CS

Visteon Village

Van Buren Township, Michigan

Titus

Visteon Village

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Client - Visteon Corporation
Rep Office - Fontanesi and Kann Company
Architect - SmithGroup
LEED Certificaion - LEED Certified

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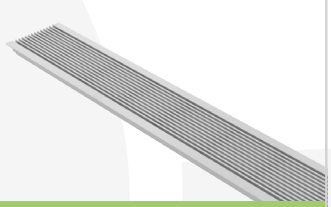
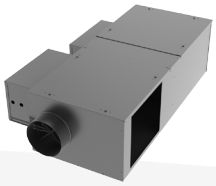
ABOUT THE PROJECT

The Visteon Corporation is a leading innovator in the automotive design industry and produces components, systems, and modules that appeal to drivers and passengers throughout the world. Their corporate headquarters is a unique collection of buildings designed to create a community-style work environment while promoting green building concepts.

They strongly believe in corporate responsibility with environmental management among their highest priorities. Visteon preserved the wetlands on the site and also conserves energy by utilizing extensive daylight harvesting. The Titus underfloor products used to provide the air distribution are the DLHK terminal unit, the CT-TAF-L linear bar grille, and the TAF-R underfloor diffuser in numerous locations along the perimeter of the building's interior to provide the necessary airflow for the load requirement.



CT-TAF-L



DLHK

TAF-R

THE TITUS SOLUTION

SmithGroup, a full-service architecture and engineering firm, had a ingenious idea for the underfloor application. George Karadis, PE, Vice-President and Director of Mechanical Engineering for SmithGroup, envisioned an integrated system for the building perimeter that did not utilize fan coil filter units, underfloor partitions or a myriad of control devices. The solution satisfies all perimeter heating, ventilating and air distribution requirements through one linear floor grille assembly.

Incorporated into the continuous CT linear bar grille frame are varying sets of segmental nuanced aperture plates, blank-offs and deflector wings that are mounted into heating, cooling or return plenums. The next stage of development involves actuation of a sliding aperture plate beneath a fixed one. This will modulate the open area through which the air jets pass. Variable cooling requirements will be met while maintaining a nearly constant velocity of air and plume heights. Titus engineers went through the process of taking their concept and turning into a viable product - The TAF-L Perimeter System.

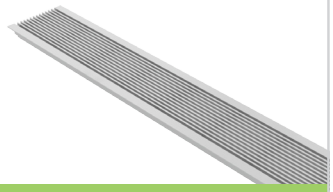
THE END RESULT

By arranging the floor grille over the aperture plates, it created room air induction, thus raising the temperature of the air jets and reducing the height of the vertical plume. The Visteon project design utilizes a floor pressure of .07"w.g. which discharges 225cfm of conditioned air in a 6-7' vertical plume at an angle of 5B. This mixes the air in the occupied zone without disturbing the stratified layer overhead.

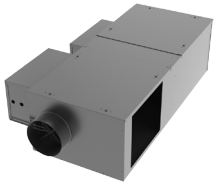
The TAF-L Perimeter System is designed to address the challenges of handling perimeter loads in a modular system.The CT-TAF-L linear bar diffuser, which mounts into the TAF-L's cooling, heating or return plenum, is designed to handle the high loads of the perimeter while maintaining the engineered plume height throughout its operating range.

P

PRODUCT LIST



CT-TAF-L



DLHK

TAF-R

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Titus
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