



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

Twin City Fan Companies, Ltd.
5959 Trenton Lane North
Minneapolis, MN 55442

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: Spun Aluminum Rooftop Fans

APPROVAL DOCUMENT: Drawing No. **BS MD1006**, titled "BCRD / DCRD / BCRU / BCRUR / DCRU / DCRUR Summary" sheets 1 through 10 of 10, dated 01/18/2011, with Revision G dated 01/25/2016, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E. on 10/09/2023, 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, Elkton, SD, model/series and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

LIMITATION: This fan cannot be installed within the ridge area, FBC 1523.6.5.2.13.

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 # 21-0803.03** and 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.**



12/18/23

NOA No. 23-1017.04
Expiration Date: April 14, 2026
Approval Date: December 28, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under NOA # 16-0209.10

A. DRAWINGS

1. Drawing No. **AS/BS MD1006**, titled “BCRD / DCRD / BCRU / BCRUR / DCRU / DCRUR Summary” sheets 1 through 10 of 10, dated 01/18/2011, with revision D dated 01/21/2016, prepared by Rice Engineering, signed and sealed by L. David Rice, P.E.

B. TESTS “Submitted under NOA # 11-0126.08”

1. Test report on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
along with marked-up drawings and installation diagram of three Series/Model BCRD 360D Aluminum Roof Fans, prepared by Stork Twin City Testing Corporation, Test Report No. **TCT005078-0210.1**, dated 01/03/2011, signed and sealed by Thomas A. Kolden, P.E.
2. Test report on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94,
along with marked-up drawings and installation diagram of three Series/Model BCRU 360B Aluminum Roof Fans, prepared by Stork Twin City Testing Corporation, Test Report No. **TCT005078-0210.2**, dated 01/03/2011, signed and sealed by Thomas A. Kolden, P.E.

C. CALCULATIONS “Submitted under NOA # 12-0914.12”

1. Anchor verification calculations, prepared by Rice Engineering, dated 06/14/2012, signed and sealed by L. David Rice, P.E.

“Submitted under NOA # 11-0126.08”
2. Anchor verification calculations, prepared by Rice Engineering, dated 01/21/2011, signed and sealed by L. David Rice, 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 5th edition (2014) FBC issued by Rice Engineering, dated 01/21/2016, signed and sealed by L. David Rice, P.E.

“Submitted under NOA # 12-0914.12”
2. Statement letter of code conformance to 2010 FBC, issued by Rice Engineering, dated 06/14/2012, signed and sealed by L. David Rice, P.E.
3. No financial interest letter issued by Rice Engineering, dated 06/14/2012, signed and sealed by L. David Rice, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-1017.04
Expiration Date: April 14, 2026
Approval Date: December 28, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. Evidence submitted under NOA # 21-0803.03 and new

A. DRAWINGS

1. Drawing No. **BS MD1006**, titled “BCRD / DCRD / BCRU / BCRUR / DCRU / DCRUR Summary” sheets 1 through 10 of 10, dated 01/18/2011, with Revision G dated 01/25/2016, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E. on 10/09/2023.

B. TESTS “Evidence submitted under NOA # 21-0803.03”

1. Test report on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
along with marked-up drawings and installation diagram of three Series/Model BCRD 360D Aluminum Roof Fan, prepared by UL LLC, Test Report No. **SV31811-20210923**, dated 03/02/2022, signed and sealed by Alexis Spyrou, P.E.

C. CALCULATIONS

1. Anchor verification calculations, prepared by Rice Engineering, dated 10/03/2023, signed and sealed by Wayne K. Helmila, P.E.

“Evidence submitted under NOA # 21-0803.03”

2. Anchor verification calculations, prepared by Rice Engineering, dated 07/07/2021, 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

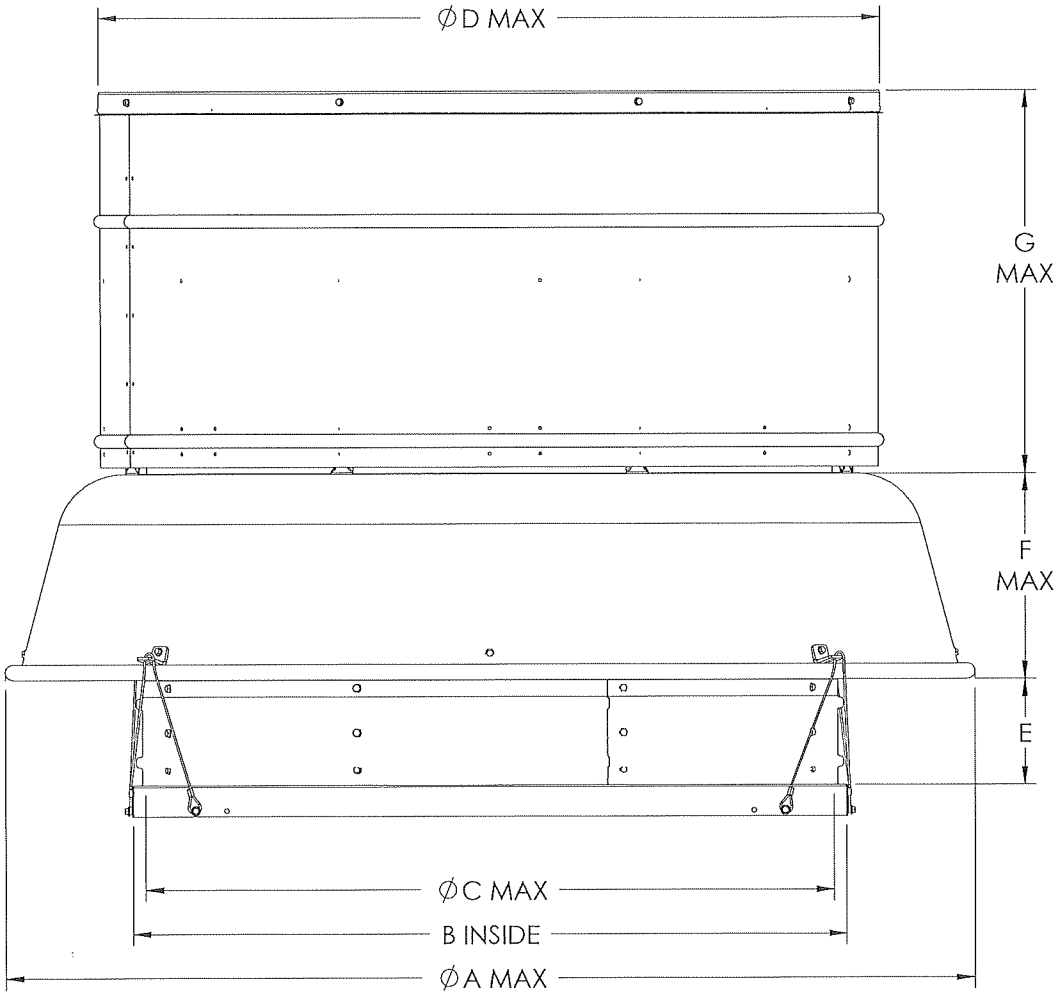
1. None.

F. STATEMENTS

1. Statement letter of code conformance to the 8th edition (2023) of the FBC, issued by Rice Engineering, dated 10/06/2023, signed and sealed by L. Wayne K. Helmila, P.E.
2. Drawing No. **AS/BS MD1006** statement of code conformance to the 7th edition (2020) of the FBC, issued by Rice Engineering, dated 04/12/2022, signed and sealed by L. Wayne K. Helmila, P.E. **“Evidence submitted under NOA # 21-0803.03”**



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-1017.04
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MODEL	A	B	C	D	E	F	G	WEIGHT (lb)
DCRD 060B	19.29	17.00	12.34	15.38	1.91	5.04	8.68	30
DCRD 070B	19.29	17.00	12.34	15.38	1.91	5.04	8.68	30
DCRD 080B	19.29	17.00	12.34	15.38	1.91	5.04	8.68	32
DCRD 085B	21.97	17.00	15.34	15.38	2.45	6.19	8.68	43
DCRD 090B	21.97	17.00	15.34	15.38	2.45	6.19	8.68	43
DCRD 095B	21.97	17.00	15.34	15.38	2.45	6.19	8.68	43
DCRD 100B	21.97	17.00	15.34	15.38	2.45	6.19	8.68	48
DCRD 120B	28.47	20.00	17.34	22.25	3.45	6.25	12.68	50
DCRD 130B	28.47	24.00	19.34	22.25	4.32	6.25	12.68	65
DCRD 140B	28.47	24.00	19.34	22.25	4.57	6.25	12.68	67
DCRD 150B	31.79	24.00	20.29	24.25	4.51	7.50	14.68	77
DCRD 160B	31.79	24.00	20.29	24.25	4.51	7.50	14.68	82
DCRD 170B	40.19	30.00	24.29	30.25	3.98	9.50	15.68	95
DCRD 180B	40.19	30.00	24.29	30.25	4.98	9.50	15.68	100
BCRD 070D	26.81	17.00	15.25	22.25	2.05	5.54	14.59	70
BCRD 075D	26.81	17.00	15.25	22.25	2.05	5.54	14.59	70
BCRD 085D	28.41	17.00	15.25	22.25	2.41	6.25	15.34	95
BCRD 100D/DHP	28.41	20.00	18.26	22.25	2.41	6.25	15.34	107
BCRD 120D	31.79	20.00	18.26	24.25	2.05	8.04	18.09	130
BCRD 140D/DHP	31.79	24.00	21.26	24.25	2.84	7.50	18.09	135
BCRD 160D/DHP	34.01	26.00	21.26	24.25	3.39	7.50	18.09	145
BCRD 180D/DHP	40.19	30.00	27.51	30.25	3.72	9.50	20.59	170
BCRD 210D/DHP	40.19	30.00	28.63	30.25	3.97	9.50	20.59	220
BCRD 240D/DHP	44.84	34.00	32.13	30.25	4.84	10.50	20.59	300
BCRD 300D/DHP	53.14	40.00	39.56	42.27	4.78	11.21	22.42	350
BCRD 360D/DHP	62.47	46.00	44.37	50.27	6.78	13.21	24.42	510

- NOTES:
- MODEL BCRD & DCRD HAVE BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THE MIAMI-DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT) AND TAS-202 (STATIC LOADING).
 - THIS FAN HAS NOT BEEN TESTED FOR WIND DRIVEN RAIN PER FBC, TAS 100(A).
 - THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE AND IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL.
 - ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY ROOF TOP FANS. FASTENERS SHALL BE AS SPECIFIED AND INSTALLED AS DETAILED.
 - DESIGN TESTING AND INSTALLATION CONFORMS TO THE FLORIDA BUILDING CODE 7TH EDITION (2020) AND FLORIDA BUILDING CODE 8TH EDITION (2023)..
 - FAN CURBS MUST BE ANCHORED TO ROOF FRAMING MEMBERS AND NOT TO THE ROOFING SYSTEM.
 - FAN SIZES ENDING WITH AN 'E' SUFFIX DESIGNATE AN EFFICIENT MOTOR OFFERING AND DO NOT AFFECT THE MIAMI-DADE CONSTRUCTION OR APPROVAL.
 - DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL..

G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
REV	ECN	DATE	BY	CHK	DESCRIPTION

DRAWN BY JAW		<div>Fans & Blowers</div> <div>Twin City</div> <div>5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered</div>				
DATE 01/25/16						
CHKD BY SAM						
DATE 01/18/2011		TITLE BCRD/DCRD SUMMARY MIAMI-DADE APPROVAL				
PART NO.						
ASME Y14.5 2009						
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED		SCALE NTS	DRAWING NO. BS MD1006	ROW/SHEET 1 of 10	ITEM	REV. G
LINEAR 0.0 +/- 0.040 0.00 +/- 0.020 0.000 +/- 0.010		ANGULAR 0.0 +/- 1° 0.0 +/- 0.5° 0.000 +/- 0.3°				

For Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-1017.04
Expiration Date 04/14/2026

By
Miami-Dade Product Control

Professional Engineer Seal & License

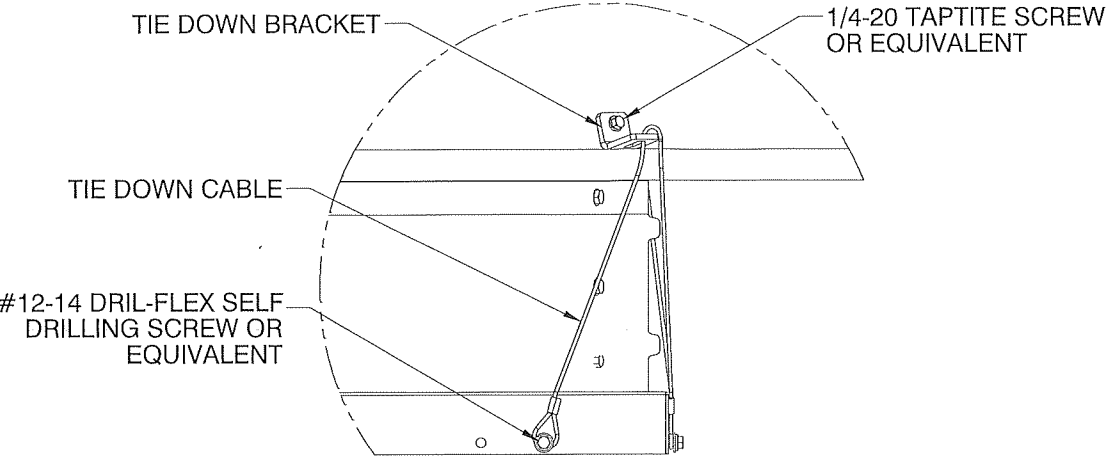
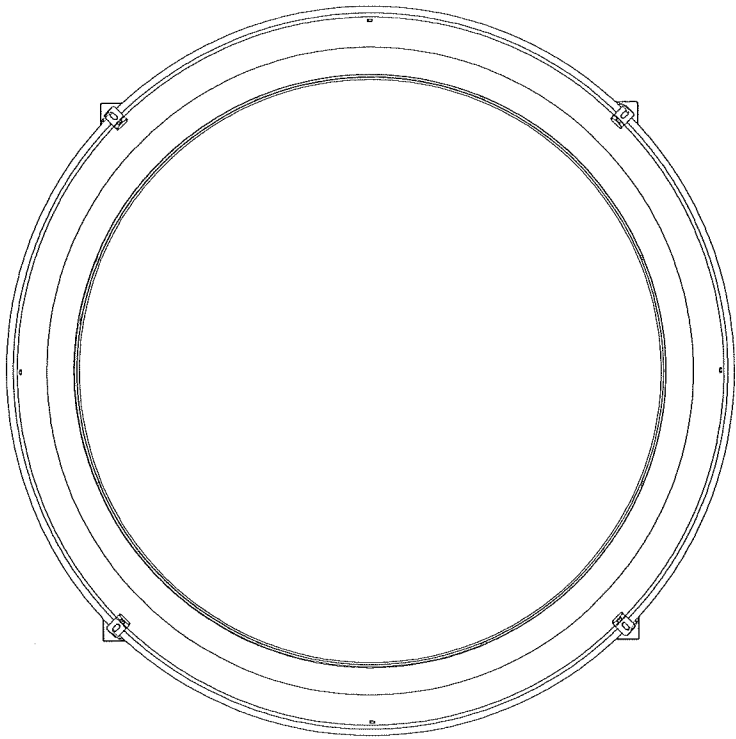
Florida Firm No & Contact Information

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone 920-617 1042
Fax 920-617-1100
www.rice-inc.com

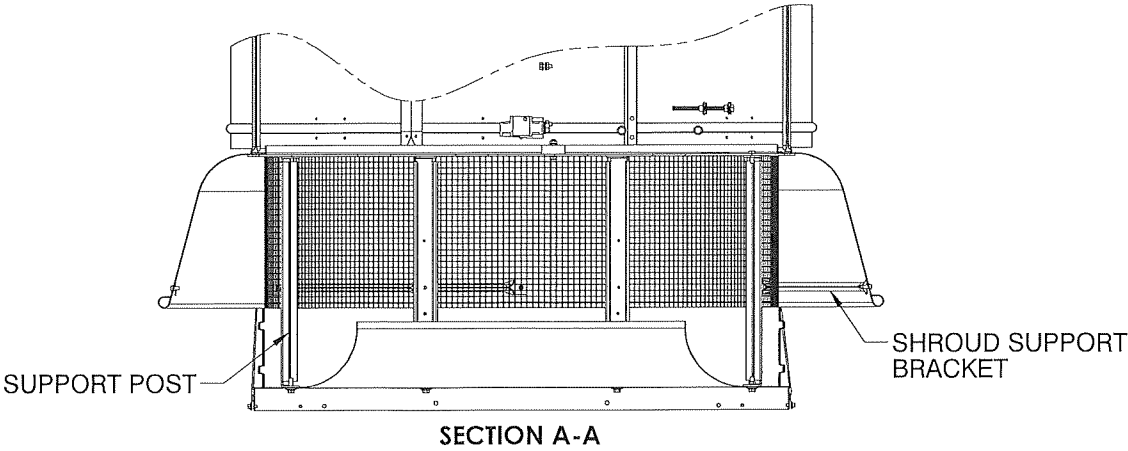
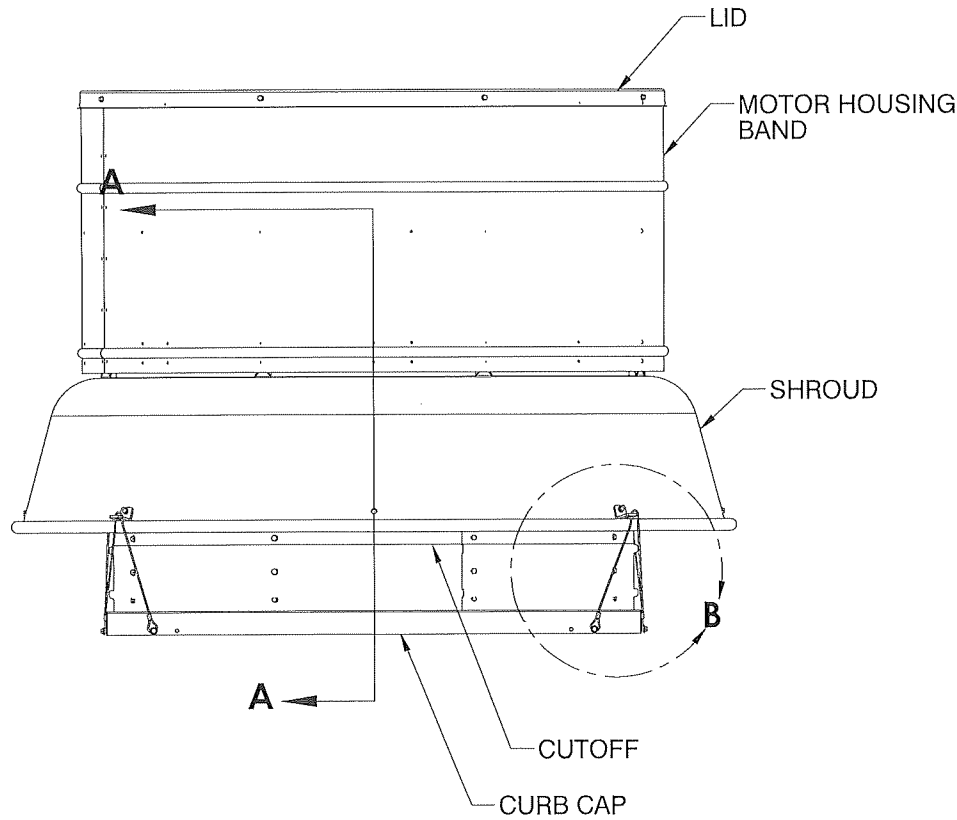
Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helmila
Registration No. 59092

Digital Signature Data


DESIGN LIMITS	
MAX: DESIGN LOAD:	±65 psf (3.11 kPa)
MAX: OVERALL UNIT HEIGHT:	44.41 in (1.13 m)
MAX: ENCLOSURE DIAMETER:	62.47 in (1.59 m)



DETAIL B
SCALE 1 : 6



For Miami-Dade Product Control

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OCT 09 2023


Florida Firm No & Contact Information

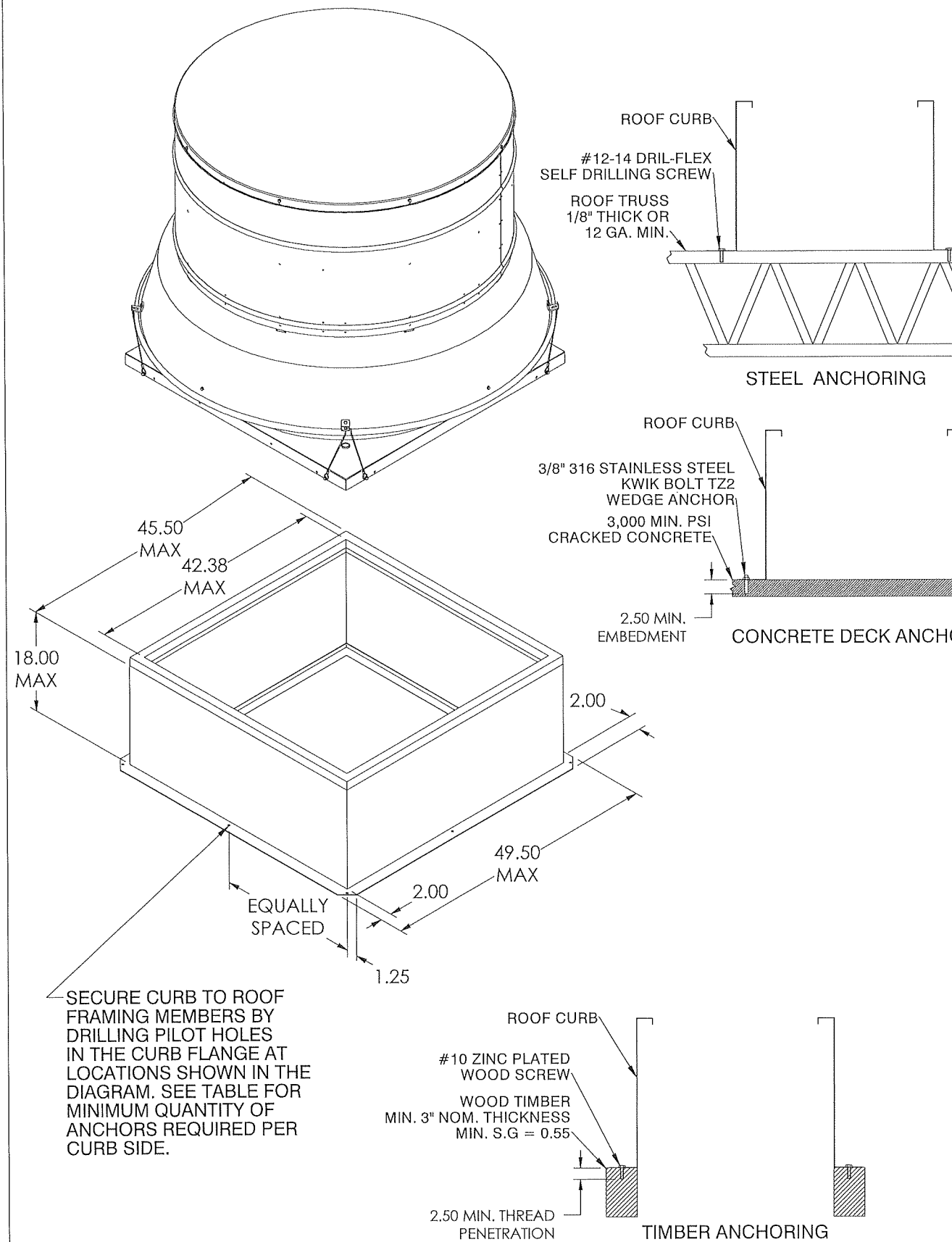
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone 920-617 1042
Fax 920-617-1100
www.rice-inc.com

Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helmila
Registration No. 59092

Digital Signature Data

G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
REV	ECN	DATE	BY	CHK	DESCRIPTION

DRAWN BY JAW	<div>Fans & Blowers</div>  <div>5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered</div>		<div>TITLE</div> <div>BCRD/DCRD SUMMARY MIAMI-DADE APPROVAL</div>		
DATE 01/25/16					
CHKD BY SAM	SCALE NTS		DRAWING NO. BS MD1006		ROW/SHEET 2 of 10
DATE 01/18/2011	PART NO.		ITEM		REV. G
ASME Y14.5 2009	<div>DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED</div> <div> <div>LINEAR</div> <div>0.0 +/- 0.040 0.0 +/- 1.1</div> <div>0.00 +/- 0.020 0.00 +/- 0.5"</div> <div>0.000 +/- 0.010 0.000 +/- 0.3"</div> </div>				



DRIL-FLEX SELF DRILLING SCREWS AND
WOOD SCREWS TO BE SEALED WITH
PROSOCO LIQUID FLASHING OR EQUAL

FASTENER TABLE				
MODEL	MINIMUM NUMBER OF FASTENERS PER SIDE TO ATTACH CURB TO ROOF STRUCTURE			MIN. NUMBER OF FASTENERS PER SIDE TO ATTACH UNIT TO CURB
	STEEL ANCHORING	CONCRETE DECK ANCHORING	TIMBER ANCHORING	
DCRD 060B	3	3	3	3
DCRD 070B	3	3	3	3
DCRD 080B	3	3	3	3
DCRD 085B	3	3	3	3
DCRD 090B	3	3	3	3
DCRD 095B	3	3	3	3
DCRD 100B	3	3	3	3
DCRD 120B	3	3	3	3
DCRD 130B	3	3	3	3
DCRD 140B	3	3	3	3
DCRD 150B	3	3	3	3
DCRD 160B	3	3	3	3
DCRD 170B	3	3	3	3
DCRD 180B	3	3	3	3
BCRD 070D	3	3	3	3
BCRD 075D	3	3	3	3
BCRD 085D	3	3	3	3
BCRD 100D/DHP	3	3	3	3
BCRD 120D	3	3	3	3
BCRD 140D/DHP	3	3	3	3
BCRD 160D/DHP	3	3	3	3
BCRD 180D/DHP	3	3	4	3
BCRD 210D/DHP	3	3	4	3
BCRD 240D/DHP	3	3	4	3
BCRD 300D/DHP	3	3	4	3
BCRD 360D/DHP	3	3	5	3

- CURB NOTES:
- MATERIAL: 18 GA GALVANIZED STEEL
0.063 ALUMINUM
 - UNIT TO BE ATTACHED TO CURB USING #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. LOCATED 4" FROM EACH CORNER AND AT CENTER OF CURB CAP.
 - CURB MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING
 - CONCRETE DECK
 - CURB ANCHORAGE SHOULD BE INTO MINIMUM 3000 PSI CRACKED CONCRETE, WITH A MINIMUM SLAB DEPTH OF 4.75".
 - USE 3/8" DIA. STAINLESS STEEL HILTI KWIK BOLT TZ2 EXPANSION ANCHORS OR EQUIVALENT. ANCHORS SHALL HAVE A MINIMUM 2-1/2" EMBEDMENT. FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 24- 3/4" WITH 12" MINIMUM SPACING AND 2-1/2" MINIMUM EDGE DISTANCE.
 - STEEL ROOF STRUCTURE
 - SHOULD BE INTO MINIMUM 12 GA OR 1/8" THICK STEEL MEMBER.
 - USE #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD ENGAGEMENT OF .1084". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 24-3/4" WITH 11/16" MINIMUM SPACING AND 3/8" MINIMUM EDGE DISTANCE.
 - TIMBER ROOF STRUCTURE
 - SHOULD BE MINIMUM S.G.=0.55
 - USE #10 ZINC PLATED WOOD SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD PENETRATION OF 2-1/2". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 3/4" MINIMUM SPACING, 3/4" MINIMUM EDGE DISTANCE AND 1.316" MINIMUM END DISTANCE.

G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
REV	ECN	DATE	BY	CHK	DESCRIPTION

For Miami-Dade Product Control

Professional Engineer Seal & License

Florida Firm No & Contact Information

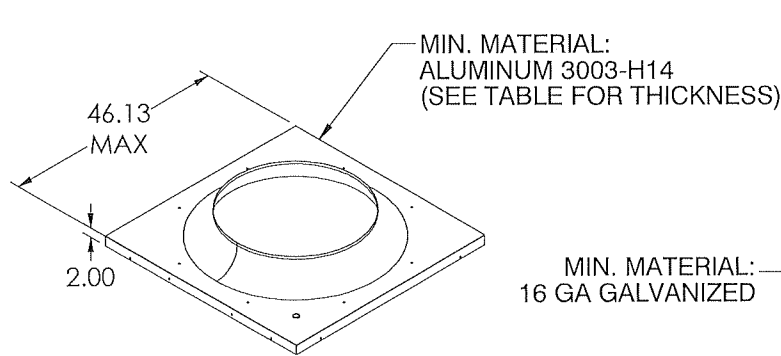
Digital Signature Data

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-1017.04
Expiration Date 04/14/2026
By
Miami-Dade Product Control

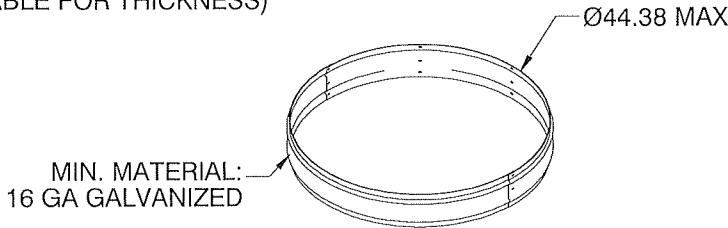
WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
OCT 09 2023

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone 920-617 1042
Fax 920-617-1100
www.rice-inc.com
Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helmila
Registration No. 59092

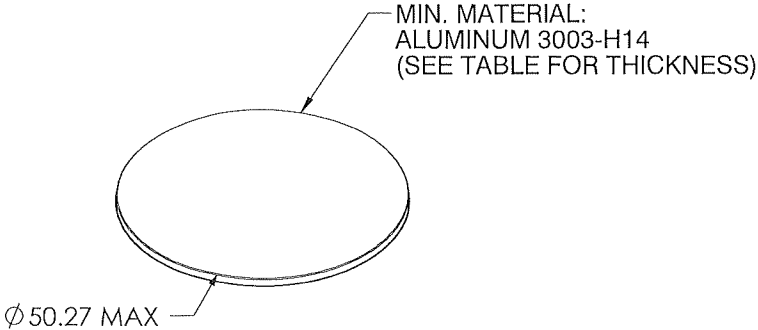
DRAWN BY JAW	 5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered	
DATE 01/25/16		
CHKD BY SAM	TITLE BCRD/DCRD SUMMARY MIAMI-DADE APPROVAL	
DATE 01/18/2011		
PART NO.		
ASME Y14.5 2009	SCALE NTS DRAWING NO. BS MD1006	
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED LINEAR 0.0 +/- 0.040 0.0 +/- 1.0 0.00 +/- 0.020 0.00 +/- 0.5" 0.000 +/- 0.010 0.000 +/- 0.3"		
ROW/SHEET 3 of 10		ITEM REV. G



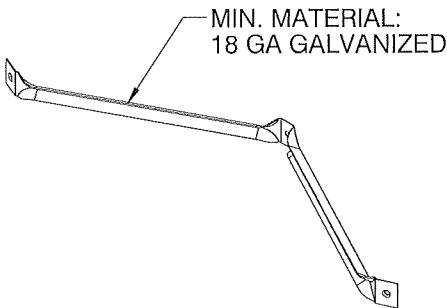
CURB CAP



CUTOFF



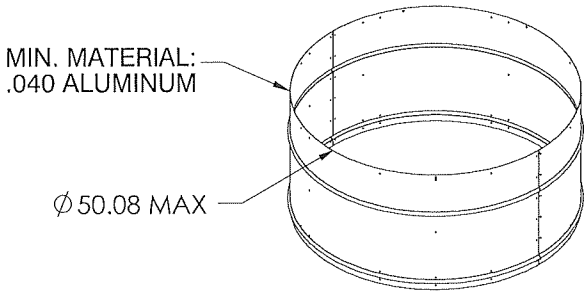
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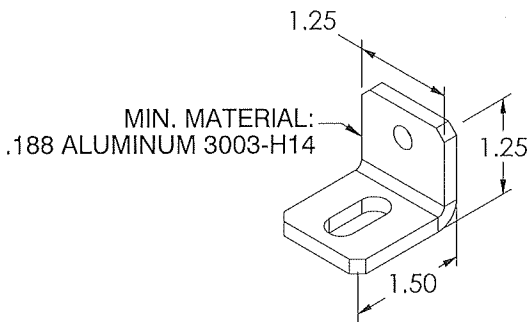
SHROUD SUPPORT BRACKET



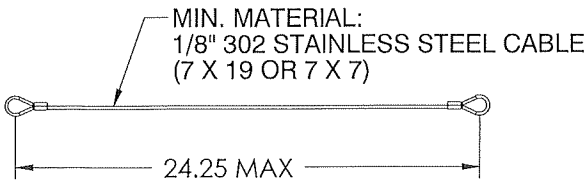
SUPPORT POST



MOTOR HOUSING BAND



TIE DOWN BRACKET



TIE DOWN CABLE
(SIZE 170 AND LARGER)

BCRD	DCRD	CURB CAP	LID	SHROUD	SUPPORT POST
-	060B	.063	.032	.063	14 GA (.079)
070D	070B				
075D	-				
-	080B				
085D	085B				
-	090B				
-	095B				
100D/DHP	100B				
120D	120B				
-	130B	.080			
-	140B				
140D/DHP	-	.063			
-	150B	.080			
-	160B				
160D/DHP	-	.063			
-	170B	.080			
180D/DHP	180B				
210D/DHP	-				
240D/DHP	-				
300D/DHP	-				
360D/DHP	-	.040	.080	10 GA (.138)	

G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
REV	ECN	DATE	BY	CHK	DESCRIPTION

DRAWN BY JAW	<div>Fans & Blowers</div> <div>Twin City</div>	5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered			
DATE 01/25/16					
CHKD BY SAM					
DATE 01/18/2011	TITLE BCRD/DCRD SUMMARY MIAMI-DADE APPROVAL				
PART NO. SEE TABLE					
ASME Y14.5 2009					
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED	SCALE	DRAWING NO.	ROW/SHEET	ITEM	REV.
LINEAR 0.0 +/- 0.040 0.00 +/- 0.020 0.000 +/- 0.010	NTS	BS MD1006	4 of 10		G
ANGULAR 0.0 +/- 1° 0.00 +/- 0.5° 0.000 +/- 0.3°					

For Miami-Dade Product Control

PRODUCT REVISED
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Building Code
NOA-No. 23-1017.04
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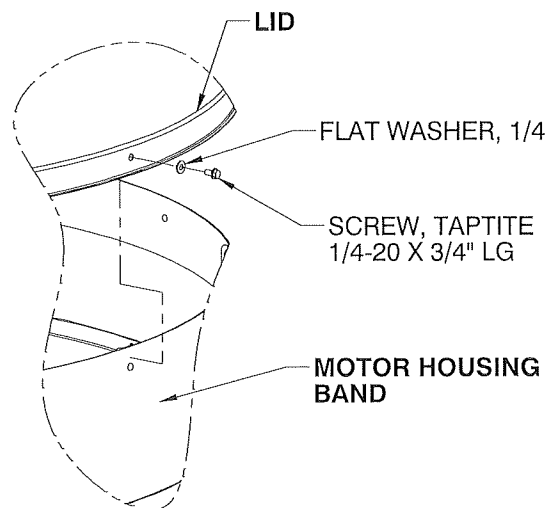
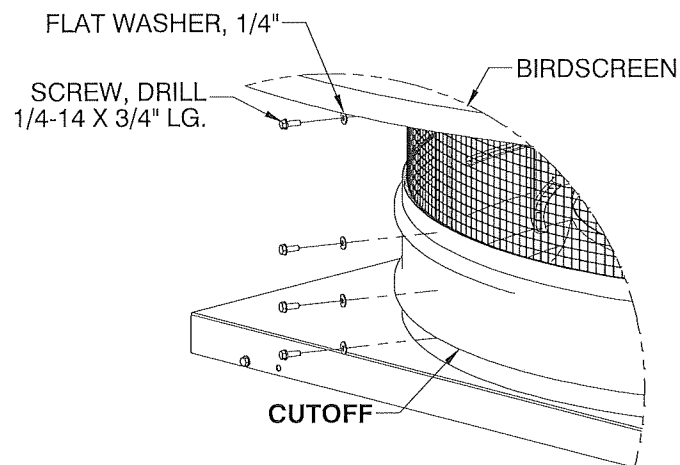
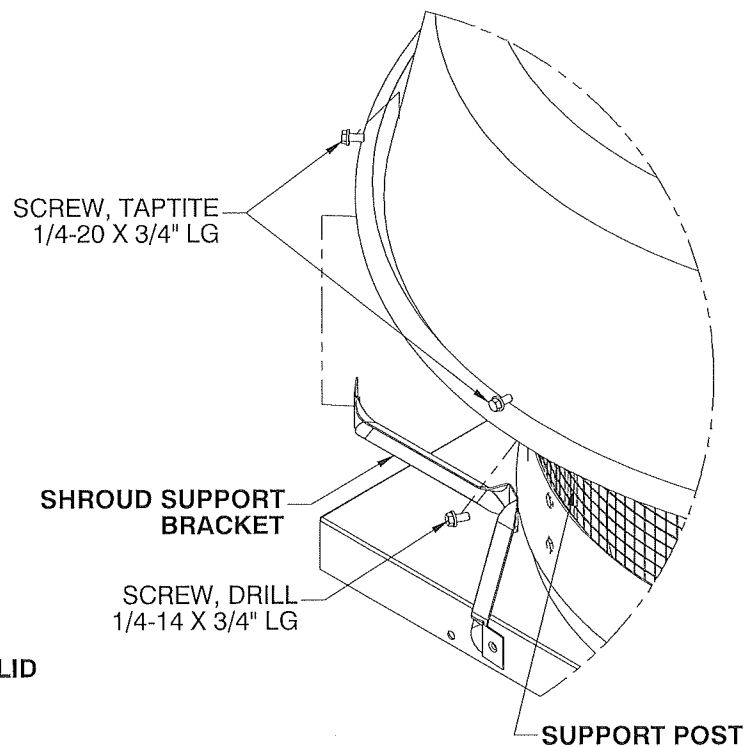
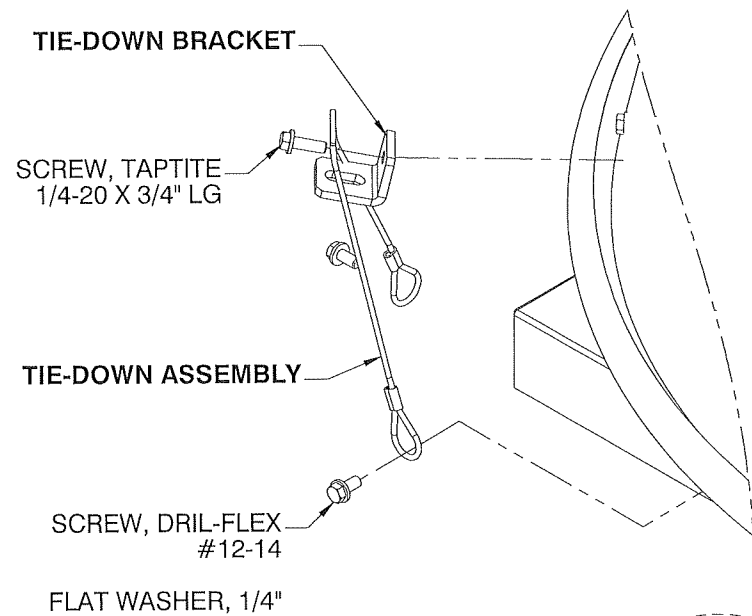
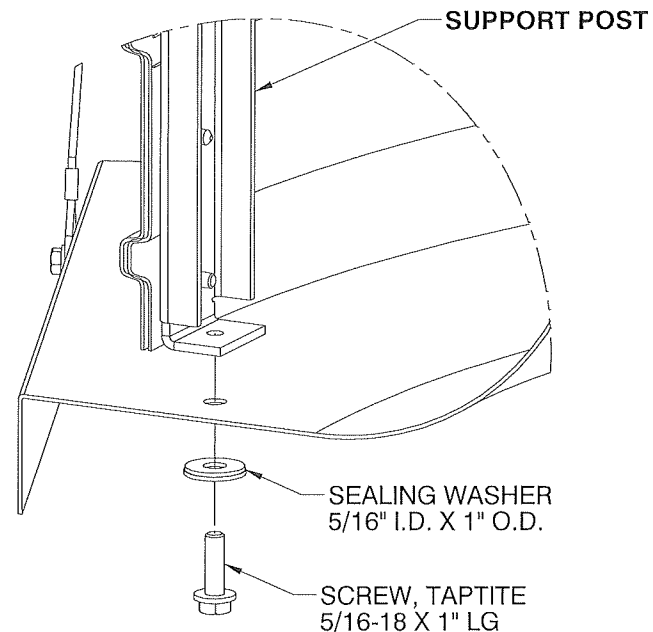
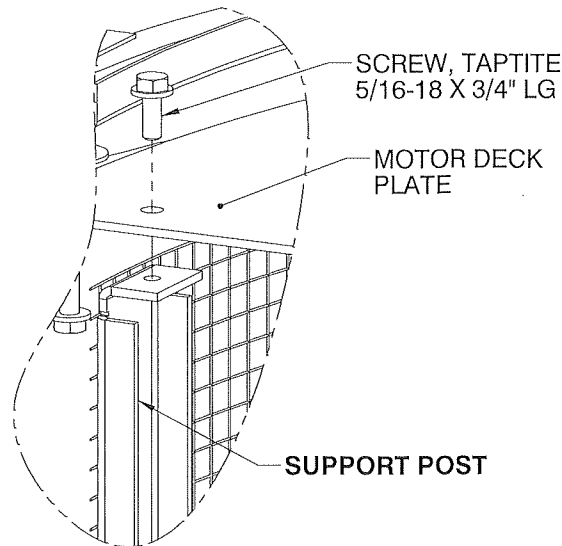
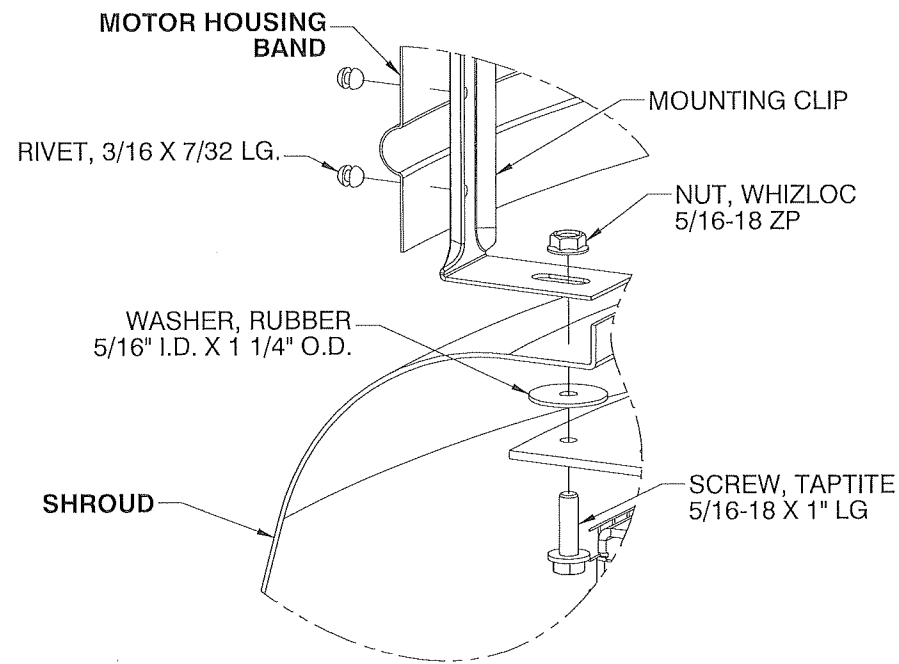
OCT 09 2023

Florida Firm No & Contact Information


RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone 920-617 1042
Fax 920-617-1100
www.rice-inc.com

Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helmila
Registration No. 59092

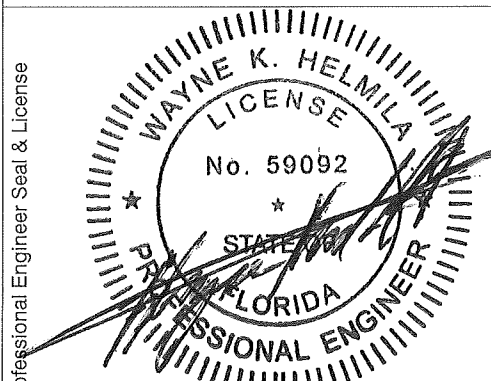
Digital Signature Data



For Miami-Dade Product Control

PRODUCT REVISED
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Professional Engineer Seal & License



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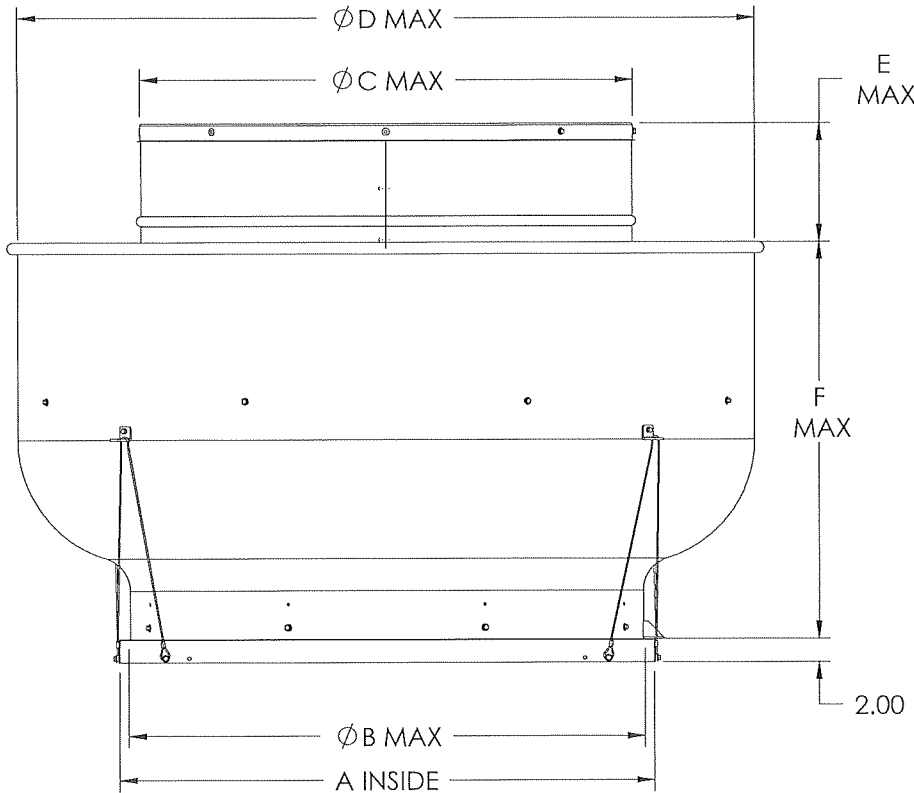
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G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
REV	ECN	DATE	BY	CHK	DESCRIPTION

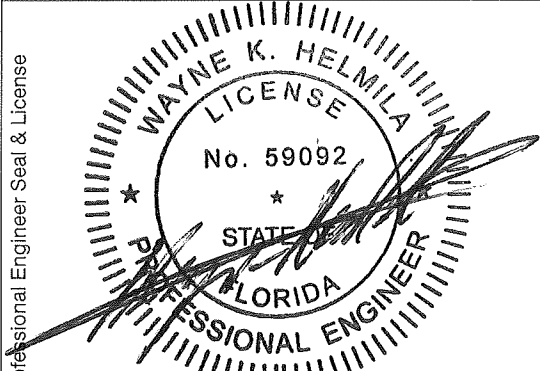
DRAWN BY JAW		<div>Fans & Blowers</div> <div>Twin City</div>		5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered		
DATE 01/26/16						
CHKD BY SAM						
DATE 01/18/2011		TITLE BCRD/DCRD SUMMARY MIAMI-DADE APPROVAL				
PART NO.						
ASME Y14.5 2009						
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED		SCALE	DRAWING NO.	ROW/SHEET	ITEM	REV.
LINEAR 0.0 +/- 0.040 0.00 +/- 0.020 0.000 +/- 0.010		NTS	BS MD1006	5 of 10		G
ANGULAR 0.0 +/- 1° 0.00 +/- 0.5° 0.000 +/- 0.3°						



- NOTES:
1. MODEL BCRU, BCRUR, DCRU & DCRUR HAVE BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THE MIAMI-DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT) AND TAS-202 (STATIC LOADING).
 2. THIS FAN HAS NOT BEEN TESTED FOR WIND DRIVEN RAIN PER FBC, TAS 100(A).
 3. THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE AND IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL.
 4. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY ROOF TOP FANS. FASTENERS SHALL BE AS SPECIFIED AND INSTALLED AS DETAILED.
 5. DESIGN TESTING AND INSTALLATION CONFORMS TO THE FLORIDA BUILDING CODE 7TH EDITION (2020) AND FLORIDA BUILDING CODE 8TH EDITION (2023).
 6. FAN CURBS MUST BE ANCHORED TO ROOF FRAMING MEMBERS AND NOT TO THE ROOFING SYSTEM.
 7. FAN SIZES ENDING WITH AN 'E' SUFFIX DESIGNATE AN EFFICIENT MOTOR OFFERING AND DO NOT AFFECT THE MIAMI-DADE CONSTRUCTION OR APPROVAL.
 8. DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL.

MODEL	A	B	C	D	E	F	WEIGHT (lb)
DCRU/R 071B-073B	17.00	15.22	15.38	22.00	6.61	18.00	65
DCRU/R 081B-083B	17.00	15.22	15.38	22.00	6.61	18.00	65
DCRU/R 091B-093B	20.00	15.22	15.38	22.00	8.30	18.00	70
DCRU/R 110B	24.00	22.12	20.25	30.00	N/A	28.00	110
DCRU/R 120B	24.00	22.12	20.25	30.00	N/A	28.00	114
DCRU/R 140B	24.00	22.12	20.25	30.00	N/A	28.00	120
DCRU/R 160B	24.00	22.12	20.25	30.00	1.98	28.00	129
DCRU/R 180B	30.00	23.98	24.25	36.00	N/A	30.00	151
BCRU/R 110B	24.00	22.14	20.25	30.00	0.48	28.00	140
BCRU/R 120B	24.00	22.14	20.25	30.00	N/A	28.00	145
BCRU/R 140B	24.00	22.14	20.25	30.00	N/A	28.00	159
BCRU/R 140BHP	24.00	22.14	20.25	30.00	0.48	28.00	159
BCRU/R 160B	24.00	22.14	20.25	30.00	1.98	28.00	170
BCRU/R 160BHP	24.00	22.14	20.25	30.00	N/A	28.00	170
BCRU/R 160BMP	24.00	22.14	20.25	30.00	0.61	28.00	170
BCRU/R 180B	30.00	23.99	24.25	36.00	2.48	30.00	185
BCRU/R 180BHP	30.00	23.99	24.25	36.00	1.11	30.00	180
BCRU/R 180BMP	30.00	23.99	24.25	36.00	N/A	30.00	195
BCRU/R 210B	34.00	32.05	30.25	45.00	7.55	28.25	210
BCRU/R 210BHP	34.00	32.05	30.25	45.00	4.86	28.25	210
BCRU/R 240B	34.00	32.05	30.25	45.00	9.48	28.25	230
BCRU/R 240BHP	34.00	32.05	30.25	45.00	6.23	28.25	230
BCRU/R 300B	40.00	36.11	36.25	54.00	7.36	31.00	350
BCRU/R 300BHP	40.00	36.11	36.25	54.00	3.98	31.00	350
BCRU/R 360B	46.00	44.09	42.27	63.00	9.99	34.00	475
BCRU/R 360BHP	46.00	44.09	42.27	63.00	5.74	34.00	475

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OCT 09 2023

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ENGINEERING

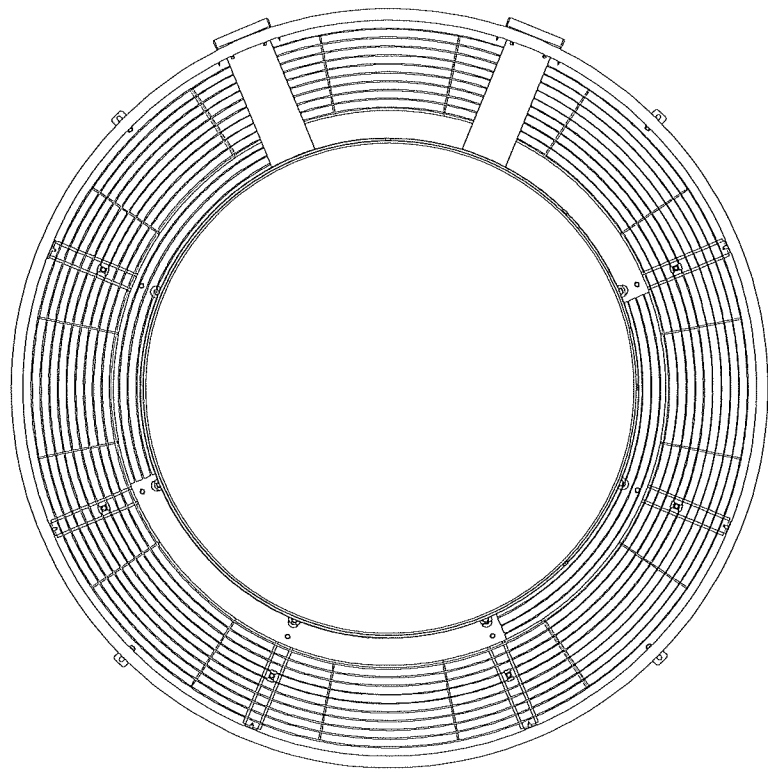
105 School Creek Trail
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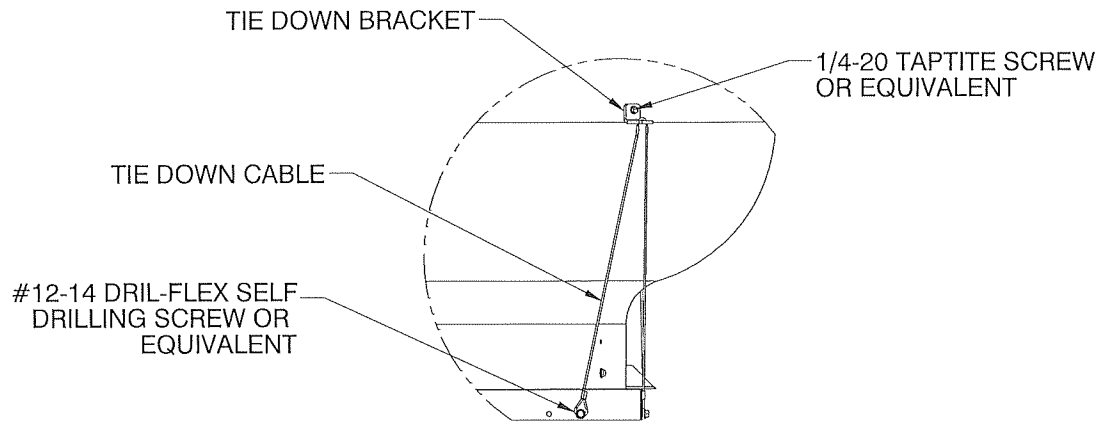
Digital Signature Data

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REV	ECN	DATE	BY	CHK	DESCRIPTION

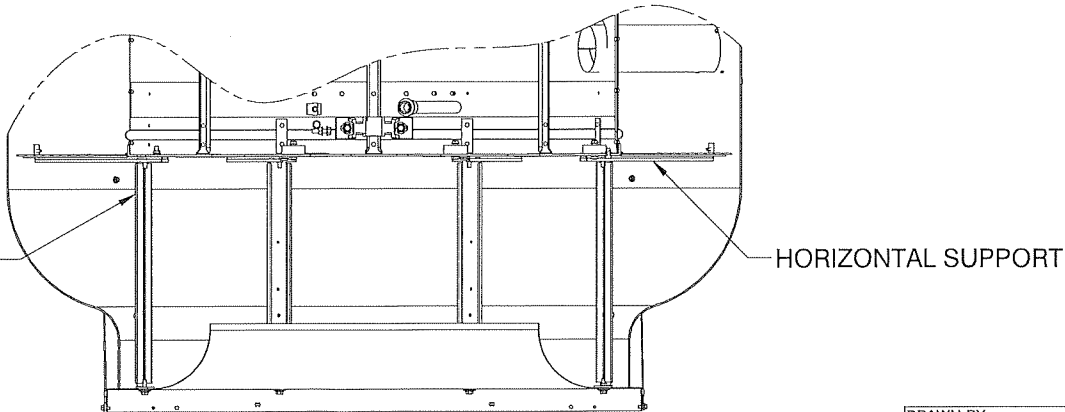
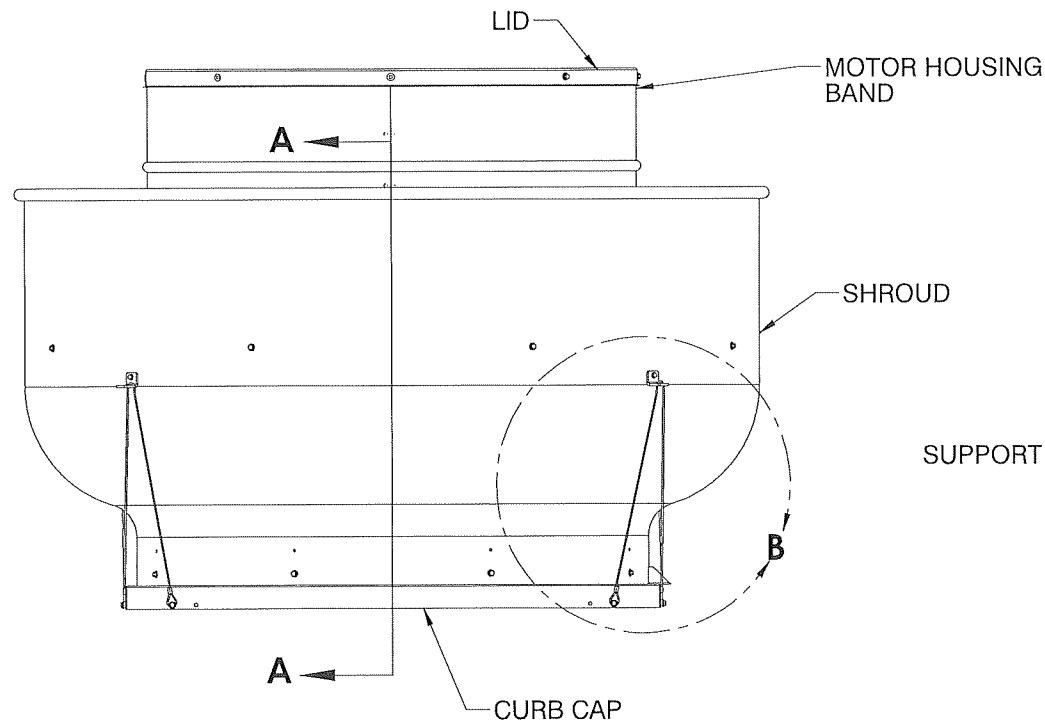
DRAWN BY	JAW	<div>Fans & Blowers</div> <div>Twin City</div>		5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered					
DATE	01/25/16								
CHKD BY	SAM	TITLE BCRU/BCRUR/DCRU/DCRUR SUMMARY MIAMI-DADE APPROVAL							
DATE	01/18/2011								
PART NO.									
ASME Y14.5 2009									
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED		SCALE	DRAWING NO.	ROW/SHEET	ITEM	REV.			
LINEAR 0.00 +/- 0.040 0.00 +/- 1.0 0.00 +/- 0.020 0.00 +/- 0.5" 0.000 +/- 0.010 0.000 +/- 0.3"		NTS	BS MD1006	6 of 10		G			
ANGULAR 0.00 +/- 1.0 0.00 +/- 0.5" 0.000 +/- 0.3"									



DESIGN LIMITS	
MAX: DESIGN LOAD:	±65 psf (3.11 kPa)
MAX: OVERALL UNIT HEIGHT:	44.00 in (1.12 m)
MAX: ENCLOSURE DIAMETER:	63.00 in (1.60 m)



DETAIL B
SCALE 1 : 12




SECTION A-A

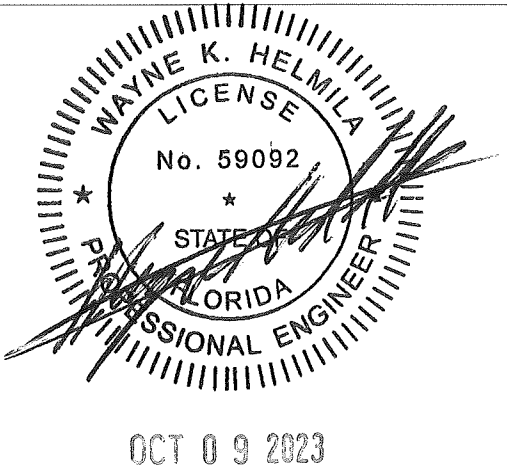
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DATE 01/18/2011					
PART NO.					
ASME Y14.5 2009					
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED	SCALE	DRAWING NO.	ROW/SHEET	ITEM	REV.
LINEAR 0.0 +/- 0.040 0.00 +/- 0.020 0.000 +/- 0.010	NTS	BS MD1006	7 of 10		G
ANGULAR 0.0 +/- 1° 0.00 +/- 0.5° 0.000 +/- 0.3°					

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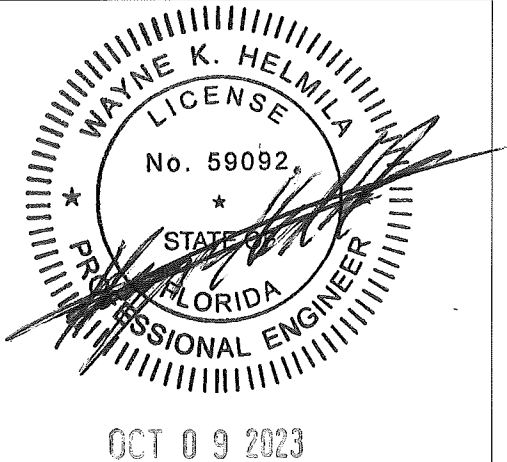


FASTENER TABLE				
MODEL	MINIMUM NUMBER OF FASTENERS PER SIDE TO ATTACH CURB TO ROOF STRUCTURE			MIN. NUMBER OF FASTENERS PER SIDE TO ATTACH UNIT TO CURB
	STEEL ANCHORING	CONCRETE DECK ANCHORING	TIMBER ANCHORING	
DCRU/R 071B-073B	3	3	3	3
DCRU/R 081B-083B	3	3	3	3
DCRU/R 091B-093B	3	3	3	3
DCRU/R 110B	3	3	3	3
DCRU/R 120B	3	3	3	3
DCRU/R 140B	3	3	3	3
DCRU/R 160B	3	3	3	3
DCRU/R 180B	3	3	4	3
BCRU/R 110B	3	3	3	3
BCRU/R 120B	3	3	3	3
BCRU/R 140B/BHP	3	3	3	3
BCRU/R 160B/BHP/BMP	3	3	3	3
BCRU/R 180B/BHP/BMP	3	3	4	3
BCRU/R 210B/BHP	3	3	4	3
BCRU/R 240B/BHP	3	3	4	3
BCRU/R 300B	3	3	5	3
BCRU/R 300BHP	3	3	4	3
BCRU/R 360B/BHP	3	3	5	3

- CURB NOTES:**
- **MATERIAL: 18 GA GALVANIZED STEEL**
0.063 ALUMINUM
 - **UNIT TO BE ATTACHED TO CURB USING #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. LOCATED 4" FROM EACH CORNER AND AT CENTER OF CURB CAP.**
 - **CURB MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING**
 - **CONCRETE DECK**
 - **CURB ANCHORAGE SHOULD BE INTO MINIMUM 3000 PSI CRACKED CONCRETE, WITH A MINIMUM SLAB DEPTH OF 4.75".**
 - **USE 3/8" DIA. STAINLESS STEEL HILTI KWIK BOLT TZ2 EXPANSION ANCHORS OR EQUIVALENT. ANCHORS SHALL HAVE A MINIMUM 2-1/2" EMBEDMENT. FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 24- 3/4" WITH 12" MINIMUM SPACING AND 2-1/2" MINIMUM EDGE DISTANCE.**
 - **STEEL ROOF STRUCTURE**
 - **SHOULD BE INTO MINIMUM 12 GA OR 1/8" THICK STEEL MEMBER.**
 - **USE #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD ENGAGEMENT OF .1084". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 24-3/4" WITH 11/16" MINIMUM SPACING AND 3/8" MINIMUM EDGE DISTANCE.**
 - **TIMBER ROOF STRUCTURE**
 - **SHOULD BE MINIMUM S.G.=0.55**
 - **USE #10 ZINC PLATED WOOD SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD PENETRATION OF 2-1/2". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 14-1/2" WITH 3/4" MINIMUM SPACING, 3/4" MINIMUM EDGE DISTANCE AND 1.316" MINIMUM END DISTANCE.**


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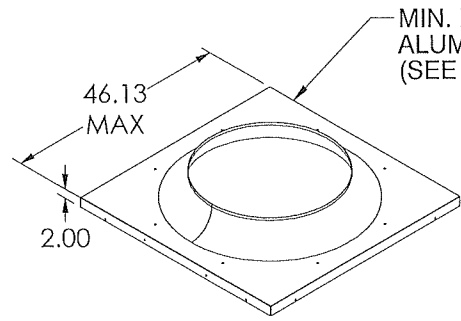
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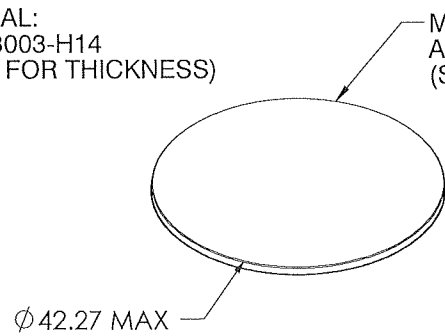
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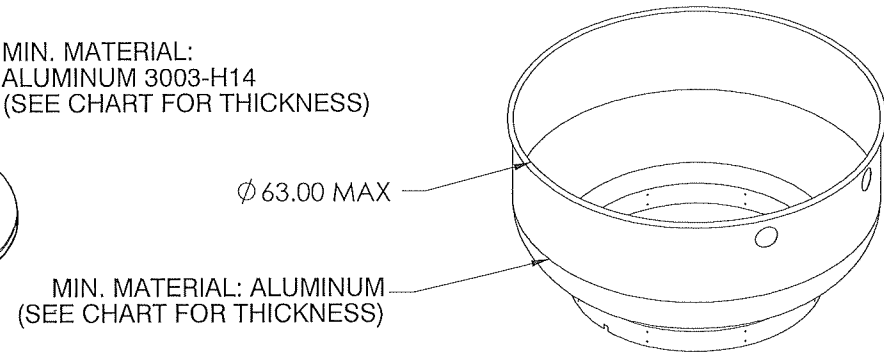
DRAWN BY JAW			5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:2008 Registered		
DATE 01/25/16					
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DATE 01/18/2011	TITLE BCRU/BCRUR/DCRU/DCRUR SUMMARY MIAMI-DADE APPROVAL				
PART NO.					
ASME Y14.5 2009					
DEFAULT TOLERANCES UNLESS OTHERWISE SPECIFIED LINEAR ANGULAR 0.0 +/- 0.040 0.0 +/- 1° 0.00 +/- 0.020 0.00 +/- 0.5° 0.000 +/- 0.010 0.000 +/- 0.3°	SCALE	DRAWING NO.	ROW/SHEET	ITEM	REV.
	NTS	BS MD1006	8 of 10		G



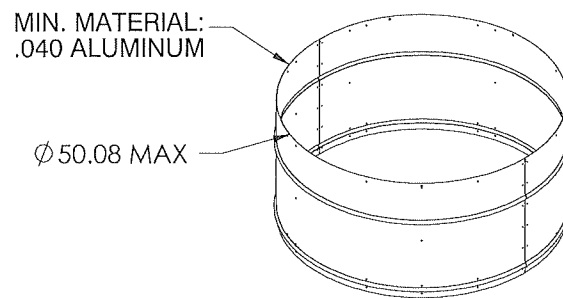
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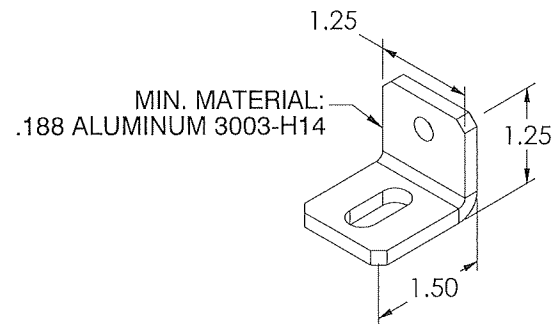
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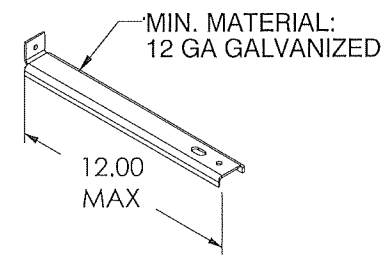
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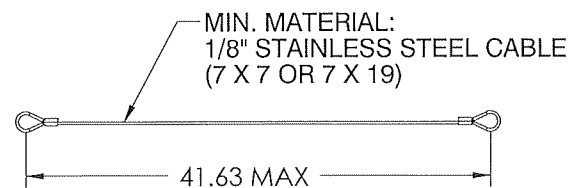
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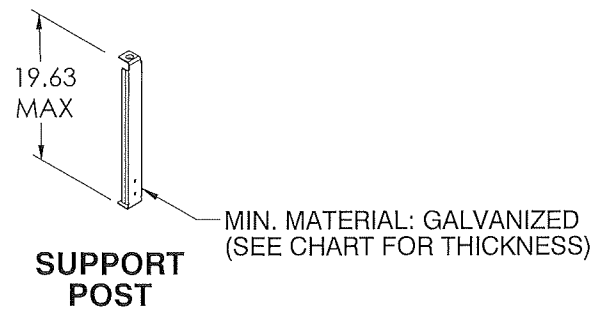
TIE DOWN BRACKET



HORIZONTAL SUPPORT



TIE DOWN CABLE
(SIZE 180 AND LARGER)



SUPPORT POST

BCRU	DCRU	CURB CAP	LID	SHROUD	SUPPORT POST
-	071B-073B	.063		.063	14 GA (.079)
-	081B-083B				
-	091B-093B				
110B	110B				
120B	120B	.032		.063	14 GA (.079)
140B/BHP	140B				
160B/BMP/BHP	160B				
180BMP/BHP	180B				
180B	-	.080		.080	12 GA (.108)
210B/BHP	-				14 GA (.079)
240B/BHP	-			.125	12 GA (.108)
300B	-				14 GA (.079)
300BHP	-				14 GA (.079)
360B/BHP	-				12 GA (.108)
		.040			

G	6267	10/03/23	AKR	SM	ROOF CURB MOUNTING DETAIL UPDATED ON SHEET 3 & 8
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DATE 01/25/16						
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DATE 01/18/2011		TITLE BCRU/BCRUR/DCRU/DCRUR SUMMARY MIAMI-DADE APPROVAL				
PART NO. SEE TABLE						
ASME Y14.5 2009						
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LINEAR 0.0 +/- 0.040 0.00 +/- 0.020 0.000 +/- 0.010		NTS	BS MD1006	9 of 10		G
ANGULAR 0.0 +/- 1° 0.0 +/- 0.5° 0.000 +/- 0.3°						

For Miami-Dade Product Control

Professional Engineer Seal & License

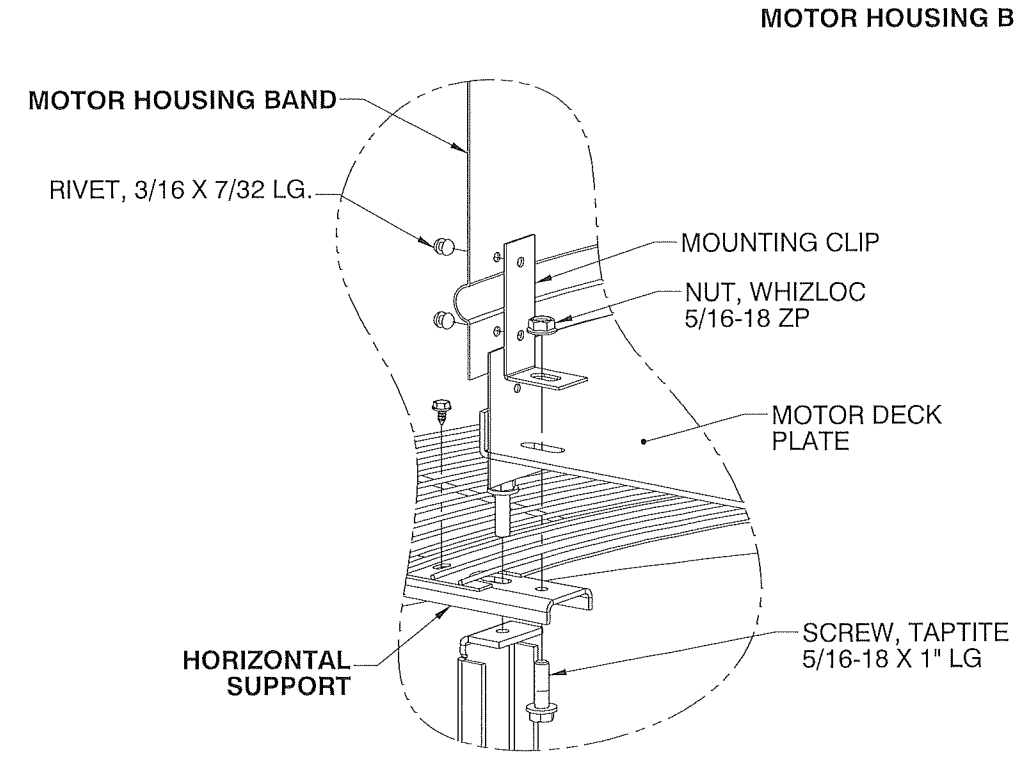
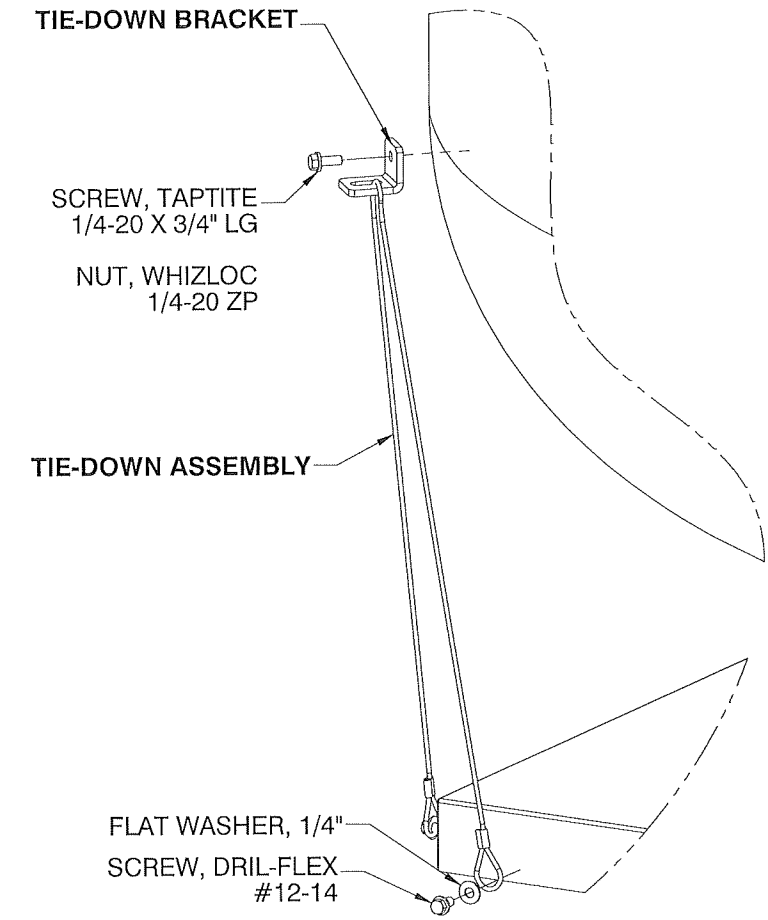
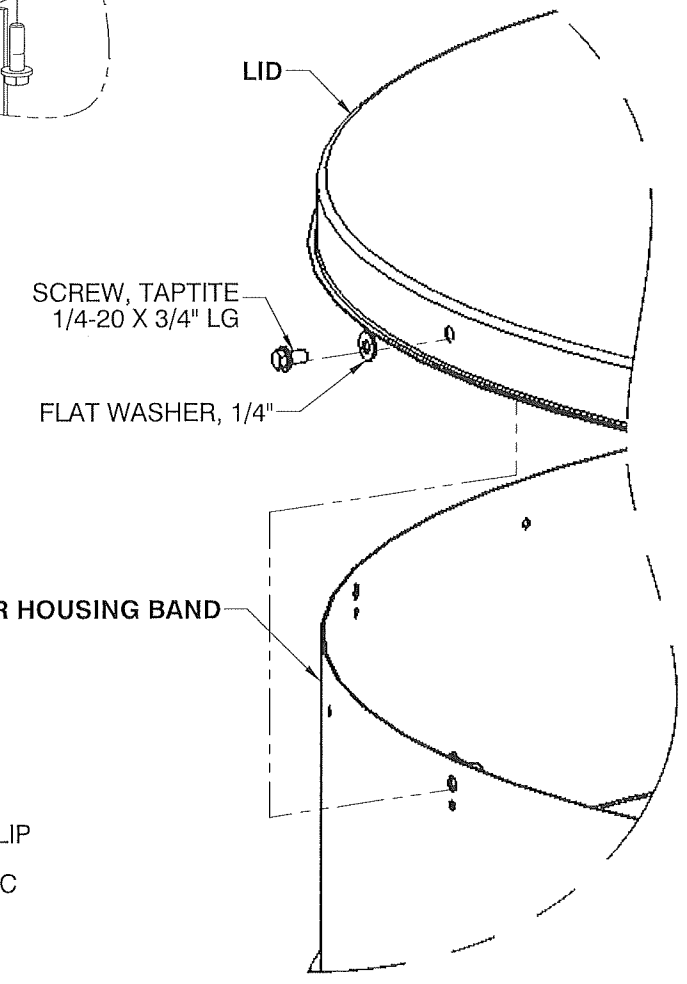
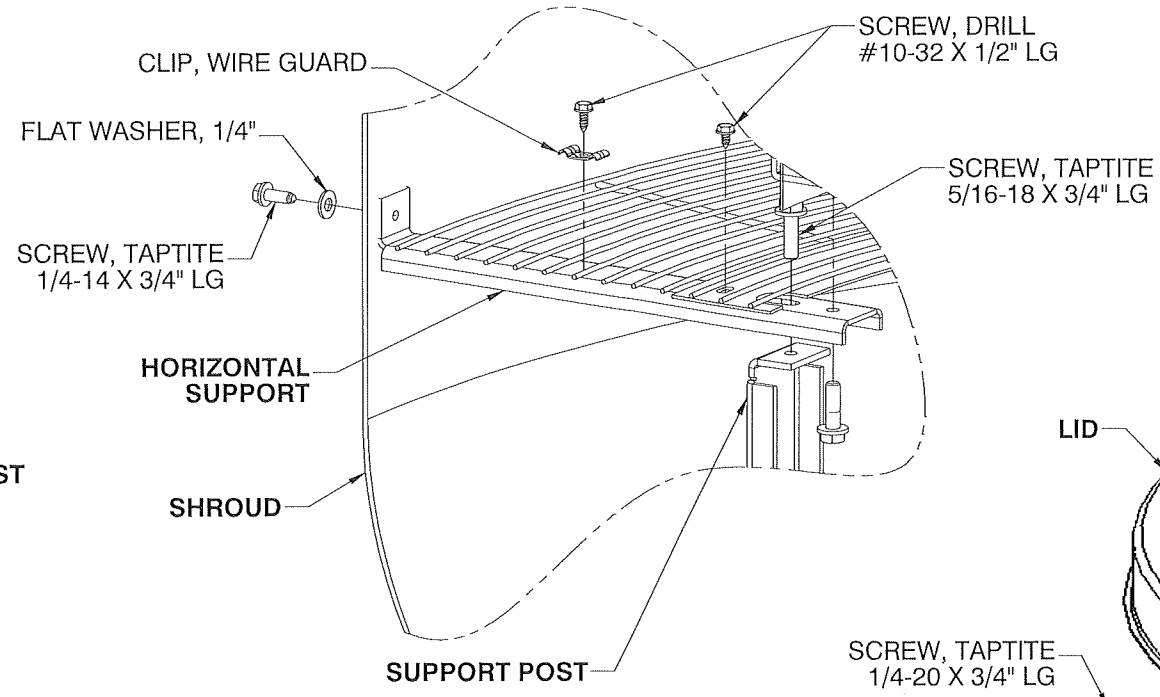
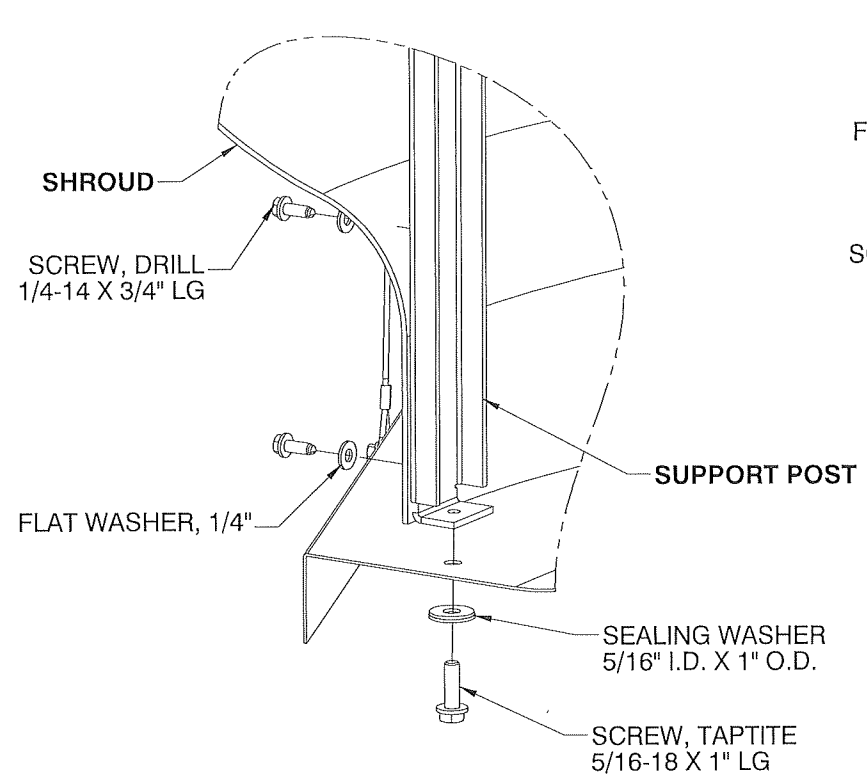
Florida Firm No & Contact Information


Digital Signature Data

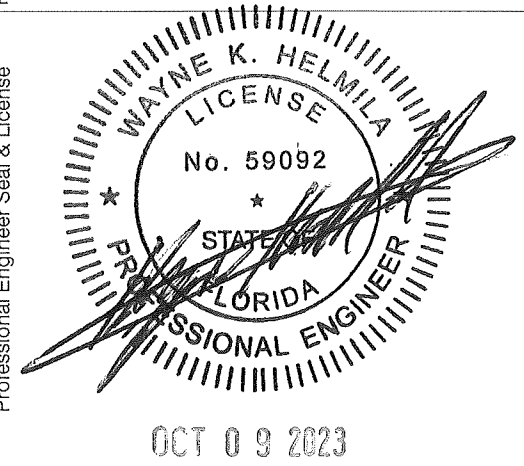
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5959 Trenton Lane N | Minneapolis, MN 55442
ISO-9001:2008 Registered

TITLE BCRU/BCRUR/DCRU/DCRUR SUMMARY
MIAMI-DADE APPROVAL

DEFAULT TOLERANCES
UNLESS OTHERWISE
SPECIFIED
LINEAR 0.0 +/- 0.040 0.0 +/- 1.1
0.00 +/- 0.020 0.00 +/- 0.5
0.000 +/- 0.010 0.000 +/- 0.3

SCALE NTS
DRAWING NO. BS MD1006
ROW/SHEET 10 of 10
ITEM
REV. G

REV	ECN	DATE	BY	CHK	DESCRIPTION
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