



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**Air System Components, Inc. dba PennBarry**  
**605 Shiloh Road**  
**Plano, TX 75074**

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

### DESCRIPTION: vPlume Laboratory Steel Exhaust Fan

**APPROVAL DOCUMENT:** Drawing No. **16605801**, titled "vPlume", sheets 1 through 12 of 12, dated 04/26/2018, with revision C dated 03/01/2025, prepared by Air System Components, Inc. dba PennBarry, signed and sealed by Gary Hartman, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA # 24-0104.03** consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



04/29/25

**NOA No. 24-1011.03**  
**Expiration Date: May 16, 2029**  
**Approval Date: May 8, 2025**  
**Page 1**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. Evidence submitted under NOA # 18-1205.04**

**A. DRAWINGS**

1. Drawing No. **16605801**, titled “vPlume”, sheets 1 through 12 of 12, dated 04/26/2018, with revision A dated 02/20/2019, prepared by Air System Components, Inc. dba PennBarry, signed and sealed by Wayne K. Helmila, P.E. on 03/13/2019.

**B. TESTS**

1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Tensile Strength Test per ASTM E8  
along with marked-up drawings and installation diagram of vPlume Commercial Lab Exhaust Fans, prepared by Intertek, Test Report No. **I3980.01-801-18 R0**, dated 02/08/2019, signed and sealed by Tyler Westerling, P.E.

**C. CALCULATIONS**

1. Anchoring verification calculations prepared by Rice Engineering, dated 02/18/2019, signed and sealed by Wayne K. Helmila, P.E.

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS**

1. Statement letters of code conformance to the 6<sup>th</sup> edition (2017) of the FBC issued by Rice Engineering, dated 03/13/2019, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest issued by Rice engineering, dated 03/13/2019, signed and sealed by Wayne K. Helmila, P.E.

**G. OTHERS**

1. Test proposal # **18-0438**.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 24-1011.03**  
**Expiration Date: May 16, 2029**  
**Approval Date: May 8, 2025**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. Evidence submitted under NOA # 24-1011.03 and new**

**A. DRAWINGS**

1. Drawing No. **16605801**, titled “vPlume”, sheets 1 through 12 of 12, dated 04/26/2018, with revision C dated 03/01/2025, prepared by Air System Components, Inc. dba PennBarry, signed and sealed by Gary Hartman, P.E.

**B. TESTS**

1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
2) Large Missile Impact Test per FBC, TAS 201-94  
3) Tensile Strength Test per ASTM E8  
4) Lateral Force Resistance per ASTM E72 (Modified).  
along with marked-up drawings and installation diagram of vPlume-365 Lab Exhaust Fan, prepared by Intertek, Test Report No. **P7119.01-801-18 R0**, dated 09/23/2024, signed and sealed by Tyler Westerling, P.E.

**C. CALCULATIONS**

1. Analysis and calculations, prepared by ICC NTA, LLC, dated 03/26/2025, signed and sealed by Gary T. Hartman, P.E.
2. Anchoring verification and structural analysis, prepared by ICC NTA, LLC, complying w/FBC 2023 (8<sup>th</sup> edition) dated 05/15/2024, prepared, signed and sealed by Gary Hartman, P.E.

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS**

1. Statement letter of code conformance to the 8<sup>th</sup> edition (2023) of the FBC and of no financial interest, issued by ICC-NTA, LLC, dated 03/26/2025, signed and sealed by Gary Hartman, P.E.
2. Statement letter of code conformance to the 8<sup>th</sup> edition (FBC 2023), issued by ICC-NTA, LLC, dated May 30, 2024, signed and sealed by Gary Hartman, P.E.
3. Statement letter dated 05/30/2024 of Successor adopting another Engineer work, per FLA rule 61G15-27.001, issued by ICC-NTA, LLC, signed and sealed by Gary Hartman, P.E.
4. Distributor agreement dated 04/01/2020.




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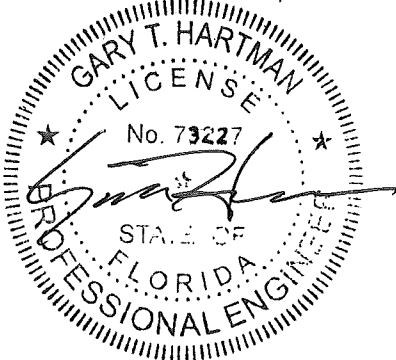
**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 24-1011.03**  
**Expiration Date: May 16, 2029**  
**Approval Date: May 8, 2025**

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ENGINEERING REVISION	03/01/2025	-

NOTES -

1. THIS PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. WOOD AND METAL FRAMING AND CONCRETE OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND CONCRETE OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. 1X BUCK OVER CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN.WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
6. FOR ANCHORING INTO WOOD FRAMING USE 5/8" LAG BOLTS AS SHOWN ON SHEET 11.
- 7.1 FOR ANCHORING INTO UNCRACKED CONCRETE USE 5/8" HILTI KWIK BOLT TZ2 AS SHOWN ON SHEET 11. EOR/ARCH. SHALL DETERMINE IF CONCRETE IS CRACKED OR UNCRACKED.
- 7.2 FOR ANCHORING INTO CRACKED CONCRETE USE 3/4" HILTI KWIK BOLT TZ2 ANCHORS AS SHOWN ON SHEET 11.
8. FOR ANCHORING INTO METAL STRUCTURE USE 0.5" DIA GRADE 2 BOLTS OR 5/16" SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 5/16" MINIMUM THREAD ENGAGEMENT BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN ON SHEET 11.
9. ALL FASTENERS TO BE CORROSION RESISTANT.
10. THIS APPROVAL IS FOR STRUCTURAL PERFORMANCE AND IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND / OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL.
11. UNITS WERE NOT TESTED FOR WATER PENETRATION PER FBC, TAS 100(A).
12. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW -
  - WOOD - MINIMUM SPECIFIC GRAVITY OF G = 0.5
  - CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 4, 000 PSI.
  - METAL STRUCTURE: STEEL 18 GA, 33KSI OR ALUMINUM 6063-T5 1/8" THICK MINIMUM.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By   
Miami-Dade Product Control

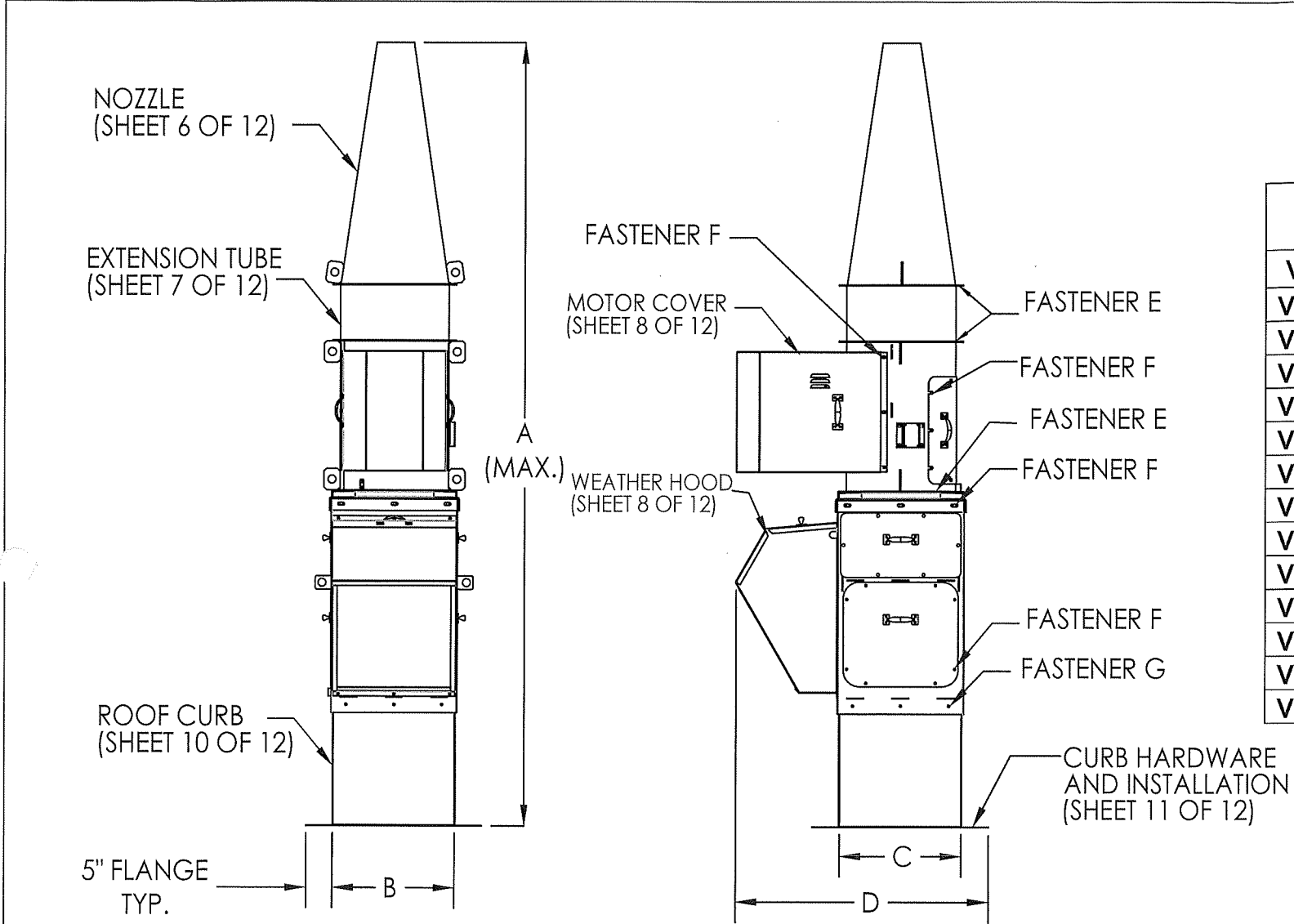


MAR 26 2025


TABLE OF CONTENTS			
SHEET NO.	DESCRIPTION	SHEET NO.	DESCRIPTION
1	GENERAL NOTES	7	FAN BODY & EXTENTION
2	1X1 ASSEMBLY	8	WEATHER HOOD & MOTOR COVER
3	2X1 ASSEMBLY	9	BYPASS AIR PLENUMS
4	3X1 ASSEMBLY	10	ROOF CURB
5	NO PLENUM	11	ROOF CURB INSTALLATION
6	NOZZLE	12	ANCHORAGE SCHEDULE

PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME GENERAL NOTES			
DRAWN: ANUP		DWG NO. 16605801	
SCALE NTS		DATE 04/26/2018	REV B
		SHEET 1 OF 12	

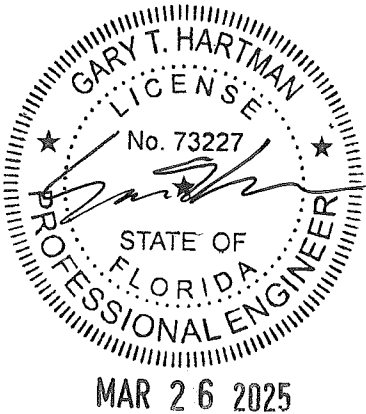




UNIT	A (MAX)	B	C	D	WEIGHT (LBS)
VPLUME-90	146.00	21.42	21.42	45.80	577
VPLUME-105	146.00	21.42	21.42	45.80	578
VPLUME-122	146.00	21.42	21.42	45.80	578
VPLUME-135	146.00	23.42	23.42	47.80	657
VPLUME-150	146.00	25.42	25.42	49.80	732
VPLUME-165	146.00	27.42	27.42	51.80	784
VPLUME-182	146.00	33.42	33.42	57.80	924
VPLUME-200	149.00	32.42	32.42	63.80	1010
VPLUME-222	153.00	36.42	36.42	67.00	1080
VPLUME-245	165.00	42.42	42.42	75.80	1274
VPLUME-270	170.00	46.42	46.42	79.80	1471
VPLUME-300	177.00	54.92	54.92	90.55	1819
VPLUME-330	190.00	56.92	56.92	94.30	2081
VPLUME-365	196.00	59.92	59.92	97.30	2366

**PRODUCT REVISED**  
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Miami-Dade Product Control

ALL DIMENSIONS ARE IN INCHES  
WEIGHT DO NOT INCLUDE  
MOTOR, DRIVE AND DAMPERS



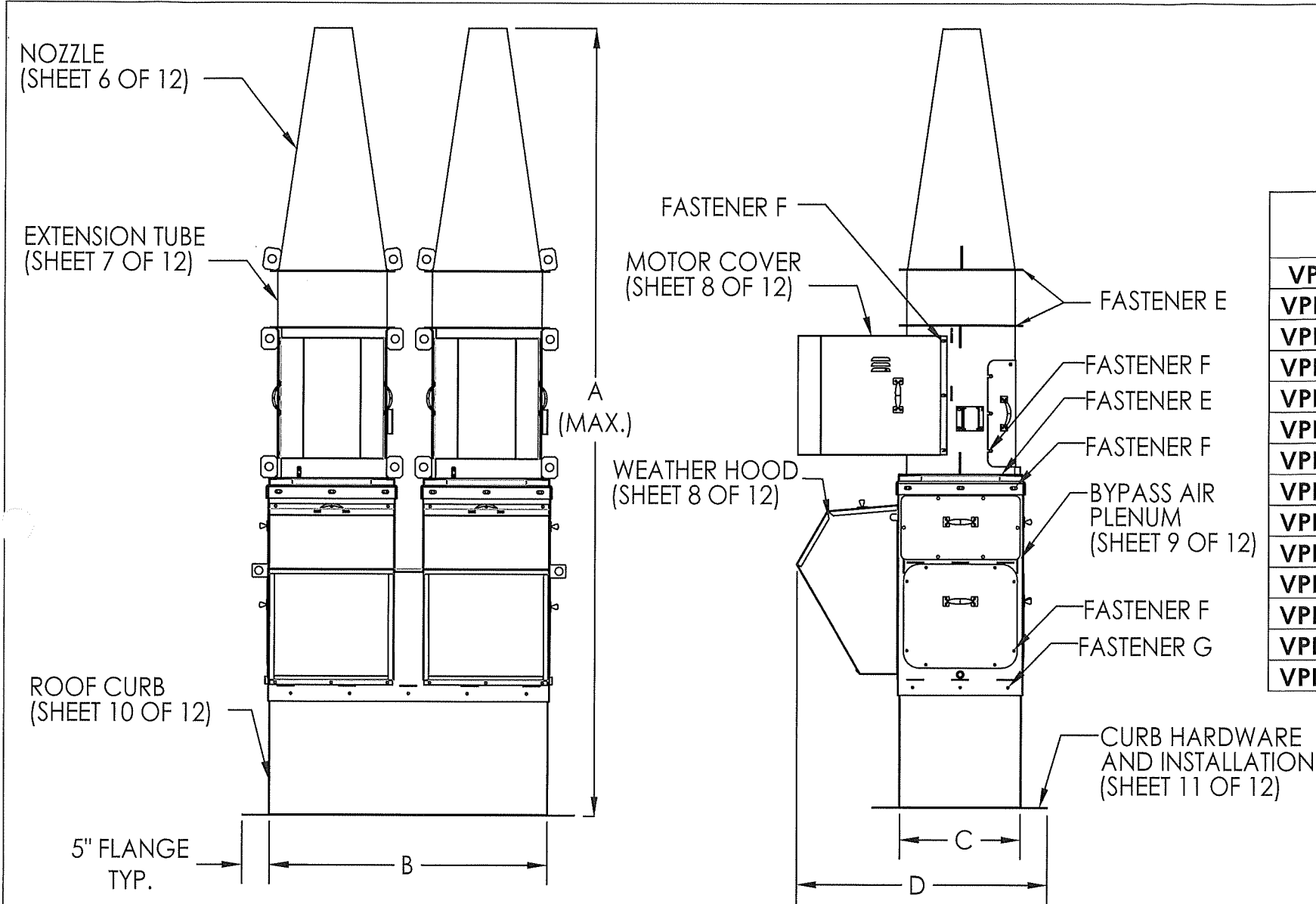
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ENGINEERING REVISION	03/01/2025	-

UNIT	FASTNER E		FASTNER F		FASTNER G	
	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY
VPLUME-90	HHCS 1/2-13 1.25 ST STL, WSHR 1/2" SAE 0.53 1.06, WASHER RUBBER.50 1.06 0.14, WSHR 1/2 SPRG LK SST, NUT HEX 1/2-13 SST	24	NUTSERT 3/8-16 X 150, WSHR FL 0.38 0.88 SST, WSHR .38 .69 SPRG LK SST, BOLT 3/8-16 1.5 HHCS STN, WASHER RUBBER 0.38 0.81 0.09	62	SCR, TCS, IHW,0.313- 18x1.5, TYP-23, MECH ZP	16
VPLUME-105						
VPLUME-122						
VPLUME-135						
VPLUME-150		36		64		
VPLUME-165				76		
VPLUME-182				80		
VPLUME-200				86		
VPLUME-222		12		97		20
VPLUME-245						
VPLUME-270						
VPLUME-300						
VPLUME-330		16		24		
VPLUME-365						

DESIGN LIMITS	
MAX. DESIGN LOAD:	+/- 140 psf (6.7 Kpa)
MAX. OVERALL ENCLOSURE:	39.63 x 57.80 IN. (1007 x 1469 MM)
MAX. OVERALL UNIT HEIGHT:	146 IN. (3709 MM)

- NOTES:
- UNITS TESTED FOR TAS-201 (LARGE MISSILE IMPACT) & TAS-202 (STATIC LOADING)
  - DESIGN PRESSURE = +/- 140 PSF
  - DESIGN, TESTING AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE
  - UNITS NOT TESTED FOR WATER PENETRATION PER FBC, TAS 100(A)
  - THIS APPROVAL IS FOR STRUCTURAL PERFORMANCE & IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL

PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME 1 X 1 ASSEMBLY			
DRAWN:	DWG NO.		REV
ANUP	16605801		B
SCALE	DATE	SHEET	
NTS	04/26/2018	2 OF 12	




REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ENGINEERING REVISION	03/01/2025	-

UNIT	FASTNER E		FASTNER F		FASTNER G		
	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY	
VPLUME-90	HHCS 1/2-13 1.25 ST STL, WSHR 1/2" SAE 0.53 1.06, WASHER RUBBER.50 1.06 0.14, WSHR 1/2 SPRG LK SST, NUT HEX 1/2-13 SST	48	NUTSERT 3/8-16 X 150, WSHR FL 0.38 0.88 SST, WSHR .38 .69 SPRG LK SST, BOLT 3/8-16 1.5 HHCS STN, WASHER RUBBER 0.38 0.81 0.09	124	SCR, TCS, IHWH,0.313-18x1.5, TYP-23, MECH ZP	22	
VPLUME-105							
VPLUME-122							
VPLUME-135							
VPLUME-150		72		128			
VPLUME-165							
VPLUME-182							
VPLUME-200		24		152		24	
VPLUME-222							
VPLUME-245		32		160			28
VPLUME-270							
VPLUME-300							
VPLUME-330		190		30			
VPLUME-365						194	36
					40		

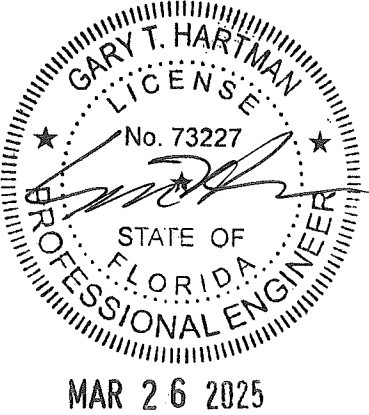
DESIGN LIMITS	
MAX. DESIGN LOAD:	+/- 140 psf (6.7 Kpa)
MAX. OVERALL ENCLOSURE:	78.50 x 57.80 IN. (1994 x 1469 MM)
MAX. OVERALL UNIT HEIGHT:	146 IN. (3709 MM)

- NOTES:
- UNITS TESTED FOR TAS-201 (LARGE MISSILE IMPACT) & TAS-202 (STATIC LOADING)
  - DESIGN PRESSURE = +/- 140 PSF
  - DESIGN, TESTING AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE
  - UNITS NOT TESTED FOR WATER PENETRATION PER FBC, TAS 100(A)
  - THIS APPROVAL IS FOR STRUCTURAL PERFORMANCE & IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL

UNIT	A (MAX)	B	C	D	WEIGHT (LBS)
VPLUME-90	146.00	48.29	21.42	45.80	1133
VPLUME-105	146.00	48.29	21.42	45.80	1135
VPLUME-122	146.00	48.29	21.42	45.80	1136
VPLUME-135	146.00	52.29	23.42	47.80	1291
VPLUME-150	146.00	56.29	25.42	49.80	1431
VPLUME-165	146.00	60.29	27.42	51.80	1538
VPLUME-182	146.00	72.29	33.42	57.80	1803
VPLUME-200	149.00	76.29	32.42	63.80	1970
VPLUME-222	153.00	84.29	36.42	67.00	2100
VPLUME-245	165.00	96.29	42.42	75.80	2478
VPLUME-270	170.00	104.29	46.42	79.80	2862
VPLUME-300	177.00	122.00	54.92	90.55	3553
VPLUME-330	190.00	125.75	56.92	94.30	4077
VPLUME-365	196.00	131.29	59.92	97.30	4642

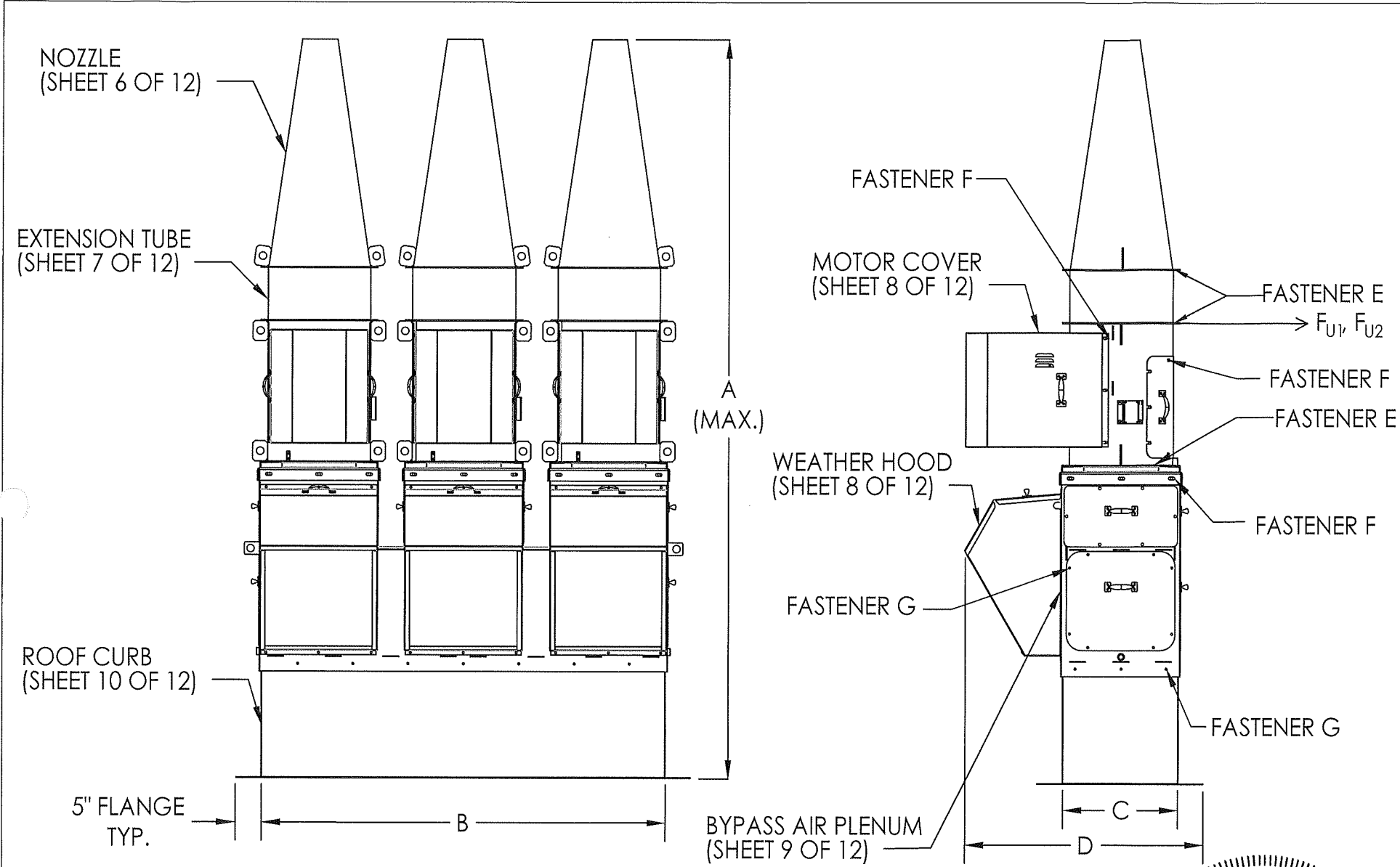
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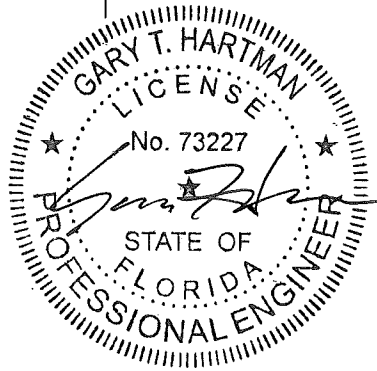
PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME 2 X 1 ASSEMBLY			
DRAWN:	DWG NO.		REV
ANUP	16605801		B
SCALE	DATE	SHEET	
NTS	04/26/2018	3 OF 12	





UNIT	A (MAX)	B	C	D	WEIGHT (LBS)
VPLUME-90	146.00	75.10	21.42	45.80	1689
VPLUME-105	146.00	75.10	21.42	45.80	1691
VPLUME-122	146.00	75.10	21.42	45.80	1694
VPLUME-135	146.00	81.10	23.42	47.80	1924
VPLUME-150	146.00	87.10	25.42	49.80	2132
VPLUME-165	146.00	93.10	27.42	51.80	2289
VPLUME-182	146.00	111.10	33.42	57.80	2683
VPLUME-200	149.00	117.10	32.42	63.80	2930
VPLUME-222	153.00	129.10	36.42	67.00	3120
VPLUME-245	165.00	147.10	42.42	75.80	3682
VPLUME-270	170.00	159.10	46.42	79.80	4253
VPLUME-300	177.00	185.80	54.92	90.55	5287
VPLUME-330	190.00	191.30	56.92	94.30	6073
VPLUME-365	196.00	200.30	59.92	97.30	6918

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Expiration Date 05/16/2029  
By   
Miami-Dade Product Control



MAR 26 2025

DESIGN LIMITS	
MAX. DESIGN LOAD:	+/- 140 psf (6.7 Kpa)
MAX. OVERALL ENCLOSURE:	117.30 x 57.80 IN. (2980 x 1469 MM)
MAX. OVERALL UNIT HEIGHT:	146 IN. (3709 MM)

ALL DIMENSIONS ARE IN INCHES  
WEIGHT DO NOT INCLUDE  
MOTOR, DRIVE AND DAMPERS

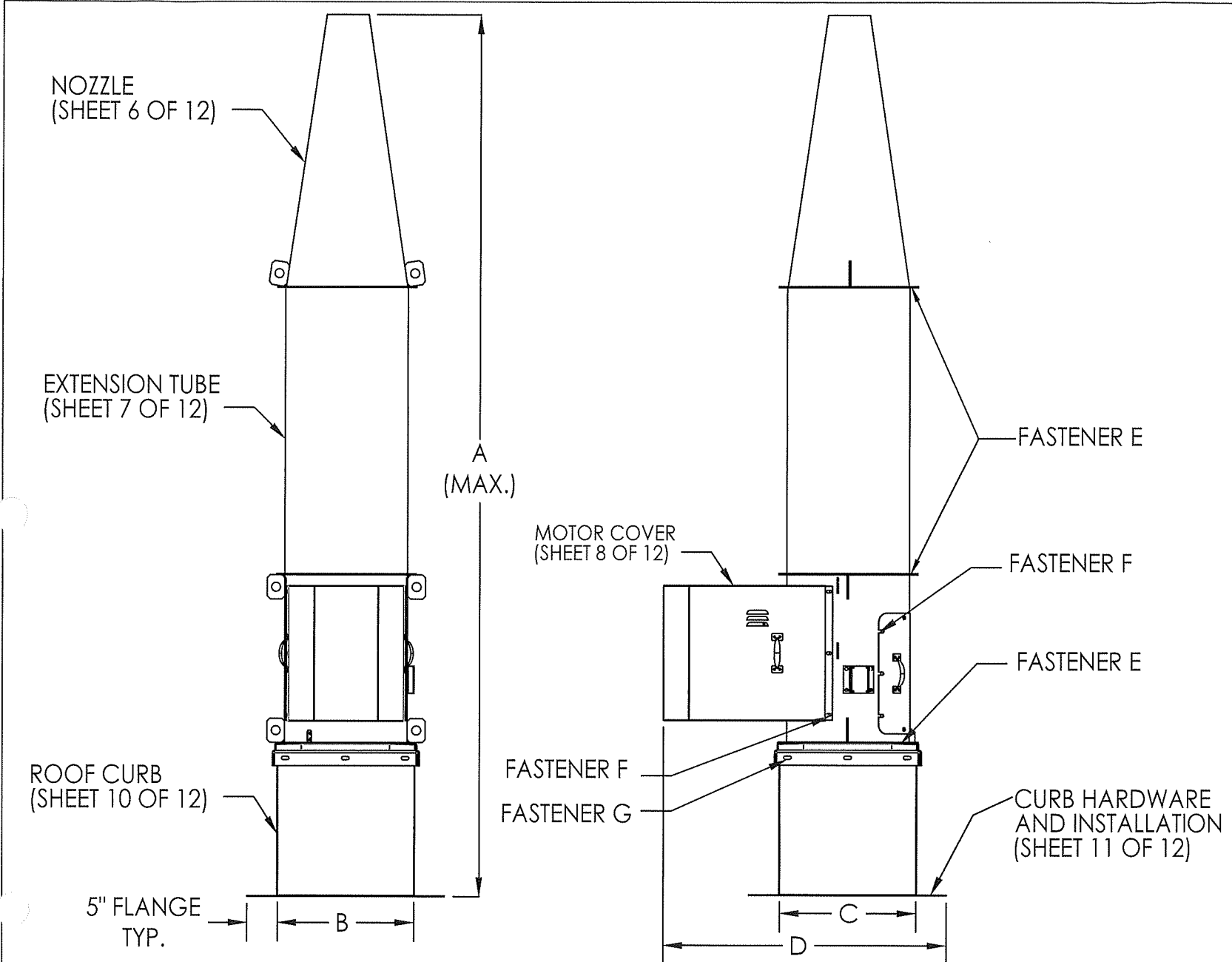
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ENGINEERING REVISION	03/25/2025	-

UNIT	FASTNER E		FASTNER F		FASTNER G			
	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY		
VPLUME-90	HHCS 1/2-13 1.25 ST STL, WSHR 1/2" SAE 0.53 1.06, WASHER RUBBER.50 1.06 0.14, WSHR 1/2 SPRG LK SST, NUT HEX 1/2-13 SST	72	NUTSERT 3/8-16 X 150, WSHR FL 0.38 0.88 SST, WSHR .38 .69 SPRG LK SST, BOLT 3/8-16 1.5 HHCS STN, WASHER RUBBER 0.38 0.81 0.09	184	SCR, TCS, IHHW,0.313- 18x1.5, TYP-23, MECH ZP	32		
VPLUME-105								
VPLUME-122								
VPLUME-135		108		190		36		
VPLUME-150						40		
VPLUME-165						32		
VPLUME-182		36		226		36		
VPLUME-200						42		
VPLUME-222						44		
VPLUME-245		48		256		46		
VPLUME-270						54		
VPLUME-300						62		
VPLUME-330		48		283		54		
VPLUME-365								

F<sub>U1</sub> = ULTIMATE LATERAL FORCE FOR VPLUME-90  
F<sub>U2</sub> = ULTIMATE LATERAL FORCE FOR VPLUME-365  
F<sub>U1</sub> = 9,351 LBF  
F<sub>U2</sub> = 15,200 LBF

- NOTES:
1. UNITS TESTED FOR TAS-201 (LARGE MISSILE IMPACT) & TAS-202 (STATIC LOADING)
  2. DESIGN PRESSURE = +/- 140 PSF
  3. DESIGN, TESTING AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE
  4. UNITS NOT TESTED FOR WATER PENETRATION PER FBC, TAS 100(A)
  5. THIS APPROVAL IS FOR STRUCTURAL PERFORMANCE & IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL

PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME 3 X 1 ASSEMBLY			
DRAWN:	DWG NO.		REV
ANUP	16605801		B
SCALE	DATE	SHEET	
NTS	04/26/2018	4 OF 12	



UNIT	A (MAX)	B	C	D	WEIGHT (LBS)
VPLUME-90	146	21.42	21.42	44.55	257
VPLUME-105	146	21.42	21.42	44.55	258
VPLUME-122	146	21.42	21.42	44.55	259
VPLUME-135	146	23.42	23.42	47.97	308
VPLUME-150	146	25.42	25.42	49.76	344
VPLUME-165	146	27.42	27.42	49.98	372
VPLUME-182	146	33.42	33.42	55.04	452
VPLUME-200	146	36.42	36.42	63.75	659
VPLUME-222	146	40.42	40.42	65.75	667
VPLUME-245	146	46.42	46.42	71.00	767
VPLUME-270	146	50.42	50.42	77.50	914
VPLUME-300	146	59.42	59.42	85.00	1059
VPLUME-330	146	61.17	61.17	87.75	1105
VPLUME-365	146	64.17	64.17	91.00	1372

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By *[Signature]*  
Miami-Dade Product Control

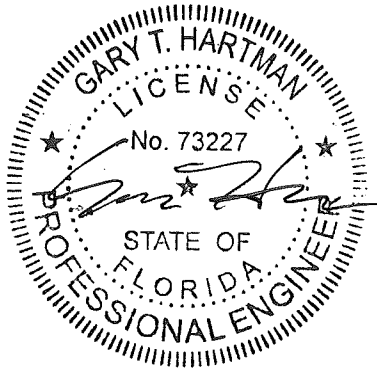
ALL DIMENSIONS ARE IN INCHES  
WEIGHT DO NOT INCLUDE  
MOTOR, DRIVE AND DAMPERS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ENGINEERING REVISION	11/25/2021	-

UNIT	FASTNER E		FASTNER F		FASTNER G						
	DESCRIPTION	QTY	DESCRIPTION	QTY	DESCRIPTION	QTY					
VPLUME-90	HHCS 1/2-13 1.25 ST STL, WSHR 1/2" SAE 0.53 1.06, WASHER RUBBER.50 1.06 0.14, WSHR 1/2 SPRG LK SST, NUT HEX 1/2-13 SST	24	NUTSERT 3/8-16 X 150, WSHR FL 0.38 0.88 SST, WSHR .38 .69 SPRG LK SST, BOLT 3/8-16 1.5 HHCS STN, WASHER RUBBER 0.38 0.81 0.09	16	SCR, TCS, IHHW,0.313- 18x1.5, TYP-23, MECH ZP	12					
VPLUME-105											
VPLUME-122											
VPLUME-135		36		18							
VPLUME-150											
VPLUME-165											
VPLUME-182		24		26		20					
VPLUME-200											
VPLUME-222											
VPLUME-245		32									
VPLUME-270											
VPLUME-300											
VPLUME-330											
VPLUME-365											

DESIGN LIMITS	
MAX. DESIGN LOAD:	+/- 140 psf (6.7 Kpa)
MAX. OVERALL ENCLOSURE:	39 x 55.04 IN. (1000 x 1398 MM)
MAX. OVERALL UNIT HEIGHT:	146 IN. (3709 MM)

- NOTES:
1. UNITS TESTED FOR TAS-201 (LARGE MISSILE IMPACT) & TAS-202 (STATIC LOADING)
  2. DESIGN PRESSURE = +/- 140 PSF
  3. DESIGN, TESTING AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE
  4. UNITS NOT TESTED FOR WATER PENETRATION PER FBC, TAS 100(A)
  5. THIS APPROVAL IS FOR STRUCTURAL PERFORMANCE & IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL

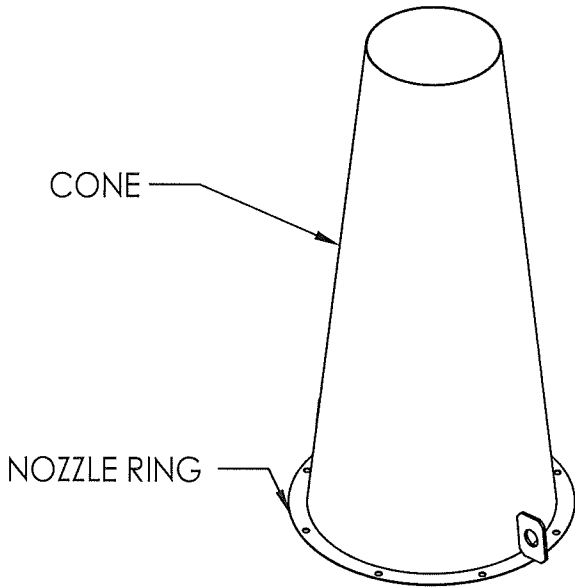
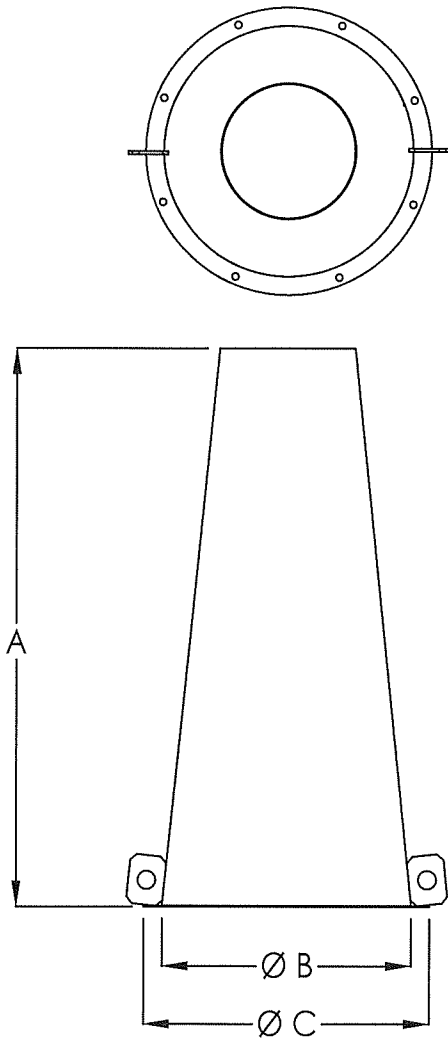



PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME NO PLENUM			
DRAWN:	DWG NO.		REV
ANUP	16605801		B
SCALE	DATE	SHEET	
NTS	04/26/2018	5 OF 12	

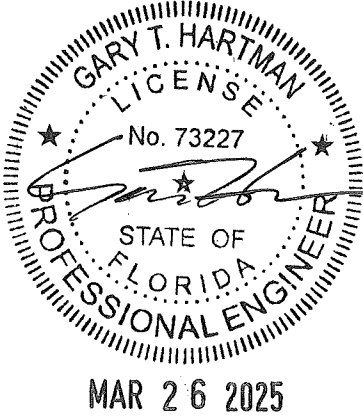


UNIT	A	B	C	MATERIAL	
				CONE	NOZZLE RING
VPLUME-90	45.00	18.25	21.25	14 GA HRS	14 GA HRS
VPLUME-105	45.00	18.25	21.25		
VPLUME-122	45.00	18.25	21.25		
VPLUME-135	45.00	20.25	23.25		
VPLUME-150	45.00	22.31	25.31		
VPLUME-165	45.00	24.69	27.69		
VPLUME-182	45.00	30.06	33.13		
VPLUME-200	45.00	33.00	36.00		
VPLUME-222	45.00	36.50	39.50		
VPLUME-245	45.00	40.50	44.50		
VPLUME-270	45.00	44.50	48.50		
VPLUME-300	45.00	49.50	53.50		
VPLUME-330	45.00	49.00	53.00		
VPLUME-365	45.00	54.50	58.50		

ALL DIMENSIONS ARE IN INCHES

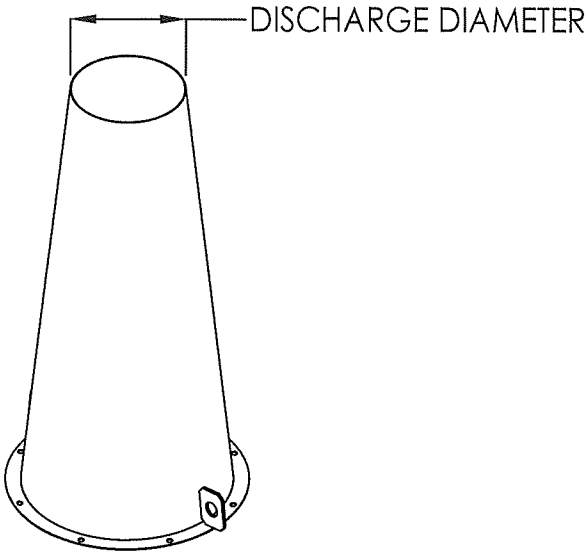


**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By   
Miami-Dade Product Control



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ENGINEERING REVISION	11/25/2021	-

UNIT	Discharge Diameter offering
VPLUME-90	4, 5, 6, 7, 8, 9, 10, 11, 12, 13
VPLUME-105	4, 5, 6, 7, 8, 9, 10, 11, 12, 13
VPLUME-122	4, 5, 6, 7, 8, 9, 10, 11, 12, 13
VPLUME-135	7, 8, 9, 10, 11, 12, 13
VPLUME-150	8, 9, 10, 11, 12, 13, 14, 15, 16
VPLUME-165	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
VPLUME-182	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
VPLUME-200	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
VPLUME-222	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
VPLUME-245	13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
VPLUME-270	14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
VPLUME-300	15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32
VPLUME-330	18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37
VPLUME-365	17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44



PennBarry 605 Shiloh RD Plano, TX 75074

**VPLUME  
NOZZLE**


DRAWN: ANUP	DWG NO. 16605801	REV B
SCALE NTS	DATE 04/26/2018	SHEET 6 OF 12

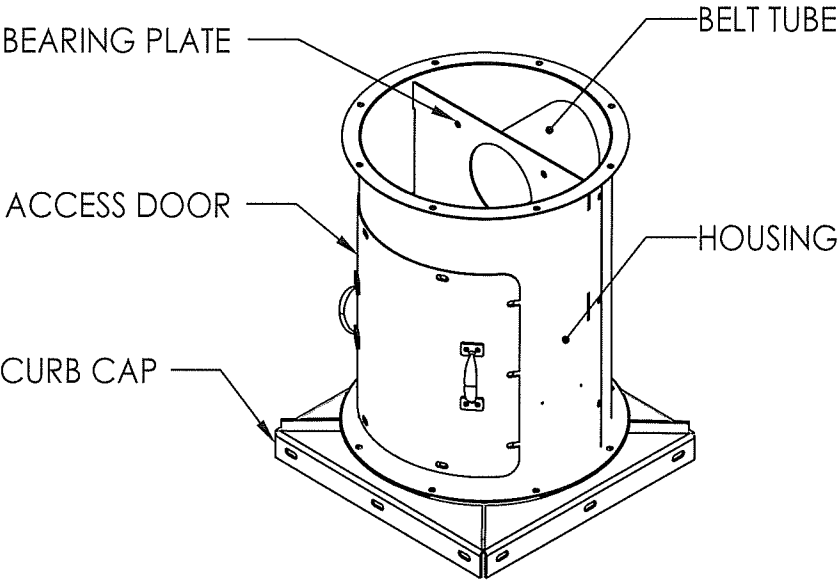
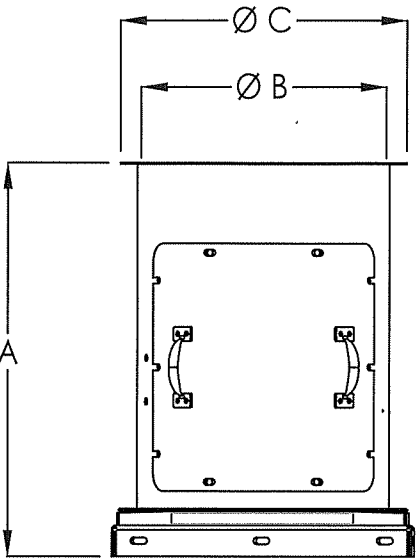
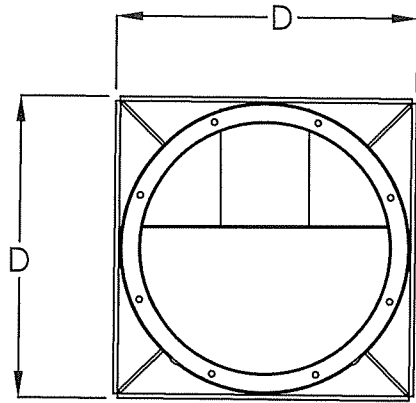
UNIT	A	B	C	D	MATERIAL		
					HOUSING	ACCESS DOOR	CURBCAP
VPLUME-90	29.75	18.25	21.25	22.38	12 GA HRS	12 GA HRS	7 GA HRS
VPLUME-105	29.75	18.25	21.25	22.38			
VPLUME-122	29.75	18.25	21.25	22.38			
VPLUME-135	31.75	20.25	31.75	24.37			
VPLUME-150	33.75	22.31	25.31	26.38			
VPLUME-165	34.00	24.69	27.69	28.38			
VPLUME-182	36.00	30.06	33.06	34.38			
VPLUME-200	37.50	33.00	36.00	36.36			
VPLUME-222	41.50	36.50	39.50	40.36			
VPLUME-245	45.50	40.50	44.50	46.36			
VPLUME-270	50.00	44.50	48.50	50.36			
VPLUME-300	55.50	49.50	53.50	59.23	10 GA HRS		0.25" HRS
VPLUME-330	62.00	49.00	53.00	61.11			
VPLUME-365	68.50	54.50	58.50	64.11			

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ENGINEERING REVISION	11/25/2021	-

UNIT	A1	A2	B	C	MATERIAL EXTENTION
VPLUME-90	49.69	15.50	18.25	21.25	12 GA HRS
VPLUME-105	49.69	15.50	18.25	21.25	
VPLUME-122	49.69	15.50	18.25	21.25	
VPLUME-135	47.68	10.50	20.25	31.75	
VPLUME-150	45.69	7.50	22.31	25.31	
VPLUME-165	45.44	6.50	24.69	27.69	
VPLUME-182	43.26	6.50	30.06	33.06	
VPLUME-200	41.93	-	33.00	36.00	
VPLUME-222	37.93	-	36.50	39.50	
VPLUME-245	33.93	-	40.50	44.50	
VPLUME-270	29.43	-	44.50	48.50	
VPLUME-300	23.93	-	49.50	53.50	
VPLUME-330	17.43	-	49.00	53.00	
VPLUME-365	10.93	-	54.50	58.50	

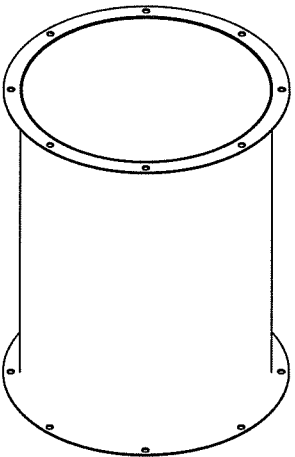
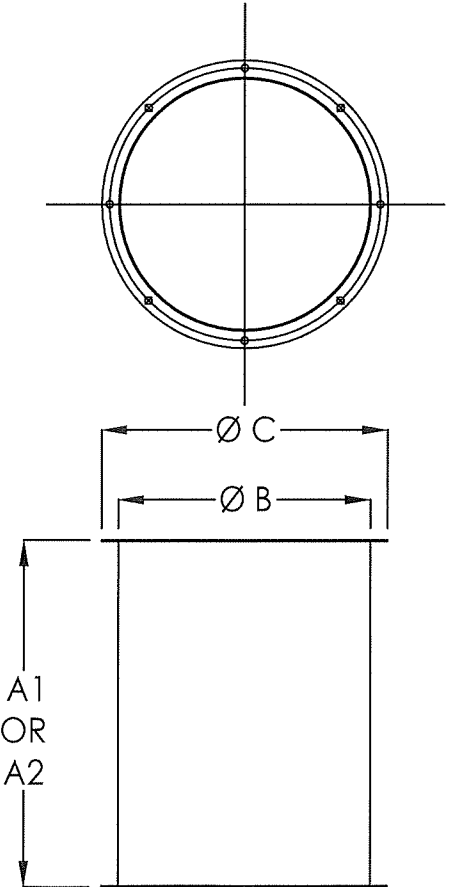
NOTE:  
A1: FOR NO PLENUM (SHEET 5)  
A2: FOR WITH PLENUM (SHEET 2,3,4)

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By   
Miami-Dade Product Control

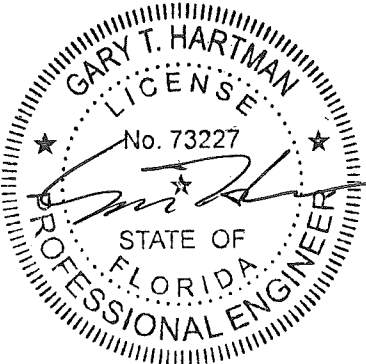


FAN BODY

ALL DIMENSIONS ARE IN INCHES



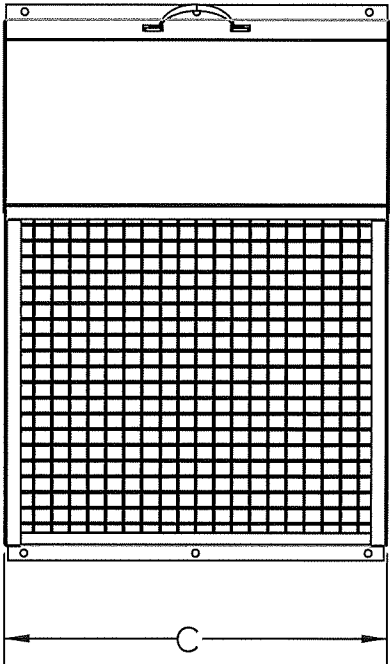
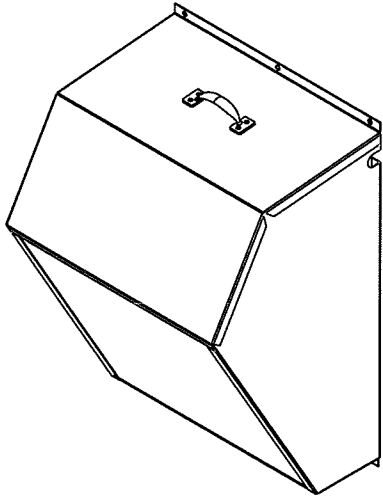
EXTENTION



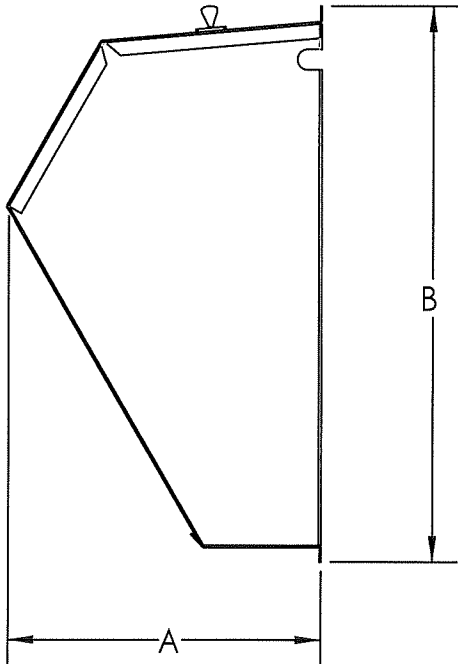
PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME FAN BODY & EXTENTION			
DRAWN: ANUP	DWG NO. 16605801	REV B	
SCALE NTS	DATE 04/26/2018	SHEET 7 OF 12	

UNIT	A	B	C	MATERIAL PANELS/DOORS
VPLUME-90	19.17	30.64	21.52	14 GA HRS
VPLUME-105	19.17	30.64	21.52	
VPLUME-122	19.17	30.64	21.52	
VPLUME-135	19.17	33.61	23.52	
VPLUME-150	19.17	35.64	25.52	
VPLUME-165	19.17	35.64	27.52	
VPLUME-182	19.17	33.61	33.52	
VPLUME-200	26.58	38.52	32.56	14 GA GALV
VPLUME-222	25.83	38.52	32.56	
VPLUME-245	28.58	46.62	42.58	
VPLUME-270	28.58	46.62	42.58	
VPLUME-300	30.83	48.62	55.43	
VPLUME-330	32.58	54.63	57.31	
VPLUME-365	32.58	54.63	57.31	

ALL DIMENSIONS ARE IN INCHES

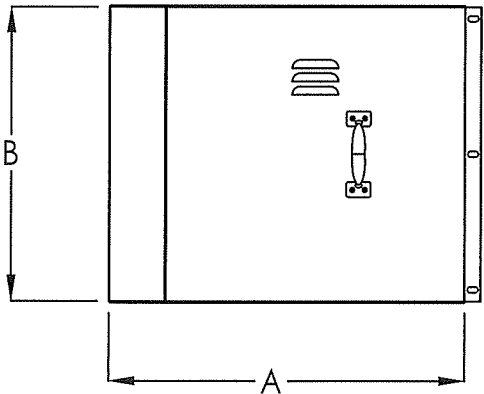
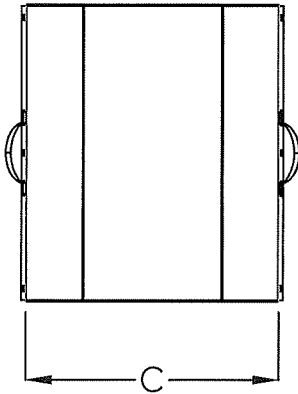
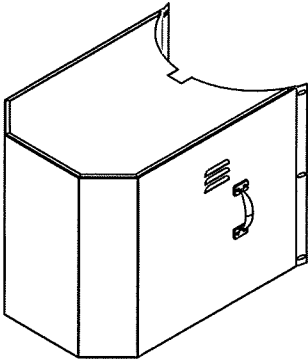


WEATHER HOOD




REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ENGINEERING REVISION	11/25/2021	-

UNIT	A	B	C	MATERIAL PANELS
VPLUME-90	25.31	22.10	17.76	18GA HRS
VPLUME-105	25.31	22.10	17.76	
VPLUME-122	25.31	22.10	17.76	
VPLUME-135	26.97	22.47	19.30	
VPLUME-150	27.55	25.72	21.07	
VPLUME-165	22.50	26.22	18.87	
VPLUME-182	22.06	25.72	21.20	
VPLUME-200	22.06	25.72	21.20	
VPLUME-222	25.56	26.72	21.20	
VPLUME-245	25.34	29.10	21.20	
VPLUME-270	25.34	29.10	21.20	
VPLUME-300	29.40	35.22	27.00	
VPLUME-330	34.67	38.22	34.75	
VPLUME-365	32.91	39.22	34.77	



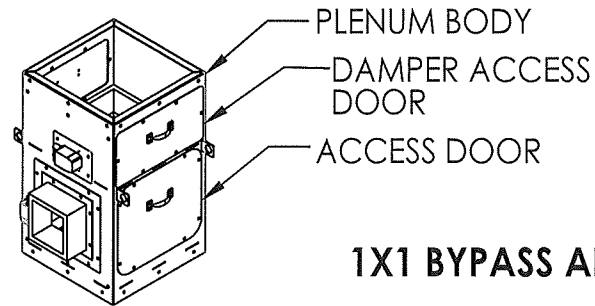
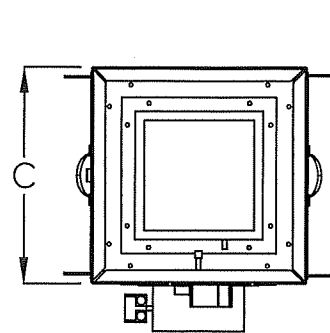
MOTOR COVER

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as complying with the Florida  
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NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By   
Miami-Dade Product Control



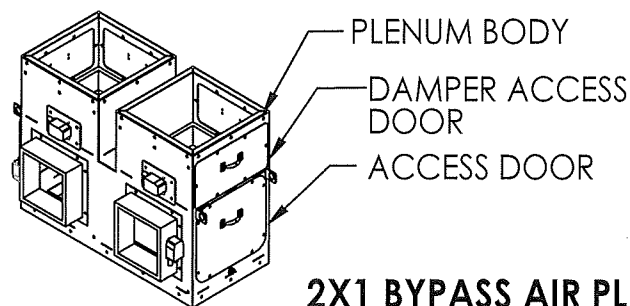
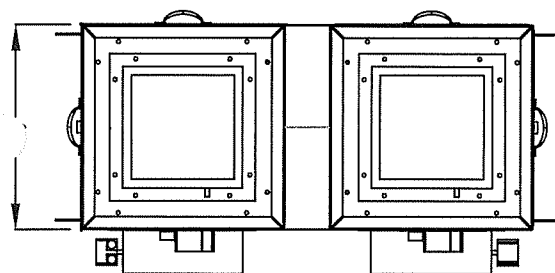
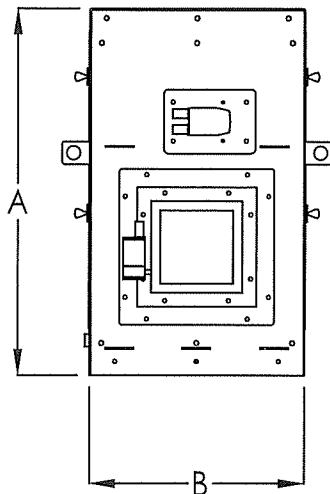
PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME WEATHER HOOD & MOTOR COVER			
DRAWN: ANUP	DWG NO. 16605801	REV B	
SCALE NTS	DATE 04/26/2018	SHEET 8 OF 12	





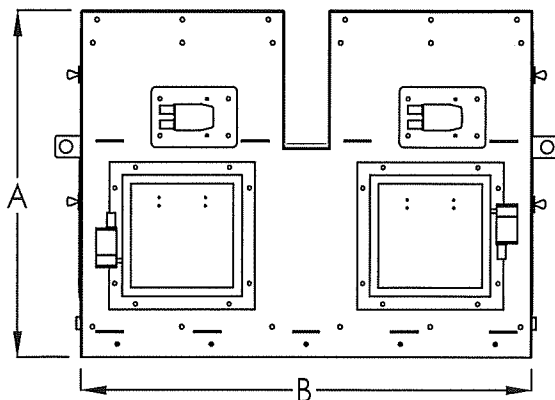
1X1 BYPASS AIR PLENUM

UNIT (1X1)	A	B	C	MATERIAL		
				PLENUM BODY	DAMPER ACCESS DOOR	ACCESS DOOR
VPLUME-90	37.00	21.63	21.63	12 GA HRS	14 GA HRS	14 GA HRS
VPLUME-105	37.00	21.63	21.63			
VPLUME-122	37.00	21.63	21.63			
VPLUME-135	40.00	23.63	23.63			
VPLUME-150	42.00	25.63	25.63			
VPLUME-165	42.00	27.63	27.63			
VPLUME-182	40.00	33.63	33.63			
VPLUME-200	46.00	35.61	35.61			
VPLUME-222	46.00	39.61	39.61			
VPLUME-245	54.00	45.62	45.62			
VPLUME-270	54.00	49.61	49.61			
VPLUME-300	56.00	58.48	58.48			
VPLUME-330	62.00	60.40	60.40			
VPLUME-365	62.00	63.39	63.39			

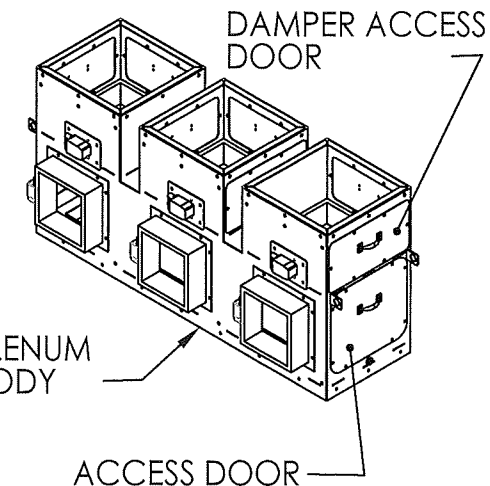
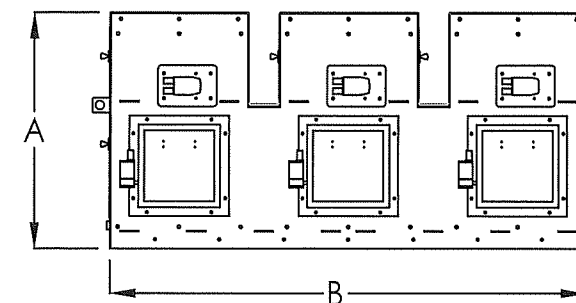
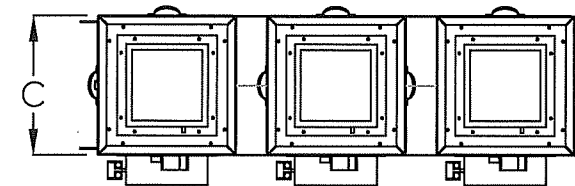


2X1 BYPASS AIR PLENUM

UNIT (3X1)	A	B	C	MATERIAL		
				PLENUM BODY	DAMPER ACCESS DOOR	ACCESS DOOR
VPLUME-90	37.00	48.50	21.63	12 GA HRS	14 GA HRS	14 GA HRS
VPLUME-105	37.00	48.50	21.63			
VPLUME-122	37.00	48.50	21.63			
VPLUME-135	40.00	52.50	23.63			
VPLUME-150	42.00	56.50	25.63			
VPLUME-165	42.00	60.50	27.63			
VPLUME-182	40.00	72.50	33.63			
VPLUME-200	46.00	76.50	35.61			
VPLUME-222	46.00	84.50	39.61			
VPLUME-245	54.00	96.50	45.62			
VPLUME-270	54.00	104.50	49.61			
VPLUME-300	56.00	122.25	58.48			
VPLUME-330	62.00	125.63	60.40			
VPLUME-365	62.00	131.50	63.39			




REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ENGINEERING REVISION	11/25/2021	-

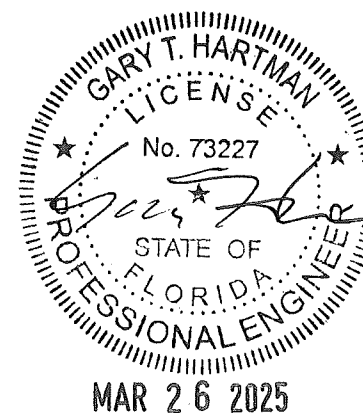


3X1 BYPASS AIR PLENUM

UNIT (3X1)	A	B	C	MATERIAL		
				PLENUM BODY	DAMPER ACCESS DOOR	ACCESS DOOR
VPLUME-90	37.00	75.30	21.63	12 GA HRS	14 GA HRS	14 GA HRS
VPLUME-105	37.00	75.30	21.63			
VPLUME-122	37.00	75.30	21.63			
VPLUME-135	40.00	81.30	23.63			
VPLUME-150	42.00	87.30	25.63			
VPLUME-165	42.00	93.30	27.63			
VPLUME-182	40.00	111.30	33.63			
VPLUME-200	46.00	117.30	35.61			
VPLUME-222	46.00	129.30	39.61			
VPLUME-245	54.00	147.30	45.62			
VPLUME-270	54.00	159.30	49.61			
VPLUME-300	56.00	186.05	58.48			
VPLUME-330	62.00	191.55	60.40			
VPLUME-365	62.00	200.55	63.39			

ALL DIMENSIONS ARE IN INCHES

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NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By   
Miami-Dade Product Control




PennBarry 605 Shiloh RD Plano, TX 75074

**VPLUME  
BYPASS AIR PLENUMS**

DRAWN: ANUP	DWG NO. 16605801	REV B
SCALE NTS	DATE 04/26/2018	SHEET 9 OF 12

UNIT (2X1)	ACTUAL OUTSIDE (A)	ACTUAL OUTSIDE (B)	ACTUAL OUTSIDE (C)	ACTUAL OUTSIDE (D)	MATERIAL
VPLUME-90	21.00	18.00	48.00	45.00	12 GA GALV
VPLUME-105	21.00	18.00	48.00	45.00	
VPLUME-122	21.00	18.00	48.00	45.00	
VPLUME-135	23.00	20.00	52.00	49.00	
VPLUME-150	25.00	22.00	56.00	53.00	
VPLUME-165	27.00	24.00	60.00	57.00	
VPLUME-182	33.00	30.00	72.00	69.00	
VPLUME-200	35.00	32.00	75.50	72.50	
VPLUME-222	39.00	36.00	83.50	80.50	
VPLUME-245	45.00	42.00	95.50	92.50	
VPLUME-270	49.00	46.00	103.50	100.50	
VPLUME-300	57.50	54.50	121.50	118.50	
VPLUME-330	59.50	56.50	125.00	122.00	
VPLUME-365	62.50	59.50	131.00	128.00	

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029

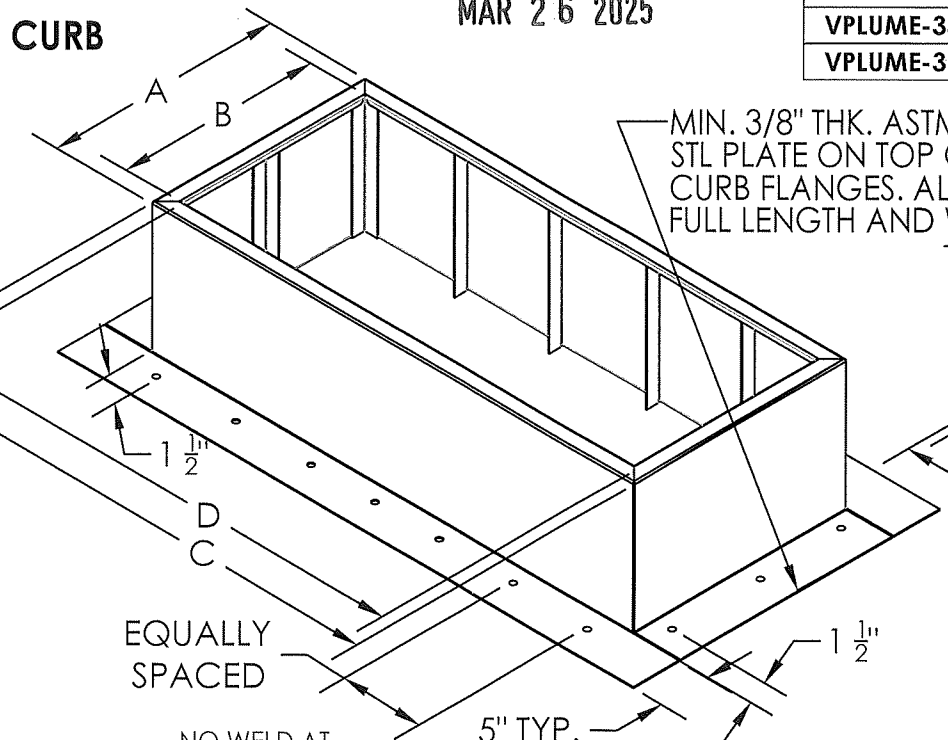
By   
Miami-Dade Product Control

GARY T. HARTMAN  
LICENSE  
No. 73227  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

MAR 26 2025

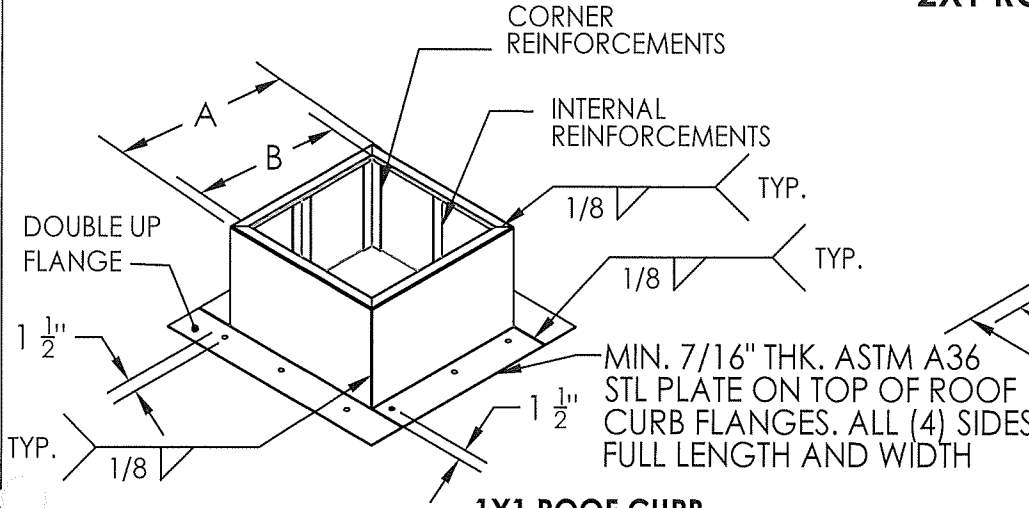
UNIT (3X1)	ACTUAL OUTSIDE (A)	ACTUAL OUTSIDE (B)	ACTUAL OUTSIDE (C)	ACTUAL OUTSIDE (D)	MATERIAL
VPLUME-90	21.00	18.00	74.50	71.50	12 GA GALV
VPLUME-105	21.00	18.00	74.50	71.50	
VPLUME-122	21.00	18.00	74.50	71.50	
VPLUME-135	23.00	20.00	80.50	77.50	
VPLUME-150	25.00	22.00	86.50	83.50	
VPLUME-165	27.00	24.00	92.50	89.50	
VPLUME-182	33.00	30.00	110.50	107.50	
VPLUME-200	35.00	32.00	116.50	113.50	
VPLUME-222	39.00	36.00	128.50	125.50	
VPLUME-245	45.00	42.00	146.50	143.50	
VPLUME-270	49.00	46.00	158.50	155.50	
VPLUME-300	57.50	54.50	185.00	182.00	
VPLUME-330	59.50	56.50	190.50	187.50	
VPLUME-365	62.50	59.50	199.50	196.50	

**2X1 ROOF CURB**



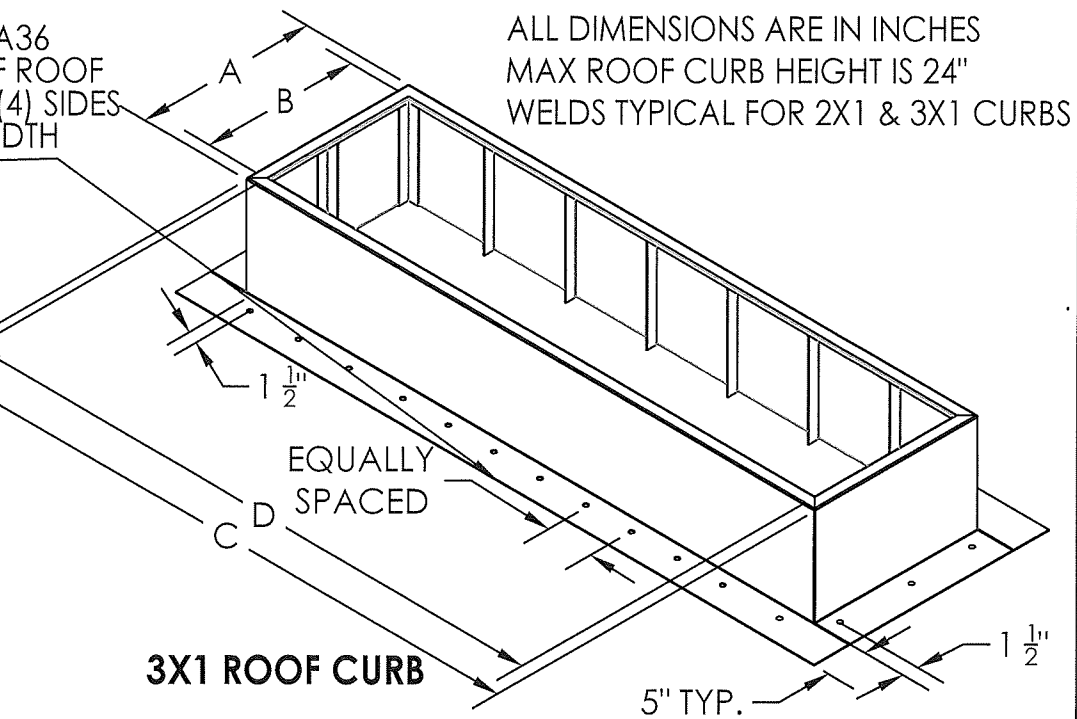
MIN. 3/8" THK. ASTM A36 STL PLATE ON TOP OF ROOF CURB FLANGES. ALL (4) SIDES FULL LENGTH AND WIDTH

**1X1 ROOF CURB**



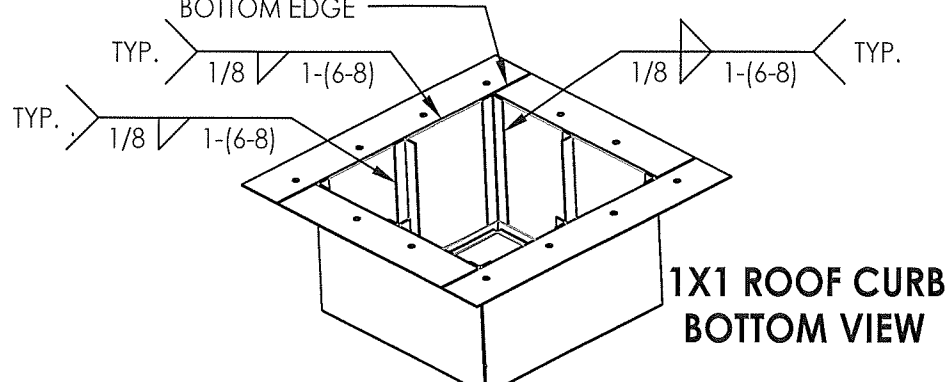
MIN. 7/16" THK. ASTM A36 STL PLATE ON TOP OF ROOF CURB FLANGES. ALL (4) SIDES FULL LENGTH AND WIDTH

**3X1 ROOF CURB**



ALL DIMENSIONS ARE IN INCHES  
MAX ROOF CURB HEIGHT IS 24"  
WELDS TYPICAL FOR 2X1 & 3X1 CURBS

**1X1 ROOF CURB BOTTOM VIEW**



SEE SHEET 11 FOR ANCHOR NOTES  
SEE SHEET 12 FOR ANCHOR QUANTITIES

UNIT (1X1)	ACTUAL OUTSIDE A (SQ.)	ACTUAL OUTSIDE B (SQ.)	MATERIAL
VPLUME-90	21.00	18.00	12 GA GALV
VPLUME-105	21.00	18.00	
VPLUME-122	21.00	18.00	
VPLUME-135	23.00	20.00	
VPLUME-150	25.00	22.00	
VPLUME-165	27.00	24.00	
VPLUME-182	33.00	30.00	
VPLUME-200	35.00	32.00	
VPLUME-222	39.00	36.00	
VPLUME-245	45.00	42.00	
VPLUME-270	49.00	46.00	
VPLUME-300	57.50	54.50	
VPLUME-330	59.50	56.50	
VPLUME-365	62.50	59.50	

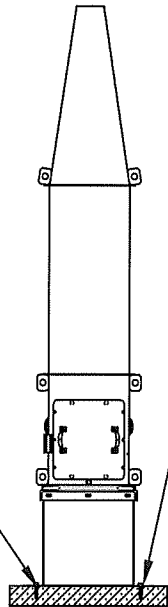
**PennBarry 605 Shiloh RD Plano, TX 75074**

**VPLUME ROOF CURB**

DRAWN: ANUP	DWG NO. 16605801	REV B
SCALE NTS	DATE 04/26/2018	SHEET 10 OF 12



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	ENGINEERING REVISION	03/04/2025	-

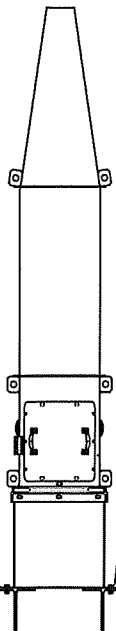


UN-CRACKED CONC. (UC) 5/8" DIA.  
HILTI KWIK BOLT TZ2 4.5" MIN.  
EMBEDMENT  
9" MIN. EDGE / END DISTANCE  
10" MIN. EDGE / END DISTANCE FOR  
VPLUME-365

CRACKED CONC. (C)  
3/4" DIA. HILTI KWIK BOLT TZ2  
MIN. EMBEDMENT  
12" MIN. EDGE / END DISTANCE,  
14" MIN. EDGE / END DISTANCE FOR  
VPLUME-365

4000 MIN. PSI  
6" THICK MIN.

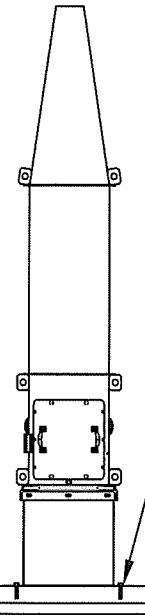
CONCRETE DECK ANCHORING



1/2" DIA. THRU BOLT WITH WASHERS  
1" MIN. EDGE / END DISTANCE ON BUILDING MEMBER

BUILDING MEMBER  
MIN. 5/16" THK.  
ASTM A36 STL

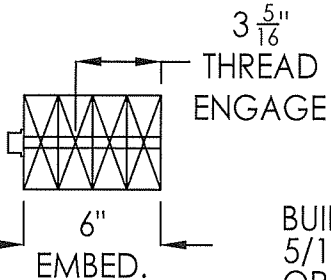
STEEL ANCHORING - THRU BOLT



5/8" DIA. LAG BOLT  
6" MIN. EMBEDMENT  
3 5/16" MIN. THREAD ENGAGEMENT  
2 1/2" MIN. EDGE DISTANCE  
2 1/2" MIN. END DISTANCE

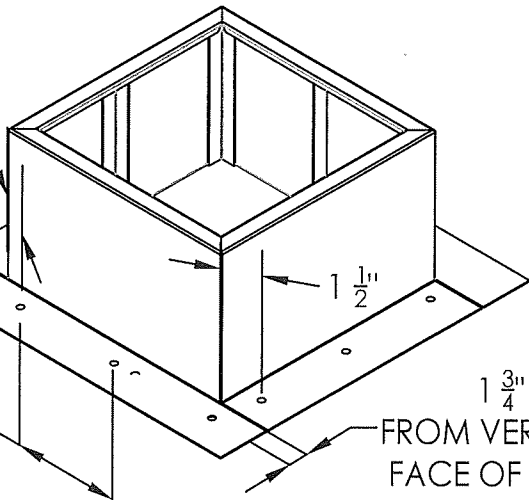
WOOD TIMBER  
3" THICK MIN.  
MIN. S.G.=0.5

TIMBER ANCHORING

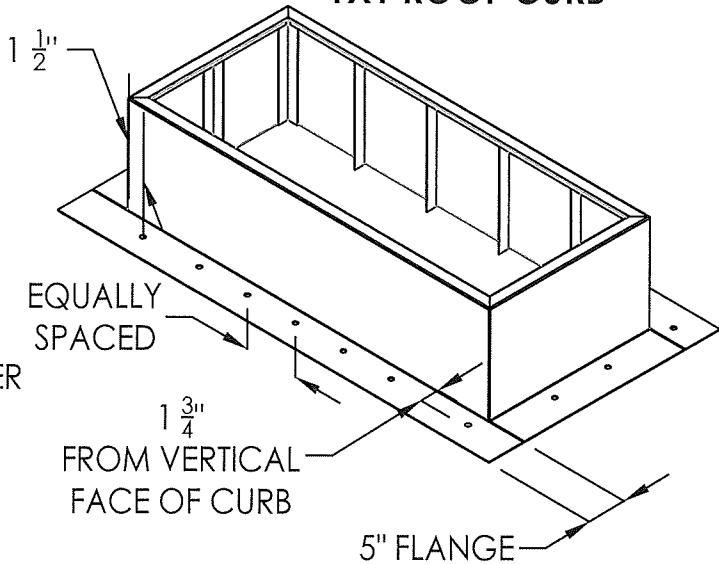


BUILDING MEMBER  
5/16" THK ASTM A36 STL  
OR 5/16" THK 6063-T5

STEEL ANCHORING - SELF TAPPING



1X1 ROOF CURB



2X1 OR 3X1 ROOF CURB

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 24-1011.03  
Expiration Date 05/16/2029  
By *[Signature]*  
Miami-Dade Product Control



ALL DIMENSIONS ARE IN INCHES

PennBarry 605 Shiloh RD Plano, TX 75074			
VPLUME ROOF CURB INSTALLATION			
DRAWN:	DWG NO.	REV	
ANUP	16605801	B	
SCALE	DATE	SHEET	
NTS	04/26/2018	11 OF 12	



