



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:

OSKAR ENVIRONMENTAL INC
PO BOX 1279
YOUNGSVILLE, NC 27596

DATE: 5/13/2010

ATTENTION: Mr. Bob Venezia
P.O. # 2230
CFV # 1005383
REPRESENTATIVE ORDER # CFQ# 164716

x REFERENCE APPROVAL CORRECTION

Table with 2 columns: DRAWING NO. and DESCRIPTION. Rows include SPECIFICATION SHEET, MODEL HDBI-270, DISCHARGE DAMPER, INLET FLANGE, and ISOLATORS.

REMARKS: 2D AUTOCAD DRAWING INCLUDED.

SPECIFICATION SHEET

CFV NO. 1005383	CUSTOMER ID NUMBER 3566220	PAGE 1	
S O L D	OSKAR ENVIRONMENTAL INC PO BOX 1279 YOUNGSVILLE, NC 27596	S H I P	BULLOCK COUNTY CAREER TECH. CENTER 108 HARDAWAY AVE WEST ATTN: BILL CARR UNION SPRINGS, AL 36089
T O		T O	

CUSTOMER P.O. NUMBER 2230	BUYER MR. BOB VENEZIA	SCHEDULED SHIP DATE 6/01/10
-------------------------------------	---------------------------------	---------------------------------------

MARKS

PO# 20575

SHIP VIA YRC/FedEx Frt/R&L	REPRESENTATIVE TODD AIR SOLUTIONS	REP. ORDER NO. CFQ# 164716	SHIPPING CHARGES Prepaid & Add
--	---	--------------------------------------	--

QTY. 1	DESCRIPTION HEAVY DUTY BI BLOWER	MODEL HDBI-270	ROT CCW	DISCH UB	ARR 4	WHEEL/PROP HDBI 90%	INLET		
MOTOR DATA	HP 25	RPM 1750	PH 3	CYCLE 60	VOLTAGE 230/460V	FRAME 284T	ENCLOSURE TEFC	SUPPLIED BY CFV	INSTALLED BY CFV
	CFV MOTOR PART NUMBER 37706S						GROOVES	FXD/ADJ	BELT
FAN DATA	DENSITY .075	TEMP. 70 °F.	ALTITUDE	CFM 13200	SP 6.000	RPM 1750	BHP 18.900	MOTOR SHEAVE	BUSHING
AT OPERATING CONDITIONS								FAN SHEAVE	BUSHING
MOTOR VENDOR MODEL NUMBER 1LE22012CB116AA3									

Record Print, 2D CAD Drawings

Complete Motor Description:

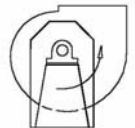
MTR, 25 HP, 1750 RPM, 3PH, 60Hz, 230/460V, TEFC, EPAct Eff, FM, 284T, 1.15 SF, F Insul., 40C Amb., Sealed Bearings, F1 Box, Cast Iron Frame, GP10 SERIES, REPLACES #1LE29312CB116AA3, Siemens

Maximum allowable wheel speed at 70°F is 2476 RPM
 CLASS II/III/IV WHEEL CONSTRUCTION
 MANUAL CONTROLLED OPPOSED BLADE DISCHARGE DAMPER
 DRILL DISCHARGE FLANGE STANDARD
 DRILL INLET FLANGE STANDARD BOLT CIRCLE ON-CENTERS
 QUICK OPEN INSPECTION DOOR AT 9 O'CLOCK
 DRAIN
 TEFLON SHAFT SEAL

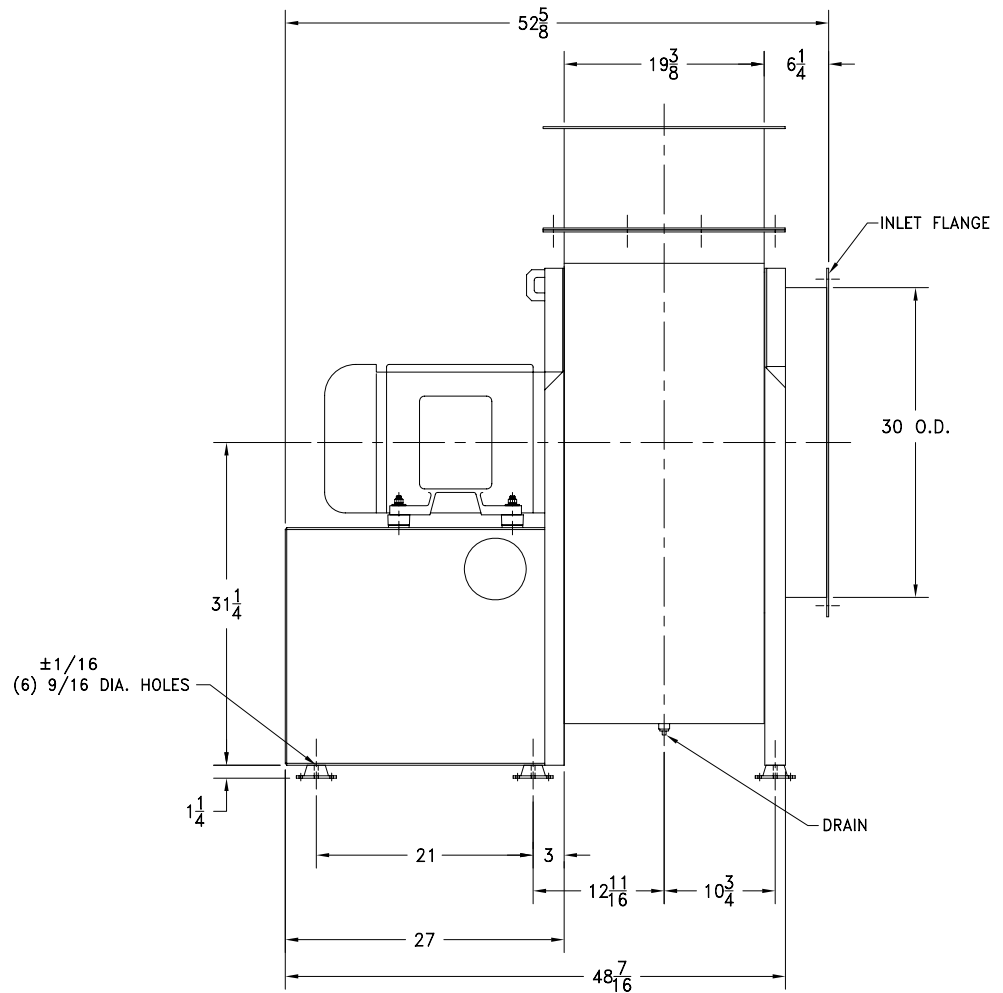
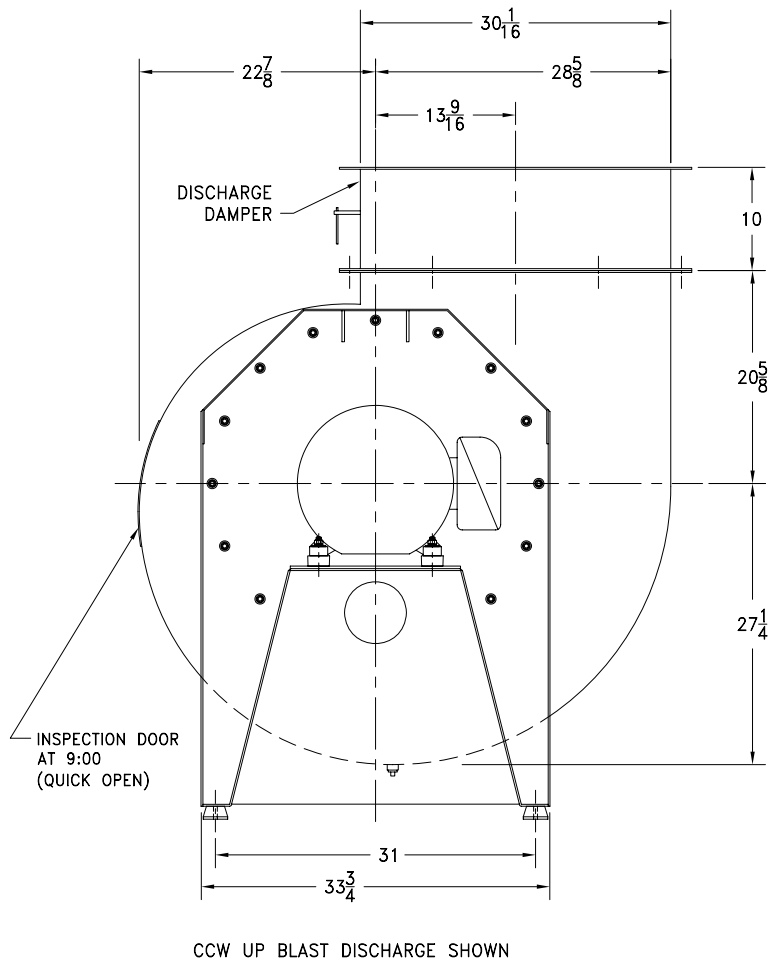
Extra Parts:

6 EA VIBRATION ISOLATOR, R2 RED, NEOPRENE, .25 DEFL., 240 LBS. MAX LOAD

Submittal Email: bvenezia@iaqsales.com



CCW UB



NOTES:

1. MOTOR: 25 HP, 1750 RPM, 284T FRAME, TEFC.
2. SEE DRAWING A27205 FOR INLET FLANGE DETAILS.
3. SEE DRAWING A17110-270 FOR DISCHARGE DAMPER DETAILS.
4. CLASS II/III/IV WHEEL CONSTRUCTION.
5. SEE DRAWING A31106 FOR ISOLATOR DETAILS.
6. TEFLON SHAFT SEAL.

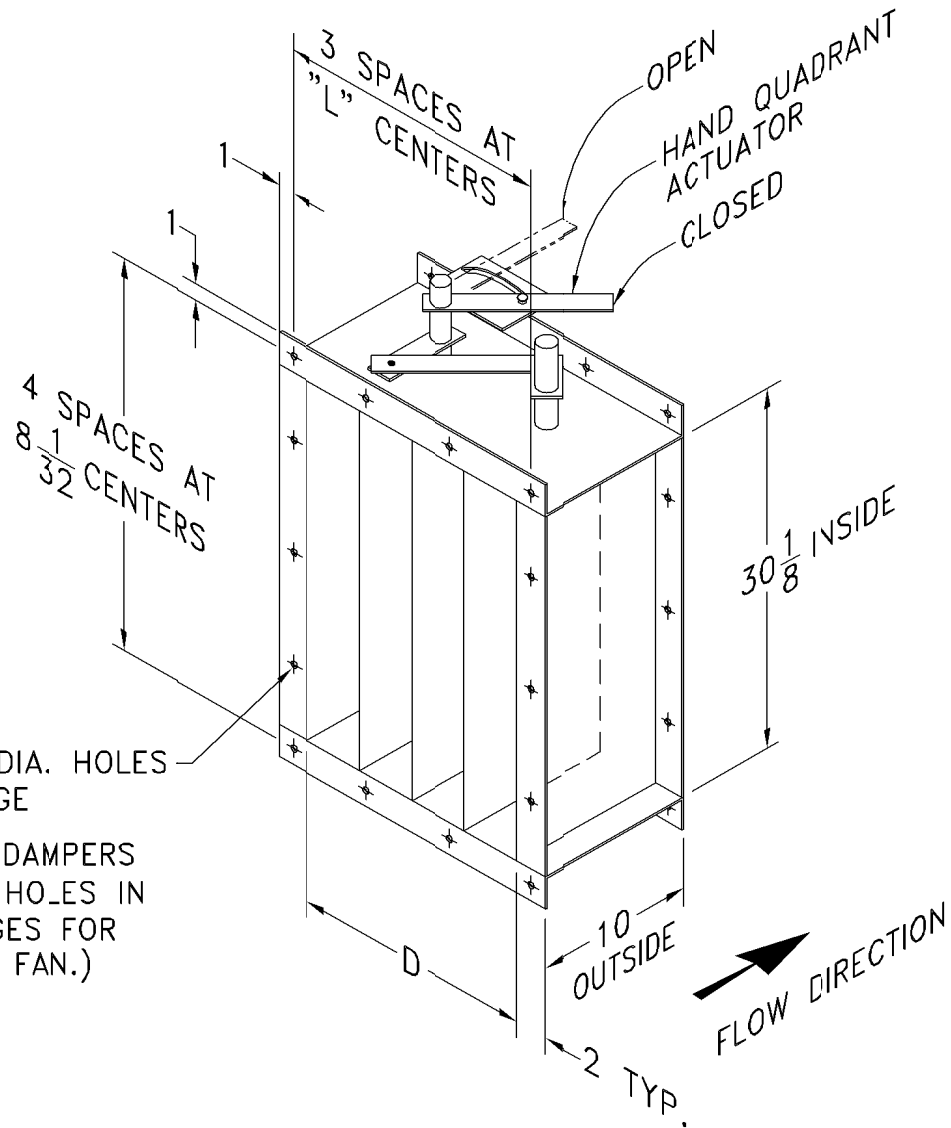
NO.	DESCRIPTION	DATE	INITIALS
REVISIONS			

SUPERSEDES:	
SIMILAR TO:	
CERTIFIED	

TOLERANCES:	FRACTIONS $\pm 1/8$
	ANGLES: $\pm 1^\circ$
	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:	05/13/10
DR. BY:	DKB
CHK. BY:	
ASSEMBLY	

cincinnati fan 7697 SNIDER ROAD MASON, OHIO 45040	TITLE	HDBI-270 ARR. 4 90% WIDTH, W/ DAMPER & ISOLATORS FOR OSKAR ENVIROMENTAL INC.
	DRAWING NO.	A 1005383
SHEET	1 of 1	REV.



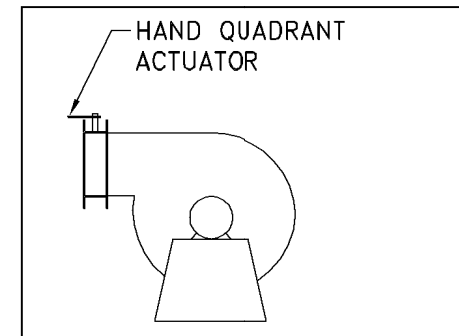
(14) 7/16 DIA. HOLES
EACH FLANGE

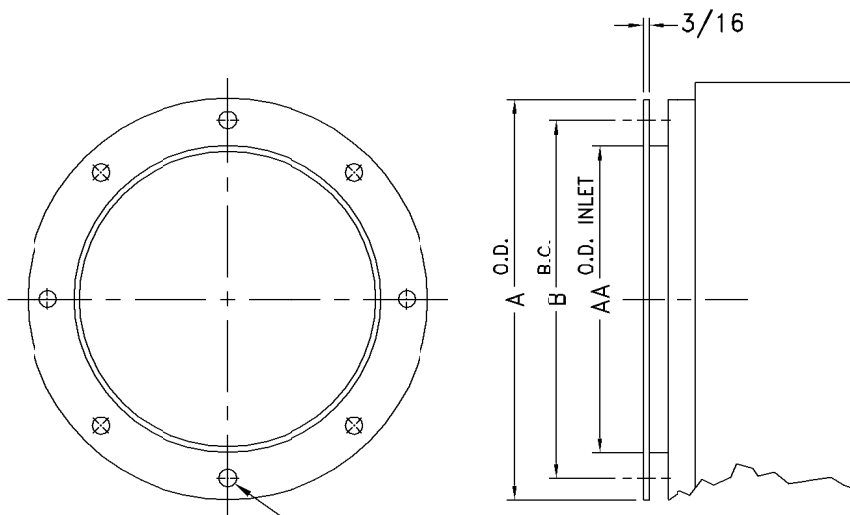
(STANDARD DAMPERS
HAVE BOLT HOLES IN
BOTH FLANGES FOR
BOLTING TO FAN.)

NOTES:

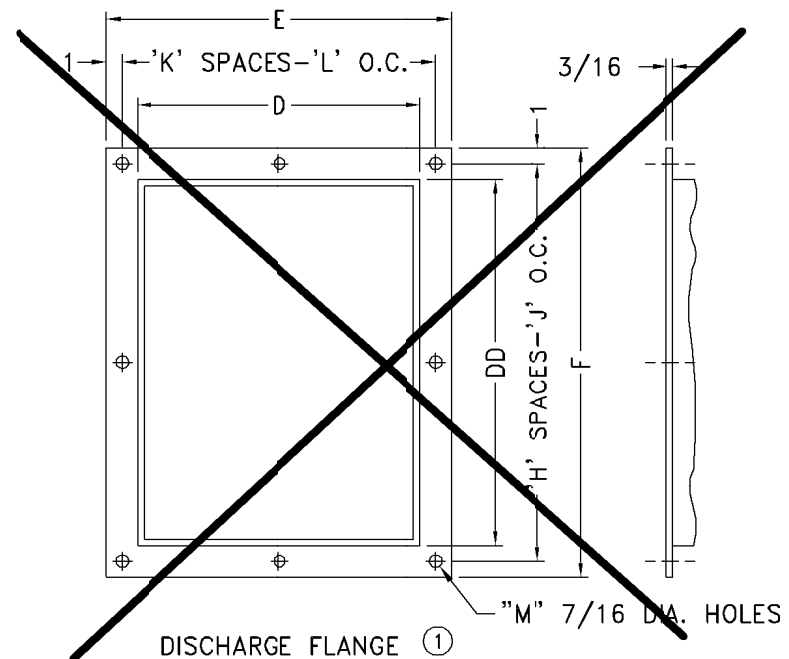
1. OPPOSED BLADE IS STANDARD. PARALLEL BLADE IS OPTIONAL.
2. DAMPER BLADES WILL BE PERPENDICULAR TO FAN SHAFT.
3. STANDARD MATERIAL IS CARBON STEEL WITH RUST INHIBITING PRIMER. OPTIONAL MATERIAL _____.
4. STANDARD CONSTRUCTION MAX. TEMPERATURE: 300° F.
 OPTIONAL HIGH TEMPERATURE CONSTRUCTION MAX. TEMPERATURE: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

	% WIDTH	D	L
	100	20-1/2	7-1/2
	95	20-1/32	7-11/32
X	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
	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





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

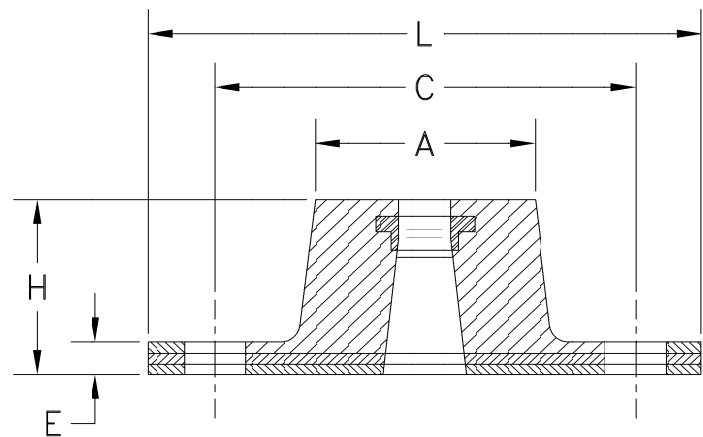
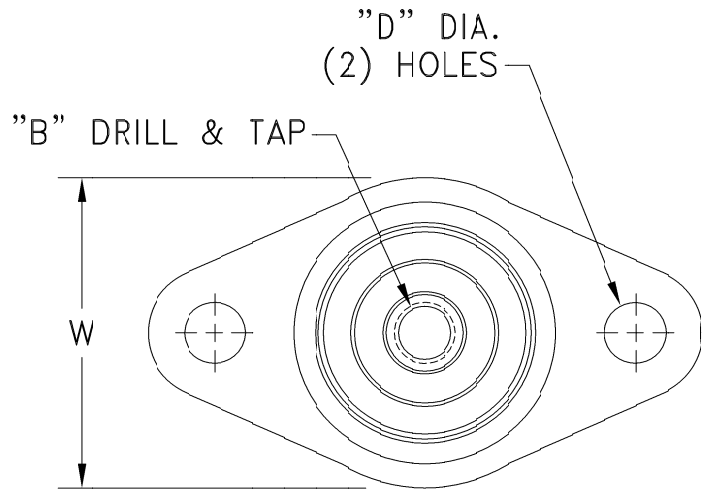


DISCHARGE FLANGE ①
"M" 7/16 DIA. HOLES

SIZE	INLET				
	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
X 270	33-3/4	31-5/8	16	30	7/16
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

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	6-3/16	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	31-5/8	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.



TYPE R NEOPRENE IN SHEAR MOUNTINGS												
TYPE	MAX LOAD EACH LBS.	DEFLECTION IN INCHES	DIMENSIONS IN INCHES									
			R	L	W	H	A	B	C	D	E	
R1	BLUE	35	0.20	$3\frac{1}{8}$	$1\frac{3}{4}$	1	$1\frac{1}{4}$	5 - 18 NC	$\frac{5}{16}$	$2\frac{3}{8}$	$\frac{11}{32}$	$\frac{3}{16}$
	BLACK	45										
	RED	70										
	GREEN	120										
R2	BLUE	135	0.25	$3\frac{7}{8}$	$2\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	3 - 16 NC	$\frac{3}{8}$	3	$\frac{11}{32}$	$\frac{7}{32}$
	BLACK	170										
	RED	240										
	GREEN	380										
R3	BLACK	250	0.25	$5\frac{1}{2}$	$3\frac{3}{8}$	$1\frac{3}{4}$	$2\frac{1}{2}$	1 - 13 NC	$\frac{1}{2}$	$4\frac{1}{8}$	$\frac{9}{16}$	$\frac{1}{4}$
	RED	525										
	GREEN	750										
	GRAY	1100										
R4	BLACK	1500	0.25	$6\frac{1}{2}$	$4\frac{1}{4}$	$1\frac{3}{4}$	$3\frac{3}{4}$	5 - 11 NC	$\frac{5}{8}$	5	$\frac{9}{16}$	$\frac{1}{4}$
	RED	2250										
	GREEN	3000										
	GRAY	4000										