Steel Control Damper ▲ 5½" Deep ▲ Airfoil Blade ▲ 200°F Max Temperature ▲ Parallel (AC517) or Opposed (AC518)

STANDARD MATERIALS AND CONSTRUCTION

FRAME: 5½" x 16 GA. galvanized steel hat channel. BLADE: Airfoil shaped, double skin galvanized steel

construction, 65/8" wide.

LINKAGE: Plated steel tie bar and crank plates with stainless

steel pivots contained in jamb.

AXLES: ½" square plated steel. **BEARINGS**: Heavy duty molded nylon.

SEALS: Vinyl on blades and stop angles, and stainless steel

at jambs.

FINISH: Mill.
TEMP. LIMIT: -40 to 200°F

OPTIONS

Exact Size

Blade Action - Parallel (AC517) or Opposed (AC518)

Material - 304 Stainless Steel

Face/Bypass - Vertical, Horizontal or Perpendicular

Sleeve - Transition - Sideplate

Vertical Blades

Flange - Front, Rear or Both

Jackshaft (1/2" or 1" diameter, depending on damper size)

Actuators - 120V, 24V, 230V or Pneumatic

Accessories - manual quadrants, standoffs, extended shafts

Position Indication - PK1200, PK1201 or integral to actuator

Transformer

Explosion Proof Housing

Pilot Positioner (for pneumatic actuators)

Copper Tubing (for pneumatic actuators)

Tab-Lock Retaining Angles - 1 or 2 sets

Bearings - OIL or Stainless Steel

Axle - Stainless Steel

Security Bars

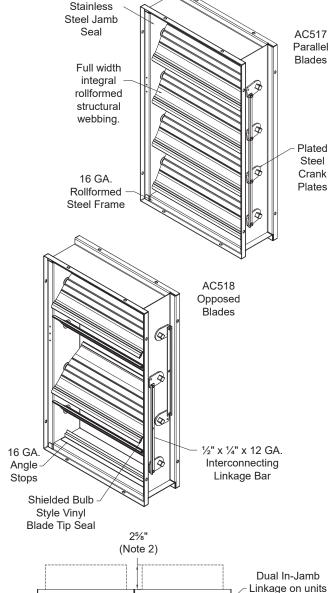
Finishes - Baked Enamel, Baked Epoxy or Prime Coat

<u>NOTES</u>

- 1. Nominal deductions of $1\!\!/\!_{\!\!4}{}^{\rm u}$ made to the opening size (unless specified as exact size).
- 2. Depending upon damper height, a variable width blade may be required, which could extend to a maximum of 25%" from either face of the damper. Contact the factory if exact dimensions of this variable blade are critical.
- 3. Dampers less than 14" tall are flat head/sill construction to maximize free area.
- 4. Shipping weight is approximately 6.5 lbs/sqft

DAMPER SIZES

| Panels | Min Panel | Max Single Panel |
|----------------|------------|------------------|
| Parallel Blade | 8"W x 6"H | 48"W x 72"H |
| Opposed Blade | 8"W x 12"H | 48"W x 72"H |



| Stainless Steel Pivots | - a n | 16 (| \$ 1 | Dual In-Jamb Linkage on units 30" or wider. |
|--|--------------|-------------|-------------|---|
| Heavy-Duty - Molded Nylon Bearings | | (3::::)p(| 11:===== | -1/2" Square Plated Steel Axles |
| · · | | Mull | | |
| | | (Тур | o.) | |
| | | | | |

| Thom # | Ot., | Width | Height | Parallel | Opposed | Coole | Actuator | Interior | Exterior | N.C. | N.O. | WAL S |
|---------|--------|-------|---------|----------|--------------|-------------|----------|---------------|----------|----------|------|-------------------|
| Item # | Qty | Damp | er Size | Blades | Blades Seals | Seals Model | Model | Act. Location | | Function | | <u>Union Made</u> |
| Arch. / | Eng.: | | | | | EDR: | | ECN: | | Job: | | |
| Contr | actor: | | | | | | | | | | | |
| Pr | oject: | | | · · | | Date: | | DWN: | | DWG: | | |



Steel Control Damper ▲ 51/2" Deep ▲ Airfoil Blade ▲ 200°F Max Temperature ▲ Parallel (AC517) or Opposed (AC518)

AIR LEAKAGE

Air Leakage is based on operation between 32° F and 120° F. Tested for air leakage in accordance with ANSI/AMCA Standard 500-D, Figure 5.4. Data are based on a torque of 7 in-lb/ft² applied to close and seat the damper during the test. All data has been corrected to represent standard air density .075 lb/ft3.

Leakage Class Test Results

Parallel (AC517)

| Damper Size | 1 in. w.g. | 4 in. w.g. | 6 in. w.g. | 8 in. w.g. |
|---------------|---------------|---------------|---------------|---------------|
| 12" W x 48" H | 1A | 1 | 1 | 1 |
| 36" W x 36" H | 1A | 1 | 1 | 1 |
| 48" W x 36" H | 1A | 1 | 1 | 1 |

Opposed (AC518)

| Damper Size | 1 in. w.g. | 4 in. w.g. | 6 in. w.g. | 8 in. w.g. |
|---------------|---------------|---------------|---------------|---------------|
| 12" W x 48" H | 1A | 1 | 1 | 1 |
| 36" W x 36" H | 1A | 1 | 1 | 1 |
| 48" W x 36" H | 1A | 1 | 1 | - |

AIR PERFORMANCE

Tested for Air Performance in accordance with ANSI/AMCA Standard 500-D, Figure 5.3. Air performance testing was conducted using opposed blade dampers; the same results can be applied to parallel blade dampers. All data has been corrected to represent standard air density .075 lb/ft3.

| Dam) | <u> </u> | <u>r Si</u> | <u>ze</u> |
|------|---------------|-------------|-----------|
| 12" | ~ | 12 | |
| 12 | ^ | 12 | |
| | $\overline{}$ | | |

| 12 X 12 | | | | |
|-------------------|-------------------|--|--|--|
| Velocity (fpm) | ∆ P (in. w.g.) | | | |
| 500 | 0.01 | | | |
| 1000 | 0.05 | | | |
| 1500 | 0.11 | | | |
| 2000 | 0.20 | | | |
| 2500 | 0.31 | | | |
| 3000 | 0.45 | | | |
| 3500 | 0.61 | | | |
| 4000 | 0.80 | | | |
| 4500 | 1.01 | | | |
| 5000 | 1.25 | | | |

| <u>Dam</u> | per | Size |
|------------|-------|------|
| 24' | ' x 2 | 24" |

| Velocity (fpm) | ∆ P (in. w.g.) |
|-------------------|-------------------|
| 500 | 0.01 |
| 1000 | 0.03 |
| 1500 | 0.08 |
| 2000 | 0.14 |
| 2500 | 0.21 |
| 3000 | 0.31 |
| 3500 | 0.42 |
| 4000 | 0.55 |
| 4500 | 0.69 |
| 5000 | 0.85 |

Damper Size 12" x 48"

| Velocity (fpm) | ∆ P (in. w.g.) |
|-------------------|-------------------|
| 500 | 0.01 |
| 1000 | 0.05 |
| 1500 | 0.11 |
| 2000 | 0.20 |
| 2500 | 0.32 |
| 3000 | 0.46 |
| 3500 | 0.62 |
| 4000 | 0.81 |
| 4500 | 1.03 |
| 5000 | 1.27 |

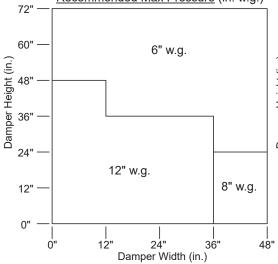
Damper Size 36" x 36"

| Velocity (fpm) | ∆ P (in. w.g.) |
|-------------------|-------------------|
| 500 | 0.01 |
| 1000 | 0.02 |
| 1500 | 0.05 |
| 2000 | 0.09 |
| 2500 | 0.16 |
| 3000 | 0.20 |
| 3500 | - |
| 4000 | - |
| 4500 | - |
| 5000 | - |

Damper Size 48" x 12"

| Velocity (fpm) | ∆ P (in. w.g.) |
|-------------------|-------------------|
| 500 | 0.01 |
| 1000 | 0.03 |
| 1500 | 0.08 |
| 2000 | 0.14 |
| 2500 | 0.21 |
| 3000 | 0.30 |
| 3500 | 0.41 |
| 4000 | 0.54 |
| 4500 | 0.68 |
| 5000 | 0.84 |





Recommended Max Velocity (fpm) 72" 60" 2000 fpm Damper Height (in.) 48" 36" 3000 fpm 5000 fpm 24" 48' 0 12' 36" Damper Width (in.)



Air Balance certifies that the Model AC517 - AC518 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings only.

