

Abbott Point-of-Care

Walk in Oven

Corkstown Road, Ottawa.

Project Statistics

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| Area description: | Walk-in Oven |
| Area size | 250 sq. ft. |
| Project budget | \$200,000 |

Responsibilities

Complete program management and design of a close temperature controlled walk-in oven.

Services Provided:

- ▣ *Prime Consultant*
- ▣ *Project management*
- ▣ *Architectural design*
- ▣ *Operating cost analysis & heat recovery*
- ▣ *Mechanical design*
- ▣ *Electrical design*
- ▣ *Project commissioning*

Project Objectives

Provide a walk in oven for the preparation of cartridge components for the client's cartridge assembly process.

Provide a secondary heating, circulation system to give redundancy in the system.

Adhere to strict temperature, airflow velocity and fresh air specifications that will pass Abbott strict validation requirements.

Challenges

To build a walk-in oven in an existing facility with the knowledge that two more ovens would eventually be created in the same area, having very limited ceiling space.

To design an HVAC system capable of maintaining 60°C +/-5°C year-round with complete redundancy. A loss of temperature in the oven would affect critical product inventory.

To recover as much of the heat from the exhaust stream as possible to make this system as efficient as possible.



Solutions and Successes

- ▣ Used close tolerance design to ensure proper fit in restricted space of ceiling.
- ▣ Maintained required specifications from original walk-in oven at the client's previous location.
- ▣ Utilized fluid based heat recovery loop to recapture the heat from the exhaust air and transfer it to the fresh air supply.
- ▣ Successfully passed all stringent quality assurance and validation requirements.