Progressive Product Design

Simple Damper Serves Complex Design

Remotely operated balancing dampers allow airflow balancing where access is limited, like the impressive ***Shanghai Disneyland.***

Considered one of the worlds top brands, Disney's theme park success resides in it's ability to manage every detail to ensure the ultimate customer experience. Their product choice for building airflow balancing throughout Shanghai Disneyland was no exception.

Metropolitan Air Technology's (M.A.T.) remotely operated balancing dampers, represented by Shanghai Ark Enterprises, were chosen to ensure optimal customer comfort by allowing airflow balancing adjustments to inaccessible dampers within the theme park's complex structures.

Airflow Balancing Solution for Inaccessible Systems

The dampers are simple in design, but deliver great value where architectural design is paramount and accessibility is often limited. 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 manually operated balancing dampers, used in the Shanghai Disneyland structures, are controlled by rotary actuation cables that were routed outside of the airstream. The dampers are adjusted at ceiling surface termination points as small as 25mm in diameter. The ceiling terminations are prepared for painting or finish to match interior design requirements (see diagram on back).

Ensuring Visitor Comfort

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 visitor comfort.

"Access to balancing dampers was extremely limited because of the ornate structures throughout the park. M.A.T.'s remotely operated balancing dampers allowed us complete access for balancing after construction, without disturbing architectural detail. It was clearly the solution for Disney. The dampers have performed flawlessly."

Yugen Zhao, Shanghai Ark Enterprise Ltd

MAT®
Metropolitan Air Technology

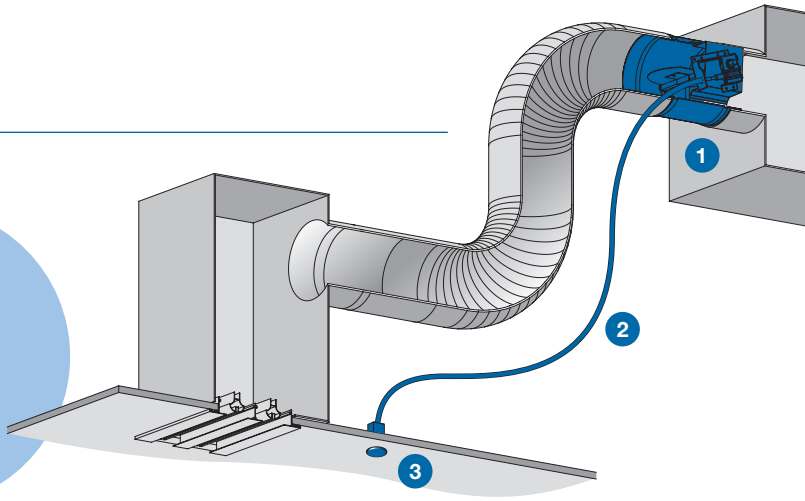
Plenty of Options to Offer

M.A.T. offers manual and battery powered airflow dampers, with options for operating inside or outside of the airstream. Inside the airstream applications require no access panels or wall or ceiling termination points, as damper adjustment is made by cable or wire concealed within the duct. Battery powered dampers designed for adjustment outside of the airstream allow easy routing of wiring to central control rooms, avoiding visible termination points in common areas altogether. M.A.T. also offers products that allow for individual space air volume control that can be retrofitted to existing forced air systems.

High Demand for Upscale Structures

In addition to Shanghai, M.A.T.'s dampers have also been installed in Disney World in Orlando, Florida, as well as many other well-known buildings throughout the world, including Field Museum in Chicago, Harvard University, John Hopkins Hospital, Qatar Faculty of Islamic Studies, Tiffany & Co boutiques, the Art Gallery of Ontario, Trump Tower of Chicago, and the Hamad International Airport.

How It Works



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

2 Cable is routed through to surface termination point

3 Damper can be adjusted with standard wrench.

What to Know

Remotely Operated Balancing Dampers

Product Line Benefits

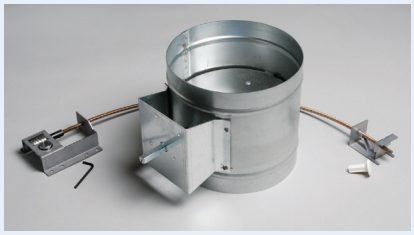
- Preserves ceiling design aesthetics
- Eliminates the need for access panels
- Eliminates the need for hazardous scaffolding to reach ducts with limited access
- Balancing is performed without breaking into finished walls or ceilings
- Saves time and labor on balancing and rebalancing

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



M.A.T.'s Universal Damper Drive System consists of the RT-WGA universal damper drive, a rotary actuation cable, and a finished surface cable termination fixture or ceiling cup. Damper adjustment is accomplished via rotary cable actuation using a standard 1/4" hex nut driver or MAT square nut driver.

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.