



Weaver

CONSTRUCTION MANAGEMENT

3679 S Huron Street, Suite 404 Englewood, Colorado 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

August 13, 2012

Submittal No: 15800-017

PROJECT: **Harold Thompson Regional WRF**
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: **GMS, Inc.**
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan
Sewage Disposal District**
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: **Kuck Mechanical Contractors, LLC.**
395 West 67th Street
Loveland, CO 80593
970-461-3553 Melanie Peterson

SUBJECT: Blower Building EF's (TAG: EF-1, EF-2)

SPEC SECTION: 15800 - Heating & Ventilating

PREVIOUS SUBMISSION DATES:

DEVIATIONS FROM SPEC: ___ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and, unless indicated otherwise, has been found to be in conformance with the intent of the contract documents.

Contractor's Stamp:

Engineer's Stamp:

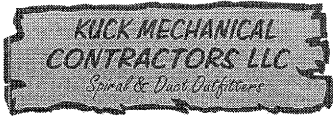
Date: 9/13/12

Reviewed by: John Jacob

(x) Reviewed Without Comments

() Reviewed With Comments

ENGINEER'S
COMMENTS: _____



395 West 67th Street
P.O. Box 388
Loveland, CO 80539-0388
Phone: (970) 461-3553
Fax: (970) 461-3443

DATE: 08/09/12

SENT TO: Weaver General Contractors

Attn: John Jacob

JOB: Harold D. Thompson WRF (#01135)
9001 Birdsell Rd.
Fountain, CO 80817

SUBMITTAL NO.: 00024

SUBMITTAL DUE:

PACKAGE: n/a

VENDOR NAME: CFM

SPECIFICATION #: 15800

SUBJECT: Blower Bldg - EF's

REVIEW DETAILS:

Review #: 1	Received: 08/09/12	Priority: Normal
Desc: Blower Bldg - EF's	Sent: 08/09/12	Status: Open
Reviewer: John Jacob	Returned:	Sepias: 0
Weaver General Contractors	Forwarded:	Prints: 0

Sent for the following action(s):

- For Approval
 For Distribution
 For Your Use/Files
 As Req'd per

Action Needed:

Sincerely,
Melanie Peterson

Kuck Mechanical Contractors
PM Assistant
395 W. 67th Street
Loveland, CO 80538



CFM COMPANY

AIR CONDITIONING / HEATING / VENTILATING EQUIPMENT

413D North Highway 287 - Ft. Collins, CO 80524

Phone: (970) 493-7293 / Fax: (970) 493-7297

Harold D Thomposon Blower Building

TAG: EF-1, 2

Sidewall Belt Driven Propeller Fans

Submittal Date: 8/8/2012

Submitted by: Sam Heilbronner

SUBMITTAL

Job Title: **HD Thompson Blower Building 073112 RP**

Elevation: (ft) 5,280

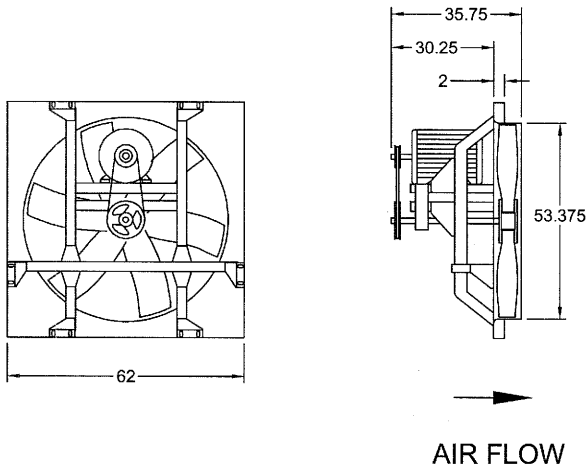
Date: 08/08/12

Submitted By: Raechelle Powell

CFM COMPANY
413D NORTH HWY 287
FORT COLLINS , CO 80524-1346
US
Phone: (970)493-7293
Fax: (970)493-7297
Email Address: samh@cfmcompany.com



P.O. Box 410 Schofield, WI 54476 (715) 359-6171 FAX (715) 355-2399 www.greenheck.com



See the Assembly Drawing For Selected Accessories

Model: SBE-3H54-75

Sidewall Belt Drive Exhaust Fan Standard Construction Features:

- Galvanized steel fan panel - Die formed, galvanized steel drive frame assembly - Fabricated steel propeller for Levels 1 and 2, welded and painted steel for Level 3 - Adjustable motor pulley - Ball bearing motors - Fan shaft mounted in ball bearing pillow blocks - Static resistant belts - Corrosion resistant fasteners

Options & Accessories:

- NEMA Premium Efficient Motor - meets NEMA Table 12-12
- UL/cUL 705 Listed - "Power Ventilators"
- Damper, WD-320-PB-56X56, Gravity Operated (Mounted), Coated
- Short Wall Hsg. Flush Ext., (1A-Exh), w/ Grd., Ctd with Permatecor, Gray (040)
- Switch, NEMA-4X, Toggle, Junction Box Mounted & Wired
- Weatherhood, Galvanized 45 deg. with Bird Screen
- Coating Permatecor, Gray (040), Fan & Attached Accessories
- Bearings with Grease Fittings

Dimensional

Qty	Weight w/o Accessories (lb)	Weight with Accessories (lb)	Wall Opening (in)	Optional Damper (in)
2	403	951	63.75 x 63.75	56 x 56

Performance

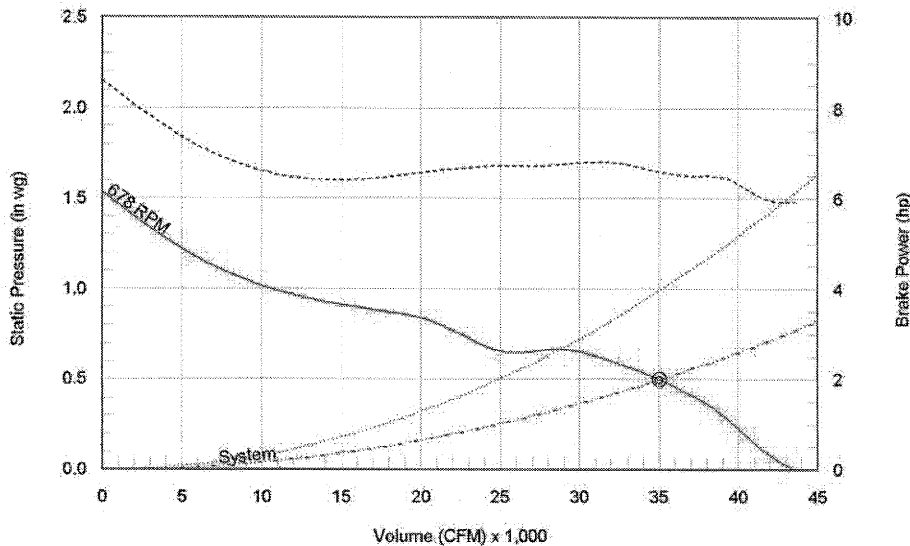
Requested Volume (CFM)	Actual Volume (CFM)	Requested SP (in wg)	Actual SP (in wg)	Fan RPM	Operating Power (hp)	Elevation (ft)	Airstream Temperature (F)	Drive Loss (%)	Tip Speed (ft/min)	SE (%)
35,000	35,000	0.5	0.5	678	6.6	5,280	70	3.7	9,582	43.4

Motor

Motor Mounted	Size (hp)	V/C/P	Encl.	Motor RPM	Windings	NEC FLA* (Amps)
Yes	7 1/2	460/60/3	TEFC	1725	1	11

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	105	102	101	96	92	88	84	81	98	87	54



RPM Curve
 System Curve
 Brake Power Curve
 Do not select to the left of this surge curve
 Desired operating point
 Actual operating point



Notes:

- All dimensions shown are in units of in.
- *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 5.0 ft - dBA levels are not licensed by AMCA International
- Sones - calculated using AMCA 301 at 5.0 ft

Disconnect Switch

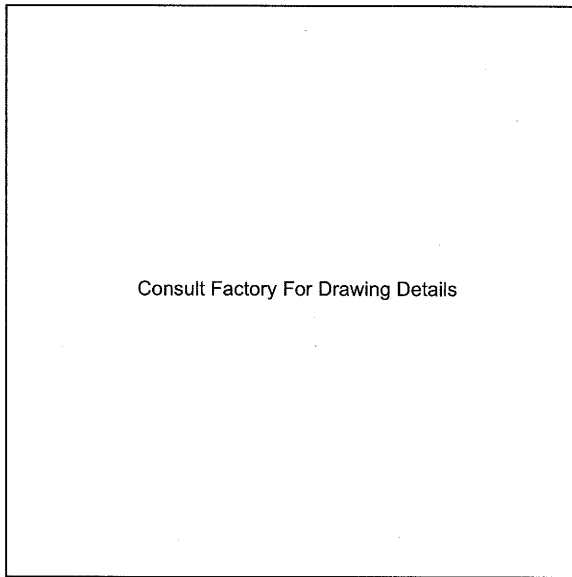
Enclosure Rating: NEMA-4X Standard Construction Features:

Enclosure constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosure equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure. Enclosure is equipped with provision to lockout in the off position with customer supplied lock.

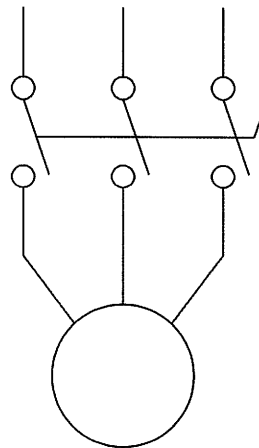
Disconnect Switch Configuration

Type:	Toggle	Motor Size:	7 1/2 hp	Voltage:	460	UL Listed:	Yes
Manufacturer:	ABB	Cycle:	60	Amperage:	40	CSA Approved:	Yes
Overload Protection:	None	Phase:	3	Switch Pole(s):	3	Rating:	20 hp
Mounting:	Mounted and Wired	RPM:	1725	Wiring (Exp. Resist.):	None		

Electrical Drawing Details



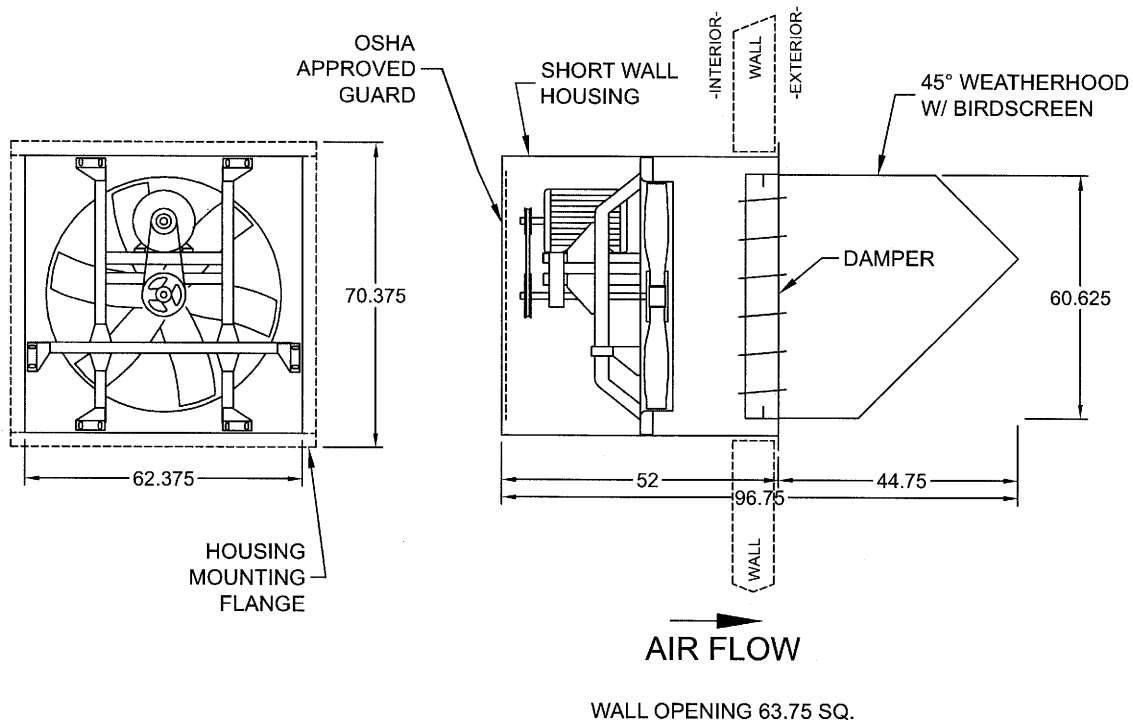
Wiring Schematic



Notes: All dimensions shown are in units of in

Assembly Drawing

Type: Sidewall Belt Drive Exhaust Fan



Notes: All dimensions shown are in units of in.

Vertical Mount Exhaust Damper

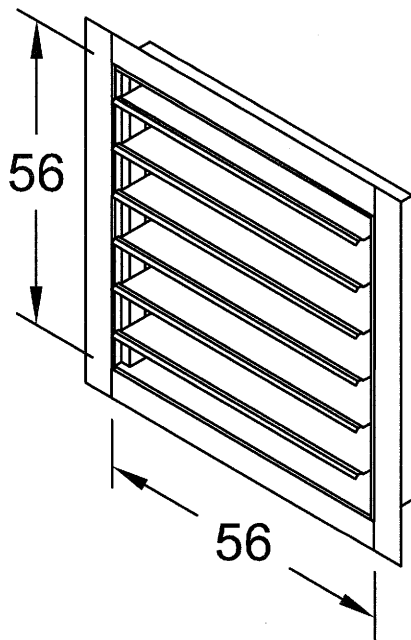
Model: WD-320

Standard Construction Features:

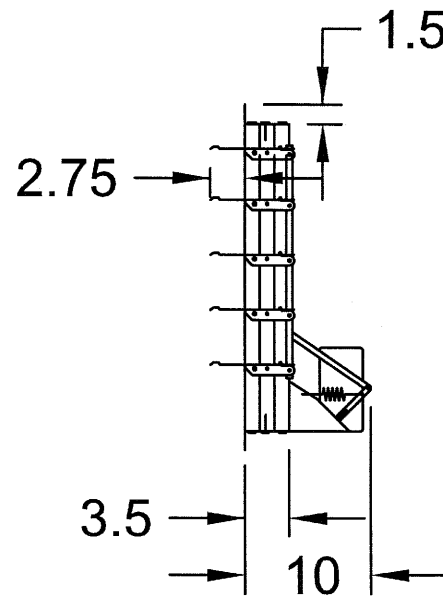
- Model WD-320 is a vertical mount exhaust damper and is constructed of 18 ga galvanized steel with pre-punched mounting holes and a flanged frame - Damper blades are 0.025 in roll formed aluminum with vinyl seals on the closing edge - Steel axles are 0.188 in diameter zinc plated mounted steel in acetal bushings - Synthetic axle bearings

Accessory Configuration

Actuator Type:	Gravity	Coating Type:	Permatecor
End Switch:	No	Coating Color:	Gray (040)



DAMPER



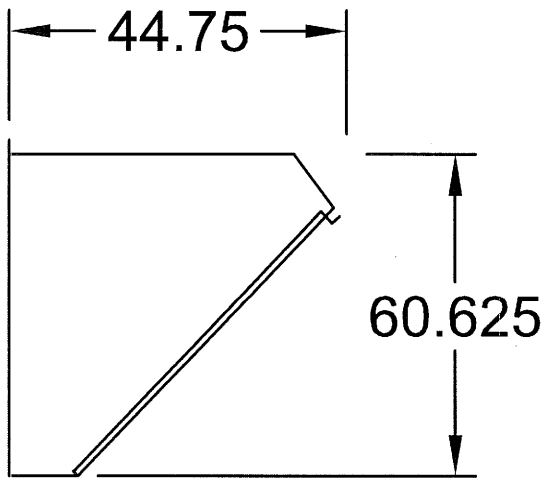
TYP. SECTION VIEW

Notes: All dimensions shown are in units of in
Width And height furnished approximately 0.125 in undersize

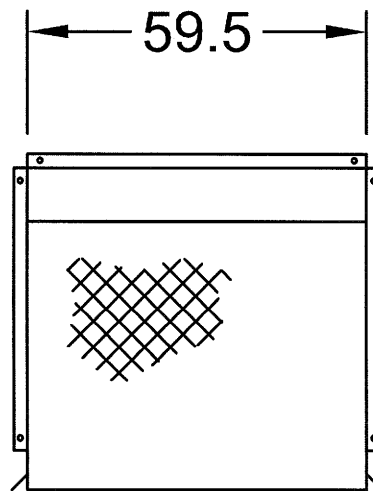
45 Degree Weatherhood

Standard Construction Features:

Galvanized Steel or aluminum construction. 0.5 welded wire birdscreen. Prepunched mounting holes. Field assembled.



SIDE VIEW



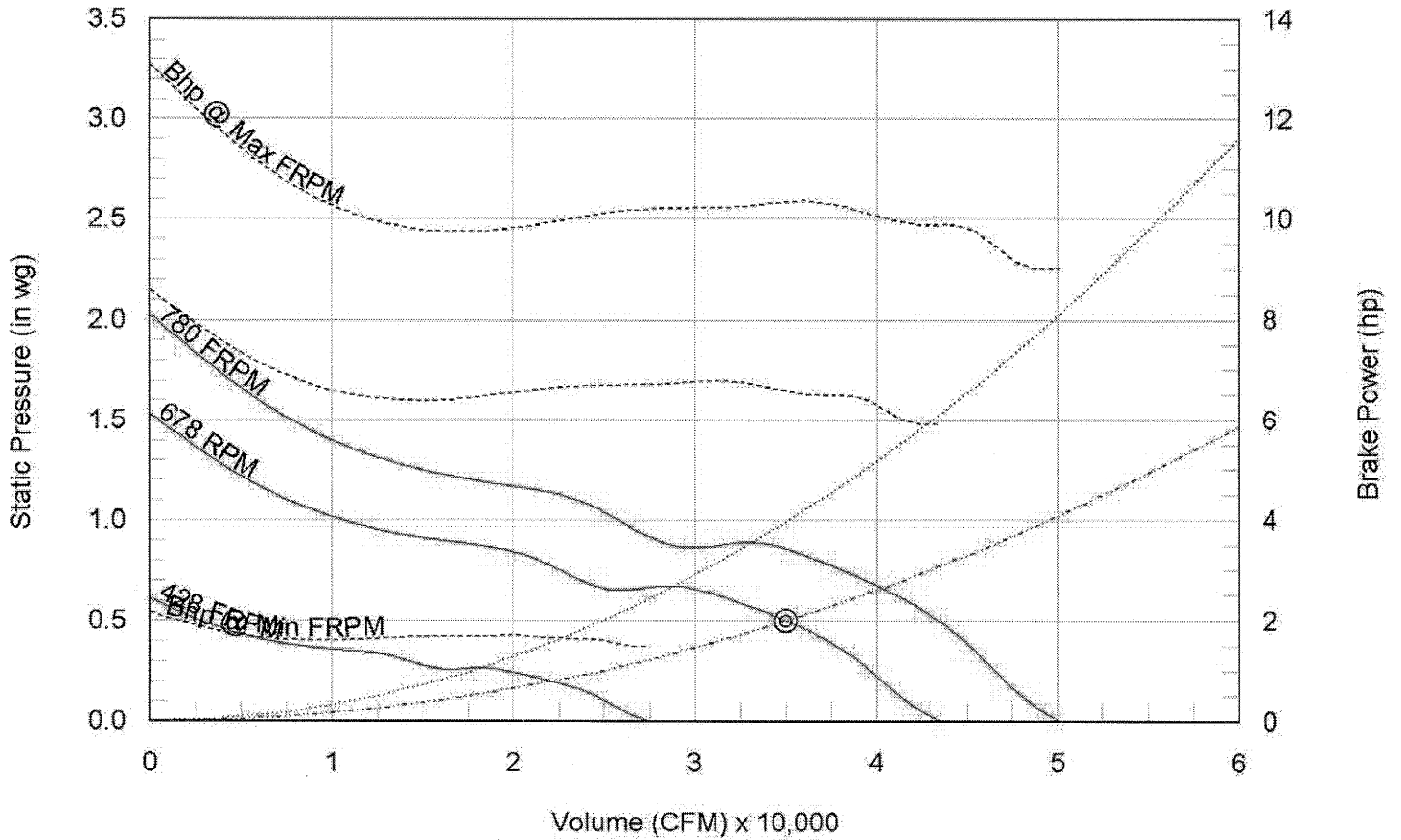
ELEVATION VIEW

SBE-3H54-75

Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	Requested SP (in wg)	Actual SP (in wg)	Fan RPM	Operating Power (hp)
35,000	35,000	0.5	0.5	678	6.6

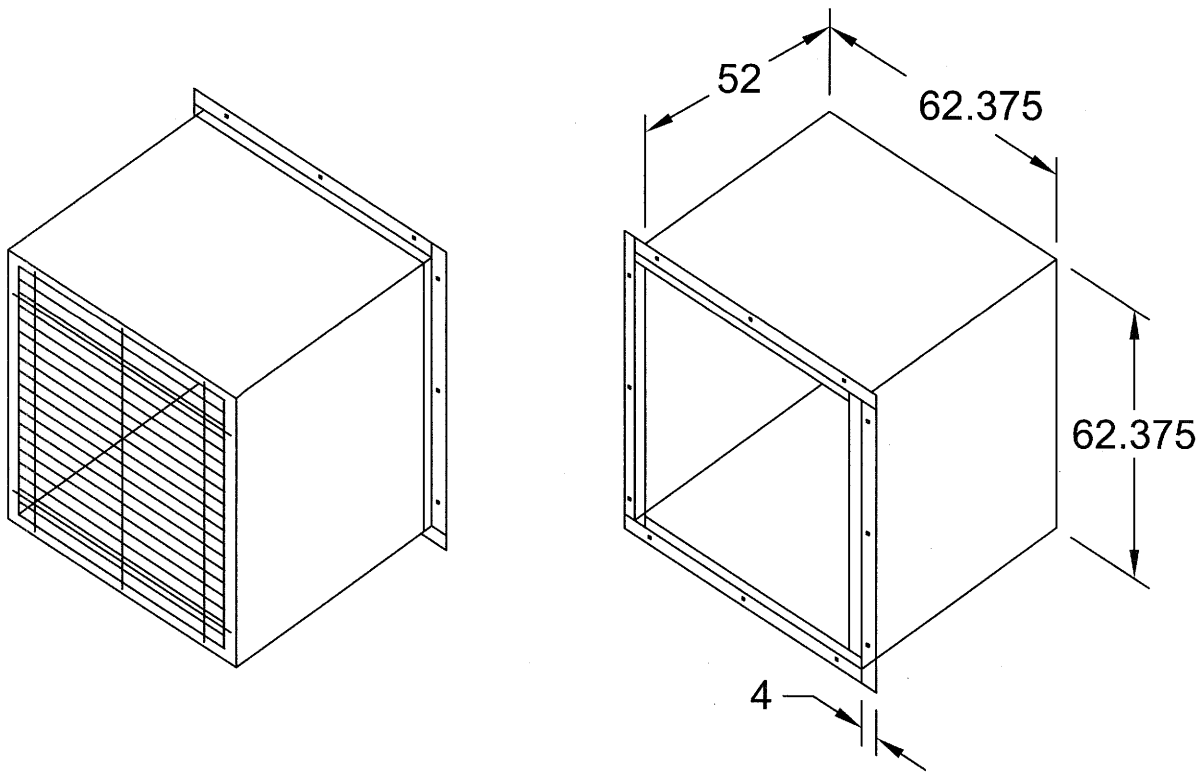


- RPM Curve
- - - System Curve
- Brake Power Curve
- Do not select to the left of this surge curve
- o Desired operating point
- o Actual operating point

Short Wall Housing

Standard Construction Features:

{-} Galvanized steel construction {-} Heavy gauge mounting flanges {-} Pre-punched mounting holes {-}
Inside flanges allow damper to be mounted {-} Overlapping weatherhood flange keeps rain out {-}
Protective guard of welded steel wire completely protects the drive side of the wall housing.



Notes: All dimensions shown are in units of in

AMCA



AMCA Licensed for Sound and Air Performance. Power rating (BHP/kW) includes transmission losses.

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for installation type A: Free inlet, Free outlet. Power rating (BHP/kW) includes transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: free inlet hemispherical sone levels. dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal applies to sone ratings only.