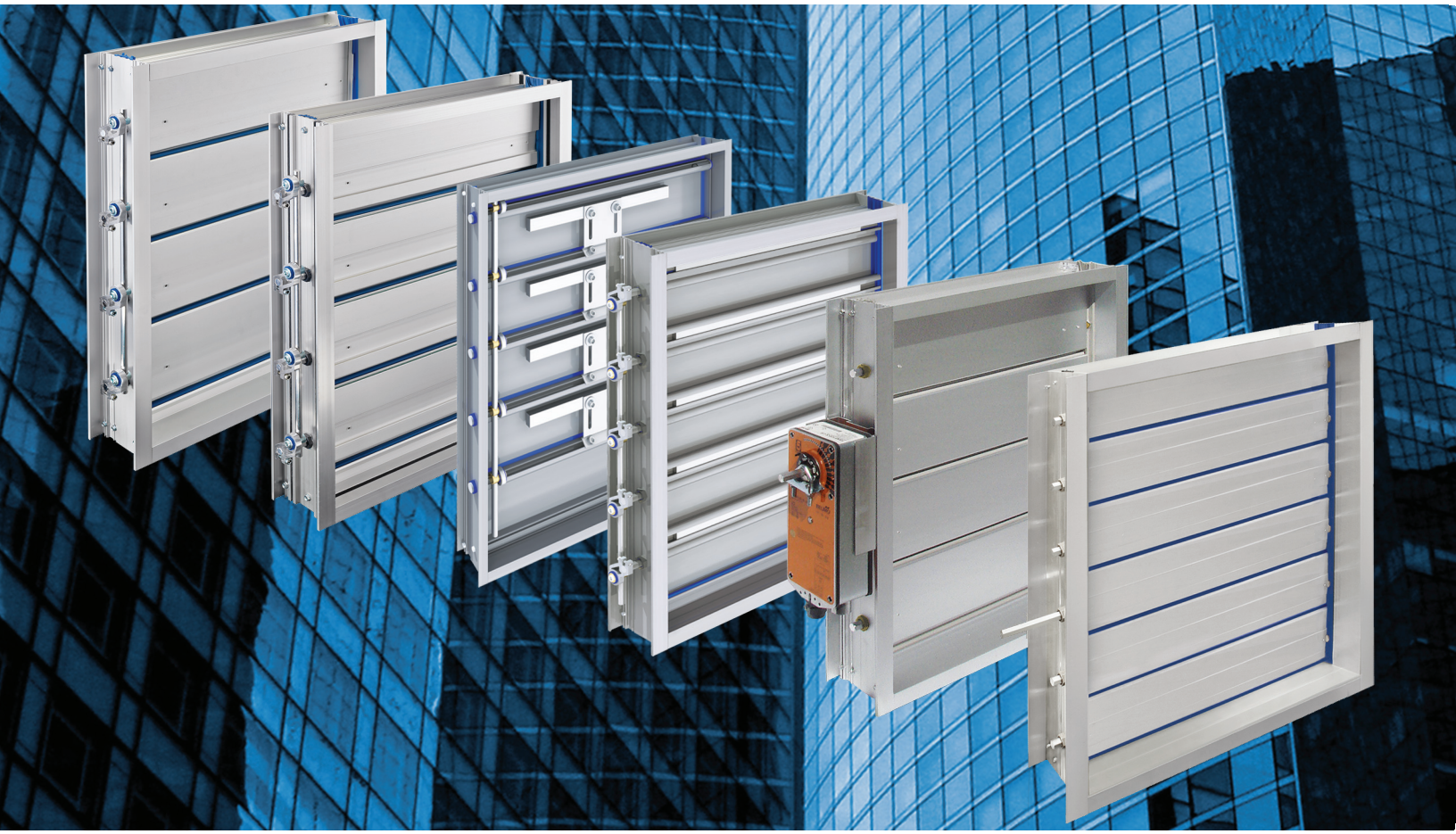
INNOVATIVE DAMPER PRODUCTS

Air-Foil Control Dampers | Thermally Insulated Dampers
Medium- & Heavy-Duty Backdraft Dampers | Smoke Dampers
Heavy-duty Control Dampers | Factory-installed actuators

TAMCO



EXPERIENCE TRUE EXCELLENCE IN SERVICE, QUALITY,
AND MAINTENANCE-FREE PERFORMANCE.

Maintenance-Free Performance

ALL TAMCO DAMPER COMPONENTS ARE DESIGNED TO PROVIDE DURABLE AND COMPLETELY MAINTENANCE-FREE PERFORMANCE.

TAMCO dampers are constructed with all-aluminum extrusions. This contributes to a prolonged and rust-free operational life. Slip-proof linkage components keep blades aligned as per factory adjustment. The hexagon design feature of the linkage and pivot elements allows for flat-on-flat press fits, eliminating play and wear. TAMCO's dual bearing system is self-sealing, self-lubricating, and non-absorbent, resulting in dependable, consistent maintenance-free performance.

TAMCO SERIES 1000

Air-Foil Control Damper

The TAMCO Series 1000 is an all-aluminum damper, supplied with silicone frame seals and EPDM blade seals as standard components. Silicone and EPDM ensure sealing longevity. This is due to the materials' outstanding dynamic fatigue resistance and excellent resistance to weathering, heat, and compression set. Standard blade depth is 6" *(152 mm)*.

OPTIONS:

- ET – Elevated Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

PROFILES:

- SP – Standard Profile
- NP – Narrow Profile
- WP – Wide Profile

AIR LEAKAGE:

Leakage Class 1A at 1" w.g. *(0.25 kPa)* static pressure differential. Standard air leakage data is certified under the AMCA Certified Ratings Program.

APPLICATIONS:

- Where maintenance is an issue
- Ideal and reasonably priced choice for replacing worn out common dampers
- Modulating or 2-position control
- Pressure control
- Temperatures up to 212 °F *(100 °C)* or 300 °F *(149 °C)* with ET Option
- Volume control, commercial, & VAV
- Directional flow control
- Isolation, low-leakage control
- Fan inlet, return air, or outside air
- Balancing
- Generator sets
- Air handlers
- Mixing
- Economizers
- Classroom unit ventilators
- Fan coil units

TAMCO LEAKAGE RATING

Damper Width inches *(mm)*	1 in. w.g. *0.25 kPa*	4 in. w.g. *1.0 kPa*	6 in. w.g. *1.5 kPa*	8 in. w.g. *2.0 kPa*
0.0 to 12.0 *(0 to 305)*	**1A**	**1**	**1**	**1**
12.1 to 36.0 *(306 to 915)*	**1A**	**1**	**1**	**1**
36.1 to 48.0 *(916 to 1220)*	**1A**	**1**	**n/a**	**n/a**
48.1 to 60.0 *(1221 to 1524)*	**1A**	**1**	**n/a**	**n/a**

Leakage testing was conducted in accordance with ANSI/AMCA Standard 500-D. Data are based on a torque of 60 in-lbs *(73.0 N-m/m²)* for a 12" x 48" damper and 84 in-lbs *(102.2 N-m/m²)* for a 48" x 36" damper. ANSI/AMCA Standard 500-D states that air leakage is based on operation between 32 °F *(0°C)* and 120 °F *(49 °C)*.

The following sizes of TAMCO Series 1000 dampers with SP – Standard Profile were tested:
12" x 48" *(305 mm x 1220 mm)*, 48" x 36" *(1220 mm x 915 mm)*, 60" x 36" *(1524 mm x 915 mm)*.

TAMCO DAMPERS DELIVER LONG-LASTING CONSISTENT PERFORMANCE.

Even after hitting a major milestone at one million cycles, TAMCO continues to cycle test dampers in order to measure the long-term effects on overall damper operation, and on leakage rates. TAMCO dampers have maintained consistent leakage rates throughout the cycle test (less than 3 CFM/ft² at 1" w.g.). Consistent low leakage rates translate into energy savings over the entire service life of the damper. Equally impressive, TAMCO's blade and side seals remained entirely intact. These results proved the resilience of TAMCO's silicone side seals and the reliably of TAMCO's linkage components.

Consistent Performance

TAMCO SERIES 1500

Enhanced Air-Foil Control Damper

The TAMCO Series 1500 is an ultra-low leakage control damper, designed with caps installed on the hollow ends of the airfoil blades. The caps reduce air leakage between the damper blades and the side frames. Silicone seals are provided as standard, to ensure a tight seal in either cold or warm climates. Standard blade depth is 6" *(152 mm)*.

OPTIONS:

- ET - Elevated Temperature Option
- MR - Moisture Resistance Option
- SW - Salt Water Resistance Option

PROFILES:

- SP - Standard Profile
- WP - Wide Profile

AIR LEAKAGE:

Leakage Class 1A at 1" w.g. *(0.25 kPa)* static pressure differential. Standard air leakage data is certified under the AMCA Certified Ratings Program.

APPLICATIONS:

- Where low air leakage rate is critical and infiltration is a concern
- Ideal choice for outside wall applications in warmer climates, where an energy efficient, non-insulated damper is required
- Pressure control
- Temperatures up to 212 °F *(100 °C)* or 300 °F *(149 °C)* with ET Option
- Volume control, commercial, & VAV
- Directional flow control
- Isolation, ultra low-leakage control
- Fan inlet, return air, or outside air
- Balancing
- Generator sets
- Air handlers
- Mixing
- Economizers
- Classroom unit ventilators
- Fan coil units

TAMCO LEAKAGE RATING

Damper Width inches *(mm)*	1 in. w.g. *0.25 kPa*	4 in. w.g. *1.0 kPa*	6 in. w.g. *1.5 kPa*	8 in. w.g. *2.0 kPa*
0.0 to 12.0 *(0 to 305)*	**1A**	**1**	**1**	**1**
12.1 to 36.0 *(306 to 915)*	**1A**	**1**	**1**	**1**
36.1 to 48.0 *(916 to 1220)*	**1A**	**1**	**n/a**	**n/a**
48.1 to 60.0 *(1221 to 1524)*	**1A**	**1**	**n/a**	**n/a**

Leakage testing was conducted in accordance with ANSI/AMCA Standard 500-D. Holding torque applied was 5.2 in-lb/ft² (6.3 N-m/m²). ANSI/AMCA Standard 500-D states that air leakage is based on operation between 32 °F (0 °C) and 120 °F (49 °C). All tests were performed with 120 in-lb (145.9 N-m/m²) of torque.

The following sizes of TAMCO Series 1500 dampers with SP – Standard Profile were tested:
12" x 48" *(305 mm x 1220 mm)*, 48" x 36" *(1220 mm x 915 mm)*, 60" x 36" (1524 mm x 915 mm).

Thermally Broken Blades

ADVANCED INSULATING PERFORMANCE & THERMAL BREAK DESIGN

TAMCO's Thermally Insulated Blade combines an aluminum shell, polyurethane foam and three thermal breaks that result in true insulating performance along the entire length of each blade, preventing heat loss and maximizing energy efficiency.

TAMCO SERIES 9000

Thermally Insulated
Air-Foil Control Damper

TAMCO's thermally insulated blades are constructed using an aluminum shell that is injected with polyurethane foam. The optimum placement of three thermal breaks along the blades isolates the warm and cold sides of the damper.

The non-metallic blade and side seals minimize thermal bridging across blade surfaces. These design features combine to control the forces of conduction, convection, and infiltration, thus ensuring blade insulating effectiveness. Standard blade depth is 6" *(152 mm)*.

OPTIONS:

- SC – Severe Cold Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

PROFILES:

- SP – Standard Profile
- NP – Narrow Profile
- WP – Wide Profile

AIR LEAKAGE:

Leakage Class 1A at 1" w.g. *(0.25 kPa)* static pressure differential. Standard air leakage data is certified under the AMCA Certified Ratings Program.

APPLICATIONS:

- If fan coil freeze-up is a concern
- If the damper is closed approximately 50 % of the time
- For air intake and exhaust
- Where low leakage, maintenance-free dampers are required for ducted or non-ducted outside walls, or plenums
- Modulating or 2 position control
- Pressure control
- Temperatures down to -40 °F *(-40 °C)*
- Temperatures up to 212 °F *(100 °C)*
- Temperature volume control
- Insulated isolation low leakage control
- Generator sets
- Air handlers
- Classroom unit ventilators

TAMCO LEAKAGE RATING

Damper Width inches *(mm)*	1 in. w.g. *0.25 kPa*	4 in. w.g. *1.0 kPa*
0.0 to 12.0 *(0 to 305)*	**1A**	**1**
12.1 to 36.0 *(306 to 915)*	**1A**	**1**
36.1 to 48.0 *(916 to 1220)*	**1A**	**1**
48.1 to 60.0 *(1221 to 1524)*	**1A**	**1**

Leakage Rating for Series 9000 dampers with SC or SW Options is identical to that of Series 9000 BF dampers. *(See page 5.)*

Leakage testing was conducted in accordance with ANSI/AMCA Standard 500-D, Figure 5.4. Data are based on a torque of 10.8 in-lb/ft² *(13.1 N-m/m²)* and a minimum of 70 in-lb *(7.9 N-m)* applied to close and seat the opposed blade damper during the test. Air leakage is based on operation between 32 °F *(0 °C)* and 120 °F *(49 °C)*.

The following sizes of TAMCO Series 9000 dampers with no Option or MR Option, and SP – Standard Profile were tested:
12" x 48" *(305 mm x 1220 mm)*, 36" x 36" *(915 mm x 915 mm)*, 48" x 36" *(1220 mm x 915 mm)*, 60" x 36" *(1524 mm x 915 mm)*.

ENHANCED PROTECTION AGAINST CONDENSATION AND FREEZE-UP

TAMCO's Thermally Broken Frame Dampers, along with Flanged to Duct installation, are all that is required to achieve additional thermal protection, particularly for ducted exhaust, non-ducted intake and high humidity applications.

Thermally Broken Frames

TAMCO SERIES 9000 BF

Thermally Insulated
Thermally Broken Frame Damper

These aluminum, insulated dampers, installed as Flanged to Duct, create a true thermal barrier between outside air temperature and desired interior temperature. The thermally broken frame, coupled with thermally insulated blades, reduce or eliminate condensation and freeze-up. Energy savings are obtained from the resulting thermal efficiency and low air leakage rates. Standard blade depth is 6" *(152 mm)*.

OPTIONS:

- ECT – Extreme Cold Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

PROFILES:

- SP – Standard Profile
- NP – Narrow Profile

TAMCO RECOMMENDS

that Series 9000 BF dampers not be "Installed in Duct", as duct work creates a thermal bridge.

AIR LEAKAGE:

Leakage Class 1A at 1" w.g. *(0.25 kPa)* static pressure differential. Standard air leakage data is certified under the AMCA Certified Ratings Program.

APPLICATIONS:

- In conditions of high relative humidity, where condensation and freeze-up are a concern
- When there are extreme temperature differentials
- If the damper is closed approximately 80% of the time
- For air intake and exhaust
- Where low leakage, maintenance-free dampers are required for ducted or non-ducted outside walls, or plenums
- Modulating or 2 position control
- Pressure control
- Temperatures down to -40 °F *(-40 °C)*
- With ECT Option: Temperatures down to -100 °F *(-73 °C)*
- Temperatures up to 212 °F *(100 °C)*
- Temperature volume control
- Insulated isolation low leakage control
- Generator sets
- Air handlers
- Directional flow control
- Fan inlet
- Classroom unit ventilators

TAMCO LEAKAGE RATING

Damper Width inches *(mm)*	1 in. w.g. *0.25 kPa*	4 in. w.g. *1.0 kPa*	6 in. w.g. *1.5 kPa*	8 in. w.g. *2.0 kPa*
0.0 to 12.0 *(0 to 305)*	**1A**	**1**	**1**	**1**
12.1 to 36.0 *(306 to 915)*	**1A**	**1**	**1**	**1**
36.1 to 48.0 *(916 to 1220)*	**1A**	**1**	**1**	**1**
48.1 to 60.0 *(1221 to 1524)*	**1A**	**1**	**n/a**	**n/a**

Leakage testing was conducted in accordance with ANSI/AMCA Standard 500-D, Figure 5.4. Data are based on a torque of 10.8 in-lb/ft² *(13.1 N-m/m²)* applied to close and seat the opposed blade damper during the test. Air leakage is based on operation between 32° F *(0 °C)* and 120 °F *(49 °C)*.

The following sizes of TAMCO Series 9000 BF dampers with SP – Standard Profile were tested:
12" x 48" *(305 mm x 1220 mm)*, 36" x 36" *(915 mm x 915 mm)*, 48" x 36" *(1220 mm x 915 mm)*, 60" x 36" *(1524 mm x 915 mm)*.

TAMCO SERIES 1000 SM
UL/ULC Approved Smoke Damper

TAMCO Series 1000 SM UL/ULC Approved Smoke Dampers are constructed with silicone seals, specially formulated to resist extremely high temperatures. The dual bearing system is composed of an inner and outer bronze-oilite bearing, fixed to an aluminum hexagonal blade pivot pin, preventing direct rotation of the bearings within the frame and around the axle. Standard blade depth is 6" *(152 mm)*.

TAMCO Smoke Dampers are installed to operate automatically and are controlled by a smoke detection system. Where required, they can be positioned from a remote command station.

OPTIONS:
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

AIR LEAKAGE:
UL/ULC rated Leakage Class 1, the best possible leakage class attainable.

APPLICATIONS:
- Approved for use in passive systems, smoke control systems, and smoke management systems
- Intended for installation in ducts and air transfer openings that are designed to resist the passage of air and smoke
- Where ducts penetrate through smoke barriers, or at other locations within an engineered smoke control system
- Pressure control
- Temperatures up to 250 °F *(121 °C)*

BLADE OPERATION:
- Parallel Blade
- Opposed Blade

FAIL POSITION:
- Closed

ALSO AVAILABLE:
TAMCO Series 1000 SM-M UL/ULC Approved Modulating Smoke Damper
Designed for use in modulating applications where variable volume control is required.

TAMCO SERIES 8800
Heavy-Duty Air-Foil Control Damper

US Patent number 10,222,089 B2

TAMCO Series 8800 Heavy-Duty Dampers are constructed with robust components to withstand elevated static pressures and velocities. They are designed to operate in temperatures up to 300°F *(149°C)*. The innovative blade stop design increases free area and significantly reduces pressure drop. Standard blade depth is 8" *(203 mm)*.

Assorted coatings and finishes can be applied to the Series 8800 Heavy-Duty damper, further enhancing the range of applications for which this Series is suitable.

OPTIONS:
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

AIR LEAKAGE:
Air leakage through a 24" x 24" *(610 mm x 610 mm)* heavy-duty control damper does not exceed 3.9 cfm/ft² *(19.8 l/s/m²)* against 1" w.g. *(0.25 kPa)* differential static pressure. Tested in accordance with ANSI/AMCA Standard 500-D.

APPLICATIONS:
- Specifically designed for elevated static pressure and velocity applications
- Pressure control, for pressures up to 30" w.g. *(7.5 kPa)*
- Velocities up to 5000 fpm *(25.4 m/s)*
- Temperatures up to 300 °F *(149 °C)*
- High pressure isolation systems
- Low-leakage control
- Fan inlet or outlet
- Heavy duty balancing
- Generator sets
- Air handlers
- High pressure or velocity mixing
- Power plants
- Mining operations
- Water treatment plants
- Military complexes
- Sports complexes
- Laboratories
- Pharmaceutical processing plants
- Bottling and brewery plants
- Recycling plants
- Refineries

TAMCO SERIES 7000
Medium-Duty Backdraft Damper

TAMCO Series 7000 Medium-Duty Backdraft Dampers are built using oversized ½" *(13 mm)* extruded aluminum pivot points for additional strength and durability. Large diameter extruded aluminum linkage rods link the blades securely. Self-lubricating Celcon bearings ensure a maintenance-free and long-cycle life. Silicone blade and side seals ensure sealing longevity.

Series 7000 is available with Front Flange, In Duct, or Rear Flange install types, and allows mounting for Horizontal Airflow and Airflow Up operation.

OPTIONS:

- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

AIR LEAKAGE:

Air leakage for medium-duty backdraft dampers with a width and height of 24" *(610 mm)* or greater does not exceed 6.93 cfm/ft² *(35.20 l/s/m²)* against 1 in. w.g. *(0.25 kPa)* differential static pressure. Standard air leakage data is certified under the AMCA Certified Ratings Program.

TAMCO Series 7000 complies with the International Energy Conservation Code (IECC) and ASHRAE 90.1 leakage requirements for non-motorized dampers.

APPLICATIONS:

- Ideal for installations requiring a robust medium-duty backdraft damper
- Suitable wherever low-leakage performance is essential
- Pressure control
- Temperatures up to 212 °F *(100 °C)*

TAMCO SERIES 7000 CW
Medium-Duty Counterweighted Backdraft Damper

TAMCO's Series 7000 CW Medium-Duty Counterweighted Backdraft Dampers are fully field-adjustable and can be set to relieve air pressure differentials less than .01" w.g. *(3 Pa)*. Counterweights are threaded and allow field-adjustments to be made easily.

Series 7000 CW is available with Front Flange, In Duct, or Rear Flange install types, and allows mounting for Airflow Up, Airflow Down, or Horizontal Airflow operation.

OPTIONS:

- MR - Moisture Resistance Option
- SW - Salt Water Resistance Option

AIR LEAKAGE:

Air leakage through a 24" x 24" *(610 mm x 610 mm)* medium-duty counterweighted backdraft damper does not exceed 4.32 cfm/ft² *(21.95 l/s/m²)* against 1" w.g. *(0.25 kPa)* differential static pressure. Tested in accordance with ANSI/AMCA Standard 500-D.

APPLICATIONS:

- Ideal for installations requiring a robust medium-duty backdraft damper with field-adjustable pressure relief
- Used to accelerate opening of blades and designed to allow opening at lower pressures and airflow velocities
- Suitable wherever low-leakage performance is essential
- Pressure control
- Temperatures up to 212 °F *(100 °C)*

ALSO AVAILABLE:

TAMCO Series 7000 WT Medium-Duty Weighted Backdraft Damper

Used to increase resistance to the opening of blades against airflow until a desired static pressure is achieved.

TAMCO SERIES 7600
Heavy-Duty Backdraft Damper

TAMCO heavy-duty backdraft dampers are constructed with robust components to withstand elevated static pressures and velocities. The blades are designed with a rounded head, thereby reducing pressure loss. Series 7600 is manufactured with the same dual bearing and slip-proof linkage systems used for TAMCO's control dampers, resulting in dependable, consistent, maintenance-free performance.

Silicone seals are provided as standard to ensure sealing longevity and remain flexible down to -40 °F/C.

Series 7600 is available with Installed In Duct, Flanged to Duct, Extended Front Flange, and Extended Rear Flange install types and allows mounting for Horizontal Airflow and Airflow Up operation.

OPTIONS:

- ET – Elevated Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

APPLICATIONS:

- Specifically designed for elevated static pressure and velocity applications
- Pressure control, for back pressures up to 12" w.g. *(3.0 kPa)*
- Velocities up to 4000 fpm *(20.3 m/s)*
- Temperatures up to 212 °F *(100 °C)* or 300°F *(149 °C)* with ET Option
- High pressure isolation systems
- Unidirectional isolation
- Stairwell pressurization
- Fan inlet or outlet
- Generator sets
- Air handling units

TAMCO SERIES 7600 WT
Adjustable Weighted Heavy-Duty Backdraft Damper

The weights on TAMCO's Series 7600 WT provide increased load resistance and a tighter shut-off. Fully-adjustable weights are mounted outside the air stream. This permits the blade opening to be tailored to achieve the required resistance and optimal performance, based on installation conditions. (Weights are removable.)

Series 7600 WT is available in two install types: Flanged to Duct or Extended Front Flange, and allows mounting for Horizontal Airflow and Airflow Up operation.

OPTIONS:

- ET – Elevated Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

APPLICATIONS:

- Ideal for installations where adjustable blade resistance is required to resist or delay opening
- Engineered to increase resistance to the opening of blades against airflow until a desired static pressure is achieved
- Specifically designed for elevated static pressure and velocity applications
- Pressure control, for back pressures up to 12" w.g. *(3.0 kPa)*
- Velocities up to 4000 fpm *(20.3 m/s)*
- Temperatures up to 212 °F *(100 °C)* or 300°F *(149 °C)* with ET Option
- High pressure isolation systems
- Unidirectional isolation
- Stairwell pressurization
- Fan inlet or outlet
- Generator sets
- Air handling units

CAUTION:

External crankarms and weights are not available in stainless steel and may be subject to rust or corrosion in high moisture or salt spray environments.

TAMCO SERIES 7600 CW

Internally Counterweighted Heavy-Duty Backdraft Damper

US Patent number 10,514,181 B2

Counterweights on TAMCO's Series 7600 CW are provided to accelerate blade opening, and to allow blades to achieve the full open position at lower pressures or airflow velocities. Each blade is fitted with a fixed internal counterweight.

Series 7600 CW is available with Installed In Duct, Flanged to Duct, Extended Front Flange, and Extended Rear Flange install types and allows mounting for Horizontal Airflow and Airflow Up operation.

OPTIONS:

- ET – Elevated Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

APPLICATIONS:

- Used to accelerate opening of blades and designed to allow opening at lower pressures and airflow velocities
- Specifically designed for elevated static pressure and velocity applications
- Pressure control, for back pressures up to 12" w.g. *(3.0 kPa)*
- Velocities up to 4000 fpm *(20.3 m/s)*
- Temperatures up to 212 °F *(100 °C)* or 300 °F *(149 °C)* with ET Option
- High pressure isolation systems
- Unidirectional isolation
- Stairwell pressurization
- Fan inlet or outlet
- Generator sets
- Air handling units

TAMCO SERIES 7600 CWA

Adjustable Counterweighted Heavy-Duty Backdraft Damper

US Patent number 10,514,181 B2

Both internal and external counterweights on TAMCO's Series 7600 CWA are provided to accelerate blade opening, and to allow blades to achieve the full open position at lower pressures or airflow velocities. Each blade is fitted with a fixed internal counterweight. Additional fully-adjustable external counterbalance weights are mounted outside the airstream. These can be set to relieve air pressure differentials less than 0.01 in. w.g. *(3.0 Pa)*.

Series 7600 CWA is available in two install types: Flanged to Duct or Extended Rear Flange, and allows mounting for Airflow Up, Airflow Down, or Horizontal Airflow operation.

OPTIONS:

- ET – Elevated Temperature Option
- MR – Moisture Resistance Option
- SW – Salt Water Resistance Option

APPLICATIONS:

- Ideal for installations requiring a heavy-duty backdraft damper with field-adjustable pressure relief
- Used to accelerate opening of blades and designed to allow opening at lower pressures and airflow velocities
- Specifically designed for elevated static pressure and velocity applications
- Pressure control, for back pressures up to 12" w.g. *(3.0 kPa)*
- Velocities up to 4000 fpm *(20.3 m/s)*
- Temperatures up to 212 °F *(100 °C)* or 300 °F *(149 °C)* with ET Option
- High pressure isolation systems
- Unidirectional isolation
- Stairwell pressurization
- Fan inlet or outlet
- Generator sets
- Air handling units

CAUTION:

External counterbalance crankarms and weights are not available in stainless steel and may be subject to rust or corrosion in high moisture or salt spray environments.

Options for TAMCO Dampers

All TAMCO control dampers and some specialty dampers are available with a selection of options which enhance their performance under a variety of climatic or environmental conditions.

ELEVATED TEMPERATURE
ET OPTION

For Series : 1000, 1000 FB, 1500, 1500 FB, 7600, 7600 WT, 7600 CW, 7600 CWA

- Suitable for high heat environments where temperatures may reach as high as 300 °F *(149 °C)*, and where UL/ULC regulated control dampers are not a requirement.
- This option is ideal for dampers intended for use in back-up generator stations, where excessive heat may be an issue.
- It is well-suited for test laboratory applications, wherever high-heat conditions may exist.
- The Elevated Temperature Option is also a practical solution in mildly acidic applications, where Celcon bearings may not withstand environmental conditions.
- Blade and frame seals are extremely flexible extruded silicone, ensuring minimal change in leakage rates as temperature increases.
- Celcon and polycarbonate bearings are replaced with bronze-oilite bearings.

MOISTURE RESISTANCE
MR OPTION

For Series: 1000, 1000 FB, 1000 SM, 1000 SM-M, 1500, 1500 FB, 7000, 7000 WT, 7000 CW, 7600, 7600 WT, 7600 CW, 7600 CWA, 8800, 9000, 9000 BF, 9000 FB

- All zinc-plated steel hardware is replaced with stainless steel, thereby providing protection against rust and corrosion.
- Suitable for applications where dampers are exposed to extended periods of high humidity or high moisture.
- The Moisture Resistance Option is a cost effective alternative to the Salt Water Resistance Option for applications where salt spray is not a concern.

NOTE:
When multiple-section dampers are ordered with MR or SW Options, stainless steel jumpers and SW Option horizontal jackshafts replace standard jumpers or horizontal jackshafts.

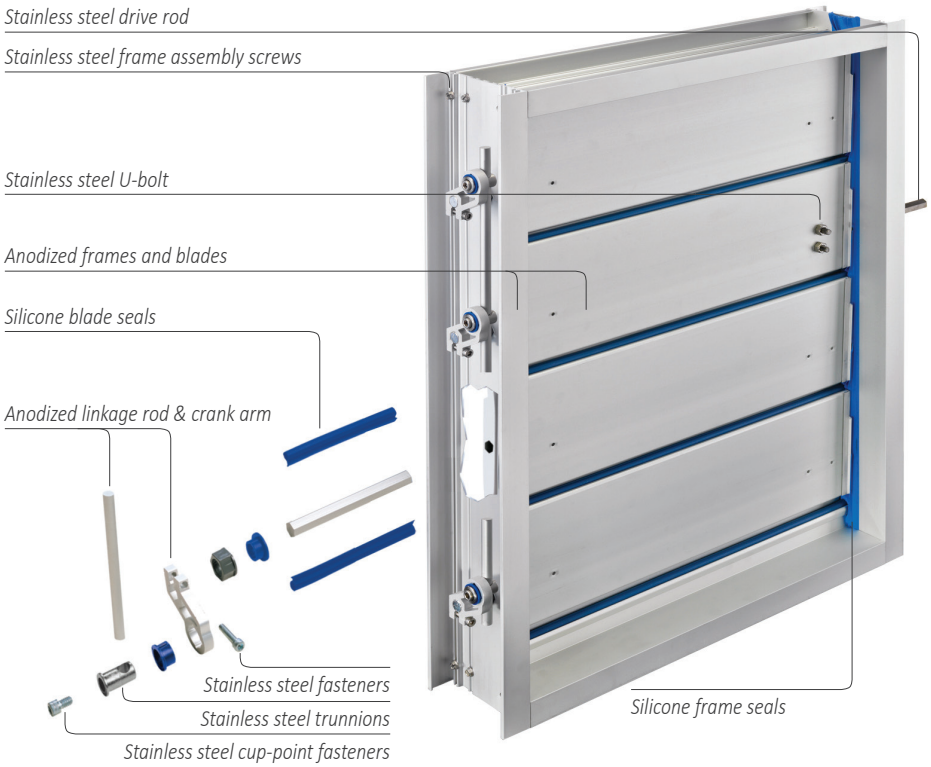
TAMCO dampers with added options maintain all of the dependability and durability of our slip-proof linkage components, the advantages of aluminum construction, and maintenance-free operation.

Options for TAMCO Dampers

SALT WATER RESISTANCE
SW OPTION

For Series: 1000, 1000 FB, 1000 SM, 1000 SM-M, 1500, 1500 FB, 7000, 7000 WT, 7000 CW, 7600, 7600 WT, 7600 CW, 7600 CWA, 8800, 9000, 9000 FB

- The extruded aluminum frames and blades are all clear anodized to a minimum thickness of 0.7 mil *(18 microns)* deep.
- The frame is assembled with stainless steel screws.
- Stainless steel hardware, linkage parts, and screws replace all zinc-plated steel components.
- All aluminum linkage hardware parts are clear anodized.
- Blade and frame seals are extremely flexible, extruded silicone.
- Ideally suited for coastal climates.
- Recommended for inland applications, where tire spray from winter-salted roads has been known to corrode dampers installed in close proximity to roads or highways.
- Excellent solution for high humidity applications such as water treatment facilities, municipal pools and greenhouses.



TAMCO SALT WATER RESISTANCE OPTION
OUTPERFORMS STAINLESS STEEL & GALVANIZED STEEL

ASTM B117
SALT WATER SPRAY TESTING

- TAMCO's Series 1500 damper with SW Option, a Brand X stainless steel damper and a Brand Y galvanized damper were exposed to 1000 hours of testing in a Singleton salt spray cabinet.
- Base opening and closing torque requirement readings were taken before testing, and changes in torque readings were recorded at regular intervals, as testing progressed.
- The opening and closing torques for the TAMCO Series 1500 damper with SW Option were unchanged after 1000 hours of salt water spray testing.
- The surface of the Series 1500 damper with SW Option showed no change other than a small accumulation of salt residue, which was easily wiped off with a damp cloth.

▲ TAMCO SERIES 1500 WITH SW OPTION

▲ BRAND X STAINLESS STEEL

▲ BRAND Y GALVANIZED STEEL

SEVERE COLD TEMPERATURE
SC OPTION

For Series: 9000

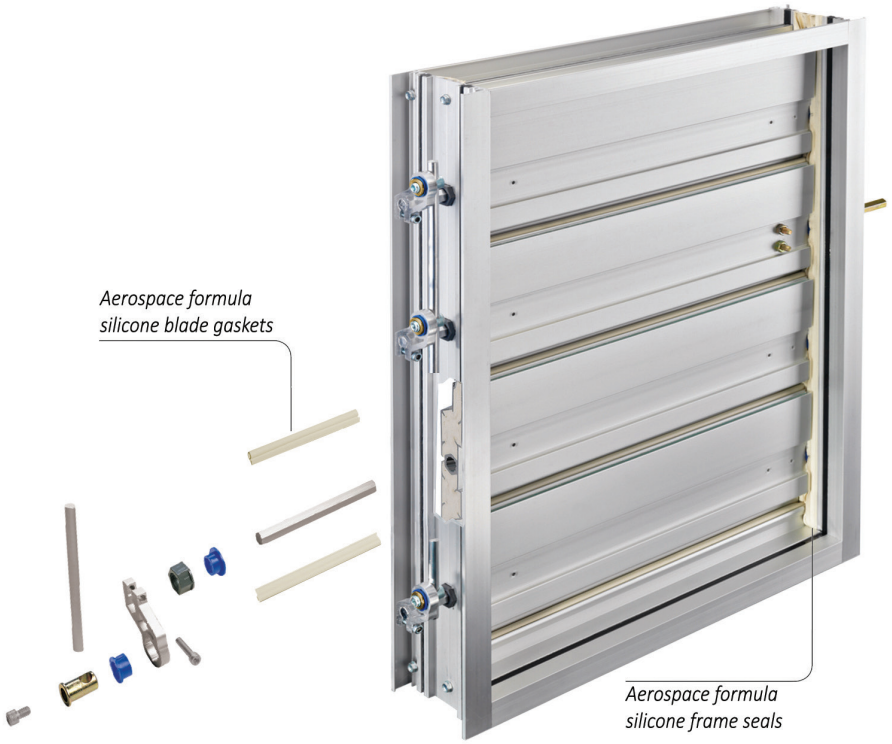
- The SC upgrade option is designed for severe cold temperatures, down to -40 °F *(-40 °C)*.
- Blade and frame seals are extruded silicone, replacing the standard EPDM blade seals. This ensures minimal change in leakage rates as temperature drops, making this damper ideal for severe cold weather applications. *(Silicone combines features of silica, silicate minerals, and organic compounds which result in an inertness towards deteriorating effects of ozone, corona, weathering, and other forces, yet incorporates an extraordinary flexibility.)*
- Leakage rate through a 48" x 36" *(1220 mm x 915 mm)* Series 9000 damper, with SC Option, at 1" w.g. *(0.25 kPa)* pressure differential is no greater than 0.89 cfm/ft² *(4.5 l/s/m²)*.
- Silicone is virtually unaffected by cold winter temperatures. Air leakage tests performed in a cold chamber revealed that silicone seals allowed only a minimal increase in the leakage rate from 40 °F *(4 °C)* to -40 °F *(-40 °C)*. Cold box testing revealed no discernible change in flexibility, or compressibility of silicone between 70 °F *(21 °C)* and -40 °F *(-40 °C)*.

NOTE:
Silicone's superior dynamic fatigue resistance ensures consistent sealing performance and longevity. It also provides excellent resistance to weathering, compression set, and heat. Even though general-purpose silicone can withstand up to 500 °F *(260 °C)*, the upper operating temperature of the entire damper is 212 °F *(100 °C)*. Silicone seals have an estimated service life of 30 years.

EXTREME COLD TEMPERATURE
ECT OPTION

For Series: 9000 BF

- The ECT upgrade option is specifically designed for extreme cold temperatures below -40 °F *(-40 °C)*, down to -100 °F *(-73 °C)*.
- Formula for ECT silicone seals is the same as that used by NASA for its Aerospace program.
- Leakage rate through a 48" x 36" *(1220 mm x 915 mm)* Series 9000 BF damper, with ECT Option, at 1" w.g. *(0.25 kPa)* pressure differential is no greater than 0.89 cfm/ft² *(4.5 l/s/m²)*.
- ECT silicone is virtually unaffected by cold winter temperatures down to -100 °F *(-73 °C)*. Cold box testing revealed no discernible change in flexibility, or compressibility of ECT silicone between 70 °F *(21 °C)* and -100 °F *(-73 °C)*.



TAMCO offers a range of frame and blade profiles that enhance adaptability to various installations or applications. .

Profiles for TAMCO Dampers

SP – STANDARD PROFILE

For Series: 1000, 1000 FB, 1500, 1500 FB, 7600, 7600 WT 7600 CW, 7600 CWA, 9000, 9000 BF, 9000 FB

- Standard Profile control dampers and Face & Bypass dampers are manufactured with 4" *(101.6 mm)* deep frames. Blades are a maximum 6" *(152.4 mm)* deep.
- Heavy-Duty Backdraft dampers are manufactured with 4" *(101.6 mm)* deep frames.

NP – NARROW PROFILE

For Series: 1000, 1000 FB, 9000, 9000 BF

- Narrow Profile control dampers and Face & Bypass dampers are manufactured with 4" *(101.6 mm)* deep frames. Blades that are a maximum 4" *(101.6 mm)* deep.
- Space-saving narrow profile is ideal for space restrictive installations.
- Options offered with NP – Narrow Profile dampers are the same as those offered with SP – Standard Profile dampers.

WP – WIDE PROFILE

For Series: 1000, 1500, 9000

- Wide Profile control dampers are manufactured with 6.5" *(165.1 mm)* deep frames and blades that are a maximum 6" *(152.4 mm)* deep.
- Options offered with WP – Wide Profile dampers are the same as those offered with SP – Standard Profile dampers.

Factory-Installed Actuators

ECONOMICAL & EFFICIENT

TAMCO presents an engineered factory-installed actuator solution that results in time and cost savings in the design phase, in shipping, and on the job-site.

PERFORMANCE & ACCURACY

- TAMCO takes the guesswork out of actuator selection and installation.
- TAMCO perfectly matches up the actuator model, quantity, and accessories with the torque requirement necessary to operate a specific damper model, size, and configuration.
- TAMCO factory-installed actuators are optimally positioned to maximize actuator performance and provide a tight seal between damper blades.
- Accurate positioning is particularly important for pneumatic actuators, as it ensures that the motor is installed at the precise angle and location required to achieve the proper stroke angle.
- TAMCO ensures that all the accessories needed for secure fitting and correct operation have been provided.

MODULAR SHIPPING METHOD

- TAMCO has developed a factory-installed actuator solution that is unique in our industry.
- TAMCO's system for factory mounting actuators to multiple-section dampers accommodates shipping individual sections, unlike other manufacturers, whose actuator installation methods necessitate cumbersome and expensive shipping of fully-assembled large damper units.
- TAMCO's modular method reduces transport costs by eliminating the need to make allowances for oversized shipments. TAMCO can ship multiple-section dampers with factory-installed actuators using standard-sized pallets.
- TAMCO's modular method has the additional advantage of reducing shipping damage, which is an inherent problem when shipping pre-assembled large dampers.

EASE OF INSTALLATION

- Since dampers arrive on-site with the actuators and accessories preselected and preinstalled, costly job site installation time and possible installation errors are significantly reduced.
- TAMCO's individually shipped damper sections are much easier to transport, lift, and fit in place than fully assembled dampers that are heavy and unwieldy.
- This also facilitates installation in areas where space and access may be limited.
- Installing individual sections helps to ensure that each section, as well as the entire damper assembly are installed square and true.

BEFORE RETROFIT

AFTER RETROFIT

This is a shining example of a "Before and After" story! The photos just about say it all!

In January 2016, The George Yardley Company (TAMCO's exclusive representative in California) supplied over 300 square feet of Series 1000 Air-Foil Control Dampers with the SW – Salt Water Resistance Option for a retrofit project in Huntington Beach. The existing dampers had been installed in 1982, when the mutli-tenant office building was originally constructed. Within a few years, the dampers rusted in the salt air conditions. The linkage components seized and eventually failed, as they corroded and as rust accumulated.

Sue Rogas, of The George Yardley Company met with the design engineer and conducted numerous site visits with several bidding contractors. Based on Sue's recommendations and the fact that TAMCO was the basis of design, TAMCO's SW – Salt Water Resistance Option with SW jackshafts was selected for the outside air, mixed air, and relief air dampers.

The contractor was extremely impressed with the quality, appearance, and performance of the installed TAMCO dampers. He found that the expertise offered by the George Yardley Company contributed greatly to the success of the project and looks forward to working with them again.

Distribution Network Across North America

TAMCO has established a comprehensive distribution network across Canada and the United States, covering all major urban centers.

Over 60 Years of Experience In Innovative Air Control Solutions

TAMCO is an innovative manufacturer of high-end, quality dampers and air control products, serving commercial, industrial, and institutional markets.

T. A. Morrison & Co., Inc. entered the ventilation industry in 1955. In 1980, TAMCO began to produce its own line of aluminum dampers. Great attention has been devoted to design, in order to develop products which are durable, maintenance-free, and unparalleled in performance.

Advancements in digital control systems have been instrumental in spurring the development of TAMCO air control products. TAMCO is successfully leading the charge to bring creative solutions to the air control market.

Quality Control

- Damper Series ☑
- Damper Sizing ☑
- Blade Action ☑
- Damper Options ☑
- Operating Torque ☑
- Seals Verified ☑
- Linkage Inspected ☑
- Overall Assembly ☑

Released for Shipment ☑

COMMITMENT TO QUALITY

- TAMCO's design and material matrix provide for durable and dependable components.
- TAMCO's sound workmanship ensures product integrity.
- TAMCO's dampers undergo exacting quality control checks at every stage of production.

CUSTOMER SERVICE

- Before- and after-sales technical support and service are provided by our dedicated staff.
- TAMCO includes installation guidelines with every order, and offers detailed installation videos on our website.
- TAMCO's top priority is total commitment to your satisfaction with our products and our service.

INNOVATIVE DAMPER PRODUCTS

SPX ENGINEERED AIR MOVEMENT
80 Lorne Street
Smiths Falls, ON K7A 5J7, Canada
800 561 3449
tamcodampers.com

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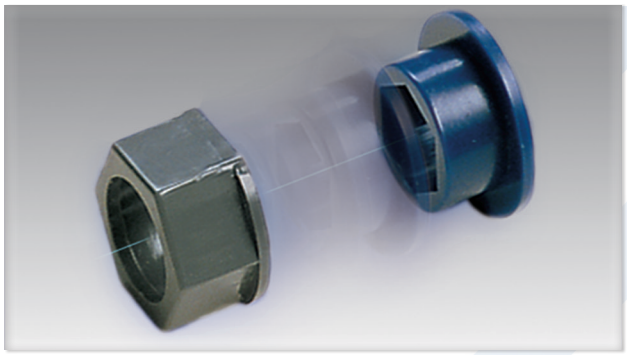

TAMCO DUAL BEARING SYSTEM

TAMCO's Dual Bearing System is a self-sealing, self-lubricating, and non-absorbent assembly. It will never require additional lubrication and ensures consistent and totally maintenance-free bearing performance.

TAMCO's Dual Bearing System is superior to industry-standard metal-on-metal, metal-on-plastic, and nylon bearings, which require regular lubrication and eventual replacement. Metal-on-metal and metal-on-plastic bearings have traditionally been one of the weakest links in damper operation. In contrast, TAMCO's bearing-in-bearing arrangement eliminates action between metal-to-metal and metal-to-plastic riding surfaces, resulting in a service life of well over 20 years. Replacement bearings (which fit TAMCO dampers exclusively) have not been required in over 35 years, where dampers have been installed according to TAMCO's guidelines.