

ANSUL® Restaurant Electric Detection Technology: The First and Best Choice for Protecting City Foundry STL's Food Hall



Customer: City Foundry STL
Location: St. Louis, Missouri, USA
Challenge: Protect a multi-specialty food hall housing 20 food stalls and 500 diners

Product Solution: ANSUL® Restaurant Electric Detection (RED) Technology

ANSUL® RED Technology is an intelligent fire protection system specifically designed for complex, commercial kitchens with multiple, high-volume cooking stations

City Foundry STL: Supporting Innovation and Building Community in St. Louis

City Foundry STL (CFSTL) is not just your average dining, entertainment, retail, and office complex. This historic, 15-acre campus located in the heart of St. Louis' Midtown neighborhood was recently transformed from the old Century Electric Foundry into a modern multi-use facility with 334,000 square feet of restaurant, entertainment, retail, and office space.

The folks behind CFSTL, however, will be the first to tell you that their facility is more than just a place to work, shop, or have a meal. With "eatertainment" venues, event spaces, gaming centers, and a streetway for art fairs, farmer's markets, street performers, it's also a place that nurtures creativity, promotes innovation, and builds community.

At the center of this bustling hub is St. Louis' first true food hall where local chefs can show off their expertise with outside-the-box dining concepts. CFSTL's food hall offers members of the vibrant Midtown community the opportunity to sample a diverse array of original cuisine from traditional Argentinian dishes to Hawaiian poke to Monte Cristo Belgian waffles.

Applications include:

- Casual and fine dining
- Food courts
- Fast food chains
- Cafeterias
- Hotels and casinos
- Sports complexes and stadiums
- Catering facilities
- Cloud kitchens

Meeting the Challenges of Fire Protection in a Large Food Hall

A sizable, multi-specialty food hall like the one at City Foundry STL is not without its concerns. Within the walls of the food stalls, beyond the Bombay sliders and teriyaki tacos, are a myriad of hot surfaces and flammable materials that could threaten vendors as well as staff, kitchen workers, and customers patronizing the facility.

With the capacity to accommodate up to 500 diners, CFSTL's food hall houses 20 food stalls each with its own kitchen and various cooking appliances. These kitchens not only sit in close proximity to patrons but also to each other with several kitchens sharing a common duct system. Moreover, the food hall is surrounded by dozens of restaurants, retail shops, and office spaces where hundreds of people work and shop on a daily basis.

All of this elevates the risk of significant property loss and human casualty if fire were to break out in just one of the many kitchens in the food hall. The U.S. Fire Administration estimates that, from 2015 to 2019, approximately 64% of fires in eating and drinking establishments were caused by cooking resulting in \$142.9 million in losses and 650 injuries. Keeping this in mind, it was essential that CFSTL invest in a fire protection system that would effectively and efficiently safeguard human lives while also protecting the food hall and surrounding facilities from extensive damage.

The Solution: ANSUL® Restaurant Electric Detection (RED) Technology

ANSUL® RED Technology was the obvious choice when it came to selecting a fire protection system for the City Foundry STL food hall. ANSUL® RED Technology is a smarter fire protection system designed specifically for complex, commercial kitchens with multiple, high-volume cooking stations like the CFSTL food hall. When combined with ANSUL® R-102 or PIRANHA Suppression Systems, the system provides intelligent, reliable and comprehensive multi-zone fire protection while also simplifying maintenance and cleanup.

With numerous food stalls, hundreds of customers and workers, and the surrounding facility to protect, the complex cooking and dining layout of the CFSTL food hall required an adaptable fire protection system that not only provided complete coverage but was also manageable with regard to configuration, monitoring, and maintenance. In the end, ANSUL® RED Technology was able to meet the all of food hall's unique fire protection needs and then some.

Comprehensive Fire Protection and Monitoring

With the ability to accommodate up to eight controllers and 16 zones of fire protection per system, fire and safety contractors were able to set up more than 25 detection circuits for all kitchen hoods and accompanying ducts in the CFSTL food hall using only two centralized display units. With these two display units, all cooking stations can be monitored around-the-clock in real-time. Upon detecting a fire, the controllers are programmed to activate the ANSUL® R-102 fire suppression system while simultaneously sending an alert to the display and identifying which zone has been actuated. Optional relays will also shut down electrical equipment and electric gas valves upon activation.

Customizable to Meet Fire Protection Requirements for Individual Appliances

With a wide array of vendors specializing in different cuisine styles, the CFSTL food hall fire protection system needed to also accommodate a variety of cooking equipment. The versatility of the linear detection wires used in ANSUL® RED Technology allows for temperature customization based on the needs of each appliance. Multiple color coded temperature ratings could also be set up in a single hazard zone to account for different types of appliances like fryers, grills, and broilers.

Easier Maintenance and Cleanup

What's more, ANSUL® RED Technology's advanced features ensure that CFSTL workers spend more time attending to customers and less time on maintenance and cleanup. Features like 24/7 troubleshooting, maintenance and service notifications, and hood-cleaning mode simplifies system management and maintenance. Furthermore, with its targeted suppression feature, the system can be programmed to only discharge ANSUL® Fire Suppression Systems over the individually affected areas in the food hall rather than an entire kitchen or several food stalls. This helps to reduce cleanup and downtime in the event of a cooking fire and keep kitchens running efficiently.

Expandable and Reconfigurable for Evolving Kitchens

Looking toward the future, as CFSTL food hall continues to evolve, so will their fire protection needs. Fortunately, ANSUL® RED Technology can be easily expanded or modified as new food vendors come in or additional cooking equipment is added. The system is easily reconfigurable to allow for renovations and changing cooking environments, and the intelligent configuration tool allows Distributors to program and test the system to understand how the hazard areas work together and ensure proper operation.

A superior fire protection system is a must have for any food hall regardless of its size, location, or cuisine. With ANSUL® RED Technology and R-102 suppression systems, City Foundry STL can rest easy knowing they made the best choice for their fire detection and suppression needs. ANSUL® RED Technology's reliable multi-zone protection, intelligent, centralized monitoring, customizable linear detection, targeted suppression, and simplified maintenance will ensure the safety of diners, food workers and staff and preserve the integrity of this unique and historic facility for years to come.

System Features at a Glance:

- Accommodates up to eight controllers per display unit for total of 16 zones of protection
- Centralized, 24/7 monitoring of each individual fire hazard zones
- Linear detection with four temperature ratings 155°F (68°C), 280°F (137°C), 356°F (180°C) and 500°F (260°C) to customize based on needs of each appliance
- Targeted suppression reduces downtime and cleanup by discharging ANSUL® Fire Suppression System only in affected hazard zones rather than entire kitchen
- Intelligent configuration tool
- Expandable and reconfigurable to accommodate changing cooking environments
- Easily integrated with existing ANSUL® Fire Suppression Systems
- Hood cleaning mode allows kitchen staff to disengage selected hood(s) while keeping other hood(s) in operation
- Service and maintenance notifications with around-the-clock troubleshooting
- 4,000+ event history log to track changes and maintenance
- Password protection with two access levels: one for owner and one for authorized ANSUL® RED distributor
- Complete UL and ULC Listing with both ANSUL® R-102 and PIRANHA systems
- Meets NFPA 96 and 17a requirements



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