

# Aeronautics research facility depressurizes its fuel tanks with durable regulators and valves

## RESULTS

- A robust, yet flexible pressure regulation package—all from a single supplier
- Component durability in hazardous operating conditions



## APPLICATION

Aerospace and defense institution

## CUSTOMER

Brazilian aeronautics and space research facility

## CHALLENGE

An aeronautics and space research facility that works with highly combustable rocket fuel needed to reduce the pressure in its fuel storage tanks. The high pressure was causing the fuel tanks to become heavy, impeding researchers' ability to work with them.

Reducing the pressure was a two-stage process that required minimizing the effects of the increasing pressure near the regulator outlet while also relieving the pressure in the rest of the tank. The research institute needed a supplier for an ON/OFF valve once the depressurization process was completed.

## SOLUTION

To process the data for the dual-stage depressurization process, Emerson experts modified the TESCOM™ 26-1000 Series pressure regulators. They paired these components with ASCO™ Series 291 compressed natural gas valves—creating a single robust package that met the research facility's requirements.

The pressure regulators feature field-changeable outlet pressure ranges and a versatile design, allowing the customer to change regulators as needed. In addition to this flexibility, the natural gas valves withstood the harsh conditions of this application. Components are specifically designed for Class 1, Division 1 hazardous locations and feature tight sealing, a durable design and can withstand pressure ratings over 5,000 psi.

*The research facility decided the Emerson pressure regulators and natural gas valves were a superior choice. The flexible, yet robust package succeeded after initial tests, and the customer now enjoys a single supplier for its pressure regulation needs.*

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