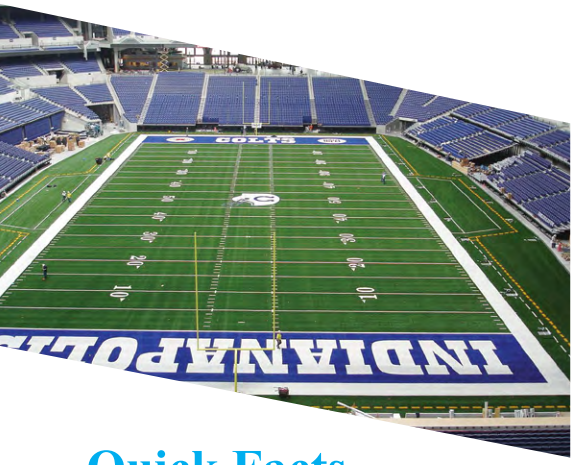
TCF
TWIN CITY FAN



Quick Facts

Application
Stadium Exhaust

Customer
Lucas Oil Stadium
(Home of The Indianapolis Colts)

Twin City Fan Representative
Scott Cole
(now with Elite Equipment Company)

HVAC Contractor
Bright Sheet Metal

Challenge
Project scope, timeline and the variety of fans needed for the diverse set of applications

Solution
Consistent communication with the customer combined with a full line of air moving equipment from a single source fan manufacturer

Result
Twin City Fan & Blower delivered a wide variety of reliable, cost-effective solutions in a timely manner; providing the support and service needed to make this project a success

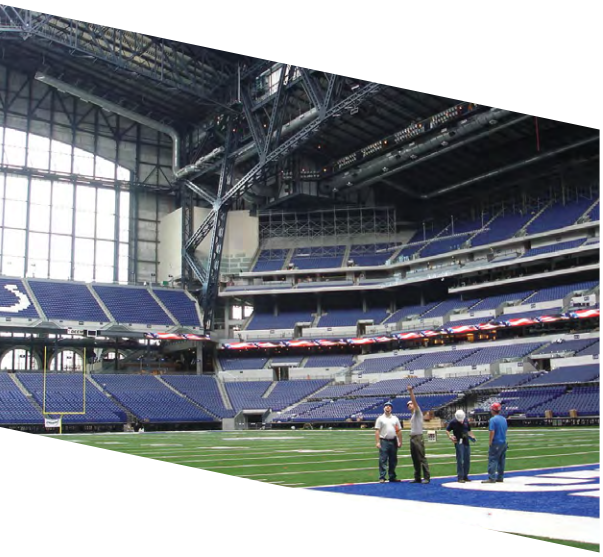
Lucas Oil Stadium

Overview
When most people look at a football stadium, they think about the games that are played, the victories and the losses – but those in the fan industry see something else altogether. They see the complexity and intricacies required to specify and install the fans and blowers that are necessary to maintain the safety and comfort of its occupants. When planning began for construction of the Lucas Oil Stadium in Indianapolis, Indiana, contracting firm Bright Sheet Metal knew they needed to partner with a fan company that could not only provide a variety of well-built, high-quality fans, they needed a partner who would be able to deliver the fans according to the massive project's demanding schedule.

Challenge
The challenges in outfitting a stadium that covers 1.8 million square feet and seats 70,000 were significant. Over 100 fans of different types were specified to meet the various needs of the stadium. In addition to a large number of fans to handle general supply airflow and exhaust, specialty fans were needed to evacuate pyrotechnic smoke from fireworks shows, as well as kitchen exhaust fans that could handle significant grease buildup. Because of the scope and length of the project, staying organized and on top of production, testing, and an aggressive shipping schedule was also critical. Some of the fans also needed to be installed in tight areas, necessitating a "tightening up" of the dimensions to fit these cramped areas.

Solution
72 TCLB Inline Centrifugal Fans
While a number of different fans were used in the Lucas Oil Stadium project, 72 TCLB Inline Centrifugal Fans were used for a variety of general exhaust applications – the largest was 27 inches (size 270) with 11,000-12,000 CFM and a 10 HP motor. In many instances, the fans were installed in tight areas, including the lay-in ceiling directly above seating areas and in the areas servicing the suites. Because of their proximity to the public, it was important that the fans operate quietly. In addition, this was the one of the first jobs of this magnitude to utilize the TCLB Tubular Inline Centrifugal Fans. These fans were the perfect choice for this type of project: cost effective, reliable and quiet.

Model TCLB
Inline Centrifugal Fans



Model TCWPX
Propeller Wall Fans

Fans Used

- 72 TCLB Tubular Centrifugal Inline Fans
- 20 TCWPX Propeller Wall Fans
- 3 QSL Mixed Flow Fans
- 29 QSLR Restaurant Mixed Flow Fans, UL 762 listed
- 2 BC-SW Class III, Arrangement 9 Centrifugal Blowers
- 5 BSI Square Centrifugal Inline Fans

20 TCWPX Propeller Wall Fans
Twenty 54-inch TCWPX Propeller Wall Fans were used at the top of the stadium near the retractable roof in a gable area, which made installation a challenge. The fans are designed to exhaust pyrotechnic smoke emitted from firework shows. There isn't a need to use these fans on a regular basis. However in the event that a Superbowl would be held at the stadium, in colder February weather the roof would be closed, creating a need for other means of exhausting the smoke.

3 QSL Mixed Flow Fans
The largest fan used on the project was a QSL Mixed Flow Fan – three were installed in the lower level storage rooms. Sized at 542 and pushing 75,000 CFM with a 125 HP motor, these seven foot diameter fans have a tough job to do – exhausting the home team and visitors' locker rooms. Despite their size, the QSL Mixed Flow Fans offer excellent air performance and energy savings.

29 QSLR Restaurant Mixed Flow Fans
29 QSLR fans were used to exhaust the grease-laden air from the food service areas of the stadium, and in the three years since the stadium was completed, all of the original fans are running strong.

Benefits

Customer Service
Throughout the project – and even after the stadium opening – Twin City Fan and Representative Scott Cole provided great customer service. Ken Kendrick, Project Manager with Bright Sheet Metal, says "They were good to work with – and Scott Cole did a great job. Overall the project was successful, and we were very happy with the results. They worked hard and took care of the things that needed to be done so we could get things finished in the timeframe we needed."

At the outset of the project, the submittal process required a significant amount of hands-on support. The contractors and engineers examined every point of the fans they were specifying to determine what finishes, gauges of metal, bearings, motors, voltage and accessories would be needed to provide the reliability, energy efficiency and cost-effectiveness they were looking for. Twin City Fan and Scott Cole worked with the contractors and engineers throughout this process, supplying additional information, including a variety of custom CAD drawings.

During construction, TCF carefully followed the shipping schedule, ensuring the right fans arrived at the right times. A mistake at this stage of the process would have been time-consuming and costly – but thanks to careful management and excellent communication, manufacturing, testing and shipping went smoothly. Near the end of the project, several representatives from TCF visited the job site to conduct a final walkthrough and presentation, answer questions

Model QSL/QSLR
Mixed Flow Fans

Twin City Fan & Blower has the engineering and manufacturing capabilities to accommodate virtually every conceivable application. We have completed thousands of successful installations worldwide and have a proven track record for tackling the most technically complex and unique applications.

We separate ourselves from the competition by offering a greater breadth of products and quickly adapting to the needs of our customers. This is truly a testament to our company philosophy – respond to the needs of the customer, the first time, every time.

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and bring some closure to the project – illustrating their personal dedication to the project's success. Following the opening of the stadium, a few adjustments needed to be made to meet different performance requirements that only became apparent after opening. Twin City Fan was quick to accommodate these changes in requirements, helping calculate what would be required, re-evaluate what the options were and coordinate the installation of the new parts with the stadium's maintenance company.

Reliability

Bright Sheet Metal knew they needed a reliable partner – not only in terms of providing high-quality, time-tested products, but a manufacturer that could accommodate the scope and fast pace of the project. TCF's fans are known for their rugged construction and time-tested durability, making them ideal for the project. According to Kendrick, this was a part of the reason TCF was selected for the job: "We chose Twin City Fan because they offer a heavier, rugged fan, and for a stadium project we really needed something that would take the wear and tear of the years. The fans were good fans, and everything is working very well." In addition, the communication and support TCF provided throughout the process was critical to the project's success.

Summary

The Lucas Oil Stadium presented a real challenge – it was a huge project with a fast-paced schedule, and required a variety of fan types to handle a multitude of different jobs, from exhausting grease-laden air to pyrotechnic smoke. Twin City Fan was able to provide the necessary leadership and high quality equipment to meet all of the project's needs. Fast, responsive customer service and excellent communication were also a key component of this project. In the end, the reliability and cost-effectiveness of the fans, combined with TCF and Scott Cole's dedication to customer service, proved a winning combination for the construction of the Lucas Oil Stadium.