

OPTIONAL CO₂ ENRICHMENT

GROW ROOM CO₂ ENRICHMENT OPTION

Many grow room operators seek to supplement the carbon dioxide levels in their facilities during lights-on modes to improve the growth rates and qualities of crops. One of the key functions of Desert Aire's GrowAire™ Environmental Control Systems is to serve as an air handler. Because this function provides an excellent method to disperse supplemental CO₂ throughout grow rooms, Desert Aire has added a CO₂ Enrichment Option to the installation of its systems.

CO₂ ENRICHMENT REQUIREMENTS

The customer will supply the CO₂ gas and will connect it to the CO₂ supply connection on the respective Desert Aire unit. When the CO₂ level drops below the operator defined set point, the internal solenoid valve will open until the set point is achieved. The operation is internally coordinated with the photo-period command such that CO₂ is enriched only during the lights-on mode of operation. If connected to a Building Automation System the CO₂ setpoint can be adjusted from the BAS interface.

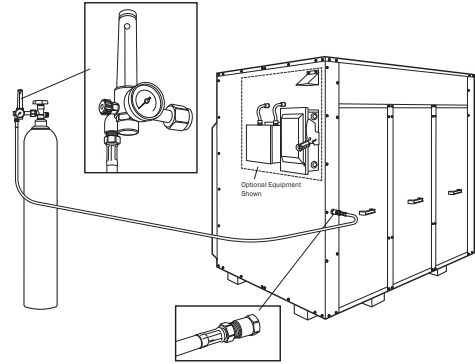


Figure 1 - CO₂ Enrichment Components

The sensor is installed on grow room walls at plant canopy heights to measure CO₂ levels at locations closest to plants. The range of the sensor is 0 to 5,000 ppm.

A high CO₂ level alert can be programmed to provide a contact closure to an audible and/or visual alarm supplied by other vendors. The alert can also send a message to specified users of a Desert Aire AireGuard™ system if equipped and setup by the Site Administrator.*

The regulator that is supplied can be connected directly to tank with a CGA-320 fitting or to piping system with the included NPT adapter.

CO₂ ENRICHMENT OPTION COMPONENTS

The table below lists what is included with the purchase of Desert Aire's CO₂ Enrichment Option.

Components	Included
Gas flow regulator (field installed)	Yes
Unit bulkhead fitting	Yes
Unit installed control valve	Yes
10' hose	Yes
Unit controller display panel	Yes - CO ₂ ppm
High Alarm (contact closure)	Yes
Wall mount CO ₂ sensors	Yes
Regulator to NPT Adapter	Yes

***Note:** The high CO₂ level alert is not a listed safety device. The equipment cannot detect CO₂ levels outside of the grow room. The customer/end user is responsible for ensuring safe levels of CO₂ throughout their buildings; for all safety devices and controls required by local authorities and insurance companies; and for compliance with all applicable regulations.

OPTIMIZING SOLUTIONS THROUGH SUPERIOR DEHUMIDIFICATION TECHNOLOGY

N120 W18485 Friestadt Road, Germantown, WI 53022 sales@desert-aire.com

Ph: (262) 946-7400 - www.desert-aire.com



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov