



# Venturi Valve Upgrade Kit

## Negative Pressure Clinical Research Vivarium



The Venturi Valve Upgrade Kit is an ideal solution for renovating complex labs because the original valve structure can remain in the duct work.

### Biocontainment Concerns

Vivariums are complex critical environments that house research animals and require precise HVAC controls to maintain proper room pressure, prevent contamination, control odors, and preserve research integrity. Due to the strict lab requirements, renovations can be very challenging if not planned properly.

A clinical research vivarium located in New York required updates to their HVAC infrastructure to modernize their legacy control system and reduce operating costs.

### Process

After completing a site survey and determining that the valve bodies were still in good condition, our team mapped out an upgrade strategy in overnight shifts so as not to disturb researchers and to ensure the vivarium was kept in ideal conditions at all times.

The team removed ceiling panels and detached the pneumatic controls of the legacy brand, which previously required multiple gateways and replaced them with our Upgrade Kit components. Valve types included ganged valves, exhaust valves for fume hoods, and general exhaust valves which were all hardwired for reliability due to the sensitive nature of the lab.

### Results

Gateways and pneumatic controls were eliminated, and fast-acting digital controls were added. The lab HVAC system was then able to tie into the main building control system, providing a clear view of vital information. The upgrade also eliminates costly 3rd party maintenance visits. From site survey to final turnover, the project only took four months to complete.

