



DFW International Airport Terminal D & Skylink

CASE STUDY

CLIENT:
DFW Airport Authority

REPRESENTATIVE OFFICE:
ADW Corporation

ARCHITECT/DESIGNER:
HKS Inc; HNTB;
Corgan Associates

LOCATION:
Irving, Texas

ABOUT THE PROJECT

Dallas-Fort Worth International Airport's (DFW) Terminal D construction is the world's largest post 9/11 airport construction project. Comprised of 80-foot ceilings and 2,000,000 square feet, the 1.2 billion dollar facility is designed to create an environment that is visually appealing, safe and comfortable for the passengers. Included with this project was the Skylink People Mover System. This systems transports passengers safely from terminal to terminal.

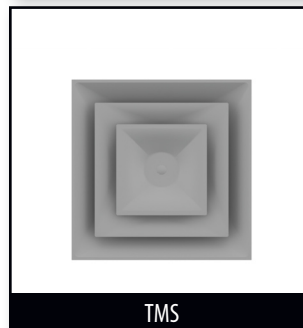
Since construction began prior to 9/11, the Terminal D project had to incorporate the repercussions of that event into it's design. One of the major changes had to deal with the security of the facility. The security parameters dramatically changed which altered the architectural design of the terminal. In some instances, the revisions to the design were incorporated while the construction continued in order to meet the completion date.



CT



FlowBar



TMS



355RL



The design of the project was a joint effort between the engineering firms of Friberg and Associates, Frees and Nichols, and the architectural firms of HKS Inc, Corgan Associates, and HNTB. Their goal was to combine 21st century technology and functionality with an aesthetically pleasing interior.

THE TITUS SOLUTION

There were two main problems that needed to be solved on the terminal building. One issue was how to create an air distribution system that would provide maximum occupant comfort with specific airflow requirements in a large, open area while adhering to stringent architectural designs. The other issue was how to solve the ambient temperature extremes of the Dallas climate throughout the day.

Titus engineers realized a standard CT diffuser would not meet these needs or deliver the special performance criteria necessary for the large open spaces. Instead, Titus selected the CT linear grille and the FlowBar linear diffuser to solve these air distribution problems. Both units deliver superior performance and met the stringent aesthetic criteria. A specially designed CT linear grille was used in the terminal. It deliver special air plumes that washed across the large open space within the terminal.





The Skylink People Mover System presented similar issues as the terminal. Terminal D used four train station terminals and another six throughout the rest of DFW. Each station had high curved ceilings which created the problem of how to create a spreading airflow plume evenly throughout the occupied space. Titus developed a special CT with three deflection modes to solve this problem. The unit had a 0° deflection on the inside, 15° deflection in the middle and a 30° deflection on the outer fins to give an even spread pattern. The units were installed to overlap the spread of the two other diffusers used in the room. This was done to provide complete plume coverage while providing maximum occupant comfort.

THE END RESULT

Terminal D at Dallas Fort Worth International Airport and Skylink presented a great challenge to all those involved. With a unique blend of determination and innovation, this project was completed on time and continues to stand as a testimony to the timeframe in which it was constructed. On average, six million passengers pass through here every year making DFW one of the busiest airports in the world.

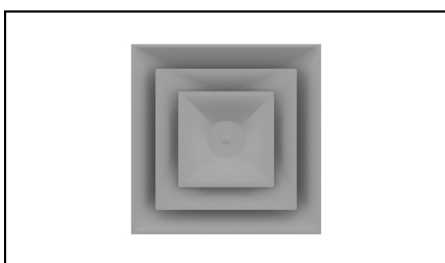


Titus Products List



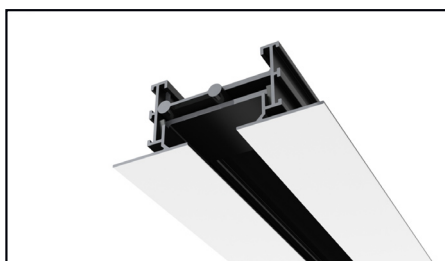
CT

Aluminum linear bar grille, $\frac{1}{8}$ " bars, $\frac{1}{4}$ " spacing, at 0, 15, and 30 degrees deflection.



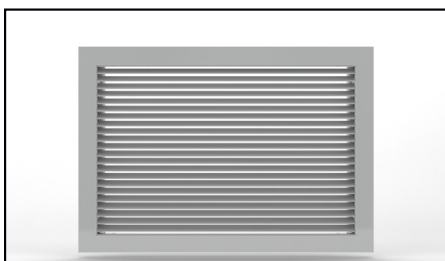
TMS

Steel, high-performance three cone diffuser



FlowBar

The FlowBar linear diffuser delivers higher airflow with lower noise levels.



355RL

Aluminum louvered return grille, available with $\frac{1}{2}$ " blade spacing, 35 degree deflection, and long blades