

SOLATUBE

SOLAR ATTIC FAN HIGH PROFILE RM-1500 ROOF FAN

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1.

THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURES STATED HEREIN.
2.

THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED THE FOLLOWING TESTING:

2.1.

ATI TEST REPORT NO. C1439.01-109-18-R0, SIGNED AND SEALED BY MICHAEL D. STREMMEL, FL PE NO. 65868.

2.2.

ATI TEST REPORT NO. C1439.02-109-18-R0, SIGNED AND SEALED BY MICHAEL D. STREMMEL, FL PE NO. 65868.

2.3.

INTERTEK TEST REPORT NO. S4852.01-109-18, SIGNED AND SEALED BY TANYA A. DOLBY, FL PE NO. 93536.
3.

TESTING SUMMARY

3.1.

THE PRODUCT HAS BEEN STRUCTURALLY TESTED TO TAS-202-94 (ATI TEST REPORT C1439.02-109-18-R0) AND FOUND TO BE IN CONFORMANCE TO THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC). THE DESIGN PRESSURES SHOWN IN DESIGN PRESSURE RATING TABLE ON SHEET 1 OF THIS DRAWING ARE BASED ON THE RESULTS OF TEST REPORT NO. C1439.02-109-18-R0 DIVIDED BY A FACTOR OF SAFETY OF 2.

3.2.

THE PRODUCT HAS BEEN TESTED FOR WIND-DRIVEN RAIN RESISTANCE TO TAS-100(A)-95 (ATI TEST REPORT C1439.01-109-18-R0) AND TAS-100(A)-23 (INTERTEK TEST REPORT S4852.01-109-18). SUBSEQUENT STRUCTURAL TESTING FOR INCREASED WINDSPEED RESISTANCE FOR FANS EXCEEDING DIMENSIONAL LIMITATIONS OF SECTION 10.4.1 OF TAS-100(A)-95 WAS PERFORMED TO TAS-202-94 (ABOVE). AS DOCUMENTED IN PRODUCT EVALUATION REPORT NO. 1160. AN INSTALLATION HEIGHT NOT TO EXCEED 75 FEET IS APPLICABLE.
4.

PLASTIC COMPONENTS OF THE SOLATUBE SOLAR ATTIC FAN ROOF FAN HAVE BEEN EVALUATED TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND ARE IN COMPLIANCE AS DOCUMENTED IN PRODUCT EVALUATION REPORT NO. 1160 BY ROBERT J. AMORUSO, P.E.
5.

ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
6.

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
7.

THE SOLAR ATTIC FAN'S PRIMARY COMPONENTS ARE COMPRISED OF THE FOLLOWING MATERIALS:

7.1.

FLASHING AND TOP PANEL: ALUMINIZED STEEL EDDS T1-25 (TYPE 1)

7.2.

STANDOFF, 10 x 1 x 74: ALUMINUM 6061-T6

7.3.

HVHZ SPRING CLIP: 301 STAINLESS STEEL

7.4.

FAN GRILL: POLYPROPYLENE

7.4.

FAN: ALUMINUM

7.5.

SHAFT HUB: ALUMINUM
8.

THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE ROOF FAN TO THE ROOF SHEATHING ONLY. PREPARATION OF THE ROOF SHEATHING AND ROOF COVERING(S) TO RECEIVE THE ROOF FAN SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS.
9.

THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE ONLY. IMPACT RESISTANCE WAS NOT TESTED. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS PRODUCT APPROVAL DOCUMENT.

TABLE OF CONTENTS	
SHEET	DESCRIPTION
1	GENERAL AND INSTALLATION NOTES
2	ELEVATION, ANCHORING AND SECTIONS
3	COMPONENTS
4	BILL OF MATERIALS AND ISOMETERIC VIEW

INSTALLATION NOTES:

1.

ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON SHEETS 2 AND 3.
2.

THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.

2.1.

ALL UNITS REQUIRE EIGHT (8) ANCHORS MINIMUM LOCATED AT ALL CORNERS.

2.2.

AN ADDITIONAL EIGHT (8) ANCHORS MINIMUM LOCATED AT MID-SPAM BETWEEN CORNERS SHALL BE REQUIRED TO OBTAIN ENHANCED DESIGN PRESSURES.

2.3.

DESIGN PRESSURE RATING TABLE BELOW DETAILS TOTAL ANCHOR QUANTITIES BASED ON DESIGN PRESSURE AND SUBSTRATE TYPE (PLYWOOD SPECIES OR OSB).

2.4.

MAXIMUM UPLIFT DESIGN PRESSURE OF -170 PSF BASED ON PERFORMANCE TESTING IS NOT EXCEEDED. POSITIVE DOWNWARD DESIGN PRESSURE OF +50 PSF IS NOT LIMITED BY ANCHOR QUANTITY.

2.5.

SEE FAN TOP VIEW ON SHEETS 2 AND 3.
3.

FOR INSTALLATION INTO PLYWOOD/OSB ROOFING, USE NO. 10, TYPE AB, PAN HEAD, ROUND HEAD OR TRUSS HEAD CORROSION RESISTANT STEEL TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF SUFFICIENT LENGTH TO ACHIEVE FULL DEPTH OF EMBEDMENT INTO PLYWOOD/OSB SHEATHING A MINIMUM OF 15/32" INCH IN THICKNESS. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF PLYWOOD/OSB SHALL BE AT LEAST 1-1/4 INCH.
4.

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE ROOF FINISHES.
5.

INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
6.

INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

6.1.

15/32" THICK PLYWOOD - SPECIES GROUP 1 OR 2 (APA VOLUNTARY PRODUCT STANDARD PS 1) MINIMUM.

6.1.1.

FOR PLYWOOD SPECIES NOT MEETING SPECIES GROUP 1 OR 2, SEE NOTE 2.2 ABOVE FOR ADDITIONAL ANCHORAGE REQUIREMENTS.

6.2.2.

LIMITATIONS AS THEY APPLY TO PLYWOOD IN THE HVHZ PER THE FLORIDA BUILDING CODE AND/OR JURISDICTIONAL REQUIREMENTS SHALL BE MET.

6.3.

15/32" OSB - SHEATHING GRADE (APA VOLUNTARY PRODUCT STANDARD PS 2) MINIMUM.

6.3.1.

LIMITATIONS AS THEY APPLY TO OSB IN THE HVHZ PER THE FLORIDA BUILDING CODE AND/OR JURISDICTIONAL REQUIREMENTS SHALL BE MET.
7.

ADDITIONAL INSTALLTION LIMITATIONS

7.1.

PRODUCT SHALL NOT BE INSTALLED AT AN ELEVATION EXCEEDING 75 FET.

7.2.

PRODUCT SHALL NOT BE INSTALLED ON ROOF SHEATHING LESS THAN 15/32" IN THICKNESS.

7.3.

PRODUCT MAY BE INSTALLED ON ROOFS UTILIZING THE FOLLOWING:

7.3.1.

ASPHALT SHINGLES.

7.3.2.

HIGH-PROFILE ROOF TILES NOT EXCEEDING THREE INCHES (3") IN HEIGHT.

7.3.3.

METAL ROOFING.

DESIGN PRESSURE RATING (PSF)			
PLYWOOD SPECIES GROUP	ANCHOR QUANTITY	NEGATIVE UPLIFT (PSF)	POSITIVE DOWNWARD (PSF)
1	8	-152	50
	16	-170	50
2	8	-106	50
	16	-170	50
3, 4, 5	8	-84	50
	16	-170	50
OSB	8	-106	50
	16	-170	50

This item has been digitally signed and sealed by Robert J. Amoruso, PE on the date adjacent to the seal. Signature must be verified on any electronic copies.

SOLATUBE
2210 OAK RIDGE WAY
VISTA, CALIFORNIA
92081-8341

SOLATUBE "SOLAR ATTIC FAN" HIGH PROFILE RM-1500 ROOF FAN ANCHORAGE DETAILS

DATE:
8/1/2025

DWN BY:
RJA

CHK BY:
n/a

SCALE:
NONE

ROBERT J. AMORUSO, P.E. #49752
AMORUSO CONSULTING ENG., LLC
FBPE REGISTRATION NO. 38327
226 N NOVA RD, NO. 142
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RJAENGPE@GMAIL.COM

ROBERT J. AMORUSO
LICENSE
No 49752
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Digitally signed
by Robert J
Amoruso
Date: 2026.05.26
15:11:18 -04'00'

PROJECT#: ACE-2026-139

DWG/REV: SOLA0006, Rev F

SHT: 1 of 4

SOLATUBE "SOLAR ATTIC FAN" HIGH PROFILE RM-1500 ROOF FAN ANCHORAGE DETAILS					
NO.	REVISION DESCRIPTION	BY	DATE		
E	REVISED TO INCORPORATE NEW TESTING	RJA	8/1/25		
F	REVISED TO INCORPORATE NEW FAN BLADE	RJA	5/20/26		

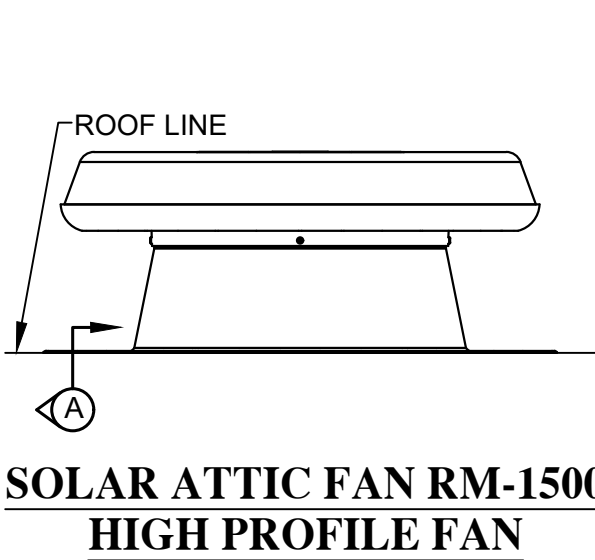
DATE: 8/1/2025	DWN BY: RJA	CHK BY: n/a	SCALE: NONE
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ROBERT J. AMORUSO, P.E. #49752
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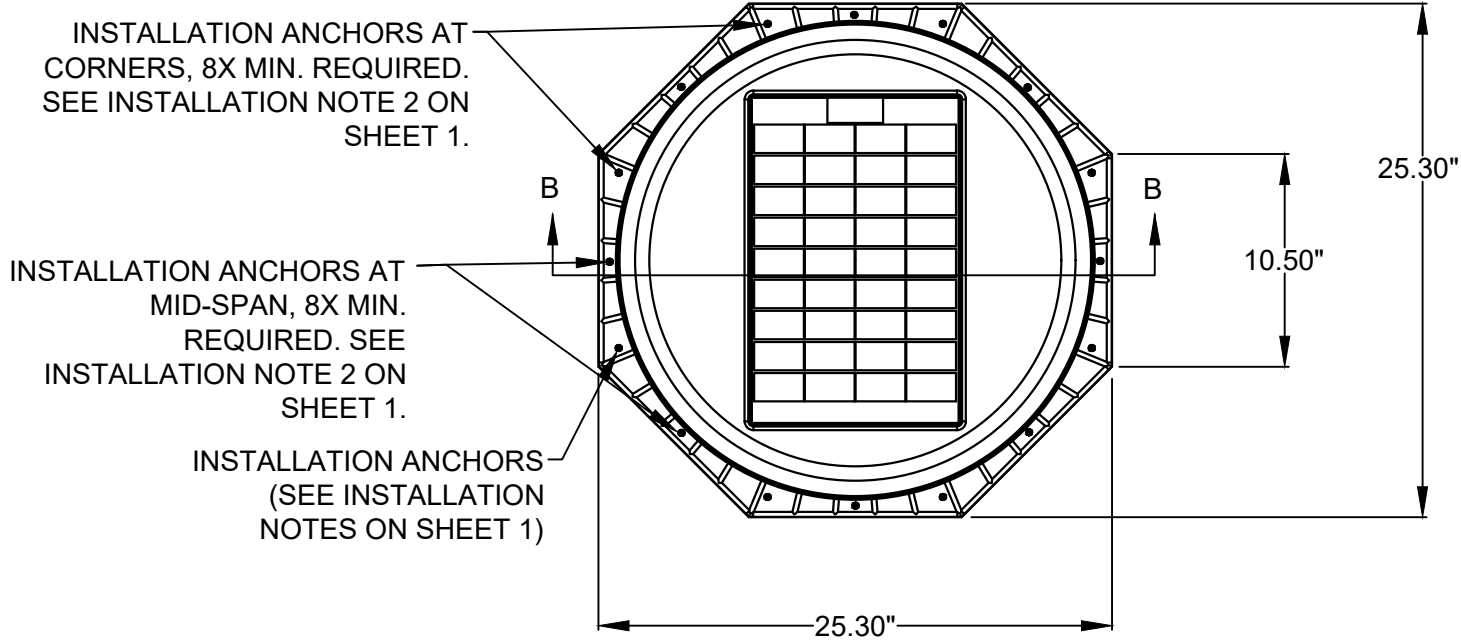


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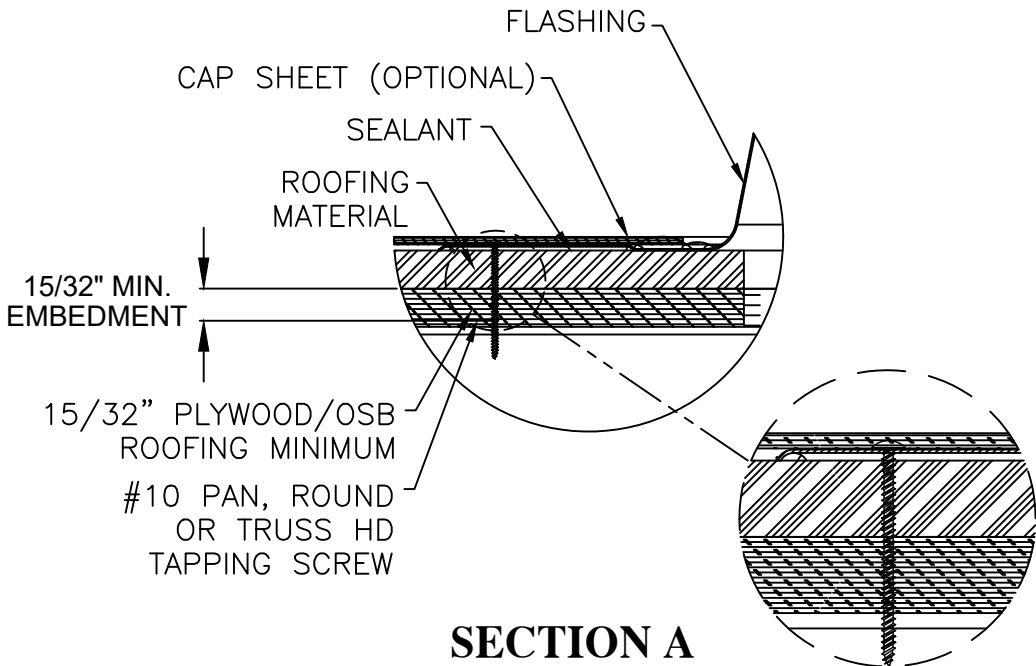
PROJECT#:	ACE-2026-139
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SHT:	2 of 4



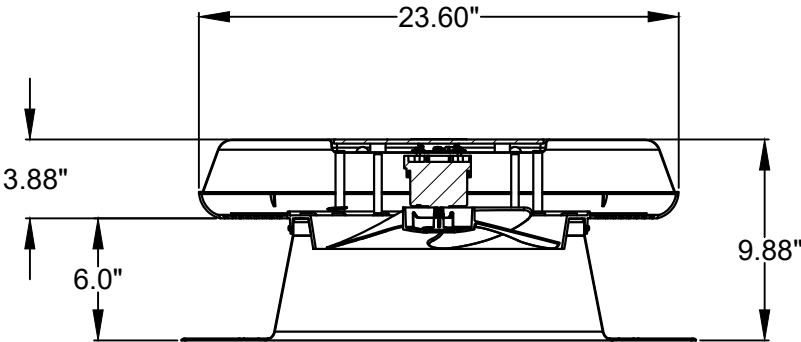
SOLAR ATTIC FAN RM-1500
HIGH PROFILE FAN



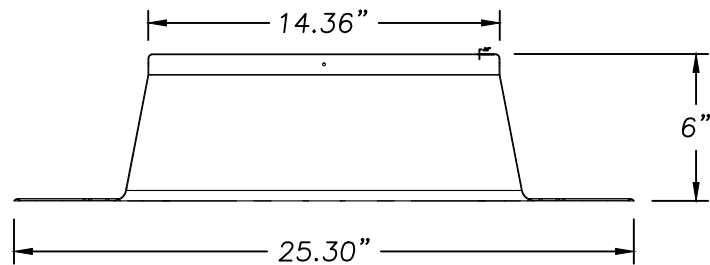
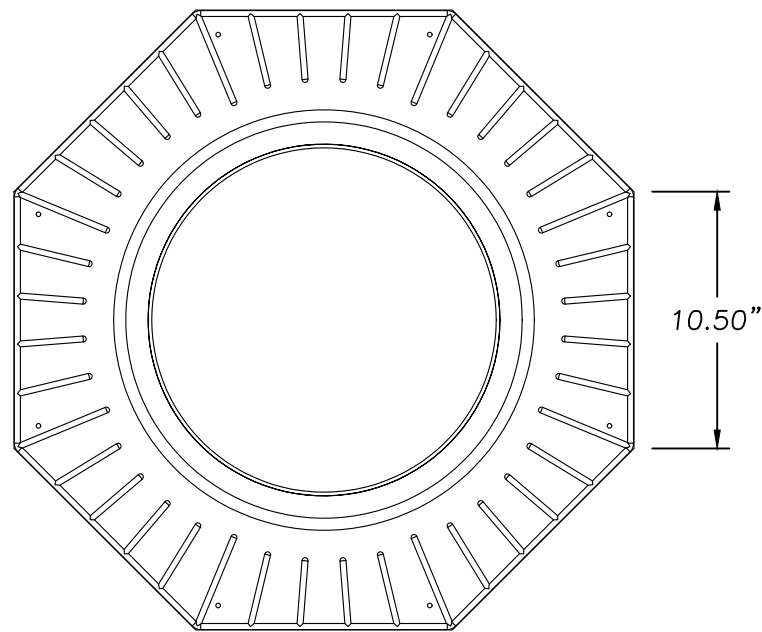
SOLAR ATTIC FAN RM-1500
HIGH PROFILE FAN
TOP VIEW



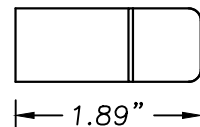
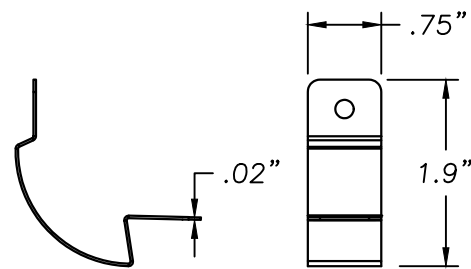
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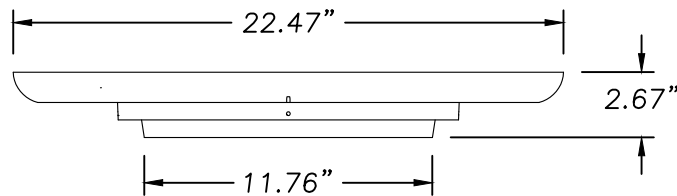
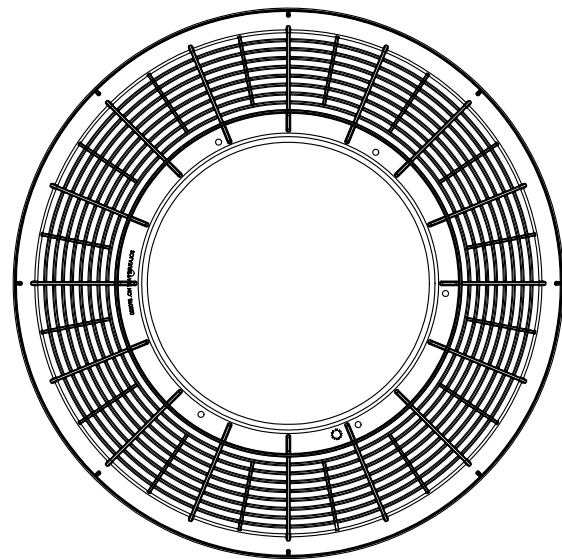
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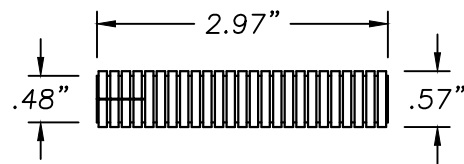
12 **FLASHING 14" NO PITCH 6"**
ALUMINIZED STEEL EDDS T1-25 .028" THICK



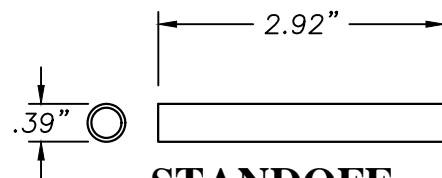
13 **HVHZ SPRING CLIP**
301 STAINLESS STEEL .020" THICK



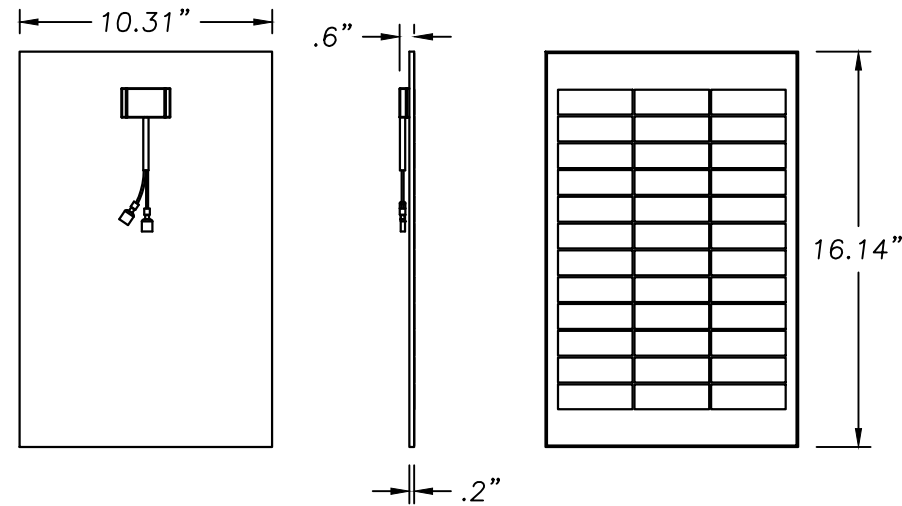
2 **FAN GRILL, SOLAR ATTIC FAN 14"**
POLYPROPYLENE .120" THICK



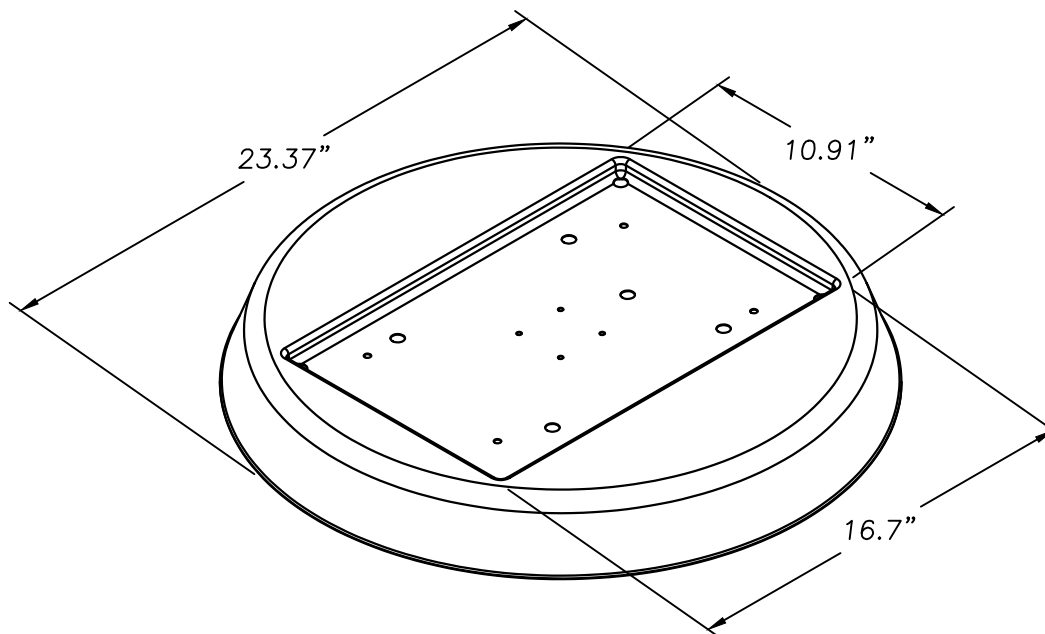
16 **TUBE, SLIT CORRUGATED**
POLYPROPYLENE .01" THICK



1 **STANDOFF, 10 x 1 x 74**
ALUMINUM 6061-T6 .039" THICK



4 **RM-1500 SOLAR PANEL**



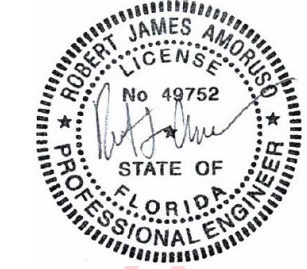
3 **TOP PANEL SS 14" BLACK**
ALUMINIZED STEEL EDDS T1-25 .028" THICK

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DATE: 8/1/2025	DWN BY: RJA	CHK BY: n/a	SCALE: NONE
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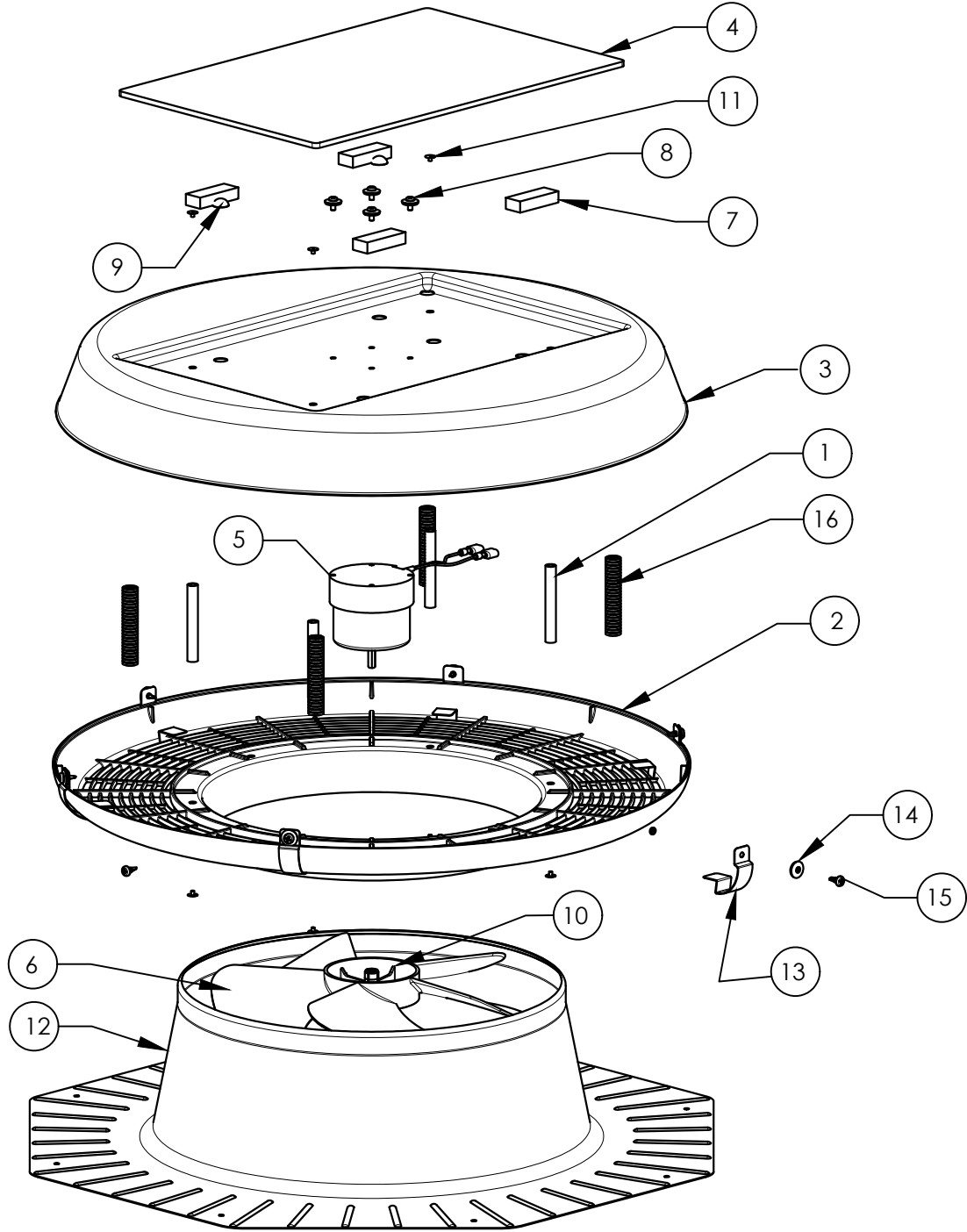
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SHT: 3 of 4

ITEM	QTY.	PART	DESCRIPTION
1	4	503101	STANDOFF, 10X1X74
2	1	590020	FAN GRILL, SOLAR ATTIC FAN 14"
3	1	590077	TOP PANEL, SOLAR ATTIC FAN 14" BLACK (24V)
4	1	590127	SOLAR PANEL 16W
5	1	590124	SOLAR ATTIC FAN MOTOR
6	1	592018	SOLAR ATTIC FAN FAN BLADE
7	4	600201	FOAM PAD, PSA
8	4	700210	SCREW, SEAL 8-32 X 5/16 SS
9	4	700280	ROOF SEALANT BLACK
10	1	592006	SHAFT HUB
11	8	700661	RIVET OPEN END BLIND 6.4 X 20
12	1	230445	FLASHING 14" NO PITCH 6" HIGH
13	6	520020	HVHZ SPRING CLIP
14	6	700910	WASHER #6 EPDM RUBBER
15	6	700125	SCREW #8 DRILL TIP SS
16	4	504275	TUBE, SLIT CORRUGATED
17	1	504320	SOLAR ATTIC FAN BASE FASTENER KIT (NOT SHOWN)
18	1	590155	LABEL, SOLAR ATTIC FAN (NOT SHOWN)
19	1	803610	BUBBLE WRAP FILM (NOT SHOWN)
20	1	830580	BOX, 25-5/8" X 5-7/8" X 25-5/8" (NOT SHOWN)
21	1	830605	BOX PITCHED SOLAR ATTIC FAN (NOT SHOWN)
22	4	830615	SOLAR ATTIC FAN FOAM INSERT (NOT SHOWN)
23	1	950910	PRODUCT OWNERSHIP AND CARE GUIDE (NOT SHOWN)
24	1	951900	SOLAR ATTIC FAN INSTALLATION INSTRUCTIONS (NOT SHOWN)



ISO METRIC VIEW

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	8/1/2025	RJA	REVISED TO INCORPORATE NEW TESTING	8/1/25	
			REVISED TO INCORPORATE NEW FAN BLADE	5/20/26	

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DWG/REV: SOLA0006, Rev F

SHT: 4 of 4