## CASE STUDY PRINTING



## STOP THE PRESSES! JOHNSON AIR-ROTATION HVAC SYSTEMS HEATS & COOLS PRINTING FACILITY

**APPLICATION:** 

286,116 sq. ft. Printing Facility

MARKET:

BOSTON, MA

SYSTEM STYLE AND QUANTITY:

Seven Indoor and Two Outdoor HVAC Systems

## **BUILDING COMPLICATIONS**

**Consistent Temperatures and Flexible Equipment Layout** - The customer's printing operation required specific temperature and relative humidity tolerances. Due to the Facility and printing equipment, a significant amount of ventilation was also required.

**Controls** - The HVAC solution had to include an advanced set of controls and sensors as well as incorporate an economizer sequence.

**Filtration** - Due to the type of air emitted from the printing process, higher grade filtration was required.

## JOHNSON SOLUTION

Consistent Temperatures and Flexible Equipment Layout - Johnson's HVAC solution included custom high turn-down gas heat exchangers for primary heat and dehumidification during the cooling cycle. Also, the Johnson systems were designed for mixed air cooling allowing for maximum temperature & humidity control. A split min/max damper arrangement was provided for strict ventilation control. Johnson provided the customer with a strategic combination of indoor and outdoor HVAC equipment.

**Controls** - To meet controls requirements, the Johnson HVAC Systems were equipped with internal condensate removal pumps, return air smoke detectors, multi-section vapor proof access lights, variable frequency drives, mixed air temperature indication, outside and supply air temperature sensors, and a differential enthalpy type economizer control logic. Additionally, each Johnson System also included a DDC control panel with dew point controls for precise temperature/ humidity operation. BAS interface cards provided the customer with the ability to tie the Air-Rotation Systems into the existing building management system.

**Filtration** – Each Johnson Air-Rotation System included two stages of filtration mounted at the base of the system for ease of maintenance. Individual dirty filter indication was also provided. Each system included high-efficiency, non-overloading SWSI plenum fans to supply consistent airflow throughout the life of the filters.







