

Cooling Upgrade Package for Downflow Booths

To ensure a comfortable environment for operators when dispensing in a recirculatory Downflow Booth, have you considered a cooling upgrade package.

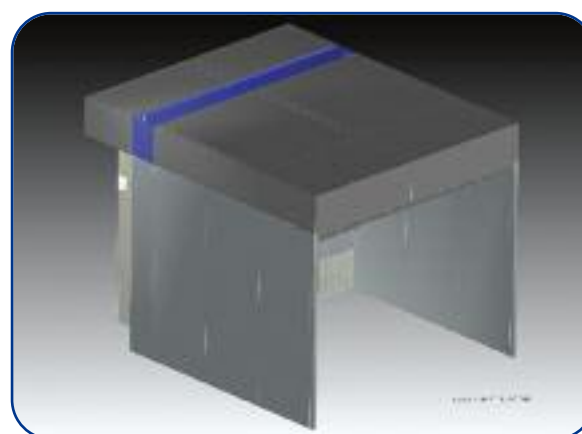
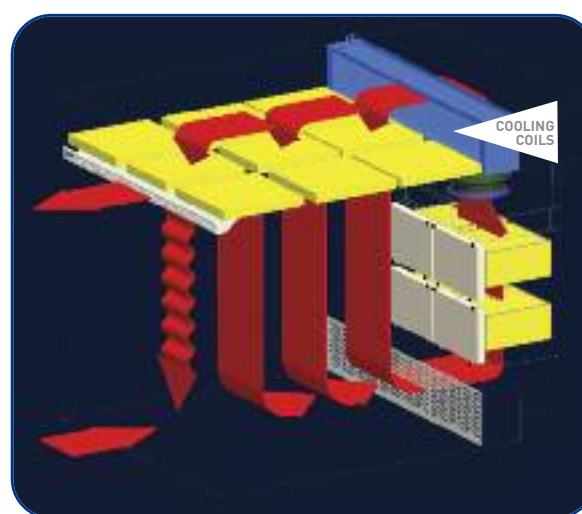
Extract Technology's Aftermarket department offers a standard upgrade package complete with control system, which can be installed into existing Downflow Booths.

With this package, the air temperature is regulated to within $\pm 2^{\circ}\text{C}$ ($\pm 5^{\circ}\text{F}$) of your preferred set point, with the outcome that the operator benefits from a pleasant working environment and that products are handled within a stable ambient temperature. If required, the air temperature can be regulated to $\pm 5^{\circ}\text{C}$ of the set point should any special dispensing conditions be necessary.

Select from either a chilled water or sealed refrigeration system which can be easily adapted into any installation.

The Extract package generally includes the following:

- A site survey to discuss which cooling option would be most suitable
- Mechanical and electrical design to integrate the cooling system into the existing installation
- Project management
- Installation from Extract's fully trained engineers, scheduled into your production timelines.
- Revalidation of the equipment together with Quality Approved documentation.



The Chilled Water Cooling Coils

The majority of airflow within the Downflow booth is recirculatory. From which a sensible heat gain is generated from operators, motor, fan, lights and any other heat generating source within the air stream. To offset this heat gain Extract Technology can offer a cooling coil that is easily fitted into the existing return air ductwork.

Control System

The cooling coil control system is designed to maintain a temperature of $21^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ($70^{\circ}\text{F} \pm 5^{\circ}\text{F}$) within the Booth. This system comprises of a Siemens, temperature sensor mounted in the return airway. The sensor provides feedback to the Siemens controller mounted within the main control panel. The flow of chilled water being controlled via a 3-port modulating valve, which is activated by the Booth run signal.

Chilled Water Package

Includes the following :-

- Chilled Water Cooling Coil galvanised steel case boxed and sealed, copper tubes with aluminium fins with plastic mist eliminator and galvanised steel integral drip tray.
- Electrical control panel with temperature controller.
- Remotely fitted Temperature Sensor.
- Pressure switch to monitor when booth is running and control the running cycle of the cooling circuit.
- Remotely fitted 3 way by-pass control valve.
- In-line chilled water flow setter, for the correct volume flow rate of the cooling coil.
- Installation
- Commissioning
- Validation

Refrigeration Circuit

For specific installations where there is no access to chilled water supply, Extract Technology can provide a sealed refrigeration system.

Hazardous Area Installations

Installations can also be made in intrinsically safe Zones using the remote parts and barriers in the safe area control panel.

