

**Process Automation**

**Sustainable agricultural  
technology for the future  
of farming**

**Pure Life Carbon Inc., Red Deer, Canada**

**Innovative Advanced Carbons  
enhancing global food production  
with solutions by GF Piping Systems**



# The world's most advanced carbon-based agriculture products thanks to Process Automation

The agricultural industry is currently facing a difficult challenge – it has to supply food to a growing number of people while simultaneously becoming more sustainable. As a result, Canadian company Pure Life Carbon Inc. has developed carbon-based growing mediums for indoor farming applications. Compared to traditional growing mediums, they are not only carbon-negative but also require up to 50% less volume depending on crop type and farming method. GF Piping Systems provides solutions for an automated and efficient production.

## Project background

During production, the company subjects bamboo to high temperatures where it undergoes a dynamic patent pending manufacturing process to be transformed into its Advanced Carbon products. This raw material is then transferred to 4,000L tanks where it undergoes various cleaning, wet treatments, and stabilization processes. In order to make production more efficient and meet the requirements of the agricultural sector, a modern piping system is necessary.

## Selected technical solution

Pure Life Carbon Inc. uses a complete solution by GF Piping Systems. It consists of valves, actuators, measuring technology and controllers that close the control loop and offer complete process automation. At the same time, the piping system collects the used process water and purifies it in a filtration plant before it is used for the next cycle.

## Achieved improvement

The control loop, which is closed with the help of Process Automation, not only makes life easier for the employees but also significantly increases the efficiency of the production. In addition, all components supplied by GF Piping Systems are made of modern plastics and therefore guarantee a corrosion-free and long-lasting operation. At the same time, they are a sustainable alternative to metal products as they have a lower CO<sub>2</sub> footprint during their production phase as well as a prolonged service life. For Pure Life Carbon Inc., a close collaboration with GF Piping Systems is also an important factor in order to optimize the production processes of their Advanced Carbon products.



Raw material is turned into a sustainable growing medium thanks to process automation.



The CO<sub>2</sub>-negative Advanced Carbons require up to 50% less material volume compared to traditional growing substrates.

## Customer benefits

- From valves and actuators all the way to measuring technology and controllers – GF Piping Systems offers complete ecosystems for process automation.
- Products by GF Piping Systems combine modern technology with sustainable materials that make industrial plants future-proof.
- The plastic components are corrosion-free and require very little maintenance. This leads to a longer service life and lower costs compared to metal components.

The information and technical data (altogether "Data") herein are not binding, unless explicitly confirmed in writing. The Data neither constitutes any expressed, implied or warranted characteristics, nor guaranteed properties or a guaranteed durability. All Data is subject to modification. The General Terms and Conditions of Sale of Georg Fischer Piping Systems apply.

## Your contact

Georg Fischer Piping Systems Ltd  
Ebnatstrasse 111  
8201 Schaffhausen / Switzerland

Telephone +41 (0)52 631 11 11  
mail@georgfischer.com  
www.gfps.com

