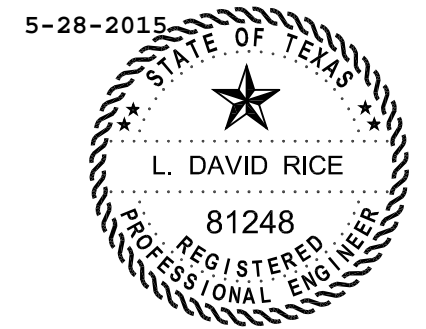
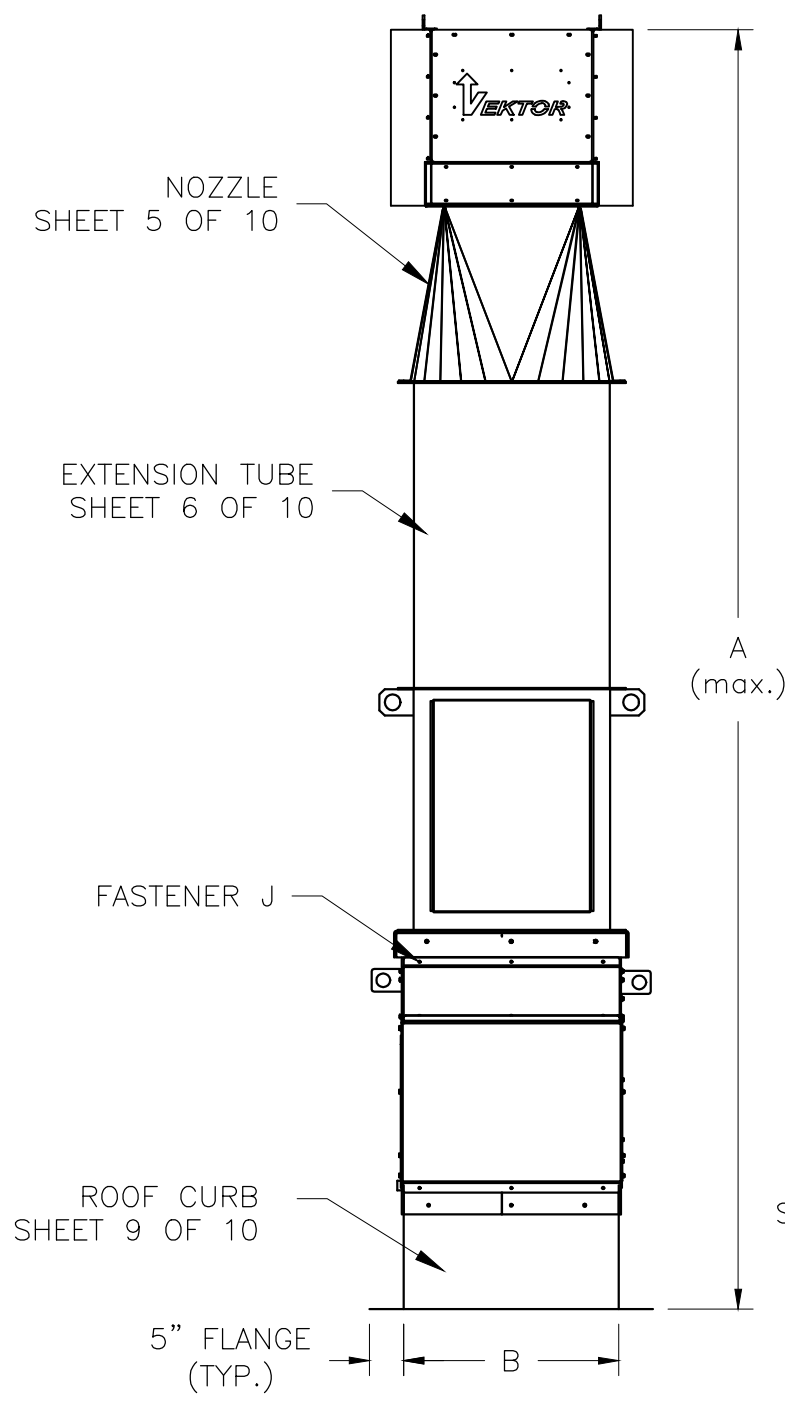
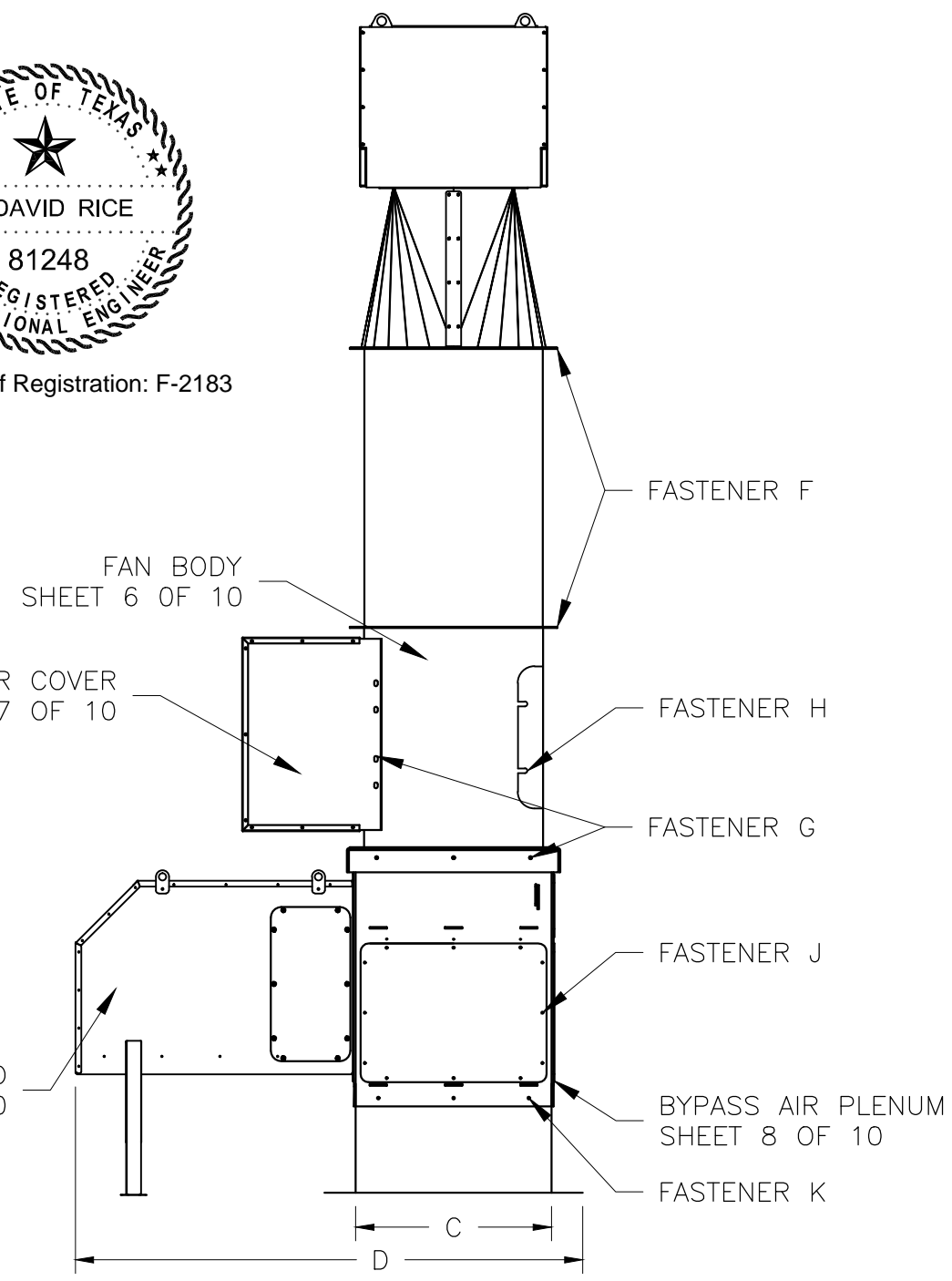


DESIGN LIMITS	
Max. Design Load:	±140 psf (6.7 Kpa)
Max Overall Enclosure:	67.63 x 107.25 in. (1718 x 2724 mm)
Max. Overall Unit Height:	167 in. (4242 mm)

UNIT	FASTENER F DESCRIPTION	QTY.	FASTENER G DESCRIPTION	QTY.	FASTENER H DESCRIPTION	QTY.	FASTENER J DESCRIPTION	QTY.	FASTENER K DESCRIPTION	QTY.							
VEKTOR-H 9	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	16	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	16	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	6	SCR,TEK,HWH,#12-14X.875,SS,410	52	SCR,TCS,IHWH,.313-18X1,TYP-23,MECH ZP	12							
VEKTOR-H 10																	
VEKTOR-H 12																	
VEKTOR-H 13																	
VEKTOR-H 16																	
VEKTOR-H 18					WSHR,FLAT,.045X.35X.745,SS,316								8		70		16
VEKTOR-H 22					NUT,HEX,.313-18,SS,316								20				20
VEKTOR-H 24						8											
VEKTOR-H 30										24							
VEKTOR-H 36		16								28							



Certificate of Registration: F-2183



ALL DIMENSIONS ARE IN INCHES
WEIGHTS DO NOT INCLUDE MOTOR AND DRIVES

UNIT	(max.)	A	B	C	D	WEIGHT (LBS.)
VEKTOR-H 9	146.00	21.63	21.63	72.50	608	
VEKTOR-H 10	146.00	21.63	21.63	72.50	608	
VEKTOR-H 12	146.00	21.63	21.63	72.50	618	
VEKTOR-H 13	146.50	23.63	23.63	71.50	671	
VEKTOR-H 16	146.50	27.63	27.63	76.50	813	
VEKTOR-H 18	146.00	33.63	33.63	82.50	981	
VEKTOR-H 22	145.25	39.63	39.63	88.50	1241	
VEKTOR-H 24	146.00	45.63	45.63	94.75	1520	
VEKTOR-H 30	155.50	51.63	51.63	100.50	1870	
VEKTOR-H 36	167.00	57.63	57.63	107.25	2323	

- NOTES:
1. MODELS VEKTOR-H & VEKTOR-HS HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
 2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
 3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL BUILDING CODE AND THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL RESIDENTIAL CODE.
 4. DESIGN PRESSURE = +/- 140 PSF LARGE MISSILE IMPACT RESISTANT.
 5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
 6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
 7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSING ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410 VEKTOR-H 9-36 VEKTOR-HS 9-36 1X1 ASSEMBLY SHEET 1 OF 10	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF.
	SUPERSEDES	NOA TESTING
	SCALE	CAD DRAWING NO. VK-H-1001

DESIGN LIMITS	
Max. Design Load:	±140 psf (6.7 Kpa)
Max Overall Enclosure:	130.50 x 107.25 in. (3315 x 2724 mm)
Max. Overall Unit Height:	167 in. (4242 mm)

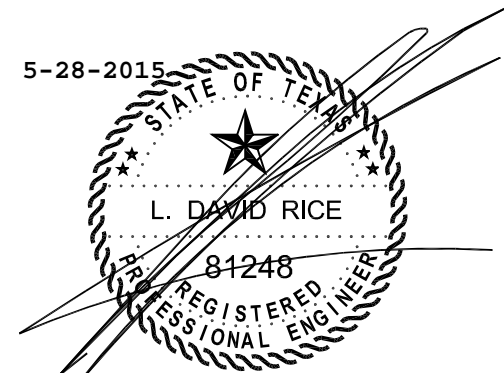
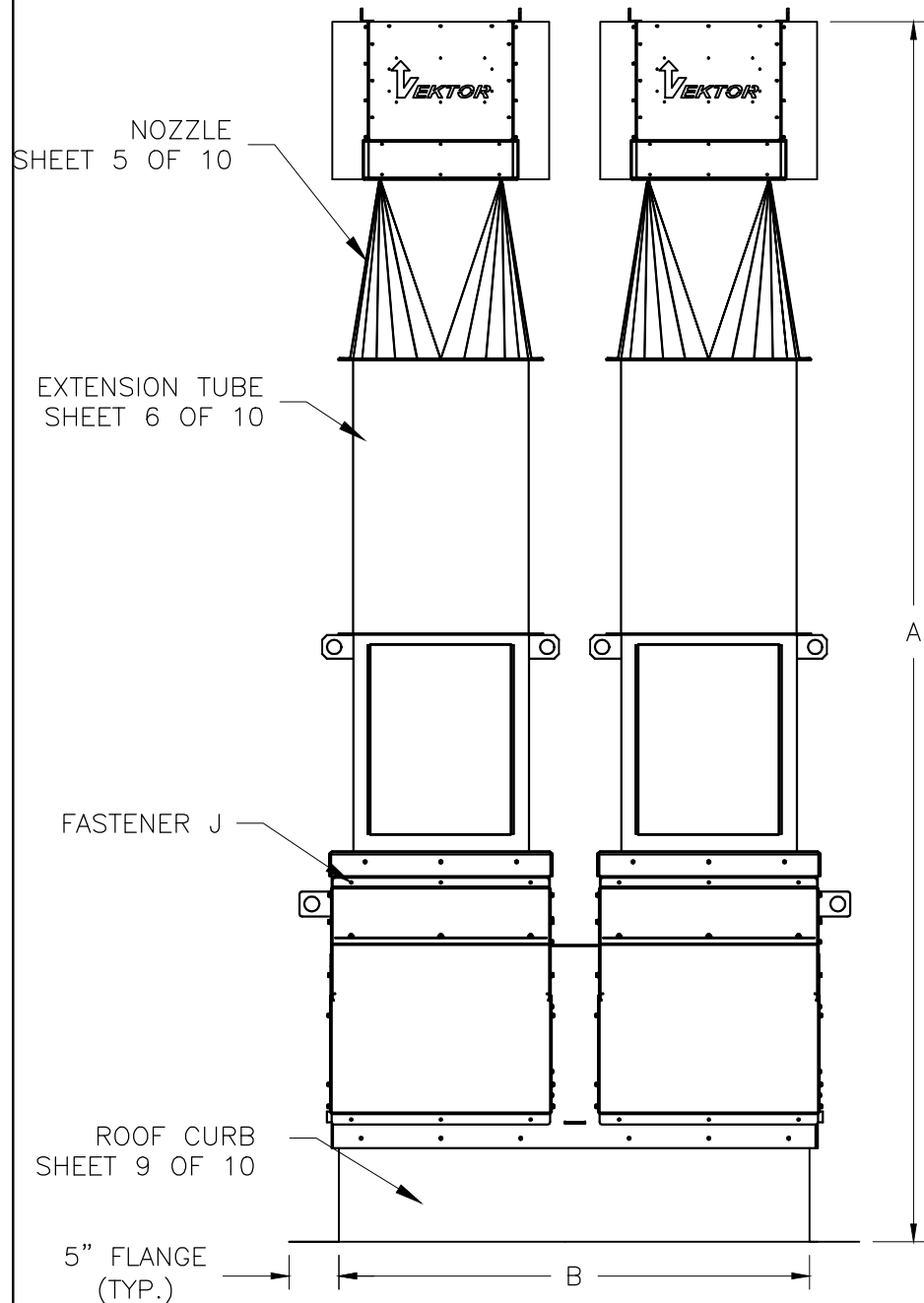
UNIT	FASTENER F		FASTENER G		FASTENER H		FASTENER J		FASTENER K					
	DESCRIPTION	QTY.	DESCRIPTION	QTY.	DESCRIPTION	QTY.	DESCRIPTION	QTY.	DESCRIPTION	QTY.				
VEKTOR-H 9	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	32	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	32	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	12	SCR,TEK,HWH,#12-14X.875,SS,410	80	SCR,TCS,IHWH,.313-18X1,TYP-23,MECH ZP	18				
VEKTOR-H 10														
VEKTOR-H 12														
VEKTOR-H 13														
VEKTOR-H 16														
VEKTOR-H 18					WSHR,FLAT,.045X.35X.745,SS,316	16					NUT,HEX,.375-16,SS,316 WSHR,FLAT,.05X.406X.875,SS,316 WSHR,FLAT,.05X.406X.875,SS,316	20	108	20
VEKTOR-H 22					NUT,HEX,.313-18,SS,316									
VEKTOR-H 24					16	20					120	32		
VEKTOR-H 30													32	24
VEKTOR-H 36					32	24					44			

ALL DIMENSIONS ARE IN INCHES
WEIGHTS DO NOT INCLUDE MOTORS AND DRIVES

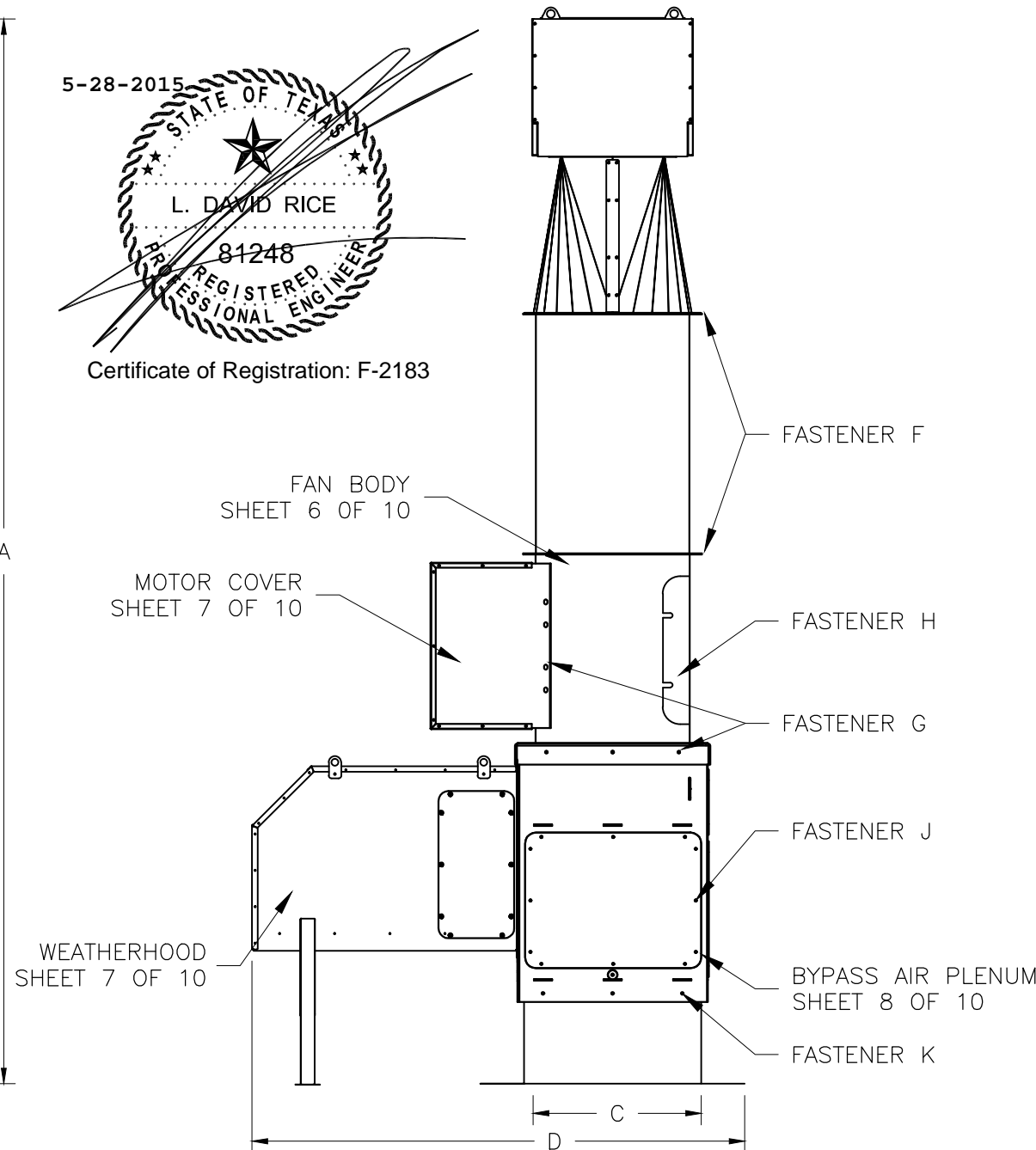
UNIT	A	B	C	D	WEIGHT (LBS.)
VEKTOR-H 9	146.00	48.50	21.63	72.50	1137
VEKTOR-H 10	146.00	48.50	21.63	72.50	1137
VEKTOR-H 12	146.00	48.50	21.63	72.50	1157
VEKTOR-H 13	146.50	52.50	23.63	71.50	1274
VEKTOR-H 16	146.50	60.50	27.63	76.50	1549
VEKTOR-H 18	146.00	72.50	33.63	82.50	1863
VEKTOR-H 22	145.25	84.50	39.63	88.50	2371
VEKTOR-H 24	146.00	96.50	45.63	94.75	2917
VEKTOR-H 30	155.50	108.50	51.63	100.50	3586
VEKTOR-H 36	167.00	120.50	57.63	107.25	4439

NOTES:

1. MODELS VEKTOR-H & VEKTOR-HS HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL BUILDING CODE AND THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL RESIDENTIAL CODE.
4. DESIGN PRESSURE = +/- 140 PSF LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.



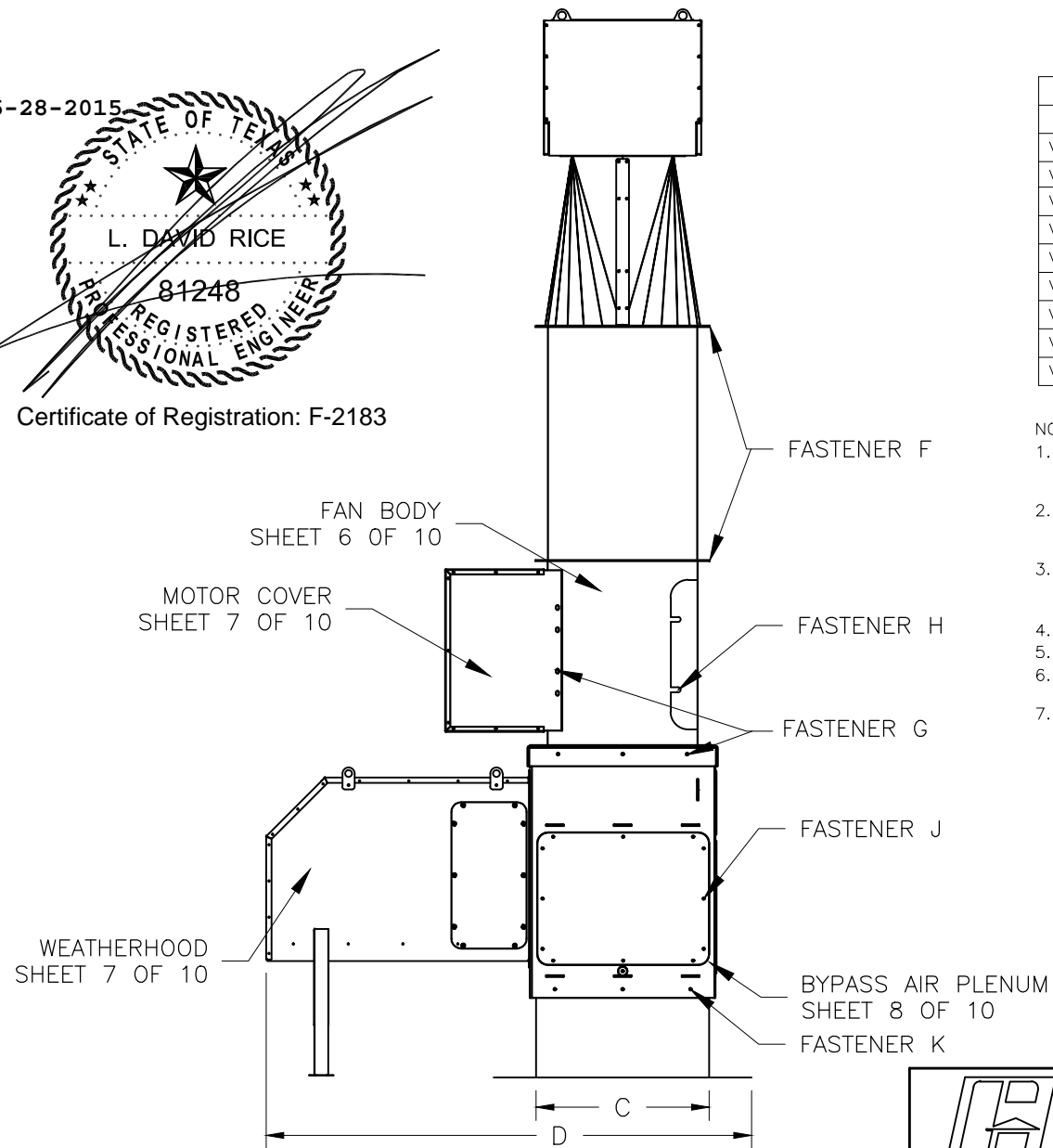
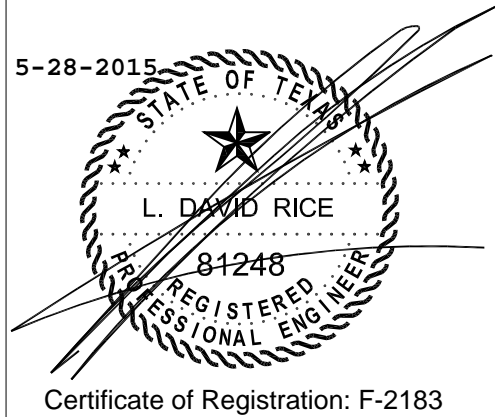
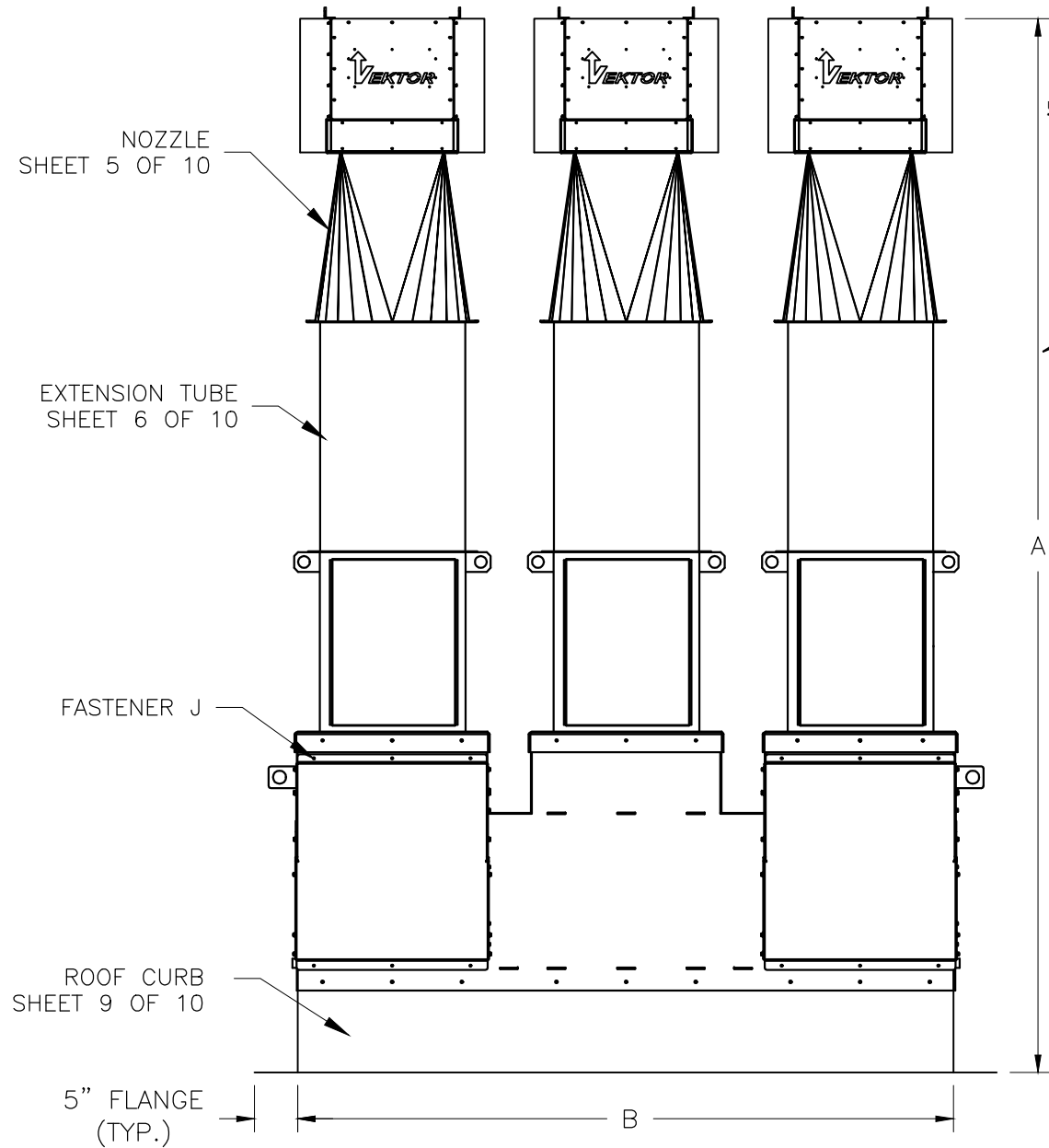
Certificate of Registration: F-2183



 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410 VEKTOR-H 9-36 VEKTOR-HS 9-36 2X1 ASSEMBLY SHEET 2 OF 10	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF.
	SCALE 1/20	NOA TESTING
	CAD DRAWING NO.	VK-H-1002

DESIGN LIMITS	
Max. Design Load:	±140 psf (6.7 Kpa)
Max Overall Enclosure:	183.38 x 107.25 in. (4658 x 2724 mm)
Max. Overall Unit Height:	167 in. (4242 mm)

UNIT	FASTENER F DESCRIPTION	QTY.	FASTENER G DESCRIPTION	QTY.	FASTENER H DESCRIPTION	QTY.	FASTENER J DESCRIPTION	QTY.	FASTENER K DESCRIPTION	QTY.				
VEKTOR-H 9	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	48	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	60	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	18	SCR,TEK,HWH,#12-14X.875,SS,410	102	SCR,TCS,IHWH,.313-18X1,TYP-23,MECH ZP	26				
VEKTOR-H 10														
VEKTOR-H 12														
VEKTOR-H 13														
VEKTOR-H 16														
VEKTOR-H 18														
VEKTOR-H 22														
VEKTOR-H 24											24	30	142	48
VEKTOR-H 30											48	36	152	54
VEKTOR-H 36														58



ALL DIMENSIONS ARE IN INCHES
WEIGHTS DO NOT INCLUDE MOTORS AND DRIVES

UNIT	A	B	C	D	WEIGHT (LBS.)
VEKTOR-H 9	146.00	75.38	21.63	72.50	1591
VEKTOR-H 10	146.00	75.38	21.63	72.50	1591
VEKTOR-H 12	146.00	75.38	21.63	72.50	1621
VEKTOR-H 13	146.50	81.38	23.63	71.50	1781
VEKTOR-H 16	146.50	93.38	27.63	76.50	2161
VEKTOR-H 18	146.00	111.38	33.63	82.50	2638
VEKTOR-H 22	145.25	129.38	39.63	88.50	3316
VEKTOR-H 24	146.00	147.38	45.63	94.75	4085
VEKTOR-H 30	155.50	165.38	51.63	100.50	5026
VEKTOR-H 36	167.00	183.38	57.63	107.25	6230

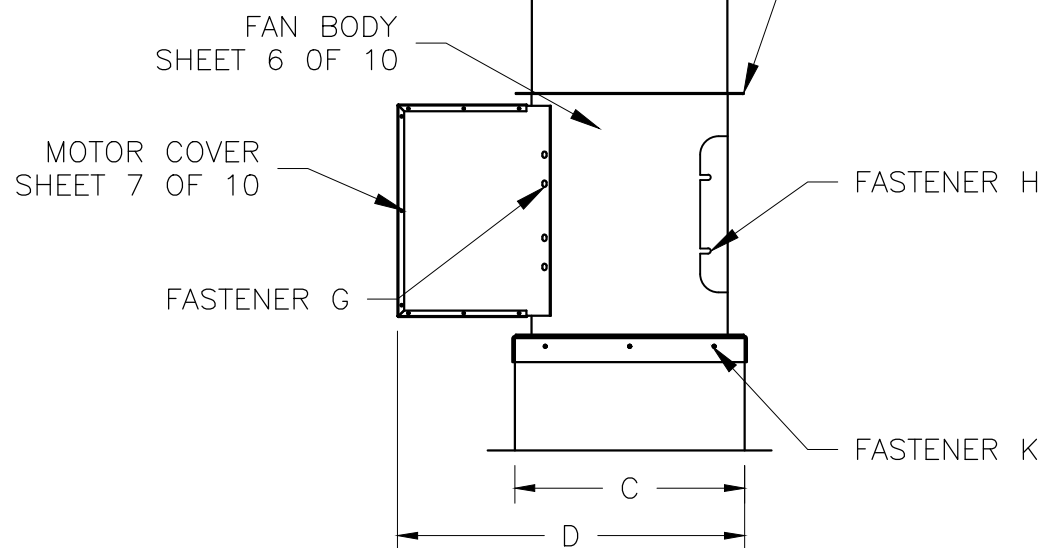
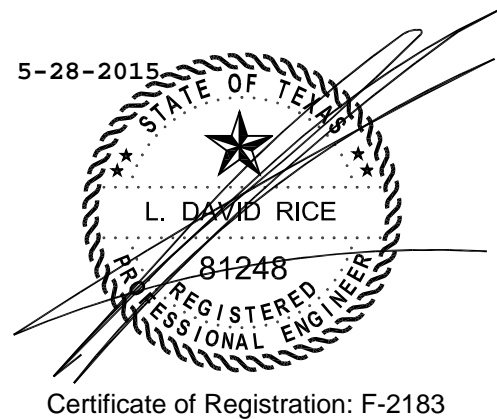
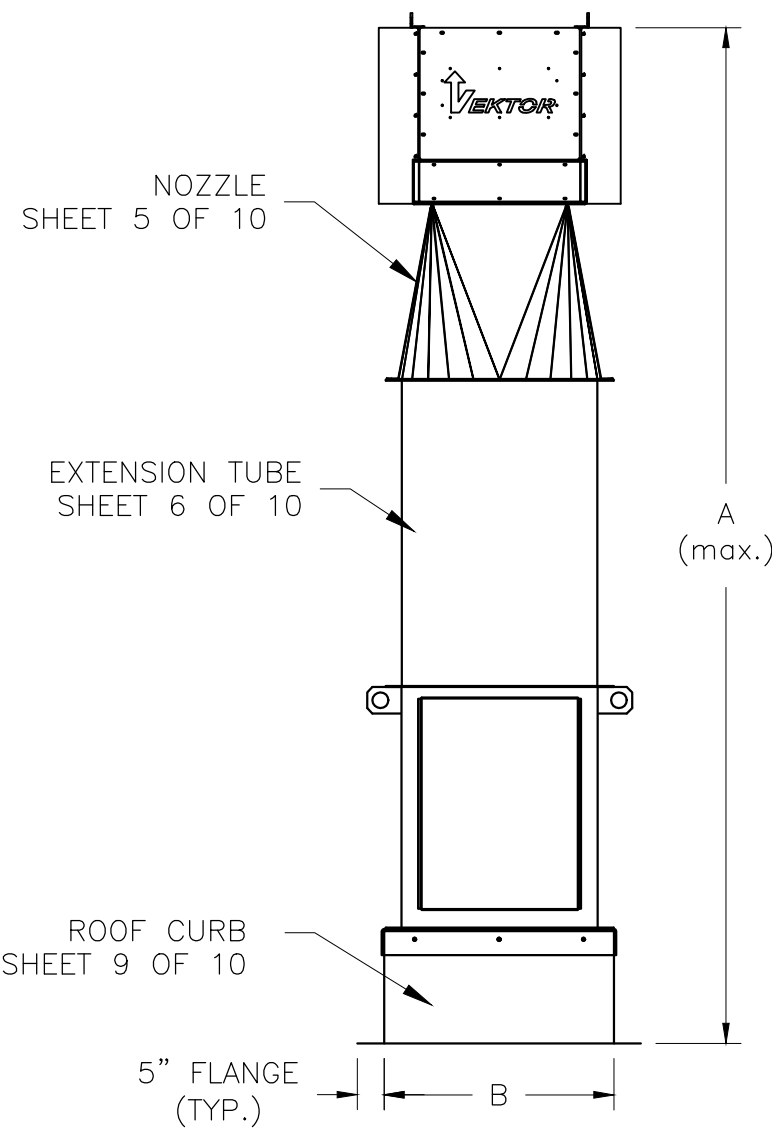
NOTES:

1. MODELS VEKTOR-H & VEKTOR-HS HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL BUILDING CODE AND THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL RESIDENTIAL CODE.
4. DESIGN PRESSURE = +/- 140 PSF LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSING ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY	ECD
	DATE	ENG. REF.
	SUPERSEDES	NOA TESTING
	SCALE	
TITLE VEKTOR-H 9-36 VEKTOR-HS 9-36 3X1 ASSEMBLY SHEET 3 OF 10		CAD DRAWING NO. VK-H-1003

DESIGN LIMITS	
Max. Design Load:	±140 psf (6.7 Kpa)
Max Overall Enclosure:	67.63 x 75.50 in. (1718 x 1918 mm)
Max. Overall Unit Height:	167 in. (4242 mm)

UNIT	FASTENER F		FASTENER G		FASTENER H		FASTENER K	
	DESCRIPTION	QTY.	DESCRIPTION	QTY.	DESCRIPTION	QTY.	DESCRIPTION	QTY.
VEKTOR-H 9								
VEKTOR-H 10					SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	6		12
VEKTOR-H 12						6		
VEKTOR-H 13							SCR,TCS,IHWH,.313-18X1,TYP-23,MECH ZP	16
VEKTOR-H 16	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	16	SCR,CS,HH,.313-18X1,SS,316, W/EPDM,WSHR	4		8		20
VEKTOR-H 18	WSHR,FLAT,.045X.35X.745,SS,316				NUT,HEX,.375-16,SS,316			
VEKTOR-H 22	NUT,HEX,.313-18,SS,316				WSHR,FLAT,.05X.406X.875,SS,316			
VEKTOR-H 24					WSHR,FLAT,.05X.406X.875,SS,316	10		24
VEKTOR-H 30						12		28
VEKTOR-H 36		32						



ALL DIMENSIONS ARE IN INCHES
WEIGHTS DO NOT INCLUDE MOTOR AND DRIVES

UNIT	A (max.)	B	C	D	WEIGHT (LBS.)
VEKTOR-H 9	146.00	21.63	21.63	33.75	407
VEKTOR-H 10	146.00	21.63	21.63	33.75	407
VEKTOR-H 12	146.00	21.63	21.63	33.75	417
VEKTOR-H 13	146.50	23.63	23.63	36.75	451
VEKTOR-H 16	146.50	27.63	27.63	40.00	559
VEKTOR-H 18	146.00	33.63	33.63	48.25	665
VEKTOR-H 22	145.25	39.63	39.63	53.75	829
VEKTOR-H 24	146.00	45.63	45.63	59.75	1009
VEKTOR-H 30	155.50	51.63	51.63	68.25	1259
VEKTOR-H 36	167.00	57.63	57.63	75.50	1537

NOTES:

- MODELS VEKTOR-H & VEKTOR-HS HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
- ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
- DESIGN, TESTING, AND INSTALLATION CONFORMS TO THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL BUILDING CODE AND THE TEXAS REVISIONS TO THE 2006 INTERNATIONAL RESIDENTIAL CODE.
- DESIGN PRESSURE = +/- 140 PSF LARGE MISSILE IMPACT RESISTANT.
- TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
- THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
- THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

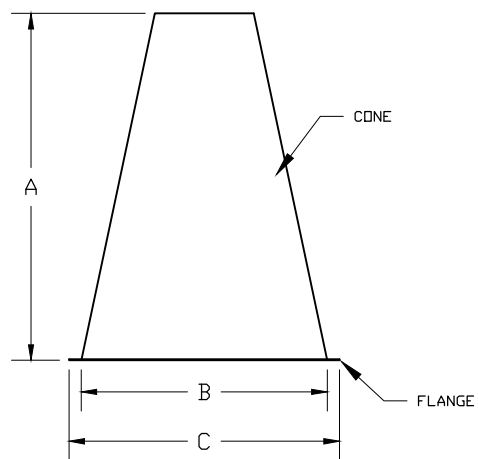
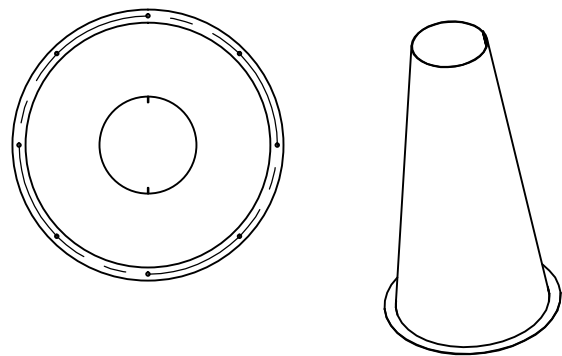
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410 VEKTOR-H 9-36 VEKTOR-HS 9-36 1X1 ASSEMBLY (NO PLENUM) SHEET 4 OF 10	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF.
	SUPERSEDES	NOA TESTING
	SCALE	
CAD DRAWING NO.		VK-H-1004

ALL DIMENSIONS ARE IN INCHES.
 FASTENER F=SCR,CS,HH,.313-18X1,SS,316,W/EPDM,WSHR
 WSHR,FLAT,.045X.35X.745,SS,316
 NUT,HEX,.313-18,SS,316
 FASTENER J=SCR,TEK,HWH,#12-14X.875,SS,410
 FASTENER L= RVT,BLIND,DOME,.187,.126-.25,SS

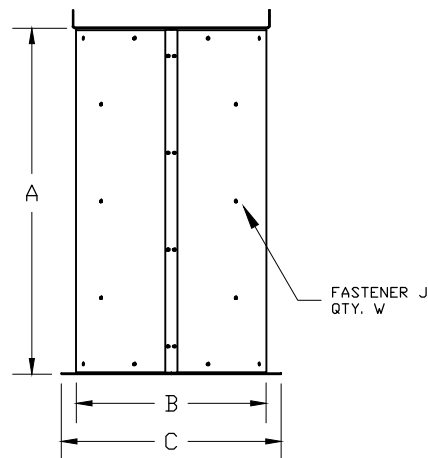
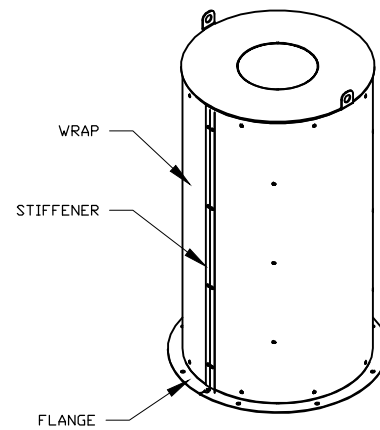
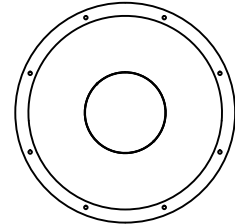
UNIT SIZE	A	B	C	MATERIAL	
				CONE	FLANGE
VEKTOR-H 9	43.00	18.38	21.63	16 GA. CRS DS	10 GA. HRS POCS
VEKTOR-H 10	43.00	18.38	21.63		
VEKTOR-H 12	43.00	18.38	21.63		
VEKTOR-H 13	43.00	20.38	23.63		
VEKTOR-H 16	43.00	24.38	27.63		
VEKTOR-H 18	43.00	30.38	33.63		
VEKTOR-H 22	43.00	36.38	39.63		
VEKTOR-H 24	43.00	42.50	45.75		
VEKTOR-H 30	43.00	48.50	52.75		
VEKTOR-H 36	43.00	55.00	59.25		

UNIT SIZE	A	B	C	QTY. W	MATERIAL		
					WRAP	STIFFENER	FLANGE
VEKTOR-H 9	43.00	18.38	21.63	40	18 GA. CRS DS	18 GA. CRS DS	10 GA. HRS POCS
VEKTOR-H 10	43.00	18.38	21.63	40			
VEKTOR-H 12	43.00	18.38	21.63	40			
VEKTOR-H 13	43.00	20.38	23.63	40			
VEKTOR-H 16	43.00	24.38	27.63	44			
VEKTOR-H 18	43.00	30.38	33.63	44			
VEKTOR-H 22	43.00	36.38	39.63	52			
VEKTOR-H 24	43.00	42.50	45.75	52			
VEKTOR-H 30	43.00	48.50	52.75	58			
VEKTOR-H 36	43.00	55.00	49.25	58			

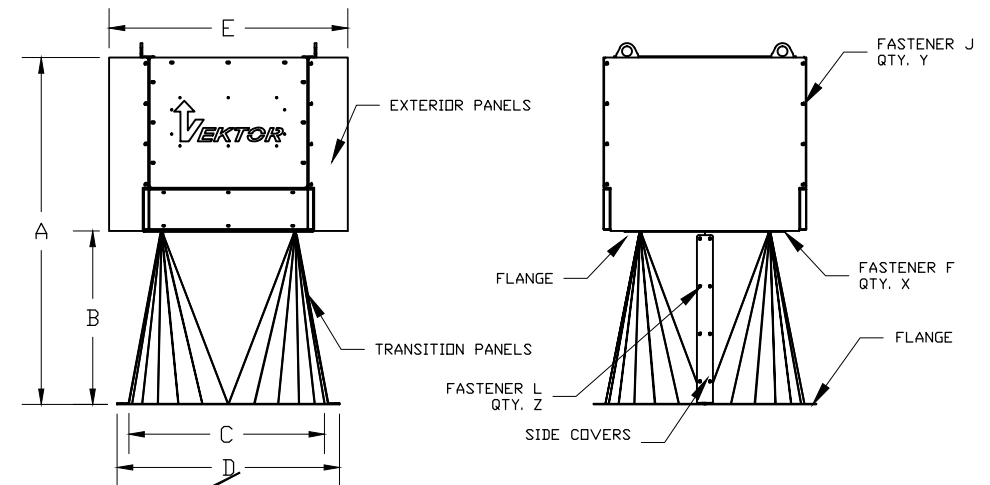
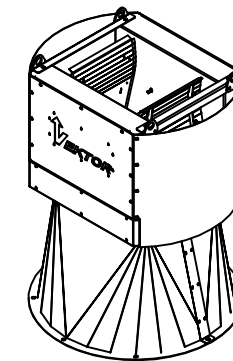
UNIT SIZE	A	B	C	D	E	QTY. X	QTY. Y	QTY. Z	MATERIAL			
									EXTR PNL	TRANSN PNL	SD CVR	FLG's
VEKTOR-H 9	43.00	21.50	18.38	21.63	25.04	22	42	16	16 GA. CRS DS	14 GA. CRS DS	16 GA. CRS DS	10 GA. HRS POCS
VEKTOR-H 10	43.00	21.50	18.38	21.63	25.04	22	42	16				
VEKTOR-H 12	43.00	21.50	18.38	21.63	25.04	22	42	16				
VEKTOR-H 13	43.00	21.50	20.38	23.63	25.04	22	42	16				
VEKTOR-H 16	43.00	21.50	24.38	27.63	29.57	26	44	16				
VEKTOR-H 18	43.00	21.50	30.38	33.63	33.33	26	44	16				
VEKTOR-H 22	43.00	21.50	36.38	39.63	37.64	26	46	16				
VEKTOR-H 24	43.00	21.50	42.50	45.75	44.03	30	46	32				
VEKTOR-H 30	43.00	21.50	48.50	52.75	47.48	30	50	32				
VEKTOR-H 36	43.00	21.50	55.00	59.25	58.43	30	54	32				



VEKTOR-H NOZZLE



VEKTOR-H ATTENUATING NOZZLE



VEKTOR-HS "SAVE" NOZZLE



GREENHECK
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
 VEKTOR-H 9-36
 VEKTOR-HS 9-36
 NOZZLES
 SHEET 5 OF 10

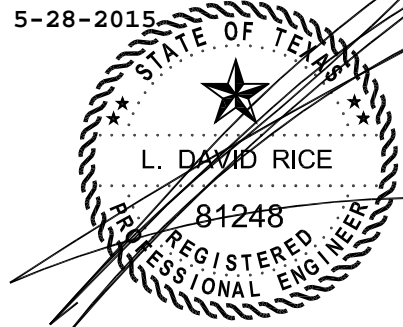
DRAWN BY WOTRUBA	ECG
DATE 04/2015	ENG. REF.
SUPERSEDES	NOA TESTING
SCALE	
CAD DRAWING NO.	VK-H-1005

ALL DIMENSIONS ARE IN INCHES.

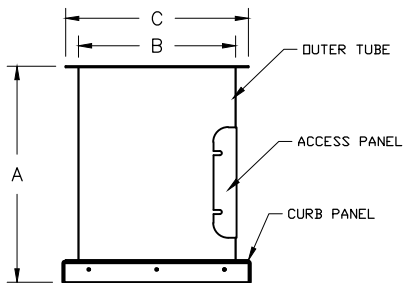
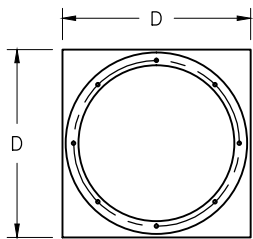
UNIT SIZE	A	B	C	D	MATERIAL		
					OUTR TUBE	CURB PNL	ACS PNL
VEKTOR-H 9	25.50	18.65	21.65	22.00	12 GA. HRS POCS		12 GA. HRS POCS
VEKTOR-H 10	25.50	18.65	21.65	22.00			
VEKTOR-H 12	25.50	18.65	21.65	22.00			
VEKTOR-H 13	27.00	20.58	23.58	24.00			
VEKTOR-H 16	31.00	24.58	27.58	28.00			
VEKTOR-H 18	33.50	30.58	33.58	34.00			
VEKTOR-H 22	37.75	36.58	39.58	40.00	10 GA. HRS POCS		10 GA. HRS POCS
VEKTOR-H 24	42.00	42.79	45.79	46.00			
VEKTOR-H 30	51.00	48.77	52.77	52.00			
VEKTOR-H 36	56.50	55.27	59.27	58.00			

UNIT SIZE	A	B	C	MATERIAL	
				EXTENSION	
VEKTOR-H 9	55.50	18.65	21.65	12 GA. HRS POCS	
VEKTOR-H 10	55.50	18.65	21.65		
VEKTOR-H 12	55.50	18.65	21.65		
VEKTOR-H 13	55.00	20.58	23.58		
VEKTOR-H 16	51.00	24.58	27.58		
VEKTOR-H 18	48.00	30.58	33.58		
VEKTOR-H 22	43.00	36.58	39.58		
VEKTOR-H 24	37.00	42.77	45.77		
VEKTOR-H 30	40.00	48.77	52.77		
VEKTOR-H 36	46.00	55.27	59.27		

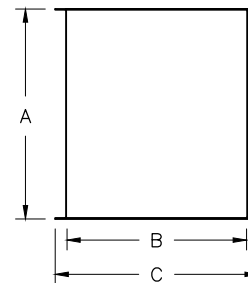
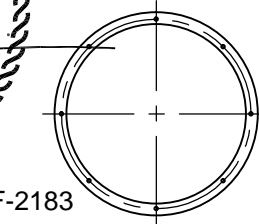
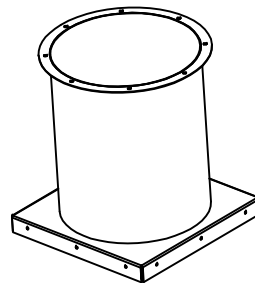
5-28-2015



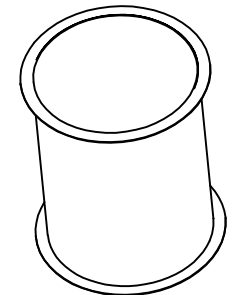
Certificate of Registration: F-2183




FAN BODY



EXTENSION



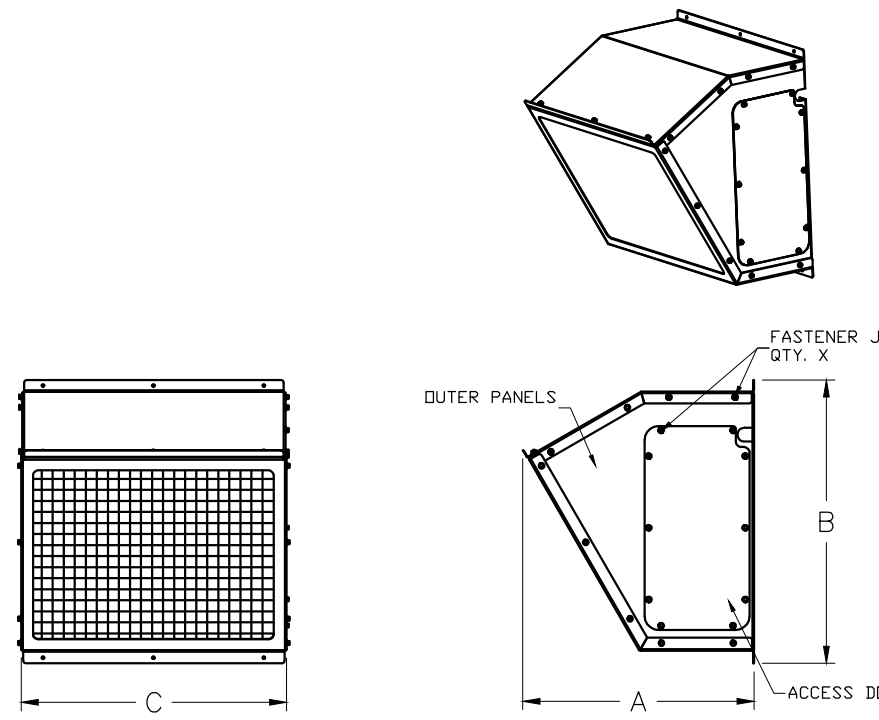
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY WOTRUBA	E.C.D. NOA TESTING
	DATE 04/2015	ENG. REF.
TITLE VK-H 9-36 VK-HS 9-36 FAN BODY & EXTENSION SHEET 6 OF 10	SCALE	CAD DRAWING NDL
		VK-H-1006

ALL DIMENSIONS ARE IN INCHES.

UNIT SIZE	A	B	C	QTY. X	FASTENER J	MATERIAL
					DESCRIPTION	PANELS/DOORS
VEKTOR-H 9	17.88	24.50	22.25	38	SCR,TEK,HWH, #12-14X.875,SS,410	14 GA CRS DS
VEKTOR-H 10	17.88	24.50	22.25	38		
VEKTOR-H 12	17.88	24.50	22.25	38		
VEKTOR-H 13	21.00	25.50	24.18	38		
VEKTOR-H 16	22.00	27.50	28.00	40		
VEKTOR-H 18	22.25	28.25	34.13	40		
VEKTOR-H 22	23.50	31.50	40.13	40		
VEKTOR-H 24	24.88	34.50	46.13	44		
VEKTOR-H 30	26.50	37.50	52.13	44		
VEKTOR-H 36	28.75	43.50	58.13	44		

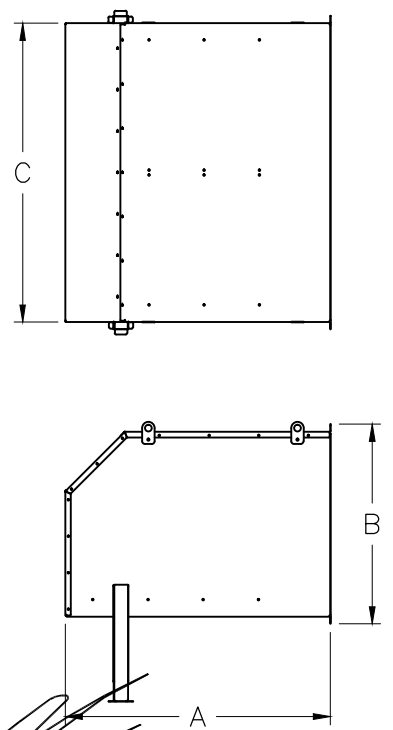
UNIT SIZE	A	B	C	QTY. Y	QTY. Z	FASTENER G	FASTENER J	MATERIAL
						DESCRIPTION	DESCRIPTION	PANELS/DOOR/LEGS
VEKTOR-H 9	48.00	24.50	22.25	8	58	SCR,CS,HH,313-18X1, SS,316,W/EPDM,WSHR	SCR,TEK,HWH, #12-14X.875,SS,410	16 GA CRS DS
VEKTOR-H 10	48.00	24.50	22.25	8	58			
VEKTOR-H 12	48.00	24.50	22.25	8	58			
VEKTOR-H 13	48.00	25.50	24.18	8	62			
VEKTOR-H 16	48.00	27.50	28.00	8	62			
VEKTOR-H 18	48.00	28.25	34.13	8	62			
VEKTOR-H 22	48.00	31.50	40.13	8	64			
VEKTOR-H 24	48.00	34.50	46.13	8	72			
VEKTOR-H 30	48.00	37.50	52.13	8	72			
VEKTOR-H 36	48.00	43.50	58.13	8	74			

UNIT SIZE	A	B	C	QTY. W.	FASTENER J	MATERIAL
					DESCRIPTION	PANELS
VEKTOR-H 9	14.50	20.13	14.75	16	SCR,TEK,HWH, #12-14X.875,SS,410	18 GA. CRS DS
VEKTOR-H 10	14.50	20.13	14.75	16		
VEKTOR-H 12	14.50	20.13	14.75	16		
VEKTOR-H 13	14.50	20.13	14.75	16		
VEKTOR-H 16	15.13	21.13	16.00	16		
VEKTOR-H 18	16.75	22.25	16.00	18		
VEKTOR-H 22	17.75	26.63	22.75	20		
VEKTOR-H 24	17.75	28.13	22.75	20		
VEKTOR-H 30	19.50	30.63	22.75	24		
VEKTOR-H 36	21.00	34.63	22.75	36		

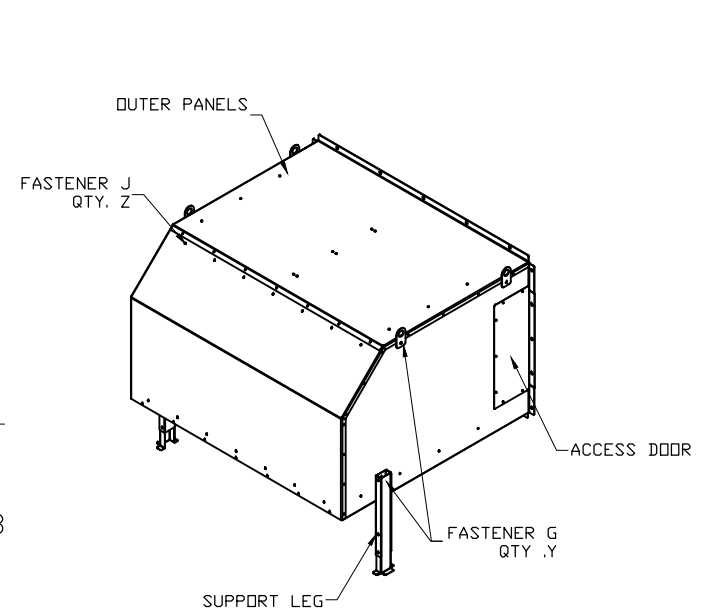


STANDARD WEATHERHOOD

5-28-2015
 STATE OF TEXAS
 L. DAVID RICE
 81248
 REGISTERED PROFESSIONAL ENGINEER
 Certificate of Registration: F-2183



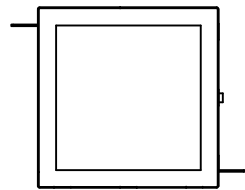
ATTENUATING WEATHERHOOD



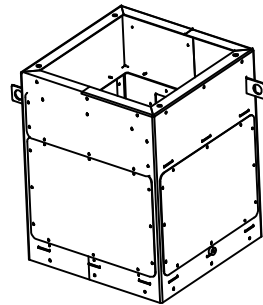
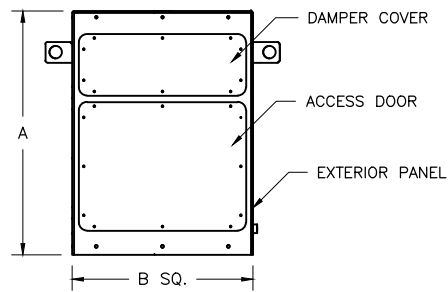
MOTOR COVER

 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410 TITLE VK-H 9-36 VK-HS 9-36 WEATHERHOODS & MOTOR COVER SHEET 7 OF 10	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF. NOA TESTING
	SUPERSEDES	
	SCALE	
CAD DRAWING NO.		B VK-H-1007

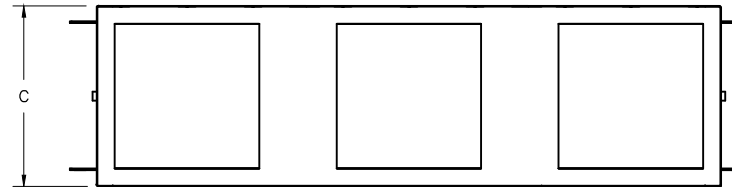
ALL DIMENSIONS ARE IN INCHES



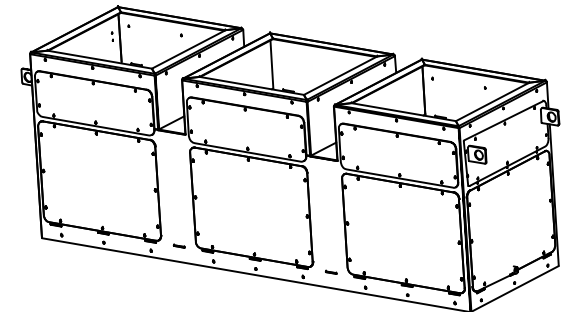
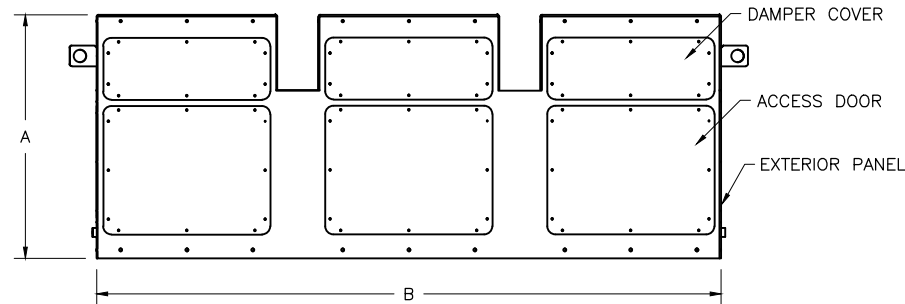
UNIT SIZE	A	B	MATERIAL		
			EXTR PNL's	ACS DR	DMPR CVR
VEKTOR-H 9	29.50	21.88			
VEKTOR-H 10	29.50	21.88			
VEKTOR-H 12	29.50	21.88			
VEKTOR-H 13	30.50	23.88			
VEKTOR-H 16	32.50	27.88	12 GA. HRS POCS	12 GA. HRS POCS	12 GA. HRS POCS
VEKTOR-H 18	33.50	33.88			
VEKTOR-H 22	36.50	39.88			
VEKTOR-H 24	39.50	45.88			
VEKTOR-H 30	42.50	51.88			
VEKTOR-H 36	48.50	57.88			



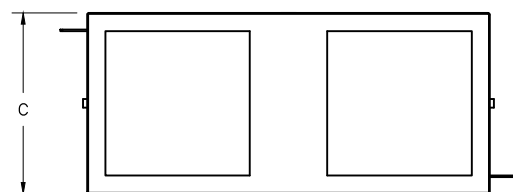
1X1 BYPASS AIR PLENUM



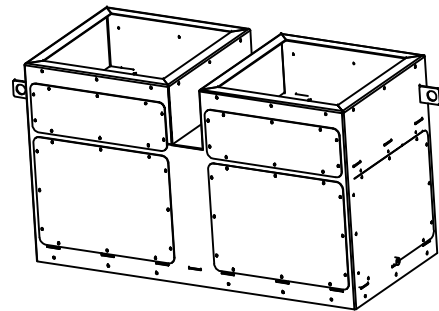
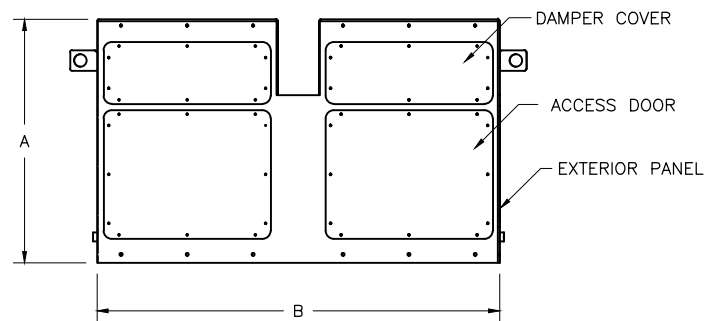
UNIT SIZE	A	B	C	MATERIAL		
				EXTR PNL's	ACS DR	DMPR CVR
VEKTOR-H 9	29.50	75.58	21.88			
VEKTOR-H 10	29.50	75.58	21.88			
VEKTOR-H 12	29.50	75.58	21.88			
VEKTOR-H 13	30.50	81.58	23.88			
VEKTOR-H 16	32.50	93.58	27.88	12 GA. HRS POCS	12 GA. HRS POCS	12 GA. HRS POCS
VEKTOR-H 18	33.50	111.58	33.88			
VEKTOR-H 22	36.50	129.58	39.88			
VEKTOR-H 24	39.50	147.58	45.88			
VEKTOR-H 30	42.50	165.58	51.88			
VEKTOR-H 36	48.50	183.58	57.88			



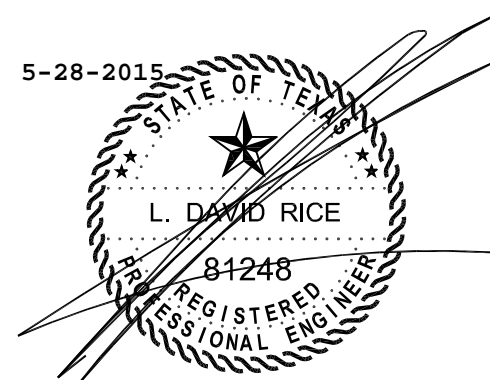
3X1 BYPASS AIR PLENUM




UNIT SIZE	A	B	C	MATERIAL		
				EXTR PNL's	ACS DR	DMPR CVR
VEKTOR-H 9	29.50	48.71	21.88			
VEKTOR-H 10	29.50	48.71	21.88			
VEKTOR-H 12	29.50	48.71	21.88			
VEKTOR-H 13	30.50	52.71	23.88			
VEKTOR-H 16	32.50	60.71	27.88	12 GA. HRS POCS	12 GA. HRS POCS	12 GA. HRS POCS
VEKTOR-H 18	33.50	72.71	33.88			
VEKTOR-H 22	36.50	84.71	39.88			
VEKTOR-H 24	39.50	96.71	45.88			
VEKTOR-H 30	42.50	108.71	51.88			
VEKTOR-H 36	48.50	120.71	57.88			



2X1 BYPASS AIR PLENUM



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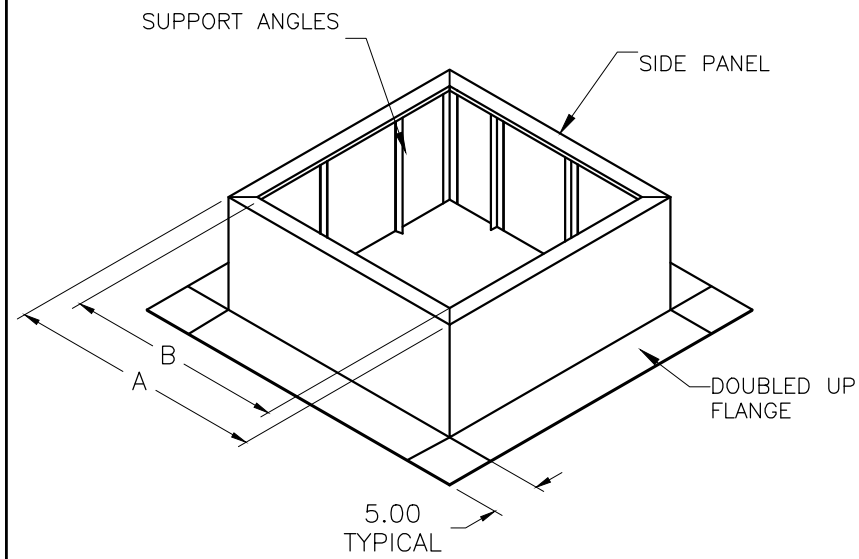
 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY	ECD
	WOTRUBA	
	DATE	ENG. REF.
	04/2015	
	SUPERSEDES	NOA TESTING
	SCALE	
	CAD DRAWING NO.	B
TITLE VK-H 9-36 VK-HS 9-36 BYPASS AIR PLENUMS SHEET 8 OF 10		VK-H-1008

ALL DIMENSIONS ARE IN INCHES.
 MAX. ROOF CURB HEIGHT IS 24 INCHES.
 ALL WELDS ARE TYPICAL FOR 1x1, 2x1, & 3x1

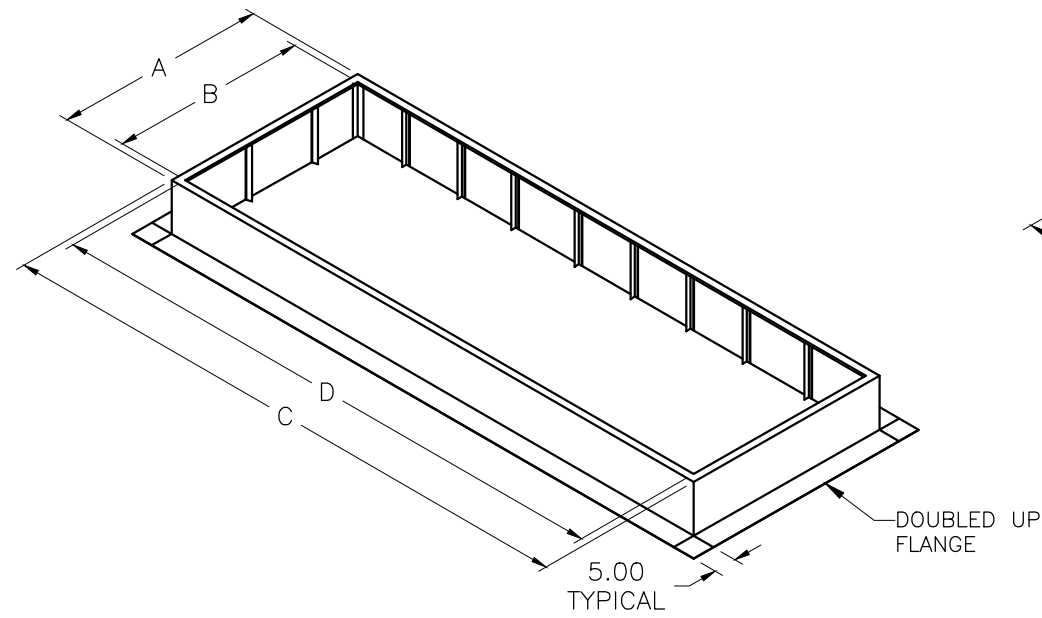
UNIT	ACTUAL OUTSIDE (SQ.) A	ACTUAL INSIDE (SQ.) B	MATERIAL
VEKTOR-H 9	21	17.5	12 GA. GALV
VEKTOR-H 10	21	17.5	
VEKTOR-H 12	21	17.5	
VEKTOR-H 13	23	19.5	
VEKTOR-H 16	27	23.5	
VEKTOR-H 18	33	29.5	
VEKTOR-H 22	39	35.5	
VEKTOR-H 24	45	41.5	
VEKTOR-H 30	51	47.5	
VEKTOR-H 36	57	53.5	

UNIT	ACTUAL OUTSIDE A	ACTUAL INSIDE B	ACTUAL OUTSIDE C	ACTUAL INSIDE C	MATERIAL
VEKTOR-H 9	21	17.5	48	44.5	12 GA. GALV
VEKTOR-H 10	21	17.5	48	44.5	
VEKTOR-H 12	21	17.5	48	44.5	
VEKTOR-H 13	23	19.5	52	48.5	
VEKTOR-H 16	27	23.5	60	56.5	
VEKTOR-H 18	33	29.5	72	68.5	
VEKTOR-H 22	39	35.5	84	80.5	
VEKTOR-H 24	45	41.5	96	92.5	
VEKTOR-H 30	51	47.5	108	104.5	
VEKTOR-H 36	57	53.5	120	116.5	

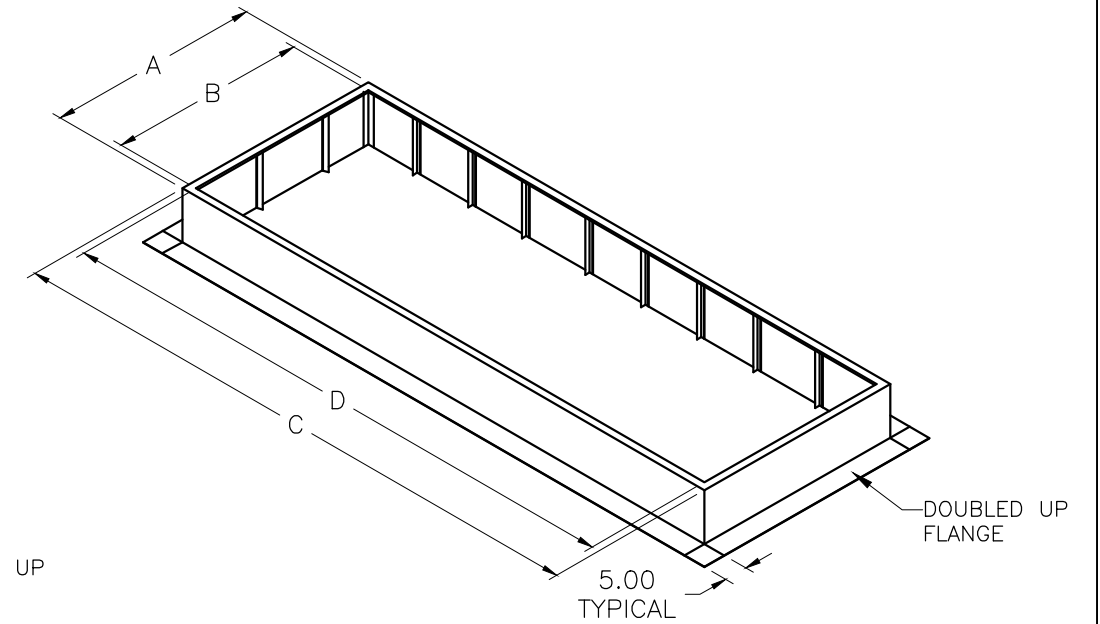
UNIT	ACTUAL OUTSIDE A	ACTUAL INSIDE B	ACTUAL OUTSIDE C	ACTUAL INSIDE C	MATERIAL
VEKTOR-H 9	21	17.5	74	70.5	12 GA. GALV
VEKTOR-H 10	21	17.5	74	70.5	
VEKTOR-H 12	21	17.5	74	70.5	
VEKTOR-H 13	23	19.5	80	76.5	
VEKTOR-H 16	27	23.5	92	88.5	
VEKTOR-H 18	33	29.5	110	106.5	
VEKTOR-H 22	39	35.5	128	124.5	
VEKTOR-H 24	45	41.5	146	142.5	
VEKTOR-H 30	51	47.5	164	160.5	
VEKTOR-H 36	57	53.5	182	178.5	



1X1 ROOF CURB




2X1 ROOF CURB

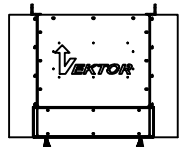
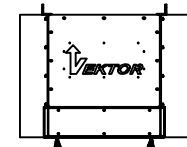


3X1 ROOF CURB



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 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF. NOA TESTING
TITLE VK-H 9-36 VK-HS 9-36 ROOF CURBS SHEET 9 OF 10		CAD DRAWING NO. VK-H-1009



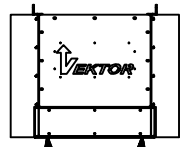
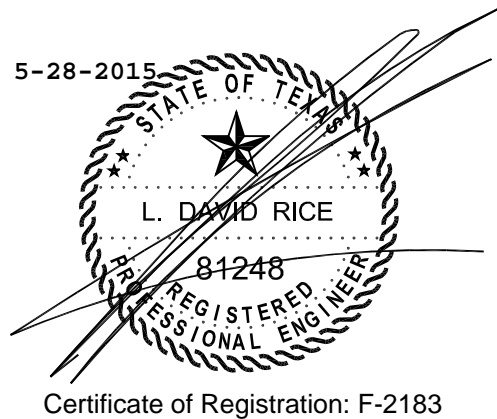
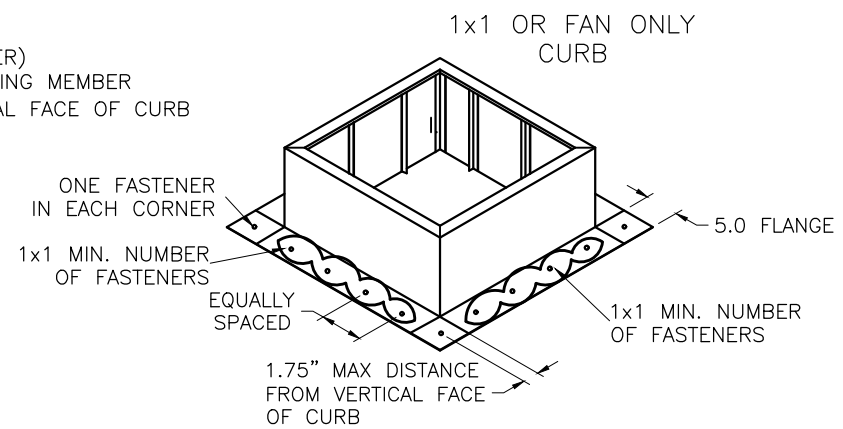
Model	MINIMUM NUMBER OF FASTENERS PER SIDE TO ATTACH CURB TO STRUCTURE (excludes 4 corner fasteners)											
	Concrete deck anchoring			Steel anchoring-thru bolts			Timber anchoring			Steel anchoring-self drill/tap		
	1x1 or fan only	2x1	3x1	1x1 or fan only	2x1	3x1	1x1 or fan only	2x1	3x1	1x1 or fan only	2x1	3x1
VEKTOR-H 9	2.00	4.00	7.00	2.00	6.00	6.00	3.00	5.00	10.00	3.00	7.00	14.00
VEKTOR-H 10												
VEKTOR-H 12												
VEKTOR-H 13												
VEKTOR-H 16												
VEKTOR-H 18	8.00											
VEKTOR-H 22	5.00	9.00	3.00	4.00	8.00	4.00	7.00	14.00	4.00	8.00	16.00	
VEKTOR-H 24												
VEKTOR-H 30												
VEKTOR-H 36	3.00	6.00	12.00	3.00	6.00	12.00	5.00	8.00	18.00	6.00	11.00	23.00

3000 MIN. PSI
5.5" THICK MIN.
HILTI M12 HSL-3
3.15" MIN. EMBEDMENT
9" MIN. EDGE DISTANCE

CONCRETE DECK ANCHORING

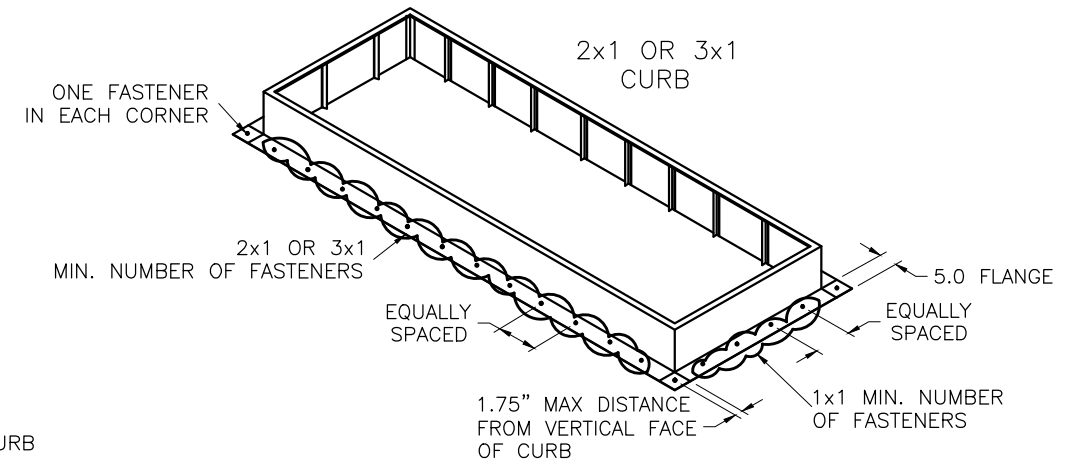
BUILDING MEMBER
1/2" DIA. GRADE 2 BOLT (OR BETTER)
1" MIN. EDGE DISTANCE ON BUILDING MEMBER
1 3/4" MAX. DISTANCE FROM VERTICAL FACE OF CURB

STEEL ANCHORING-THRU BOLTS



BUILDING MEMBER
5/8" GRADE 2 LAG BOLT (OR BETTER)
3 3/32" MIN THREAD ENGAGEMENT
2 1/2" MIN. EDGE DISTANCE
2 1/2" MIN. END DISTANCE
5/16" DIA. SELF TAPPING SCREW (OR BETTER)
9/16" MIN. THREAD ENGAGEMENT
1/2" MIN. EDGE DISTANCE ON BUILDING MEMBER
1 3/4" MAX. DISTANCE FROM VERTICAL FACE OF CURB

STEEL ANCHORING-Self DRILL/TAP FASTENERS



WOOD TIMBER
6" THICK MIN.
MIN. S.G = .5

TIMBER ANCHORING

 P.O. BOX 410 SCHOFIELD, WISCONSIN 54476-0410	DRAWN BY WOTRUBA	ECD
	DATE 04/2015	ENG. REF.
TITLE VEKTOR-H 9-36 VEKTOR-HS 9-36 ROOF CURB INSTALLATION SHEET 10 OF 10	SUPERSEDES NOA TESTING	
SCALE 1/25	CAD DRAWING NO.	B
VK-H-1010		