: Measures the \mathcal{O}_2 level near the top of the filling tube

Mounting bracket:

PerfoTec will manufacture and supply a custom-built mounting bracket, to integrate the PerfoTecO2Control display on your packaging machine or on the wall of your factory.

Gas lance construction:

- · Accurate and precise gas flushing
- \bullet Sensor in filling tube measures in-bag ${\rm O}_2$ and ${\rm CO}_2$ concentration
- Gas flow is controlled not to exceed max level of 0.5% O₂ deviation between packs
- Uses food grade compressed air combined with a carbon filter. This is an advantage in comparison to the use and storage of expensive O₂ gas cylinders
- Reduction of product-in-seal
- High flow/low pressure gas flush for less turbulence and higher packing speed
- · Significant gas savings

Reducing food waste with PerfoTec freshness extension tools

The PerfoTecO2Control is an innovative ultimate gas flushing system that optimizes the quality and shelf life of fresh produce while improving productivity and safety, and reducing waste and costs. Along with complimentary PerfoTec freshness extension tools, such as our Laser Perforation System and the Fast Respiration Meter 4.0, the PerfoTecO2Control offers great potential for a chain-wide approach to reduction of food waste.

Specifications PerfoTecO2Control

Equipment height: - 700 mm
Equipment width: - 510 mm
Equipment length: - 220 mm
Nett equipment weight: - 30 kg
Environment temperature: - 0 - 40 °C

Gas mixture range: - 0 - 21% O_2 and 0 - 30% CO_2

Gas mix flow: - 50 - 1000 l/min

Max gas flush pressure: - 8 bar

Electrical connection: - 115/230V, 1ph+N+E, 50/60 Hz

Amperage: - 0.5 A @230V (1A @115V)
Internet connection: - 10Mbps, ethernet connection

Remote support: - Router initiated, secure connection,

via specialized servers

Release date: - July 2020



