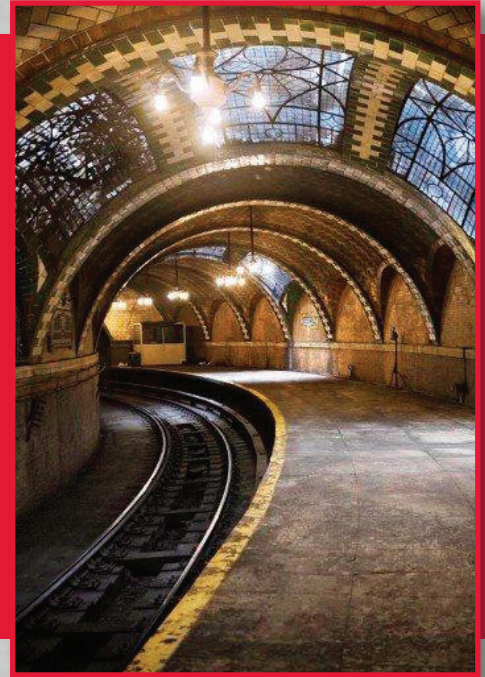




american warming and ventilating



Tunnel Ventilation

Smoke Control

Fire Dampers

clientlist

Introduction

For over 110 years, American Warming and Ventilating (AWV) has been a supplier of ventilation products to industry in general and almost 40 years to the Transit & Tunnel Industries. Our dedication to quality products and customer satisfaction has enabled AWW to become a leader in the design and manufacture of industrial dampers.

Experience

AWV has provided dampers for over 80 different transit and tunnel applications, both domestic and international, and our Client List continues to grow. Applications include ventilation, smoke control and fire control; all are designed to meet the client's customized requirements.

Qualifications

AWV maintains an in-house Quality Assurance program per 10 CFR 50, Appendix B, in addition to ASME NQA-1 qualification, and ANSI N45.2 for Nuclear projects. Those same high quality assurance standards are applied to our Transit and Tunnel projects.

Testing

American Warming and Ventilating maintains our own AMCA accredited lab to test dampers for the Tunnel Ventilation Industry, in accordance with AMCA Standard 500. Tests include: deflection, cycle testing, pressure decay, reverse bending fatigue, thermal shock and elevated temperatures to 500° F.

1979

Eisenhower Tunnel
Colorado DOT / Denver, CO
vehicular

1980

Baltimore Regional Rapid Transit
BRRT / Baltimore, MD
mass transit

1988

Mass. Bay Transit Authority
MBTA / Boston, MA
mass transit
Z-32272 8th Avenue
NYC Transit Authority / New York City, NY
mass transit

1989

Lief Erickson Tunnel
Minnesota DOT / St. Paul, MN
vehicular

1990

Memorial Tunnel
West Virginia DOT / Charleston, WV
vehicular

Mall Tunnel
District DOT / Washington, DC
vehicular

Downtown Seattle Transit
Seattle DOT / Seattle, WA
mass transit

I-10 Tunnel
Arizona DOT / Phoenix, AZ
vehicular

1991

**Washington State DOT –
First Hill & Mt. Baker Ridge**
Washington DOT / Seattle, WA
vehicular

1992

Hanging Lake Tunnel
Colorado DOT / Denver, CO
vehicular

San Francisco Municipal Metro
San Francisco MTA / San Francisco, CA
vehicular

Denver International Airport
AGTS Tunnel / Denver, CO
baggage

1993

Trans-Koolau Tunnel (H-3 Interstate)
Hawaii DOT / Honolulu, HI
vehicular

Panchiao Line Tunnel
Taipei RTS / Taipei, Taiwan
mass transit

1994

International Airport Tunnel (Paradise Road)
McCarran International Airport
Las Vegas, NV
vehicular

Westside Corridor Project
Portland Office of Transportation
Portland, OR
vehicular

1995

LA County – Red Line
LA County Transportation Comm.
Los Angeles, CA
mass transit

1996

Jubilee Line Extension
London Underground / London, UK
mass transit

E-31262 63rd Street
NYC Transit Authority / New York City, NY
mass transit

1997

Blackwall Tunnel
Transport for London / London, UK
vehicular

1998

Lecco Underground
ANAS Italy (road network) / Italy
vehicular

Tuas Tunnel
Singapore Government / Singapore
vehicular

Monte Bianco Tunnel
Societa del Monte Bianco S.p.A.
Monte Bianco, Italy
vehicular

E-31255 54th Street & Vernon Blvd
NYC Transit Authority / New York City, NY
mass transit

Otira Tunnel
New Zealand Railways / New Zealand
railway

1999

BART (Bay Area Rapid Transit)
BART / San Francisco, CA
mass transit

Graham Farmer Freeway
Western Australian Government
Perth, Australia
vehicular

CHH to CEN Line
Hong Kong MTRC / Hong Kong
mass transit

CHH to KOT Line
Hong Kong MTRC / Hong Kong
mass transit

E-31269 60th Street Tunnel
NYC Transit Authority / New York City, NY
mass transit

E-31265 Clark Street & 14th Street Tunnels
NYC Transit Authority / New York City, NY
mass transit

2000

Sea-Tac Airport
Port of Seattle / Seattle, WA
mass transit

The BIG DIG Central Artery Project
Mass. Turnpike Authority / Boston, MA
vehicular

WTS, LOF, KOT, SKM Stations
Hong Kong MTRC / Hong Kong
mass transit

Tunnel Ventilation, Smoke Control & Fire Dampers

Tren Urbano

Puerto Rico DOT / San Juan, Puerto Rico
mass transit

MARTA

Metropolitan Atlanta RTA / Atlanta, GA
mass transit

C-20201 63rd Street to Queens Blvd

NYC Transit Authority / New York City, NY
mass transit

E 31270 143rd Street

NYC Transit Authority / New York City, NY
mass transit

2001

New Westminster Rail Tunnel

BC Transit / Vancouver, BC
railway

Sumner-Callahan Tunnel

Mass. Turnpike Authority / Boston, MA
vehicular

E-31271 Whitehall Street

NYC Transit Authority / New York City, NY
mass transit

2002

Manila LRT 2 Megatren

Manila MRT / Manila, Philippines
mass transit

South Piers Project

MBTA / Boston, MA
vehicular

Mission Valley East LRT Tunnel

San Diego MTDB / San Diego, CA
mass transit

2003

E-31272 Elizabeth Street & East Houston Street

NYC Transit Authority / New York City, NY
mass transit

West Rail – Tinshui Wai Station

Hong Kong MTRC / Hong Kong
mass transit

Passante Ferroviario

Milan Metro / Milan, Italy
mass transit

2004

CTRL Channel Tunnel (8 stations)

UK Dept for Transport / UK
mass transit

Hiawatha Corridor LRT

Minneapolis/St. Paul Metro Transit
Minneapolis, MN
mass transit

Vishwa Vidyalaya, Old Secretariat, Kashmere Gate, CMI Lines

DMRC / Delhi, India
mass transit

2005

Hudson-Bergen Light Rail (Weehawken/Bergen Line)

NY/NJ Port Authority / Newark, NJ
mass transit

Heathrow T5

BAA Heathrow / London, UK
mass transit

THSRC

Taiwan High Speed Rail / Taiwan
mass transit

BART (Bay Area Rapid Transit)

BART / San Francisco, CA
mass transit

Tunnel San Jeronimo (Siemens/ Zitron)

Republic of Colombia / Colombia
vehicular

2006

Caracas Metro Line 3.2

CAMC / Caracas, Venezuela
mass transit

Caracas Metro Line 4.0

CAMC / Caracas, Venezuela
mass transit

Rome Line A

Rome Metro / Rome, Italy
mass transit

Seattle Central Link

Sound Transit / Seattle, WA
mass transit

Mandhi House Station – DMRC

DMRC / Delhi, India
mass transit

2007

Beacon Hill

Sound Transit / Seattle, WA
mass transit

Dulles Airport

Metro Washington Airports Authority
Washington, DC
mass transit

JOR,ADM,CEN,PRE,QUB,SHW, SWT Stations

Hong Kong MTRC / Hong Kong
mass transit

2008

Canada Line – RAV

InTransit BC Limited / Vancouver, Canada
mass transit

CK378D

Taipei RTS / Taipei, Taiwan
mass transit

Long Island Central

AMTRAK / New York City, NY
mass transit

E-31278 Park Avenue

NYC Transit Authority / New York City, NY
mass transit

Hampton Roads

Virginia DOT / Hampton, VA
vehicular

TAV BO-FL

Italian Railway Network / Bologna, Italy
railway

CK378A

Taipei RTS / Taipei, Taiwan
mass transit

2010

Rome Underground Line B1

Italian Railway Network / Rome, Italy
mass transit

Rome Underground Termini Station

Italian Railway Network / Rome, Italy
mass transit

Riverside Building J2

AMTRAK / New York City, NY
mass transit

2011

HUB

NYC Transit Authority / New York City, NY
mass transit

2012

World Trade Center

NYC Transit Authority / New York City, NY
mass transit

Spadina Line Extension

Toronto Transit / Toronto, Canada
mass transit

2013

34th St. 7th Line Extension

NYC Transit Authority / New York City, NY
mass transit

Lawrence Station

Toronto Transit / Toronto, Canada
mass transit

Union Station

Toronto Transit / Toronto, Canada
mass transit

Graham Farmer Freeway

Western Australian Government
Perth, Australia
vehicular

Port of Miami

Florida Department of Transportation
Miami, Florida
vehicular

Industrial Dampers for Tunnel Ventilation Projects

Materials of Construction

- Extruded Aluminum
- Carbon Steel
- Galvanized Steel
- 304 Stainless Steel
- 316 Stainless Steel
- 317 Stainless Steel

OPTIONS

- 304 or 316 Stainless Jamb Seals
- Silicone Blade Seals
- OIB or Stainless Sleeve Bearings

Methods of Control

- Electric 2 Position or Modulating
- Pneumatic 2 Position
- Electro-hydraulic 2 Position
- 304 Stainless Steel
- 316 Stainless Steel
- 317 Stainless Steel

PERFORMANCE

- BS476 Part 20 at Warrington Fire Research Center
- NFPA 130
- UL 555
- 300° F for 1 hour
- 600° F for 1 hour
- 250° F for 4 hour
- 400° F for 1 hour

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A Mestek Company