

# STANDARD CONFIGURATIONS

FOR ALUMINUM CONTROL DAMPERS

TAMCO 



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

# STANDARD CONFIGURATIONS | TAMCO Aluminum Control Dampers

One Section Wide

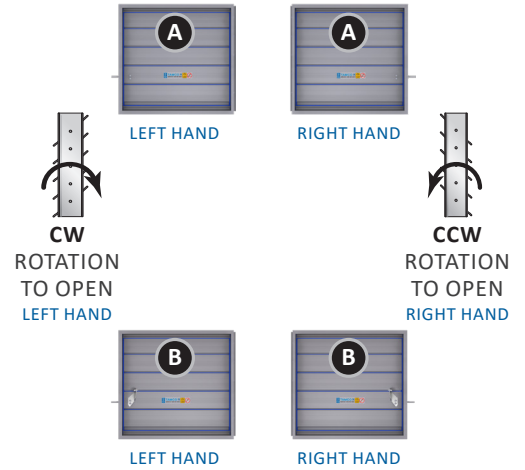
Contact TAMCO CUSTOMER SERVICE for possible configurations not shown.

## CONFIGURATION 1 SINGLE-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
6½" w x 6¾" h	(166 mm x 172 mm)
<b>Flanged to Duct:</b>	
4½" w x 4¼" h	(115 mm x 108 mm)
<b>MAXIMUM SIZE:</b>	
25 ft <sup>2</sup>	(2.32 m <sup>2</sup> )
60" w x 60" h	(1524 mm x 1524 mm) or
48" w x 75" h	(1220 mm x 1905 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 25 ft<sup>2</sup> (2.32 m<sup>2</sup>):**  
1 motor location. Operated with a minimum of 1 motor, direct-coupled to damper drive rod.
- B. Up to 25 ft<sup>2</sup> (2.32 m<sup>2</sup>):**  
1 motor location. Damper to be ordered with a face blade bracket for actuation in the airstream. Operated with a minimum of 1 motor, connected to face blade bracket.

**UNLESS OTHERWISE SPECIFIED, SINGLE-SECTION DAMPERS ARE SUPPLIED RIGHT HAND.**

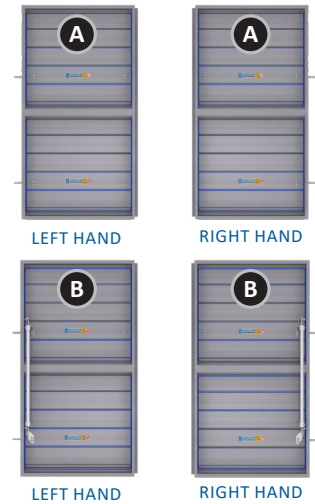


## CONFIGURATION 2-1 VERTICAL TWO-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
6½" w x over 75" h	(166 mm x over 1905 mm)
<b>Flanged to Duct:</b>	
4½" w x over 75" h	(115 mm x over 1905 mm)
<b>MAXIMUM SIZE:</b>	
50 ft <sup>2</sup>	(4.65 m <sup>2</sup> )
60" w x 120" h	(1524 mm x 3048 mm) or
48" w x 150" h	(1220 mm x 3810 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 50 ft<sup>2</sup> (4.65 m<sup>2</sup>):**  
2 motor locations. Operated with a minimum of 1 motor, direct-coupled to each section's drive rod: top and bottom. Total minimum of 2 motors.
- B. Over 25 ft<sup>2</sup> (2.32 m<sup>2</sup>) up to 50 ft<sup>2</sup> (4.65 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with a vertical jackshaft. Operated with a minimum of 1 motor, direct-coupled to either the top or bottom section's drive rod.

**UNLESS OTHERWISE SPECIFIED, SINGLE-SECTION DAMPERS ARE SUPPLIED RIGHT HAND.**



## CONFIGURATION 3-1 VERTICAL THREE-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
6½" w x over 150" h	(166 mm x over 3810 mm)
<b>Flanged to Duct:</b>	
4½" w x over 150" h	(115 mm x over 1905 mm)
<b>MAXIMUM SIZE:</b>	
75 ft <sup>2</sup>	(6.97 m <sup>2</sup> )
60" w x 180" h	(1524 mm x 4572 mm) or
48" w x 225" h	(1220 mm x 5715 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- Up to 75 ft<sup>2</sup> (6.97 m<sup>2</sup>):**  
3 motor locations. Operated with a minimum of 1 motor, direct-coupled to each section's drive rod: top, middle, and bottom. Total minimum of 3 motors.

**NOTE: All three sections for this configuration cannot be connected with vertical jackshafts. A maximum of two sections can be connected vertically.**

**UNLESS OTHERWISE SPECIFIED, SINGLE-SECTION DAMPERS ARE SUPPLIED RIGHT HAND.**



**NOTE:**

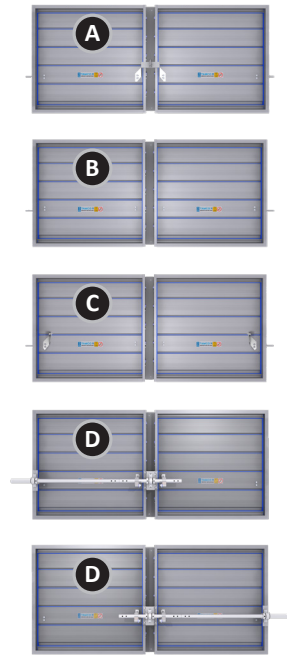
- For Series 1000/1500/9000/9000 BF
- All data based on remaining within allowable maximum blade pressure as shown in the Blade Design Pressure Limitations charts.

Two Sections Wide

**CONFIGURATION 2**  
HORIZONTAL TWO-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
Over 60" w x 6¾" h	(over 1524 mm x 172 mm)
<b>Flanged to Duct:</b>	
Over 60" w x 4¼" h	(over 1524 mm x 108 mm)
<b>MAXIMUM SIZE:</b>	
50 ft <sup>2</sup>	(4.65 m <sup>2</sup> )
120" w x 60" h	(3048 mm x 1524 mm) or
96" w x 75" h	(2439 mm x 1905 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 30 ft<sup>2</sup> (2.79 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with a jumper. Operated with a minimum of 1 motor, direct-coupled to either the right or left section's drive rod.
- B. Over 30 ft<sup>2</sup> (2.79 m<sup>2</sup>) up to 50 ft<sup>2</sup> (4.64 m<sup>2</sup>):**  
2 motor locations. Operated with a minimum of 1 motor, direct-coupled to each section's drive rod: left and right. Total minimum of 2 motors.
- C. Up to 50 ft<sup>2</sup> (4.64 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with face blade brackets for actuation in the airstream. Operated with a minimum of 1 motor, connected to each section's face blade bracket: left and right. Total minimum of 2 motors.
- D. Over 30 ft<sup>2</sup> (2.79 m<sup>2</sup>) up to 50 ft<sup>2</sup> (4.64 m<sup>2</sup>):**  
1 motor location. Damper to be ordered with a horizontal jackshaft. Operated with a minimum of 1 motor, connected to jackshaft. Mounting holes are pre-drilled to allow jackshaft to mount either on left or right.



**CONFIGURATION 2-2**  
FOUR-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
Over 60" w x over 60" h	
(over 1524 mm x over 1524 mm)	
<b>MAXIMUM SIZE:</b>	
100 ft <sup>2</sup>	(9.29 m <sup>2</sup> )
120" w x 120" h	(3048 mm x 3048 mm) or
96" w x 150" h	(2439 mm x 3810 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 60 ft<sup>2</sup> (5.57 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with jumpers. Operated from either the left or right side with a minimum of 1 motor, direct-coupled to each of the following sections' drive rods: top and bottom. Total minimum of 2 motors.
- B. Over 50 ft<sup>2</sup> (4.64 m<sup>2</sup>) up to 100 ft<sup>2</sup> (9.29 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with vertical jackshafts. Operated from either the top or the bottom with a minimum of 1 motor, direct-coupled to each of the following sections' drive rods: left and right. Total minimum of 2 motors.
- C. Over 60 ft<sup>2</sup> (5.57 m<sup>2</sup>) up to 100 ft<sup>2</sup> (9.29 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor connected to each jackshaft: top and bottom. Mounting holes are pre-drilled to allow jackshaft to mount either on left or right. Total minimum of 2 motors.



For additional information, refer to:

- Jumpers for Multiple-Section Aluminum Dampers
- Horizontal and Vertical Jackshafts
- TAMCO Aluminum Damper Installation Guidelines

**CONFIGURATION 3-2**  
SIX-SECTION DAMPER

MINIMUM SIZE:	
Over 60" w x over 120" h (over 1524 mm x over 3048 mm)	
MAXIMUM SIZE:	
150 ft <sup>2</sup>	(13.93 m <sup>2</sup> )
120" w x 180" h	(3048 mm x 4572 mm) or
96" w x 225" h	(2439 mm x 5715 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

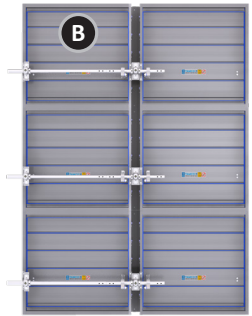
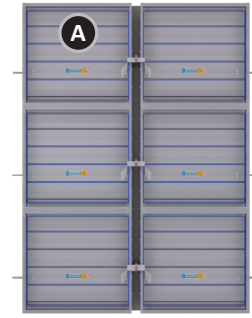
**A. Up to 90 ft<sup>2</sup> (8.36 m<sup>2</sup>):**

6 motor locations. Damper to be ordered with jumpers. Operated from either the left or right side with a minimum of 1 motor direct-coupled to each of the following sections' drive rods: top, middle, and bottom. Total minimum of 3 motors.

**B. Over 90 ft<sup>2</sup> (8.36 m<sup>2</sup>) up to 150 ft<sup>2</sup> (13.93 m<sup>2</sup>):**

3 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor connected to each jackshaft: top, middle, and bottom. Mounting holes are pre-drilled to allow jackshafts to mount either on left or right. Total minimum of 3 motors.

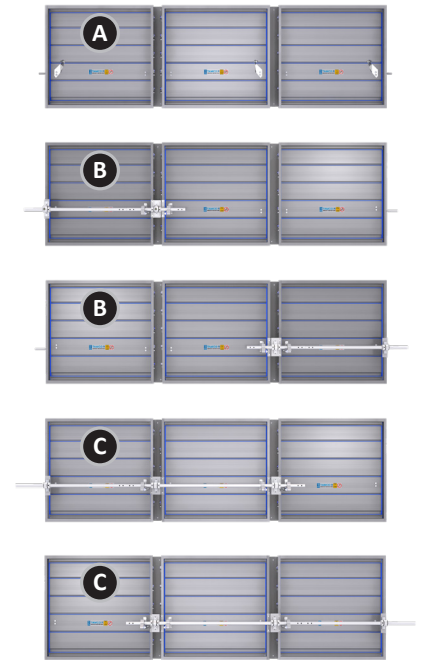
**NOTE: Three sections cannot be connected with vertical jackshafts. A maximum of two sections can be connected vertically.**



**CONFIGURATION 3**  
HORIZONTAL THREE-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
Over 120" w x 6¾" h (over 3048 mm x 172 mm)	
<b>Flanged to Duct:</b>	
Over 120" w x 4¼" h (over 3048 mm x 108 mm)	
<b>MAXIMUM SIZE:</b>	
75 ft <sup>2</sup>	(6.97 m <sup>2</sup> )
180" w x 60" h	(4572 mm x 1524 mm) or
144" w x 75" h	(3658 mm x 1905 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 75 ft<sup>2</sup> (6.97 m<sup>2</sup>):**  
3 motor locations. Damper to be ordered with face blade brackets for actuation in the airstream. Operated with a minimum of 1 motor, connected to each section's face blade bracket: left, centre, and right. Total minimum of 3 motors.
- B. Up to 75 ft<sup>2</sup> (6.97 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with a horizontal jackshaft. Operated with a minimum of 1 motor, direct-coupled to the single section's drive rod, and 1 motor connected to the jackshaft. Mounting holes are pre-drilled to allow jackshaft to extend beyond either the left end or the right end section. Total minimum of 2 motors.
- C. Up to 75 ft<sup>2</sup> (6.97 m<sup>2</sup>):**  
1 motor location. Damper to be ordered with a horizontal jackshaft. Operated with a minimum of 1 motor, connected to the jackshaft. Mounting holes are pre-drilled to allow jackshaft to extend beyond either the left end or the right end section.



**CONFIGURATION 2-3**  
SIX-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
Over 120" w x over 60" h (over 3048 mm x over 1524 mm)	
<b>MAXIMUM SIZE:</b>	
150 ft <sup>2</sup>	(13.93 m <sup>2</sup> )
180" w x 120" h	(4572 mm x 3048 mm) or
144" w x 150" h	(3658 mm x 3810 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

- A. Up to 150 ft<sup>2</sup> (13.93 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with jackshafts. Operated with a minimum of 1 motor connected to each single section's drive rod: top and bottom, and 1 motor connected to each jackshaft: top and bottom. Mounting holes are pre-drilled to allow jackshafts to extend beyond either the left end or the right end sections.
  - B. Up to 150 ft<sup>2</sup> (13.93 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with jackshafts. Operated with a minimum of 1 motor, connected to each jackshaft: top and bottom. Mounting holes are pre-drilled to allow jackshaft to extend beyond either the left end or the right end sections.
- NOTE: Vertical jackshafts are available for this configuration.**



**CONFIGURATION 3-3**  
NINE-SECTION DAMPER

MINIMUM SIZE:	
Over 120" w x over 120" h (over 3048 mm x over 3048 mm)	
MAXIMUM SIZE:	
225 ft <sup>2</sup>	(20.9 m <sup>2</sup> )
180" w x 180" h	(4572 mm x 4572 mm) or
144" w x 225" h	(3658 mm x 5715 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

**A. Up to 225 ft<sup>2</sup> (20.9 m<sup>2</sup>):**

6 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor, direct-coupled to each single sections' drive rod: top, middle, and bottom, and 1 motor connected to each jackshaft: top, middle, and bottom. Mounting holes are pre-drilled to allow jackshafts to extend beyond either the left end or the right end sections. Total minimum of 6 motors.



**B. Up to 225 ft<sup>2</sup> (20.9 m<sup>2</sup>):**

3 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor, connected to each jackshaft: top, middle, and bottom. Mounting holes are pre-drilled to allow jackshafts to extend beyond either the left end or the right end sections. Total minimum of 3 motors.



**NOTE: Three sections cannot be connected with vertical jackshafts. A maximum of two sections can be connected vertically.**

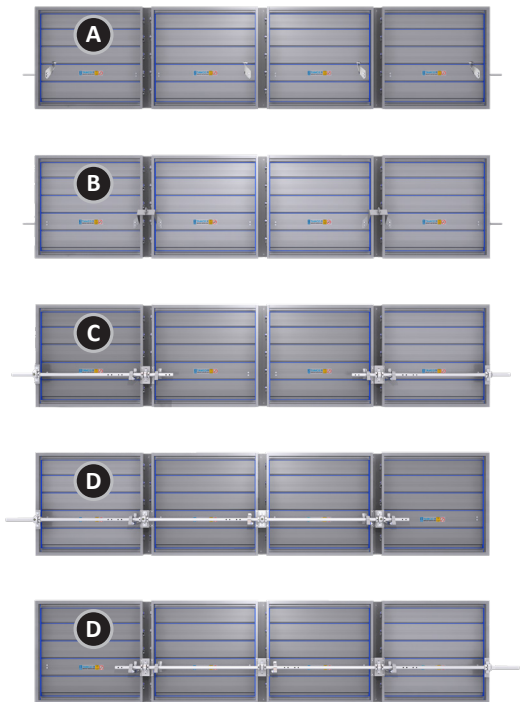


**CONFIGURATION 4**  
HORIZONTAL FOUR-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
<b>Installed in Duct:</b>	
Over 180" w x 6¾" h (over 4572 mm x 172 mm)	
<b>Flanged to Duct:</b>	
Over 180" w x 4¼" h (over 4572 mm x 108 mm)	
<b>MAXIMUM SIZE:</b>	
100 ft <sup>2</sup>	(9.29 m <sup>2</sup> )
240" w x 60" h	(6096 mm x 1524 mm) or
192" w x 75" h	(4877 mm x 1905 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

**NOTE: Care must be taken to select a sufficient number of actuators to ensure adequate torque to actuate four damper sections connected by a single jackshaft. Airflow static pressure and velocity must be considered when determining torque requirements.**

- A. Up to 100 ft<sup>2</sup> (9.29 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with face blade brackets for actuation in the airstream. Operated with a minimum of 1 motor, connected to each damper section's face blade bracket: left, center left, center right, and right. Total minimum of 4 motors.
- B. Up to 60 ft<sup>2</sup> (5.57 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with jumpers. Operated with a minimum of 1 motor, direct-coupled to each of the following sections' drive rods: left and right. Total minimum of 2 motors.
- C. Over 60 ft<sup>2</sup> (5.57 m<sup>2</sup>) up to 100 ft<sup>2</sup> (9.29 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor connected, to each jackshaft: left and right. Total minimum of 2 motors.
- D. Over 60 ft<sup>2</sup> (5.57 m<sup>2</sup>) up to 100 ft<sup>2</sup> (9.29 m<sup>2</sup>):**  
1 motor location. Damper to be ordered with a horizontal jackshaft. Operated with minimum of 1 motor, connected to the jackshaft. Mounting holes are pre-drilled to allow jackshaft to extend beyond either the left end or the right end section. Total minimum of 1 motors.



**CONFIGURATION 2-4**  
EIGHT-SECTION DAMPER

<b>MINIMUM SIZE:</b>	
Over 180" w x over 60" h (over 4572 mm x over 1524 mm)	
<b>MAXIMUM SIZE:</b>	
200 ft <sup>2</sup>	(18.58 m <sup>2</sup> )
240" w x 120" h	(6096 mm x 3048 mm) or
192" w x 150" h	(4877 mm x 3810 mm)
<i>(Limiting section width to 48" (1220 mm) allows height to increase to 75" (1905 mm) per section.)</i>	

**NOTE: Care must be taken to select a sufficient number of actuators to ensure adequate torque to actuate four damper sections connected by a single jackshaft. Airflow static pressure and velocity must be considered when determining torque requirements.**

- A. Up to 120 ft<sup>2</sup> (11.15 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with jumpers. Operated with a minimum of 1 motor direct-coupled to each of the following sections' drive rods: top left, top right, bottom left, and bottom right. Total minimum of 4 motors.
- B. Over 120 ft<sup>2</sup> (11.15 m<sup>2</sup>) up to 200 ft<sup>2</sup> (18.58 m<sup>2</sup>):**  
4 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor connected to each jackshaft: top left, top right, bottom left, and bottom right. Total minimum of 4 motors.
- C. Over 120 ft<sup>2</sup> (11.15 m<sup>2</sup>) up to 200 ft<sup>2</sup> (18.58 m<sup>2</sup>):**  
2 motor locations. Damper to be ordered with horizontal jackshafts. Operated with a minimum of 1 motor connected to each jackshaft: top and bottom. Mounting holes are pre-drilled to allow jackshafts to extend beyond either the left end or the right end sections. Total minimum of 2 motors.



# STANDARD CONFIGURATIONS

Contact TAMCO CUSTOMER SERVICE for possible configurations not shown, or for damper assemblies exceeding 2 sections high by 4 sections wide.

Although TAMCO does manufacture damper assemblies that exceed 200 ft<sup>2</sup>, we strongly recommend that dampers for openings whose overall dimensions are larger than 200 ft<sup>2</sup>, be divided into several smaller damper assemblies. Each of these should then be installed in its own proper support structure, within the overall larger opening. Doing so will facilitate actuation direct-coupled to the drive rod and reduce hysteresis.

**NOTE: Refer to STRUCTURAL DESIGN REQUIREMENTS FOR MULTI-SECTION DAMPERS**

## SPX ENGINEERED AIR MOVEMENT

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