

# SERIES 1000

LOW LEAKAGE  
AIR-FOIL CONTROL DAMPER

TAMCO 



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

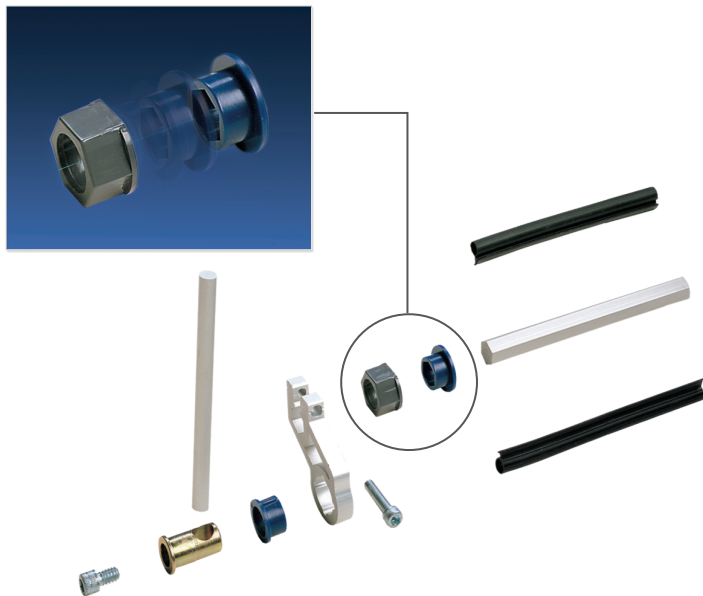
## SERIES 1000 | Low Leakage / Maintenance-Free Air-Foil Control Damper

### ALUMINUM STRENGTH AND DURABILITY

- Aluminum extrusions allow for intricate design features not possible with roll or brake formed galvanized steel.
- Aluminum construction allows for additional strength by extruding internal supports and thicker radii.
- Aluminum dampers provide a prolonged and rust-free operational life over galvanized steel types.
- Aluminum oxidizes to form a protective film. If the surface is scratched, the film reforms.  
*(Standard damper is produced with a mill finish.)*

### DEPENDABLE "DUAL BEARING SYSTEM"

- TAMCO bearings consist of polycarbonate and acetal copolymer (*Celcon*) engineered thermal plastic resins.
- Dual bearing system is self-sealing, self-lubricating, and non-absorbent, which results in a totally maintenance-free performance.
- Bearing materials meet or exceed tensile strength of 8,800 psi (60,674 kPa) and flexural strength of 12,000 psi (82,738 kPa).
- Tensile impact strength of Celcon is 70 ft-lb/in<sup>2</sup> (147.1 kN-m/m<sup>2</sup>) and 145 ft-lb/in<sup>2</sup> (304.7 kN-m/m<sup>2</sup>) for polycarbonate.
- TAMCO's bearing-to-bearing arrangement eliminates action between metal-on-metal and metal-on-plastic riding surfaces. *(Metal-on-metal, bronze or oil-lite bearings and metal-on-plastic nylon bearings have traditionally been one of the weakest links in damper operation, requiring regular lubrication or eventual replacement.)*
- TAMCO's "Dual Bearing System" has a service life of over 20 years under normal conditions and operation, and when installed in accordance with TAMCO Installation Guidelines.



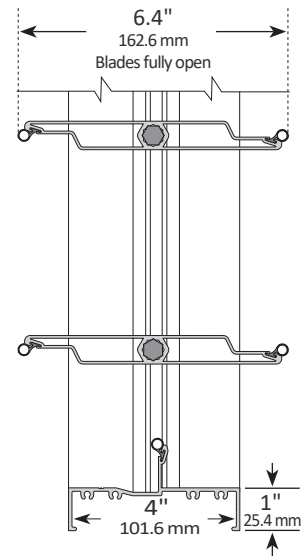
### MAINTENANCE-FREE PERFORMANCE ACHIEVED

- Dampers are assembled using slip-proof linkage components that keep blades aligned as per factory adjustment.
- Hexagon design feature of linkage and pivot elements allow for flat-on-flat press fits that eliminate play and wear.
- Hard alloy aluminum (6005-T5) linkage crank arm and pivot pin are doubly secured by pincer-action and fastener.
- Large diameter ( $1\frac{1}{32}$ " [8.73 mm]) hard alloy aluminum (6005-T5) linkage rod connects the crank arms, which allows for a penetrating grip by the cup-point fastener.  
*(Cup-point trunnion set screw creates a compression hard spot where it secures to the linkage rod.)*
- Trunnions are zinc-plated to provide a hard, smooth and long-lasting rotating surface.



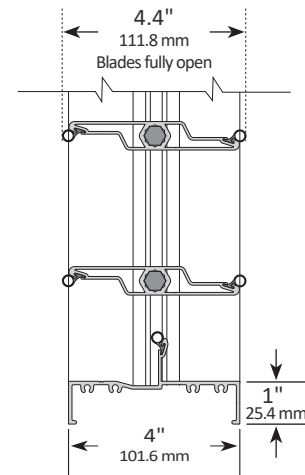
**SP – STANDARD PROFILE**

- Air-foil control dampers, ordered with SP – Standard Profile, are manufactured with 4" (101.6 mm) deep frames. Blades are a maximum 6" (152.4 mm) deep.



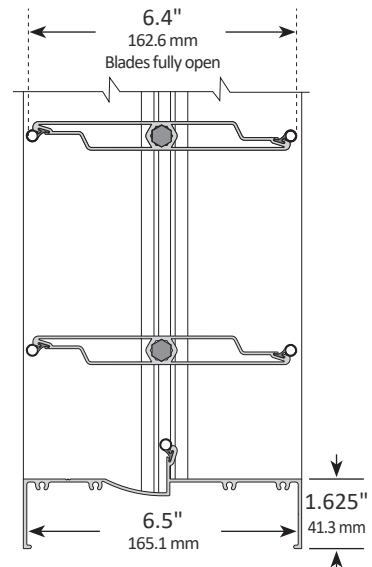
**NP – NARROW PROFILE**

- Air-foil control dampers, ordered with NP – Narrow Profile, are manufactured with 4" (101.6 mm) deep frames. Blades 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.



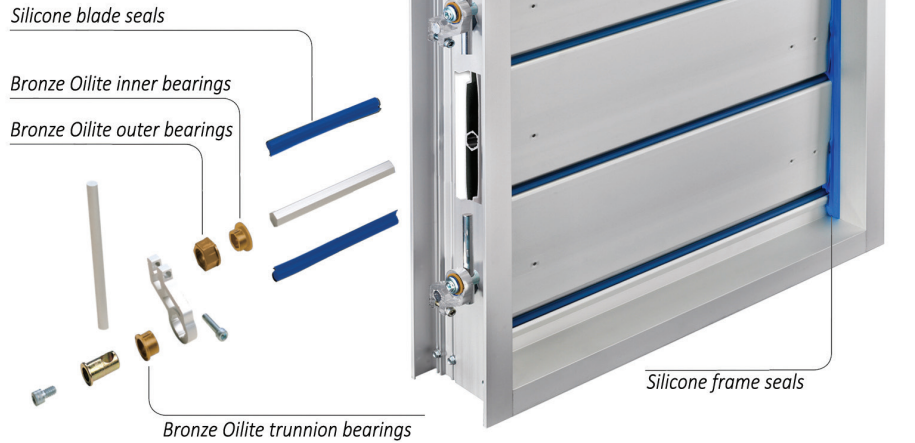
**WP – WIDE PROFILE**

- Air-foil control dampers, ordered with WP – Wide Profile, are manufactured with 6.5" (165.1 mm) deep frames. Blades 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.



**ELEVATED TEMPERATURE  
ET OPTION**

- Suitable for high heat environments where temperatures may reach as high as 300 °F (149 °C), and where UL 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 used for dampers with the Elevated Temperature Option 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**

- All zinc-plated, steel hardware is replaced with stainless steel, protecting hardware from 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.

**SALT WATER RESISTANCE  
SW OPTION**

- 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 used for dampers with the Salt Water Resistance Option 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.

*Stainless steel drive rod*

*Stainless steel frame assembly screws*

*Stainless steel U-bolt*

*Anodized frames and blades*

*Silicone blade seals*

*Anodized crank arm*

*Anodized linkage rods*

*Stainless steel fasteners*

*Stainless steel trunnions*

*Stainless steel cup-point fasteners*



# TAMCO

When you're serious about long-lasting, consistent performance.



**TAMCO's Series 1000 Damper was cycled 2 million times, the equivalent of 2000 years of service.**

- ✓ Dampers maintained leakage test results of less than 3 CFM/ft<sup>2</sup> at 1" w.g.
- ✓ Slip-proof damper linkage components remained as per original factory settings.
- ✓ Frame and frame seals demonstrated minimal wear and held up perfectly to prolonged cycle testing.

**Our customers know that TAMCO products deliver the consistent performance they depend on.**



# SERIES 1000



## SPX ENGINEERED AIR MOVEMENT

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