HUMIDIN®

DAMPERS

amca INTERNATIONAL
MEMBER

Quality Speaks For Itself

HUMIDIN®

DAMPERS

STANDARD MATERIALS AND CONSTRUCTION

FRAME: with reinforcing bosses and groove inserts for silicone seals. Frame is 5 ^ prime prime deep.

BLADE: 12-GA (81 ^ prime prime nominal) extruded aluminum. Single unit airfoil design, with the pin-lock an integral section within the bladecore. 6 ^ prime prime wide.

BLADE: 12-GA (81 ^ prime prime nominal) extruded aluminum. Single unit airfoil design, with the pin-lock an integral section within the bladecore. 6 ^ prime prime wide.

SHAFTS: 1/2 ^ prime prime dia. extruded aluminum, pin-lock design interlocking into blade section.

BEARINGS: Double-Sealed" type with celcon inner bearing on axle riding in polycarbonate outer bearing inserted in frame so that outer bearing cannot rotate; Axle bearings to be designed for no metal-to-metal or metalto-bearing riding surfaces, Interconnecting linkage to have celcon bearings to eliminate friction in linkage.
Extruded silicone rubber seal. Stainless steel spring jamb seals.

SEALS

LINKAGE: In jamb. Aluminum crank-armpermanently locked to blade shaft by two stainless steel fasteners. Crank-arm contains a 1/2 " dia., machined steel trunnion riding in a celcon bearing, a plated steel 1/4 - 20 set screw with locking patch ties the pivot to the 5/16 dia, aluminum linkage rod. Linkage of each damper is individually adjusted.

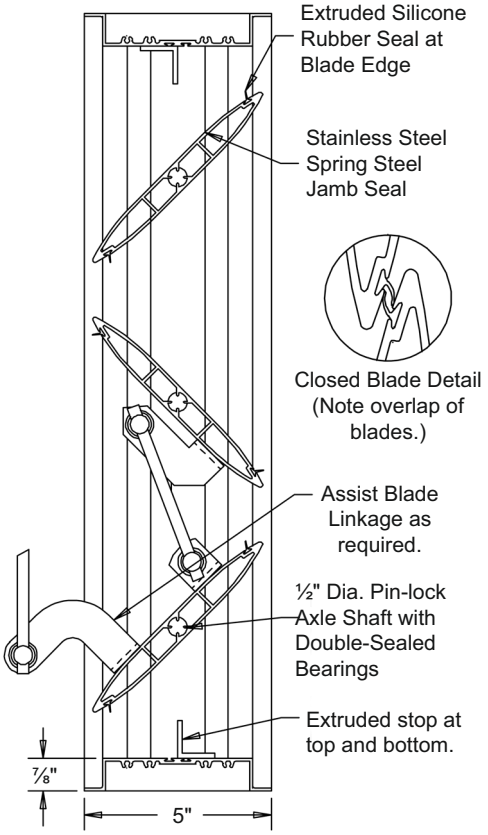
FINISH: Mill

Options

Hand Quadrants
120V, 24V, or Pneumatic Actuators
Jackshafting
Auxiliary Switch
Explosion Proof Housing
Clear anodize blades and frames (204-R1)

Notes

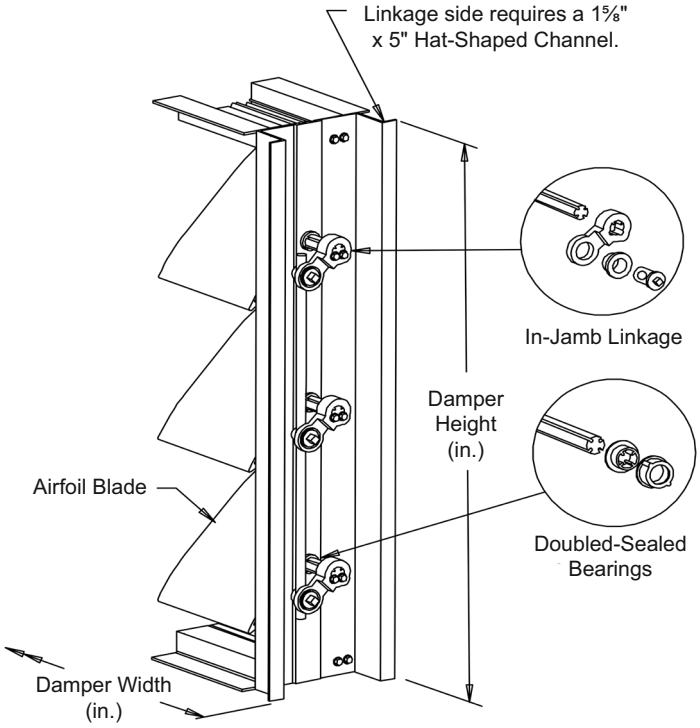
1. Nominal deductions will be made to the opening size given.
2. Approximate shipping weight is 5.5 lbs./sq.ft.



Opposed Blade Damper

Not to scale.

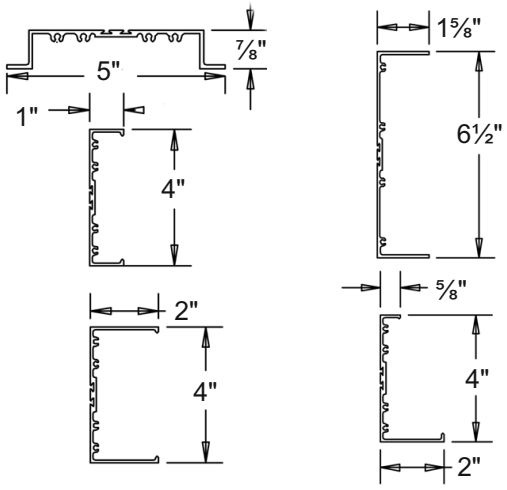
Not to scale.



Parallel Blade Damper

Damper Sizes

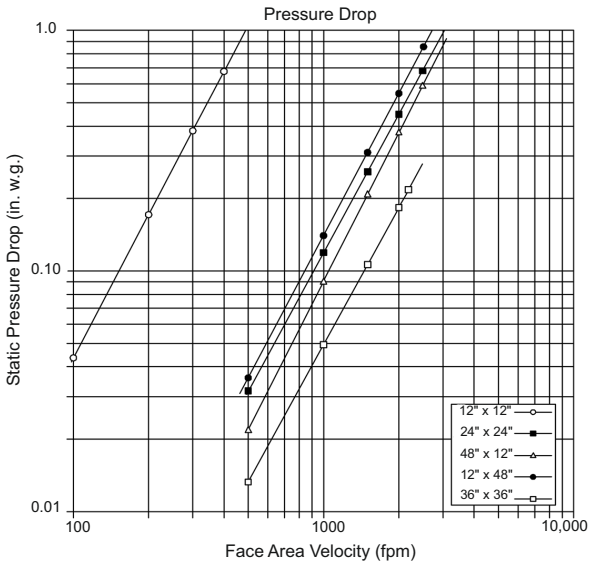
Model	Min Panel	Max Single Panel
Parallel	12"W x 12"H	60"W x 72"H
Opposed	12"W x 14⅝"H	60"W x 72"H



Optional Frames Available

PERFORMANCE DATA

Pressure drop ratings are based on AMCA Standard 500-D using test set-up Fig. 5.3 for damper installed with duct upstream and downstream. Static pressures are corrected to .075 lb/cu.ft. air density.



12"W x 12"H / 24"W x 24"H

Face Area Velocity (fpm)	Pressure Drop (in. w.g.)	Face Area Velocity (fpm)	Pressure Drop (in. w.g.)
100	0.04	500	0.03
200	0.16	1000	0.12
300	0.38	1500	0.25
400	0.69	2000	0.45
500	1.00	2500	0.68

12"W x 48"H / 48"W x 12"H

Face Area Velocity (fpm)	Pressure Drop (in. w.g.)	Face Area Velocity (fpm)	Pressure Drop (in. w.g.)
500	0.04	500	.02
1000	0.14	1000	.09
1500	0.31	1500	.20
2000	0.56	2000	.38
2500	0.85	2500	.58

Air Leakage requirements meet International Energy Conservation Code (IECC) by leaking less than 3 cfm/sq.ft. at 1 in. w.g. of static pressure and is AMCA licensed as a class "1A" damper.

Damper Size	1 in. w.g. Class	4 in. w.g. Class
12"W x 12"H	1A	1
24"W x 24"H	1A	1
36"W x 36"H	1A	1
12"W x 48"H	1A	1
48"W x 12"H	1A	1
60"W x 36"H	1A	1

Air Leakage ratings are based on Standard 500 using test set-up Fig. 5.5 at an operation temperature range between 50°F and 104°F. Data are based on a seating torque of 40 lb/in for dampers less than 4 sq.ft in size. Dampers above 4 sq.ft, 5 lb/in/sq.ft. is applied to hold the damper in the closed position.

12"W x 48"H

Face Area Velocity (fpm)	Pressure Drop (in. w.g.)
500	0.01
1000	0.05
1500	0.10
2000	0.18
2500	0.21

Damper Air Leakge Classification

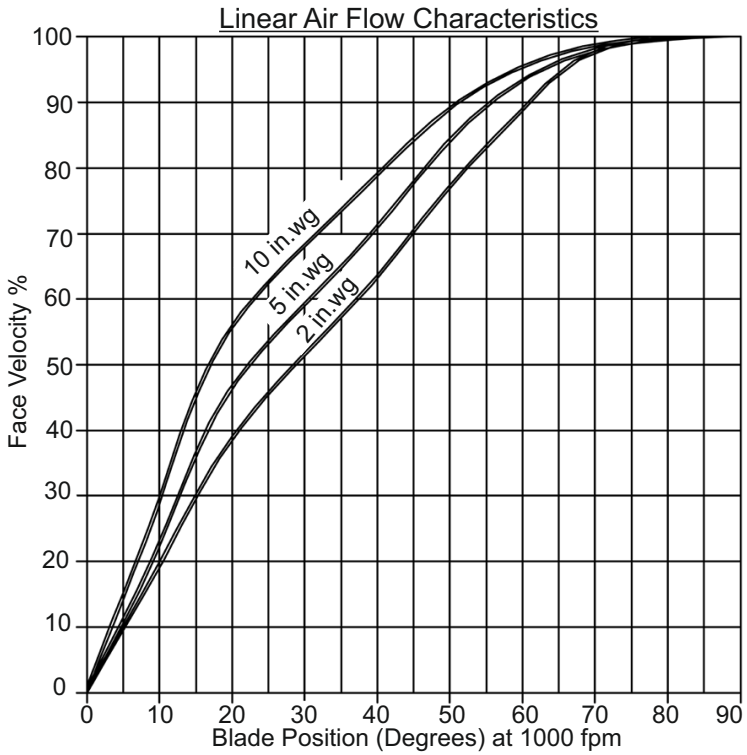
	Leakage cfm/ft² Required Rating	
Class/Pressure	1 in. w.g.	4 in. w.g.
1A	3	NA
1	4	8
2	10	20
3	40	80

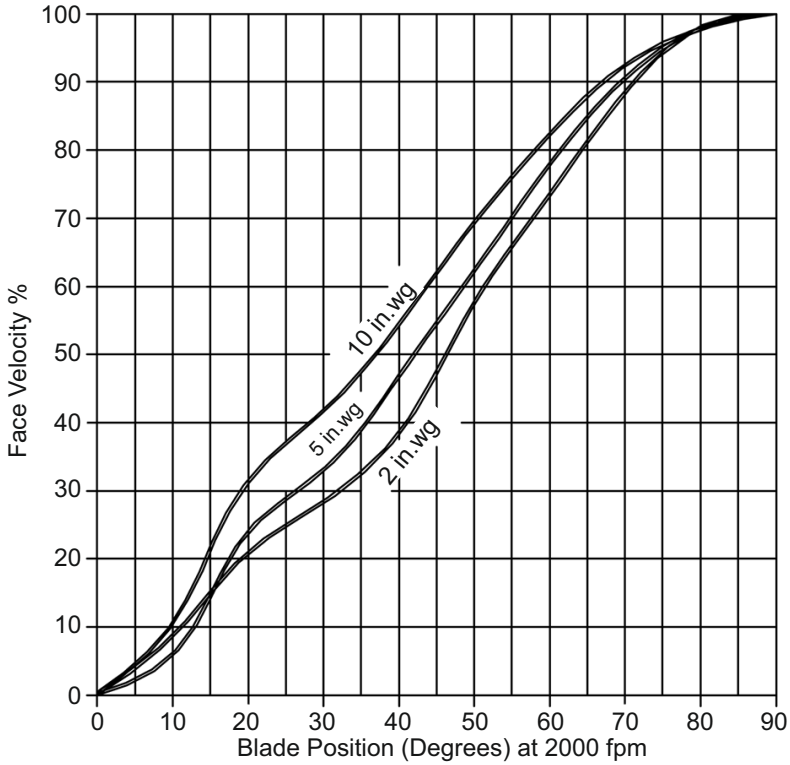
LINEAR AIR PERFORMANCE

Test units were installed in ductwork with duct upstream and downstream in accordance with AMCA Standard 500-D test set-up Fig. 5.3.Using most common approach velocities and fan static pressures to conduct linear air flow test.

The results of the tests show that fan static pressure does have an effect on the linear air flow characteristics of a damper. These graphs will identify the simulated system conditions used for the single damper in duct system application.

Curves shown in these graphs demonstrate that the Model AFD-20 opposed blade damper "as standardly built" is a very effective control damper for use in a variety of velocities and pressures.





HUMIDIN

Sales & Marketing Department
North India:
Phone: +91 9654400710
Email Id: tc@humidin.com

East India:
Phone:+91 9654551093
Email Id: tceast@humidin.com

West India:
Phone +91 9654551015
Email id: tcwest@humidin.com

South India:
Phone +91 9654781452
Email Id: tcsouth@humidin.com

Finance Department
Phone +91 9654452925
Email Id: accounts@humidin.com

After Sales Service Department (24x7)
Phone: +91 9654452926
Email Id: service@humidin.com

COUNTRIES:
RIYADH:
Phone: 9220500368
Email Id: riyadh@humidin.com

EGYPT:
Phone: 9220500367
Email Id: egypt@humidin.com

HR Department
Phone: +91 7290065533
Email Id: hr@humidin.com
hrmanager@humidin.com

The intention of this brochure is to introduce you to, and acquaint you with the capabilities of the HUMIDIN organization in the offered product areas. It will not answer all your immediate questions, and indeed, it will no doubt raise others. We welcome your interest in our products and shall be very pleased to provide further information.

GUARANTEES

HUMIDIN guarantees its products to be free of defects in materials and workmanship for a period of one year from the date of delivery from the factory, provided motors are properly installed with overload protector. Humidin agrees to repair or replace defective parts or part to be returned to the factory, all transportation charges prepaid. Humidin does not guarantee against abrasion, corrosion or erosion. Humidin shall not be held responsible for any charges in connection with the removal or replacement of alleged defective equipment nor for incidental consequential damages

A.C HUMIDIN AIR SYSTEMS PVT.LTD.

Plot C18, Sector A2 Tronica City UPSIDC Industrial Area Loni Dist. Ghaziabad Uttar Pardesh-201102