CUSTOMER CASE STUDY

Quartz Processing Plant Compressed Air Piping System

Mid-Atlantic (NC)

FERGUSON INDUSTRIAL

AIR-PRO® Compressed Air Piping by ASAHI/AMERICA

PROJECT OVERVIEW

CUSTOMER:
Quartz processing plant

PRODUCT(S):
Asahi Air-Pro® PE100 Compressed Air Piping System

LOCATION:
Mid-Atlantic (NC)

CHALLENGE:

The plant's corrosive environment damaged the black steel compressed air piping system, causing leaks and contaminating the instrument air system.

SOLUTION:

Replace the black steel with an industrial thermoplastic designed for compressed air applications.

PRODUCT ADVANTAGES:

- Rapid technical and commercial response
- Extensive inventory of corrosion-resistant pipe and fittings
- Socket and butt fusion joining expertise and equipment

The compressed air system of a North Carolina quartz processing plant features hundreds of feet of pipe, ranging from 1/2" to 4" in diameter. The system is exposed to the plant's internal environment on every floor of the facility, which means that the chemicals introduced into the air from the plant's reactors have constant contact with the pipe along almost its entire run.

The black steel pipe and the corrosive environment were incompatible in the long term, leading to external corrosion that caused leaks and contaminated the compressed air within.

Ferguson Industrial associates had recently supplied this plant with a thermoplastic solution for a failing chemical scrubber system, so the plant team knew they could rely on us to identify the right product to replace the black steel.

Our experts selected Asahi Air-Pro® PE100 for the following reasons:

1. Excellent chemical compatibility inside and out to handle conditions of service without being compromised
2. Lightweight for ease of installation and use of existing supports
3. Socket and butt fusion Joining System for maximum joint integrity
4. High-pressure rating capability
5. Minimum 50-year expected useful life in the application

Having a dedicated Thermoplastics team with in-depth knowledge of industrial processes, their challenges and the materials that can be implemented to overcome those challenges significantly reduced the lead time on getting the black steel system replaced.

Beyond the material selection process, our team also facilitated the delivery and demonstrated the joining process for the product to maximize the system's chances of success.

The new system, immune to corrosion from the environment, will provide the plant with contaminant-free air with a lifecycle many times greater than steel pipe—ultimately saving the plant thousands in maintenance, repair and replacement costs.