**SUGGESTED SPECIFICATIONS**

**TAMCO SERIES 7600 CW INTERNALLY COUNTERWEIGHTED HEAVY-DUTY BACKDRAFT DAMPER**

1. Extruded aluminum (6063-T5) heavy-duty backdraft damper frame shall not be less than 0.080” (2.03 mm) in thickness. Frame shall be 4” (101.6 mm) deep x 1" (25.4 mm), with duct mounting flanges on both sides of frame. Frame shall have a 2" (50.8 mm) mounting flange on either the front or rear of the damper, when installed as either Extended Front Flange or Extended Rear Flange install type. Frame to be assembled using zinc-plated steel mounting fasteners. Welded frames shall not be acceptable.
2. Blades shall be maximum 6" (152.4 mm) deep extruded aluminum (6063-T5) profiles with a minimum thickness of 0.09” (2.28 mm). Blades to be designed with a rounded head to reduce pressure loss.
3. Each blade shall be fitted with a fixed internal counterweight to accelerate opening of blades, and to allow opening at lower pressures and airflow velocities.
4. Blade seals shall be extruded silicone, secured in an integral slot within the aluminum blade extrusions and shall be mechanically fastened to prevent shrinkage and movement over the life of the damper. Adhesive or clip-on type blade seals will not be approved.
5. Frame seals shall be extruded silicone, secured in an integral slot within the aluminum frame extrusions and shall be mechanically fastened to prevent shrinkage and movement over the life of the damper. Metallic compression type jamb seals will not be approved.
6. Bearings shall be a dual bearing system composed of a Celcon inner bearing (fixed around a 7/16" (11.11 mm) aluminum hexagon blade pivot pin), rotating within a polycarbonate outer bearing inserted in the frame. Single axle bearing, rotating in an extruded or punched hole shall not be acceptable. Bearings are to be maintenance-free, requiring no lubrication.
7. Hexagonal extruded aluminum axles shall be 7/16" (11.11 mm).
8. Linkage hardware shall be aluminum and corrosion-resistant zinc-plated steel, installed in the frame side, out of the airstream. Linkage hardware shall be complete with cup-point trunnion screws to prevent linkage slippage and a Celcon bearing between moving parts to reduce wear and increase longevity. Linkage that consists of metal rubbing metal will not be approved.
9. Heavy-duty backdraft dampers shall be designed for operation in temperatures ranging from -40°F (-40°C) to 212°F (100°C).
10. Heavy-duty backdraft dampers shall be custom made to required size, with blade stops not exceeding 1¼” (31.7 mm) in height. The blade stop shall be a continuous and integral part of the head/sill. Welded and caulked blade stops shall not be acceptable.
11. Internally counterweighted heavy-duty backdraft dampers shall be installed in the following manner: Installed in Duct, Flanged to Duct, Extended Front Flange, or Extended Rear Flange. (Specify one.)
12. Internally counterweighted heavy-duty backdraft dampers shall mounted for operation in the following manner: Horizontal Airflow or Airflow Up. (Specify one.)
13. Installation of heavy-duty backdraft dampers must be in accordance with TAMCO's current installation guidelines, provided with each damper shipment.
14. Field supplied intermediate structural support is required to resist applied pressure loads for heavy-duty backdraft dampers that consist of two or more sections in both height and width. *(See TAMCO Heavy-Duty Backdraft Damper Installation Guidelines.)*
15. Acceptable product shall be TAMCO Series 7600 CW Internally Counterweighted Heavy-Duty Backdraft Damper, as manufactured by T. A. Morrison & Co., Inc. (Tel: 1-800-561-3449, USA & Canada).

**OPTIONS** *(For each option listed, replace the lines above with their corresponding lines below.)*

**ET - ELEVATED TEMPERATURE OPTION** *(up to 300°F (149°C))***:**

6. Bearings shall be a dual bearing system composed of a bronze oilite inner bearing (fixed around a 7/16" (11.11 mm) aluminum hexagon blade pivot pin), rotating within a bronze oilite outer bearing inserted in the frame. Single axle bearing, rotating in an extruded or punched hole shall not be acceptable.

8. Linkage hardware shall be aluminum and corrosion-resistant zinc-plated steel, installed in the frame side, out of the airstream, and accessible after installation. Linkage hardware shall be complete with cup-point trunnion screws to prevent linkage slippage. Trunnion bearings shall be bronze oilite. Linkage that consists of steel rubbing steel will not be approved.

9. Heavy-duty backdraft dampers shall be designed for operation in temperatures ranging from -40°F (-40°C) to 300°F (149°C).

**MR - MOISTURE RESISTANCE OPTION:**

1. Extruded aluminum (6063-T5) damper frame shall not be less than 0.080” (2.03 mm) in thickness. Frame shall be 4” (101.6 mm) deep x 1" (25.4 mm), with duct mounting flanges on both sides of frame. Frame shall have a 2" (50.8 mm) mounting flange either the front or rear of the damper, when installed as either Extended Front Flange or Extended Rear Flange install type. Frame shall be assembled using stainless steel screws. Welded frames shall not be acceptable.

8. Linkage hardware shall be aluminum and stainless steel, installed in the frame side, out of the airstream, and accessible after installation. Linkage hardware shall be complete with stainless steel cup-point trunnion screws to prevent linkage slippage and a Celcon bearing between moving parts to reduce wear and increase longevity. Linkage that consists of metal rubbing metal will not be approved.

**SW - SALT WATER RESISTANCE OPTION:**

1. Extruded aluminum (6063-T5) damper frame shall not be less than 0.080” (2.03 mm) in thickness Frame shall be 4” (101.6 mm) deep x 1" (25.4 mm), with duct mounting flanges on both sides of frame. Frame shall have a 2" (50.8 mm) mounting flange on either the front or rear of the damper, when installed as either Extended Front Flange or Extended Rear Flange install type. Aluminum frame shall be clear anodized to a minimum thickness of 0.7 mil (18 microns) deep. Frame shall be assembled using stainless steel screws. Welded frames shall not be acceptable.

2. Blades shall be maximum 6" (152.4 mm) deep extruded aluminum (6063-T5) profiles with a minimum thickness of 0.09” (2.28 mm), clear anodized to a minimum thickness of 0.7 mil (18 microns) deep. Blades to be designed with a rounded head to reduce pressure loss.

8. Linkage hardware shall be aluminum and stainless steel, installed in the frame side, out of the airstream, and accessible after installation. Linkage hardware shall be complete with stainless steel cup-point trunnion screws to prevent linkage slippage and a Celcon bearing between moving parts to reduce wear and increase longevity. Linkage that consists of metal rubbing metal will not be approved.