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

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

NOTICE OF ACCEPTANCE (NOA)

ACME Engineering and Manufacturing Corporation
1820 N. York Street
Muskogee, OK 74403

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: Series QBR, 3000 and 8100 Steel Rooftop Fans

APPROVAL DOCUMENT: Drawing No. **646020 Rev M**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011 and last revised on MAY 08, 2025, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E., bearing the Miami-Dade County Product Control renewal 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

Limitations:

1. AHJ to ensure adequacy of supporting structures.
2. The Roof Top fans are not tested for wind driven rain. Installation anchors to roof deck to be properly sealed and waterproofed.

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 & renews NOA # 24-0319.02** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.** Ishaq I. Chanda

MIAMI-DADE COUNTY APPROVED

NOA No. 24-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

ACME Engineering and Manufacturing Corporation
1820 N. York Street
Muskogee, OK 74403

SCOPE:

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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: Series QBR, 3000 and 8100 Steel Rooftop Fans

APPROVAL DOCUMENT: Drawing No. **646020 Rev M**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011 and last revised on MAY 08, 2025, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E., bearing the Miami-Dade County Product Control renewal 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

Limitations:

1. AHJ to ensure adequacy of supporting structures.
2. The Roof Top fans are not tested for wind driven rain. Installation anchors to roof deck to be properly sealed and waterproofed.

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.

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This NOA **revises & renews NOA # 24-0319.02** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.** Ishaq I. Chanda

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under previous NOAs

A. DRAWINGS

1. Drawing No. **646020**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011, with revision G dated 08/23/2016, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E.

B. TESTS *"Submitted under NOA # 11-1117.04"*

1. Test report on 1) Uniform Static Air Pressure Test per FBC, TAS 202-94
   2) Large Missile Impact Test per FBC, TAS 201-94,
   3) Cyclic Wind Pressure Test per FBC, TAS 203-94,
   along with marked-up drawings and installation diagram of three Model QBR365 Steel Flush Mount Centrifugal Up-Blast Roof Fans, prepared by Architectural Testing, Inc., Test Report No. **B0598.01-801-18**, dated 06/30/2011, signed and sealed by Shawn G. Collins, P.E.
2. Test report on 1) Uniform Static Air Pressure Test per FBC, TAS 202-94
   2) Large Missile Impact Test per FBC, TAS 201-94,
   along with marked-up drawings and installation diagram of a Model QBR100 Steel Flush Mount Centrifugal Up-Blast Roof Fan, prepared by Architectural Testing, Inc., Test Report No. **B6888.01-801-18**, dated 02/07/2012, signed and sealed by Shawn G. Collins, P.E.
3. Test report on 1) Uniform Static Air Pressure Test 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 Model QBR100 Steel Flush Mount Centrifugal Up-Blast Roof Fans, prepared by Architectural Testing, Inc., Test Report No. **B6888.02-801-18**, dated 04/16/2012, signed and sealed by Shawn G. Collins, P.E.
4. Test report on 1) Uniform Static Air Pressure Test 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 Model 3037H CL/1 and 3012H CL/1 Steel Flush Mount Centrifugal Up-Blast Roof Fans, prepared by Architectural Testing, Inc., Test Report No. **C0480.01-801-18**, dated 07/12/2012, signed and sealed by Shawn G. Collins, P.E.

C. CALCULATIONS

1. Anchorage verification calculations prepared by Rick Boyette Consulting, Inc, dated 08/23/2016, signed and sealed by Richard O. Boyette, P.E.

"Submitted under NOA # 15-0706.08"

2. Anchorage verification calculations prepared by Rick Boyette Consulting, Inc, dated 06/02/2015, signed and sealed by Richard O. Boyette, P.E.

"Submitted under NOA # 11-1117.04"

3. Anchorage verification calculations, prepared by Rick Boyette Consulting, Inc, dated 11/11/2012, signed and sealed by Richard O. Boyette, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

E. MATERIAL CERTIFICATIONS
1. Mason industries spring mount type 'SSLFH' and neoprene mount type 'BR' data sheets.

F. STATEMENTS
1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Rick Boyette Consulting, Inc, dated 08/23/2016, signed and sealed by Richard O. Boyette, P.E.
2. Statement letter of no financial interest issued by Rick Boyette Consulting, Inc, dated 07/01/2016, signed and sealed by Richard O. Boyette, P.E.

2. Evidence submitted under NOA # 18-0131.03

A. DRAWINGS
1. Drawing No. **646020**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011, with revision dated 01/02/2018, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E.

B. TESTS
1. None.

C. CALCULATIONS
1. Anchorage verification calculations prepared by Rick Boyette Consulting, Inc, dated 01/10/2018, signed and sealed by Richard O. Boyette, P.E.

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

E. MATERIAL CERTIFICATIONS
1. Mason industries spring mount type 'SSLFH' and neoprene mount type 'BR' data sheets.

F. STATEMENTS
1. Statement letter of code conformance to the 6th edition (2017) FBC issued by Rick Boyette Consulting, Inc, dated 01/10/2018, signed and sealed by Richard O. Boyette, P.E.
2. Statement letter of no financial interest issued by Rick Boyette Consulting, Inc, dated 01/15/2018, signed and sealed by Richard O. Boyette, P.E.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 25-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. Evidence submitted under NOA # 21-0521.02

A. DRAWINGS

1. Drawing No. **646020**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011, with revision J dated 03/31/2021, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E. on 05/06/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of no financial interest issued by Rick Boyette Consulting, Inc, dated 05/06/2021, signed and sealed by Richard O. Boyette, P.E.
2. Statement letter of code conformance to the 7th edition (2020) of the FBC issued by Rick Boyette Consulting, Inc, dated 01/06/2023, signed and sealed by Richard O. Boyette, P.E.
3. Verification testing quotation prepared by Intertek, dated 04/28/2021, signed by Cassandra Matthews.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. Evidence submitted under previous approval

A. DRAWINGS

1. Drawing No. **646020**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011, with revision J dated 03/31/2021, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E. on 05/06/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

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 Rick Boyette Consulting, Inc, dated 06/03/2024, signed and sealed by Richard O. Boyette, P.E.
2. Statement letter dated 07/25/2024, issued by ACME Engineering, requesting renewal without change, signed by Adam Sterne.

G. OTHER

1. This NOA **renews NOA # 23-0203.01** for one year, expiring 02/21/25.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. New Evidence submitted

A. DRAWINGS

1. Drawing No. **646020 Rev M**, titled "QBR, 3000, 8100 Rooftop Fans", sheets 1 through 9 of 9, dated 05/19/2011 and last revised on June 05, 2025, prepared by ACME Engineering and Manufacturing Corporation, signed and sealed by Richard O. Boyette, P.E.

B. TESTS

1. Test report on 1) Uniform Static Air Pressure Test per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94,
3) Lateral Resistance per ASTM E-72 (model 3037 H)
along with revised marked-up drawings and installation diagram of Models 3012 H and model 3037H Roof mount Fans into wood deck, prepared by Intertek, Test Report No. **Q2931.02-801-18 R1**, dated 12/05/24 and revised on 04/22/25, signed and sealed by Tyler Westerling, P.E.

2. Test report on 1) Uniform Static Air Pressure Test per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94,
along with revised marked-up drawings and installation diagram of a Model QBR100 and QRB 365 Roof fan on Concrete curb, prepared by Intertek, Test Report No. **Q2931.01-801-18 R1**, dated 06/27/24 and revised on 04/22/25, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. Anchor verification calculations, prepared by Rick Boyette Consulting, Inc, dated 06/03/24 and last revised on March 27, 2025, signed and sealed by Richard O. Boyette, 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 Rick Boyette Consulting, Inc, dated 03/27/2025, signed and sealed by Richard O. Boyette, P.E.

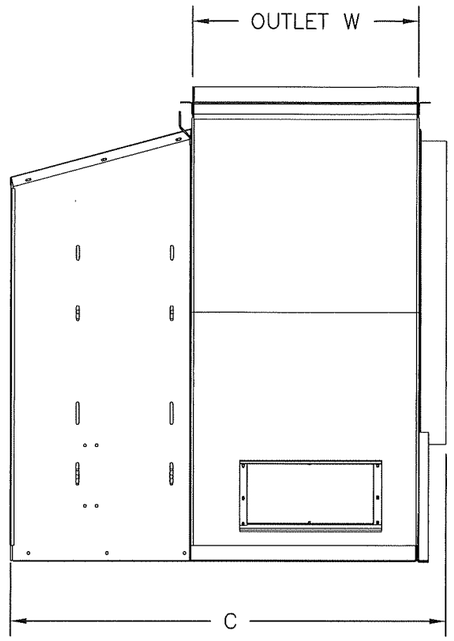
G. OTHER

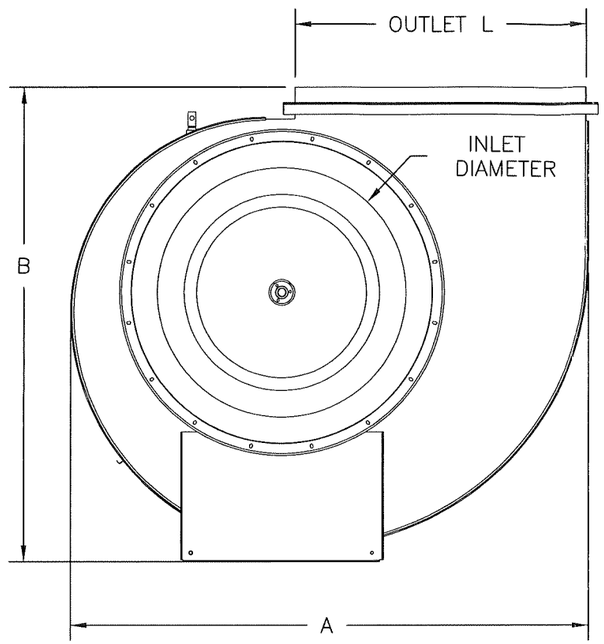
1 This NOA **revises & renews NOA # 24-0319.02** for the balance of 5 years, expiring 02/21/29.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0725.02
Expiration Date: February 21, 2029
Approval Date: June 05, 2025

Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF





DIMENSIONAL DATA							
MODELS	A	B	C	INLET DIA	OUTLET L X W		EST UNIT WEIGHT (lbs.)
QBR100H	18.94	20.69	18.86	10.13	10.56	7	91
QBR137H	25.9	27.36	25.47	15.13	14.52	10.81	142
QBR161H	30.52	32.26	29.41	16.88	17.16	12.75	190
QBR200H	37.64	38.7	34.93	21.31	21.22	15.75	270
QBR245H	46	48.58	41.42	26.38	26	19.24	356
QBR270H	50.66	53.12	43.33	30.19	28.66	21.15	391
QBR300H	56.22	62.49	47.46	31.69	31.84	23.52	536
QBR330H	61.81	64.35	49.82	36.19	35.02	25.88	585
QBR365H	68.33	70.72	53.55	40.19	38.73	29.61	689
3012H	25.19	33.25	35	13.5	12.94	9.75	160
3013H	27.63	34.06	36.12	14.75	14.25	10.88	180
3015H, 8115H	30.63	35.19	37	16.25	15.88	11.75	221
3016H	33.44	36.19	38.38	18.25	17.38	13.13	252
3018H, 8118H	35	38	45	20	19.25	14.5	275
3020H, 8120H	39	43	47	22	21.13	16	330
3022H, 8122H	43	45	49	24	23.5	17.63	380
3024H, 8124H	47	52	54	27	25.88	19.5	520
3027H, 8127H	52	53	56	30	28.5	21.5	580
3030H, 8130H	58	60	60	33	31.63	23.63	775
3033H, 8133H	63	69	66	36	34.88	26.25	950
3037H, 8137H	70	71	68	39	38.5	28.88	1050
QBR100SEH	18.94	20.69	21.86	10.13	10.56	7	93
QBR137SEH	25.9	27.36	28.47	15.13	14.52	10.81	145
QBR161SEH	30.52	32.26	32.41	16.88	17.16	12.75	194
QBR200SEH	37.64	38.7	37.93	21.31	21.22	15.75	275
QBR245SEH	46	48.58	44.42	26.38	26	19.24	363
QBR270SEH	50.66	53.12	46.33	30.19	28.66	21.15	399
QBR300SEH	56.22	62.49	50.46	31.69	31.84	23.52	547
QBR330SEH	61.81	64.35	52.82	36.19	35.02	25.88	597
QBR365SEH	68.33	70.72	56.55	40.19	38.73	29.61	703
8115SEH	30.63	35.19	40	16.25	15.88	11.75	225
8118SEH	35	38	48	20	19.25	14.5	281
8120SEH	39	43	50	22	21.13	16	337
8122SEH	43	45	52	24	23.5	17.63	388
8124SEH	47	52	57	27	25.88	19.5	530
8127SEH	52	53	59	30	28.5	21.5	592
8130SEH	58	60	63	33	31.63	23.63	791
8133SEH	63	69	69	36	34.88	26.25	969
8137SEH	70	71	71	39	38.5	28.88	1071

Dimensions are in inches unless otherwise noted.

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 24-0725.02
Expiration Date 2/2/29
By Joshua I. Thomas
Miami Dade/Product Control

General Notes:

1. Product evaluated in accordance with requirements of 2023 FBC (8th Edition), ASCE 7−22.

2. Roof structure must be designed for weight of unit and wind load reactions transferred from the unit.

3. Product evaluated for the structural capacity of the exterior housing only. Interior mechanisms and/or electrical components have not been evaluated.

4. Rooftop exhaust fan has not been tested for wind driven rain per FBC TAS 100(A).

5. All fasteners must be corrosion resistant. Installation anchors to be protected from water intrusion.

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

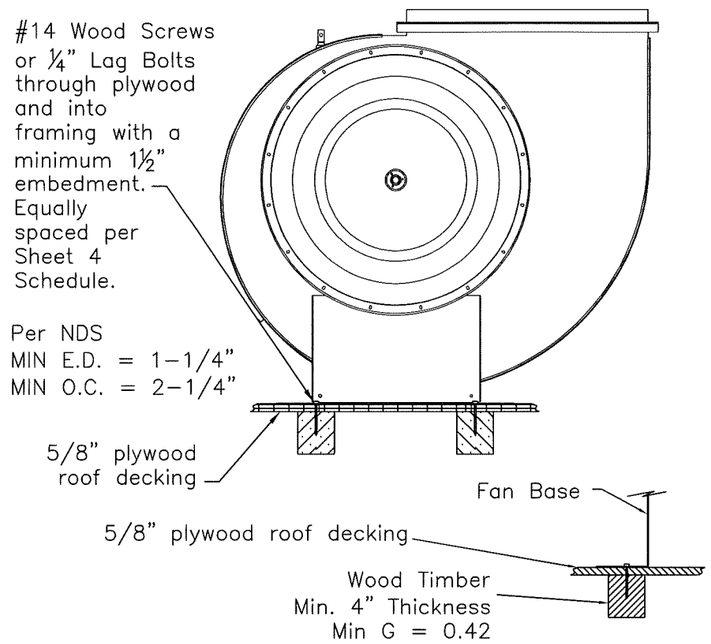
Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc − CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561−790−5766

DWG NO.	646020 Sheet 1/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	5/19/11
DESIGN ENG.	TCR 5/19/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

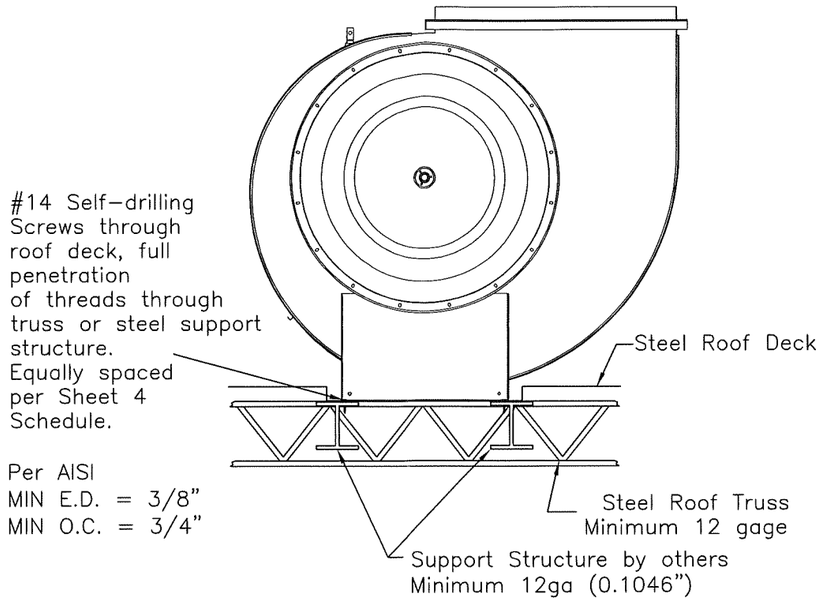
Acme Engineering &
Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918−682−7791

Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF



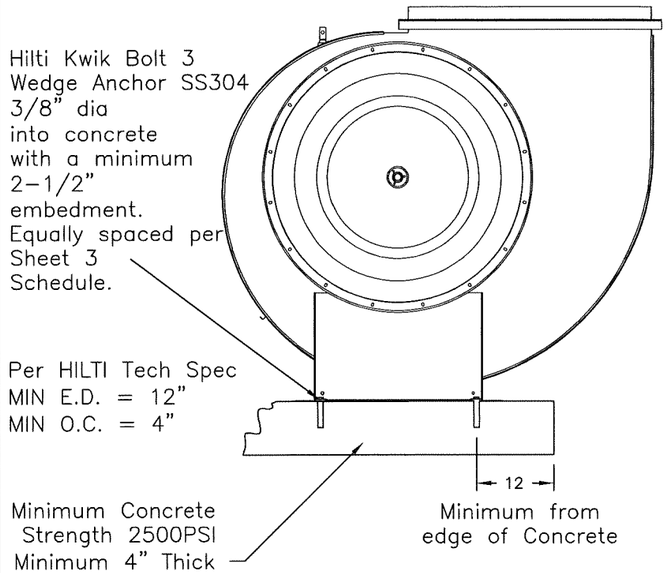
Elevation View

Wood Deck Installation**



Elevation View

Metal Building Installation



Elevation View

Concrete Deck Installation*

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 24-0725.02
Expiration Date 2/21/29
By
Miami Dade Product Control

* Tested per TAS201, TAS202, ASTM E72
QBR100, QBR365, 3012H CL−1, 3037H CL−1

** Tested per TAS202, ASTM E72, MODEL 3037H CL−1

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER

5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc − CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561−790−5766

Note: Wood deck, concrete deck, and metal building under separate review. All roof structures to be designed to withstand the weight and loading transferred by the rooftop fans.

DWG NO.	646020 Sheet 2/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	3-9-11
DESIGN ENG.	TCR 3-9-11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering & Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918−682−7791

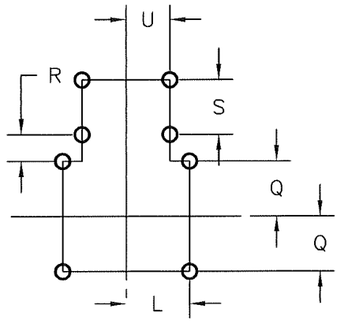
Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF

SMOKE EXHAUST MODELS - FOUNDATION PLAN & FASTENERS FOR CONCRETE							
Model	*BOLT SIZE*	*BOLT #*	*CC*	*BC*	*BD*	*BE*	*BF*
QBR100SEH	3/8"	6	5.06	4.25	7.69	17.44	-
QBR137SEH	3/8"	6	7	6.19	9.5	22	-
QBR161SEH	3/8"	6	8.31	7	11	24.5	-
QBR200SEH	3/8"	6	9.5	7.88	12.94	27.44	-
QBR245SEH	3/8"	6	10	10.5	15.19	30.5	-
QBR270SEH	3/8"	6	10.03	11.63	16.31	33.31	-
QBR300SEH	3/8"	8	11.56	12.63	16.38	26.76	37.14
QBR330SEH	3/8"	8	11.56	14	17.5	27.88	38.23
QBR365SEH	3/8"	8	12.06	15.69	19.56	29.94	40.32
8115SEH	3/8"	6	8.25	0	8	14.5	-
8118SEH	3/8"	8	9.75	8.5	9.38	17	-
8120SEH	3/8"	8	9.75	9.25	10.13	17	-
8122SEH	3/8"	8	9.75	10.06	10.94	17	-
8124SEH	3/8"	8	11.5	11	11.94	21	-
8127SEH	3/8"	8	11.5	12	12.94	21	-
8130SEH	3/8"	8	11.5	13.06	14	21	-
MODEL	*BOLT SIZE*	*BOLT #*	*L*	*Q*	*R*	*S*	*U*
8133SEH	3/8"	8	21.5	14.34	4.25	24.81	14.19
8137SEH	3/8"	8	23.25	15.66	4.25	24.81	14.19

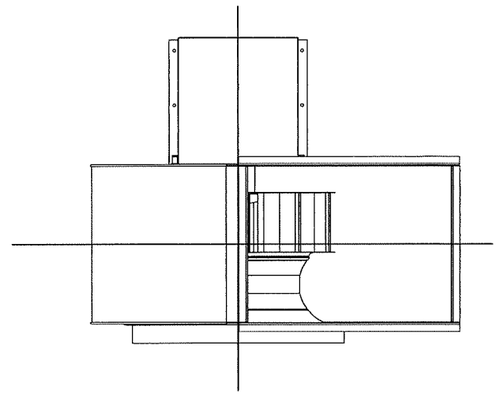
Dimensions are in inches unless otherwise noted.

STANDARD MODELS - FOUNDATION PLAN & FASTENERS FOR CONCRETE							
Model	*BOLT SIZE*	*BOLT #*	*CC*	*BC*	*BD*	*BE*	*BF*
QBR100H	3/8"	6	5.06	4.25	4.69	14.44	-
QBR137H	3/8"	6	7	6.19	6.5	19	-
QBR161H	3/8"	6	8.31	7	8	21.5	-
QBR200H	3/8"	6	9.5	7.88	9.94	24.44	-
QBR245H	3/8"	6	10	10.5	12.19	27.5	-
QBR270H	3/8"	6	10.03	11.63	13.31	30.31	-
QBR300H	3/8"	8	11.56	12.63	13.38	23.76	34.14
QBR330H	3/8"	8	11.56	14	14.5	24.88	35.23
QBR365H	3/8"	8	12.06	15.69	16.56	26.94	37.32
3012H	3/8"	6	8.25	0	7	14.5	-
3013H	3/8"	6	8.25	0	7.56	14.5	-
3015H, 8115H	3/8"	6	8.25	0	8	14.5	-
3016H	3/8"	6	8.25	0	8.69	14.5	-
3018H, 8118H	3/8"	8	9.75	8.5	9.38	17	-
3020H, 8120H	3/8"	8	9.75	9.25	10.13	17	-
3022H, 8122H	3/8"	8	9.75	10.06	10.94	17	-
3024H, 8124H	3/8"	8	11.5	11	11.94	21	-
3027H, 8127H	3/8"	8	11.5	12	12.94	21	-
3030H, 8130H	3/8"	8	11.5	13.06	14	21	-
MODEL	*BOLT SIZE*	*BOLT #*	*L*	*Q*	*R*	*S*	*U*
3033H, 8133H	3/8"	8	21.5	14.34	4.25	24.81	14.19
3037H, 8137H	3/8"	8	23.25	15.66	4.25	24.81	14.19

FOUNDATION PLAN - CONCRETE*

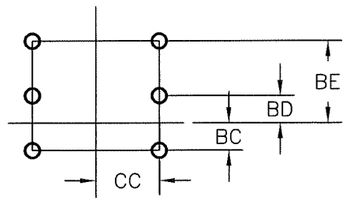


SIZES 3033−3037
SIZES 8133−8137

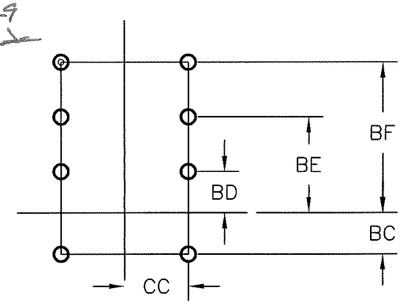


PLAN VIEW

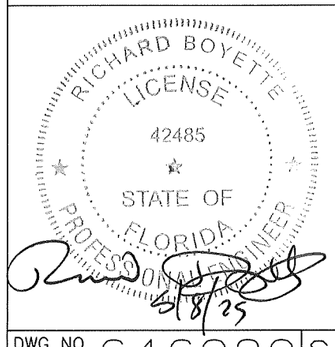
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 24-0725.02
Expiration Date 2/24/29
By Ishaq I. Chanda
Miami Dade Product Control



SIZES QBR 100−270
SIZES 3012−3016
SIZES 8115



SIZES QBR 300−365
SIZES 3018−3030
SIZES 8118−8130



Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc − CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561−790−5766

MIN E.D. = 2"
MIN O.C. = 4"
Per Sheet 2

O = 7/16" holes for 3/8" bolts

* Tested per TAS201, TAS202, ASTM E72
QBR100, QBR365, 3012H CL−1, 3037H CL−1

DWG NO.	646020 Sheet 3/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	5/20/11
DESIGN ENG.	TCR 5/20/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUT, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering &
Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918-682-7791

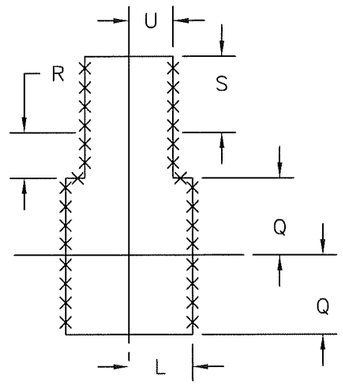
Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF

SMOKE EXHAUST MODELS - FOUNDATION PLAN & FASTENERS FOR WOOD/STEEL							
Model	*SCREW SIZE*	*# of Screws*	*CC*	*BC*	*BD*	*BE*	*BF*
QBR100SEH	1/4"	8	5.06	4.25	7.69	17.44	-
QBR137SEH	1/4"	8	7	6.19	9.5	22	-
QBR161SEH	1/4"	8	8.31	7	11	24.5	-
QBR200SEH	1/4"	10	9.5	7.88	12.94	27.44	-
QBR245SEH	1/4"	12	10	10.5	15.19	30.5	-
QBR270SEH	1/4"	12	10.03	11.63	16.31	33.31	-
QBR300SEH	1/4"	16	11.56	12.63	16.38	26.76	37.14
QBR330SEH	1/4"	18	11.56	14	17.5	27.88	38.23
QBR365SEH	1/4"	20	12.06	15.69	19.56	29.94	40.32
8115SEH	1/4"	8	8.25	0	8	14.5	-
8118SEH	1/4"	14	9.75	8.5	9.38	17	-
8120SEH	1/4"	14	9.75	9.25	10.13	17	-
8122SEH	1/4"	14	9.75	10.06	10.94	17	-
8124SEH	1/4"	16	11.5	11	11.94	21	-
8127SEH	1/4"	18	11.5	12	12.94	21	-
8130SEH	1/4"	22	11.5	13.06	14	21	-
MODEL	*SCREW SIZE*	*# of Screws*	*L*	*Q*	*R*	*S*	*U*
8133SEH	1/4"	28	21.5	14.34	4.25	24.81	14.19
8137SEH	1/4"	30	23.25	15.66	4.25	24.81	14.19

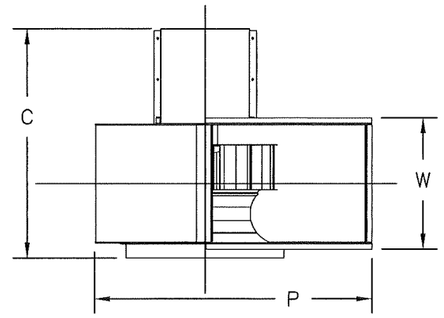
STANDARD MODELS - FOUNDATION PLAN & FASTENERS FOR WOOD/STEEL							
Model	*SCREW SIZE*	*# of Screws*	*CC*	*BC*	*BD*	*BE*	*BF*
QBR100H	1/4"	8	5.06	4.25	4.69	14.44	-
QBR137H	1/4"	8	7	6.19	6.5	19	-
QBR161H	1/4"	8	8.31	7	8	21.5	-
QBR200H	1/4"	10	9.5	7.88	9.94	24.44	-
QBR245H	1/4"	12	10	10.5	12.19	27.5	-
QBR270H	1/4"	12	10.03	11.63	13.31	30.31	-
QBR300H	1/4"	16	11.56	12.63	13.38	23.76	34.14
QBR330H	1/4"	18	11.56	14	14.5	24.88	35.23
QBR365H	1/4"	20	12.06	15.69	16.56	26.94	37.32
3012H	1/4"	8	8.25	0	7	14.5	-
3013H	1/4"	8	8.25	0	7.56	14.5	-
3015H, 8115H	1/4"	8	8.25	0	8	14.5	-
3016H	1/4"	8	8.25	0	8.69	14.5	-
3018H, 8118H	1/4"	14	9.75	8.5	9.38	17	-
3020H, 8120H	1/4"	14	9.75	9.25	10.13	17	-
3022H, 8122H	1/4"	14	9.75	10.06	10.94	17	-
3024H, 8124H	1/4"	16	11.5	11	11.94	21	-
3027H, 8127H	1/4"	18	11.5	12	12.94	21	-
3030H, 8130H	1/4"	22	11.5	13.06	14	21	-
MODEL	*SCREW SIZE*	*# of Screws*	*L*	*Q*	*R*	*S*	*U*
3033H, 8133H	1/4"	28	21.5	14.34	4.25	24.81	14.19
3037H, 8137H	1/4"	30	23.25	15.66	4.25	24.81	14.19

Dimensions are in inches unless otherwise noted.

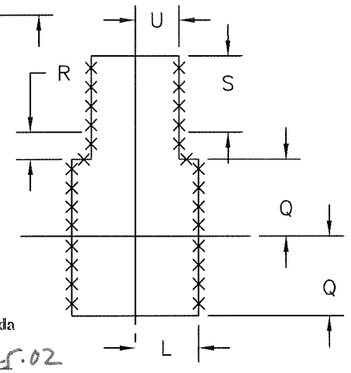
FOUNDATION PLAN – WOOD** & STEEL



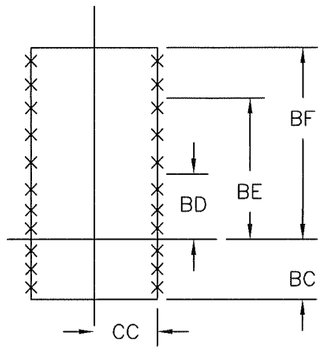
SIZES 3037
SIZES 8137



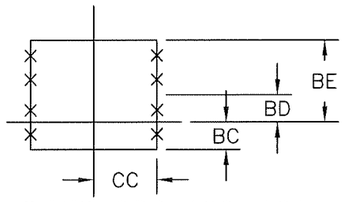
PLAN VIEW



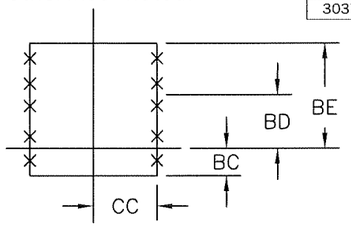
SIZES 3033
SIZES 8133



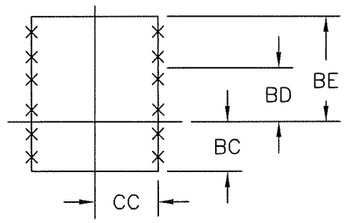
SIZES 3030
SIZES 8130



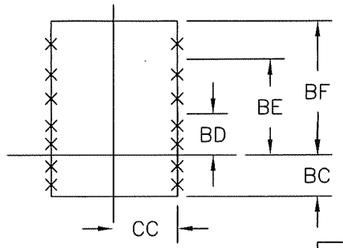
SIZES QBR 100–161
SIZES 3012–3016
SIZES 8115



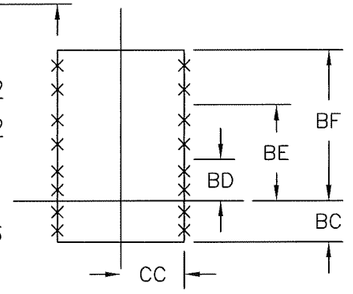
SIZES QBR 200



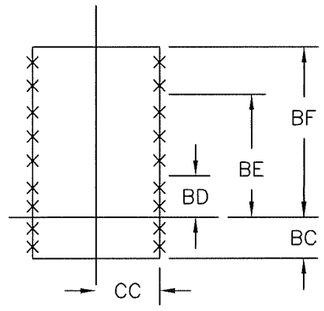
SIZES QBR 245–270



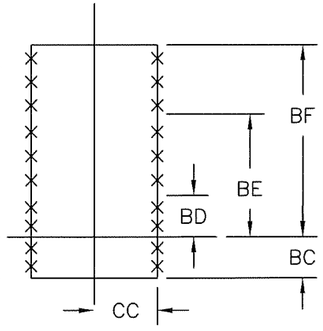
SIZES 3018–3022
SIZES 8118–8122



SIZES QBR 300
SIZES 3024
SIZES 8124



SIZES QBR 330
SIZES 3027
SIZES 8127



SIZES QBR 365

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 24-0725.02
Expiration Date 2/21/29
By Isung L. Chan
Miami Dade Product Control

MIN E.D.
#14 WOOD SCREW = 1–1/4"
1/4" LAG BOLT = 1–1/4"
#14 METAL SCREW = 3/8"

MIN O.C.
#14 WOOD SCREW = 2–1/2"
1/4" LAG BOLT = 2–1/2"
#14 METAL SCREW = 3/4"

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc – CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561–790–5766

X = 5/16" HOLES FOR 1/4" SHEET METAL/WOOD SCREWS OR 1/4" LAG BOLTS EQUALLY SPACED.

** TESTED PER TAS202,ASTM E72
3037H CL–1 ON WOOD

DWG NO. 646020 Sheet 4/9
TITLE QBR, 3000, 8100 ROOFTOP FANS
MAT'L
DRAFTER BPF | DATE 5/20/11
DESIGN ENG. TCR 5/20/11 | RELEASED
CHKD BY | MFG. | SCALE NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUT, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering & Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918-682-7791

Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF

Notes:

A. Product evaluated in accordance with the requirements of 2023 FBC (8th Edition), ASCE 7−22.

B. Roof structure must be designed to withstand the weight and loading transmitted by this rooftop ventilator.

C. This approval is for the structural capacity of the exterior housing only, it does not include any interior mechanism or electric part.

D. This rooftop ventilator has not been tested for wind driven rain according to Florida Building Code, TAS 100(A).

E. All fasteners must be corrosion resistant and protected against water intrusion.

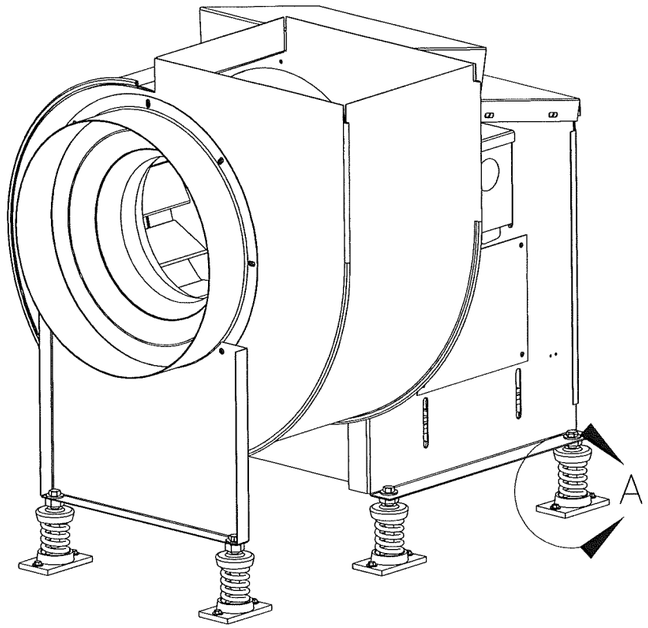
F. Utility fans should be secured by fasteners sized and located according to Sheet 3 or 4 for deck or rail installation.

G. If isolators are used manufacturer's recommendations must be followed with footprint locations specified on Sheet 9.

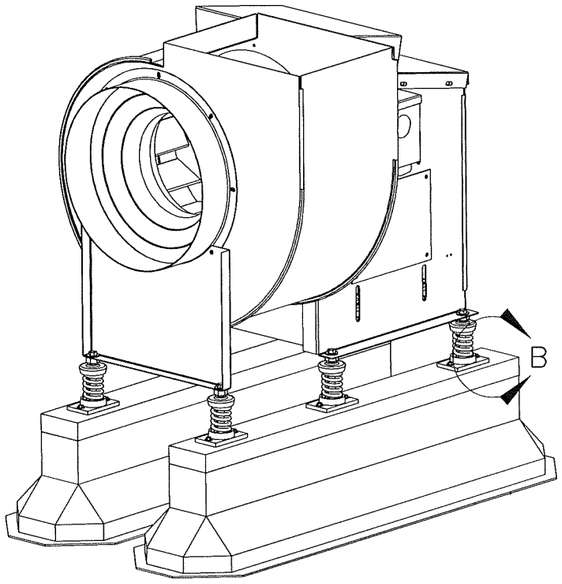
H. Spring Isolators shall be Mason Industries model SSLFH as specified in DATA SHEET DS−203−6.2 or equivalent. Neoprene isolators shall be Mason Industries model BR as specified in DATA SHEET DS−400−7.3A or equivalent. Isolators must be selected according to manufacturer's recommendation.

I. Spring Isolators shall use 3/4" bolts.

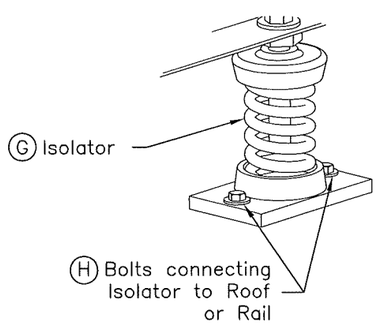
J. Wood anchors minimum edge distance must be at least 4 times the anchor diameter (NDS 2018 with 2015 Supplement).



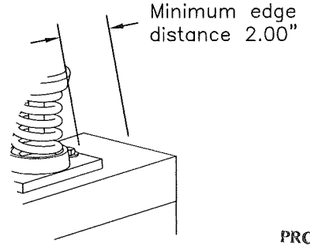
Mounting with Isolators to Roof



Mounting with Isolators on Rails



See Detail A Sheet 9



See Detail B Sheet 9

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 24-0725.02
Expiration Date 2/21/29
By [signature]
Miami Dade Product Control

Isolators by others. This example shows spring isolators, neoprene isolators may also be used.

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc − CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561−790−5766

DWG NO.	646020 Sheet 5/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	5/20/11
DESIGN ENG.	TCR 5/20/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	12/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering & Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918−682−7791

Models		A -Inlet Connection	Qty	B -Drive-Side Plate	Qty	C -Pedestal Connection	Qty	D -Motor Base	Qty	F -Bearing Base	Qty	G -Weather Cover Top #1	Qty	H -Weather Cover Top #2*	Qty	J -Weather Cover Back	Qty	K -Access Door	Qty	L -Base Angles	Qty
QBRH	100	1/4" Bolts & Nuts		1/4" Bolts & Nuts		5/16" Bolts & Nuts	4						4				4				
QBRH	137						6										6			N/A	N/A
QBRH	161	5/16" Bolts & Nuts	8	5/16" Bolts & Nuts	8	3/8" Bolts & Nuts							6								
QBRH	200																8			3/8" Bolts & Nuts	8
QBRH	245																				
QBRH	270						8														
QBRH	300	3/8" Bolts & Nuts	16	3/8" Bolts & Nuts	16			1/2" Bolts & Nuts	4	1/2" Bolts & Nuts	4	1/4" Bolts & Nuts		1/4" Screws	4	1/4" Bolts & Nuts		1/4" Bolts & Nuts	8		
QBRH	330																				
QBRH	365												10								
QBRSEH	137	1/4" Bolts & Nuts		1/4" Bolts & Nuts		5/16" Bolts & Nuts															
QBRSEH	161	5/16" Bolts & Nuts	8	5/16" Bolts & Nuts	8	3/8" Bolts & Nuts	6										6			N/A	N/A
QBRSEH	200																				
QBRSEH	245																				
QBRSEH	270																				
QBRSEH	300	3/8" Bolts & Nuts	16	3/8" Bolts & Nuts	16		8										8			3/8" Bolts & Nuts	8
QBRSEH	330																				
QBRSEH	365																				

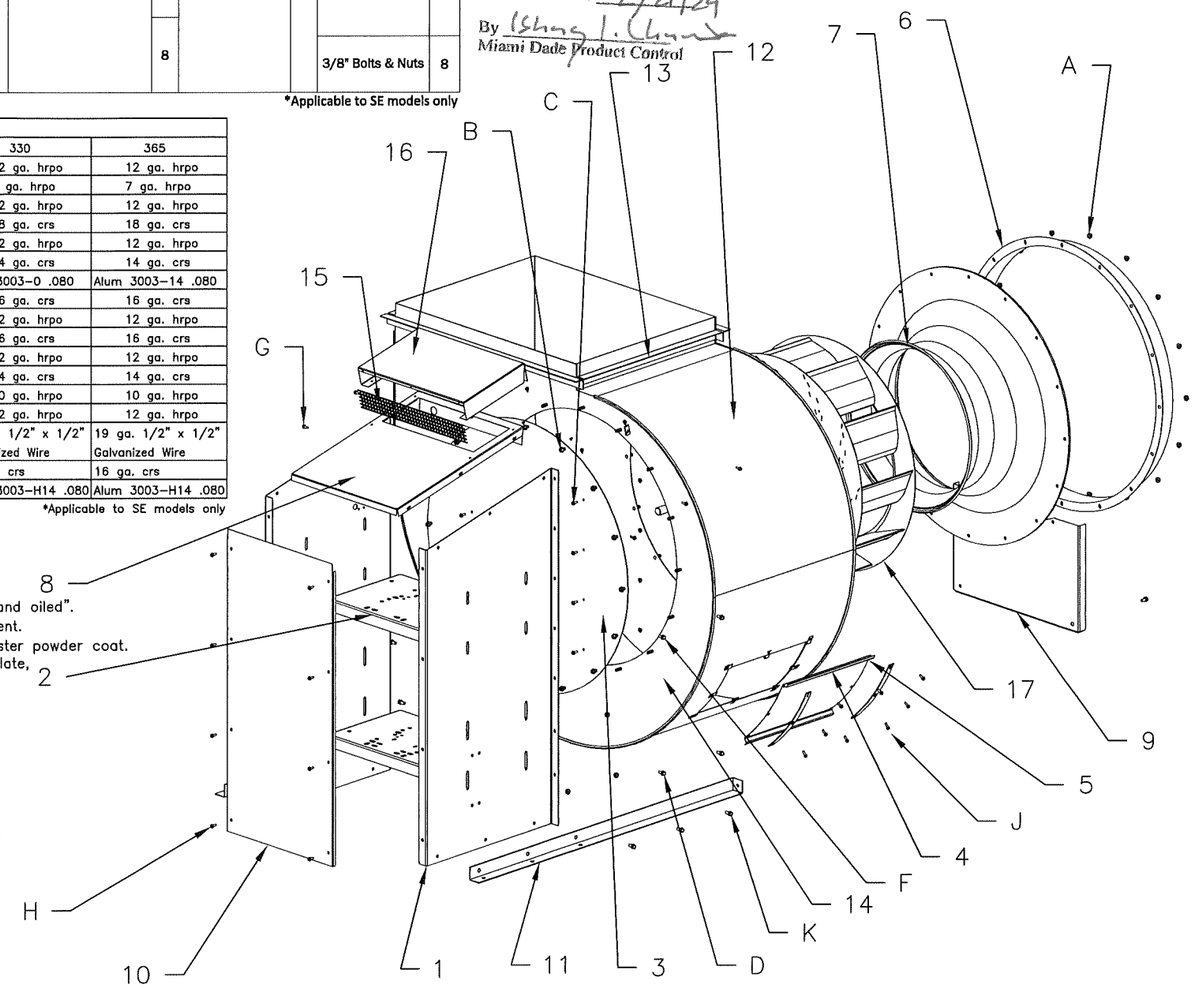
*Applicable to SE models only

Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 24-0725.02
Expiration Date 7/21/29
By Ishaq I. Chaudhry
Miami Dade Product Control

QBR SERIES – PARTS AND MATERIALS										
#	PART DESCRIPTION	100	137	161	200	245	270	300	330	365
1	Pedestal Side	16 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
2	Drive Base	12 ga. crs	12 ga. crs	12 ga. hrpo	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo	7 ga. hrpo	7 ga. hrpo	7 ga. hrpo
3	Mounting Plate	14 ga. crs	14 ga. crs	14 ga. crs	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
4	Access Door	20 ga. crs	20 ga. crs	20 ga. crs	20 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs
5	Reinforcement Strip	12 ga. crs	12 ga. crs	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
6	Adapter Ring	16 ga. crs	16 ga. crs	16 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs
7	Orifice	Alum 3003–0 .050	Alum 3003–14 .050	Alum 3003–0 .050	Alum 3003–0 .050	Alum 3003–0 .063	Alum 3003–0 .063	Alum 3003–0 .063	Alum 3003–0 .080	Alum 3003–14 .080
8	Weather Cover Top #1	20 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs
9	Front Support	18 ga. crs	14 ga. crs	16 ga. crs	16 ga. crs	14 ga. crs	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
10	Weather Cover Back	20 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs	16 ga. crs	14 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs
11	Base Angle	–	–	–	–	–	–	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
12	Housing Scroll	12 ga. crs	12 ga. crs	12 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs
13	Outlet Angle	16 ga. crs	16 ga. crs	16 ga. crs	14 ga. crs	14 ga. crs	14 ga. crs	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo
14	Housing Side	14 ga. crs	14 ga. crs	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo	12 ga. hrpo
15	Birdscreen*	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire	19 ga. 1/2" x 1/2" Galvanized Wire
16	Weather Cover Top #2*	20 ga. crs	18 ga. crs	18 ga. crs	18 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs	16 ga. crs
17	Wheel	Alum 3003–H14 .080	Alum 3003–H14 .050	Alum 3003–H14 .063	Alum 3003–H14 .063	Alum 3003–H14 .063	Alum 3003–H14 .063	Alum 3003–H14 .080	Alum 3003–H14 .080	Alum 3003–H14 .080

*Applicable to SE models only



Notes:
a. Product evaluated in accordance with the requirements of 2023 FBC (8th Edition), ASCE 7–22.
b. Roof structure must be designed to withstand the weight and loading transmitted by this rooftop exhaust fan.
c. This approval is for the structural capacity of the exterior housing only, it does not include any interior mechanism and/or electrical part.
d. This rooftop exhaust fan has not been tested for wind driven rain according to Florida Building Code, TAS 100(A).
e. All fasteners must be corrosion resistant and protected against water intrusion.

1. "CRS" is an acronym for "cold rolled steel".
2. "HRPO" is an acronym for "hot rolled, pickled, and oiled".
3. Items 12, 13, and 14 make the housing weldment.
4. All pieces made of steel are finished with polyester powder coat.
5. In table above, line 17 gives material of backplate, the major structural component of wheel.

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc – CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561–790–5766

QBR SERIES
SIZES: 100–365

DWG NO.	646020 Sheet 6/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	4/21/11
DESIGN ENG.	TCR 3/20/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering &
Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918–682–7791

		3000 & 8100 SERIES - PARTS AND MATERIALS									
		3012	3013	3015	3016	3018	3020	3022	3024	3027	3030
#	Component	-	-	8115	-	8118	8120	8122	8124	8127	8130
1	Housing Center	16 ga crs	16 ga crs	16 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs
2	Housing Side	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	12 ga hrpo	12 ga hrpo	12 ga hrpo
3	Inlet	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs
4	Inlet Flange Slip Fit	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo
5	Inlet Support	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	10 ga hrpo
6	Outlet Flanges	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle	.19" x 2" x 2" angle
7	Drive Base Front	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	7 ga hrpo	7 ga hrpo	7 ga hrpo
8	Drive Base Side	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	7 ga hrpo	7 ga hrpo	7 ga hrpo
9	Weather Cover Top	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs
10	Weather Cover Back	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs
11	Weather Cover Door	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs	16 ga crs
12	Motor Base Plate	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	7 ga hrpo	7 ga hrpo	7 ga hrpo
13	Bearing Base Plate	12 ga hrpo	12 ga hrpo	12 ga hrpo	12 ga hrpo	10 ga hrpo	10 ga hrpo	10 ga hrpo	7 ga hrpo	7 ga hrpo	7 ga hrpo
14	Access Door	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs	14 ga crs
15	WHEEL	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo	10 ga. hrpo	7 ga. hrpo	7 ga. hrpo	7 ga. hrpo	7 ga. hrpo

Model / Size				A -Inlet connection	Qty	B -Pedestal Connection	Qty	C -Motor Plate	Qty	D- Weather Cover Top	Qty	F -Weather Cover Back	Qty	G - Motor Access Door	Qty	H - Housing Access Door	Qty
3012H	3012H	-	-	3/8" Bolts & Nuts	8	3/8" Bolts & Nuts	8	3/8" Bolts & Nuts	4	1/4" Screws	4	1/4" Screws	6	1/4" Screws	4	1/4" Bolts & Nuts	8
3013H	3013H	-	-														
3015H	3015H	8115SEH	8115SEH														
3016H	3016H	-	-														
3018H	3018H	8118SEH	8118SEH														
3020H	3020H	8120SEH	8120SEH		12		12	1/2" Bolts & Nuts									
3022H	3022H	8122SEH	8122SEH														
3024H	3024H	8124SEH	8124SEH														
3027H	3027H	8127SEH	8127SEH														
3030H	3030H	8130SEH	8130SEH														

Notes:
a. Product evaluated in accordance with requirements of 2023 FBC (8th Edition), ASCE 7-22.
b. Roof structure must be designed to withstand the weight and loading transmitted by this rooftop exhaust fan.
c. This approval is for the structural capacity of the exterior housing only, it does not include any interior mechanism and/or electrical part.
d. This rooftop exhaust fan has not been tested for wind driven rain according to Florida Building Code, TAS 100(A).
e. All fasteners must be corrosion resistant and protected against water intrusion.

1. "CRS" is an acronym for "cold rolled steel".
2. "HRPO" is an acronym for "hot rolled, pickled, and oiled".
3. Item 7, 8(2) and 13 make the pedestal weldment.
4. Items 1, 2 and 6 make the housing weldment.
5. All pieces made of steel are finished with polyester powder coat.
6. In table above, line 15 gives material of backplate, the major structural component of wheel.

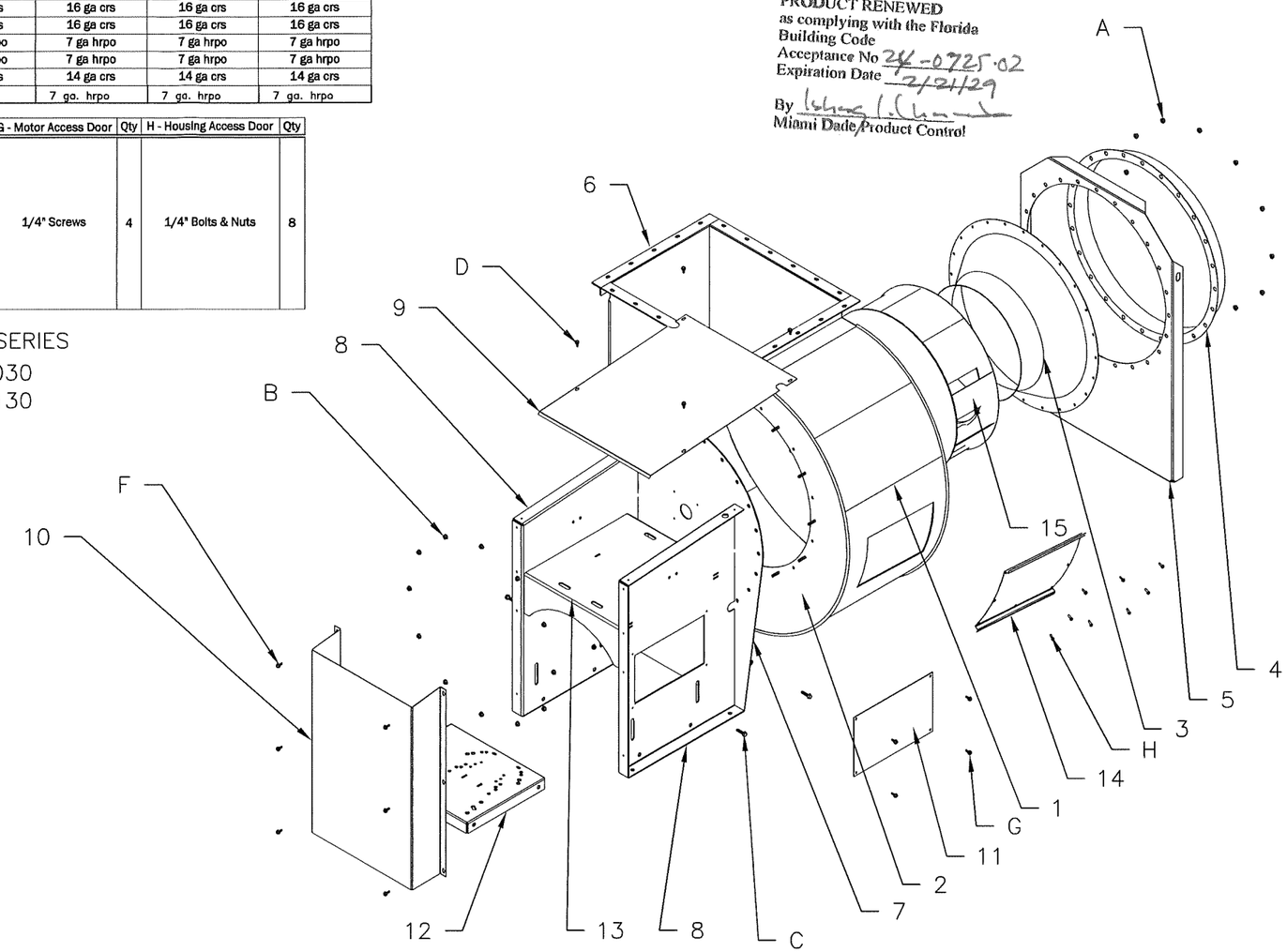
RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc – CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561-790-5766

8100 & 3000 SERIES
SIZES: 3012-3030
SIZES: 8115-8130

Large Missile Impact Resistant
Max rated design pressure: +140.0/ -140.0 PSF

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 24-0725.02
Expiration Date 2/21/29
By
Miami Dade Product Control



DWG NO. 646020	Sheet 7/9
TITLE QBR, 3000, 8100 ROOFTOP FANS	
MAT'L	
DRAFTER BPF	DATE 6/9/11
DESIGN ENG. TCR 6/9/11	RELEASED
CHKD BY / MFG.	SCALE NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH.	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering &
Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918-682-7791

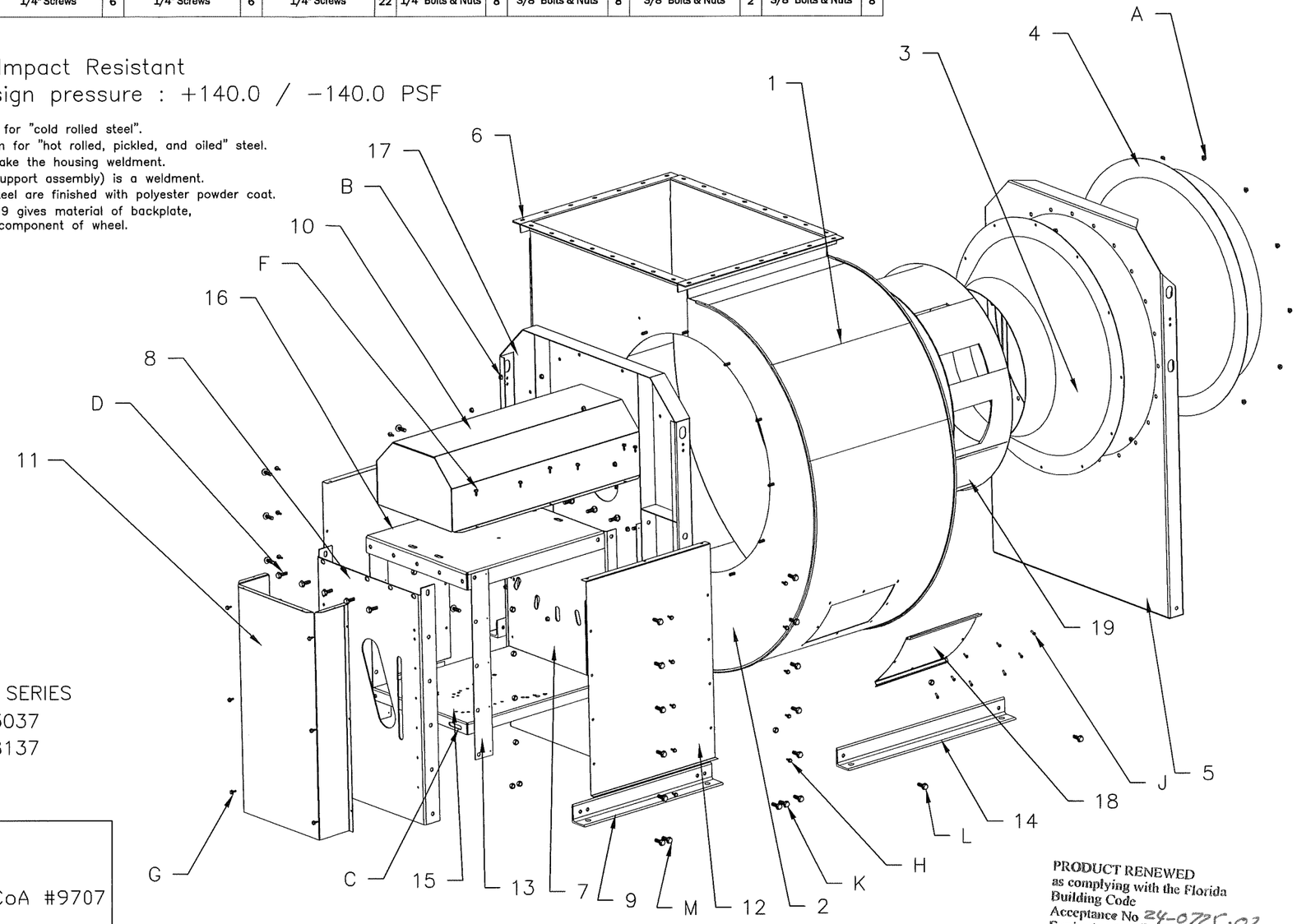
Model/ Size				A -Inlet connection	Qty	B -Pedestal Connection	Qty	C -Drive Base	Qty	D -Motor Plate	Qty	F -Weather Cover Top	Qty	G -Weather Cover Back	Qty	H -Weather Cover Side	Qty	J -Access Door	Qty	K - Drive Base Angle	Qty	L -Housing Base Angle	Qty	M- Connecting Strip	Qty
3033H	3033SEH	8133H	8133SEH	3/8" Bolts & Nuts	12	3/8" Bolts & Nuts	12	1/2" Bolts & Nuts	10	1/2" Bolts & Nuts	4	1/4" Screws	6	1/4" Screws	6	1/4" Screws	22	1/4" Bolts & Nuts	8	3/8" Bolts & Nuts	8	3/8" Bolts & Nuts	2	3/8" Bolts & Nuts	8
3037H	3037SEH	8137H	8137SEH																						

3000 & 8100 SERIES - PARTS AND MATERIALS			
#	Component	Model	
		3033, 8133	3037, 8137
1	Housing Center	14 ga crs	14 ga crs
2	Housing Side	12 ga hrpo	12 ga hrpo
3	Inlet	12 ga hrpo	12 ga hrpo
4	Inlet Flange Slip Fit	12 ga hrpo	12 ga hrpo
5	Inlet Support	10 ga hrpo	10 ga hrpo
6	Outlet Flanges	.19" x 2" x 2" angle	.19" x 2" x 2" angle
7	Drive Base Base Front	7 ga hrpo	7 ga hrpo
8	Drive Base Base Rear	7 ga hrpo	7 ga hrpo
9	Drive Base Angle	.25" x 3" x 3" angle	.25" x 3" x 3" angle
10	Weather Cover Top	16 ga crs	16 ga crs
11	Weather Cover Rear	16 ga crs	16 ga crs
12	Weather Cover Side	16 ga crs	16 ga crs
13	Connecting Strip	12 ga hrpo	12 ga hrpo
14	Housing Base Angle	.25" x 3" x 3" angle	.25" x 3" x 3" angle
15	Motor Base Plate	7 ga hrpo	7 ga hrpo
16	Bearing Base Plate	7 ga hrpo	7 ga hrpo
17	Drive Side Support Assembly	10 ga hrpo	10 ga hrpo
18	Access Door	14 ga crs	14 ga crs
19	WHEEL	7 ga. hrpo	7 ga. hrpo

Notes:
a. Product evaluated in accordance with requirements of 2023 FBC (8th Edition), ASCE 7-22.
b. Roof structure must be designed to withstand the weight and loading transmitted by this rooftop exhaust fan.
c. This approval is for the structural capacity of the exterior housing only, it does not include any interior mechanism and/or electrical part.
d. This rooftop exhaust fan has not been tested for wind driven rain according to Florida Building Code, TAS 100(A).
e. All fasteners must be corrosion resistant and protected against water intrusion.

Large Missile Impact Resistant
Max rated design pressure : +140.0 / -140.0 PSF

1. "CRS" is an acronym for "cold rolled steel".
2. "HRPO" is an acronym for "hot rolled, pickled, and oiled" steel.
3. Items 1, 2, and 6 make the housing weldment.
4. Item 17 (drive side support assembly) is a weldment.
5. All pieces made of steel are finished with polyester powder coat.
6. In table above, line 19 gives material of backplate, the major structural component of wheel.



8100 & 3000 SERIES
SIZES: 3033-3037
SIZES: 8133-8137

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc - CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561-790-5766

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 24-0725.02
Expiration Date 2/24/29
By Ishaq I. Chanda
Miami Dade Product Control

DWG NO.	646020 Sheet 8/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPS
DATE	5/19/11
DESIGN ENG.	TCR 5/19/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

Acme Engineering &
Manufacturing Corp.
1820 N. York Street
Muskogee, OK 74403
918-682-7791

Large Missile Impact Resistant
Max rated design pressure : +140.0 / −140.0 PSF

Notes:

A. Product evaluated in accordance with requirements of 2023 FBC (8th Edition), ASCE 7−22.

B. Roof structure must be designed to withstand the weight and loading transmitted by this rooftop ventilator.

C. This approval is for the structural capacity of the exterior housing only, it does not include any interior mechanism or electric part.

D. This rooftop ventilator has not been tested for wind driven rain according to Florida Building Code, TAS 100(A).

E. All fasteners must be corrosion resistant and protected against water intrusion.

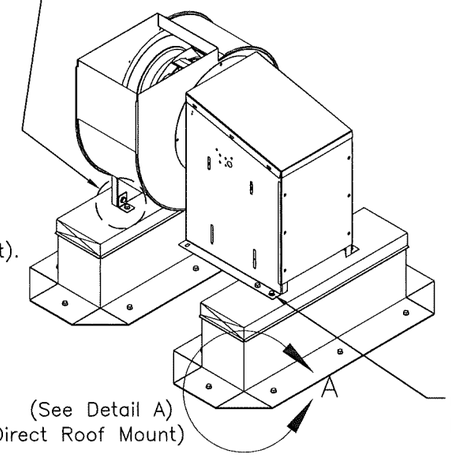
F. For utility fans, direct roof mounted into concrete substrate use anchors and location per sheet 2 and 3.

G. For roof rails direct mounted into concrete substrate use anchors and locations per sheet 2 and 3.
For roof rails direct mounted into wood & steel use anchors and locations per sheet 4.

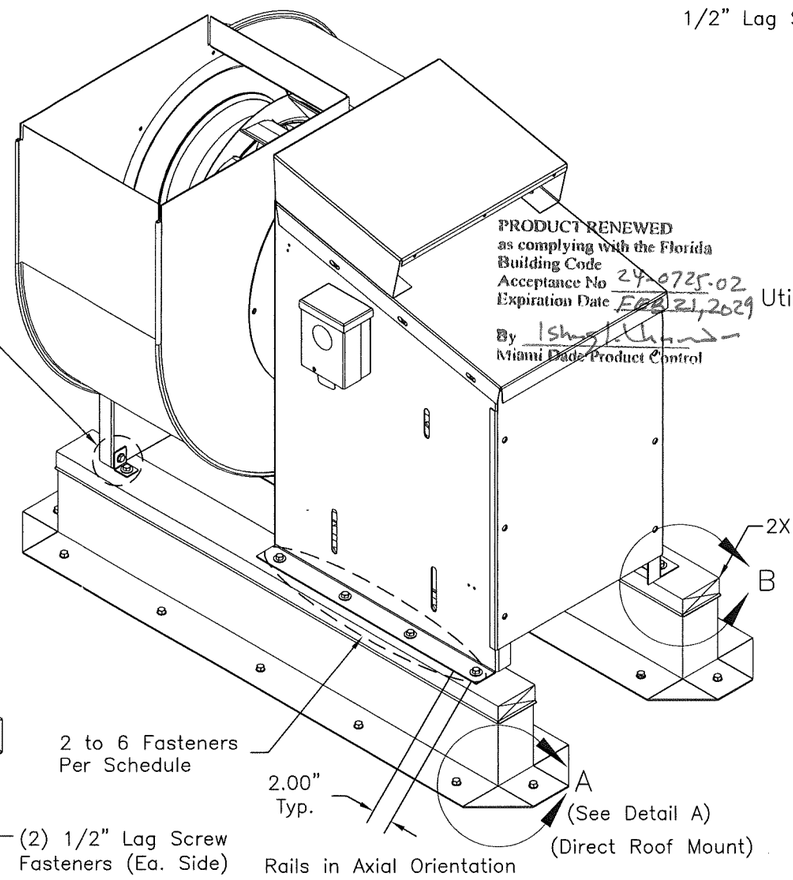
H. Wood anchors minimum edge distance must be at least 4 times the anchor diameter (NDS 2018 & 2015 Supplement).

I. Roof Rails manufactured by others are constructed of 18 GA G90 galvanized steel.
1/2" lag screw into 2X PT Buck. (Detail B)

J. Roof anchors include factors of 1.5 for uplift and 3.1 for lateral forces on roof mounted equipment.

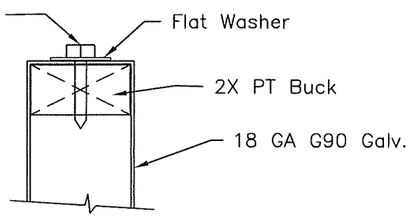


Rails in Lateral Orientation for QBR100 Only



Rails in Axial Orientation

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 24-0725.02
Expiration Date FEB 21, 2029
By Ishmael Thomas
Miami Dade Product Control



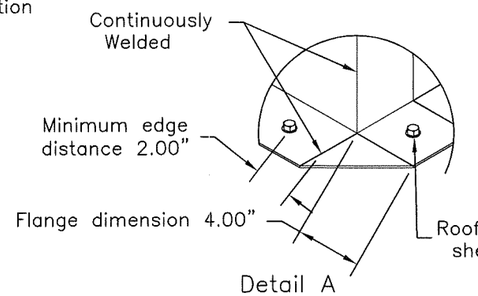
Section Through Rail (Detail B)

Utility Fan to Rail Axial/Lateral Mounting

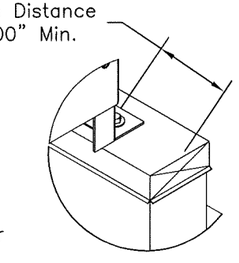
Fastener Schedule (Detail B) QBR				
Model Size	# Rails	Min. Rail Length (in)	Rail Orientation	# Lag Bolts per Rail
100	2	22	Lateral	8
137	2	42	Axial	8
161	2	45	Axial	8
200	2	49	Axial	8
245	2	53	Axial	12
270	2	57	Axial	12
300	2	62	Axial	12
330	2	64	Axial	16
365	2	70	Axial	16

3000/8100 (Detail B)				
Model Size	# Rails	Min. Rail Length (in)	Rail Orientation	# Lag Bolts per Rail
12	2	28	Axial	8
13	2	30	Axial	8
15	2	28	Axial	8
16	2	30	Axial	8
18	2	33	Axial	8
20	2	33	Axial	8
22	2	35	Axial	8
24	2	38	Axial	8
27	2	38	Axial	12
30	2	35	Axial	12
33	2	71	Axial	16
37	2	74	Axial	16

Rails must provide a minimum clearance above surfaces according to F.B.C 1509.6.5
Maximum Curb Height of 48"



Detail A
(Direct Roof Mount)



Detail B
(See Fastener Schedule)

RICHARD BOYETTE LICENSE 42485 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/8/25

Richard Boyette, FL PE #42485
Rick Boyette Consulting Inc − CoA #9707
4031 Coconut Blvd
Royal Palm Beach FL 33411
561−790−5766

DWG NO.	646020 Sheet 9/9
TITLE	QBR, 3000, 8100 ROOFTOP FANS
MAT'L	
DRAFTER	BPF
DATE	5/20/11
DESIGN ENG.	TCR 5/20/11
RELEASED	
CHKD BY	
MFG.	
SCALE	NTS

LET.	REVISION RECORD	BY	CKD.	DATE
F	Revisions to sheets 5 & 9 per Miami Dade.	TGB	TCR	5/19/16
G	Revisions to sheet 9 per Miami Dade.	TGB	TCR	8/23/16
H	WOOD SCREW PENETRATION AND CONCRETE STRENGTH	TGB	TCR	3/1/17
I	REVISED FOR FBC 2017	TGB	TCR	1/2/18
J	REVISED FOR FBC 2020	MTJ	AS	3/31/21
K	REVISED FOR DESIGN PRESSURE INCREASE & FBC 2023	MTJ	AS	11/22/24
L	REVISION TO CLARIFY BOLT/SCREW LAYOUTS, NOTES	MTJ	AS	1/15/25
M	REVISION TO CLARIFY ANCHOR AND INSTALLATION REQUIREMENTS	MTJ	AS	5/7/25

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