

MANUAL - INSTALLATION + SERVICE

Wall Mounted Displacement Accessories AFSD Series



WALL MOUNTED DISPLACEMENT ACCESSORIES

INSTALLATION INSTRUCTIONS

Receiving Inspection

 After unpacking the assembly, check for shipping damage. If any damage is found, immediately report to the delivering carrier. During unpacking and installation do not handle by the flow sensor, damper shaft, or handle because damage may result.

Installing the AFSD

- The AFSD is always installed vertically or horizontally with the flow sensor (SP300) facing the flow (Figure A). (Note: flow must go into the TP ports in the SP300)
- All AFSD units must be installed upstream of diffuser by at least 3 x duct diameter (Table 1 and Figure B).

Calibrating the AFSD

- Make sure that the pressure tubes are kink free with no sharp corners. Connect pressure gauge up to AFSD as per (Figure C).
- Determine the appropriate K value or slope for the AFSD and then determine your Differential Pressure (VP) (Table 2, Graph 1 and Equation on Page 2).
- Loosen wing nut on damper handle and adjust damper to vary VP.
- Once appropriate VP is obtained, tighten wing nut down on handle to lock in place.

| Table 1 | | | | |
|-----------|------------------------------------|---------|--------|--------|
| Unit Size | Distance Up Stream From Unit | Max CFM | A | В |
| 6 | 18 | 450 | 5.875 | 13.391 |
| 7 | 21 | 650 | 6.875 | 13.391 |
| 8 | 24 | 800 | 7.875 | 13.391 |
| 9 | 27 | 1050 | 8.875 | 13.391 |
| 10 | 30 | 1350 | 9.875 | 13.391 |
| 12 | 36 | 2100 | 11.875 | 13.391 |
| 14 | 42 | 3000 | 13.875 | 15.391 |
| 16 | 48 | 4000 | 15.875 | 15.391 |

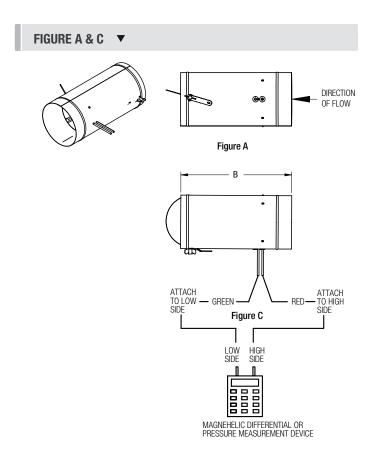
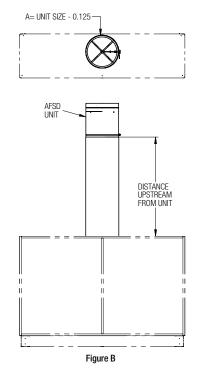


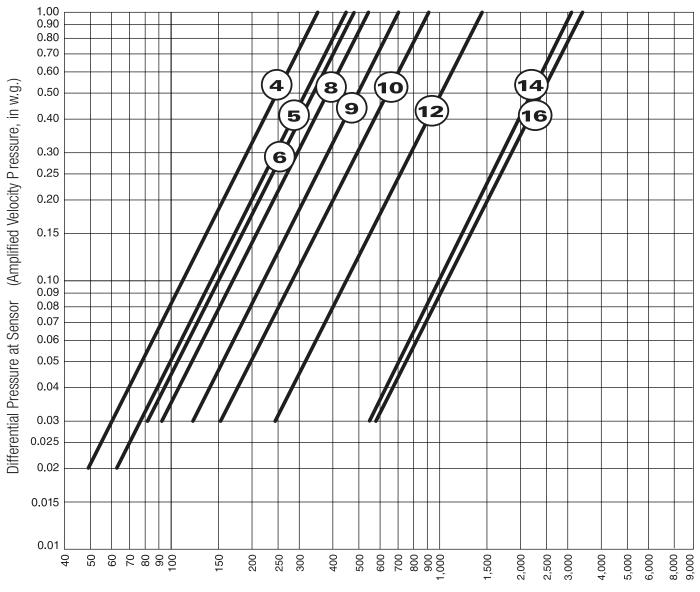
FIGURE B ▼



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AFSD CALIBRATION CURVES ▼



Air Flow: CFM at Standard Density

GRAPH 1

| Table 2 | | | |
|-----------|------|--|--|
| Unit Size | K | | |
| 4 | 350 | | |
| 5 | 450 | | |
| 6 | 470 | | |
| 8 | 540 | | |
| 9 | 700 | | |
| 10 | 895 | | |
| 12 | 1420 | | |
| 14 | 3150 | | |
| 16 | 3360 | | |

$$VP = \left(\frac{Q}{K}\right)^2$$

VP = Differential pressure at sensor, inches w.g.

Q = Air flow rate, CFM at standard density

K = Calibration Constant

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