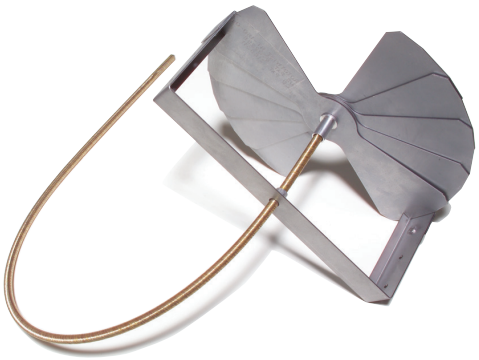
West Block Parliament Mechanical Spotlight

National Historic Structure Renovation Integrates Modern Airflow Systems.



Canada's $863 million West Block Parliament rehabilitation project utilizes unique remotely operated airflow balancing dampers developed by innovative North American manufacturer Metropolitan Air Technology and provided by HTS Engineering.

Preservation and Modernization

West Block Parliament opened in 1866 and is part of Parliament Hill, which was designated a National Historic Site in 1987. Top priority was given to preserving the gothic revival structures character while modernizing all of it's systems, including mechanicals.

Metropolitan Air Technology's (M.A.T.), remotely operated balancing dampers were chosen as airflow balancing solutions to meet the high design standards required for the project.

The dampers eliminate the need to break into finished walls for adjustment, use of hazardous scaffolding to reach areas with limited access, or the need for unsightly access panels.

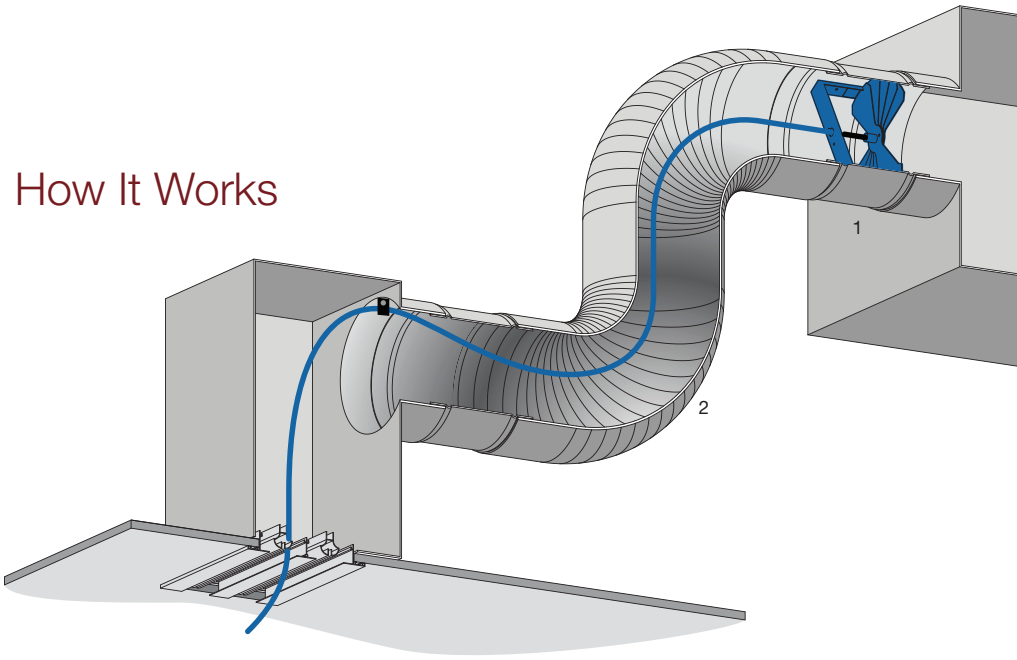
The product line includes manual and battery powered damper systems using cable or wiring that is routed to designated ceiling or wall locations. The manually operated dampers used for the West Block Parliament project are controlled by rotary actuation cables that are routed inside the airstream and terminated behind the air outlet.

MAT®
Metropolitan Air Technology

"Preserving historical structures while modernizing systems presents many challenges. Our remotely operated balancing dampers not only provide an enhanced solution for airflow control – they also eliminate unsightly access panels. They solve design problems."

Mike Blaha, Metropolitan Air Technology

How It Works



(1) Damper is easily installed in new or existing air duct.

(2) Cable is routed through duct to air outlet

(3) Cable is exposed at air outlet for damper adjustment with standard wrench.

(4) Cable is hidden within duct after adjustment.

Damper adjustment is performed at the face of the diffuser or grille (see diagram). M.A.T's battery powered dampers can also be used to provide local access for damper adjustment, with surface termination points as small as 25mm in diameter. Additionally, wiring can be quickly and easily routed to remote locations such as mechanical closets, thereby avoiding visible termination points in common areas altogether.

Efficient Airflow and Balancing

Historical structure rehabilitation is often more challenging because mechanical systems were retrofitted over time. Since design integrity is critical, systems are often installed with poor access for balancing. When damper access is restricted balancing is often avoided and heating and cooling efficiencies are lost.

With remotely operated dampers, access and adjustments are easy and time efficient. A properly balanced HVAC system provides the most efficient heating and cooling throughout, and as important, it improves occupant comfort.

What to Know

Remotely Operated Balancing Dampers

Product Line Benefits

- Preserves ceiling design aesthetics
- Eliminates the need for access panels
- Eliminates the need for hazardous scaffolding to reach ducts with limited access
- Balancing is performed without breaking into finished walls or ceilings
- Saves time and labor on balancing and rebalancing

Product Line Features

- UL certified
- Made in the USA

Product Line Options

- Round, rectangular and oval
- Many sizes available
- Operation:
  Roto-Twist® cable-operated
  Electro-Balance® battery-powered
- Materials: Galvanized steel, aluminum and stainless steel

About Metropolitan Air Technology

M.A.T. is a US manufacturer located in Chicago, IL. They have been in business for over 20 years. Their products are installed in prominent buildings throughout the world, including Field Museum in Chicago, Harvard University, John Hopkins Hospital, Tiffany & Co, Walt Disney World and Shanghai Disney, Trump Tower of Chicago, Hamad International Airport, Msheireb Downtown Doha, Canada's West Block Parliament, Art Gallery of Ontario, and Parq Vancouver.