# **ECFanGrid SHOWCASE**

### Jean-Daigle Centre/Community Amphitheatre. Edmundston, NB

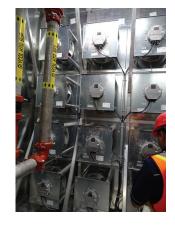


**Type:** New Installation

**Supply:** 4x6 Fan Grid (24 Fans in total) Return: 3x4 Fan Grid (12 Fans in total)









## **PROJECT DESCRIPTION**

DESIGN BUILD CONTRACTOR: **ZERO-C** (http://www.zero-c.com)

ZERO-C is a Design Build HVAC/R company located in Longueuil, QC.

The company was awarded the contract to design and install the ventilation and air conditioning system in a brand-new multi-use arena located in the city of Edmundson, New Brunswick. The new amphitheater is a 21 million dollar project and will have a total capacity of 2,400 seats for ice sports and 3,680 seats in the show configuration.

The project will be completed in November 2017.







Project 3D Visualization





Project in Progress



### **ROSENBERG FANS CANADA SCOPE OF SUPPLY**

ZERO-C contacted Rosenberg Fans Canada Ltd. in the Fall of 2016. The customer was looking for an efficient system not dependent on just one fan. It was also important to minimize the footprint of the new Air Handling Unit and maximize the available real estate. Rosenberg's ECFanGrid provides the perfect solution.





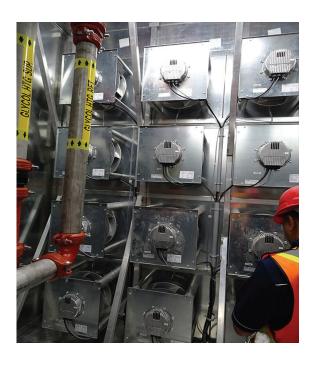
#### AHU-EDM-SUPPLY FAN

ECFanGrid 4x6 GKHM-400-CIB125.6FF IE (24 Fans in Total) Total Fan Grid Air Flow: 60,000 @ 6.0" SP

Voltage: 460V/60HZ / 3 ph with 600V Step Down Transformer

Total Power Consumption: 75.6Kw (~100HP)

Total Current Draw: 112.8 A



#### AHU-EDM-RETURN FAN

ECFanGrid 3x4 GKHM-450-CIB140.6IF IE (12 Fans in Total)

Total Fan Grid Air Flow: 60,000 @ 2.5" SP

Voltage: 460V/60HZ / 3 ph with 600V Step Down Transformer

Total Power Consumption: 34.44Kw (~47HP)

Total Current Draw: 50.4 A



All of the fans on both sides of the Air Handling Unit are tied together in a single interface that allows the grid to operate like a big single fan. The ECFanGrid Power and Control Wiring Cabinet is supplied by Rosenberg Canada. Each fan is individually protected in the cabinet. The Wiring Cabinet has a supplementary 24V power supply. It powers a local differential pressure controller which controls the speed of the ECFanGrid with a (0-10V) signal. The ECFanGrid's operating speed varies depending on the pressure differential measured by the system. Our control architecture varies fan speed to deliver constant air flow even if one of the fans fails.







Internal View of the CSA, UL508A Cabinet





Standard Differential Pressure Controller with Pneumatic Signals





AHU external view with the ECFanGrid SF section.





AHU General External View

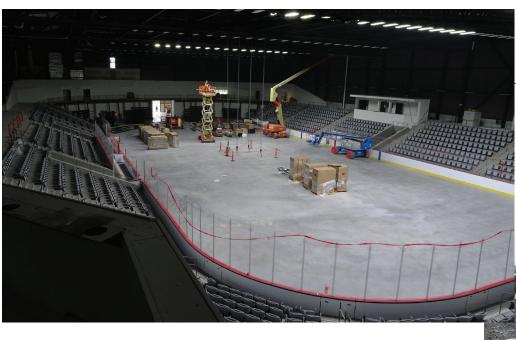


Inlet Cones with Piezometer rings to send pneumatic signal to the DPT controller.



General View of ducting in EDM Arena





Project Advance as of September 2017





Project 3D Visualization





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