

Process Automation

A complete solution for a high-tech irrigation

Customer reference: IDEA Srl, Italy

IDEA Srl has automated the irrigation of a Sicilian orange farm with valves and actuators by GF Piping Systems.

A reliable and efficient orange production thanks to 85 digital valves

With its mild climate and mineral-rich soil, the Italian island of Sicily is ideally suited to produce high-quality and flavorful oranges. However, in order to ensure consistent results, farms need a reliable and effective irrigation system. When IDEA Srl, an Italian specialist for industrial plant design and installation, was tasked with an overhaul of an aging irrigation system, Ivano Midulla, the CEO of the company, made the decision to implement a complete solution for Process Automation by GF Piping Systems.

Project background

The organic orange producer "Buono Energia società Agricola" owns about 50 hectares of farmland and is therefore reliant on an extensive and capillary irrigation system that applies controlled amounts of water to the crops. Previously, this task was approached with a manually operated system made of PVC-U and steel which was labor-intensive to operate. Furthermore, the capacity of the system was insufficient for the size of the farm. IDEA Srl therefore installed a valve system consisting of the Butterfly Valve 565 and Ball Valve 546 Pro, as well as the Electric Actuator by GF Piping Systems.

Selected technical solution

Process Automation has an integral role in the growing need for water conservation, and the complete solutions by GF Piping Systems are designed to offer reliability, efficiency, and precise control throughout the automation loop. Both the Butterfly Valve 565 and Ball Valve 546 Pro feature lightweight and corrosion-free plastic materials and are compatible with a variety of actuation technologies. Here, the Electric Actuator combines reliable and easy operation and robustness thanks to corrosion-free materials. The latest updated generation offers an improved IP68 protection rating, additional connections such as M12, Din plugs, and cable glands, as well as optional digital connectivity protocols such as Modbus TCP, PROFINET, or EtherNet/IP.

Achieved improvements

In total, IDEA Srl installed 30 Butterfly Valve 565s in the configuration DN100, as well as 55 Ball Valve 546 Pros in DN40 that were all equipped with Electric Actuators and Modbus RTU accessory boards. The new valves now open and close the primary and secondary distribution lines of the irrigation system with an improved response time, while control of the entire installation has been centralized. At the same time, GF Piping Systems offered project support by assembling and testing the valves according to the customer's needs before the installation and ensuring a fast delivery to the installation site.



Thanks to electrically actuated valves, the irrigation system has a better response time and can be controlled centrally.



The irrigation system needs to meet high demands – the orange farm covers an area of 50 hectares.

Customer benefits

- With its valves and actuators, GF Piping Systems applies its knowhow and experience of the entire control loop to offer complete ecosystems for Process Automation.
- Corrosion-free materials minimize maintenance requirements and ensure a longer service life as well as lower costs compared to metal components.
- With a wide range of available connectivity protocols, the Electric Actuator offers customizable and flexible process automation for many different applications.

Where next?



Visit our webpage

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

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.

