

Performance	
Quantity	1
Volume (CFM)	2,500
Total External SP (in. wg)	1.5
Operating Power (hp)	1.22
Required Power (hp)	1.22
Fan RPM	1759
Max Fan RPM	2,000
Oper. Frequency (Hz)	60
Elevation (ft)	180
Start-up Temp.(F)	70
Operating Temp.(F)	70

Fan Configuration	
Construction Type	PermaLock
Size	15
Class	0
Arrangement	10
Rotation	CW
Discharge Position	TH
Spark Resistance	Spark B
Scroll Material	Steel
Wheel Material	Aluminum
Inlet Cone Material	Steel

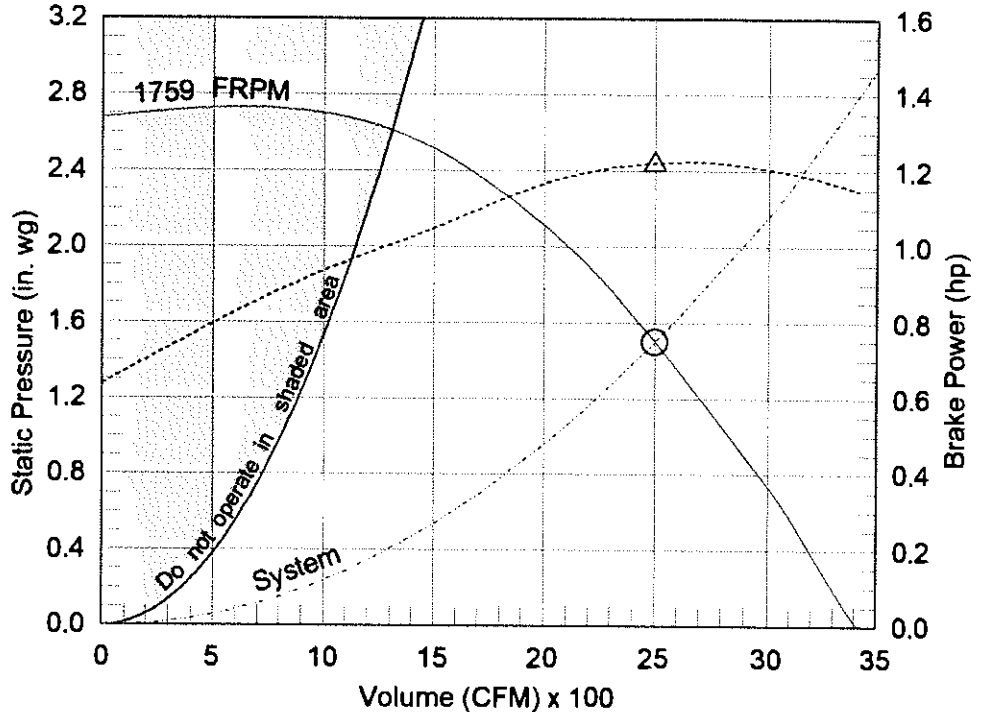
Equipment Weights	
Fan (LMD)(lb)	185
Motor/Drive (lb)	42
Accessories (lb)	101

Misc Fan Data	
FEG	71
Outlet Velocity (ft/min)	1,938
Static Efficiency (%)	51
Tip Speed (ft/min)	6,909

Motor and Drives	
Motor	Included
Size (hp)	1 1/2
RPM	1725
Enclosure	ODP
V/C/P	460/60/3
Frame Size	145T
Max Frame Size	215
Location	Centered
Pulley Type	Constant
Drive Loss (%)	5.7
Drives	Single
Drive Service Factor	1.5
NEC FLA* (Amps)	3

Model: CSW-15-BI-21-10-0-15
Series 21 Backward Inclined Single Width

Operating Performance



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- · · Brake horsepower curve

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	84	83	80	80	77	73	69	63	82	70	18.4
Outlet	95	90	89	85	79	76	71	64	87	75	26

*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

LwA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft- dBA levels are not licensed by AMCA International

Sones - calculated using AMCA 301 at 5 ft



Model: CSW-15-BI-21-10-0-15

Series 21 Backward Inclined Single Width

Standard Construction Features:

HOUSING: Series 21 class I and II fans feature Perma-Lock construction on sizes 7-49 and continuously welded housing on sizes 54-73 and all class III fans - Inlet collars on Arr. 1, 9, 10 - Punched outlet flange standard (except for downblast - DB) on class I and II sizes 33-73 and all class III fans - All structural steel parts phosphatized and coated with Permatecor BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bearings - Polished, solid steel shafts - Welded centrifugal wheel

Selected Options & Accessories:

NEMA Premium Efficient Motor - meets NEMA Table 12-12

Motor VFD Rated

Motor with Shaft Grounding

Motor with Class B or Greater Insulation

Coating - Permatecor, Concrete Gray-RAL 7023, Mill Finish on Aluminum Components

Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Ship Separate

Isolation Base, Factory Mounted, Isolator-Spring, Restrained, 1 Inch, Base Coating - Permatecor

Bearings - L(10) Life of 80k Hours

Housing - PermaLock

Wheel - Backward Inclined

UL Listed for UL/cUL-705 - "Power Ventilators"

Access Door - Bolted

Damper, Gravity, HB-110, Alum. Blade, Parallel, w/ Mill Finish

Inlet Connection - Slip Fit

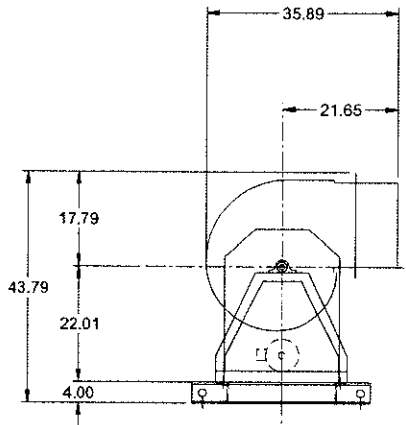
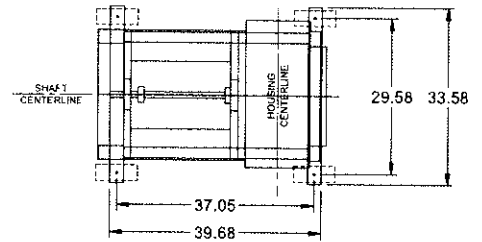
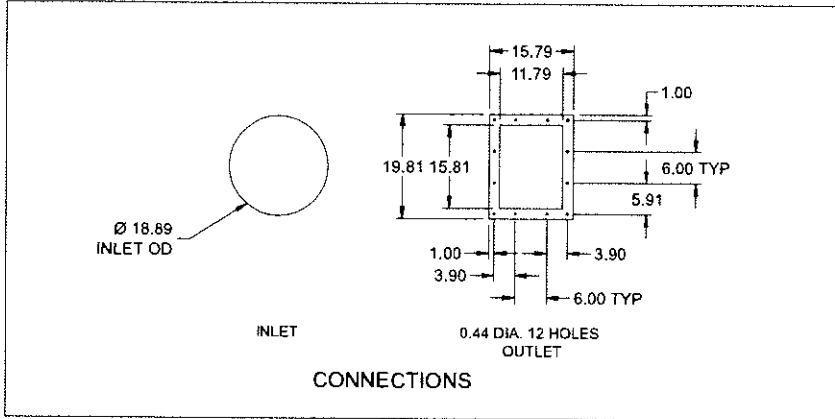
Outlet Connection - Outlet Flange, Punched

Weatherhood - Steel

Rub Ring - Aluminum

Fasteners - Standard

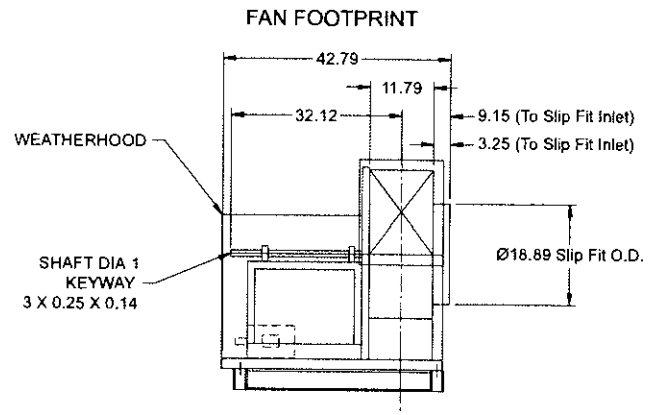
Unit Warranty: 1 Yr (Standard)



SIDE VIEW

*SIDE VIEW IS VIEWED FROM DRIVE SIDE

*FANS ARE SUBJECT TO ±.125 INCH TOLERANCE
*DUE TO CONTINUAL IMPROVEMENTS DIMENSIONS MAY CHANGE



END VIEW

Notes: All dimensions shown are in units of in.

Isolation Base

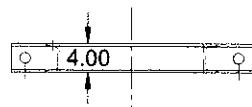
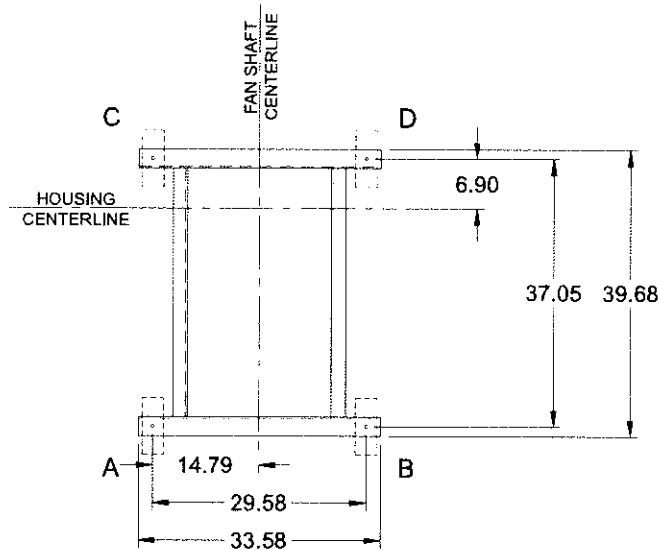
Type: Isolation Base

Standard Construction Features:

-Steel Channel - Welded construction - Pre-punched mounting holes for fan and isolator mounting - Welded lifting lugs - Motor slide base (Arr 1 and Arr 3 only)

Fan Configuration

Model:	CSW-15-BI-21-10-0-15	Discharge Position:	TH
Arrangement:	10	Class:	0
Rotation:	CW	Motor Frame Size:	145T
Motor Position:	Centered	Isolator/Deflection:	Spring, Restrained, 1 Inch
Corner Weight A (lb):	78	Corner Weight B (lb):	91
Corner Weight C (lb):	72	Corner Weight D (lb):	85



Notes: All dimensions shown are in units of in.

Isolators

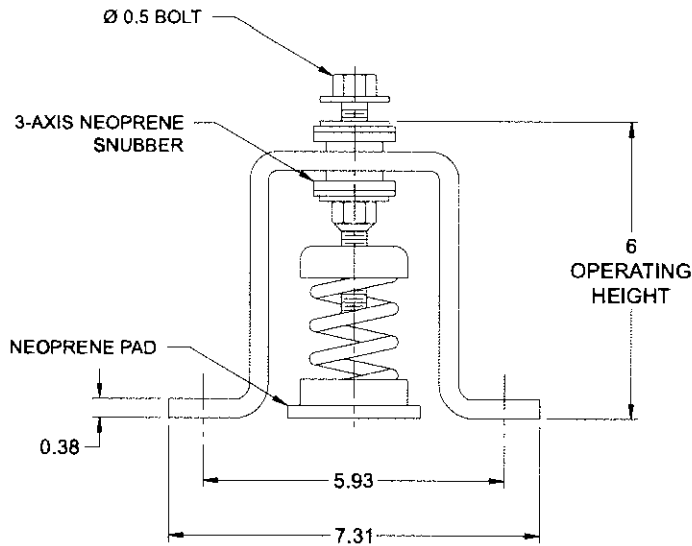
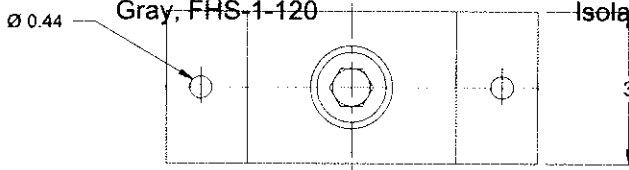
Type: Spring, Restrained, 1 Inch

Standard Construction Features:

Designed for horizontal and vertical restraint. Housings can be bolted or welded to supporting structure. Housings may be used for blocking during installation. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model:	CSW-15-BI-21-10-0-15	Discharge Position:	TH
Arrangement:	10	Class:	0
Rotation:	CW	Motor Frame Size:	145T
Motor Position:	Centered	Isolator/Deflection:	Spring, Restrained, 1 Inch
Isolator Color A:	Gray	Isolator Color B:	Gray
Isolator Color C:	Gray	Isolator Color D:	Gray
Isolator A:	Gray, FHS-1-120	Isolator B:	Gray, FHS-1-120
Isolator C:	Gray, FHS-1-120	Isolator D:	Gray, FHS-1-120



Notes: All dimensions shown are in units of in.

Heavy Duty Backdraft Damper

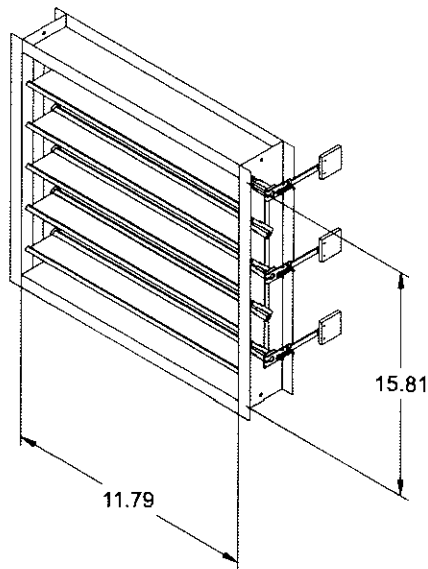
Model: HB-110

Standard Construction Features:

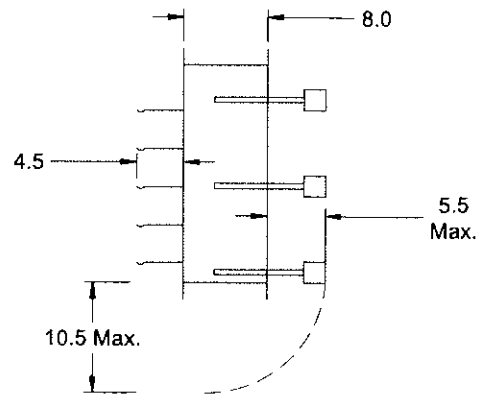
- Model HB-110 is a heavy duty double flanged, aluminum frame style backdraft damper with extruded aluminum blades. It is designed to prevent backflow and to provide shut off in HVAC or industrial process systems. External heavy duty linkage, blade counterbalance, and ball bearings are standard.

Accessory Configuration

Damper Type: Gravity
 Damper Material: Aluminum
 Damper Blade Action: Parallel



DAMPER



TYP. SECTION VIEW

Notes: All dimensions shown are in units of in.