



REPRESENTED BY:

TODD AIR SOLUTIONS  
101 E FISHER ST, 3rd FLOOR  
SALISBURY NC 28144  
Phone: 704 630-1101  
Fax: 704 630-0528

DRAWING SUBMITTAL

CUSTOMER:

AVANI ENVIRONMENTAL  
PO BOX 1279  
YOUNGSVILLE, NC 27596

DATE: 5/24/2012

ATTENTION: Mr. Bob Venezia  
P.O. # 4628  
CFV # 1206660  
REPRESENTATIVE ORDER # CFQ# 215760

  x   REFERENCE             APPROVAL             CORRECTION

DRAWING NO.	DESCRIPTION
- - - -	SPECIFICATION SHEET
1206660	MODEL: HDBI-270
A27205	INLET FLANGE
A27213-01	DISCHARGE FLANGE
A17110-270	DISCHARGE DAMPER

REMARKS: 2D AUTOCAD DRAWING INCLUDED.



**SPECIFICATION SHEET**

CFV NO. <b>1206660</b>	CUSTOMER ID NUMBER <b>3566220</b>	PAGE <b>1</b>	
S O L D	AVANI ENVIRONMENTAL PO BOX 1279 YOUNGVILLE, NC 27596	S H I P	TRENHOLM STATE TECHNICAL COLLEGE PATT- BOOKSTORE/RECEIVING BLDG. B PATTERSON CAMPUS 3920 TROY HIGHWAY MONTGOMERY, AL 36116
T O		T O	
CUSTOMER P.O. NUMBER <b>4628</b>		BUYER <b>Mr. Bob Venezia</b>	SCHEDULED SHIP DATE <b>6/15/12</b>

MARKS  
**Attn: Jerry Cantrell - PO#24593**

SHIP VIA <b>Averitt</b>		REPRESENTATIVE <b>TODD AIR SOLUTIONS</b>			REP. ORDER NO. <b>CFQ# 215760</b>		SHIPPING CHARGES <b>Prepaid &amp; Add</b>		
QTY. <b>1</b>	DESCRIPTION <b>HEAVY DUTY BI BLOWER</b>			MODEL <b>HDBI-270</b>	ROT <b>CW</b>	DISCH <b>UB</b>	ARR <b>4</b>	WHEEL/PROP <b>SQBI 70%</b>	INLET
MOTOR DATA	HP <b>20</b>	RPM <b>1750</b>	PH <b>3</b>	CYCLE <b>60</b>	VOLTAGE <b>SEE BELOW</b>	FRAME <b>256T</b>	ENCLOSURE <b>TEFC</b>	SUPPLIED BY <b>CFV</b>	INSTALLED BY <b>CFV</b>
	CFV MOTOR PART NUMBER <b>376697T</b>							GROOVES	FXD/ADJ
FAN DATA	DENSITY <b>.075</b>	TEMP. <b>70°F.</b>	ALTITUDE	CFM <b>8000</b>	SP <b>10.000</b>	RPM <b>1750</b>	BHP <b>18.500</b>	MOTOR SHEAVE   BUSHING	
AT OPERATING CONDITIONS									
MOTOR VENDOR MODEL NUMBER <b>NP0204</b>								FAN SHEAVE   BUSHING	

**Record Print, 2D CAD Drawings**

**Complete Motor Description:**

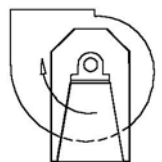
**MTR, 20 HP, 1425/1750 RPM, 3PH, 50/60Hz, 190/380/50 & 230/460/60, TEFC, Prem Eff, FM, 256T, 1.15 SF, F Insul., 40C Amb., Double Shielded Bearings, F1 Box, Conduit box ground screw, Stainless Nameplate, Cast Iron Frame, CE, 20 HP & 1.00 SF ON 50 HZ., NOT PE ON 50 HZ., MAX-PE TYPE, TECO**

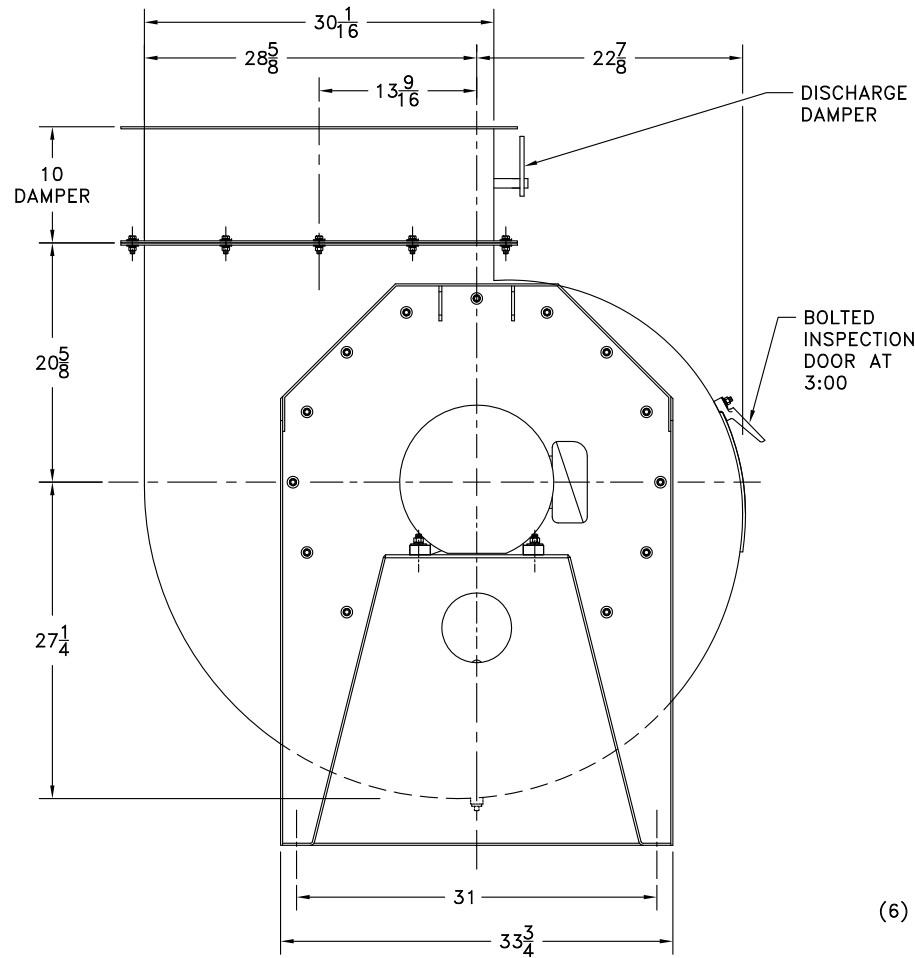
**Maximum allowable wheel speed at 70°F is 2493 RPM**

- CLASS III WHEEL CONSTRUCTION**
- PAINT DAMPER WITH SAME SPECIAL COATING AS FAN**
- MANUAL CONTROLLED OPPOSED BLADE DISCHARGE DAMPER**
- Special color enamel paint, see paint chip for color.**
- DRILL DISCHARGE FLANGE STANDARD**
- DRILL INLET FLANGE STANDARD BOLT CIRCLE ON-CENTERS**
- QUICK OPEN INSPECTION DOOR AT 3 O'CLOCK**
- DRAIN**
- TEFLON SHAFT SEAL**

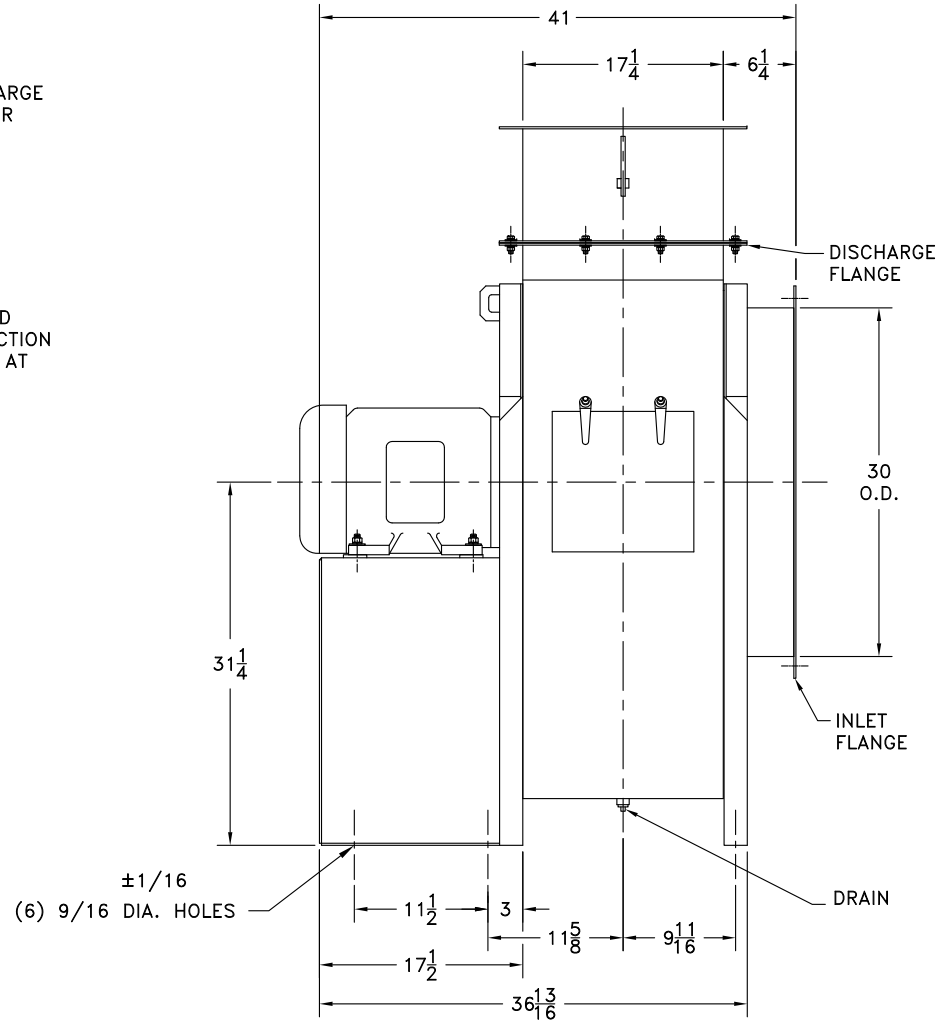
**Estimated Shipping Weight: 1322 pounds**

**Submittal Email: [bvenezia@avanienvironmental.com](mailto:bvenezia@avanienvironmental.com)**





CW ROTATION, UP BLAST DISCHARGE SHOWN



NOTES:

1. MOTOR: 20 HP, 1750 RPM, 256T FRAME, TEFC.
2. SEE DWG. A27205 FOR INLET FLANGE DETAIL.
3. SEE DWG. A27213-01 FOR DISCHARGE FLANGE DETAIL.
4. SEE DWG. A17110-270 FOR DISCHARGE DAMPER DETAIL.
5. CLASS III, 70% WIDTH SQBI WHEEL CONSTRUCTION.
6. TEFLON SHAFT SEAL.

NO.	DESCRIPTION	DATE	INITIALS
REVISIONS			

SUPERSEDES:	
SIMILAR TO:	
CERTIFIED	

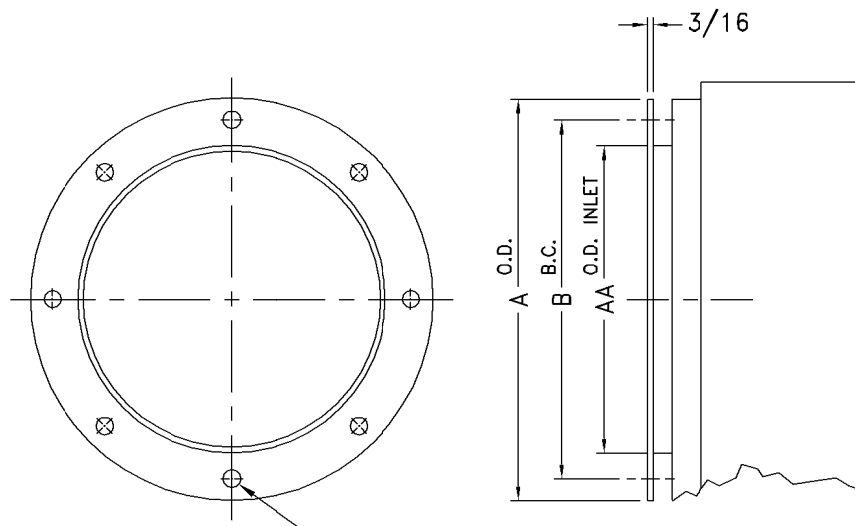
TOLERANCES:	
FRACTIONS ±1/8	
ANGLES: ± 1°	
DECIMALS: X.XXX = ±0.005	
X.XX = ±0.060	
X.X = ±0.120	
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED	
MATERIAL:	

SCALE:	FULL IN CAD
DATE:	5/24/12
DR. BY:	JH
CHK. BY:	
ASSEMBLY	

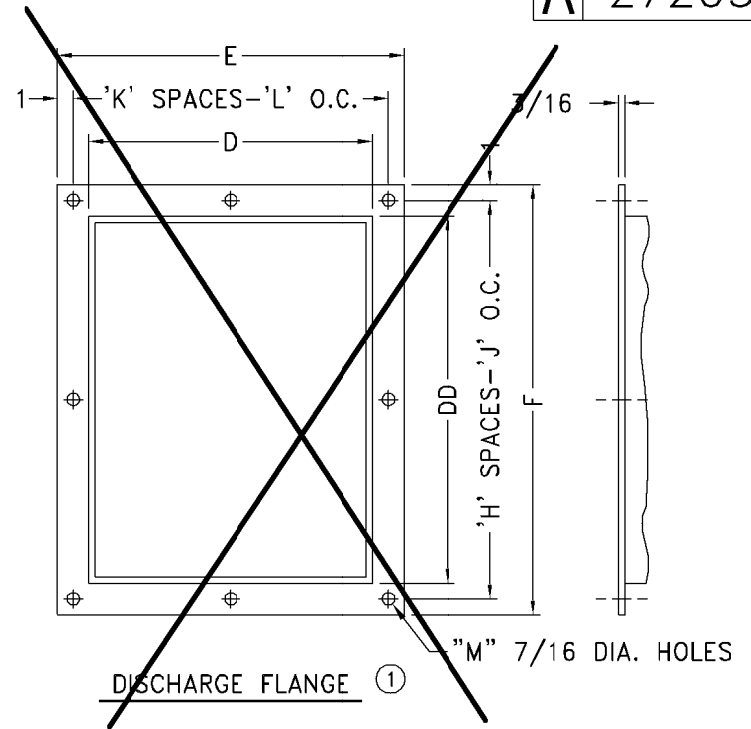
**cincinnati fan**  
7697 SNIDER ROAD MASON, OHIO 45040

TITLE: HD BI-270 ARR. 4, 70% WIDTH, W/ DISCHARGE DAMPER FOR AVANI ENVIRONMENTAL

**A** DRAWING NO. 1206660 SHEET 1 of 1 REV. 1



INLET FLANGE "N" HOLES, "P" DIA.

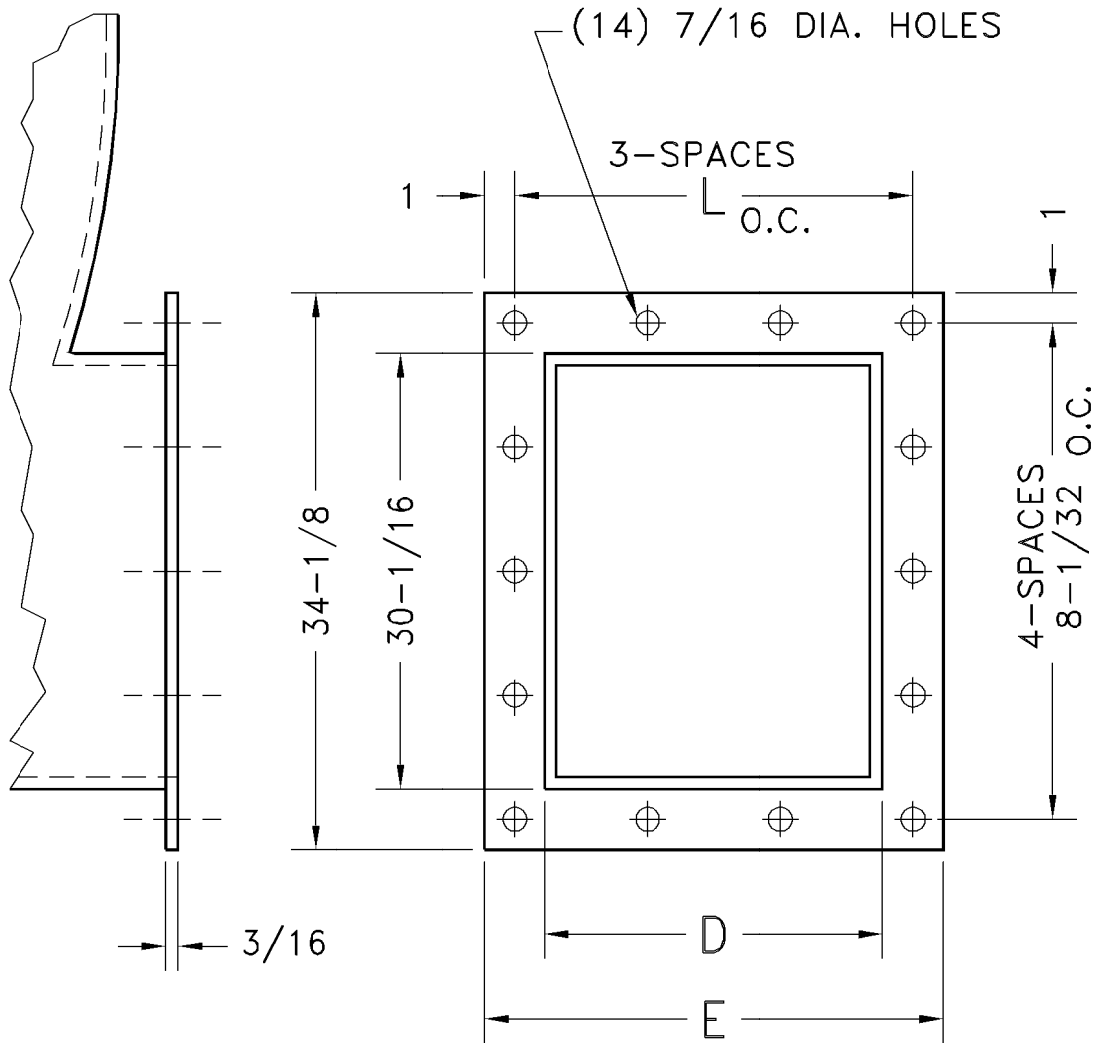


DISCHARGE FLANGE ①

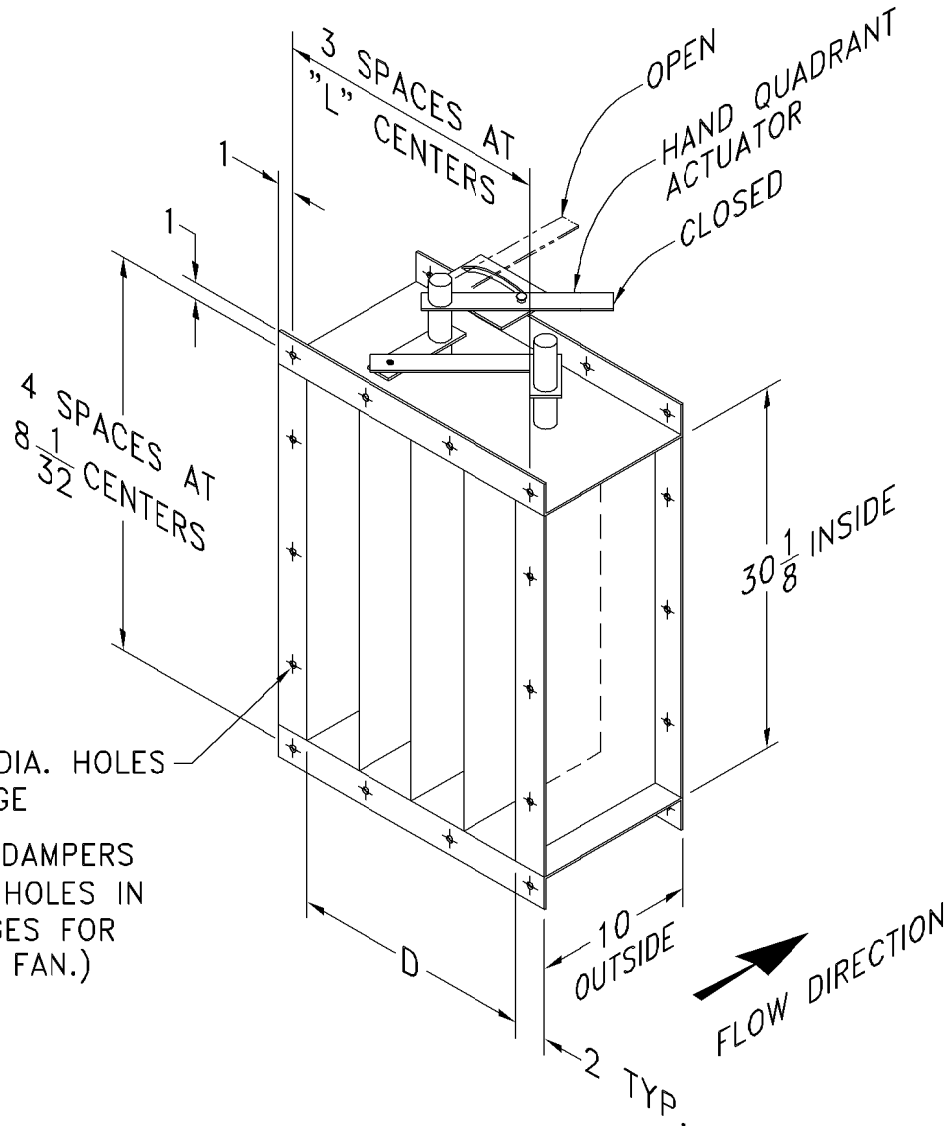
INLET					
SIZE	A O.D.	B B.C.	N	AA DIA.	P
120	16	14-3/8	8	13-1/4	7/16
130	17-3/4	15-15/16	8	14-5/8	7/16
150	19-1/4	17-1/2	8	16-1/8	7/16
160	21-1/8	19-3/8	8	18	7/16
180	23-1/2	21-1/2	12	20	7/16
200	25-1/2	23-1/2	12	22	7/16
220	28-1/8	26-1/8	12	24-5/8	7/16
240	30-3/4	28-3/4	16	27	7/16
<del>270</del>	<del>33-3/4</del>	<del>31-5/8</del>	<del>16</del>	<del>30</del>	<del>7/16</del>
300	37-1/4	35-1/4	16	33-1/2	7/16
330	40-3/8	38-3/4	16	36-3/4	1/2
360	43-5/8	42	16	40	1/2

DISCHARGE								
D	E	F	H	J	K	L	M	DD
9-3/8	13-3/8	17-11/16	2	7-27/32	2	5-11/16	8	13-3/4
10-3/8	14-3/8	19-3/16	2	8-19/32	2	6-5/16	8	15-1/4
11-3/8	15-3/8	20-3/4	3	6-1/4	2	6-11/16	10	16-13/16
12-1/2	16-1/2	22-7/16	3	6-13/16	2	7-1/4	10	18-7/16
13-7/8	17-7/8	24-1/2	3	7-1/2	2	7-15/16	10	20-3/8
15-1/4	19-1/4	26-3/8	3	8-1/8	3	5-3/4	12	22-3/8
16-7/8	20-15/16	28-7/8	4	6-23/32	3	6-5/16	14	24-7/8
18-9/16	22-5/8	31-3/8	4	7-11/32	3	6-7/8	14	27-3/8
20-7/16	24-1/2	34-1/8	4	8-1/32	3	7-1/2	14	30-1/16
22-3/4	26-3/4	37-5/8	5	7-1/8	3	8-1/4	16	33-9/16
24-7/8	28-7/8	40-7/8	7	5-9/16	5	5-3/8	24	36-3/4
27-1/4	31-1/4	44-1/4	7	6-1/32	5	5-27/32	24	40-1/4

NOTE:  
 ① NOT AVAILABLE ON ANY MODEL FOR DOWNBLAST, BOTTOM ANGULAR DOWN OR TOP ANGULAR DOWN DISCHARGE POSITIONS.  
 DISCHARGE FLANGE IS STANDARD ON SIZES -270 THRU -360.



	% WIDTH	D	E	L
	110	21-7/16	25-7/16	7-13/16
	100	20-7/16	24-1/2	7-1/2
	95	19-15/16	24	7-11/32
	90	19-3/8	23-7/16	7-5/32
	85	18-7/8	22-15/16	6-31/32
	80	18-5/16	22-3/8	6-25/32
	75	17-13/16	21-7/8	6-5/8
	<del>70</del>	<del>17-1/4</del>	<del>21-5/16</del>	<del>6-7/16</del>
	65	16-3/4	20-13/16	6-9/32
	60	16-3/16	20-1/4	6-3/32
	55	15-11/16	19-3/4	5-29/32
	50	15-1/8	19-3/16	5-23/32



	% WIDTH	D	L
	100	20-1/2	7-1/2
	95	20-1/32	7-11/32
	90	19-15/32	7-5/32
	85	18-29/32	6-31/32
	80	18-11/32	6-25/32
	75	17-7/8	6-5/8
X	70	17-5/16	6-7/16
	65	16-27/32	6-9/32
	60	16-9/32	6-3/32
	55	15-23/32	5-29/32
	50	15-5/32	5-23/32
	45	14-19/32	5-17/32

(14) 7/16 DIA. HOLES EACH FLANGE

(STANDARD DAMPERS HAVE BOLT HOLES IN BOTH FLANGES FOR BOLTING TO FAN.)

NOTES:

1. OPPOSED BLADE IS STANDARD. □ PARALLEL BLADE IS OPTIONAL.
2. DAMPER BLADES WILL BE PERPENDICULAR TO FAN SHAFT.
3. STANDARD MATERIAL IS CARBON STEEL WITH RUST INHIBITING PRIMER. □ OPTIONAL MATERIAL \_\_\_\_\_.
4. STANDARD CONSTRUCTION MAX. TEMPERATURE: 300° F.  
□ OPTIONAL HIGH TEMPERATURE CONSTRUCTION MAX. TEMPERATURE: 800° F.

