

EXTERNAL INLET VANE DAMPER**Application and Design**

The IVDE is a round external inlet vane damper intended for application in high pressure and velocity systems. Primary application is on inlet of Class I and Class II fans.

Ratings

Pressure: 8.5 in. wg (2117 Pa) - pressure differential.

Airflow: See Page 2

Temperature: 200°F (93°C)

Standard Construction

Frame: 10 ga. (3.5mm) steel.

Blades: 16 ga. (1.6mm) steel.

Axles: 1/2 in. (13mm) dia. plated steel.

Bearings: Stainless steel sleeve.

Hub: Open.

Finish: Permatector™

Actuator: Manual quadrant

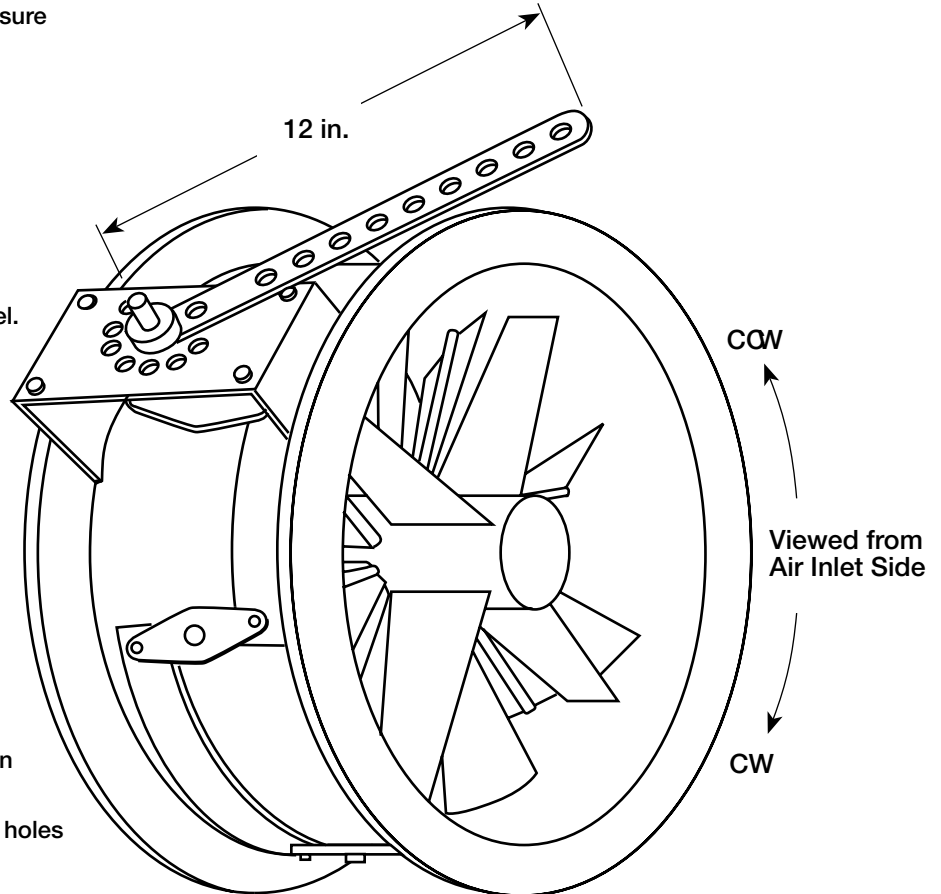
Size Limitations

Minimum Size: 12 in. (304mm) dia.

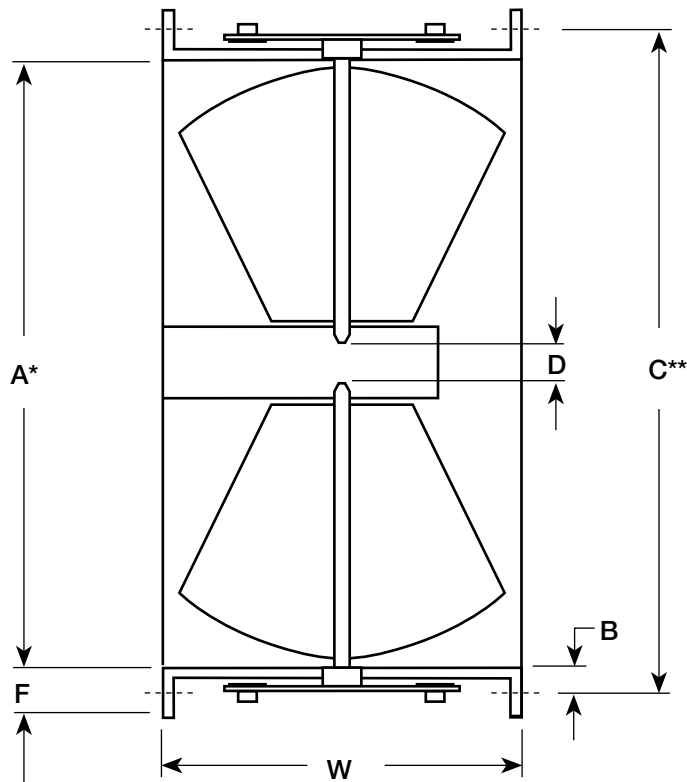
Maximum Size: 67 in. (1701mm) dia.

Optional Features

- Wide range of electric and pneumatic actuators available. Factory installation available.
- Bolt holes in both flanges (8, 12, or 16 holes available).
- Closed (flat capped) hub.



Dimensional and Airflow Information



* Inside diameter

** Bolt hole circle diameter. Bolt holes are optional. Specify "C" within the following limits:

Minimum "C" dimension = $A + 1\frac{5}{8}$ in.

Maximum "C" dimension = $A + 2B$

A Inside Dia. (in.)	B Max. Dim.	C	D Hub Dia.	F Flange	W Depth	Number of Blades	Mounting Hole Diameter	Maximum CFM
12 - 17.5	$\frac{15}{16}$	**See note above	3	$1\frac{3}{8}$	9	6	$\frac{7}{16}$	14,200
17.51 - 22.5	1		3	$1\frac{1}{2}$	9	8	$\frac{7}{16}$	18,000
22.51 - 28.31	1		4	$1\frac{1}{2}$	9	10	$\frac{7}{16}$	30,000
28.32 - 33.06	1		4	$1\frac{1}{2}$	9	12	$\frac{7}{16}$	37,500
33.07 - 39	1		6	$1\frac{1}{2}$	9	14	$\frac{7}{16}$	40,600
39.01 - 49	$1\frac{3}{16}$		6	$1\frac{3}{4}$	10	16	$\frac{5}{8}$	50,800
49.01 - 55	$1\frac{7}{16}$		8	2	10	18	$\frac{5}{8}$	56,000
55.01 - 67	$1\frac{7}{16}$		8	2	11	20	$\frac{5}{8}$	56,000

NOTE: Temperatures in excess of 200°F (93°C) require special consideration. All dimensions are in inches.

Specifications

External inlet vane dampers meeting the following specifications shall be furnished and installed where shown on plans and/or as described in schedules.

Dampers shall consist of: a 10 ga. (3.5mm) hot-rolled steel frame; blades fabricated from 16 ga. (1.6mm) hot-rolled steel; $\frac{1}{2}$ in. (13mm) dia. plated steel axles turning in stainless steel sleeve bearings; and gray baked enamel finish.

Damper manufacturer's printed application and performance data including pressure, airflow (cfm) and temperature limitations shall be submitted for approval showing damper suitable for pressures to 8.5 in. wg (2117 Pa), airflows to 56,000 cfm (26.4 m³/s) and temperatures to 200°F (93°C).

Basis of design is Greenheck model IVDE.

