

CASE STUDY

A Multi-Year Compressed Air System Upgrade for a Midwest Ceramics Manufacturer

CUSTOMER

**Ceramics Manufacturing
St. Paul, Minnesota**

A family-owned ceramics manufacturer known for its handcrafted ceramic mugs and custom pottery. Based in St. Paul, Minnesota, the company blends artisanal craftsmanship with production-scale output, requiring dependable utility systems to support its daily operations

THE CHALLENGE

In late 2020, the manufacturer's newly hired maintenance manager, already familiar with JHFOSTER, reached out to request an evaluation of the facility's compressed air system. The system included two aging compressors located inside a small maintenance room, with outdated iron piping throughout the building. One area of the plant was experiencing low air pressure that caused a critical machine to shut down intermittently, impacting production reliability.

THE OPPORTUNITY

After an initial visit, JHFOSTER recommended gathering data to better understand the facility's true air demand. Data loggers were installed to capture usage across the system, and analysis confirmed the need for a complete upgrade - new piping, modern equipment, and ultimately a dedicated compressor room. However, due to budget constraints, the improvements would need to be completed in phases.

THE SOLUTION

Account Manager Joe Roiger led the project alongside JHFOSTER's installation and service teams, working closely with the customer over a four-year period to upgrade the compressed air infrastructure without disrupting daily operations.

Phase 1: Piping Upgrades

- **February 2021:** First floor piping was fully replaced by JHFOSTER's installation team.
- **February 2022:** Second floor piping was completed, replacing all old iron piping with modern materials for improved air flow and pressure stability.

Phase 2: Compressor Room Build-Out

- **2023:** A new location was selected for the compressor room. The customer handled the build-out, including floor drains and electrical panels. JHFOSTER provided room layout and equipment planning.

Phase 3: Equipment Replacement

- **Spring 2024:** The first of two aging compressors was replaced with a Quincy VFD compressor, along with a new air dryer, filters, mist eliminator, and zero-loss drains.
- **January 2025:** The second Quincy VFD compressor was installed, fully replacing both legacy units.

Technologies Used:

- Quincy Variable Frequency Drive (VFD) Compressors
- Compressed air dryers, filtration, and condensate management
- JHFOSTER piping and system layout design
- Annual service agreement for ongoing maintenance

IMPLEMENTATION

Throughout the multi-year project, JHFOSTER coordinated closely with the customer to ensure each phase aligned with their operational schedule and budget. By executing upgrades in manageable stages, the company was able to modernize its infrastructure without halting production.

CUSTOMER FEEDBACK



JHFOSTER helped us turn a critical infrastructure upgrade into a well-planned, phased project. Their team was flexible, responsive, and committed to ensuring each stage aligned with our operations. The new system has made a noticeable difference in performance and reliability.

— Maintenance Manager,
Ceramics Manufacturer



THE RESULTS

- Improved air pressure stability across all floors of the facility
- Eliminated downtime related to compressed air issues
- Increased energy efficiency through VFD compressor technology
- Reliable long-term maintenance via a service agreement with JHFOSTER

The upgraded system now supports current production needs and is scalable for future growth.

LOOKING AHEAD

This project highlights the value of long-term, collaborative partnerships especially in industrial settings where space constraints, utility limitations, and tight operational schedules make system upgrades more complex. JHFOSTER's ability to adapt standard equipment to fit these challenges has made them a trusted partner for high-impact, facility-wide improvements.

NEED TO MODERNIZE YOUR COMPRESSED AIR SYSTEM WITHOUT DISRUPTING PRODUCTION?

JHFOSTER can help you plan and execute upgrades at your pace with solutions built to last. Talk to a JHFOSTER expert today. www.jhfoster.com

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