

Location: Colorado



AMI custom pilot plant drives innovation at research center

AMI custom pilot plants support cutting-edge research efforts by providing a versatile platform for conducting experiments, simulations, and feasibility studies.

Challenge

An innovative water technology research center is dedicated to advancing the science of emerging water treatment processes and technologies.

The center focuses on sustainable and energy-efficient usage of impaired water sources for both potable and non-potable water supplies.

The center required a versatile water treatment pilot plant to facilitate its R&D efforts. They needed a solution capable of accommodating various membrane test systems, laboratory setups, and water treatment simulations.

The pilot plant would need to integrate with existing facilities. The center reached out to Applied Membranes for a solution.

Solution

Applied Membranes designed, built, and commissioned a custom, state-of-the-art pilot plant to meet the client's requirements. The **20 GPM (5 m³/h)** membrane test skid is mounted on a trailer and remotely controlled.

AMI pilot plant can test different membrane elements including Reverse Osmosis (RO) and Nanofiltration (NF).

The AMI pilot plant was engineered to incorporate multiple membrane test scenarios for various processes.

Key Features:

- Chemical injection system
- Clean-in-place system
- Programmable Logic Controller (PLC)

Results

Applied Membranes pilot plant integrated seamlessly with the center's facilities.

Customized: The AMI pilot plant was custom-designed to fit inside the facility and skid-mounted for ease of installation and transportation. Custom skid incorporates aluminum bars and plates.

Enabling innovation: The AMI pilot plant enables researchers to conduct experiments across various water treatment processes, facilitating valuable insights and breakthroughs in the field.

Versatile and flexible: AMI pilot plant is designed with flexibility and versatility for different testing scenarios, allowing researchers to conduct a wide range of experiments and simulations to advance the science of water treatment and sustainability.

