

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP – 0561
OSHPD Special Seismic Certification Preapproval (OSP)	
Type: 🛛 New 🗌 Renewal	
Manufacturer Information	
Manufacturer: Nailor Industries, Inc.	
Manufacturer's Technical Representative: John Carlile	
Mailing Address: 4714 Winfield Road, Houston, TX 77039	
Telephone: 281-590-1172 Email: jcarlile	@nailor.com
Product Information	MD
Product Name: Single Duct Terminal Units, Dual Duct Terminal Units	, Fan Powered Terminal Units
Product Type: Variable or Constant Volume Terminal Unit, Fan Pow	vered Terminal Units
Single Duct Model 3000, 3001, 30; Dual Duct Model Strain Single Duct Model 3000, 3001, 30; Dual Duct Model Model Strain S	del 3200; Fan Powered Model 33SZ, 35S, 35N, 37S; -
General Description: VAV terminal units and Fan Powered terminal units	(FPTU) with controller, damper, and coils.
C DATE: 04/17/2023	
Mounting Description:	ng isolated suspended mounted
Applicant Information	02
Applicant Company Name: Petra Seismic Design, LLC	
Contact Person: Robert Simmons	
Mailing Address: 14525 FM529, suite 205, Houston, TX 77095	
Telephone: _281-656-1439 Email: _rsimme	ons@petraseismicdesign.com
I hereby agree to reimburse the Office of Statewide Health I accordance with the California Administrative Code, 2016.	Planning and Development review fees in
Signature of Applicant:	Date: February 13, 2020
Title: CEO Company Name: Petra	Seismic Design, LLC
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"	OSHPD
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)	Page 1 of 3



California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name: Response Structural Engineering
Name: Todd Kemen California License Number: S5409
Mailing Address:1455441 Fair Oaks BLVD Suite G2, Carmichael, CA 95608
Telephone: 916-680-9922 Email: toddk@response-eng.com
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 – strut supports and threaded rod
Certification Method
 Testing in accordance with: ICC-ES AC156 Other (Please Specify): OSP-0561
Testing Laboratory
Company Name: Environmental Testing Laboratory, Inc. 17/2023
Contact Name: Jeremy Lange
Mailing Address:
Telephone: 972-247-9657 Email: Jeremy@etIdallas.com

"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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OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters	
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Design in accordance with ASCE 7-10 Chapter 13: 🛛 Yes 🗌 No
Design Basis of Equipment or Components (F_p/W_p) = 1.50 (rigid VAV); 3.60 (Isolated FPTU)
S_{DS} (Design spectral response acceleration at short period, g) = 2.00
a_p (In-structure equipment or component amplification factor) = <u>2.5</u>
R _p (Equipment or component response modification factor) = <u>6.0 (rigid VAV); 2.5 (isolated FPTU)</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 Attachments</u>
Overall dimensions and weight (or range thereof) = See Attachments
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes X 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 factor) = <mark>BY: Timothy J. Piland O</mark>
C₄ (Deflection amplification factor) =
I_{P} (Importance factor) = 1.5 DATE: 04/17/2023
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):
OSHPD Approval (For Office Use Only) – Approval Expires on April 17, 2029
1/1/2
Signature: Date: April 17, 2023
Print Name: Timothy J. Piland Title: SSE
Special Seismic Certification Valid Up to: S _{DS} (g) = <u>See Above</u> z/h = <u>See Above</u>
Condition of Approval (if applicable):
OSHPI
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"
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TABLE 1 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries

Product Family : VAV Single Duct Terminal Units with Water coils/Electric heat and silencers

Certified Product Construction : Zinc Coated 22ga Steel Casing Cabinet Certified Mounting Description :Rigid Ceiling Suspended ⁽⁴⁾

Certified Wounting L				IENSIONS, (in)			Heat/Cool	Cilensen		
Product Family	Nailor Model Number ⁽¹⁾	Length 1,2 Coil(3,4)	Width	Height	Inlet	Unit Size	Max Weight, (lb)	(W, E, N) ⁽²⁾	Silencer (I <i>,</i> Q, N) ⁽³⁾	Sds (g), z/h = 1	UUT
	#31RW-4	28.5	10	8	3.875	4	34.5	W	N		13
	#31RW-5	26(28.5)	10	8	4.875	5	35	W	N	1	Interpolate
	#31RW-6	26(28.5)	10	8	5.875	6		W	N		Interpolate
Circela Durat	#31RW-7	26(28.5)	12	12.5	6.875	7		W	N	1	Interpolate
Single Duct	#31RW-8	26(28.5)	12	12.5	7.875	8	75	W	N		Interpolate
Terminal Units, Model 31RW With	#31RW-9	26(28.5)	14	12.5	8.875	9	/5	W	N	2.5	Interpolate
	#31RW-10	26(28.5)	14	12.5	9.875	10		W	N		Interpolate
Coils	#31RW-12	26(28.5)	18	12.5	12.9375 x 9.0.8125	12		W	N		Interpolate
	#31RW-14	26(28.5)	24	12.5	16.0625 x 9.8125	14	89	W	N	1	Interpolate
	#31RW-16	28.5	28	18	19.1875 x 9.8125	16		W	N	1	14
	#31RW-24	26(28.5)	38	18	23.875 x 15.875	24 x 16	155	W	N		Interpolate
	#30RW-4	26(28.5)	10	10	3.875	4		W	N		Interpolate
	#30RW-5	26(28.5)	10	10	4.875	5	35	W	N		Interpolate
	#30RW-6	26(28.5)	10	10	5.875	6		W	N		Interpolate
	#30RW-7	26(28.5)	12	12.5	6.875 C	7		W	N		Interpolate
Single Duct	#30RW-8	26(28.5)	12	12.5	7.875	8	75	W	N		Interpolate
Terminal Units,	#30RW-9	26(28.5)	14	12.5	8.875	9	75	W	N	2.5	Interpolate
Model 30RW With	#30RW-10	26(28.5)	14	12.5	9.875	10		W	N		Interpolate
Coils	#30RW-12	26(28.5)	18	12.5	12.9375 x 9.0.8125	12		W	N		Interpolate
	#30RW-14	26(28.5)	24	12.5	16.0625 x 9.8125	14	89	W	N		Interpolate
	#30RW-16	26(28.5)	28	12.5	19.1875 x 9.8125	16		W N	[Interpolate	
	#30RW-24	28.5	38	18	23.875 x 15.875	24 x 16	155	W	N	1	Interpolate
	#30RW-4-I	62(64.5)	10	10	3.875	4	7-11	W	I		Interpolate
	#30RW-5-I	62(64.5)	10	10	4.875	5	42	W	Ι		Interpolate
	#30RW-6-I	62(64.5)	10		mot5875 D	ilared		W	I		Interpolate
Single Duct	#30RW-7-I	62(64.5)	12	12.5	6.875	110110 7		W	Ι		Interpolate
Terminal Units,	#30RW-8-I	62(64.5)	12	12.5	7.875	8		W	Ι		Interpolate
Model 30RW With	#30RW-9-I	62(64.5)	14	12.5	8.875	9	82	W	I	2.5	Interpolate
Integral Attenuator	#30RW-10-I	64.5	14	12.5	09.875 //2	0210	\sim	W	I		1
& Coils	#30RW-12-I	62(64.5)	18	12.5	12.9375 x 9.0.8125	12		w	I		Interpolate
	#30RW-14-I	62(64.5)	24	12.5	16.0625 x 9.8125	14	122	W	I		Interpolate
	#30RW-16-I	64.5	28	12.5	19.1875 x 9.8125	16	S' 'V/	W	Ι		2
	#30RW-24-I	64.5	38	18	23.875 x 15.875	24 x 16	167	W	I		3
	#31RW-4-I	62(64.5)	10	10	3.875	4	$\mathbf{O}^{\mathbf{V}}$	W	1		Interpolate
•	#31RW-5-I	62(64.5)	10	10	4.875	5	42	W	1		Interpolate
	#31RW-6-I	62(64.5)	10	10	5.875	66		W	1		Interpolate
Single Duct	#31RW-7-I	62(64.5)	12	12.5	6.875	7		W	1		Interpolate
Terminal Units,	#31RW-8-I	62(64.5)	12	12.5	7.875	8		W	1		Interpolate
Model 31RW With	#31RW-9-I	62(64.5)	14	12.5	8.875	9	82	W	1	2.5	Interpolate
Integral Attenuator	#31RW-10-I	62(64.5)	14	12.5	9.875	10	1	W	1		Interpolate
& Coils	#31RW-12-I	62(64.5)	18	12.5	12.9375 x 9.0.8125	12		W		1	Interpolate
	#31RW-14-I	62(64.5)	24	12.5	16.0625 x 9.8125	14	122	W		1	Interpolate
	#31RW-16-I	62(64.5)	28	12.5	19.1875 x 9.8125	16		W		1	Interpolate
	#31RW-24-I	62(64.5)	38	18	23.875 x 15.875	24 x 16	167	W		1	Interpolate
Notes: (1) "#" indica	tes the controller type. D=	, ,		10	_3.073 A 13.073	2-1 / 10	107	* *		1	interpolate

Notes: (1) "#" indicates the controller type. D=Digital, A=Analog, P=Pneumatic

(2) W=Water Coil, E=Electic heat, N=No heat or cool

(3) I=Integral Silencer, Q=Silencer/Attenuator option added

(4) Supports are mounted so that Length to width ratio is no less than 1.5. See Page 34 of 35



TABLE 1 - CERTIFIED PRODUCT CONT'D

Manufacturer : Nailor Industries

Product Family: VAV Single Duct Terminal Units with Water coils/Electric heat and silencert **Certified Product Construction**: Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description : Rigid Ceiling Suspended (4)

Product Family	Nailor Model		DIN	IENSIONS, (in)	Unit Size	Max Weight,	Heat/Cool	Silencer	Sds (g),	UUT
Product Panniy	Number ⁽¹⁾	Length	Width	Height	Inlet	Unit Size	(lb)	(W, E, N) ⁽²⁾	(I, Q, N) ⁽³⁾	z/h = 1	001
	#30RE-4		10	10	3.875	4		E	N		Interpolate
	#30RE-5		10	10	4.875	5	35	E	N		Interpolate
	#30RE-6		10	10	5.875	6		E	N		Interpolate
	#30RE-7		12	12.5	6.875	7		E	N		Interpolate
Single Duct	#30RE-8		12	12.5	7.875	8	71	E	N		Interpolate
Terminal Units,	#30RE-9	36.5	14	12.5	8.875	9	/1	E	N	2.5	Interpolate
Model: 30RE	#30RE-10		14	12.5	9.875	10		E	N		4
	#30RE-12		18	12.5	12.9375 x 9.0.8125	12		E	N		Interpolate
	#30RE-14		24	12.5	16.0625 x 9.8125	14	98	E	N		Interpolate
	#30RE-16		28	12.5	19.1875 x 9.8125	16		E	N		5
	#30RE-24		38	18	23.875 x 15.875	24 x 16	145	E	N		6
	#30RE-4-I		10	10	3.875	4		E	I		Interpolate
	#30RE-5-I		10	10	4.875	5	48	E	I		Interpolate
F	#30RE-6-I		10	10	5.875	6		E	I		Interpolate
Circle Durat	#30RE-7-I		12	12.5	6.875 C	7		E	I		Interpolate
Single Duct	#30RE-8-I		12	12.5	7.875	8	07	E	I		Interpolate
Terminal Units,	#30RE-9-I	36.5	14	12.5	8.875	9	97	E	I	2.5	Interpolate
Model: 30RE With	#30RE-10-I		14	12.5	9.875	10	136	E	I		Interpolate
Integrated Silencer	#30RE-12-I		18	12.5	12.9375 x 9.0.8125	12		E	I		Interpolate
	#30RE-14-I		24	12.5	16.0625 x 9.8125	14		E	I		Interpolate
F	#30RE-16-I		28	12.5	19.1875 x 9.8125	16		E	I		Interpolate
F	#30RE-24-I		38	18	23.875 x 15.875	24 x 16	166	E	I		Interpolate
	#31RE-4		10	10	3.875	4	1	E	N	- - -	Interpolate
F	#31RE-5		10	10	4.875	5	35 E E E E E	E	N		Interpolate
	#31RE-6		10	R 10 T	mot5.875 P	iland		E	N		Interpolate
	#31RE-7		12	12.5	6.875	7		E	N		Interpolate
Single Duct	#31RE-8		12	12.5	7.875	8		E	N		Interpolate
Terminal Units,	#31RE-9	36.5	14	12.5	8,875	9	71	E	N	2.5	Interpolate
Model: 31RE	#31RE-10		14	12.5	9.875	UZ10		E	N		Interpolate
	#31RE-12		18	12.5	12.9375 x 9.0.8125	12		E	N		Interpolate
	#31RE-14		24	12.5	16.0625 x 9.8125	14	98	E	N		Interpolate
F	#31RE-16		28	12.5	19.1875 x 9.8125	16	Y 'V/	E	N		Interpolate
	#31RE-24		38	18	23.875 x 15.875	24 x 16	145	E	N		Interpolate
	#31RE-4-I		10	10	3.875	4	\bigcirc	E	I		Interpolate
	#31RE-5-I		10	10	4.875	5	48	E	I		Interpolate
F	#31RE-6-I		10	10	QI 15.875 TN	6		E	I		Interpolate
	#31RE-7-I		12	12.5	6.875	7		E	I		Interpolate
Single Duct	#31RE-8-I		12	12.5	7.875	8	07	E	1		Interpolate
Terminal Units,	#31RE-9-I	36.5	14	12.5	8.875	9	97	E	I	2.5	Interpolate
Model: 31RE With	#31RE-10-I		14	12.5	9.875	10	1	E	I	1	Interpolate
Integrated Silencer	#31RE-12-I		18	12.5	12.9375 x 9.0.8125	12		E	I	1	Interpolate
h h	#31RE-14-I		24	12.5	16.0625 x 9.8125	14	136	E	1	1	Interpolate
F	#31RE-16-I		28	12.5	19.1875 x 9.8125	16		E	I	1	Interpolate
F	#31RE-24-I		38	18	23.875 x 15.875	24 x 16	166	E		1	Interpolate
Notes: (1) "#" indicat		Digital A=Analo		10	20.075 × 10.075	247.10	100	-		1	interpolate

Notes: (1) "#" indicates the controller type. D=Digital, A=Analog, P=Pneumatic

(2) W=Water Coil, E=Electic heat, N=No heat or cool

(3) I=Integral Silencer, Q=Silencer/Attenuator option added

(4) Supports are mounted so that Length to width ratio is no less than 1.5 . See Page 34 of 35 $\,$



TABLE 1 - CERTIFIED PRODUCT CONT'D

Manufacturer : Nailor Industries

Product Family: VAV Single Duct Terminal Units with Water coils/Electric heat and silencer **Certified Product Construction**: Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description :Rigid Ceiling Suspended ⁽⁴⁾

	Nailor Model			IENSIONS, (in)		Max Weight,	Heat/Cool	Silencer	Sds (g),	
Product Family	Number ⁽¹⁾	Length 1,2 Coil(3,4)	Width	Height	Inlet	Unit Size	(lb)	(W, E, N) ⁽²⁾	(I, Q, N) ⁽³⁾	z/h = 1	UUT
	#30RWQ/HQW-4		10	10	3.875	4		W	Q		Interpolate
	#30RWQ/HQW-5		10	10	4.875	5	71	W	Q		Interpolate
Single Duct	#30RWQ/HQW-6	74(76.5)	10	10	5.875	6		W	Q		Interpolate
Terminal Units,	#30RWQ/HQW-7	74(70.5)	12	12.5	6.875	7		W	Q		Interpolate
Model: 30RWQ,	#30RWQ/HQW-8		12	12.5	7.875	8	104	W	Q		Interpolate
30HQW	#30RWQ/HQW-9		14	12.5	8.875	9	104	W	Q	2.5	Interpolate
RWQ=Silencer/coil	#30RWQ/HQW-10	76.5	14	12.5	9.875	10		W	Q		7
HQW=Hospital	#30RWQ/HQW-12	74(76.5)	18	12.5	12.9375 x 9.0.8125	12		W	Q		Interpolate
grade silencer/coil	#30RWQ/HQW-14	74(70.5)	24	12.5	16.0625 x 9.8125	14	151	W	Q		Interpolate
	#30RWQ/HQW-16	76.5	28	12.5	19.1875 x 9.8125	16	Ī	W	Q		8
	#30RWQ/HQW-24	76.5	38	18	23.875 x 15.875	24 x 16	213	W	Q		9
Single Duct	#30REQ/HQE-4		10	10	3.875	4		w	Q		Interpolate- 4 & 21
Terminal Units,	#30REQ/HQE-5		10	10	4.875		70	W	Q		Interpolate
Model: 30REQ,	#30REQ/HQE-6		10	10	5.875	6		W	Q		Interpolate
30HQE	#30REQ/HQE-7		12	12.5	6.875	7		W	Q		Interpolate
REQ=Silencer/Elect	#30REQ/HQE-8	84.5	12	12.5)S-7.87556	8	103	W	Q	25	Interpolate
ric heat	#30REQ/HQE-9	84.5	14	12.5	8.875	9	ייז	W	Q	2.5	Interpolate
HQE=Hospital	#30REQ/HQE-10		14	12.5	9.875	10	97	W	Q		10
grade	#30REQ/HQE-12		18 🗋	12.5	12.9375 x 9.0.8125	$2n^{12}$	136	W	Q		Interpolate
silencer/electric	#30REQ/HQE-14		24 🛡	12.5	16.0625 x 9.8125	14	130	W	Q		Interpolate
heat	#30REQ/HQE-16		28	12.5	19.1875 x 9.8125	16	136	W	Q		11
	#30REQ/HQE-24		38	18	23.875 x 15.875	24 x 16	164	W	Q		12
	#31RWQ/HQW-4		10	A 10 –	23.875)23		W	Q		Interpolate
	#31RWQ/HQW-5		10	10	4.875	5	71	W	Q		Interpolate
Single Duct	#31RWQ/HQW-6		10	10	5.875	6	B 0.	W	Q		Interpolate
Terminal Units,	#31RWQ/HQW-7	Ý	12	12.5	6.875	7		W	Q		Interpolate
Model: 31RWQ,	#31RWQ/HQW-8		12	12.5	7.875	8	103	W	Q		Interpolate
31HQW	#31RWQ/HQW-9	74(76.5)	14	12.5	8.875	9	105	W	Q	2.5	Interpolate
RWQ=Silencer/coil	#31RWQ/HQW-10		14	12.5	9.875	10		W	Q		Interpolate
HQW=Hospital	#31RWQ/HQW-12		18	12.5	12.9375 x 9.0.8125	12		W	Q		Interpolate
grade silencer/coil	#31RWQ/HQW-14		24	12.5	16.0625 x 9.8125	14	151	W	Q		Interpolate
	#31RWQ/HQW-16		28	12.5	19.1875 x 9.8125	16		W	Q		Interpolate
	#31RWQ/HQW-24		38	18	23.875 x 15.875	24 x 16	213	W	Q		Interpolate
Single Duct	#31REQ/HQE-4		10	10	3.875	4		W	Q		Interpolate
Terminal Units,	#31REQ/HQE-5		10	10	4.875	5	70	W	Q		Interpolate
Model: 31REQ,	#31REQ/HQE-6		10	10	5.875	6		W	Q		Interpolate
31HQE	#31REQ/HQE-7		12	12.5	6.875	7		W	Q		Interpolate
REQ=Silencer/Elect	#31REQ/HQE-8		12	12.5	7.875	8	103	W	Q		Interpolate
ric heat	#31REQ/HQE-9	84.5	14	12.5	8.875	9	100	W	Q	2.5	Interpolate
HQE=Hospital	#31REQ/HQE-10		14	12.5	9.875	10		W	Q		Interpolate
grade	#31REQ/HQE-12		18	12.5	12.9375 x 9.0.8125	12		W	Q		Interpolate
silencer/electric	#31REQ/HQE-14		24	12.5	16.0625 x 9.8125	14	136	W	Q		Interpolate
heat	#31REQ/HQE-16		28	12.5	19.1875 x 9.8125	16		W	Q		Interpolate
incat	#31REQ/HQE-24		38	18	23.875 x 15.875	24 x 16	164	W	Q		Interpolate

Notes: (1) "#" indicates the controller type. D=Digital, A=Analog, P=Pneumatic

(2) W=Water Coil, E=Electic heat, N=No heat or cool

(3) I=Integral Silencer, Q=Silencer/Attenuator option added

(4) Supports are mounted so that Length to width ratio is no less than 1.5. See Page 34 of 35



TABLE 1 - CERTIFIED PRODUCT CON'T

Manufacturer : Nailor Industries

Product Family : 3001/3101 VAV Single Duct Terminal Units

Certified Product Construction : Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description :Rigid Ceiling Suspended (4)

	Nailor Model		DIN	IENSIONS, (in)		Max Weight,	Heat/Cool	Silencer	Sds (g),	
Product Family	Number ⁽¹⁾	Length	Width	Height	Inlet	Unit Size	(lb)	(W, E, N) ⁽²⁾	(I, Q, N) ⁽³⁾	z/h = 1	UUT
	#3001-4	21	10	10	3.875	4		N	N		Interpolate
	#3001-5	21	10	10	4.875	5	34	N	N		Interpolate
	#3001-6	21	10	10	5.875	6	Ť	N	N		Interpolate
	#3001-7	21	12	12.5	6.875	7	10	N	N		Interpolate
Single Duct VAV	#3001-8	21	12	12.5	7.875	8	40	N	N		Interpolate
Terminal Units,	#3001-9	21	14	12.5	8.875	9	70	N	N	2.5	Interpolate
Model: 3001	#3001-10	21	14	12.5	9.875	10	70	N	N		Interpolate-4
	#3001-12	21	18	12.5	12.9375 x 9.0.8125	12	75	N	N		Interpolate
	#3001-14	21	24	12.5	16.0625 x 9.8125	14		N	N		Interpolate
	#3001-16	21	28	12.5	19.1875 x 9.8125	16	98	N	N		Interpolate-5
	#3001-24	21	38	18	23.875 x 15.875	24 x 16	126	N	N		Interpolate-6
	#3001-4-I	57	10	10	3.875	4		N	I		Interpolate-21
	#3001-5-1	57	10	10	4.875	5	69	N			Interpolate
	#3001-6-1	57	10	10	5.875	6	0,0	N	1		Interpolate
	#3001-7-1	57	10	12.5	6.875			N			Interpolate
Single Duct VAV	#3001-8-1	57	12	12.5	7.875	8	80	N	1	•	Interpolate
Terminal Units,	#3001-8-1	57	12	12.5	8.875	9		N	1	2.5	Interpolate
Model: 3001 With	#3001-9-1	57	14	12.5		10	82	N		2.5	
Integral Attenuator	#3001-10-1 #3001-12-1	57	14	12.5	9.875 12.9375 x 9.0.8125	10	110	N		-	Interpolate-1 Interpolate
		57	24			12			I	-	· ·
	#3001-14	57	28	12.5 12.5	16.0625 x 9.8125	14	117 122	N N	1	-	Interpolate
	#3001-16-1	14	1 6		19.1875 x 9.8125	1	<u> </u>		•	-	Interpolate-2
	#3001-24-I	57	38	18	23.875 x 15.875	24 x 16	167	N	1		Interpolate-3
	#3001Q(HQ)-4	57	10	10	3.875	4	74	N	Q		Interpolate-21
Single Duct VAV	#3001Q(HQ)-5	57	10	10	4.875	5	71	N	Q		Interpolate
Terminal Units,	#3001Q(HQ)-6	57	10		mot 5.875 J. P	ilar <u>f</u> d		N	Q	-	Interpolate
Model: 3001Q(HQ)	#3001Q(HQ)-7	57	12	12.5	6.875	7		N	Q		Interpolate
With Added	#3001Q(HQ)-8	57	12	12.5	7.875	8	100 N Q N Q	25	Interpolate		
Dissipative Silencer	#3001Q(HQ)-9	57	14	12.5	8.875	0.02		_		2.5	Interpolate
Q=Silencer	#3001Q(HQ)-10	57	14	/ 12.5	. U9.875 //Z	UZ10	N		Q	-	Interpolate-7
HQ=Hospital grade	#3001Q(HQ)-12	57	18	12.5	12.9375 x 9.0.8125	12		N	Q		Interpolate
silencer	#3001Q(HQ)-14	57	24	12.5	16.0625 x 9.8125	14	148	N	Q		Interpolate
	#3001Q(HQ)-16	57	28	12.5	19.1875 x 9.8125	16	Y V	N	Q		Interpolate-8
	#3001Q(HQ)-24	57	38	18	23.875 x 15.875	24 x 16	164	N	Q		Interpolate-12
	#3101-4	21	10	10	3.875	4	\bigcirc	N	N		Interpolate-13
	#3101-5	21	10	10	4.875	5		N	N		Interpolate
	#3101-6	21	10	10	5.875	6		N	N		Interpolate
	#3101-7	21	12	12.5	6.875	7	65	N	N		Interpolate
Single Duct VAV	#3101-8	21	12	12.5	7.875	8		N	N		Interpolate
Terminal Units,	#3101-9	21	14	12.5	8.875	9		N	N	2.5	Interpolate
Model: 3101	#3101-10	21	14	12.5	9.875	10		N	N		Interpolate-4
	#3101-12	21	18	12.5	12.9375 x 9.0.8125	12		N	N		Interpolate
	#3101-14	21	24	12.5	16.0625 x 9.8125	14	98	N	N		Interpolate
	#3101-16	21	28	12.5	19.1875 x 9.8125	16	Ī	N	N		Interpolate-5
	#3101-24	21	38	18	23.875 x 15.875	24 x 16	126	N	N		Interpolate-6
	#3101-4-I	57	10	10	3.875	4		N	I		Interpolate-21
	#3101-5-I	57	10	10	4.875	5	71	N	I	1	Interpolate
	#3101-6-I	57	10	10	5.875	6	t	N	I	1	Interpolate
	#3101-7-I	57	12	12.5	6.875	7		N	I	1	Interpolate
Single Duct VAV	#3101-8-1	57	12	12.5	7.875	8	1	N	I	1	Interpolate
Terminal Units,	#3101-9-1	57	14	12.5	8.875	9	82	N		2.5	Interpolate
Model: 3101 With	#3101-10-1	57	14	12.5	9.875	10	t	N	1		Interpolate-1
Integral Attenuator	#3101-12-1	57	14	12.5	12.9375 x 9.0.8125	10		N		1	Interpolate
	#3101-12-1 #3101-14-1	57	24	12.5	16.0625 x 9.8125	12	122	N	1	1	Interpolate
		57	24	12.5	19.1875 x 9.8125	14	122	N	I	1	Interpolate-2
	#3101-16-I #2101-24 I	57	28 38				167	N	-	1	
L	#3101-24-I ates the controller type. D			18	23.875 x 15.875	24 x 16	167	IN	I	l	Interpolate-3

(2) W=Water Coil, E=Electic heat, N=No heat or cool

(3) I=Integral Silencer, Q=Silencer/Attenuator option added

(4) Supports are mounted so that Length to width ratio is no less than 1.5. See Page 34 of 35

(5) All the Basic Unit sizes without heating or cooling are extrapolated from same model units tested with heating and cooling.

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TABLE 2 - CERTIFIED PRODUCT

Product Family : VAV Single Duct Terminal Units - EXHAUST Certified Product Construction : Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description : Rigid Ceiling Suspended (4)

Product Family	Nailor Model		DIN	1ENSIONS, (in)	Unit Size	Max Weight,	Heat/Cool	Silencer	Sds (g),	UUT
Froduct Farmy	Number ⁽¹⁾	Length	Width	/idth Height Inlet		Unit Size	(lb)	(W, E, N) ⁽²⁾	(I, Q, N) ⁽³⁾	z/h = 1	001
	#30X-4		10	10	equals WxH	4		N	Ν		
	#30X-5		10	10	equals WxH	5	65	N	Ν		
	#30X-6		10	10	equals WxH	6		N	Ν		
	#30X-7		12	12.5	equals WxH	7	75	N	N		
	#30X-8		12	12.5	equals WxH	8	73	N	N		Extrapolate ⁵
	#30X-9	30	14	12.5	equals WxH	9	80	N	Ν	2.5	From UUT21
	#30X-10		14	12.5	equals WxH	10	80	N	Ν		AND UUT22
	#30X-12		18	12.5	equals WxH	12	91	N	N N N N	-	
	#30X-14		24	12.5	equals WxH	14	109	N			
Single Duct	#30X-16		28	12.5	equals WxH	16	121	N			
Terminal Units,	#30X-24		38	18	equals WxH	24 x 16	155	N			
Model : 3000	#30HQX-4		10	10	equals WxH	4	71	N	Q	-	21
EXHAUST	#30HQX-5		10	10	equals WxH	5		N	Q		Interpolate
	#30HQX-6		10	10	equals WxH	6		N	Q		Interpolate
	#30HQX-7		12	12.5	equals WxH	7	83	N	Q		Interpolate
	#30HQX-8		12	12.5	equals WxH	8	65	N	Q		Interpolate
	#30HQX-9	66	14	12.5	equals WxH	9	90	N	Q	2.5	Interpolate
	#30HQX-10		14	12.5	equals WxH	10	30	N	Q		Interpolate
	#30HQX-12		18	12.5	equals WxH	12	105	N	Q		Interpolate
	#30HQX-14		24	12.5	equals WxH	14	130	N	Q		Interpolate
	#30HQX-16		28	12.5	equals WxH	16	140	N	Q		Interpolate
	#30HQX-24	/i	38	18	equals WxH	24 x 16	188.5	N	Q		22

(2) W=Water Coil, E=Electic heat, N=No heat or cool

(3) I=Integral Silencer, Q=Silencer/Attenuator option added

 (4) Supports are mounted so that Length to width ratio is no less than 1.5. See Page 34 of 35
 (5) All the basic unit sizes without heating or cooling are extrapolated from same model units tested with siler Piland

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TABLE 3 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries Product Family : VAV DUEL Duct Terminal Units Certified Product Construction : Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description :Rigid Ceiling Suspended⁽²⁾

Product Family	Nailor Model		DIN	1ENSIONS, (in)	Unit Size	Max Weight,	Mixing	Attenuator	Sds (g),	UUT
FIGUULLFamily	Number ⁽¹⁾	Length	Width	Height	Inlet	Unit Size	(lb)	(Y/N)	(Y/N)	z/h = 1	001
	#3210-4		21	10	3.875	4		N	N		
-	#3210-5		21	10	4.875	5		N	N		
	#3210-6		21	10	5.875	6		N	N		EXTRAPOLATE
Dural Durat Tamainal	#3210-7		25	12.5	6.875	7	70	N	N		EATRAPOLATE
Dual Duct Terminal	#3210-8	21	25	12.5	7.875	8		N	N	2.5	
Units, Standard Model: 3200	#3210-9	21	29	12.5	8.875	9	99	N	N	2.5	
wodel: 3200	#3210-10		29	12.5	9.875	10		N	N		15
	#3210-12		37	12.5	12.875 x 9.8125	12		N	N		
	#3210-14		49	12.5	16.0625 x 9.8125	14		N	N		INTERPOLATE
-	#3210-16		57	12.5	19.1875 x 9.8125	16		N	N		16
	#3230-4	24	24	10	3.875	4	69.5	Y	Y	17	
	#3230-5		24	10	4.875	5	70	Y	Y		INTERPOLATE
Dural Durat Tamainal	#3230-6		24	10	5.875	6		Y	Y		
Dual Duct Terminal	#3230-7		24	12.5	6.875	7		Y	Y		
Units, Model: 3200	#3230-8	24-28	24	12.5	7.875	8		Y	Y	2.5	
With Compact	#3230-9		34	14	8.875 C	9		Y	Y		
Integral mixing Attenuator	#3230-10		34	14	9.875	10		Y	Y		
Attenuator	#3230-12		34	16	11.875	12		Y	Y		
-	#3230-14		42	18	13.875	14	99	Y	Y		
	#3230-16	38	42	18	15.875	16	159	Y	Y		18
	#3240-4	47	24	10	3.875	4	108	Y	Y		19
-	#3240-5	1	24	10	4.875	5	1005	Y	Y		
Dual Duat Tarminal	#3240-6		24	10	5.875 00	6		Y	Y		
Dual Duct Terminal Units, Model: 3200	#3240-7		24	12.5	6.875	7	70	Y	Y		
,	#3240-8	42- <mark>72</mark>	24	12.5	7.875	8	70	Y	Y	2.5	INTERPOLATE
With High Efficiency Mixing Attenuator	#3240-9		34	R 14 T	mot ⁸ .875 P	ilar⁰d		Y	Y		
wixing Attenuator	#3240-10		34	14	9.875	10		Y	Y		
	#3240-12		34	16	11.875	12	99	Y	Y		
	#3240-14	72	42	18	13.875	14	268	Y	Y		20

(2) Supports are mounted so that Length to width ratio is no less than 1.5 (See "Typical VAV Support and Brace Detail" page 34 of 35)

PRVIA BUILDING CODE



TABLE 4 - CERTIFIED SUBCOMPONENT

Product Family : VAV Single Duct Terminal Units

Certified Subcomponent : Water Coils

Certified Product Construction : Galvinized steel case, Aluminum Sine wave fin material 0.0045" @ 10 fpi, copper header and 1/2" copper tubing(.016" wall)

DIMENSIONS, (in) Coil Weight Sds (g), UUT **Product Family** Unit Size z/h = 1 (lbs) Length Width Height Manufacturer 4 5 10 10 13 7.05 7.05 5 5 10 Interpolate 10 5 10 10 Interpolate 7.05 6 7 5 12 12 1/2 Interpolate 8.15 8 5 12 12 1/2 Interpolate 8.15 30RW, 31RW 9 5 14 12 1/2 Great American Coil Interpolate 2.5 8.55 1 & 2 Row Coils 5 8.55 10 14 12 1/2 12 5 18 12 1/2 Interpolate 13.58 5 12 1/2 18..26 14 24 Interpolate 5 28 12 1/2 20.65 16 2 5 38 27.99 24X16 18 3 4 7 1/2 10 10 Interpolate 11.64 10 Interpolate 5 7 1/2 10 11.64 7 1/2 10 10 Interpolate 11.64 6 12 12 1/2 7 7 1/2 Interpolate 14.8 8 7 1/2 12 12 1/2 Interpolate 14.8 30RW, 31RW 7 1/2 Interpolate 14 12 1/2 2.5 13.51 9 Great American Coil 3 & 4 Row Coils 12 1/2 7 1/2 14 13.51 10 7 7 1/2 18 12 1/2 22.47 12 Interpolate 14 7 1/2 24 12 1/2 Interpolate 30.87 16 7 1/2 28 12 1/2 8 33.46 24 x 16 71/2 38 9,14 50.96 18

TABLE 5 - CERTIFIED SUBCOMPONENT BY: Timothy J. Piland

Manufacturer : Nailor Industries

Product Family : VAV Single and Duel Duct Terminal Units Certified Subcomponent : Insulation

Product Family	roduct Family UUT				
Steri-Liner	Interpolate				
Steri-liner with	7 0 10 11 12				
perforated metal	7, 9, 10, 11, 12				
Steri-liner with	1 2 2 0				
Solid metal	1, 2, 3, 8	2.5			
Fiber-Free Liner	Interpolate				
Duct board with	Internelate				
perforated metal	Interpolate				
Fiber Glass Liner	Inyerpolate				



TABLE 6 - CERTIFIED SUBCOMPONENT

Manufacturer : KMC

Product Family : VAV Single & Duel Duct Terminal Units Certified Subcomponent: Controllers

Certified Mounting	Certified Mounting Description : Side Mounted												
	Nailor Model		DIM	IENSIONS, (in)		Max Weight,		Sds (g), z/h				
Product Family	Number	Length	Width	Height	Inlet	Unit Size	(lb)	Voltage	= 1	UUT			
Single & Duel Duct Terminal Unit Controls	KMC-MCP-3631 Pneumatic	14	6	11	4,5,6,7,8,9,10,12, 14,16,24x16	4,5,6,7,8,9, 10,12,14, 16,24	5	N/A	2.5	1, 2, 3			
	KMC-MEP-4000, Analog Electronic	14	6	11	4,5,6,7,8,9,10,12, 14,16,24x16	4,5,6,7,8,9, 10,12,14, 16,24	5	24	2.5	10, 11, 12			
	KMC - Digital Electronic	14.5	5.75	6.5	4,5,6,7,8,9,10,12, 14,16,24x16	4,5,6,7,8,9, 10,12,14, 16,24	5	24	2.5	4 TO 9, 13 TO 22			

Notes: KMC controllers listed above used on the tested units. All controllers are less than 4pounds and less than 10amps



TABLE 7 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries Product Family : VAV Single Duct Terminal Units Certified SUBCOMPONENT : SILENCERS Certified Construction : 20ga galvenized steel

Certified Mounting Description : Slip and Drive mounted to end of box

Product Family	Nailor Model Number	Length	Unit Size	Sds (g), z/h = 1	UUT
Single Duct Terminal Unit Attenuator/ Silencer Sections	30HQ	48"	4, 10, 16, 24	2.5	7, 8, 9
Single Duct Terminal Unit Attenuator/ Silencer Sections	30Q	48"	10, 16, 24	2.5	10, 11, 12
Single Duct Terminal Unit Attenuator/ Silencer Sections	AT303/AT305	48"	4, 16	R ^{2.50}	DD21, 22

TABLE 8 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries

Product Family : VAV Single & Duel Duct Terminal Units

Certified Subcomponent : Dampers

Certified Subcomponent Construction: 16Ga galvanized sheet metal casing. Blades are either 16Ga galvanized steel or 6063-T6 aluminum extrusion.

SP-0561

Domnor	Unit Size		DIM	1ENSIONS, (in)	Sds (g),	UUT
Damper	Unit Size	Height	Width	W1	Diameter	z/h = 1	001
	4	N/A	N/A	_ N/A 4	1/3.875_3		13
	5	N/A	N/A	N/A	4.875		
	6	N/A	N/A	N/A	5.875		
	7	N/A	N/A	N/A	6.875	Y, V/	
Circular Dampers	8	N/A	N/A	N/A	7.875	2.5	Interpolate
	9	N/A	N/A	N/A	8.875	$\sum 2.5$	interpolate
	10	N/A	N/A	N/A	9.875		
	12	N/A	N/A	S N/A	11.875		
	14	N/A	N/A	N/A	13.875		
	16	N/A	N/A	N/A	15.875		14
	4	8.75	8.187	7.063	N/A		17, 18, 21
	5	8.75	8.187	7.063	N/A		
	6	8.75	8.187	7.063	N/A		
	7	10.75	10.187	9.063	N/A		Interpolate
Opposed Blade	8	10.75	10.187	9.063	N/A		
Dampers, Double	9	10.75	12.187	11.063	N/A		
Blade	10	10.75	12.187	11.063	N/A	2.5	1, 4, 7, 10, 15
	12	10.75	16.187	15.063	N/A		Interpolate
	14	10.75	26.187	25.063	N/A		20
	16	10.75	26.187	25.063	N/A]	2, 5, 8, 11, 16 18
	24X16	15	24.9375	N/A	N/A		22
Triple	24 x 16	15	24.9375	N/A	N/A]	3, 6, 9, 12



TABLE 9 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries Product Family : VAV Single Duct Terminal Units

Certified Subcomponent : Electric Heat, Heater Element Wires

Product Family	Unit size	Wire Construction Wire Construction Details	Wire MFG.	Voltage	KW output	UUT
	4				3	Interpolate
	5				5	Interpolate
	6				7.5	Interpolate
2005 20050	7				9.5	Interpolate
30RE, 30REQ,	8				13	Interpolate
30HQE MAX Kw, Electric Heat,	9			3Ph, 480V	16	Interpolate
	10				21	10
480V/3PHASE	12				30	Interpolate
	14				31	Interpolate
	16				31	11
	24 x 16				31	12
	4	İ dava başar ba			0.5	Interpolate
	5				0.5	Interpolate
	6				0.5	Interpolate
2005 20050	7	OD CODE			0.5	Interpolate
30RE, 30REQ,	8	Galvanized steel plates, internal wiring rated at 105°C.	Hyndman		0.5	Interpolate
30HQE MAX kW, Electric Heat,	9	Wire made of 80%/20% Nickel Chromium "Class A"	Industrial	1ph, 277V	0.5	Interpolate
	10	wire.	Product	0	0.5	4
120V/1PHASE	12	OSP-056			0.5	Interpolate
	14			Y	0.5	Interpolate
	16				0.5	5
	24 x 16	0SP-056	1		0.5	6
	4	Q 03F-030			3	Interpolate
	5				5	Interpolate
	6				5.5	Interpolate
30RE, 30REQ,	7	BY: Timothy J. Pi	and		5.5	Interpolate
30HQE MAX	8				5.5	Interpolate
kW, Electric Heat,	9			1ph, 120V	5.5	Interpolate
120V/1PHASE	10	DATE: 04/17/2	023		5.5	Interpolate
1200/1111/02	12		020		5.5	Interpolate
	14		HHHH	S OV	5.5	Interpolate
	16	DATE: 04/17/20	HHHH		5.5	Interpolate
	24 x 16		MAND	1	5.5	Interpolate
TABLE 10 - NC			GCO	Dr.		
TABLE IV - NC	TUSED	SILDIT				



TABLE 11 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries

Product Family : VAV Single & Duel Duct Terminal Units Certified Subcomponent : Disconnect

Controls	Туре	Model	Voltage	Amp	Manufacturer	UUT	Sds (g), z/h = 1
Non-Fusible, 3 poles	90deg	OT40FT3	600	40	ABB Control Inc	10	2.5
Non-Fusible, 3 poles	Flat	OT63F3/B	600	60	ABB Control Inc	11,12	2.5
Non-Fusible, 1 pole	Flat	OC25G01PN BN00NB1	600	25	ABB Control Inc	Interpolate	2.5
Non-Fusible, 3 poles	Flat	OT25F3/B	600	25	ABB Control Inc	4,5,6	2.5
Non-Fusible, 3 poles	Flat	OT63FT3	600	60	ABB Control Inc	Interpolate	2.5
Non-Fusible, 3 poles	Flat	OT25F3/B	600	25	ABB Control Inc	Interpolate	2.5

TABLE 12 - NOT USED



TABLE 13 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries

Product Family : VAV Single & Duel Duct Terminal Units Certified Subcomponent : Relays

Туре	Model	Voltage	Amp	Manufacture r	UUT	Sds (g), z/h = 1
SCR Electric Heat Controller	EHS45-600-10	24	4-20mA	Neptronic	UUT - 10,11,12	2.5
SSR Electric Heat Controller	DW SSR50A1B	24	4-20mA	Neptronic	UUT - 10,11,12	2.5

TABLE 14 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries

Product Family: VAV Single & Duel Duct Terminal Units **Certified Subcomponent**: Air Flow Switch

Туре	Model	Voltage	Amp	Manufacture r	UUT	Sds (g), z/h = 1
Airflow Switch	DFS-221-112	277	15	Cleveland Controls	UUT 1 to -22	2.5



Petra Seismic Design Houston, TX, www.petraseismicdesign.com

NAILOR MODEL 30, 31, 32 SPECIAL SEISMIC CERTIFICATION

TABLE 15 - SUMMARY OF TESTED UNITS

Manufacturer : Nailor Industries

Product Family : Single Duct Model 30, 31, and Duel Duct Model 32 VAV Duct Terminal Units Certified Product Construction : Zinc Coated 22ga Steel Casing Cabinet

Certified Mounting Description : Rigid Ceiling Suspended (4)

													C	ABLE BRAC	ΨE
UUT	MODEL	CONTROLER	WEIGHT	INLET SIZE	Damper	W (in)	L (in)	H (in)	TITLE	HEAT/COOL (N,E,W1,W2) ¹	SILENCER (N, I,A,Q, H) ²	Sds (g), z/h = 1	MODEL	SIZE	QTY
1	P30RW-10	Pneumatic	82.0	10" Round	OBD	14	64.5	12.5	3001 BOX W/HOT WATER HEAT	W1	I	2.5	GS-12	1/8"	4
2	P30RW-16	Pneumatic	122.0	16" Oval	OBD	28	64.5	12.5	3001 BOX W/HOT WATER HEAT	W1	I	2.5	GS-12	1/8"	4
3	P30RW-24	Pneumatic	167.0	24"X16" RECT.	OBD	38	64.5	18	3001 BOX W/HOT WATER HEAT	W1	I	2.5	GS-19	3/16"	4
4	D30RE-10 ⁴	DIGITAL	71.0	10" Round	OBD	14	36.5	12.5	3001 BOX W/ELECTRIC HEAT	E	N	2.5	SCB-0	3/32"	4
5	D30RE-16 ⁴	DIGITAL	98.0	16" Oval	OBD	28	36.5	12.5	3001 BOX W/ELECTRIC HEAT	E	N	2.5	SCB-1	1/8"	4
6	D30RE-24 ⁴	DIGITAL	145.0	24"X16" RECT.	OBD	38	36.5	18	3001 BOX W/ELECTRIC HEAT	E	N	2.5	SCB-2	3/16"	4
7	D30HQW/RWQ- ULC-LT-10 ³	DIGITAL	104.0	10" Round	OBD	14	76.5	12.5	3001 BOX W/HOT WATER HEAT & HOSPITAL GRADE SILENCER	W4	Н	2.5	SCB-1	1/8"	4
8	D30HQW/RWQ- ULC-LT-16 ³	DIGITAL	151.0	16" Oval	OBD	28	76.5	12.5	3001 BOX W/HOT WATER HEAT & HOSPITAL GRADE SILENCER	W4	н	2.5	SCB-1	1/8"	4
9	D30HQW/RWQ- ULC-LT-24 ³	DIGITAL	213	24"X16" RECT.	ÓBD	38	76.5)SP	3001 BOX W/HOT WATER HEAT & HOSPITAL GRADE SILENCER	W4	н	2.5	SCB-2	3/16"	4
10	A30HQE/REQ - 10 ⁵	DIGITAL	97	10" Round	OBD	B ¹⁴ V	84.5	12.5	3001 BOX W/ELECTRIC HEAT & STANDARD SILENCER	E	Q	2.5	GS-12	1/8"	4
11	A30HQE/REQ - 16 ⁵	DIGITAL	136	16" Oval	OBD	28	84.5	12.5	3001 BOX W/ELECTRIC HEAT & STANDARD SILENCER	E	Q	2.5	GS-12	1/8"	4
12	A30HQE/REQ - 24 ⁵	DIGITAL	164	24"X16" RECT.	OBD		84.5	<u>18</u> 4/	3001 BOX W/ELECTRIC HEAT & STANDARD SILENCER	E	Q	2.5	SCB-2	3/16"	4
13	D31RW-4	DIGITAL	35.0	4" ROUND	BUTTERFL Y	10	28.5	10	3101 BOX W/HOT WATER HEAT	WI	N	2.5	GS-10	3/32"	4
14	D31RW-16	DIGITAL	89.0	16" ROUND	BUTTERFL Y	28	28.5	12.5	3101 BOX W/HOT WATER HEAT	W4	Ν	2.5	SCB-1	1/8"	4
15	D3210-10	DIGITAL	70.0	10" Round	OBD	29	1218	12,5	3210 DUEL DUCT INLET NON-MIXING BOX	N	Ν	2.5	GS-10	3/32"	4
16	D3210-16	DIGITAL	99.0	16" Oval	OBD	57	21	12.5	3210 DUEL DUCT INLET NON-MIXING BOX	N	Ν	2.5	SCB-1	1/8"	4
17	D3230-4	DIGITAL	70.0	4" Round	OBD	24	24	10	3230 DUEL DUCT INLET W/INTEGRAL MIXING ATTENUATOR	N	I	2.5	SCB-0	3/32"	4
18	D3230-16	DIGITAL	159.0	16" ROUND	OBD	42	38	18	3230 DUEL DUCT INLET W/INTEGRAL MIXING ATTENUATOR	N	I	2.5	SCB-2	3/16"	4
19	D3240-4	DIGITAL	108.0	4" ROUND	OBD	24	47	10	3240 DUEL DUCT INLET W/INTEGRTAL HIGH PERFORMANCE BLEND MASTER ATTENUATOR	N	I	2.5	SCB-1	1/8"	4
20	D3240-14	DIGITAL	268.0	14" ROUND	OBD	42	72	18	3240 DUEL DUCT INLET W/INTEGRTAL HIGH PERFORMANCE BLEND MASTER ATTENUATOR	N	I	2.5	SCB-2	3/16"	4
21	D30HQX-4	DIGITAL	71.0	-	OBD	10	66	10	3001 EXHAUST DUCT VAV BOX W/SILENCER	Ν	A	2.5	SCB-0	3/32"	4
22	D30HQX-24X16	DIGITAL	189.0	-	OBD	38	66	18	3001 EXHAUST DUCT VAV BOX W/SILENCER	N	А	2.5	SCB-2	3/16"	4

NOTES: 1) "N" = No water coil cool/heat or electric heat; "E" = Electric reheat; "W1" = Water coil (1-row); "W4" = Water coil (4-row) 2) "N" = No silencer; "I" = Integral silencer; "A" = AT303/AT305 standard attenuator option;"Q" = Standard FCL silencer option with steril liner; "H" = Hospital grade silencer option with solid metal liner

Hospital grade silencer may have dual density material. The heaviest acoustic material will be used.

3) Units 7, 8, 9 will be hospital grade with a ULC and LT option to test the heaviest box construction available. The Hospital grade untis have a duel wall box construction.

ULC Option is a ultra low leak option with all seams sealed with caulk and a larger acces door with extra gasketin. LT is low temp inlet option with 1/4"

elastromeric gasket between the coller and the box openeing.

4) UUTs 4-6 will be supplied with 277v/1 Phase heaters at 0.5 kW, 1-stage binary heat. This will provide lightest electric heat.

5) UTTs 10 will be supplied with 480/v3Phase heater at 21kw, SCR modulating heat (MAX for size 10 @ specified voltage. Phase). UUT 11 will be supplied with

480v/3Phase heaters at 31 KW, SCR modulationg heat (MAX for size 16 @ specified voltage/phase). UUT 12 will be supplied with 480V/3Phase heaters at 31 kW, SCR

modulating heat (MAX for size 24 @ specified voltage/phase). This will provide heaviest electric heat.



<u>UUT-1</u> TEST R							
Manufacturer: Nailor							
Model: 3000 Single I							
Nodel Number: P30							
Product Construction Cabinet: 22 gauge Inlet Size: 10" roun	zinc coated						
Dptions/ Component -Controller: Pneum -Damper: Double b -Coils: Single row v -Silencer: Integral	atic lade opposed d	amper	-Airflow Switche -Disconnect -transformer -Relay -Diamond Flow	-			
			UUT Proper	ties			
Operating Weight		Dimensio	ns (Inches)	CON	Lowes	t Natural Frequ	iency (Hz)
(lb)	Width	Length		Height Front-Ba			Vertical
82	14	64.5		12.5	N/A	N/A	N/A
		407 100	Seismic Test Pa		6		
Test Criteria	Sds (g)	z/h	05fp-056	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5	1.0	Timothy J. F	iland ^{3.2}	2.4	1.68	0.68
Pre Test Function	ality PASS	Post Test	Functionality	PASS			
The unit coil was full of structural integrity dur	of water at approxing and after the	imately 40psi, and ICC-ES- AC156 tes	remained function	al before and af	ter the ICC-ES AC	156 test. The u	nit maintained
	K Y						

UUT-1 ----

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (4)#10 TEK ASTM AS10 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	· · · · · · · · · · · · · · · · · · ·						
Model: 3000 Single E	Duct VAV						
Model Number: P30F							
Product Constructior Cabinet: 22 gauge : Inlet Size: 16" Oval	zinc coated						
Dptions/ Component -Controller: Pneuma -Damper: Double bl -Coils: Single row w -Silencer: Integral	atic ade opposed dan	nper	-Airflow Sw -Disconne -Transforn -Relay -Diamond	ct			
			UUT Propert	ies	i		
Operating Weight		Dimension	ns (Inches)	CONA	Lowes	t Natural Frequ	ency (Hz)
(lb)	Width	Length		Height	Front-Back	Side-Side	Vertical
122	28	64.5	l fi k GWA V	12.5	N/A	N/A	N/A
			Seismic Test Par	1	6		
Test Criteria	Sds (g)	z/h	05lp-056	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5	1.0	Timot <mark>1.5</mark> J. P	ilano ^{3.2}	2.4	1.68	0.68
Pre Test Functiona	ality PASS	Post Test I	Functionality	PASS			
The unit coil was full o structural integrity duri							
			UI	JT-2			

Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



<u>001-3</u> 1EST R	ESULTS SU	IMMARY					
Manufacturer: Nailo	r Industries, Inc						
Model: 3000 Single	Duct VAV						
Model Number: P30	RW-24						
Product Constructio Cabinet: 22 gauge Inlet Size: 24"x16"	zinc coated						
Options/ Componen -Controller: Pneum -Damper: Triple bla -Coils: Single row v -Silencer: Integral	atic ade opposed da	Imper	-Airflow -Discon -Transfo -Relay -Diamor	nect	r		
			UUT Proper	ies			
Operating Weight		Dimensio	ns (Inches)	CONA	Lowe	st Natural Frequ	ency (Hz)
(lb)	Width	Length				k Side-Side	Vertical
167	38	64.5		18	N/A	N/A	N/A
T (0)			Seismic Test Par	4			• • • • • • • •
Test Criteria	Sds (g)	Z/h	05lp-056	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5	1.0	Timothy J. P	iland ^{3.2}	2.4	1.68	0.68
Pre Test Function	ality PASS	B Post Test	Functionality	PASS			
The unit coil was full or structural integrity dur	of water at approxing and after the	ximately 40psi, and i ICC-ES- AC156 tes	t t	al before and af	ter the ICC-ES AC	156 test. The ur	hit maintained

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (15)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-4 TEST RESULTS SUMMARY Manufacturer: Nailor Industries, Inc. Model: 3000 Single Duct VAV Model Number: D30RE-10 Product Construction Summary Cabinet: 22 gauge zinc coated Inlet Size: 10" Round **Options/** Component Summary -Airflow Switch -Controller: Digital Electronic -Disconnect -Damper: Double blade opposed damper -Transformer -Coils: 1 phase 277V Electric Heat -Relav -Silencer: No Silencer -Diamond Flow Sensor **UUT** Properties Dimensions (Inches) Lowest Natural Frequency (Hz) **Operating Weight** (lb) Width Height Front-Back Side-Side Length Vertical 14 36.5 12.5 N/A N/A 71 N/A Seismic Test Parameter 216-02 Test Criteria Sds (g) z/h Aflx-H (g) Arig-H (g) Aflx-V (g) Arig-V (g) **ICC-ES AC 156** 3.2 2.4 0.68 1.0 2.5 1.5 1.68 Pre Test Functionality PASS Post Test Functionality PASS The unit heating element wires remained functional before and after the ICC-ES AC 156 test. The unit and element wires maintained structural integrity during and after the ICC-ES- AC156 test

Unit Mounting Description:

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-0 brace with 3/32-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (4)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-5 TEST RESULTS SUMMARY Manufacturer: Nailor Industries, Inc. Model: 3000 Single Duct VAV Model Number: D30RE-16 Product Construction Summary Cabinet: 22 gauge zinc coated Inlet Size: 16" Oval **Options/** Component Summary -Airflow Switch -Controller: Digital Electronic -Disconnect -Damper: Double blade opposed damper -Transformer -Coils: 1 phase 277V Electric Heat -Relav -Silencer: No Silencer -Diamond Flow Sensor **UUT** Properties Dimensions (Inches) Lowest Natural Frequency (Hz) **Operating Weight** (lb) Width Height Side-Side Length Front-Back Vertical N/A 28 36.5 12.5 N/A 98 N/A Seismic Test Parameter 216-02 Test Criteria Sds (g) z/h Aflx-H (g) Arig-H (g) Aflx-V (g) Arig-V (g) ICC-ES AC 156 3.2 2.4 0.68 1.0 2.5 1.5 1.68 Pre Test Functionality PASS Post Test Functionality PASS The unit heating element wires remained functional before and after the ICC-ES AC 156 test. The unit and element wires maintained structural integrity during and after the ICC-ES- AC156 test



Unit Mounting Description:

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (8)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	Industries, Inc									
Model: 3000 Single I	Duct VAV									
Model Number: D30	RE-24									
Product Construction Cabinet: 22 gauge Inlet Size: 24"X16"	zinc coated									
Options/ Componen -Controller: Digital -Damper: Triple bla -Coils: 1 phase 277 -Silencer: No Silen	Electronic ade opposed da 7V Electric Hea			-Di -Tr -Re	rflow S sconne ansfor elay iamonc	ect				
				UUT	Proper	ties				
Operating Weight			Dimension	s (Inche	s) DE	COA		Lowest	Natural Frequ	iency (Hz)
(lb)	Width		Length		Height		Front-Back	Side-Side	Vertical	
145	38		36.5		WAV	18	7	N/A	N/A	N/A
			Se	eismic T	est Pa	rameter	Z			
Test Criteria	Sds (g)	A	z/h	OSIp	-056	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		1.0y. T	imoth	5 J. P	iland ^{3.2}		2.4	1.68	0.68
Pre Test Function	ality PASS	3	Post Test F	unctiona	ality	PASS				
The unit heating elem structural integrity dur	ent wires remain ing and after the	ed fund ICC-E	ctiona <mark>l before</mark> a S- AC156 test	ind after	the ICC	-ES AC 156 tes	t. Th	e unit and elem	ent wires main	tained
	11	AP				U	JT-6	~		
	9-10		PNA	BUI	DI				1/1/- 6	

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-2 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (10)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	Industries, Inc	-							
Nodel: 3000 Single D	Duct VAV								
Nodel Number: D30H	HQW/RWQ-UL	C-LT-	10						
Product Constructior Cabinet: 22 gauge : Inlet Size: 10" Rour	zinc coated								
Options/ Component -Controller: Digital I -Damper: Double b -Coils: Four rows w -Silencer: Hospital	Electronic lade opposed vater coil	dampe	r	-Airflow S -Disconne -Transforn -Relay -Diamond	ect				
				UUT Proper	rties				
Operating Weight			Dimension	s (Inches)	CON		Lowest	Natural Frequ	ency (Hz)
. (dl)	Width		Length	•	Height	F	Front-Back	Side-Side	Vertical
104	14	1	76.5		12.5	7	N/A	N/A	N/A
		1	S	eismic Test Pa	rameter	2			
Test Criteria	Sds (g)	R	z/h	OSP-056	Aflx-H (g)	Arig	ј-Н (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		1 <u>.0</u>	imothy J. F	iland ^{3.2}		2.4	1.68	0.68
ICC-ES AC 150									
Pre Test Functiona				unctionality	PASS	tor the l		F6 toot The up	vit maintainad

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cableattached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (6)#10 TEK ASTM AS10 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



ivianufacturer: Nallor	Industries, Inc.								
Model: 3000 Single D	uct VAV								
Nodel Number: D30H	IQW/RWQ-UL	C-LT-	16						
Product Construction Cabinet: 22 gauge z Inlet Size: 16" Oval									
Options/ Component -Controller: Digital E -Damper: Double bl -Coils: Four rows w -Silencer: Hospital (Electronic ade opposed c ater coil	lampe		-Airflow Switch -Disconnect -Transformer -Relay -Diamond Flow	Sensor				
				UUT Prope	rties				
			Dimensio	CON		Lowest	Natural Frequ	ency (Hz)	
Operating Weight		·			Height		Front-Back	Side-Side	Vertical
Operating Weight (lb)	Width		Length						1
	Width 28	1	76.5		12.5	7	N/A	N/A	N/A
(lb)			76.5	Seismic Test Pa		Z	N/A	N/A	N/A
(lb)		REVE	76.5			A	N/A ig-H (g)	N/A Aflx-V (g)	Arig-V (g)
(lb) 151	28	REVE	76.5	Seismic Test Pa	arameter	A			

UUT-8





Unit Mounting Description:

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	Industries, Inc.								
Model: 3000 Single [Duct VAV								
Model Number: D30H	HQW/RWQ-ULC	C-LT-2	4						
Product Construction Cabinet: 20 gauge Inlet Size: 24"X16"	zinc coated								
Options/ Component -Controller: Digital I -Damper: Triple bla -Coils: Four rows w -Silencer: Hospital	Electronic ide opposed dai vater coil	mper		-Airflow Switc -Disconnect -Transformer -Relay -Diamond Flo					
				UUT Proper	ies				
Operating Weight			Dimension	s (Inches)	Lowest Natural F			Natural Frequ	ency (Hz)
(lb)	Width		Length		Height	Front-Back		Side-Side	Vertical
213	38	R	76.5		18	N/A N/A N/			
		1.S	S	eismic Test Pa	rameter	Z			
Test Criteria	Sds (g)	R	z/h	OSP-056	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		1:0у.т	imothy J. P	iland ^{3.2}		2.4	1.68	0.68
Pre Test Function	ality PASS		Post Test F	unctionality	PASS				
The unit coil was full o structural integrity duri					al before and a	fter th	e ICC-ES AC	156 test. The ur	nit maintained
			6 Marau			V			

trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-2 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (15)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-10 TEST F	RESULTS SU	JMMA	∖RY						
Manufacturer: Nailor	Industries, Inc.								
Nodel: 3000 Single D	uct VAV								
Model Number: A30H	QE/REQ-10								
Product Construction Cabinet: 22 gauge z Inlet Size: 10" Roun	inc coated								
Options/ Component -Controller: Analog -Damper: Double bl -Coils: 3 phase, 480 -Silencer: Standard	Electronic ade opposed c)V Electric	lamper		-Airflow Switch -Disconnect -Transformer -Relay -Diamond Flow	w Sensor				
Operating Weight			Dimension	$-\alpha$ (()) α	COA		Lowest	Natural Frequ	ency (Hz)
(lb)	Width		Length		Height	F	ront-Back	Side-Side	Vertical
97	14	14	84.5		12.5	7	N/A	N/A	N/A
		12	S	eismic Test Pa	rameter	2			
Test Criteria	Sds (g)	B	z/h	OSRp-056	Aflx-H (g)	Arig-	H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		1 .0 7. T	imothy J. F	iland ^{3.2}	2	.4	1.68	0.68
Pre Test Functiona	lity PASS		Post Test F	unctionality	PASS		•		
The unit heating eleme	nt wires remaine	ed funct	iona <mark>l before</mark> a	and after the ICC	- C-ES AC 156 tes	t. The u	nit and elem	nent wires main	tained

The unit heating element wires remained functional before and after the ICC-ES AC 156 test. The unit and element wires maintained structural integrity during and after the ICC-ES- AC156 test





UUT-10

Unit Mounting Description:

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (4)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	Industries, Inc.						
/lodel: 3000 Single [Duct VAV						
lodel Number: A30	HQE/REQ-16						
Product Construction Cabinet: 22 gauge Inlet Size: 16" Oval	zinc coated						
Options/ Componen -Controller: Analog -Damper: Double b -Coils: 3 phase, 48 -Silencer: Standard	Electronic lade opposed da 0V Electric	mper	-Airflow Switcl -Disconnect -Transformer -Relay -Diamond Flor				
			UUT Proper	ties	1		
Operating Weight		Dimensions (Inches) Lowest Natural Frequency (
(lb)	Width	Length			Front-Back	Side-Side	Vertica
136	28	84.5		12.5	N/A	N/A	N/A
		S	eismic Test Pa		6	1	
Test Criteria	Sds (g)	Z/h	03lp-030	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g
ICC-ES AC 156	2.5	1:0Y:1	imothy J. F	iland ^{3.2}	2.4	1.68	0.68
Pre Test Function	ality PASS	Post Test F	unctionality	PASS			
The unit heating elemetric structural integrity dur				LES AC 156 tes	t. The unit and ele	ment wires main	tained

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



	Industries, Inc.								
1odel: 3000 Single E									
Iodel Number: A30									
Product Construction Cabinet: 20 gauge Inlet Size: 24"x16"	zinc coated								
Dptions/ Component -Controller: Analog -Damper: Double b -Coils: 3 phase, 48 -Silencer: Standard	Electronic lade opposed da 0V Electric	mper	-Airflow Switcl -Disconnect -Transformer -Relay -Diamond Flov						
			UUT Proper	rties					
Operating Weight		Dimension	s (Inches)	CON		Lowest	Natural Freque	ency (Hz)	
(dl)	Width								
164	38	84.5		18	7	N/A	N/A	N/A	
		S	eismic Test Pa	rameter	2				
Test Criteria	Sds (g)	z/h	051p-050	Aflx-H (g)	Arig-I	H (g)	Aflx-V (g)	Arig-V (g)	
ICC-ES AC 156	2.5	1 <u>.0</u> 7. T	imothy J. F	iland ^{3.2}	2.	4	1.68	0.68	
Pre Test Function	ality PASS	Post Test F	unctionality	PASS					
structural integrity duri	ng and after the IC	C-ES- AC156 test			2				

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-2 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (15)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Model: 3100 Single [Duct VAV							
Model Number: D31								
Product Construction Cabinet: 22 gauge Inlet Size: 4" Round	n Summary zinc coated							
Options/ Component -Controller: Digital -Damper: Double b -Coils: 1-row water -Silencer: No Silence	Electronic lade opposed c coil	lamper	-Disco -Trans -Relay	former	Sensor			
			UUT	Properti	es			
Operating Weight		Dim	ensions (Inch	ns (Inches)			est Natural Freq	uency (Hz)
(lb)	Width	K	ength	Height			ck Side-Side	Vertica
34.5	10	L.	28.5	WAW	10	N/A	N/A	N/A
			Seismic	Test Para	ameter	2		
Test Criteria	Sds (g)	a z	_h OSI	p-056	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5	1	9Y: Timot ¹	i ⁵ J. Pi	land ^{3.2}	2.4	1.68	0.68
Pre Test Function	ality PASS	Post	Test Function	nality	PASS			
The unit coil was full o structural integrity duri				l functiona	I before and af	ter the ICC-ES A	C 156 test. The u	unit maintaine
		TO A						

UUT-13 —/ Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-10 brace with 3/32-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



	r Industries, Inc	•							
/lodel: 3100 Single	Duct VAV								
/lodel Number: D31	RW-16								
Product Constructio Cabinet: 22 gauge Inlet Size: 16" Rou	zinc coated								
Options/ Componer -Controller: Digital -Damper: Double b -Coils: 4-rows wate -Silencer: No Silen	Electronic plade opposed o er coil	damper		-Airflow Swit -Disconnect -Transformer -Relay -Diamond Fle					
				UUT Prope	erties				
Operating Weight			Dimensior	ns (Inches)	E COA		Lowest	t Natural Freque	ency (Hz)
(lb)	Width	Width Length Height						Side-Side	Vertical
88.5	28	L.	28.5	L T X WA	12.5	7	N/A	N/A	N/A
		N.	S	Seismic Test F	arameter	Z			
Test Criteria	Sds (g)	A	<mark>z/h</mark>	OSIp-05	61 _{Aflx-H} (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
			1.0	1.5	3.2		2.4	1.68	0.68
ICC-ES AC 156	2.5		БҮ	limothy J.	Hiland 📖				
ICC-ES AC 156 Pre Test Function The unit coil was full of	nality PASS		Post Test I	Functionality	PASS	ter th		156 test. The un	it maintaine

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (8)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor	Industries, Inc.							
Model: 3200 Dual Du	ct VAV							
Model Number: D321	0-10							
Product Construction Cabinet: 22 gauge : Inlet Size: 10" Rour	zinc coated							
Options/ Component -Controller: Digital I -Damper: Double b -Coils: No -Silencer: No Silenc	Electronic lade opposed dam	per	-Airflow Switch -Disconnect -Transformer -Relay -Diamond Flow					
			UUT Propert	ies				
Operating Weight		Dimensions	ns (Inches)			Lowest Natural Frequency (Hz)		
(lb)	Width	Length		Height		Front-Back	Side-Side	Vertical
70	29	21		12.5	7	N/A	N/A	N/A
	-	Se	eismic Test Par	ameter	Z			
Test Criteria	Sds (g)	z/h	OSIp-056	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5	1.0у. т	imothy J. P	iland ^{3.2}		2.4	1.68	0.68
Pre Test Functiona	ality PASS	Post Test Fu	unctionality	PASS				
The unit remained func AC156 test	tional before and aft	er the ICC-ES AC	156 test. The	unitmaintained	struc	tural integrity d	uring and after	the ICC-ES-
		Pr al						





UUT-15 —

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-10 brace with 3/32-inch diameter cableattached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



Manufacturer: Nailor								
Model: 3200 Dual Du								
Model Number: D32								
Product Constructior Cabinet: 22 gauge Inlet Size: 16" Oval	zinc coated							
Options/ Component -Controller: Digital -Damper: Double b -Coils: No Coil -Silencer: No Silence	Electronic lade opposed dan	nper	-Airflow Switch -Disconnect -Transformer -Relay -Diamond Flow					
			UUT Propert	ies				
Operating Weight		Dimensior	nensions (Inches)			Lowest Natural Frequency (Hz)		
(lb)	Width	Length		Height	Front-Bac	k Side-Side	Vertical	
99	57	21	l II KAWAN	12.5	N/A	N/A	N/A	
			Seismic Test Par	ameter	2			
Test Criteria	Sds (g)	z/h	05lp-050	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)	
ICC-ES AC 156	2.5	1.07	Timothy J. P	iland ^{3.2}	2.4	1.68	0.68	
Pre Test Function	ality PAS <mark>S</mark>	Post Test	Functionality	PASS				
The unit remained fund AC156 test	ctional before and at	ter the ICC-ES /	AC 156 test. The	unit maintained	structural integrity	during and after	the ICC-ES-	

UUT-16 —

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



dustries, Inc.						
VAV						
4						
ummary c coated						
ummary ctronic e opposed da Silencer		-Disconnect -Transformer -Relay -Diamond Flow				
	Dimension	$\overline{\alpha}$	COL	Lowe	st Natural Frequ	ency (Hz)
Width	Length		Height	Front-Bac	k Side-Side	Vertical
24	24	HIWAY	10	N/A	N/A	N/A
	S	eismic Test Par	ameter	2		
Sds (g)	z/h	OSRp-056	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
2.5	1 <u>.0</u> Y . T	imot <mark>1.5</mark> J. P	iland ^{3.2}	2.4	1.68	0.68
/ PASS	Post Test F	unctionality	PASS			
	4 Jimmary c coated Jimmary ctronic e opposed da ilencer Width 24 Sds (g) 2.5 / PASS	4 Jimmary c coated Jimmary ctronic e opposed damper ilencer Width Length 24 24 Sds (g) 2/h 2.5 1.0 Test F	4 Jimmary c coated Jimmary ctronic e opposed damper ilencer UUT Propert Dimensions (Inches) Width 24 24 24 24 Seismic Test Par Sds (g) Z/h PASS Post Test Functionality	4 ummary c coated ummary ctronic e opposed damper ilencer - Airflow Switch - Disconnect - Transformer - Relay - Diamond Flow Sensor UUT Properties Dimensions (Inches) Width Length 24 24 24 24 24 24 25 1.0 2.5 1.0 2.5 1.0 4 2.5 10 3.2 24 2.5 10 3.2 2.5 1.0 1.5 3.2 2.5 Post Test Functionality	4 ummary c coated ummary ummary	4 Jimmary 2 coated Jimmary 2 coated Jimmary 2 coated Jimmary 2 coated Jisconnect - Disconnect - Transformer - Relay Jiamond Flow Sensor UUT Properties UUT Properties UUT Properties UUT Properties Lowest Natural Freque Width Length Length Height Front-Back Side-Side 24 24 24 10 N/A N/A Seismic Test Parameter Sds (g) 2.5 1.0 1.5 3.2 2.4 1.68

The unit remained functional before and after the ICC-ES AC 156 test. The unit maintained structural integrity during and after the ICC-ES-AC 156 test.





UUT-17

Unit Mounting Description:

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-0 brace with 3/32-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (10)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



<u>UUT-18</u> TEST R	ESULTS SU	JMMARY				
Manufacturer: Nailor I	ndustries, Inc.					
Model: 3230 Dual Duo	ct VAV					
Model Number: D323	0-16					
Product Construction Cabinet: 22 gauge z Inlet Size: 16" Round	inc coated					
Options/ Component -Controller: Digital E -Damper: Double bla -Coils: No Coil -Silencer: Integrated	lectronic ade opposed d	-Dis -Tra -Re -Dia	flow Switch connect insformer lay imond Flow Sensor UT Properties			
Operating Weight		Dimensions (In		Lowest	Natural Frequ	ency (Hz)
(lb)	Width	Length	Height	Front-Back	Side-Side	Vertical
159	42	38	18	N/A	N/A	N/A
		Seism	ic Test Parameter	2		
Test Criteria	Sds (g)	z/h	SIP-0561 _{Aflx-H} (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		othy J. Piland ^{3.2}	2.4	1.68	0.68
Pre Test Functiona	lity PASS	Post Test Funct	ionality PASS			

The unit remained functional before and after the ICC-ES AC 156 test. The unit maintained structural integrity during and after the ICC-ES-AC 156 test.





Unit Mounting Description:

UUT-18 -

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-2 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (12)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-19 TEST F	RESULTS SU	MMARY				
Manufacturer: Nailor	Industries, Inc.					
Model: 3200 Dual Du	ct VAV					
Model Number: D324	0-4					
Product Construction Cabinet: 22 gauge z Inlet Size: 4" Round	zinc coated					
Options/ Component -Controller: Digital E -Damper: Double bl -Coils: No Coil -Silencer: Integrated	Electronic ade opposed da	amper -Dis -Tra -Rel -Dia	low Switch connect nsformer ay mond Flow Sensor JT Properties			
Operating Weight		Dimensions (In		Lowes	t Natural Frequ	ency (Hz)
(lb)	Width	Length	Height	Front-Back	Side-Side	Vertical
108	24	47	10	N/A	N/A	N/A
		Seism	ic Test Parameter	2		
Test Criteria	Sds (g)	z/h	Sip-0561 _{Aflx-H} (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.5		thy J. Piland ^{3.2}	2.4	1.68	0.68
					•	

The unit remained functional before and after the ICC-ES AC 156 test. The unit maintained structural integrity during and after the ICC-ES-AC156 test





Unit Mounting Description:

UUT-19 —

Rigid suspended unit on (2) 1-5/8" Unistrut P1000 trapeze. (4) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-1 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (10)#10 TEK ASTM AS10 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-20 TEST F	RESULTS S	UMN	/IARY								
Manufacturer: Nailor	Industries, Inc										
Model: 3200 Dual Du	ct VAV										
Model Number: D324	0-14										
Product Construction Cabinet: 22 gauge z Inlet Size: 14" Roun	zinc coated										
Options/ Component -Controller: Digital E -Damper: Double bl -Coils: No Coil -Silencer: Integrated	Electronic ade opposed o	damp	er	-Airflow -Discor -Transf -Relay -Diamo	nnect ormer	v Sensor					
				UUT	Proper	ties					
Operating Weight	Dimensions (Inche					COL		Lowest Natural Frequency (Hz)			
(lb)	Width Length					Height		Front-Back	Side-Side	Vertical	
268	42	72			WAV	18	Z	N/A	N/A	N/A	
		-	S	eismic T	<u> </u>	rameter	2	<u> </u>			
Test Criteria	Sds (g)	R	z/h	OSIF	5-030	Aflx-H (g)	Arig-H (g)		Aflx-V (g)	Arig-V (g)	
ICC-ES AC 156	2.5		1:0ү. т	imoth	5 P	iland.2		2.4	1.68	0.68	
Pre Test Functiona	ality PASS	;	Post Test F	unction	ality	PASS					
The unit remained fund AC156 test			A CAL		ROIT						
Unit Mounting Desc Rigid suspended uni trapeze to the fixture Mason (2 per rod) U attached to structure ASTM A510 Grade 1 details.	t on (2) 1-5/8" , fastened with C-1 Rod Stiffe using 1/2" A3	n 3/8" ning (07 ha	square wash Clamps. Seisi ardware. Unit	ers and mic brac was atta	nuts. U ing with ached to	Inistrut P1000 n (4) Mason S o the 1-5/8" Ur	useo CB-2 histru	d to stiffen th brace with 3 It P1000 trap	e rods were fas 3/16-inch diame beze with (12)#1	tened with ter cable 0 TEK ASTM	



Model: 3000 Single	Duct VAV									
Model Number: D30	HQX-4									
Product Constructio Cabinet: 22 gauge Inlet Size:										
Options/ Componer -Controller: Digital -Damper: Double to -Coils: No Coil -Silencer: AT303/A	Electronic blade opposed d	amper			nect ormer nd Flow	Sensor				
				0((Propert	ies	i			
Operating Weight (lb)		Dimension	ons (Inches) - Constant				Lowest Natural Frequency (Hz)			
	Width		Length			Height		ront-Back	Side-Side	Vertical
71	10	X	66		WAW	10	7	N/A	N/A	N/A
			S	eismic T	~	ameter	2			
Test Criteria	Sds (g)		z/h		-056	Aflx-H (g)	Arig-	·H (g)	Aflx-V (g)	Arig-V (g
ICC-ES AC 156	2.5		1 <u>-0</u>	1.0 V · Timot ^{1.5} J. F		ilano ^{3.2}	2.4		1.68	0.68
Pre Test Function		Post Test Functionality PASS								
The unit remained fun AC156 test	ctional before and	l after ti	he ICC-ES A	C 156 tes	st. The l	unit maintained	structura	I integrity d	uring and after	the ICC-ES-

UUT-21 Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-0 brace with 3/32-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (6)#10 TEK ASTM ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.



UUT-22 TEST	RESULTS SI	JMMARY						
Manufacturer: Nailor	Industries, Inc.							
Nodel: 3000 Single	Duct VAV							
Nodel Number: D30	HQX-24X16							
Product Constructio Cabinet: 22 gauge Inlet Size:								
Options/ Componen -Controller: Digital -Damper: Double b -Coils: No Coil -Silencer: AT303/A	Electronic blade opposed o	-Relay	nect					
		UUTI	Properties					
Operating Weight		Dimensions (Inches	S) DE COA	Lowe	Lowest Natural Frequency (Hz)			
(lb)	Width	Length	Height	Front-Bac	k Side-Side	Vertical		
188.5	38	66	18	N/A	N/A	N/A		
		Seismic T	est Parameter	2				
Test Criteria	Sds (g)	z/h OSIp	-0561 _{Aflx-H} (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)		
ICC-ES AC 156	2.5	BY: Timoth	19Y: Timothy J. Piland 3.2		1.68	0.68		
Pre Test Function	ality PASS	Post Test Functiona	llity PASS					
	61-4	DATE: 04						

UUT-22 ----

Rigid suspended unit on (3) 1-5/8" Unistrut P1000 trapeze. (6) 3/8" ASTM-A307 rods at no less than 1.5 aspect ratio support the trapeze to the fixture, fastened with 3/8" square washers and nuts. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Mason SCB-2 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Unit was attached to the 1-5/8" Unistrut P1000 trapeze with (15)#10 TEK ASTM A510 Grade 1018-1022, at ea. corner and evenly spaced @ 12" O.C max along the trapeze. See page 34 for support details.




NOTES:

(1) A TO B RATIO MUST BE 1.5 OR GREATER. IF A TO B IS LESS THAN 1.5, THEN EIGHT (8) CABLES MUST BE USED. FOUR BRACING THE UNIT LATERALLY AND FOUR BRACING THE UNIT LONGITUDINALY

(2) UNIT SUPPORTED WITH UNISTRUT P1000 TRAPEZE.

 (2) ONLY SUPPORTED WITH UNISTRUCT FIND TRACELLE.
(3) FASTEN UNIT TO TRAPEZE WITH MINIMUM #10 TEK ASTM ASTM A510 Grade 1018-1022 AT EACH CORNER AND EVENLY SPACED AT 12" O.C.
(4) SEISMIC CABLE BRACE. SEE TABLE 15 FOR MODEL, SIZE AND QUANTITY.
(5) SEISMIC CABLE BRACE ATTACHMENT BRACKET CORRESPONDING TO CABLE BRACE. SEE TABLE 15 FOR MODEL, SIZE AND QUANTITY. INSTALL PER BRACE MANUFACTURERS INSTRUCTIONS.

(6) RIGID SUSPENDED UNIT WITH 3/8" ASTM-A307 RODS FASTENED TO TRAPEZE WITH 3/8" SQUARE WASHERS AND NUTS. ROD STIFFENED WITH UNISTRUT P1000 CLIPPED TO ROD WITH MASON UC-1 ROD STIFFENING CLAMPS. INSTALL PER MANUFACTURERS INSTRUCTIONS.



VAV DUCT TERMINAL NOMENCLATURE

Q-10 —			SIZE OF DUCT INLET	
		4 to 10	4" to 10" round duct for Mc	odel 3001
 	REHEAT & SILENCER OPTIONS	12 to 16	12" to 16" oval duct for Mo	del 3001
RW	Water coil reheat	24	24" x 16" rectangle duct	
RE	Electric reheat	4 to 16	4" to 16" round duct for Mc	odel 3101
Q	Silencer			
HQ	Hospital Grade Silencer			
RWQ	Water coil reheat + Silencer			
REQ	Electric reheat+ Silencer			
HQW	Water coil reheat + Hospital Grade Sile	ncer		
HQE	Electric reheat+ Hospital Grade Silence	er		
х	Exhaust Duct			
нох	Exhaust Duct +Hospital Grade Silencer	FC		
		01		
	VAV BOX MODEL			
	3001 Standard single duct opposed dampe			
	3101 Standard single duct single blade dan			
	30 Standard single duct opposed dampe	61		
	31 Standard single duct single blade dan	per VAV box with added o	ptions	
	3210 Non-Mixing Duel Duct	Diland		
	3230 Mixing Attenuator Duel Duct VAV	Pliand	0	
	3240 Blendmaster Duel Duct VAV			
	CONTROLLER OPTIONS 4/17	/2023		
	D Digital electrical controller		V	
	A Analog electrical controller			
	P Pneumatic controller			
	ANIA BUILDI	NG CODE		



TABLE 16 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries

Product Family : Model 33SZ Fan Powered Terminal Units - Constant or Variable Volume

Certified Product Construction : Zinc Coated 20ga Steel Casing Cabinet, 18ga Modular Frame for size 40 to 55

Certified Mountin	a Description : Vibratior	Isolated Ceiling Suspended	⁽⁴⁾ with Seismic Cable restraints
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Product Family	Model ⁽²⁾	Unit Size	Inlet	Max Length (in.)	Max Width (in.)	Max Height (in.)	Maximum Weight (lb.)	No. Support Hangers	No. Seismic Cable Brace ⁽⁴⁾	SDS (z/h = 1.0)	UUT
	33SZ	30	4 through 8	40.25	36	11	163	4	4	2.0	Interpolate-1 ⁽³⁾
	33SZ	40	4 through 10	36	27.5	18	218	4	8	2.0	Interpolated
	33SZ	50	5 through 12	41	35.5	18	233	4	8	2.0	Interpolated
	33SZ	55	5 through 12	55	35.5	18	248	4	8	2.0	Interpolate-3 ⁽³⁾
#33SZ Fan	33SZW	30	4 through 8	52	36	11	189	4	4	2.0	1
Powered	33SZW	40	4 through 10	48	27.5	18	218	4	8	2.0	Interpolated
Terminal	33SZW	50	5 through 12	53	35.5	18	240	4	8	2.0	Interpolated
Units	33SZW	55	5 through 12	67	81.25	18	347	4	8	2.0	3
	33SZE	30	4 through 8	52	36	11	163	4	4	2.0	2
	33SZE	40	4 through 10	51.25	27.5	18	218	4	8	2.0	Interpolated
	33SZE	50	5 through 12	56.25	35.5	18	233	4	8	2.0	Interpolated
	33SZE	55	5 through 12	70.25	43.25	18	248	4	8	2.0	4

Notes: (1) "#" indicates the controller type. D=Digital, A=Analog, P=Pneumatic

(2) W=Water Coil on discharge, E=Electic heat on discharge

(3) Box Model interpolated from indicated UUT which was same box with larger mass option added, providing least resistant sei MPLIAN

(4) If (4) cables are used, Supports must be mounted so that Length to width ratio is no less than 1.5

TABLE 17 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries

Product Family : Model 35S - Series Flow Fan Powered Terminal Units

Certified Product Construction : Zinc Coated 20ga Steel Casing Cabinet with 18ga Modular Frame Certified Mounting Description : Vibration Isolated Ceiling Suspended ⁽⁴⁾ with Seismic Cable rest

Product Family	Model ⁽²⁾	Unit Size	Inlet	Max Length (in.)	Max Width (in.)	Max Height (in.)	Maximum Weight (lb.)	No. Support Hangers	No. Seismic Cable Brace ⁽⁴⁾	SDS (z/h = 1.0)	UUT
	35S, 35SST	1, 2, 3	5 through 12	36	29	18	170	4	4	2.0	Interpolate
	35S, 35SST	4, 5, 6	8 throug <mark>h 16</mark>	44	47.5	19	221	4	8	2.0	Interpolate-5 ⁽³⁾
	35SW, 35SWST	1, 2, 3	5 through 12	48	29	18	180	7/20	23 ⁴	2.0	Interpolate
	35SW, 35SWST	4, 5, 6	8 through 16	56	47.5	19	221	4	8	2.0	Interpolate-5 ⁽³⁾
#35S Fan	35SWST	6	8 through 16	56	65	19	221	4	8	2.0	5
Powered	35SE, 35SEST	1, 2, 3	5 through 12	51.25	29	18	180	4	4	2.0	Interpolate
Terminal	35SE, 35SEST	4, 5, 6	8 through 16	59.25	47.5	19	249	4	8	2.0	Interpolate
Units	35S, 35SST	7	14, 16, 18	57.25	84	18	350	4	8	2.0	Interpolate
	35SW, 35SWST	7	14, 16, 18	69.25	84	18	359	4	8	2.0	Interpolate
	35SE	7	14, 16, 18	72.5	84	18	359		8	2.0	Interpolate-10 ⁽²
	35SEST	7	14, 16, 18	73	84	18	359	4	8	2.0	10
	35S-OAI, 35ST- OAI	2, 3	6 through 10	51.5	29	18	180	4	4	2.0	Interpolate
	35S-OAI, 35ST- OAI	4, 5, 6	8 through 14	59.5	47.5	19	231	4	8	2.0	Interpolate
	35SW-OAI, 35SWST-OAI	2, 3	6 through 10	63.5	29	18	189	4	4	2.0	Interpolate
#35S - OAI an Powered	35SW-OAI, 35SWST-OAI	4, 5, 6	8 through 14	71.5	47.5	19	231	4	8	2.0	Interpolate
Terminal Units	35SE-OAI, 35SEST-OAI	2, 3	6 through 10	67	29	18	189	4	4	2.0	Interpolate
	35SE-OAI, 35SEST-OAI	4, 5, 6	8 through 14	75	47.5	19	259	4	8	2.0	Interpolate
	35S-OAI	7	12 through 16	56.5	52	18	359	4	8	2.0	Interpolate
	35SW-OAI	7	12 through 16	69	68	18	369	4	8	2.0	11
	35SE-OAI	7	12 through 16	72	52	18	369	4	8	2.0	Interpolate

Notes:

(2) W=Water Coil on discharge, E=Electic heat on discharge

(3) Box Model interpolated from indicated UUT which was same box with larger mass option added, providing least resistant seismic combination.

The Model 35S is captured with UUT-5, 10, and 11. The only difference between the 35S and the 35S-OAI is that a duel inlet box (return + outside air) is added to the front of the standard box . The largest size OAI box is the largest mass option tested. Thus, the smaller OAI box option will survive since the largest survived, and the weights of the other sizes fall between the smaller UUT 5 and the largest UUT-11, capturing the range

(4) If (4) cables are used, Supports must be mounted so that Length to width ratio is no less than 1.5



TABLE 18 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries

Product Family : Model 35N - Parallel Flow Fan Powered Terminal Units

Certified Product Construction : Zinc Coated 20ga Steel Casing Cabinet

Certified Mounting Description : Vibration Isolated Ceiling Suspended ⁽⁴⁾ with Seismic Cable restraints

Product Family	Model ⁽²⁾	Unit Size	Inlet	Max Length (in.)	Max Width (in.)	Max Height (in.)	Maximum Weight (lb.)	No. Support Hangers	No. Seismic Cable Brace ⁽⁴⁾	SDS (z/h = 1.0)	UUT
	35N	2, 3	6 through 14	38.5	29	18	160	4	4	2.0	Interpolate
	35N	5, 6	10 through 16	51	36	20	225	4	8	2.0	Interpolate-8 ⁽³⁾
#35N Fan	35NW	2, 3	6 through 14	38.5	36	18	180	4	4	2.0	Interpolate
Powered Terminal	35NW	5, 6	10 through 16	51	43	20	236	4	8	2.0	Interpolate-8 ⁽³⁾
Units	35NE	2, 3	6 through 14	38.5	44.25	18	180	4	4	2.0	Interpolate
	35NE	5	10 through 16	51	51.25	20	236	4	8	2.0	Interpolate
	35NE	6	10 through 16	36	80	20	236	4	8	2.0	8

Notes:

(1) "#" indicates the controller type, D=Digital, A=Analog, P=Pneumatic (2) W=Water Coil on discharge, E=Electic heat on discharge

(3) Box Model interpolated from indicated UUT which was same box with larger mass option added, providing least resistant seismic combination.

(4) If (4) cables are used, Supports must be mounted so that Length to width ratio is no less than 1.5

TABLE 19 - CERTIFIED PRODUCT

Manufacturer : Nailor Industries

Product Family : Model 37S - Low Profile Series Flow Fan Powered Terminal Units Certified Product Construction : Zinc Coated 20ga Steel Casing Cabinet

COMPLIAN Certified Mounting Description : Vibration Isolated Ceiling Suspended ⁽⁴⁾ with Seismic Cable restraints

Product Family	Model ⁽²⁾	Unit Size	Inlet Q	Max Length (in.)	Max Width	Max Height (in.)	Maximum Weight (lb.)	No. Support Hangers	No. Seismic Cable Brace ⁽⁴⁾	SDS (z/h = 1.0)	UUT
	37S	1 through 3	4 through 10	40.5	26.5	11	163	4	4	2.0	Interpolate-2 ⁽³⁾
	375	4	10, 1 <mark>4x10</mark>	83	49.75	Tim	othay J	. P₄ila	nd 8	2.5	Interpolate- 7 (11-5-21) ⁽³⁾
	37SW	1 through 3	4 through 10	52.5	29.5	11	189	4	4	2.0	Interpolate-1 ⁽³⁾
ſ	37SW	4	10, 14 <mark>x10</mark>	83	49.75	11	220/1	7/202	3 8	2.5	Interpolate- 7 (11-5-21) ⁽³⁾
#375 Low	37SE	1 through 3	4 through 10	52	28.5	11	163	1402	4	2.0	Interpolate-2 ⁽³⁾
Profile Fan Powered	37SE	4	10, 14x10	83	49.75	11	220	4	8	2.5	Interpolate- 7 (11-5-21) ⁽³⁾
Terminal	37SST	1 through 3	4 through 10	40.5	38.5	11	163	4	4	2.0	Interpolate-2 ⁽³⁾
Units	37SST	4	10, 14x10	83	49.75	11	220	4	8	2.5	Interpolate- 7 (11-5-21) ⁽³⁾
	37SWST	1 through 3	4 through 10	52.5	41.5	11	189	4	4	2.0	Interpolate-1 ⁽³⁾
	37SWST	4	10, 14x10	83	49.75	н	229	4	8	2.5	7 (11-5-21)
	37SEST	1 through 3	4 through 10	52	40.5	-11	163	4	4	2.0	Interpolate-2 ⁽³⁾
	37SEST	4	10, 14x10	83	49.75	11	220	4	8	2.5	Interpolate- 7 (11-5-21) ⁽³⁾

(2) W=Water Coil on discharge, E=Electic heat on discharge

(3) Box Model interpolated from indicated UUT which was same box with larger mass option added, providing least resistant seismic combination.

Manufacturing of the tested and interpolated units is the same. The Models 335Z, 37S, and 37SST all have the same main box. For 37S and 37ST, sizes 1 to 3, the 33SZ was tested as the worst case of the three models. The Model 33SZ has a chilled water coil that is added to the side. The tested unit (33SZE size 30) is heavier than the interpolated unit (37S size 1-3) due to the weight of the extra chilled water coil. For Model 375, size 4, the 375WST- size 4 was tested as worst case. All the 375 and 375T have the same box. The tested 37SWST has an added attenuator and hot water coil that which provides the worst case mass option for all the interpolated 37S units.

(4) If (4) cables are used, Supports must be mounted so that Length to width ratio is no less than 1.5

5P-0561

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TABLE 20 - CERTIFIED SUBCOMPONENT

Product Family : Fan Powered Terminal Units Certified Subcomponent : Motors

Product Family	Model	Phase	Rated HP	Voltage	Manufacturer	Max Weight (lbs)	Sds (g), z/h = 1	UUT
	ECM	1	1/2	120	Regal Beloit Corp	10	2.0	1
	ECM	1	1/2	240	Regal Beloit Corp	10	2.0	2
Models 33SZ, 35S, 37S,	ECM	1	3/4	120	Regal Beloit Corp	10	2.0	3, 4, (2)11
35N	ECM	1	3/4	240	Regal Beloit Corp	10	2.0	(2)10
	ECM	1	1	120	Regal Beloit Corp	10	2.0	5,8
	ECM	1	1	240	Regal Beloit Corp	10	2.0	7(11-5-21)



Product Family : Fan Powered Terminal Units Certified Subcomponent : Fans

				822222222222222		
Product Family	Model	Diameter	Width	Manufacturer	Sds (g), z/h = 1	UUT
	10x10T	10	10	Morrison	$04/\frac{1}{2.0}/20$	3,4,10(2), 11(2)
	10x10R	10	10	Morrison	2.0	5,8
	11x4R	11	4	Morrison	2.0	1,2
	10x4R	10	4	Morrison	2.0	7(11-5-21)
	11x11R	11	11	Morrison	2.0	Interpolate
Models 33SZ, 35S, 37S, 35N	9x7T	9	7	Morrison	2.0	Interpolate
	9x7R	9	7	Morrison	2.0	Interpolate
	9x4T	9	4	Morrison	2.0	Interpolate
	9x9R	9	9	Morrison	2.0	Interpolate
	10x6R	10	6	Morrison	2.0	Interpolate
	9.87x2	9.87	2	Morrison	2.0	Interpolate



TABLE 22 - CERTIFIED SUBCOMPONENT

Product Family : Fan Powered Terminal Units

Certified Subcomponent : Water Coils

Certified Product Construction : Galvanized steel case, Aluminum Sine wave fin material 0.0045" @ 10 fpi, copper header and 1/2" copper tubing(.016" wall)

Product Family	Manufacturer		Max D	DIMENSIONS, (in)		Sds (g),	UUT
Product Family	Manufacturer	No. Rows	Width	Height	Depth	z/h = 1	001
		2,4,6	36	8.75	5.125, 7.313, 9.5	2.0	1, 2
		2, 4, 6	19	15	5.125, 7.313, 9.5	2.0	Interpolate
Models 33SZ, 37S	Great	2, 4, 6	31	15	5.125, 7.313, 9.5	2.0	Interpolate
WOULIS 5552, 575	American Coil	2, 4, 6	33	15	5.125, 7.313, 9.5	2.0	Interpolate
		2, 4, 6	36	15	5.125, 7.313, 9.5	2.0	Interpolate
		2, 4, 6, 8	55	15	5.125, 7.313, 9.5, 11.5	2.0	3, 4, 7(11-5-21)
		1, 2, 3	14	8.75	12	2.0	Interpolate
		1, 2, 3	16	12.5R	$CO_{12}E$	2.0	1
		1, 2, 3	16	15	12	2.0	Interpolate
Models 33SZ, 35S,	Great	1, 2, 3	24	8.75	12	2.0	Interpolate
35ST, 35N, 37S, 37ST	American Coil	1, 2, 3	24	15	12	2.0	Interpolate
		1, 2, 3	28	17.5	D^{12}_{0561}	2.0	5
		1, 2 <mark>, 3</mark>	41	9	12	2.0	Interpolate
		1, <mark>2, 3</mark>	50	15	12	2.0	3, 11

TABLE 23 - CERTIFIED SUBCOMPONENT

Product Family : Fan Powered Terminal Units

ATE: 04/17/2023

Certified Subcomponent : Electric Heat, Heater Element Wires

Certified Product Construction : Galvanized steel plates, internal wiring rated at 105°C. Wire made of 80%/20% Nickel Chromium "Class A" wire.

1

Product Family	Manufacturer	Voltage	kw	Max DIME	NSIONS, (in)	Sds (g),	UUT
Product Failing	Manufacturer	voitage	NVV	Width	Height	z/h = 1	
			15	12.375	9	2.0	2
			15	10.25	10.5	2.0	Interpolate
			16	13	10.5	2.0	Interpolate
	Nailor, wire by	1Ph: 120, 208, 240,	26	14.25	11.75	2.0	4
Models 33SZ, 35S, 37S, 35N	Hyndman Industrial	208, 240, 277, 3ph:208,	26	17	12	2.0	Interpolate
	Product	480 <i>,</i> 600	26	17	16	2.0	Interpolate
			26	25	16	2.0	Interpolate
			26	29	16	2.0	8
			30	40.25	11.75	2.0	10, 7(11-5-21)



TABLE 24 - CERTIFIED SUBCOMPONENT

Manufacturer : Various Product Family : Fan Powered Terminal Units Certified Subcomponent: Controllers

Certified Mounting Description : Side Mounted with minimum (4) 10ga. Sheet metal screws. Mounting may be flat or at 90 degrees

Product Family	Model	Туре	Manufact urer	Mounting Orientation	Max L	Max W	Max H	Max Wt. (lbs)	Sds (g), z/h = 1	UUT
Models 33SZ, 35S, 37S,	P-EZVAV	Digital	Nailor	Flat	16	6	14	8	2.0	8
35N	P-EZVAV	Digital	Nailor	90 degrees	16	6	14	8	2.0	5, 7, 10
NCC	BAC-8005-36	Digital	KMC	Flat	16	6	14	8	2.0	1-4, 11

TABLE 25- CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries Product Family : 33, 35, 37 FPTU Certified SUBCOMPONENT : SILENCERS

20ga galvanized steel			
Nailor Model Description	Sds (g), z/h = 1	UUT	
ST-Stealth induced air inlet attenuator	2	5, 6, 10, 7(11-5-21)	
Q option Induced air inlet attenuator	_2	8, 11	
Independent Dissipative air silencer	ÔSF	-0561	
	ST-Stealth induced air inlet attenuator Q option Induced air inlet attenuator	ST-Stealth induced air inlet attenuator 2 Q option Induced air inlet attenuator 2	ST-Stealth induced air inlet 2 5, 6, 10, 7(11-5-21) Q option Induced air inlet attenuator 2 8, 11

TABLE 26 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries Product Family : 33, 35, 37 FPTU Certified Subcomponent : Dampers

DATE: 04/17/2023

Timothy J. Piland

Certified Subcomponent Construction: 16Ga galvanized sheet metal casing. Blades are either 16Ga galvanized steel or 6063-T6 aluminum extrusion.

Product Family	Nailor Model Description	Sizes	Sds (g), z/h = 1	TUU
Models 35N	Circular Damper	6, 8, 10, 12, 14	72.0	Interpolate
WIDUEIS 55IN	Circular Damper	16	2.0	8
	Opposed Blade Damper – Double Blade	4, 6	2.0	Interpolate
	Opposed Blade Damper – Double Blade	8	2.0	1, 2
Models 33SZ (Size 30,	Opposed Blade Damper – Double Blade	10	2.0	10
40, 50), 35S, 37S	Opposed Blade Damper – Double Blade	12, 14	2.0	Interpolate
	Opposed Blade Damper – Double Blade	16	2.0	5, 11
	Opposed Blade Damper – Double Blade	14 x 10	2.0	7(11/5/21)
Models 33SZ (Size 55)	Opposed Blade Damper – Triple Blade	12	2.0	3, 4



TABLE 27 - NOT USED

TABLE 28 - CERTIFIED SUBCOMPONENT

Manufacturer : Nailor Industries Product Family : 33, 35, 37 FPTU Certified Subcomponent : Disconnect

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Туре	Model	Voltage	Amp	Manufacturer	UUT	Sds (g), z/h = 1
Non-Fusible, 3 poles	OT40FT3	600	40	ABB Control Inc	7(11-5-21), 10	2.0
Non-Fusible, 3 poles	OT63F3/B	600	60	ABB Control Inc	11	2.0
Non-Fusible, 1 pole	OC25G01PNBN00 NB1	600	25	ABB Control Inc	Interpolate	2.0
Non-Fusible, 3 poles	OT25F3/B	600	25	ABB Control Inc	4,5,6	2.0
Non-Fusible, 3 poles	OT63FT3	600	60	ABB Control Inc	Interpolate	2.0
Non-Fusible, 3 poles	OT25F3/B	600	25	ABB Control Inc	Interpolate	2.0

TABLE 29 - CERTIFIED SUBCOMPONENT

SP-0561

TABLE 29 - CERT Product Family : 33, 35, Certified Subcomponent	37 FPTU	0		3Y:Timo	thy J. Pil	and
Product Family	Model	Voltage	VA	Manufacturer	Sds (g), z/h = 1	UUT
	HCT-08H2AF02	120-48 <mark>0, 24</mark>	75	Hartland Controls	2.0	4,10
	HCT-01E0BB06	120, 24	40	Hartland Controls	2.0	1,3,5,11
	HCT-01D0BB06	120, 24	50	Hartland Controls	2.0	8
	HCT-09E0BB06	208-240, 24	40	Hartland Controls	2.0	Interpolate
Models 33SZ, 35S, 37S, 35N, 35FH	HCT-09D0BB06	208-240	50	Hartland Controls	2.0	5 2
	HCT-03J2BB07	277, 24	75	Hartland Controls	2.0	7(11-5-21)
	HCT-03E0BB06	277, 24	50	Hartland Controls	2.0	Interpolate
	HTC-04D0BB06	480, 24	50	Hartland Controls	2.0	Interpolate
	HCT-60D0BB06	24, 24	50	Hartland Controls	2.0	Interpolate

TABLE 30 - CERTIFIED SUBCOMPONENT

Product Family: 33, 35, 37 FPTU Certified Subcomponent: Relays

eertijieu subcomponent						
Туре	Model	Voltage	Amp	Manufacturer	Sds (g), z/h = 1	UUT
SCR Electric Heat Controller	EHS45-600-10	600	45	Neptronic	2.0	2, 8, 7(11-5-21)
SSR Electric Heat Controller	DW SSR50A1B	600	45	Neptronic	2.0	8 7(11-5-21)

TABLE 31 - CERTIFIED SUBCOMPONENT

Product Family : 33, 35, 37 FPTU

		ch				
Туре	Model	Voltage	Amp	Manufacturer	Sds (g), z/h = 1	UUT
Airflow Switch	DFS-221-112	277	15	Cleveland Controls	2.0	1 to 5, 7(11-5-21), 8, 10, 11
				FOR	CODE	COA
			K			CON/
ABLE 32 - CERT		OMPON	<u>IENT</u>			
<i>lanufacturer</i> : Nailor Ir roduct Family : 33, 35,		11	$\langle \mathbf{x} \rangle$	WWW(MX		
ertified Subcomponent		<u> </u>		05	P-0561	
Des du et Consilu		Sds (g),				
Product Family	UUT	z/h = 1		3Y: Timo	thy I Dil	and
	2	0			ITY J. PI	anu
Steri-Liner	2					
Steri-liner with	1, 4					
Steri-liner with perforated metal Steri-liner with Solid				DATE: ()4/17/20)23
Steri-liner with perforated metal Steri-liner with Solid metal	1, 4 3	2.0		DATE: (04/17/20)23
Steri-liner with perforated metal Steri-liner with Solid metal Fiber-Free Liner	1, 4 3 5, 8, 10, 11	2.0		DATE: (04/17/20)23
Steri-liner with perforated metal Steri-liner with Solid metal	1, 4 3	2.0		DATE: O	04/17/20)23



TABLE 33 - SUMMARY OF TESTED UNITS

Manufacturer : Nailor Industries

Product Family : Models 33Z, 35S, 37S, 35N Fan Powered Terminal Units

Certified Product Construction : Zinc Coated 20ga Steel Casing Cabinet, 18ga Modular Frame

Certified Mounting Description : Vibration Isolated Ceiling Suspended with Seismic Cable restraints (4)

UUT	Model	SIZE	INLET	L	W	н	Weight (lb.)	Actual Wt. (lb.)	# Cables ⁽⁴⁾	SDS; z/h = 1.0
1	#33SZW	30	8	52	36	11	160	189	(4) GS-12, 1/8"	2
2	#33SZE	30	8	52	36	11	138	163	(4) GS-12, 1/8"	2
3	#33SZW	55	12	67	81.25	18	266	347	(8) GS-19, 3/16" on UUT; (4)GS-12,1/8" on Silencer	2
4	#33SZE	55	12	70.25	43.25	18	224	248	(8) GS-19, 3/16"	2
5	#35SWST	6	16	56	65	19	234	221	(8) GS-19, 3/16"	2
6					Lower S	ds Not Used	ł			
7 (11-5-21)	#37SWST	4	14X10	49.75	83	11	235	229	(8) GS-12, 1/8"	2.5
8	#35NE	6	16	36	80	20	242	236	(8) GS-19, 3/16"	2
9					Lower S	ds Not Used	ł			
10	#35SEST	7	10	73	84	18	320	359	(8) GS-19, 3/16"	2
11	#35SW-OAI	7	16	69	68	18	384	369	(8) GS-19, 3/16"	2

UUT	SIZE	INLET	FAN MTR HP/A/V	Space Frame	OAI	Housing GA	Heat E or W	Cool Coil Rows	Liner	Silencer N, Q, S ⁽³⁾	Controller
1	30	8	0.5/7.5/120	N	_ N	20	W2	6	PML	Ν	DDC
2	30	8	0.5/5/240	N	N	20	E	2	Steri Liner	N	DDC
3	55	12	0.75/9.5/120	Y	D.Si₽-	18/20	W2	6	STO	AS	DDC
4	55	12	0.75/9.5/120	Y	N	18/20	E	2	PML	N	DDC
5	6	16	1.0/12.2/120	YXX	N	18/20	W3	-	STD	S	90 ⁰ /DDC
7 (11-5-21)	4	14X10	2/240	Y N Ti	mothy	J.20Pi	arwa	000-000	PML	s	DDC/FN2
8	6	16	1.0/13.7/120	N	N	20	. Е		STD	Q	DDC
10	7	16	(2)0.75/17.5/240	Y	N	18/20	E		STD	S	90 ⁰ /FN2
11	7	16	(2)0.75/10/120	ΔΥΓΕ	• (Y) //	18/20) 🤈 🕅 🕄		STD	Q	DDC

Notes: (1) "#" indicates the controller type. D=Digital, A=Analog, P=Pneumatic

(2) W=Water Coil on discharge, E=Electic heat on discharge

(3) For Silencers N=no silencer; S= Stealth Side mounted silencer; Q= Induced Air inlet attenuator; AS= Separated Dissapative silencer attached to inlet

(4) If (4) cables are used, Supports must be mounted so that Length to width ratio is no less than 1.5 BUILDING



<u>UUT-1</u> TEST R	ESULTS SUI	MMAF	RY						
Manufacturer: Nailor	Industries, Inc.								
Model: 33SZ Fan Po	wered Terminal	Units							
Model Number: D33	SZW-30								
Product Construction Cabinet: 20 gauge Unit Size: 30									
Options/ Component - Fan with 1/2 Hp (7 -Controller: Digital -Damper: Double b -Coils: 6 row inlet w -Liner: PML	120v) Motor lade opposed da		-, - rge -	Diamond Flow S Airflow Switche Disconnect transformer Relay	S				
				UUT Proper	ties				
Operating Weight			Dimensior	s (Inches)	CONA		Lowest	Natural Freque	ency (Hz)
(lb)	Length		Width		Height		Front-Back	Side-Side	Vertical
189	52	K	36		11	7	N/A	N/A	N/A
			S	eismic Test Pa	rameter	2			
Test Criteria	Sds (g)	A	<mark>z/h</mark>	03lp-030	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.0		1-07.7	imothy J. F	iland ^{3.2}		2.4	1.34	0.54
Pre Test Function	ality PASS		Post Test F	unctionality	PASS				
The unit coil was full or structural integrity duri					al before and at			bo test. The un	
Unit Mounting Des		. OT 1	A 0.07 me de	fastened to the	ton of the her		the work for a to		

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO HNSF-HM-043 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



Manufacturer: Nailor	r Industries, Inc.							
	owered Terminal Unit	S						
Aodel Number: D33	SZE-30							
Product Construction Cabinet: 20 gauge Unit Size: 30								
Dptions/ Component - Fan with 1/2 Hp (2 -Controller: Digital -Damper: Double b -Coils: 2 row inlet w -Electric Heat Disch	240v) Motor lade opposed dampo vater coil	-/ - er -	Diamond Flow S Airflow Switches Disconnect transformer Relay		-Lir	ner: Steriliner		
			UUT Propert	ies				
Operating Weight		Dimension	s (Inches)	COA		Lowest	Natural Freque	ency (Hz)
(lb)	Length	Width		Height		Front-Back	Side-Side	Vertical
163	52	36		11	7	N/A	N/A	N/A
		S	eismic Test Par	ameter	2			•
Test Criteria	Sds (g)	z/h	OSPp-056	Aflx-H (g)	Ar	ig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.0	1.0ү. т	imothy J. P	iland ^{3.2}		2.4	1.34	0.54
Pre Test Function	ality PASS	Post Test F	unctionality	PASS				
The unit coil was full c								

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO HNSF-HM-043 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (4) Gripple GS-12 brace with 1/8-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



UUT-3 TEST R							
Model: 33SZ Fan Po		Units					
Model Number: D33	SZW-55						
Product Constructio Cabinet: 20 gauge Unit Size: 55		18gauge spac	e frame				
Dptions/ Componen - Fan with 3/4 Hp (-Controller: Digital -Damper: Double b -Coils: 8 row inlet v -2 row water Coil d	120v) Motor lade opposed da vater coil	mper	-Diamond Flow -Airflow Switche -Disconnect -transformer -Relay		-Liner: Solid N - Inlet Dissipa		
			UUT Proper	ties			
Operating Weight		Dimensi	ons (Inches)	CONA	Lowe	st Natural Freque	ency (Hz)
(lb)	Length	Width		Height	Front-Bac	k Side-Side	Vertical
347	67	81.25		18	N/A	N/A	N/A
			Seismic Test Pa				
Test Criteria	Sds (g)	z/h	03lp-030	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.0	1.0	Timothy J. F	iland ^{3.2}	2.4	1.34	0.54
Pre Test Function	ality PASS	Post Tes	t Functionality	PASS		·	
The unit coil was full of structural integrity dur	of water at approximing and after the IC	C-ES- AC156 te	d remained function	al before and a	fter the ICC-ES Ad	C 156 test. The uni	t maintained

Spring suspended unit with (8) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut ((4) for FPTU and (4) for silencer). Rods hanging from VIMCO HNSF-HM-045 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable for the FPTU and (4)Gripple GS-12 brace with 1/8-inch diameter cablefor the silencer. Each brace attached to structure using 1/2" A307 hardware. Brace attached to top of unit and silencer with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



UUT-4 TEST R			ARY						
Manufacturer: Nailor	Industries, Inc								
Model: 33SZ Fan Po	wered Termina	I Unit	ts						
Model Number: D33	SZE-55								
Product Construction Cabinet: 20 gauge Unit Size: 55		id 18	gauge space	frame					
Options/ Component - Fan with 3/4 Hp (1 -Controller: Digital -Damper: Double bl -Coils: 2 row inlet w -Electric Heat Disch	l20v)Motor lade opposed d vater coil	lampe	- er -	Diamond Flow Airflow Switche Disconnect -transformer -Relay			ner: Solid Me nlet Dissipativ		
				UUT Proper	ties				
Operating Weight			Dimensior	ns (Inches)	COAR		Lowest	Natural Frequ	ency (Hz)
(lb)	Length		Width		Height		Front-Back	Side-Side	Vertical
248	70.25		43.25		18	7	N/A	N/A	N/A
			S	Seismic Test Pa	rameter	L			
Test Criteria	Sds (g)	R	z/h	OSP-056	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)
ICC-ES AC 156	2.0		1.0	limothy J. F	iland ^{3.2}		<mark>2</mark> .4	1.34	0.54
Pre Test Function	ality PASS	;	Post Test I	unctionality	PASS				
The unit coil was full o element wires remaine ICC-ES- AC156 test	of water at approxed functional before	kimate ore an	ly 40psi, and r d after the ICC	emained function C-ES AC 156 test	al before and af The unit mainta	ter th ained	e ICC-ES AC 1 structural integ	156 test. The ur prity during and	nit heating after the



Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rods hanging from VIMCO HNSF-HM-045 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 34 for support details.



Manufacturer: Nailor	r Industries. Inc.							
Model: 35S Fan Pow	-	nits						
Model Number: D35								
Product Construction Cabinet: 20 gauge Unit Size: 6	n Summary	3 guage space f	rame					
Options/ Component - Fan with 1 Hp (12 -Controller: Digital I -Damper: Double b -Coils: 3 row discha -Liner: PML	20v) Motor Mounted 90 degre lade opposed dat	ees - mper -	Diamond Flow S Airflow Switches -Disconnect -transformer -Relay		- Stea	alth Induced	air inlet Silence	er
			UUT Propert	ies				
Operating Weight		Dimensio	ns (Inches)	COA		Lowest	Natural Freque	ency (Hz)
(lb)	Length	Width		Height		Front-Back	Side-Side	Vertical
221	56	65	l F I GWAN	19	7	N/A	N/A	N/A
			Seismic Test Par	ameter	2			
Test Criteria	Sds (g)	z/h	OSPp-056	Aflx-H (g)	Ar	ig-H (g)	Aflx-V (g)	Arig-V (g)
		1-0		2.0		2.4	1.34	0.54
ICC-ES AC 156	2.0	1.0	Timothy J. P	iland ^{3.2}		2.4		
ICC-ES AC 156 Pre Test Function The unit coil was full c	nality PASS	Post Test	Functionality	PASS				

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO HNSF-HM-044 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



Side-Side

N/A

Aflx-V (g)

1.68

Vertical

N/A

Arig-V (g)

0.68

(THIS UNIT WAS RETESTED ON 11-5-21 UUT-7(11-5-21) TEST RESULTS SUMMARY WITH REINFORCE FASTENING OF INLET ATTENUATORS)

Manufacturer: Nailor Industries. Inc.

Model: 37S Low Profile Flow Fan Powered Terminal Unit

Model Number: D37SWST-4

Product Construction Summary Cabinet: 20 gauge zinc coated Unit Size: 4

Options/ Component Summary

Operating Weight (lb)

229

Test Criteria

ICC-ES AC 156

- -Fan with (240v) 11.5A Motor (EPIC ECM) -Controller: Digital -Coils: 3 Hot Water Coil; 0 Chill Water
- Transformer
- Reinforced inlet attenuator attachment
- -Airflow Switches - Disconnect
- Relav
- **UUT** Properties **Dimensions** (Inches) Lowest Natural Frequency (Hz) Length Width Height Front-Back 83 49.75 11 N/A Seismic Test Parameter 516-U Sds (g) z/h Aflx-H (g) Arig-H (g) 3.2 2.4 1.0 2.5 1.5

Pre Test Functionality PASS Post Test Functionality PASS The unit coil was full of water at approximately 40psi, and remained functional before and after the ICC-ES AC 156 test. The unit maintained structural integrity during and after the ICC-ES- AC156 test



Unit Mounting Description:

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO HNSF-HM-044 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-12 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



	RESULTS SU	JMMA	RY							
Manufacturer: Nailo	r Industries, In	C.								
Model: 35N Fan Pov	wered Termina	I Units -	· Parallel flo	W						
Model Number: D35	NE-6									
Product Constructic Cabinet: 20 gauge Unit Size: 6		/ 18 gua	age space fi	rame						
Options/ Componen - Fan with 1 Hp (12 -Controller: Digital -Damper: Circular -Electric Heat discl -Liner: Fiber Free	20v) Motor damper		-	Diamond Flow S Airflow Switches Disconnect -transformer -Relay		- Inc	luced Air inlet	Attenuator		
				UUT Proper	ies					
Operating Weight	Dime			sions (Inches) - Con			Lowest Natural Frequency (Hz)			
(lb)	Length		Width	n Height			Front-Back	Side-Side	Vertical	
236	36	4	80	l 🛛 I QWA V	20	7	N/A	N/A	N/A	
		A	5	Seismic Test Pa	ameter	2				
Test Criteria	Sds (g)	A	<mark>z/h</mark>	USIp-056	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)	
ICC-ES AC 156	2.0		1.0	Timothy J. P	iland ^{3.2}		2.4	1.34	0.54	
Pre Test Functionality PASS Post Tes				st Functionality PASS						
The unit heating elem				-					anite e alemia a	

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO HNSA-B1-123 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



Manufacturer: Nailo	r Industries, Inc.								
Model: 35S Fan Pov	vered Terminal l	Units							
Model Number: D35	SEST-7								
Product Constructio Cabinet: 20 gauge Unit Size: 7		18 guage space	frame						
Options/ Componen - Fan with (2)3/4 H -Controller: Digital -Damper: Double b -Electric Heat disch -Liner: Fiber Free	p (240v) Motor Mounted 90 deg Iade opposed da	irees amper	-Diamond Flo -Airflow Switc -Disconnect -transformer -Relay		- Ste	ealth Induced a	air inlet Silenc	er	
			UUT Prop	perties					
Operating Weight (lb)		Dimensio	ons (Inches)			Lowest Natural Frequency (Hz)			
	Length	Width		Height		Front-Back	Side-Side	Vertical	
359	73	84	18		N/A		N/A	N/A	
			Seismic Test	Parameter	Z				
Test Criteria	Sds (g)	z/h	OSIp-0	Aflx-H (g)	A	rig-H (g)	Aflx-V (g)	Arig-V (g)	
ICC-ES AC 156	2.0	1.0	Timothy J	Pilano ^{3.2}		2.4	1.34	0.54	
Pre Test Functior	ality PASS	Post Test	Functionality	PASS					
The unit heating elem and after the ICC-ES-	ent wires remaine AC156 test	d functional before	and after the t	CC-ES AC 156 te	st. The	e unit maintaine	d structural inte	grity during	

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO VIMCO HNSA-B1-123 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 34 for support details.



	RESULTS SI	JMMARY								
Manufacturer: Nailo										
Model: 35S Fan Pov										
Model Number: D35										
Product Constructio Cabinet: 20 gauge Unit Size: 7	n Summary	18 guage sp	ace frame							
Options/ Componen - Fan with (2)3/4 H -Controller: Digital -Damper: Double b -3 row discharge w -Liner: Fiber Free	p (120v) Motor Mounted 90 deg lade opposed d		-Airflow Switches - C -Disconnect t -transformer c			- Induced air inlet Attenuator Outside Air Inlet (1"x1"x20ga supplementary angle top and bottom attached with (4)#8 SMS to unit and OAI)				
			UUT Proper	ties						
Operating Weight		Dime	ensions (Inches)	ons (Inches)			Lowest Natural Frequency (Hz)			
(lb)	Length	M	lidth	Height	Front-Bac		Side-Side	Vertical		
369	69	E.	68	18	7	N/A	N/A	N/A		
			Seismic Test Pa	rameter	2					
Test Criteria	Sds (g)	Z/ł	105 Hz-056	Aflx-H (g)	Ar	rig-H (g)	Aflx-V (g)	Arig-V (g)		
ICC-ES AC 156	2.0	Y: Timothy J. P	Timothy J. Hiland ^{3.2}		2.4	1.34	0.54			
Pre Test Functior	ality PASS	Post	Test Functionality	st Functionality PASS						
		imately 40psi								

Spring suspended unit with (4) 3/8" ASTM-A307 rods fastened to the top of the housing through factory swaged 3/8" Rivnut and secured with 3/8" nut. Rod hanging from VIMCO VIMCO HNSA-B1-124 spring hanger with rebound plate below hanger box with max 1/4" gap. Top of Hanger box mounted to the fixture with 3/8" bolt, square washers and nuts. Max 1/8" gap between top of hanger box and fixture. Unistrut P1000 used to stiffen the rods were fastened with Mason (2 per rod) UC-1 Rod Stiffening Clamps. Seismic bracing with (8) Gripple GS-19 brace with 3/16-inch diameter cable attached to structure using 1/2" A307 hardware. Brace attached to top of unit with 3/8" rod through Gripple R4 bracket. See page 18 of 19 for support details.



NAILOR MODEL 33SZ, 35S, 37S, 35N SPECIAL SEISMIC CERTIFICATION



NOTES:

NOTES: (1) A TO B RATIO MUST BE 1.5 OR GREATER. IF A TO B IS LESS THAN 1.5, THEN EIGHT (8) CABLES MUST BE USED. (2) UNIT SUPPORTED 3/8" RIVNUT FACTORY SWAGED THROUGH CORNER BRACKET. (3) 2 X 2 X 12GA FACTORY SWAGED TO TO UNIT WITH TWO (2) 3/8" RIVNUT. (4) SEISMIC CABLE BRACE. SEE TABLE 33 FOR MODEL, SIZE AND QUANTITY. (5) SEISMIC CABLE BRACE ATTACHMENT BRACKET CORRESPONDING TO CABLE BRACE. SEE TABLE 33 FOR MODEL, SIZE AND QUANTITY. CLAMP TO TOP OF UNIT WITH 3/8" NUT. INSTALL PER BRACE MANUFACTURERS INSTRUCTIONS. (6) SPIRING FOR A TO RESULT OF SUSPENDED LINIT WITH 3/2" ACTM A 307 PODE FASTENED TO WITH 3/8" PLANUT AND NUT. SEE LINIT SHEETS FOR SPIRING HANGER MODEL AND SIZE POD STIEFENED.

(6) SPRING ISOLATOR SUSPENDED UNIT WITH 3/8" ASTM-A307 RODS FASTENED TO WITH 3/8" RIVNUT AND NUT. SEE UUT SHEETS FOR SPRING HANGER MODEL AND SIZE. ROD STIFFENED WITH UNISTRUT P1000 CLIPPED TO ROD WITH MASON UC-1 ROD STIFFENING CLAMPS. INSTALL PER MANUFACTURERS INSTRUCTIONS.

Fan Powered Terminal Unit Nomenclature

D	355	E	ST	-	3	08 —		Primary Inlet	t Size
									Size
					Optional S	tealth Attenu	uator on Serie	es Units	5120
				FOR	CODE	COA			
					Supplem	ental Heat			
				E		Electric Heat			
			S.	W		ot Water Hea	ət		
			REUK	03	SP-056	None	G		
							1		
				3Y: Time	othy J. Pi	FPTU Model			
			355	222222222	Standard	d Series Fan L	J <mark>nit w</mark> ith indu	ced air	
			35N	DATE.	Standard	Parallel Fan	<mark>Unit w</mark> ith ind	uced air	
			37S	JATE.	Low profi	le Series Fan	Unit with ind	uced air	
			37N		Low profil	e Parallel Fan	Unit with ind	duced air	
			33SZ		Series Fan l	Jnit with sens	sible cooled in	nduced air	
			P	VIA		CODY			
		-		Controll	ler Options				
			D	Digita	al electonic	control			
			А	Anal	log electric o	control			
			Р	Pn	neumatic co	ntrol			