

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE	USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #:	OSP – 0113
OSHPD Special Seismic Certification Preapproval (OSP)		
Type: 🗌 New 🛛 Renewal		
Manufacturer Information		
Manufacturer: Greenheck Fan Corporation		
Manufacturer's Technical Representative: David Mayer		
Mailing Address: PO Box 410, Schofield, WI 54479		
Telephone: 715.355.3939	mayer@greenheck.com	
Product Information	MA	
Product Name: Greenheck Ventilation Fans (SQ/BSQ/XID/XIB, R, RE	BUMO, RSF/RSFP/XRS)
Product Type: Centrifugal and Axial Fans OSP-0113	· Cr	
Product Model Number: Various (See Attachment) (List all unique product identification numbers and/or part numbers) Office Attachment General Description: Air handling fans including centrifugal and program and	nd peller, inline and rooftop	
Applicant Information Applicant Company Name: TRU Compliance, by Structural Integrity A	ssociates, Inc.	
Contact Person: Galen Reid		
Mailing Address: <u>5215 Hellyer Ave., Suite 210, San Jose, CA 95138</u>		
Telephone: <u>541-604-7225</u> Email: <u>greid@</u>	<u>)structint.com</u>	
I hereby agree to reimburse the Office of Statewide Health I accordance with the California Administrative Code, 2016. Signature of Applicant:	C C	opment review fees in
Title: Program Manager Company Name: TRU C	compliance, by <u>Struct</u> ura	I Integrity Associates, Inc
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs" STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY	MMM	OSHPD
OSH-FD-759 (REV 12/16/15)	1	Page 1 of 3



California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name: TRU Compliance, by Structural Integrity Associates, Inc.
Name: Andrew Coughlin, SE California License Number: S6082
Mailing Address: _5215 Hellyer Ave, Suite 210, San Jose, CA 94608
Telephone: (844) 878-0200 Email: <u>acoughlin@structint.com</u>
Supports and Attachments Preapproval
Supports and attachments are preapproved under OPM- (Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
Supports and attachments are not preapproved
Certification Method
Image: Specify Image
BY:Timothy J Piland
Testing Laboratory DATE: 05/10/2021
Company Name: Environmental Testing Laboratory (ETL)
Contact Name: Jeremy Lange
Mailing Address: 11034 Indian Trail, Dallas, TX 75229
Telephone: (972) 247-9657 Email: jeremy@etldallas.com

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OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters
Design in accordance with ASCE 7-10 Chapter 13: 🖂 Yes 🔲 No
Design Basis of Equipment or Components (Fp/Wp) = <u>1.43</u>
S _{DS} (Design spectral response acceleration at short period, g) = <u>1.90</u>
a _p (In-structure equipment or component amplification factor) = <u>2.5</u>
R _p (Equipment or component response modification factor) = <u>6.0</u>
Ω_0 (System overstrength factor) = _2.0
I _P (Importance factor) = 1.5
z/h (Height factor ratio) = _1
Equipment or Component Natural Frequencies (Hz) = <u>See Attachment</u>
Overall dimensions and weight (or range thereof) = See Attachment
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: 🗌 Yes 🛛 No
Design Basis of Equipment or Components (V/W) =
S _{Ds} (Design spectral response acceleration at short period, g) =
S _{D1} (Design spectral response acceleration at 1 second period, g) =
R (Response modification coefficient) =
Ω₀ (System overstrength <mark>facto</mark> r) = <mark></mark>
Cd (Deflection amplification factor) =
I _p (Importance factor) = 1.5 DATE: 05/10/2021
Height to Center of Gravity above base =
Equipment or Component Natural Frequencies (Hz) =
Overall dimensions and weight (or range thereof) =
Tank(s) designed in accordance with ASME BPVC, 2015: 🔲 Yes 🖸 No
List of Attachments Supporting Special Seismic Certification
🛛 Test Report(s) 🗌 Drawings 🔲 Calculations 🖾 Manufacturer's Catalog
Other(s) (Please Specify): Product Matrices
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025
Simulation Data May 10, 2021
Signature: Date: May 10, 2021 Print Name: Timothy J. Piland Title: SSE
Condition of Approval (if applicable):
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)

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MA



1900532-CR-001 R0

Manufacturer: Greenheck (Accurex) Model Line: SQ, XID

TABLE 1

Certified Product Construction Summary:

CarbonSteel Panels; Heavy-Gauge Carbon Steel Drive Frame; Aluminum Wheel or Composite Wheel (SQ 60-95 composite option available); Inlet and Outlet Duct Collars; Direct Drive; Disconnect switch; (2) Removable Access Panels

Certified Options Summary:

Vari-Green Motor; Inlet and Outlet Guards; Speed Controller; Extended Lube Lines; HP (high pressure wheel) Filter boxes are not covered for this model line.

Fans are also sold under Accurex Brand as "XID" (replace "SQ" with "XID" for model number)

Mounting Configuration:

Base Mounted - Spring Isolated

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Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S DS=	1.90 g z/h=1.0 I _P =	1.5
Madallina	8	Dimensions (in) 3 We		Weight	Mata		
Model Line	Model	Depth	Width	Height	(lb)	Notes	UUT
	SQ- <mark>60</mark>	By15 in	not ¹² V	J Plan	33		Extra
	SQ <mark>-6</mark> 5	15	12	12	33	0	Extra
	SQ- <mark>70</mark>	15	12^{12}	20^{12}	33		Extra
	SQ-75	15	12	12	33		Extra
	SQ-80	19	15	15	44.5		Extra
	SQ-85	19	15	15	44.5		Extra
	SQ-90	19	15	15	44.5		Extra
Greenheck	SQ-95	19/	15	15 C	44.5	UUT25: 41.5 lbs; UUT44: 56lbs	25,4
"SQ"	SQ-97	19	BU15	15	53		Inter
	SQ-98	19	15	15	53		Inter
Accurex	SQ-99	19	15	15	53		Inter
"XID"	SQ-100	24	17	17	62		Inter
	SQ-120	24	19	19	66		Inter
	SQ-130	24	21	21	68		Inter
	SQ-130HP	24	21	21	68		Inter
	SQ-140	25	23	23	101		Inter
	SQ-140HP	25	23	23	101		Inter
	SQ-160	29	26	26	110.5		Inter
	SQ-160HP	29	26	26	110.5	UUT: 110.5 lbs.	26



1900532-CR-001 R0

Manufacturer: Greenheck (Accurex) Model Line: SQ, XID

TABLE 2

Certified Product Construction Summary:

Carbon Steel Panels; Heavy-Gauge Carbon Steel Drive Frame; Aluminum Wheel or Composite Wheel (SQ 60-95 composite option available); Inlet and Outlet Duct Collars; Direct Drive; Disconnect switch; (2) Removable Access Panels

Certified Options Summary:

Direct Drive Motor Cover; Speed Controllers; Side Discharge; Wiring Pigtail; HP (high pressure wheel) Filter boxes are not covered for this model line.

Fans are also sold under Accurex Brand as "XID" (replace "SQ" with "XID" for model number)

Mounting Configuration:

Ceiling Mounted - Spring Isolated

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Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S DS=	1.90 g z/h=1.0 I _P =	1.5
Model Line	R	Dimensions (in) 3 W		Weight	Mata		
Model Line	Model	Depth	Width	Height	(lb)	Notes	UUT
	SQ <mark>-60</mark>	By15 in	not ¹² V	J Plan	33	UUT: 33 lbs.	29
	SQ <mark>-65</mark>	15	12	12	33	0	Inter
	SQ- <mark>70</mark>	15	05 ¹² 0/	20^{12}	33		Inter
	SQ-75	15 ^E	12	12	33		Inter
	SQ-80	19	15	15	44.5		Inter
	SQ-85	19	15	15	44.5		Inter
	SQ-90	19	15	15	44.5		Inter
Greenheck	SQ-95	19/	15	15 C	44.5	UUT30: 44.5 lbs; UUT45: 65lbs	30, 4
"SQ"	SQ-97	19	BU15	15	53		Inter
	SQ-98	19	15	15	53		Inter
Accurex	SQ-99	19	15	15	53		Inter
"XID"	SQ-100	24	17	17	62		Inter
	SQ-120	24	19	19	66		Inter
	SQ-130	24	21	21	68		Inter
	SQ-130HP	24	21	21	68		Inter
	SQ-140	25	23	23	101		Inter
	SQ-140HP	25	23	23	101		Inter
	SQ-160HP	29	26	26	125		Inter
	SQ-160	29	26	26	125	UUT: 125 lbs	8



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Manufacturer: Greenheck (Accurex) Model Line: BSQ, XIB

TABLE 3

Certified Product Construction Summary:

Carbon Steel Panels; Heavy-Gauge Carbon Steel Drive Frame; Aluminum Wheel; Inlet and Outlet Duct Collars; Cast Iron Belt Drive Assembly; Disconnect Switch; (2) Removable Access Panels

Certified Options Summary:

Filter Box; Motor Mounted on Top; Inlet and Outlet Guards; Belt Drive Motor Cover and Belt Guard; Insulated Housing; Wiring Pigtail; HP (high pressure wheel)

Fans are also sold under Accurex Brand as "XIB" (replace "BSQ" with "XIB" for model number)

Mounting Configuration:

Base Mounted - Spring Isolated

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019		Certificatio		S DS	1.90 g z/h=1.0 <i>I</i> _P =	<i>I</i> _P = 1.5	
Model Line	Model	Dir	mensions	(in) 3	Weight	Notes	דטט	
Model Elle	model	Depth	Width	Height	(lb)	notes		
_	BSQ <mark>-70</mark>	By57 in	not ¹⁵ V	P ²³ ar	168		Extra	
	BSQ <mark>-80</mark>	57	17	30	168	0	Extra	
	BSQ <mark>-90</mark>	57	0570	20301	168		Extra	
	BSQ-100	57 ^E .	17	30	171		Extra	
	BSQ-120	62	19	32	195		Extra	
	BSQ-130	56	21	34	191		Extra	
	BSQ-130HP	56	21	34	191		Extra	
	BSQ-140	62/	23	36	232		Extra	
Greenheck	BSQ-140HP	62	23	36	232		Extra	
"BSQ"	BSQ-160	62	26	39	345		Extra	
-	BSQ-160HP	62	26	39	345		Extra	
-	BSQ-180	64	27	41	395		Extra	
Accurex	BSQ-180HP	64	27	41	395	UUT: 182 lbs w/out filter box	27	
"XIB"	BSQ-200	72	31	47	492		Inter	
-	BSQ-200HP	72	31	47	492		Inter	
	BSQ-240	75	38	54	624		Inter	
	BSQ-240HP	75	38	54	624		Inter	
	BSQ-300	75	46	64	810		Inter	
	BSQ-300HP	75	46	64	810		Inter	
	BSQ-360	82	52	70	1008		Inter	
	BSQ-360HP	82	52	70	1008		Inter	
	BSQ-420	96	58	76	1236	UUT: 1236 lbs w/filter box	28	
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1900532-CR-001 R0

Manufacturer: Greenheck (Accurex) Model Line: BSQ, XIB

TABLE 4

Certified Product Construction Summary:

Carbon Steel Panels; Heavy-Gauge Carbon Steel Drive Frame; Aluminum Wheel; Inlet and Outlet Duct Collars; Cast Iron Belt Drive Assembly; Disconnect Switch; (2) Removable Access Panels

Certified Options Summary:

Filter Box; Motor Mounted on Top & Side; Inlet and Outlet Guards; Belt Drive Motor Cover and Belt Guard; Insulated Housing; Speed Controllers; Extended Lube Lines; Wiring Pigtail; HP (high pressure wheel)

Fans are also sold under Accurex Brand as "XIB" (replace "BSQ" with "XIB" for model number)

Mounting Configuration:

Ceiling Mounted - Spring Isolated

FORCODECON

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S _{DS} =	1.90 g z/h=1.0 l _P =	1.5
Model Line	Model	Dimensions (in) 3 W		Weight	Notes	υυτ	
Model Line	Model	Depth	Width	Height	(lb)	Notes	001
	BSQ <mark>-70</mark>	B\57 in	not ¹⁷ V	J F ³¹ ar	168	UUT: 74.5 lbs. w/out filter box	31
_	BSQ-80	57	17	31	168	0	Interp
-	BSQ <mark>-90</mark>	57	0540	2031	168		Interp
-	BSQ-1 <mark>00</mark>	57	17	31	171		Inter
-	BSQ-120	62	19	32	195		Inter
	BSQ-130	56	21	34	191		Inter
	BSQ-130HP	56	-21	34	191		Inter
	BSQ-140	62/	23	36	232		Inter
Greenheck	BSQ-140HP	62	5 43 L	36	232		Inter
"BSQ"	BSQ-160	62	26	39	345		Inter
`	BSQ-160HP	62	26	39	345		Inter
	BSQ-180	64	27	40	395		Inter
Accurex	BSQ-180HP	64	27	40	395		Inter
"XIB"	BSQ-200	72	31	47	492		Inter
	BSQ-200HP	72	31	47	492		Inter
	BSQ-240	75	38	54	624		Inter
-	BSQ-240HP	75	38	54	624		Inter
-	BSQ-300	75	46	64	810		Inter
-	BSQ-300HP	75	46	64	810		Inter
-	BSQ-360	82	52	70	1008		Inter
-	BSQ-360HP	82	52	70	1008		Inter
-	BSQ-420	96	58	76	1236	UUT 32: 1236 lbs. w/filter box	32

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Manufacturer:

Model Line:

Greenheck (Accurex) RE2, RS2, RCE3, RCS3, RPDR

TABLE 5

Certified Product Construction Summary:

Direct drive: Construction Levels II & III; CarbonSteel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Motor Support Frame and Fan Panels; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

Mounting Configuration:

FORCODE Base Mounted - Rigid on Roof Curb up to 42" tall 🔿

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019		Certificatio			1.90 g z/h=1.0 I	,= 1.5
Model Line	Model		nensions		Weight	Notes	רטט
		Depth	Width	Height	(lb)		
	RE2 <mark>-18</mark>	By48 in	not ⁵¹ V	P ⁴² ar	250	UUT: 221 lbs. w/out curb	11
	RE2 <mark>-20</mark>	54	51	45	260	0	Inter
RE2	RE2 <mark>-24</mark>	66	05,63 0	20471	<mark>2</mark> 75		Inter
	RE2-30	78	87	52	310		Inter
REZ	RE2-36	94	87	57	525		Inter
-	RE2-42	93	99	60	750		Inter
-	RE2-48	112	111	61	1090		Inter
	RE2-54	124	123	67 C	1298		Inter
-	RS2-18	48	BUILI	41	250		Inter
	RS2-20	54	51	45	260		Inter
	RS2-24	66	63	47	275		Inter
DC2	RS2-30	78	87	52	310		Inter
RS2 -	RS2-36	94	87	57	525		Inter
	RS2-42	93	99	60	750		Inter
	RS2-48	112	111	61	1090		Inter
	RS2-54	124	123	67	1298		Inter
	RCS3-20	54	51	45	260		Inter
	RCS3-24	66	63	47	275		Inter
	RCS3-30	78	87	52	310		Inter
RCS3	RCS3-36	94	87	57	525		Inter
	RCS3-42	93	99	60	750		Inter
	RCS3-48	112	111	61	1090		Inter
-	RCS3-54	124	123	67	1298		Inter
RPDR	RPDR-24	66	63	47	275		Inter

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1900532-CR-001 R0

Manufacturer: Greenheck (Accurex) Model Line: RE2, RS2, RCE3, RCS3, RPDR **TABLE 5**

COMPLIANCE

Certified Product Construction Summary:

Direct drive: Construction Levels II & III; CarbonSteel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Motor Support Frame and Fan Panels; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

Mounting Configuration:

FORCODE Base Mounted - Rigid on Roof Curb up to 42" tall 🔿

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Model Line	R	Dimensions (in)			Weight	m		
	Model	Depth	Width	Height	(lb)	Notes	UUT	
	RPD <mark>R-30</mark>	By78 in	0187V	52ar	310		Inter	
	RPD <mark>R-36</mark>	94	87	57	525	0	Inter	
RPDR	RPDR <mark>-42</mark>	100	05 ⁹⁹ 0/	2061	750		Inter	
	RPDR-48	112	111	62	1090		Inter	
	RPDR-54	113	112	67	1298		Inter	
	RCE3-20	54	51	45	260		Inter	
	RCE3-24	66	63	47	275		Inter	
	RCE3-30	78/	87	52	310		Inter	
RCE3	RCE3-36	94	87	57	525		Inter	
	RCE3-42	93	99	60	750		Inter	
	RCE3-48	112	111	61	1090		Inter	
	RCE3-54	112	111	67	1298	UUT: 1525 lbs. w/42" curb	42	

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GREENHECK COMPLIANCE

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic Certification Limits:			S _{DS} =	S _{DS} = 1.90 g z/h=1.0 I _P =		
Madallina	Model	Dir	nensions	(in) 3	Weight	m Notes	υυτ	
Model Line	Model	Depth	Width	Height	(lb)	Notes	001	
	RBE-1H20	By54 in	10 ¹⁵¹ ∨ .	P45ar	325		Inter	
	RBE-1H24	66	63	47	375	0	Inter	
	RBE-1 <mark>H30</mark>	78	05870	521	<mark>4</mark> 25		Inter	
	RBE-1H36	94	87	57	525		Inter	
	RBE-1L20	54	51	45	325		Inter	
	RBE-1L24	66	63	47	350		Inter	
	RBE-1L30	78	87	52	375		Inter	
	RBE-1L36	94/	87	57 C	525		Inter	
	RBE-2H20	54	BG1LT	45	350		Inter	
	RBE-2H24	66	63	47	410		Inter	
	RBE-2H30	78	87	52	498		Inter	
555	RBE-2H36	94	87	57	625		Inter	
RBE	RBE-2H42	93	99	60	725		Inter	
	RBE-2H48	112	111	61	860		Inter	
_	RBE-2H54	124	123	67	1025		Inter	
_	RBE-2H60	136	135	68	1180		Inter	
_	RBE-2L20	54	51	45	350		Inter	
	RBE-2L24	66	63	47	410		Inter	
	RBE-2L30	78	87	52	498		Inter	
RBE-2L36 RBE-3H24	RBE-2L36	94	87	57	625		Inter	
	RBE-3H24	66	63	47	450		Inter	
-	RBE-3H30	78	87	52	510		Inter	
_	RBE-3H36	94	87	57	630		Inter	
	RBE-3H42	93	99	60	740		Inter	

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TABLE 6

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

TABLE 6

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S _{DS} =	1.90 g z/h=1.0 / p=	<i>I</i> _P = 1.5	
Model Line	Model	Dimensions (in) 3 V			Weight	Notes	UUT	
Model Line	Model	Depth	Width	Height	(lb)	Notes	001	
	RBE- <mark>3H48</mark>	B ¹¹² in		J F61ar	875		Interp.	
	RBE- <mark>3H54</mark>	124	123	67	1150	0	Interp.	
	RBE-3 <mark>H60</mark>	136	135	20681	1194		Interp.	
-	RBE-3H72	136	147	71	1216		Interp.	
-	RBE-3L24	66	63	47	450		Interp.	
RBE	RBE-3L30	78	87	52	510		Interp.	
KBE -	RBE-3L36	94	87	57	630		Interp.	
-	RBE-3L42	93/	99	60	740		Interp.	
	RBE-3L48	112	BUILL	61	875		Interp.	
	RBE-3L54	124	123	67	1150		Interp.	
-	RBE-3L60	136	135	68	1194		Interp.	
-	RBE-3L72	136	136	53	1216	UUT: 1365 lbs. w/24" curb	14	
	RBS-1H20	54	51	45	325		Interp.	
-	RBS-1H24	66	63	47	375		Interp.	
-	RBS-1H30	78	87	52	425		Interp.	
-	RBS-1H36	94	87	57	525		Interp.	
-	RBS-1L20	54	51	45	325		Interp.	
DDC	RBS-1L24	66	63	47	350		Interp.	
RBS	RBS-1L30	75	75	52	375	UUT: 420 lbs. w/12" curb	40	
-	RBS-1L36	94	87	57	525		Interp.	
-	RBS-2H20	54	51	45	350		Interp.	
-	RBS-2H24	66	63	47	410		Interp.	
-	RBS-2H30	78	87	52	498		Interp.	
-	RBS-2H36	94	87	57	625		Interp.	

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GREENHECK COMPLIANCE

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S DS=	<i>I</i> _P = 1.5	
Madallina	A	Dimensions (in) 3 W		Weight	m		
Model Line	Mod <mark>el</mark>	Depth	Width	Height	(lb)	Notes	UUT
	RBS- <mark>2H42</mark>	By93 in	10 ¹⁹⁹ V	1 F60 ar	725		Inter
	RBS-2H48	112	111	61	860	0	Inter
	RBS-2 <mark>H54</mark>	124	123	0 67 1	1025		Inter
	RBS-2H60	136	135	68	1194		Inter
	RBS-2L20	54	51	45	350		Inter
	RBS-2L24	66	63	47	410		Inter
	RBS-2L30	78	87	52	498		Inter
	RBS-2L36	94/	87	57 C	625		Inter
	RBS-3H24	66	63_1	47	450		Inter
	RBS-3H30	78	87	52	510		Inter
	RBS-3H36	94	87	57	630		Inter
	RBS-3H42	93	99	60	740		Inter
RBS	RBS-3H48	112	111	61	875		Inter
	RBS-3H54	124	123	67	1150		Inter
	RBS-3H60	136	135	68	1194		Inter
	RBS-3H72	136	147	71	1216		Inter
	RBS-3L24	66	63	47	450		Inter
	RBS-3L30	78	87	52	510		Inter
_	RBS-3L36	94	87	57	630		Inter
RBS-3L48	RBS-3L42	93	99	60	740		Inter
	RBS-3L48	112	111	61	875		Inter
	RBS-3L54	124	123	67	1150		Inter
_	RBS-3L60	136	135	68	1194		Inter
-	RBS-3L72	136	147	71	1216		Inter

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TABLE 6

GREENHECK COMPLIANCE

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S _{DS} =	1.90 g z/h=1.0 l	= 1.5
Model Line	Model	Dir	nensions	(in) 3	Weight	Notes	דטט
Model Line	Model	Depth	Width	Height	(lb)	Notes	001
	RBF- <mark>1H20</mark>	By51 in	10 ⁵⁹ V	J P27ar	425		Inter
	RBF-1H24	66	63	47	450	0	Inter
	RBF-1 <mark>H30</mark>	78	05870	52 1	<mark>5</mark> 25		Inter
	RBF-1H36	94 E.	87	57	675	UUT: 835 lbs. w/42" curb	36
	RBF-1L20	54	51	45	425		Inter
	RBF-1L24	66	63	47	450		Inter
	RBF-1L30	78	87	52	525		Inter
	RBF-1L36	94/	87	57 C	675		Inter
	RBF-2H20	54	BUSILI	45	425		Inter
	RBF-2H24	66	63	47	450		Inter
	RBF-2H30	78	87	52	525		Inter
RBF	RBF-2H36	94	87	57	675		Inter
KRL -	RBF-2H42	93	99	60	825		Inter
	RBF-2H48	112	111	61	910		Inter
	RBF-2H54	124	123	67	1160		Inter
	RBF-2H60	136	135	68	1194		Inter
	RBF-2L20	54	51	45	425		Inter
	RBF-2L24	66	63	47	450		Inter
	RBF-2L30	78	87	52	525		Inter
	RBF-2L36	94	87	57	675	UUT: 835 lbs. w/42" curb	35
	RBF-3H24	66	63	47	425		Inter
	RBF-3H30	78	87	52	525		Inter
	RBF-3H36	94	87	57	675		Inter
	RBF-3H42	93	99	60	825		Inter

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TABLE 6

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

TABLE 6

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic (Certificatio	on Limits:	S _{DS} =	1.90 g	z/h=1.0	:1.0 <i>I</i> _P = 1.5	
Model Line	Model	Di	mensions	(in) 3	Weight	m)	Notes	UUT	
Model Line	Model	Depth	Width	Height	(lb)		Notes	001	
	RBF- <mark>3H48</mark>	B ¹¹² in		l F61ar	875			Interp.	
	RBF- <mark>3H54</mark>	124	123	67	1150	0		Interp.	
	RBF-3 <mark>H60</mark>	136	135	68 1	1194			Interp.	
	RBF-3H72	136	147	71	1216			Interp.	
	RBF-3L24	66	63	47	425	\sim		Interp.	
RBF	RBF-3L30	78	87	52	525			Interp.	
KBF	RBF-3L36	94	87	57	675			Interp.	
	RBF-3L42	93/	99	60 0	825			Interp.	
	RBF-3L48	112	5 111 I	61	875			Interp.	
	RBF-3L54	124	123	67	1150			Interp.	
	RBF-3L60	136	135	68	1194			Interp.	
	RBF-3L72	136	147	71	1216			Interp.	
	RBCE-3H24	66	63	47	425			Interp.	
	RBCE-3H30	78	87	52	525			Interp.	
	RBCE-3H36	94	87	57	675			Interp.	
DDCE	RBCE-3H42	93	99	60	825			Interp.	
RBCE	RBCE-3H48	112	111	61	875			Interp.	
	RBCE-3H54	124	123	67	1150			Interp.	
	RBCE-3H60	136	135	68	1194			Interp.	
	RBCE-3H72	136	147	71	1216			Interp	
	RBCS-3H24	66	63	47	425			Interp.	
DDCC	RBCS-3H30	78	87	52	525			Interp.	
RBCS	RBCS-3H36	94	87	57	675			Interp	
	RBCS-3H42	93	99	60	825			Interp	

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GREENHECK TRU COMPLIANCE

1900532-CR-001 R0

Manufacturer:

Greenheck (Accurex)

Model Line: RBE, RBS, RBF, RBCE, RBCS, RBCF, RPBR

TABLE 6

Certified Product Construction Summary:

Belt Drive: Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Guage Carbon Steel Drive Frame and Fan Panels; Aluminum Housing; Hinged & Removable Hood; Removable Birdscreen

Certified Options Summary:

Tall Base; Safety Guards; Aluminum Housing; Curb Cap Stripping; Insect Screen Base; Extended Lube Lines; Disconnect switches; End switches; Gravity Dampers; 1-point wiring

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019 Seismic Certification Limits:		$S_{DS} = 1.90 g z/h=1.0 I_{P} = 1.5$				
Model Line	Madal	Dir	mensions	(in) 3	Weight	Notes	UU
Model Line	Model	Depth	Width	Height	(lb)	Notes	00
	RBCS <mark>-3H48</mark>	B ¹¹² in	01H/	l F61ar	875		Inter
RBCS	RBCS <mark>-3H54</mark>	124	123	67	1150	0	Inter
RDCS	RBCS- <mark>3H60</mark>	136	135	68 1	<u>1194</u>		Inter
-	RBCS-3H72	136	147	71	1216		Inter
	RPBR-24	66	63	47	425		Inter
-	RPBR-30	78	87	52	525		Inter
-	RPBR-36	94	87	57	675		Inter
RPBR -	RPBR-42	93/	99	60 C	825		Inter
RPBR	RPBR-48	112		61	875		Inter
-	RPBR-54	124	123	67	1150		Inter
-	RPBR-60	136	135	68	1194		Inter
-	RPBR-72	136	147	71	1216		Inter
	RBCF-3H24	66	63	47	425		Inter
-	RBCF-3H30	78	87	52	525		Inter
	RBCF-3H36	94	87	57	675		Inter
DDCE	RBCF-3H42	93	99	60	825		Inter
RBCF	RBCF-3H48	112	111	61	875		Inter
	RBCF-3H54	124	123	67	1150		Inter
	RBCF-3H60	136	135	68	1194		Inter
	RBCF-3H72	136	147	71	1216	UUT: 1512 lbs. w/42" curb	34

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Manufacturer: Greenheck (Accurex) Model Line: RBUMO

TABLE 7

COMPLIANCE

Certified Product Construction Summary:

Belt drive; Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Gauge Carbon Steel Construction; Curb Cap; Drive Frame; Removable Windband; Removable Motor Cover

Certified Options Summary:

Inlet & Outlet guard; Aluminum & Steel Gravity Dampers; Steel Butterfly Dampers; Fusible Link & Motorized Damper Lifters; Disconnect Switches

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code:	CBC 2019	Seismic C	Certificatio	on Limits:	S DS=	$S_{DS} = 1.90 g z/h=1.0 I_{P} = 1.5$			
Model Line	Model	Di	mensions	(in) 3	Weight	Notes	υυτ		
Model Line	Model	Depth	Width	Height	(lb)	Notes	001		
	RBUM <mark>O-1H2</mark> 0	By ³⁰ in	10 ⁴⁶ V	J P44ar	285		Inter		
	RBUMO-1H24	34	50	46	321	0	Inter		
	RBUMO <mark>-1H30</mark>	40	560	521	<mark>3</mark> 64		Inter		
	RBUMO-1H36	46	64	60	424		Inter		
	RBUMO-1L20	30	46	44	285		Inter		
	RBUMO-1L24	34	50	46	321		Inter		
	RBUMO-1L30	40	56	52	364		Inter		
	RBUMO-1L36	46/	64	60 C	414		Inter		
	RBUMO-2H20	30	⁴⁶	44	297		Inter		
	RBUMO-2H24	34	50	46	338		Inter		
	RBUMO-2H30	40	56	52	396		Inter		
	RBUMO-2H36	46	64	60	426		Inter		
RBUMO	RBUMO-2H42	52	70	65	443		Inter		
	RBUMO-2H48	58	76	69	432		Inter		
	RBUMO-2H54	66	66	76	575	UUT: 812 lbs. w/42" curb	33		
	RBUMO-2L20	30	46	44	297		Inter		
	RBUMO-2L24	34	50	46	338		Inter		
	RBUMO-2L30	40	56	52	396		Inter		
	RBUMO-2L36	46	64	60	426		Inter		
	RBUMO-2L42	52	70	65	443		Inter		
RE	RBUMO-2L48	58	76	69	432		Inter		
	RBUMO-3H24	34	50	46	343		Inter		
	RBUMO-3H30	40	56	52	451		Inter		
	RBUMO-3H36	46	64	60	547		Inter		

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Manufacturer: Greenheck (Accurex) Model Line: RBUMO

TABLE 7

Certified Product Construction Summary:

Belt drive; Construction Levels I, II, & III; Carbon Steel & Aluminum Fan Blades; Type L & H Propellers; Heavy-Gauge Carbon Steel Construction; Curb Cap; Drive Frame; Removable Windband; Removable Motor Cover

Certified Options Summary:

Inlet & Outlet guard; Aluminum & Steel Gravity Dampers; Steel Butterfly Dampers; Fusible Link & Motorized Damper Lifters; Disconnect Switches

FORCODE

Mounting Configuration:

Base mounted rigid on up to 42" curb

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

	8	Dir	nensions	(in) 3	Weight	m	
Model Line	Model	Depth	Width	Height	(lb)	Notes	UU
	RBUM <mark>0-3H4</mark> 2	By52 in	10 ⁷⁰ V	l F65ar	630		Inte
	RBUM <mark>0-3H4</mark> 8	58	76	69	657	0	Inte
	RBUMO <mark>-3H5</mark> 4	66	N5 ⁸²	20761	<mark>6</mark> 84		Inte
	RBUMO-3H60	72 72	89	80	804		Inte
RBUMO	RBUMO-3L24	34	50	46	343		Inte
	RBUMO-3L30	40	56	52	451		Inte
	RBUMO-3L36	46	64	60	547		Inte
	RBUMO-3L42	52/	70	65 C	630		Inte
	RBUMO-3L48	58	BG6L	69	657		Inte
	RBUMO-3L54	66	82	76	684		Inte
	RBUMO-3L60	72	102	75	804	UUT: 954 lbs. w/42" curb	16



TABLE 8

1900532-CR-001 R0

Manufacturer: Greenheck (Accurex) Model Line:

RSF, XRS, RSFP

Certified Product Construction Summary:

Steel Wheel; Vibration Isolators Support Drive Assembly; Belt Drive; Quick Release Hood Cover Latches

RSF: Removable Carbon Steel Hood Cover; Heavy Hauge Carbon Steel Sides

RSFP: Aluminum Hinged Hood Cover; Heavy Gauge Extruded Aluminum Louvers

Certified Options Summary:

Aluminum Filters; Disconnect Switches

Fans are also sold under Accurex Brand as "XRS" (replace "RSF" with "XRS" for model number)

Mounting Configuration:

Base mounted rigid on up to 42" curb

FORCODE

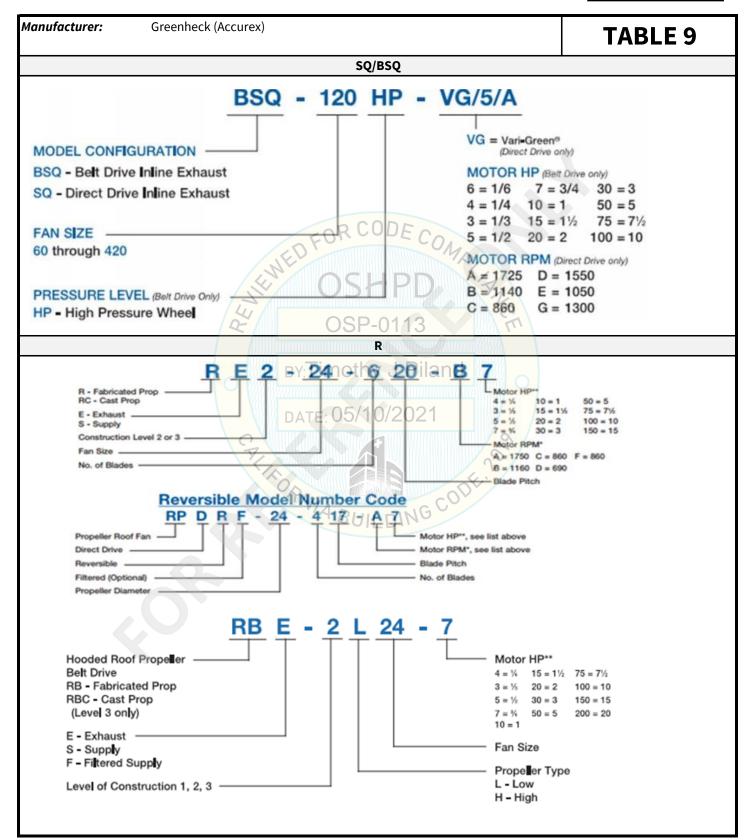
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

	A	Dir	mensions	(in) 3	Weight		
Model Line	Model	Depth	Width	Height	(lb)	Notes	UL
	RSF <mark>-90</mark>	By ³⁵ in	10 ⁺ 35√ .	I P28ar	122	UUT: 162 lbs. w/14" curb	1
Greenheck	RSF-100	42	42	28	205	0	Inte
"RSF"	RSF- <mark>120</mark>	48	5480	20281	<mark>2</mark> 50		Inte
Accurex	RSF-1 <mark>50</mark>	54 E.	54	32	575		Inte
"XRS"	RSF-180	62	62	35	725		Inte
	RSF-200	73	73	40	822	UUT: 1006 lbs. w/42" curb	43
	RSFP-90	32	32	26	160		Inte
RSFP	RSFP-100	36/	36	28	225		Inte
	RSFP120	40	40	30	310		Inte
RSFP	RSFP-150	46	46	34	369		Inte
	RSFP-180	52	52	36	406		Inte
	RSFP-200	58	58	42	452	UUT: 558 lbs. w/24" curb	18

SPECIAL SEISMIC CERTIFICATION MODEL LINE NUMBERING



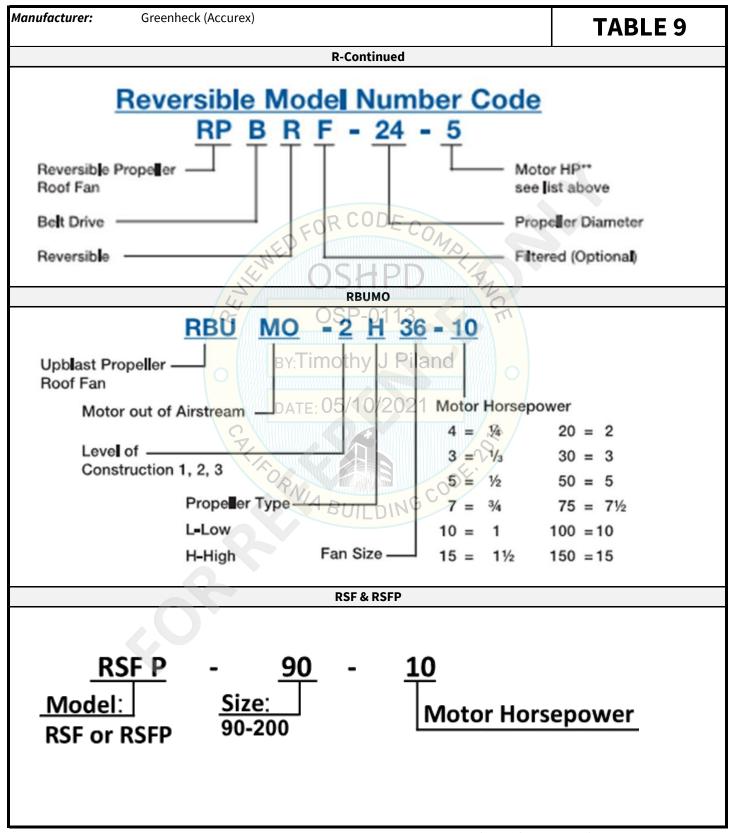
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SPECIAL SEISMIC CERTIFICATION MODEL LINE NUMBERING



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1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB		Table Description: Fan Wheels (Base Mo	unted - Isolated)	^{d)} TABLE 10.1	
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	<i>l_P</i> = 1.5		
Component Type	Manufacturer	Model	RCODEDescription	No	otes	υυτ
		60	Composite, Backward Curved			Interp.
		70	Composite, Backward Curved			Interp.
		80	Composite, Backward Curved			Interp.
		090	Composite, Backward Curved			Interp.
		<mark>95</mark>	Composite, Backward Curved			44
		60 By.Ti	Riveted Al., Backward Curved			Interp.
		65	Riveted Al., Backward Curved			Interp.
		70	Riveted Al., Backward Curved			Interp.
		75 DATE	Riveted Al., Backward Curved			Interp.
		80	Riveted Al., Backward Curved			Interp.
		85	Riveted Al., Backward Curved			Interp.
Fan Wheels	Greenheck	90	Riveted Al., Backward Curved			Interp.
		95	Riveted Al., Backward Curved			25
		97	Welded Al., Backward Inclined			Interp.
		98	Welded Al., Backward Inclined			Interp.
		99	Welded Al., Backward Inclined			Interp.
		100	Welded Al., Backward Inclined			Interp.
		120	Welded Al., Backward Inclined			Interp.
		130	Welded Al., Backward Inclined			Interp.
		130HP	Welded Al., Backward Inclined			Interp.
		140	Welded Al., Backward Inclined			Interp.
		140HP	Welded Al., Backward Inclined			Interp.
		160	Welded Al., Backward Inclined			Interp.



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB	Table Description: Fan Wheels (Base Mour	nted - Isolated)	TABLE 10.1	
Building Code:	CBC 2019	Seismic Certification Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$		
Component Type	Manufacturer	Model FOR CODE Description	Not	tes UUT	
		160HP Welded Al., Backward Inclined		26	
		180 Riveted Al., Backward Inclined		Interp	
		180HP Riveted Al., Backward Inclined		27	
		200 Riveted Al., Backward Inclined		Interp	
		200HP Riveted Al., Backward Inclined		Interp	
	Greenheck	240 Riveted Al., Backward Inclined		Interp	
Fan Wheels Greenheck	240HP Riveted Al., Backward Inclined		Interp		
	300 Riveted Al., Backward Inclined		Interp		
		300HP Riveted Al., Backward Inclined		Interp	
		360 Riveted Al., Backward Inclined		Interp	
		360HP Riveted Al., Backward Inclined		Interp	
		420 Riveted Al., Backward Inclined		28	
		The cor			
		BUILDING			



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB		Table Description: Fan Wheels (Ceiling m	ounted - Isolated)	TABLE 10.2
Building Code:	CBC 2019	Seismic Certificati	ion Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	RCODEDescription	No	tes UUT
		60	Composite, Backward Curved		Extrap.
		70	Composite, Backward Curved		Extrap.
		80	Composite, Backward Curved		Extrap.
		090	Composite, Backward Curved		Extrap.
		<mark>95</mark>	Composite, Backward Curved		45
		60 By.Ti	Riveted Al., Backward Curved		29
		<u> </u>	Riveted Al., Backward Curved		Interp.
		70	Riveted Al., Backward Curved		31
		75 DATE	Riveted Al., Backward Curved		Interp.
		80	Riveted Al., Backward Curved		Interp.
		85	Riveted Al., Backward Curved		Interp.
Fan Wheels	Greenheck	90	Riveted Al., Backward Curved		Interp.
		95	Riveted Al., Backward Curved		30
		180	Riveted Al., Backward Inclined		Interp.
		180HP	Riveted Al., Backward Inclined		Interp.
		200	Riveted Al., Backward Inclined		Interp.
		200HP	Riveted Al., Backward Inclined		Interp.
		240	Riveted Al., Backward Inclined		Interp.
		240HP	Riveted Al., Backward Inclined		Interp.
		300	Riveted Al., Backward Inclined		Interp.
		300HP	Riveted Al., Backward Inclined		Interp.
		360	Riveted Al., Backward Inclined		Interp.
		360HP	Riveted Al., Backward Inclined		Interp.



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB		ounted - Isolated)	TABLE 10.2	
Building Code:	CBC 2019	Seismic Certificat	ion Limits: S _{DS} = 1.90 g z/h=1.0	I _P = 1.5	
Component Type	Manufacturer	Model	RCODEDescription	No	tes UUT
		420	Riveted Al., Backward Inclined		32
		97	Welded Al., Backward Inclined		Interp
		98	Welded Al., Backward Inclined		Interp
		99	Welded Al., Backward Inclined		Interp
		100	Welded Al., Backward Inclined		Interp
Fan Wheels Greenheck	Greenbeck	120 BY.T	Welded Al., Backward Inclined		Interp
	Oreenneck	C130	Welded Al., Backward Inclined		Interp
		130HP	Welded Al., Backward Inclined		Interp
		140 DATE	Welded Al., Backward Inclined		Interp
		140HP	Welded Al., Backward Inclined		Interp
		160HP	Welded Al., Backward Inclined		Interp
		160	Welded Al., Backward Inclined		8
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			BUILDING		



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) R & RBUMO		Table Description: Fan Propellers (Curb	Mounted)	TABLE 11.1
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	RCODEDescription	No	otes UUT
		20" SBR	CS; Straight blade, riveted, no gussets	4.5 lbs.	Interp.
		24" SBR	CS; Straight blade, riveted, no gussets	4.9 lbs.	Interp.
		30" SBR	CS; Straight blade, riveted, no gussets	9 lbs.	Interp.
		36" SBR	CS; Straight blade, riveted, no gussets	11 lbs.	36
		20" CBR	CS; Curved blade, riveted, no gussets	5 lbs.	Interp.
		24" CBR RV.Ti	CS; Curved blade, riveted, no gussets	7.5 lbs.	Interp.
		30" CBR	CS; Curved blade, riveted, no gussets	9.5 lbs.	40
		36" CBR	CS; Curved blade, riveted, no gussets	14 lbs.	Interp.
		36" SBR-G DATE	CS; Straight blade, riveted, with gussets	15.5 lbs.	Interp.
		42" SBR-G	CS; Straight blade, riveted, with gussets	28 lbs.	Interp.
		48" SBR-G	CS; Straight blade, riveted, with gussets	35 lbs.	Interp.
Carbon Steel	Greenheck	54" SBR-G	CS; Straight blade, riveted, with gussets	46 lbs.	33
Fan Propellers		30" CBR-G	CS; Curved blade, riveted, with gussets	14 lbs.	Interp.
		36" CBR-G	CS; Curved blade, riveted, with gussets	20 lbs.	35
		42" CBR-G	CS; Curved blade, riveted, with gussets	35 lbs.	Interp.
		48" CBR-G	CS; Curved blade, riveted, with gussets	46 lbs.	Interp.
		24" CBW-G	CS; Curved blade, welded, with gussets	10.5 lbs.	Interp.
		30" CBW-G	CS; Curved blade, welded, with gussets	17 lbs.	Interp.
		36" CBW-G	CS; Curved blade, welded, with gussets	25 lbs.	Interp.
		42" CBW-G	CS; Curved blade, welded, with gussets	40 lbs.	Interp.
		48" CBW-G	CS; Curved blade, welded, with gussets	56 lbs.	Interp.
		54" CBW-G	CS; Curved blade, welded, with gussets	71.5 lbs.	Interp.
		60" CBW-G	CS; Curved blade, welded, with gussets	126 lbs.	16

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Manufacturer: Model Line:	Greenheck (Accurex) R & RBUMO		Table Description: Fan Propellers (Curb	Mounted)	TABLE 11.1	
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	l _P = 1.5		
Component Type	Manufacturer	Model	RCODEDescription	Note	s UUT	
		18" SBW-G	CS; Straight blade, welded, with gussets	6 lbs.	11	
		20" SBW-G	CS; Straight blade ,welded, with gussets	6.5 lbs.	Interp.	
		24 <mark>" SBW-</mark> G	CS; Straight blade ,welded, with gussets	9 lbs.	Interp.	
		30" SBW-G	CS; Straight blade ,welded, with gussets	13.5 lbs.	Interp.	
Carbon Steel	Greenheck	3 <mark>6" SB</mark> W-G	CS; Straight blade ,welded, with gussets	20.5 lbs.	Interp.	
Fan Propellers	Greenneck	42" SBW-G _{RV} .Ti	CS; Straight blade ,welded, with gussets	35 lbs.	Interp.	
		<mark>48" S</mark> BW-G	CS; Straight blade ,welded, with gussets	46 lbs.	Interp.	
		54" SBW-G	CS; Straight blade ,welded, with gussets	61 lbs.	Interp.	
		60" SBW-G	CS; Straight blade ,welded, with gussets	98 lbs.	Interp.	
		72 <mark>" SBW-G</mark>	CS; Straight blade ,welded, with gussets	120 lbs.	14	
		20" Cast Al.	Aluminum Airfoil blade	5 lbs.	Interp.	
		24" Cast Al.	Aluminum Airfoil blade	7 lbs.	Interp.	
		30" Cast Al.	Aluminum Airfoil blade	7.5 lbs.	Interp.	
		36" Cast Al.	Aluminum Airfoil blade	8 lbs.	Interp.	
Cast Aluminum Fan	Greenheck	42" Cast Al.	Aluminum Airfoil blade	11.5 lbs.	Interp.	
Propellers		48" Cast Al.	Aluminum Airfoil blade	12 lbs.	Interp.	
		54" Cast Al.	Aluminum Airfoil blade	57.5 lbs.	42	
		60" Cast Al.	Aluminum Airfoil blade	82 lbs.	Interp.	
		72" Cast Al.	Aluminum Airfoil blade	91 lbs.	34	



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	Greenheck (Accurex) RSF, XRS, RSFP		Table Description: Fan Wheels (Curb Mounted)			
Building Code:	CBC 2019	Seismic Certification Limits: $S_{DS} = 1.90 g z/h=1.0$ $I_P = 1.5$				
Component Type	Manufacturer	Model	RCODEDescription	Note	es UUT	
		9.5" Steel	Forward curved carbon steel blade		17	
		10.62" Steel	Forward curved carbon steel blade		Interp	
		12.72" Steel	Forward curved carbon steel blade		Interp	
Fan Wheels	LAU	15" Steel	Forward curved carbon steel blade		Interp	
		1 <mark>8.54"</mark> Steel	Forward curved carbon steel blade		Interp	
		2 <mark>0.50"</mark> Steel _{BV} .Ti	Forward curved carbon steel blade		18, 43	
		DATE	05/10/2021			
		DATE	03/10/2021			
		C	+			
		0				
		TNI				
			BUILDING			



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB	Table Description: Filters & Filter Boxes (Base Mt Isolated) TA			TABLE 13.1
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	RCODEDescription	Not	tes UUT
		Fan Size 70 - 90	Carbon Steel		Interp.
		Fan Size 100	Carbon Steel		Interp.
		Fan <mark>Size 1</mark> 20	Carbon Steel		Interp.
		Fan Si <mark>ze 130</mark> - 13 <mark>0HP</mark>	Carbon Steel 13		Interp.
		Fan S <mark>ize 14</mark> 0 - 140HP	Carbon Steel		Interp.
	Greenheck	Fan S <mark>ize 1</mark> 60 - 160HP. Ti	Carbon Steel Piland		Interp.
Filter Box - BSQ		Fan <mark>Size 18</mark> 0 - 180HP	Carbon Steel		Interp.
		Fan S <mark>ize 20</mark> 0 - 200HP	Carbon Steel		Interp.
		Fan Size 240 - 240HP	Carbon Steel		Interp.
		Fan Siz <mark>e 300 - 3</mark> 00HP	Carbon Steel		Interp.
		Fan Size 360 - 360HP	Carbon Steel		Interp.
		Fan Size 420	Carbon Steel		28
		10 x 12, Al. 1"	Aluminum		Interp.
		10 x 12, Al. 2"	Aluminum		Interp.
		12 x 25, Al. 1"	Aluminum		Interp.
		12 x 25, Al. 2"	Aluminum		Interp.
		14 x 25, Al. 1"	Aluminum		Interp.
Filters	Research Products	14 x 25, Al. 2"	Aluminum		Interp.
		16 x 20, Al. 1"	Aluminum		Interp.
		16 x 20, Al. 2"	Aluminum		Interp.
		16 x 25, Al. 1"	Aluminum		Interp.
		16 x 25, Al. 2"	Aluminum		Interp.
		20 x 20, Al. 1"	Aluminum		Interp.



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Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB	Table Description: Filters & Filter Boxes (Base Mt Isolated) TAB			TABLE 13.1
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	RCODEDescription	Not	tes UUT
		20 x 20, Al. 2"	Aluminum		Interp.
	Research Products	20 x 25, Al. 1"	Aluminum		Interp.
		20 x <mark>25, Al.</mark> 2"	Aluminum		28
		10 x <mark>12, P</mark> aper 1"	Paper-0113		Interp.
		10 x <mark>12, P</mark> aper 2"	Paper		Interp.
	Airguard Products	12 x 25, Paper 1 <mark>"</mark> Y.Ti	Paperny J Piland		Interp.
		12 <mark>x 25, P</mark> aper 2"	Paper		Interp.
		14 x <mark>25, P</mark> aper 1"	Paper 10/2021		Interp.
Filters		14 x <mark>25, P</mark> aper 2" Alle	Paper		Interp.
		16 x 20 <mark>, P</mark> aper 1"	Paper		Interp.
		16 x 20, Paper 2"	Paper		Interp.
		16 x 25, Paper 1"	Paper		Interp.
		16 x 25, Paper 2"	Paper		Interp.
		20 x 20, Paper 1"	Paper		Interp.
		20 x 20, Paper 2"	Paper		Interp.
		20 x 25, Paper 1"	Paper		Interp.
		20 x 25, Paper 2"	Paper		28



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Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB		TABLE 13.2		
Building Code:	CBC 2019	Seismic Certification	on Limits: S _{DS} = 1.90 g z/h=1.0	I _P = 1.5	
Component Type	Manufacturer	Model	RCODEDescription	No	tes UUT
		Fan Size 70 - 90	Carbon Steel		Interp.
		Fan Size 100	Carbon Steel		Interp.
		Fan Size 120	Carbon Steel		Interp.
		Fan Si <mark>ze 130</mark> - 130HP	Carbon Steel 13		Interp.
		Fan S <mark>ize 14</mark> 0 - 140HP	Carbon Steel		Interp.
	Current	Fan S <mark>ize 1</mark> 60 - 160HP. Ti	Carbon Steel Piland		Interp.
Filter Box - BSQ	Greenheck	Fan <mark>Size 18</mark> 0 - 180HP	Carbon Steel		Interp.
		Fan S <mark>ize 20</mark> 0 - 200HP	Carbon Steel		Interp.
		Fan Size 240 - 240HP	Carbon Steel		Interp.
		Fan Siz <mark>e 300 - 3</mark> 00HP	Carbon Steel		Interp.
		Fan Size 360 - 360HP	Carbon Steel		Interp.
		Fan Size 420	Carbon Steel		32
		10 x 12, Al. 1"	Aluminum		Interp.
		10 x 12, Al. 2"	Aluminum		Interp.
		12 x 25, Al. 1"	Aluminum		Interp.
		12 x 25, Al. 2"	Aluminum		Interp.
		14 x 25, Al. 1"	Aluminum		Interp.
Filters	Research Products	14 x 25, Al. 2"	Aluminum		Interp.
		16 x 20, Al. 1"	Aluminum		Interp.
		16 x 20, Al. 2"	Aluminum		Interp.
		16 x 25, Al. 1"	Aluminum		Interp.
		16 x 25, Al. 2"	Aluminum		Interp.
		20 x 20, Al. 1"	Aluminum		Interp.



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Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB	Table Description: Filters & Filter Boxes (Ceiling - Isolated) TA			TABLE 13.2
Building Code:	CBC 2019	Seismic Certificati	on Limits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	RCODEDescription	No	otes UUT
		20 x 20, Al. 2"	Aluminum		Interp.
	Research Products	20 x 25 <mark>, Al. 1</mark> "	Aluminum		Interp.
		20 x <mark>25, Al.</mark> 2"	Aluminum		32
		10 x <mark>12, P</mark> aper 1"	Paper - 0113		Interp.
		10 x <mark>12, P</mark> aper 2"	Paper		Interp.
	Airguard Products	12 <mark>x 25, P</mark> aper 1 <mark>"</mark>	Paperny J Piland		Interp.
		12 <mark>x 25, P</mark> aper 2"	Paper		Interp.
		14 x <mark>25, P</mark> aper 1"	Paper 0/2021		Interp
Filters		14 x <mark>25, Paper 2" ALE</mark>	Paper		Interp
		16 x 2 <mark>0, Pape</mark> r 1"	Paper		Interp
		16 x 20, Paper 2"	Paper		Interp.
		16 x 25, Paper 1"	Paper		Interp
		16 x 25, Paper 2"	Paper		Interp
		20 x 20, Paper 1"	Paper		Interp
		20 x 20, Paper 2"	Paper		Interp
		20 x 25, Paper 1"	Paper		Interp
		20 x 25, Paper 2"	Paper		32



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	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hoode	ed Props, RBUMO, RSF,	d - Isolated)	TABLE 14.1	
Building Code:	CBC 2019	Seismic Certifi	ication Limits: S _{DS} = 1.90 g z/h=1.0	I _P = 1.5	
Component Type	Manufacturer	Model	FOR CODE Description	No	tes UUT
Motors	Baldor		Tir 3/4 HP, 115V - 460V		Extrap. Extrap. 25 Interp Interp Interp 27 Interp 26 Interp 26 Interp 28 1 28 1



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	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hoode	d)	TABLE 14.2			
Building Code:	CBC 2019	Seismic Certif	ication Limits: S _{DS} = 1.90 g z/h=1.0	I _P = 1.5		
Component Type	Manufacturer	Model	FOR CODE Description	Note	s UUT	
		NE	1/30HP, 115 - 460V		Extrap	
			1/10HP, 115 - 460V		Extrap	
		LA LA	1/8 HP, 115V - 460V		Extrap	
		48/56	1/3 HP, 115V - 460V		Extrap	
		48/56	1/2 HP, 115V - 460V		Extrap	
	Baldor	B	3/4 HP, 115V - 460V		Extrap	
			1 HP, 115V - 460V		40	
Motor		Baldor		1.5 HP, 115V - 460V		Interp
		143T	2 HP, 115V - 460V		Interp	
		145T	3 HP, 115V - 460V		35	
		182T	5 HP, 115V - 460V		36	
		184T	7.5 HP, 115V - 460V		Inter	
		213T	10 HP, 115V - 460V		Interp	
		215T	15 HP, 115V - 460V		Interp	
		254T	20HP, 115V - 460V		34	



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	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hoode	ed Props, RBUMO, RSF,	Table Description: Motors (Ceiling mounted - Isolated) I Props, RBUMO, RSF, XRS, RSFP			
Building Code:	CBC 2019	Seismic Certif	ication Limits: S _{DS} = 1.90 g z/h=1.0	l _P = 1.5		
Component Type	Manufacturer	Model	FOR CODE Description	No	otes UUT	
Motor	Baldor		1/30HP, 115 - 460V 1/10HP, 115 - 460V 1/8 HP, 115V - 460V 1/3 HP, 115V - 460V 1/2 HP, 115V - 460V 3/4 HP, 115V - 460V 1 HP, 115V - 460V 1 HP, 115V - 460V 1 HP, 115V - 460V 2 HP, 115V - 460V 3 HP, 115V - 460V 3 HP, 115V - 460V 5 HP, 115V - 460V 7.5 HP, 115V - 460V 10 HP, 115V - 460V		30 29 Interp Interp Interp 31 Interp 32	



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Manufacturer: Model Line:	Greenheck (Accurex) R, RBUMO	Table Description:Dampers (Curb Mounted)Seismic Certification Limits: S_{DS} = 1.90 g $z/h=1.0$ I_P = 1.5			TABLE 15.1	
Building Code:	CBC 2019					
Component Type	Manufacturer	Model	RCODEDescription	Not	tes UUT	
		BD-100 Gravity C	CS Frame, Al. blade		Extrap.	
		WD-100 Gravity	CS Frame, Al. blade		42	
De el due ft De mar en	Greenheck	WD-100 Electric	CS Frame, Al. blade		Interp.	
Backdraft Damper	Greenneck	WD-200 Electric	CS Frame, Al. blade		35, 36	
		VCD-20 Electric C	CS Frame, CS blade		40	
		VCD-23 Electricev. Tir	CS Frame, CS Blade w/seals		34	
Dutterfly Dense and	Carachard	Aluminum			33	
Butterfly Dampers	Greenheck	Steel	05/10/2021		16	
Butterfly Damper	Greenheck		Spring loaded arms with fusible link		33	
Lifters	Honeywell	M6194 N	Notorized actuator		33	
	Schneider Electric	MP - 100A			42	
Deserved		MP - 210 1	15 VAC Actuated		35, 36	
Damper Acuator		MS8104F1010 // 2	24 VAC Actuated		40	
	Honeywell	MS4120F1006 4	160 VAC Actuated w/ 115 VAC Transformer		34	



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Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hooded	enheck (Accurex) Table Description: Misc (Base Mounted - Isolated) XID, BSQ, XIB, R Hooded Props, RBUMO, RSF, XRS, RSFP				
Building Code:	CBC 2019	Seismic Certificat	ion Limits: S _{DS} = 1.90 g z/h=1.0	l _P = 1.5		
Component Type	Manufacturer	Model	RCODEDescription	Note	s UUT	
Disconnect Switches	Square-D Disconnect	15A	NEMA-1		28	
		6A	DSHPD 7		25	
Speed Controllers	Raffel Systems	8A			Interp.	
		10A	OSP-0113		26	
Vari-Green Drive	Vari-Green	460V	In the first of the second state of the		26	
End Switches	ASCO	8356 By.Ti	mothy J Piland		25	
		DATE	05/10/2021			
		DATE				
		C A				
		00	OK.			
			A PLUL DING CO			
			BUILDING			

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX



1900532-CR-001 R0

	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hooded	enheck (Accurex) Table Description: Misc (Curb Mounted) XID, BSQ, XIB, R Hooded Props, RBUMO, RSF, XRS, RSFP					
Building Code:	CBC 2019	Seismic Certification Limits: $S_{DS} = 1.90 g z/h=1.0$ $I_P = 1$	5				
Component Type	Manufacturer	Model FOR CODE Description	Notes UUT				
		3A NEMA - 1	Extrap.				
		OSHPD 7	Extrap.				
		7A NEMA - 3R	34, 36				
Disconnect Switches	Square-D Disconnect	QSP-0113	Interp.				
Disconnect Switches		30A NEMA - 4	35, 36, 43				
		30A NEMA-12 J Piland	40				
	ABB	30A NEMA - 4/4R	42				
	ADD	30A NEMA 12/2021	34				
		DATE:05/10/2021					
		BUILDING					

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX



1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex) SQ, XID, BSQ, XIB, R Hoode	Tab ed Props, RBUMO, RSF, XRS, RSFF	TABLE 16.3		
Building Code:	CBC 2019	Seismic Certification Lin	nits: S _{DS} = 1.90 g z/h=1.0	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	CODEDescription	No	otes UUT
Vari-Green Drive	Vari-Green	208/230V			29
		4			
		R OS	P-0113		
		By:Timo	thy J Piland		
		DATE 05	/10/2021		
		DATEIOJ	71072021		
		S			
		-0p.			
		AV/A D			
		В	JILDING		

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1900532-CR-001 R0

Manufacturer: Model Line:	Greenheck (Accurex)	ooded Props, RBUMO, RSF, X	RS RSFP			
UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _P
8	8 SQ-160-A 3298 and Addendum 1900532-PC-001-R0		ANCO Engineers, Inc. ¹	1.9	1	1.5
11	RE2-18-421-A7	3298 and Addendum 1900532-PC-001-R0	ANCO Engineers, Inc. ¹	1.9	1	1.5
14	RBE-3L72-150	3298 and Addendum 1900532-PC-001-R0	ANCO Engineers, Inc. ¹	1.9	1	1.5
16	RBUMO-3L60-100	3298 and Addendum 1900532-PC-001-R0	ANCO Engineers, Inc. ¹	1.9	1	1.5
17	RSF-90-10	3298 and Addendum 1900532-PC-001-R0	ANCO Engineers, Inc. ¹	1.9	1	1.5
18	RSFP-200-75	3298 and Addendum 1900532-PC-001-R0	ANCO Engineers, Inc. ¹	1.9	1	1.5
25	SQ-95-D	14238 Rev. 2 By Timothy J Pil	Environm <mark>ental T</mark> esting And Laboratory (ETL)	2.0 3.2	1 0	1.5
26	SQ-160HP-VG	14238 Rev. 2 DATE: 05/10/202	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
27	BSQ-180HP-10	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
28	BSQ-420-100	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
29	SQ-60-VG	14238 Rev. 201NG	CEnvironmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
30	SQ-95-E	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
31	BSQ-70-7	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
32	BSQ-420-100	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
33	RBUMO-2H54-50	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
34	RBCF-3H72-200	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5

Notes:

¹ See addendum with supplemental back calculations to ANCO 3298 Test Report to justify SDS level.





1900532-CR-001 R0

1anufacturer: 1odel Line:		looded Props, RBUMO, RSF, X	RS, RSFP			
UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _P
35	RBF-2L36-30	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
36	RBF-1H36-30	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
40	RBS-1L30-10	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
42	RCE3-54-323-C75	14238 Rev. 2 DE C	Environmental Testing	2.0 3.2	1 0	1.5
43	RSF-200-100	14238 Rev. 2	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
44	SQ-95-D	15332 Rev. 1	Environmental Testing Laboratory (ETL)	2.0 3.2	1 0	1.5
45	SQ-95-D	15332 Rev. 1 By Timothy J Pil	Environmental Testing	2.0 3.2	1 0	1.5
	0					
	CP	DATE: 05/10/202	6/2			
	No. Contraction of the second s	100 A A	DE.2			
		NIA BUILDING	COL			
lotes:						1



1900532-CR-001 R0

Manufacturer:	Greenhecl	k (Accurex)							0
Model Line:	SQ						Ľ	JUT	8
Model Number:	SQ-160-A			Serial Ni	umber:	N/A			
Product Construc	-								
Carbon steel hous	sing; Backward i	nclined aluminum whe	eel;						
Options/Subcom					•1 . h				
3 HP Motor, bolte	d access panels,	Integral duct connecti	on flanges, NEMA 1	toggle s	witch				
		FC	RCODECO	24					
		NED		MS,					
			UUT Properties		7				
Weight		Dimension (in)			Lowes	t Natural	Frequen	cy (Hz)	
(lb)	Depth	Width	OS Height 13	Front-Back Side			Side	Ver	tical
125	26.0	26.0	28.0 N/A N/			/A	N	/A	
		UUT Highest P	assed Seismic Run	Informa	tion				
Buildir	ng Code	O Test Criteria	a S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g
CBC	2019	ICC-ES AC156 (2	@4)/10/2921	1.0	1.5	3.04	2.28	1.27	0.51
					$\sqrt{\alpha}$				
Test Mounting De		T			0				
		RNN		202					
			BUILDING						
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			Refer						
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		1 SA							
		1			-				

Ceiling suspended using (4) 1/4" A307 threaded rods, (4) Mason RW30N-X-33 isolators, & (4) diag. 3/32" diameter steel cable braces w/ Mason SCB-0 clips at ends.

1900532-CR-001 R0

Manufacturer:

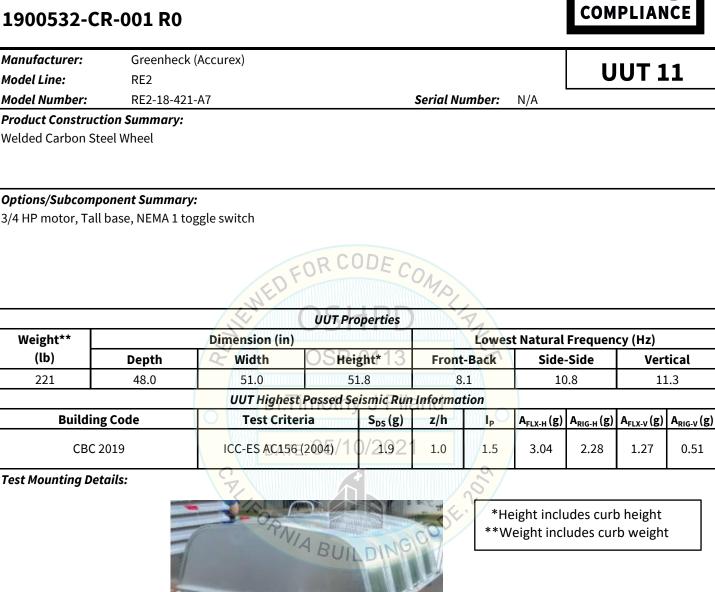
Model Number:

Weight**

(lb)

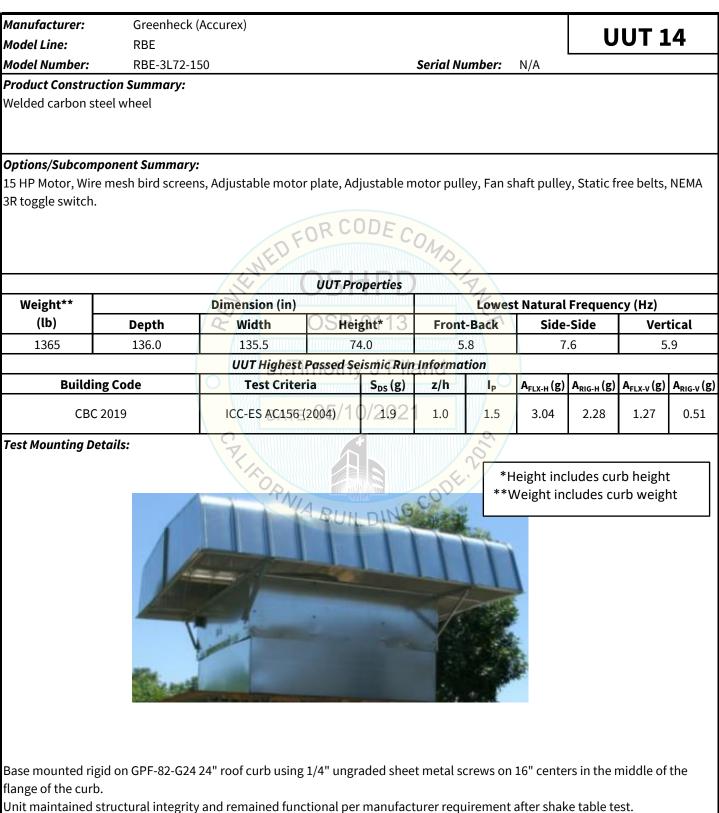
221

Model Line:



GREENHECK

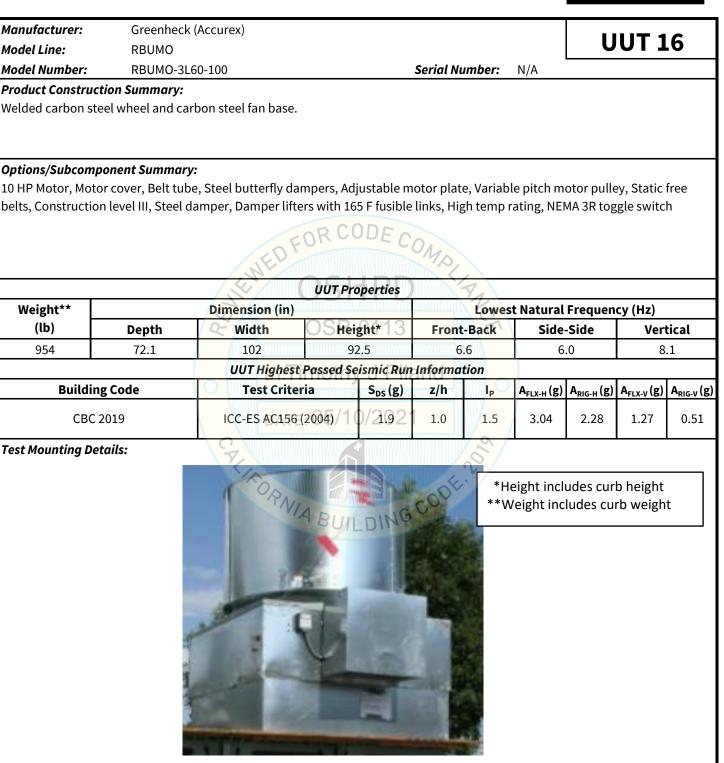
1900532-CR-001 R0



Contents were included in testing per operating conditions.



1900532-CR-001 R0



COMPLIANCE

Base mounted rigid on GPF-72-G20 20" roof curb using 1/4" ungraded sheet metal screws on 16" centers in the middle of the flange of the curb.

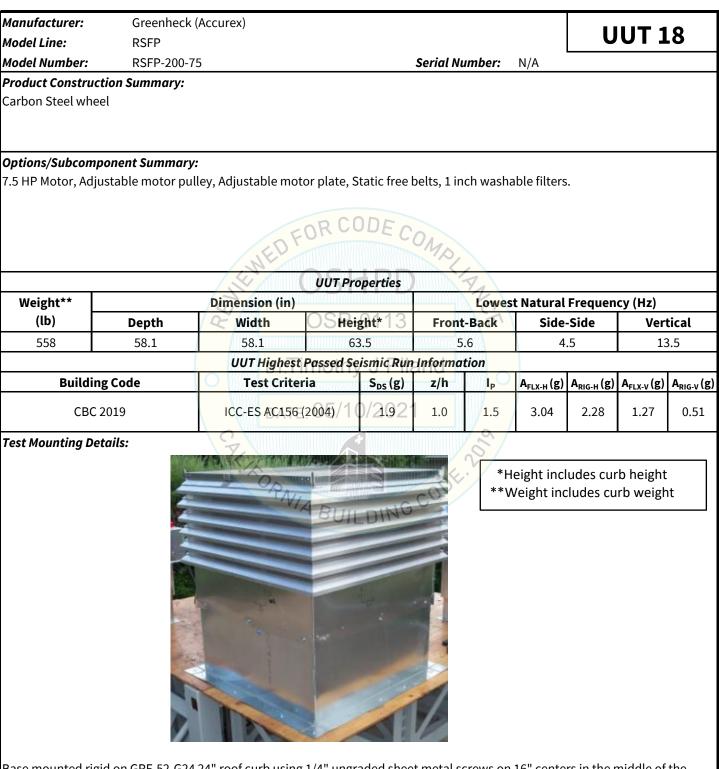
1900532-CR-001 R0



COMPLIANCE

Base mounted rigid on GPI-26-G24 24" roof curb using 1/4" ungraded sheet metal screws on 16" centers in the middle of the flange of the curb.

1900532-CR-001 R0



GREENHECK

COMPLIANCE

Base mounted rigid on GPF-52-G24 24" roof curb using 1/4" ungraded sheet metal screws on 16" centers in the middle of the flange of the curb.



1900532-CR-001 R0

Manufacturer:	Greenhec	k (Accurex)								
Model Line:	SQ							U	UT 2	25
Model Number:	SQ-95-D				Serial Nu	mber:	N/A			
Product Construc	tion Summary:									
Carbon steel hous	ing; Backward i	inclined aluminum v	wheel; Two	bolted acc	ess panel	s; Integra	al duct co	nnection	flanges; S	Sleeve
bearing motor; Co	orrosion resistar	it fasteners.								
Options/Subcom	oonent Summar	<i>`у</i> :								
Switch: NEMA-1, 7	oggle; Junction	ı box mounted & wii	red; Inlet/O	utlet Guarc	l; 6 Amp S	iolid stat	e speed c	ontrol; Sp	oring Vibr	ation
Isolators										
			2DC							
			FORC		01.					
		NED			OMp;					
		L. L.	UUT Pr	operties		7				
Weight		Dimension (in)				Lowes	t Natural	Frequen	cy (Hz)	
(lb)	Depth	Width	OSRe	eight 13	Front	-Back	Side	-Side	Vertical	
41.5	19	15		15	3.	2	4	.5	6	.3
		UUT Highes	st Passed So	eismic Run	Informa	tion		_	-	
Buildin	g Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g
СВС	2019	ICC-ES AC15	_{สวณิ} ธ/1	1202	1.0	1.5	3.2	2.4	2.13	0.85
CDC	2019		JTZ (12)	3.2	0.0	1.5	5.2	2.4	2.15	0.85
Test Mounting De	tails:	C.		+)	5				
						~/~				
				F7 6	58 DE	•				
				5 / 5						
		New Ja	13.3	JUN SI	C.V.					
			ABL	PIRIS	Co					
			H-DLA	E E E	6					
				AND CAL						

Base mounted - Isolated using (4) VMC AMSR-1C-50 isolators w/ (1) 1/2" Grade 8 bolt attaching each Isolator to unit & (2) 1/2" Grade 8 bolts attaching each isolator to table.



GREENHECK



	k (Accurex)							ПТ 3	6	
SQ							U		.0	
-	-VG			Serial Nu	mber:	N/A				
ction Summary:										
•		heel; Two b	olted acc	ess panel	s; Integra	al duct coi	nnection	flanges; E	Ball	
orrosion resistan	it fasteners.									
-	-									
Toggle; High Pres				& wired; I	solators	& bracket	s, Spring	Vibratior	า	
		ARCO	DFO							
	DF	One		Dr.						
	NE									
	Le la	UUT Pro	perties		Z,					
	Dimension (in)				Lowes	t Natural	Frequen	cy (Hz)		
Depth	Width	OSHei	ght 13	Front	-Back	Side	le-Side V		Vertical	
29	26	20	6	2.	.8	6	.4	17	7.7	
	UUT Highest	Passed Sei	ismic Run	Informat	tion					
ng Code	Test Criter	ria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
<u>`</u> 7019	ICC-ES AC156	12015/10	12:021	1.0	15	32	24	2 13	0.85	
,2013		(Ferel	3.2	0.0	1.0	5.2	2.1	2.10	0.00	
etans:		25		CODE	0					
	SQ SQ-160HP ction Summary: ising; Backward i corrosion resistan ponent Summar n EC motor 0-10 V Toggle; High Pres Depth 29	SQ-160HP-VG ction Summary: using; Backward inclined aluminum will corrosion resistant fasteners. ponent Summary: n EC motor 0-10 VDC Input Signal; Corr Toggle; High Pressure (HP) wheel, Jur Dimension (in) Depth Width 29 26 UUT Highest ng Code Test Crite C 2019 ICC-ES AC156	SQ SQ-160HP-VG ction Summary: using; Backward inclined aluminum wheel; Two be corrosion resistant fasteners. ponent Summary: n EC motor 0-10 VDC Input Signal; Control: Vari-G Toggle; High Pressure (HP) wheel, Junction box r UUT Pro UUT Pro Dimension (in) Depth Width OS Hei 29 26 20 UUT Highest Passed Ser ng Code Test Criteria 2019 ICC-ES AC156 (2015)/1 (SQ SQ-160HP-VG ction Summary: Ising; Backward inclined aluminum wheel; Two bolted acceler corrosion resistant fasteners. In EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial Toggle; High Pressure (HP) wheel, Junction box mounted & UUT Properties UUT Properties Dimension (in) Depth Width OS Height 13 29 26 26 UUT Highest Passed Seismic Run Ing Code Test Criteria S _{DS} (g) C2019 ICC-ES AC156 (2015)/1 (-2.0) 3.2	SQ SQ-160HP-VG Serial Nu ction Summary: using; Backward inclined aluminum wheel; Two bolted access panel corrosion resistant fasteners. ponent Summary: n EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial on Exterior Toggle; High Pressure (HP) wheel, Junction box mounted & wired; I UUT Properties UUT Properties Dimension (in) Depth Width Height Front 29 26 26 2 UUT Highest Passed Seismic Run Information ng Code Test Criteria Sps (g) z/h C2019 ICC-ES AC156 (2015) / 2.0 1.0 3.2 0.0	SQ Serial Number: ction Summary: sing; Backward inclined aluminum wheel; Two bolted access panels; Integration resistant fasteners. corrosion resistant fasteners. sources panels; Integration of Fan Toggle; High Pressure (HP) wheel, Junction box mounted & wired; Isolators UUT Properties UUT Properties Dimension (in) Lowes UUT Properties UUT Highest Passed Seismic Rum Information ng Code Test Criteria Sps (g) Z/h Ip 12019 ICC-ES AC156 (2015) 3.2 0.0 1.5	SQ SQ-160HP-VG Serial Number: N/A ction Summary: using; Backward inclined aluminum wheel; Two bolted access panels; Integral duct con- corrosion resistant fasteners. ponent Summary: n EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial on Exterior of Fan Housing, Toggle; High Pressure (HP) wheel, Junction box mounted & wired; Isolators & bracket UUT Properties UUT Properties UUT Properties Dimension (in) Lowest Natural Depth Width Subject Passed Seismic Run Information ng Code Test Criteria Sps (g) Z/h Ip A _{FLXH} (g) C2019 ICC-ES AC156 (2015) 7 2.0 1.0 1.5 3.2	SQ SQ-160HP-VG Serial Number: N/A ction Summary: using; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection to corrosion resistant fasteners. ponent Summary: In EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial on Exterior of Fan Housing, Mounted Toggle; High Pressure (HP) wheel, Junction box mounted & wired; Isolators & brackets, Spring UUT Properties UUT Properties Dimension (in) Lowest Natural Frequen Depth Width Height 3 Front-Back Side-Side 29 26 26 2.8 6.4 UUT Highest Passed Seismic Run Information Ing Code Test Criteria Sps (g) Z/h Ip A _{FLX-H} (g) A _{RIG-H} (g) 2019 ICC-ES AC156 (2015)/1 / 2,0 1.0 1.5 3.2 2.4	SQ SQ-160HP-VG Serial Number: N/A Ction Summary: Ising; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection flanges; E isorrosion resistant fasteners. Piponent Summary: In EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial on Exterior of Fan Housing, Mounted and Wire Toggle; High Pressure (HP) wheel, Junction box mounted & wired; Isolators & brackets, Spring Vibration UUT Properties UUT Properties Dimension (in) Lowest Natural Frequency (Hz) Depth Width Bleight 13 Front-Back Side-Side Ver 29 26 26 2.8 6.4 17 UUT Highest Passed Seismic Run Information Ing Code Test Criteria Sps (g) Z/h Ip AFLX-H (g) AFLG-H (g) AFLX-H (g) 2019 ICC-ES AC156 (2015) / 1 (2.0) 1.5 3.2 2.4 2.13	

Base mounted - Isolated using (4) VMC AMSR-1C-100 isolators w/ (1) 1/2" Grade 8 bolt attaching each Isolator to unit & (2) 1/2" Grade 8 bolts attaching each isolator to table.



Manufacturer: Greenheck (Accurex)

Model Line: BSQ Model Number: BSQ-180HP-10

Serial Number: N/A

GREENHECK

COMPLIANCE

UUT 27

Product Construction Summary:

Carbon steel housing; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection flanges; Ball bearing motor; Adjustable moto pulley; Adjustable motor plate; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

Switch: NEMA-1, Toggle; Junction box mounted & wired; Motor cover; Bearings with grease fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs).



			UUT Pro	operties		Z					
Weight		Dimension (in		Lowest Natural Frequency (Hz)							
(lb)	Depth	Width	OS Height 13		Front-Back		Side-Side		Vertical		
182	34	27	4	41		4.1		3.3		.4	
		UUT Highe	st Passed Se	ismic Run	Informa	tion					
Buildi	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CPC	CBC 2019 ICC-ES AC156 (a)	$\frac{20}{2}$	1.0	1.5	3.2	2.4	2.12	0.85	
CDC	, 2019	ICC-ES AC156 (2015) / 1 (3.2	0.0	1.5	5.2	2.4	2.13	0.65	

Test Mounting Details:



Base mounted - Isolated using (4) VMC AMSR-1C-100 isolators w/ (1) 1/2" Grade 8 bolt attaching each Isolator to unit & (2) 1/2" Grade 8 bolts attaching each isolator to table.



UUT 28

1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)
Model Line:	BSQ
Model Number:	BSQ-420-100

Serial Number: N/A

Product Construction Summary:

Carbon steel housing; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection flanges; Ball bearing motor; Adjustable motor pulley; Adjustable motor plate; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA premium efficient motor; Switch: NEMA-1, Toggle; Junction box mounted & wired; Insulated Housing: 1" thick on fan housing and filter box; Sloped filter box, 2" Aluminum and Paper filters; Isolators & brackets, Bearings with grease fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs).

			UUT Pro	operties		Z				
Weight		Lowest Natural Frequency (Hz)								
(lb)	Depth	Width	OSHe	ight 13 Front-Back		Side-Side		Vertical		
1236	96	58 76		76	5.2		3.5		8.4	
		UUT Highe	st Passed Se	ismic Run	Informa	tion				
Buildi	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019			and 5/10	1200	1.0	1 5	3.2	2.4	2.13	
CBC	, 2013	ICC-ES AC156 (2015) / 1 (3.2	0.0	1.5	5.2	2.4	2.13	0.85

Test Mounting Details:



Base mounted - Isolated using (6) VMC MSH-1E-400 isolators w/ (1) 5/8" Grade 8 bolt attaching each Isolator to unit & (4) 5/8" Grade 8 bolts attaching each isolator to the table.

1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)		
Model Line:	SQ		UUT 29
Model Number:	SQ-60-VG	Serial Number: N/A	

Product Construction Summary:

Carbon steel housing; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection flanges; Sleeve bearing motor; Corrosion resistant fasteners.

Options/Subcomponent Summary:

Motor: Vari-Green EC motor 0-10 VDC Input Signal; Control: Vari-Green Dial on Exterior of Fan Housing, Mounted and Wired; Switch: NEMA-1, Toggle; Junction box mounted & wired; Side discharge: veiwing inlet with motor on top.



			UUT Pro	operties		Z				
Weight		Dimension (in) — — — —		Lowest Natural Frequency (Hz)					
(lb)	Depth	Width	ight 13	Front-Back		Side-Side		Vertical		
33	15	12		12 N/A		N/A		N/A		
		UUT Highe	st Passed Se	ismic Run	Informa	tion				
Buildi	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019 ICC-ES AC156		and 5/10	2.0	1.0	1.5	3.2	2.4		0.05	
CBC	, 2019	ICC-ES AC156 (2015) / 1 (3.2	0.0	1.5	3.2	2.4	2.13	0.85

Test Mounting Details:



Ceiling suspended - Isolated using (4) 3/8" Ø A307 threaded rods w/ rod stiffeners & (4) Mason RW30N-A-12 isolators & (4) 3/32" Ø diag. cable braces w/ Mason SCB-0/SCBH-0 clips at ends. Cable was looped around the bolt and re-run back through the outside of the clamp to prevent slippage. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

GREENHECK TRU COMPLIANCE

1900532-CR-001 R0

Manufacturer:	Greenhec	k (Accurex)										
Model Line:	SQ							U	UT 3	SO		
Model Number:	SQ-95-E			Serial Number: N/A								
Product Constr	uction Summary:											
Carbon steel ho	using; Backward i	inclined aluminum wh	neel; Two b	polted acce	ess panel	s; Integra	al duct cor	nnection	flanges; S	leeve		
bearing motor;	Corrosion resistar	nt fasteners.										
L												
Options/Subco	mponent Summai	r y:										
Switch: NEMA-1	, Toggle; Junction	box mounted & wire	d; Solid sta	ate speed o	control, 6	Amp.						
			-0.00									
		AF	OKU	DE C	24							
		NEDF			MA							
		4	UUT Pro			7						
Weight		Dimension (in)		imatum till		Lowes	t Natural	al Frequency (Hz)				
(lb)	Depth	Width	OSHei	ght 13	Front-Back		Side-Side		Ver	tical		
44.5	19	15	1	.5	N/A		N/A		N/A			
		UUT Highest	Passed Se	ismic Run	Informa	tion						
Build	ling Code	Test Criter	ria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g		
	C 2019	ICC-ES AC156	2015/10	2.021	1.0	1.5	3.2	2.4	2.13	0.85		
CB	C 2019		ZUIS/ IV	3.2	0.0	1.5	5.2	2.4	2.15	0.85		
CB												
CE Test Mounting	Details:	8				22						
	Details:	CP.				202						
	Details:	P A CONT			- Su	6/02						
	Details:	C RANK			a de	102						
	Details:	C. C. C. P. M.	A BUIL	DING	C C C C C C C C C C C C C C C C C C C	Síon H	Æ					

Ceiling suspended - Isolated using (4) 3/8" Ø A307 threaded rods w/ rod stiffeners & (4) Mason RW30N-A-18 isolators & (4) 3/32" Ø diag. cable braces w/ Mason SCB-0/SCBH-0 clips at ends. Cable was looped around the bolt and re-run back through the outside of the clamp to prevent slippage. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

30



1900532-CR-001 R0

Manufacturer:	Greenheck	(Accurex)							UT 3	1
Model Line:	BSQ							U	013	
Model Number:	BSQ-70-7				Serial Nu	mber:	N/A			
pearing motor; Ad	ing; Backward in justable motor p	iclined aluminum v pulley; Adjustable n				-			-	
Delts;Corrosion res	onent Summary						(*)			
		ENED	OR CO	ODE Co	MPL					
Weight		Dimension (in)				Lowes	st Natural	Frequen	cy (Hz)	
(lb) Depth		Width	OSHe	ight 13	Front-Back		Side-Side		Ver	tical
74.5	27	17	31	N/	'A	N,	/A	N	/A	
		UUT Highes	t Passed Se	eismic Run	Informat	ion				
Buildin	g Code	Test Crite	eria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (
CBC2	2019	ICC-ES AC156	6 (2015) / 1	2.0 3.2	1.0 0.0	1.5	3.2	2.4	2.13	0.85
Test Mounting De	uns:			DING	contr					

Ceiling suspended - Isolated using (4) 3/8" Ø A307 threaded rods w/ rod stiffeners & (2) Mason RW30N-A-18 & (2) Mason RW30N-A-41 isolators & (4) 3/32" Ø diag. cable braces w/ Mason SCB-0/SCBH-0 clips at ends. Cable was looped around the bolt and rerun back through the outside of the clamp to prevent slippage. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.



UUT 32

1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)
Model Line:	BSQ
Model Number:	BSO-420-100

Serial Number: N/A

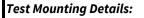
Product Construction Summary:

Carbon steel housing; Backward inclined aluminum wheel; Two bolted access panels; Integral duct connection flanges; Ball bearing motor; Adjustable motor pulley; Adjustable motor plate; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA premium efficient motor; Switch: NEMA-1, Toggle; Junction box mounted & wired; Insulated Housing: 1" thick on fan housing and filter box; Sloped filter box, 2" Aluminum & Paper filters; Isolators; Bearings with grease fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs).

			UUT Pr	operties		Z,				
Weight		Dimension (in	sion (in) Lowest Natural Frequency					cy (Hz)	y (Hz)	
(lb)	Depth	Width OS Height 13				t-Back	Side	-Side	Vertical	
1236	96	58		76	Manana N	/A	N	/A	N	/A
		UUT Highe	st Passed Se	eismic Run	Informa	tion				
Buildi	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019			and 5/1	1/200	1.0	1.5	2.2	2.4	2.13	0.85
		ICC-ES ACIS	ICC-ES AC156 (2015) / 1 (0.0	1.5	3.2 2.4		2.13	0.85





Ceiling suspended - Isolated using (6) 1/2" Ø A307 threaded rods w/ rod stiffeners & (4) Mason RW30N-A-410 & (2) Mason RW30N-A-222 isolators & (6) 1/4" Ø diag. cable braces w/ Mason SCB-3/SCBH-3 clips at ends. Cable was looped around the bolt and rerun back through the outside of the clamp to prevent slippage. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.



UUT 33

1900532-CR-001 R0

Manufacturer:Greenheck (Accurex)Model Line:RBUMOModel Number:RBUMO-2H54-50

Serial Number: N/A

Product Construction Summary:

Fan base, motor cover and windband of Carbon steel; Panel and drive frame assemblies of painted steel; Windband has built in damper stops; Butterfly dampers; Fabricated steel propeller; Ball bearing motors; Adjustable motor plate; Variable pitch motor pulley; Fan shaft mounted in pillow block bearings with grease zerks; Fixed pitched drives; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA Premium Efficient Motor; Switch: NEMA-3R, Toggle; Junction Box Mounted & Wired; Roof Curb-Galv., GPF-66-G42, Under Sized 0.5" Total; Galvanized Construction; Steel Propeller; Belt Tube; Aluminum Butterfly Damper; Motorized Butterfly Damper Lifters (24V Actuator w/ 120/230V Transformer); Bearings with Grease Fittings.

		Ser la	UUT Pr	operties		7				
Weight**		Dimension (in	Dimension (in) Lowest Natural Frequency (H					cy (Hz)	Hz)	
(lb) Depth		Width	OSHeight*13		Front-Back		Side	-Side	Vertical	
812	66	66		111////////////////////////////////////	14	4.2	13	3.8	9.9	
		UUT Highe	st Passed S	eismic Run	Informa	tion				
Buildir	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2010			a)	12.00	1.0	1 5	2.2	2.4	2.12	0.85
CBC	CBC 2019		CC-ES AC156 (2015) / 1		0.0		3.2 2.4		2.13	0.85

Test Mounting Details:



Base mounted rigid on GPF-66-G42 42" tall roof curb using (24) 5/16" self-tapping srews to attach fan to curb & (28) 5/16" self-tapping screws to attach curb to wood curb mount.



UUT 34

1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)
Model Line:	RBCF
Model Number:	RBCF-3H72-200

Serial Number: N/A

Product Construction Summary:

Base and hoods of Carbon steel; Drive frames and fan panels of fabricated Carbon steel; Washable Aluminum Filters; Ball bearing motors; Cast aluminum airfoil blade propeller; Adjustable motor plate; Adjustable motor pulley; Fan shaft pulley; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

Hood; NEMA Premium Efficient Motor; 30A Disconnect; Switch: NEMA-1, Toggle; Junction Box Mounted & Wired; Roof Curb-Galv., GPF-83-G42, Under Sized 0.5" Total; Tall Base with Latched Access Door; Cast Aluminum Propeller; Aluminum Construction; Damper Mounted (VCD-23-PB-72X72); Damper Actuator (MS4120F1006), 460 VAC Actuated w/ 115 VAC Transformer; 0.5" Hood Insulation; Bearings with Grease Fittings; Extended Lube Lines. Insect Screen Base.

			UUT Pr	operties		Z						
Weight**	Dimension (in)					Lowest Natural Frequency (Hz)						
(lb)	Depth 🛛 📿 Width		OSHei	OSHeight*13		Front-Back		Side	Vertical			
1512	136	147 113			25	5.1	7.7		15.7			
		UUT Highe	st Passed S	eismic Run	Informa	tion						
Buildir	ng Code	O Test Crit	Test Criteria S _{DS} (g)		z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)		
CRC	CBC 2019		6/2015/1	12:00	1.0	15	3.2	2.4	2.13	0.85		
CBC	2013	ICC-ES AC156 (2015) / 1 (3.2	0.0		3.2 2.4		2.13 0.85			

Test Mounting Details:

*Height includes curb height **Weight includes curb weight



Base mounted rigid on GPF-83-G42 42" tall roof curb using (36) 5/16" self-tapping srews to attach fan to curb & (16) 5/16" self-tapping screws to attach curb to curb mount.



1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)
Model Line:	RBF
Model Number:	RBF-2L36-30

Serial Number: N/A

Product Construction Summary:

Base and hoods of Carbon steel; Drive frames and fan panels of fabricated Carbon steel; Washable Aluminum Filters; Ball bearing motors; Fabricated steel propeller (CBR-G); Adjustable motor plate; Adjustable motor pulley; Fan shaft pulley; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA Premium Efficient Motor; Switch: NEMA-3R, Toggle; Junction Box Mounted & Wired; Roof Curb-Galv., GPF-46-G42, Under Sized 0.5" Total; Tall Base with Latched Access Door; Steel Propeller; Galvanized Construction; Damper Mounted (WD-200-PB-36X36), End Switch; Damper Actuator (MP-210), 115 VAC Actuated; Bearings with Grease Fittings. Insect Screen Base.

		4	UUT Pr	operties		Z				
Weight**		Dimension (in)	on (in) Lowest Natural Frequency (H					cy (Hz)	(Hz)	
(lb)	Depth	Width	OSHeight*13		Front-Back		Side	-Side	Vertical	
835	94	87 98			4	.4	4	.9	11	L.O
		UUT Highes	st Passed Se	eismic Run	Informa	tion				
Buildir	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2010			പാനിട് /1	$\frac{2}{2}$	1.0	1 5	3.2	2.4	2.13	0.85
CBC	CBC 2019		ICC-ES AC156 (2015) / 1 (0.0	0.0 1.5		3.2 2.4		0.85

Test Mounting Details:

*Height includes curb height *Weight includes curb weight

UUT 35

punted rigid on GPF-46-G42 42" tall roof curb using (24) 5/16" self-tapping srews to attach fan to cur

VIA BUIL

Base mounted rigid on GPF-46-G42 42" tall roof curb using (24) 5/16" self-tapping srews to attach fan to curb & (18) 5/16" self-tapping screws to attach curb to wood curb mount.



Manufacturer:Greenheck (Accurex)Model Line:RBFModel Number:RBF-1H36-30

Serial Number: N/A

Product Construction Summary:

Base and hoods of Carbon steel; Drive frames and fan panels of fabricated Carbon steel; Washable Aluminum Filters; Ball bearing motors; Fabricated steel propeller (SBR); Adjustable motor plate; Adjustable motor pulley; Fan shaft pulley; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA Premium Efficient Motor; Switch: NEMA-3R, Toggle; Junction Box Mounted & Wired; Roof Curb-Galv., GPF-46-G42, Under Sized 0.5" Total; Tall Base with Latched Access Door; Steel Propeller; Galvanized Construction; Damper Mounted (WD-200-PB-36X36), End Switch; Damper Actuator (MP-210), 115 VAC Actuated; Bearings with Grease Fittings. Insect Screen Base.

			UUT Pr	operties		Z							
Weight**		Dimension (in	Dimension (in)				Lowest Natural Frequency (Hz)						
(lb)	Depth	Width	OSHeight*13		Front-Back		Side-Side		Vertical				
835	94	87	9	98 6.5		i.5	7	.5	12	2.1			
		UUT Highe	st Passed Se	eismic Run	Informa	tion							
Buildir	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)			
CDC 2010			and 5/1	$\sqrt{2}\theta_{2}$	1.0	1 5	2.2	2.4		0.85			
CBC	CBC 2019		ICC-ES AC156 (2015)/1 (0.0	1.5	3.2 2.4		2.13	0.85			

Test Mounting Details:



Base mounted rigid on GPF-46-G42 42" tall roof curb using (24) 5/16" self-tapping srews to attach fan to curb & (18) 5/16" self-tapping screws to attach curb to wood curb mount.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UUT 36



Manufacturer:	Greenheck (Accurex)
Model Line:	RBS
Model Number:	RBS-1L30-10

Serial Number: N/A

COMPLIANCE

UUT 40

Product Construction Summary:

Base and hoods of Carbon steel; Drive frames and fan panels of fabricated Carbon steel; Wire mesh birdscreens; Ball bearing motors; Fabricated steel propeller (CBR); Adjustable motor plate; Adjustable motor pulley; Fan shaft pulley; Fan shaft mounted in ball bearing pillow blocks; Static free belts; Corrosion resistant fasteners.

Options/Subcomponent Summary:

NEMA Premium Efficient Motor; Switch: NEMA-3R, Toggle; Roof Curb-Galv., GPF-40-G12, Under Sized 1.25" Total; Tall Base with Latched Access Door; Steel Propeller; Galvanized Construction; Damper Mounted (VCD-20-PB-30X30); Damper Actuator (MS8104F1010), 24 VAC Actuated.

			- ACT	100								
			UUT Pro	operties		Z						
Weight**		Dimension (in) — — —	Lowest Natural Frequency (Hz)								
(lb)	Depth	Width	OSHeight*13		Front-Back		Side-Side		Vertical			
420	75	75	3.3	15.2		9	.8	28.9				
		UUT Highe	st Passed Se	ismic Run	Informa	tion						
Buildir	ng Code	Test Crit	eria	S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)		
CDC 2010			ICC-ES AC156 (2015) / 1 0		1.0	1 5	2.2					
CBC	CBC 2019				0.0	1.5	3.2 2.4		2.13	0.85		

Test Mounting Details:



*Height includes curb height **Weight includes curb weight

Base mounted rigid on GPF-40-G12 12" tall roof curb using (24) 5/16" self-tapping srews to attach fan to curb & (20) 5/16" self-tapping screws to attach curb to wood curb mount.

UUT 42

1900532-CR-001 R0

Manufacturer:Greenheck (Accurex)Model Line:RCE3

Model Number: RCE3-54-323-C75

Serial Number: N/A

Product Construction Summary:

Base and hoods of Carbon steel; Drive frames and fan panels of fabricated Carbon steel; Wire mesh birdscreens; Ball bearing motors; Cast aluminum airfoil blade propeller; Corrosion resistant fasteners

Options/Subcomponent Summary:

Hood; NEMA Energy Efficient Motor; Roof Curb-Galv., GPF-64-G42, Under Sized 0.5" Total; Tall Base with Latched Access Door; Cast Aluminum Propeller; Galvanized Construction; Damper Mounted (WD-100-PB-54X54), End Switch; Damper Actuator (MP-100A), 115 VAC Actuated. Insect Screen Base.

						1						
			UUT Pro	operties		Z						
Weight**		Dimension (in)				Lowest Natural Frequency (Hz)						
(lb) Depth		Width	h OSHeight		Front-Back		Side-Side		Vertical			
1525	112	112 111 108				5.5		6.9		11.1		
		UUT Highes	st Passed Se	ismic Run	Informa	tion						
Building Code		Test Criteria		S _{DS} (g)	z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	AFLX-V (g	A _{RIG-V} (g		
CBC 2019		ICC-ES AC156 (2015)/1 (12,00	1.0	1 5	2.2	2.4	2.12	0.85		
				3.2	0.0	1.5	3.2	2.4	2.13			

Test Mounting Details:



*Height includes curb height **Weight includes curb weight

Base mounted rigid on GPF-64-G42 42" tall roof curb using (20) 5/16" self-tapping srews to attach fan to curb & (24) 5/16" self-tapping screws to attach curb to wood curb mount.

GREENHECK COMPLIANCE

1900532-CR-001 R0

Manufacturer:	Greenheck							12		
Model Line:	RSF	RSF						U	UT 4	15
Model Number:	odel Number: RSF-200-100					ımber:	N/A			
Product Construc Removable insula	•	Curb cap with prep	unched mo	ounting hole	es: Blowe	er and m	otor assen	nblv isola	ted on sh	lock
		wheel; Adjustable r		-						
		cks; Static free belt	•			•	· · · ·	, ,		
Options/Subcom	ponent Summary	/:								
	-	of Curb-Galv., GPF	-52-G42, Ur	nder Sized ().5" Total	l; Galvan	ized Housi	ing; Stanc	lard 1" W	ashabl
Aluminum Filters;			2DC					0,		
			FORC	SDE C	Mp,					
		NED			AP)					
			UUT Pr	operties		Z				
Weight**		Dimension (in)					t Natural Frequen			
(lb)	Depth	Width		ight*13	Front-Back		Side-Side		Vertical	
1006	73	73		81.3 5.8		6.0		13.1		
		UUT Highes		$\eta \rightarrow \eta \gamma$			1 ()			
Building Code		Test Crite	eria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	AFLX-V (g	A _{RIG-V} (
CBC 2019		ICC-ES AC156 (2015)		$0/\frac{2.0}{3.2}$	1.0	1.5	3.2	2.4	2.13	0.85
Test Mounting De	taila			5.2	0.0	$\sqrt{2}$				
			A BUI				leight inc		-	
Base mounted rig					8					

tapping screws to attach curb to curb mount.





Manufacturer:Greenheck (Accurex)UUT 44Model Line:SQ, XID, BSQ, XIB, R Hooded Props, RBUMO, RSF, XRS, RSFPUUT 44Model Number:SQ-95-DSerial Number:15922671

Product Construction Summary:

Carbon steel housing; Backward inclined composite wheel; Two bolted access panels; Integral duct connection flanges; Sleeve bearing motor; Corrosion resistant fasteners.

Options/Subcomponent Summary:

Switch: NEMA-1, Toggle; Junction box mounted & wired; Inlet/Outlet Guard; 6 Amp Solid state speed control; Spring Vibration Isolators



			UUT Pro	operties		Z					
Weight	Dimension (in)				Lowest Natural Frequency (Hz)						
(lb)	Depth	Width	OSRe	ight 13	3 Front-Back		Side-Side		Vertical		
56	19	19 15 11 11		.5	3.55		5.31		7.40		
		UUT Highe	st Passed Se	eismic Run	Informa	tion					
Building Code Cest Criteria				S _{DS} (g)	z/h		A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019		ICC-ES AC156 (2015) / 1 (1/2.02	1.0	1 5	3.2	2.4	2.13	0.85	
				3.2	0.0	1.5	3.2	2.4			

Test Mounting Details:



Base mounted - Isolated using (4) VMC AMSR-1C-50 isolators w/ (1) 1/2" Grade 8 bolt each attaching Isolator to unit & (2) 1/2" Grade 8 bolts each attaching isolator to table.

SQ-95-E



15922672

Serial Number:

1900532-CR-001 R0

Manufacturer:	Greenheck (Accurex)
Model Line:	SQ, XID, BSQ, XIB, R Hooded Props, RBUMO, RSF, XRS, RSFP

UUT 45

Product Construction Summary:

Model Number:

Carbon steel housing; Backward inclined composite wheel; Two bolted access panels; Integral duct connection flanges; Sleeve bearing motor; Corrosion resistant fasteners.

Options/Subcomponent Summary:

Switch: NEMA-1, Toggle; Junction box mounted & wired; Solid state speed control, 6 Amp.



			UUT Pi	operties		Z					
Weight	Dimension (in)				Lowest Natural Frequency (Hz)						
(lb)	Depth	Width	OS Height 13		Front-Back		Side-Side		Vertical		
65.5	19	15			N/A		N/A		N/A		
		UUT Highe	st Passed S	eismic Run	Informa	ition					
Building Code		Test Crit	Test Criteria		z/h	I _P O	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019		ICC-ES AC156 (2015)		0/2,00	1.0	1.5	3.2	2.4	2.13	0.85	
				3.2	0.0	1.5				0.85	

Test Mounting Details:



Ceiling suspended - Isolated using (4) 3/8" Ø A307 threaded rods w/ rod stiffeners, (4) Kinetics Noise Control SHAA-25 Isolators mounted to fixture with (1) 3/8" Grade 5 bolt each, and (2) 3/32" Ø diag. cable braces per corner (8 total) w/ Mason SCB-0/SCBH-0 clips at ends. Cables were looped around the bolt and re-run back through the outside of the clamp to prevent slippage. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.