APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0216

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: DriSteem Corporation

Manufacturer's Technical Representative: Sujan Kadam

Mailing Address: 14949 Technology Dr., Eden Prairie, MN 55344

Telephone: (952) 906-4056 Email: Sujan.Kadam@dristeem.com

Product Information

Product Name: VLC, STS, VM, XTP, Mini-Bank, GTS LX, Ultra-Sorb, RX, HPAS (See Attachment for complete listing)

Product Model Number(s): VLC, STS, VM, XTP, Mini-Bank, GTS LX, Ultra-Sorb, RX, HPAS (See Attachment for complete listing)

Product Category: Air Conditioning Units

Product Sub-Category: Humidification Systems

General Description: Humidification systems and steam dispersion units.

Mounting Description: Several - See Certified Product Tables and UUT Sheet

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: Pre Compliance

Contact Person: Katie Braman

Mailing Address: 324 NW Hill Street, Bend, OR 97703

Telephone: (541) 241-2310 Email: Katie@go-pre.com

Title: Principal & Program Manager

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: PRE COMPLIANCE

Name: Andrew Coughlin California License Number: S6082

Mailing Address: 324 NW Hill St, Bend, OR 97703

Telephone: (415) 635-8461 Email: Andy@go-pre.com

Certification Method

☐ GR-63-Core ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: APPLIED TECHNICAL SERVICES, INC. (ATS)

Contact Person: David Common

Mailing Address: 1049 Triad Court, Marietta GA 30062

Telephone: (888) 287-5227 Email: DavidC@atslab.com

Company Name: U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL)

Contact Person: James Wilcoski

Mailing Address: 2902 Newmark Dr., Champaign IL 61822-1076

Telephone: (217) 373-4565 Email: james.wilcoski@usace.army.mil

Company Name: CLARK TESTING LABORATORY, INC.

Contact Person: Devon Lohr

Mailing Address: 1801 Route 51, Jefferson Hills PA 15025

Telephone: (412) 387-1001 Email: dlohr@clarktesting.com

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)

Contact Person: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513

Telephone: (972) 247-9657 Email: jeremy@etldallas.com

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Morrison Blackwell-White

Mailing Address: 38995 Cherry Street, Newark CA 94560

Telephone: (510) 578-3500 Email: morrison.blackwell-white@nts.com

Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)

Contact Person: Amarnath Kasalanati

Mailing Address: 1301 South 46th St., Bldg. 420, Richmond CA 94804

Telephone: (510) 642-3437 Email: amarnath1@berkeley.edu

Company Name: QUALTECH/CURTISS WRIGHT/TRENTEC

Contact Person: Jerry Newberry

Mailing Address: 4600 East Tech Drive, Cincinnati OH 45245

Telephone: (513) 528-7900 Email: jnewberry@curtisswright.com

Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal	(A Flx-H), g=	3.20	(A Rig-H), g=	2.15
Vertical	(A Flx-V), g=	1.67	(A Rig-V), g=	0.67

S_{DS} (Design spectral response acceleration at short period, g) = 2.00 at z/h =1; 2.50 at z/h =0

Hf (Force amplification height factor) = 1@ z/h=0; 3.5@ z/h=1

Ru (Structure ductility redution factor) = 1@ z/h=0; 1.3@ z/h=1

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 0 and 1

HCAI Approval (For Office Use Only) - Approval Expires on 09/19/2031

Date: 9/19/2025

Name: Timothy Piland Title: Senior Structural Engineer

Condition of Approval (if applicable):

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Vaporstream (VLC-Leg Mounted)

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 1a

Mounting Configuration: Base mounted - rigid

Construction Summary

Constructed of a light gauge stainless steel enclosure.

Options Summary

See Table 10 for certified options.
See Table 9 for control panel specific certified options.
Certified for stand mounting. Max height above floor to bottom of equipment tank = 30.5".

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vaporstream VLC (Leg Mounted)[1,2]	VLC2-1	14.8	34	30.3	181		1
	VLC3-1	14.8	34	30.3	181		Interp.
	VLC4-1	14.8	34	30.3	181		Interp.
	VLC5-1	14.8	34	30.3	181		Interp.
	VLC6-1	25	30	30.3	212		Interp.
	VLC9-1	25	30	30.3	212		Interp.
	VLC12-1	25	30	30.3	212		Interp.
	VLC16-1	25	30	30.3	212		Interp.
	VLC21-1	25	30	30.3	212		Interp.
	VLC25-1	25	30	30.3	212		Interp.
	VLC12-2	29	30	34.1	310		Interp.
	VLC18-2	29	30	34.1	310		Interp.
	VLC24-2	29	30	34.1	310		Interp.
	VLC32-2	29	30	34.1	310		Interp.
	VLC42-2	29	30	34.1	310		Interp.
	VLC50-2	29	30	34.1	310		Interp.
	VLC18-3	32.9	32	46.1	462		Interp.
	VLC27-3	32.9	32	46.1	462		Interp.
	VLC36-3	32.9	32	46.1	462		Interp.
	VLC48-3	32.9	32	46.1	462		Interp.

Notes:
[1]Includes seismic upgrades of using captive fasteners to secure circuit board to cabinet for all future installations.
[2]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
Mounting Configuration:
Base mounted - rigid on carbon steel stand/support legs with plate carbon steel seismic cross bracing on all sides. Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Vaporstream (VLC-Leg Mounted)

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 1a

Mounting Configuration: Base mounted - rigid

Construction Summary

Constructed of a light gauge stainless steel enclosure.

Options Summary

See Table 10 for certified options.
See Table 9 for control panel specific certified options.
Certified for stand mounting. Max height above floor to bottom of equipment tank = 30.5".

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vaporstream VLC (Leg Mounted)[1,2,3]	VLC63-3	32.9	32	46.1	462		Interp.
	VLC24-4	40.4	32	46.1	563		Interp.
	VLC36-4	40.4	32	46.1	563		Interp.
	VLC48-4	40.4	32	46.1	563		Interp.
	VLC64-4	40.4	32	46.1	563		Interp.
	VLC84-4	40.4	32	46.1	563		Interp.
	VLC100-4	40.4	32	46.1	563		3

Notes:
[1]Includes seismic upgrades of using captive fasteners to secure circuit board to cabinet for all future installations.
[2]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[3]Laboratory reported dry weight of 300 lbs. w/o water. Contents were included in testing per operation conditions.
Mounting Configuration:
Base mounted - rigid on carbon steel stand/support legs with plate carbon steel seismic cross bracing on all sides. Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Vaporstream (VLC-In Weather Enclosure)

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 1b

Mounting Configuration: Base mounted - rigid

Construction Summary

VLC unit is constructed of a light gauge stainless steel enclosure. Weather enclosure constructed of structural tube carbon steel framing supporting both the unit on the interior and light gauge carbon steel sheet metal on the exterior.

Options Summary

See Table 10 for certified options.
See Table 9 for control panel specific certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vaporstream VLC (In Weather Enclosure)[1,2]	VLC2-1	35	44	66	524		2
	VLC3-1	35	44	66	524		Interp.
	VLC4-1	35	44	66	524		Interp.
	VLC5-1	35	44	66	524		Interp.
	VLC6-1	35	44	66	607		Interp.
	VLC9-1	35	44	66	607		Interp.
	VLC12-1	35	44	66	607		Interp.
	VLC16-1	35	44	66	607		Interp.
	VLC21-1	35	44	66	607		Interp.
	VLC25-1	35	44	66	607		Interp.
	VLC12-2	39	44	66	740		Interp.
	VLC18-2	39	44	66	740		Interp.
	VLC24-2	39	44	66	740		Interp.
	VLC32-2	39	44	66	740		Interp.
	VLC42-2	39	44	66	740		Interp.
	VLC50-2	39	44	66	740		Interp.
	VLC18-3	44	44	66	927		Interp.
	VLC27-3	44	44	66	927		Interp.
	VLC36-3	44	44	66	927		Interp.
	VLC48-3	44	44	66	927		Interp.
	VLC63-3	44	44	66	927		Interp.
	VLC75-3	44	44	66	927		Interp.
	VLC24-4	50	44	66	1063		Interp.
	VLC36-4	50	44	66	1063		Interp.

[1]Dimensions reflect unit only, mounting stand dimensions are listed in Table 9.
[2]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Vaporstream (VLC-In Weather Enclosure)

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 1b

Mounting Configuration: Base mounted - rigid

Construction Summary

VLC unit is constructed of a light gauge stainless steel enclosure. Weather enclosure constructed of structural tube carbon steel framing supporting both the unit on the interior and light gauge carbon steel sheet metal on the exterior.

Options Summary

See Table 10 for certified options.
See Table 9 for control panel specific certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vaporstream VLC (In Weather Enclosure)[1,2]	VLC48-4	50	44	66	1063		Interp.
	VLC64-4	50	44	66	1063		Interp.
	VLC84-4	50	44	66	1063		Interp.
	VLC100-4	50	44	66	1063		4

[1]Dimensions reflect unit only, mounting stand dimensions are listed in Table 9.
[2]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: STS

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 2

Mounting Configuration: Base mounted - rigid

Construction Summary

Constructed of light gauge stainless steel; carbon steel angle legs or "H" style carbon steel tubes for legs; all with plate carbon steel seismic cross bracing.

Options Summary

See Table 11 for certified options.
See Table 9 for control panel specific certified options.
Certified for stand mounting. STS-25 to STS-100: Max height above floor to bottom of equipment = 32"; STS-200 to STS-800: Max height above floor to bottom of equipment = 24".

Model Line	Model	Max. Dimensions (in)[4]			Wt. (lb)	Notes	UUT
		D	W	H			
Standard Water Models (STS)[1,2,3]	STS25 S	23.7	14.8	19.5	236	Stainless steel coil with carbon steel legs	6
	STS50 S	39.7	14.8	19.5	336		Interp.
	STS100 S	39.7	19.3	19.5	350		Interp.
	STS200 S	55.2	30.3	19.5	850		Interp.
	STS400 S	55.2	30.3	19.5	950		Interp.
	STS800 S	55.2	30.3	29.8	1250		Interp.
	STS25 SNC	23.7	14.8	19.5	175	Teflon coated stainless steel coil with carbon steel legs	Interp.
	STS50 SNC	39.7	14.8	19.5	336		Interp.
	STS100 SNC	39.7	19.3	19.5	350		Interp.
	STS200 SNC	55.2	30.3	19.5	850		Interp.
	STS400 SNC	55.2	30.3	19.5	950		Interp.
	STS800 SNC	55.2	30.3	29.8	1250		35
	STS25 C	23.7	14.8	19.5	175	Copper coil with "H" style with carbon steel legs	Interp.
	STS50 C	39.7	14.8	19.5	336		Interp.
	STS100 C	39.7	19.3	19.5	350		Interp.
	STS400 C	55.2	30.3	19.5	950		Interp.
	STS800 C	55.2	30.3	29.9	1250		7

[1]Includes seismic upgrades of using captive fasteners to secure circuit board to cabinet for all future installations.
[2]Includes seismic upgrades of using (4) 1/4" X 1" bolts to secure insulation behind control panel.
[3]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[4]Dimension reflect unit only, mounting stand dimension are in Table 10

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: XTP Series Humidifier

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 3

Mounting Configuration: Wall mounted - rigid[1] & Base mounted - rigid[2]

Construction Summary

Indoor enclosure constructed of stainless steel back-bottom, top-side, and sub-panel panels with carbon steel door panels. Outdoor enclosure constructed entirely of carbon steel.

Options Summary

See Table 12 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
XTP Humidifier with Indoor Enclosure[3]	XTP002	8.7	14.6	20.6	38		Extrap.
	XTP003	8.7	14.6	20.6	38		Extrap.
	XTP006	8.7	14.6	20.6	47		8
	XTP010	11.8	17.7	24.1	79		Interp.
	XTP017	11.8	17.7	24.1	79		Interp.
	XTP025	13.4	19.9	25.6	115		Interp.
	XTP033	13.4	19.9	25.6	115		Interp.
	XTP042	13.4	19.9	25.6	115		Interp.
	XTP048	13.4	19.9	25.6	115		Interp.
	XTP050	13.4	39.6	25.6	218		Interp.
	XTP067	13.4	39.6	25.6	218		Interp.
	XTP083	13.4	39.6	25.6	218		Interp.
	XTP096	13.4	39.6	25.6	218		9
XTP Humidifier with Outdoor Enclosure	XTP002	18	26	42	149		60
	XTP003				163		Interp.
	XTP006				171		Interp.
	XTP010				187		Interp.
	XTP017				187		Interp.
	XTP025				200		Interp.
	XTP033				207		Interp.
	XTP042				207		Interp.
	XTP048				207		61

[1]Wall mounted - rigid (indoor and outdoor)
[2]Base mounted - rigid (outdoor only)
[3]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Vapormist (VM)

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 4

Mounting Configuration: Wall mounted - rigid

Construction Summary

Constructed of a stainless steel frame with carbon steel electrical sub-panel and housing and plastic enclosure.

Options Summary

See Table 13 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Vapormist (VM)[1]	VM2	24.2	16.1	18.6	95		13
	VM4	24.2	16.1	18.6	95		Interp.
	VM6	24.2	16.1	18.6	122		Interp.
	VM8	24.2	16.1	18.6	122		Interp.
	VM10	24.2	16.1	18.6	139		Interp.
	VM12	24.2	16.1	18.6	139		Interp.
	VM14	24.2	16.1	18.6	139		Interp.
	VM16	24.2	16.1	18.6	139		Interp.
	VM21	24.2	16.1	18.6	152		Interp.
	VM25	24.2	16.1	18.6	152		Interp.
	VM30	24.2	16.1	18.6	156		Interp.
	VM34	24.2	16.1	18.6	156		14

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Mini-Bank Steam Injection

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 5a

Mounting Configuration: Certified for in line duct mounting applications in accordance with DriSteem connection details.

Construction Summary

Constructed of square stainless steel tubes with nozzles punched along their length. The tubes are spaced at 3" and installed horizontal to the ground and perpendicular to the duct air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes is dependent upon the duct height.

Options Summary

See Table 14 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Mini-Bank Steam Injection (Duct Mounted)[1]	-	5	5	6	9	2 tubes	Extrap.
		5	12	12	16	3 tubes[2]	15
		5	...	...	...		Interp.
		5	48	24	36	7 tubes[2]	16

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]Weight reported reflect individual UUT weight, not mounting assembly as report in Test Report EI: 9767.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Mini-Bank Steam Injection

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 5b

Mounting Configuration: Certified for Air Handling Unit applications in accordance with DriSteem connection details.

Construction Summary

Constructed of square stainless steel tubes with nozzles punched along their length. The tubes are spaced at 3" and installed horizontal to the ground and perpendicular to the AHU air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes depends upon the AHU height.

Options Summary

See Table 14 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Mini-Bank Steam Injection (AHU Mounted)[1]	-	5	5	6	9	2 tubes	Extrap.
		5	12	12	16	3 tubes[2]	17
		5	...	...	...		Interp.
		5	48	24	36	7 tubes[2]	18

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]Weight reported reflect individual UUT weight, not mounting assembly as report in Test Report EI: 9767.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Ultra-Sorb

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 6a

Mounting Configuration: Certified for in line duct mounting applications in accordance with DriSteem connection details.

Construction Summary

Constructed of light gauge stainless steel or carbon steel sheet metal surrounds.

Options Summary

See Table 15 for certified options.

Model Line	Model	Max. Dimensions (in) D	W	H	Wt. (lb)	Notes	UUT
Ultra-Sorb (Duct Mounted)[1]	LH	5	12	12	23	UUT: carbon steel	26
		5	...	...	...		Interp.
		5	80	80	211	UUT29: carbon steel, 210 lbs. UUT43: stainless steel, 211.3 lbs.	29,43
	LV	5	12	12	23	UUT: galv. carbon steel	25
		5	...	...	...		Interp.
		5	80	80	224	UUT28: carbon steel, 210 lbs. UUT44: stainless steel, 223.5 lbs.	28,44
	XV[2]	7.2	12	12	23	UUT: carbon steel	27
		7.2	...	...	...		Interp.
		7.2	80	80	261.4	UUT30: carbon steel, 220 lbs. UUT45: stainless steel, 261.4 lbs.	30,45

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]Includes seismic upgrade of closure plates at bottom tube to header connections
[3]All duct mounted Ultra-Sorb units > 50 lbs. require seismic cable braces at the bottom of duct. See UUT Sheets.
[4]Face dimension, overall duct dimension reported in test reports.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Ultra-Sorb

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 6a

Mounting Configuration: Certified for in line duct mounting applications in accordance with DriSteem connection details.

Construction Summary

Constructed of light gauge stainless steel or carbon steel sheet metal surrounds.

Options Summary

See Table 15 for certified options.

Model Line	Model	Max. Dimensions (in) D	W	H	Wt. (lb)	Notes	UUT
Ultra-Sorb (Duct Mounted)[1]	MP[2]	7.2	12	12	29.5	UUT: stainless steel	47
		7.2	...	...	...		Interp.
		7.5	12	24	50	UUT: carbon steel	33
		7.2	...	...	...		Interp.
		7.2	80	80	232	UUT34: carbon steel, 205 lbs. w/out water UUT46: stainless steel, 232.4 lbs. w/water	34,46

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]ncludes seismic upgrade of closure plates at bottom tube to header connections
[3]All duct mounted Ultra-Sorb units > 50 lbs. require seismic cable braces at the bottom of duct. See UUT Sheets.
[4]Face dimension, overall duct dimension reported in test reports.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Ultra-Sorb

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 6b

Mounting Configuration: Certified for Air Handling Unit mounting applications in accordance with DriSteem connection details.

Construction Summary

Constructed of light gauge stainless steel or carbon steel sheet metal surrounds.

Options Summary

See Table 15 for certified options.

Model Line	Model	Max. Dimensions (in) D	W	H	Wt. (lb)	Notes	UUT
Ultra-Sorb (AHU Mounted)[1]	LH	5	12	12	23		20
		5	...	...	...		Interp.
		5	120	120	347		23
		5	...	...	...		Interp.
		5	120	120	347	UUT: stainless steel headers and enclosure	39
	LV[2]	5	12	12	23		19
		5	...	...	...		Interp.
		5	40	40	122	UUT: stainless steel headers and enclosure	37
		5	...	...	...		Interp.
		5	107	102	279	UUT: stainless steel headers and enclosure	38
		5	...	...	...		Interp.
		5	120	120	347	UUT: stainless steel headers and carbon steel enclosure[4]	22
		5	...	...	...		Interp.
		5	120	120	347	UUT: stainless steel headers and enclosure	36
	XV[2,5]	7.2	12	12	23		21
		7.2	...	...	...		Interp.
		7.2	110	116	352	UUT: stainless steel headers and carbon steel enclosure[4]	24
		7.2	...	...	...		Interp.

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]Includes seismic upgrade of installing bracing to the floor of unit to support bottom header
[3]Face dimension , overall AHU dimension reported in test reports.
[4]Weight reported reflects individual UUT weight, not mounting assembly as report in Test Report JID-0228

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Ultra-Sorb

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 6b

Mounting Configuration: Certified for Air Handling Unit mounting applications in accordance with DriSteem connection details.

Construction Summary

Constructed of light gauge stainless steel or carbon steel sheet metal surrounds.

Options Summary

See Table 15 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Ultra-Sorb (AHU Mounted)[1]	XV[2,5]	7.2	110	116	352	UUT: stainless steel headers and enclosure	42
	MP	7.2	12	12	30	UUT31: stainless steel headers and carbon steel enclosure, 30 lbs.[6] UUT40: stainless steel headers and enclosure, 30 lbs.	31,40
		7.2	...	...	...		Interp.
		7.2	110	116	308		32
		7.2	...	...	...		Interp.
		7.2	110	116	308	UUT: stainless steel headers and enclosure	41

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.
[2]Includes seismic upgrade of installing bracing to the floor of unit to support bottom header
[3]Face dimension, overall AHU dimension reported in test reports.
[4]Weight reported reflects individual UUT weight, not mounting assembly as reported in Test Report JID-0228
[5]Includes seismic upgrade of closure plates at bottom tube-to-header connections.
[6]Laboratory reported dry weight of 20 lb w/o water. Contents were included in testing per operating conditions.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS LX Humidifier

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 7

Mounting Configuration: Base mounted - rigid or Curb mounted- rigid

Construction Summary

Constructed of a light gauge aluminum (indoor) or carbon steel (outdoor) enclosure.

Options Summary

See Table 16 for certified options.
Certified for curb mounting. Max curb height 14".

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
GTS Humidifier (Indoor w/o enclosure)[1]	LX-50	23.3	23.3	42.8	310	UUT: Indoor w/o enclosure	50
	LX-75	23.3	23.3	42.8	310		Interp.
	LX-100	23.3	23.3	42.8	31		Interp.
	LX-150	32.3	23.3	42.8	450		Interp.
	LX-200	56	22	47	706		Interp.
	LX-250	56	22	47	706		Interp.
	LX-300	56	22	47	709		Interp.
	LX-400	56	34	53	1259		Interp.
	LX-500	56	34	53	1259		Interp.
	LX-600	56	34	53	1286	UUT: Indoor w/o enclosure	53
GTS Humidifier (Outdoor or Indoor w/ enclosure)[1]	LX-50	36	27.4	57	578.5	UUT48: Indoor w/ enclosure, 325.5 lbs. UUT49: Outdoor w/ enclosure and mounted on 14" curb., 578.5 lbs.	48,49
	LX-75	36	27.4	57	479		Interp.
	LX-100	36	27.4	57	475		Interp.
	LX-150	45	27.4	57	629		Interp.
	LX-200	57.4	27.4	62	914		Interp.
	LX-250	57.4	27.4	62	914		Interp.
	LX-300	57.4	27.4	62	916		Interp.
	LX-400	57.4	39.1	62	1606		Interp.
	LX-500	57.4	39.1	62	1606		Interp.
	LX-600	57.4	39.1	62	1796	UUT51: Indoor w/ enclosure, 1338.5 lbs. UUT52: Outdoor w/ enclosure and mounted on 14" curb., 1795.5 lbs.	51,52

[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: RX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 8a

Mounting Configuration: Base mounted - rigid or Curb mounted- rigid

Construction Summary

Constructed of galvanized steel (outdoor) or aluminum (indoor) enclosure.

Options Summary

See Table 17 for certified options.
Outdoor enclosure certified for curb mounting. Max curb height 14".

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
RX (Outdoor Enclosure)	RX-6-1	53.6	32.8	62.0	345.5		Extrap.
	RX-12-1				346.7		Extrap.
	RX-18-1				347.9		Extrap.
	RX-24-1				347.9		Extrap.
	RX-30-1				347.9		Extrap.
	RX-36-1				347.9		Extrap.
	RX-42-1				348.3		Extrap.
	RX-48-1				348.7		Extrap.
	RX-63-1				349.6		Extrap.
	RX-75-1				350.6		Extrap.
	RX-30-2				455.9		Extrap.
	RX-36-2				455.9		Extrap.
	RX-48-2				459.9		Extrap.
	RX-63-2				459.9		Extrap.
	RX-75-2				463.9		Extrap.
	RX-90-2				461.5		Extrap.
	RX-102-2				462.3		Extrap.
	RX-126-2				463.3		Extrap.
	RX-144-2				464.3		Extrap.
	RX-162-2				571.6		54
	RX-63-3	62.8	32.8	62.0	733.1		Interp.
	RX-75-3				732.2		Interp.
	RX-90-3				736.7		Interp.
	RX-102-3				736.7		Interp.
	RX-126-3				737.9		Interp.
	RX-144-3				739.1		Interp.
	RX162-3				740.3		Interp.
	RX-189-3				742.1		Interp.
	RX-216-3				743.3		Interp.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: RX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 8a

Mounting Configuration: Base mounted - rigid or Curb mounted- rigid

Construction Summary

Constructed of galvanized steel (outdoor) or aluminum (indoor) enclosure.

Options Summary

See Table 17 for certified options.
Outdoor enclosure certified for curb mounting. Max curb height 14".

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
RX (Outdoor Enclosure)	RX-243-3	62.8	32.8	62.0	744.8		Interp.
	RX-102-4				735.8		Interp.
	RX-126-4				740.6		Interp.
	RX-144-4				741.8		Interp.
	RX-162-4				743.4		Interp.
	RX-216-4				746.6		Interp.
	RX-264-4				749		Interp.
	RX-288-4				750.6		Interp.
	RX-324-4				794	UUT55: mounted on 14" curb	55
RX (Indoor Enclosure)	RX-63-3	37.4	21.6	41.3	450.4		Extrap.
	RX-75-3				449.5		Extrap.
	RX-90-3				454		Extrap.
	RX-102-3				454		Extrap.
	RX-126-3				455.2		Extrap.
	RX-144-3				456.4		Extrap.
	RX162-3				457.6		Extrap.
	RX-189-3				459.4		Extrap.
	RX-216-3				460.6		Extrap.
	RX-243-3				462		56
	RX-102-4				453.1		Interp.
	RX-126-4				457.9		Interp.
	RX-144-4				459.1		Interp.
	RX-162-4				460.7		Interp.
	RX-216-4				463.9		Interp.
	RX-264-4				466.3		Interp.
	RX-288-4				467.9		Interp.
	RX-324-4				469		57

SPECIAL SEISMIC CERTIFICATION
CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: RX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 8b

Mounting Configuration: Wall mounted - rigid

Construction Summary

Constructed of aluminum (indoor) enclosure.

Options Summary

See Table 17 for certified options.

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
RX	RX-6-1	24.8	16.4	24.9	137.1		Extrap.
	RX-12-1				138.3		Extrap.
	RX-18-1				139.5		Extrap.
	RX-24-1				139.5		Extrap.
	RX-30-1				139.5		Extrap.
	RX-36-1				139.5		Extrap.
	RX-42-1				139.9		Extrap.
	RX-48-1				140.3		Extrap.
	RX-63-1				141.2		Extrap.
	RX-75-1				142.2		58
	RX-30-2	26.1	21.0	31.4	246.9		Interp.
	RX-36-2				246.9		Interp.
	RX-48-2				250.9		Interp.
	RX-63-2				250.9		Interp.
	RX-75-2				254.9		Interp.
	RX-90-2				252.5		Interp.
	RX-102-2				253.3		Interp.
	RX-126-2				254.3		Interp.
	RX-144-2				255.3		Interp.
	RX-162-2				265.1		59

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: High Pressure Atomization
Model Line: Indoor HPA

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 9

Mounting Configuration: Wall mounted - rigid

Construction Summary

Carbon Steel Frame, Carbon Steel Enclosure for Outdoor Model

Options Summary

Single and Redundant Pump

Model Line	Model	Max. Dimensions (in)			Wt. (lb)	Notes	UUT
		D	W	H			
Indoor HPA Single Pump	I-HPA250-S	24	24	60	243.5	Frame: DriSteem	62
	I-HPA500-S	24	24	60	300		Interp.
	I-HPA1000-S	24	24	60	325		Interp.
	I-HPA2500-S	24	24	60	350		Interp.
	I-HPA3500-S	24	24	60	400		Interp.
	I-HPA5500-S	24	24	60	450		Interp.
Indoor HPA Redundant Pump	I-HPA250-R	24	30	76	375		Interp.
	I-HPA500-R	24	30	76	400		Interp.
	I-HPA1000-R	24	30	76	475		Interp.
	I-HPA1750-R	24	30	76	475		Interp.
	I-HPA2500-R	24	30	76	500		Interp.
	I-HPA3500-R	24	30	76	625		Interp.
	I-HPA5500-R	24	30	76	710	Frame: DriSteem	63
Outdoor HPA Single Pump	O-HPA250-S	42.2	50.1	82	573.5	Frame: Marksman Metal	64[1]
	O-HPA500-S	42.2	50.1	82	670		Interp.
	O-HPA1000-S	42.2	50.1	82	695		Interp.
	O-HPA1750-S	42.2	50.1	82	695		Interp.
	O-HPA2500-S	42.2	50.1	82	720		Interp.
	O-HPA3500-S	42.2	50.1	82	770		Interp.
	O-HPA5500-S	42.2	50.1	82	820		Interp.
Outdoor HPA Redundant Pump	O-HPA250-R	42.2	50.1	82	745		Interp.
	O-HPA500-R	42.2	50.1	82	770		Interp.
	O-HPA1000-R	42.2	50.1	82	845		Interp.
	O-HPA1750-R	42.2	50.1	82	845		Interp.
	O-HPA2500-R	42.2	50.1	82	870		Interp.
	O-HPA3500-R	42.2	50.1	82	995		Interp.
	O-HPA5500-R	42.2	50.1	82	1033	Frame: Marksman Metal	65[1]

Notes: [1]Weight listed includes outdoor enclosure and heat, but not weight of 14" curb. The curb weight is 60 lbs.

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Ducted Dispersion
Model Line: HPA Dispersion

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 10

Mounting Configuration: Certified for Air Handling Unit mounting applications in accordance with DriSteem connection details.

Construction Summary

1/2" stainless steel tubing with 12 15# Nozzles connected to Unistrut

Options Summary

1, 2, and 3 staging valves and depressurization valve. Installed with Evaopative Media (Filter Rack)

Model Line	Model	Max. Dimensions (in)			Wt. (lb)[2]	Notes[3,4]	UUT
		D[1]	W	H			
HPA Dispersion (Duct Mounted)	HPADG18X18	48	18	18	24.0	1 Stage with Evaporative Media	66
	HPADG#X#	48	...	...	...		Interp.
	HPADG120X120	48	120	120	507	1,2, & 3 Stage with Evaporative Media	67

Note:
[1]Duct width stated, filter and dispersion units must not be >24" apart within duct.
[2]Weight of unit only, does not include the weight of the duct unit was mounted into for test.
[3]Dispersion unit must be installed with Evaporative Media Filter Rack. See UUT 66 & 67 for tube filter rack required connectivity and assembly.
[4]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: VLC, STS

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 11

Table Description: Control Panel

Component (Manufacturer)	Model	Dimensions (in)			Wt. (lb)[1]	Notes	UUT
		D	W	H			
Control Panel (Identified by size)	NEMA 4	6	12	12	24		7,35
		6	14	16	37		Interp.
		6	20	20	60		Interp.
							Interp.
		8	24	24	81		Interp.
		8	24	30	103		3
	NEMA 12	6	12	12	20		6
		6	14	16	32		1
		7	20	20	55		Interp.
		7	24	24	73		2
		9	24	30	91		4
		...	...	...	...	Rigid wall mounted only	Interp.
		9	30	36	130	Rigid wall mounted only	5

[1]Control Panels listed in Table 8 may only be mounted on equipment, which was initially tested with a control panel, whose mass is within 10% of the tested panel and must be mounted at same location, with supports and attachments of similar configuration, with equivalent strength and stiffness, as the tested panel. Interpolated models must adhere to the same requirements.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: VLC

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 12

Table Description: Vaporstream VLC

Component (Manufacturer)	Model	Description	Notes	UUT
Cabinet (Wiegmann)	B16146CH	Carbon steel, body 14 ga., door 16 ga.		1,2
	B202007CH			Interp.
	B24247CH			Interp.
	B30249CH			4
	B36309CH			Interp.
	BN416146CH			Interp.
	N420206	Carbon steel, body and door 14 ga.		Interp.
	N424248			Interp.
	N436308			Interp.
	N430248			3
Weather Enclosure (DriSteem)	902401	Carbon steel, 18ga.		2
	902402			Interp.
	902403			Interp.
	902404			Interp.
	902405			4
Water Level Controller (DriSteem)	406303-011	Fiberglass Thermoset Polyester w/SST Rods		1,2,3,4
Water Level Controller (DriSteem)	250230-0012	Stainless Steel Fitting		1,2,3,4
Electric Heating Elements (Chromalox)	409600-006	Brass Fitting w/ incoloy sheathing		1,2
	409600-039	Brass Fitting w/incoloy sheathing		3,4
Temperature Sensor (Johnson Controls)	A99BC-25C	Stainless Steel Bulb		1,2,3,4
Over-Temp Thermostat (Therm-O-Disc)	330821-60T25 M-2	Stainless Steel mounting bracket w/stainless steel & thermoplastic body		1,2,3,4
DI Fill Float Valve (DriSteem)	505210	All stainless steel construction		1,2,3,4

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: VLC

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 12

Table Description: Vaporstream VLC

Component (Manufacturer)	Model	Description	Notes	UUT
Steam Outlet (DriSteem)	122425-002	Stainless Steel		1,2
	162765-003			3,4
Drain Valve (DriSteem)	505401-002	Brass, w/plastic molded housing		1,2,3,4
Transformer (Tyco Electronics)	4000-08J41K999	Carbon steel core and frame		1,2,3,4
Power Block (Marathon)	985GP03	Phenolic		1,2
	1433553			3,4,5
Contactor (Siemens)	407010-001	Molded plastic housing		1,2
	407010-002			3,4,5
Keypad (Control Products)	408495-002	Molded plastic housing		1,2,3,4
SS Relay (Control Concepts)	3224-50A	Extruded aluminum heatsink/mount		1,5
Stand (DriSteem)	1900735-004	22" x 7.2" x 43", 18.7 lbs.	Carbon steel legs with plate steel seismic cross bracing.	1
	1900735-005	22" x 12.5" x 43", 18.8 lbs.		Interp.
	1900735-006	22" x 20" x 43", 19 lbs.		Interp.
	1900735-007	22" x 27.5" x 43", 19.3 lbs.		Interp.
	1900735-008	22" x 35" x 43", 19.6 lbs.		3

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: STS

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 13

Table Description: STS (Steam-to-Steam) Humidifier

Component (Manufacturer)	Model	Description	Notes	UUT
Cabinet (Wiegmann)	B12126CH	Carbon steel, body 14 ga., door 16 ga.		6,7,35
Heat Exchanger (DriSteem)	164436-101	Stainless steel		6
	164422-004	Teflon coated stainless steel		35
	164420-101	Copper		7
Vapor Logic Controller (Quantum)	408496-006	Glass reinforced epoxy on nylon snap lock		6,7
Electronic Water Level Controller (DriSteem)	406303-008	Fiberglass Thermostat Polyester W/SST rods		6
	406303-009			7,35
Water Skimmer (Miller Machine)	250230-0012	Stainless Steel Fitting		6,7,35
Temperature Sensor (Johnson Controls)	A99BC-25C	Stainless steel Bulb		6,7,35
Steam Outlet (DriSteem)	122425-002	Stainless steel		6
	162765-003	Stainless steel		7,35
Drain Valve (DriSteem)	505401-001	Brass valve, w/ plastic molded actuator housing		6
	193768-001	Stainless steel valve, w/ plastic & steel actuator housing		7,35
Transformer (Tyco)	4000-08J41K999	Carbon steel core and frame		6,7,35
Terminal (Marathon)	MIK3, MIKE10	Molded plastic din rail mount		6,7,35
Keypad/Board (Control Products)	408495-002	Molded plastic housing		6,7,35
Stand (DriSteem)	1900735-001	23.7" x 14.8" x 43", 18.9 lbs.,STS-25	Carbon steel legs with plate steel seismic cross bracing.	6
	1900735-002	39.7" x 14.8" x 43", 19.5 lbs., STS-50		Interp.
	1900735-003	39.7" x 19.3" x 43", 19.6 lbs., STS-100		Interp.
	1900735-009	59.2" x 30.3" x 38", 37.2 lbs.,STS-200/400/800		7,35

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: XTP Series Humidifier

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 14

Table Description: XTP Electrode Steam Humidification System

Component (Manufacturer)	Model	Description	Notes	UUT
Cabinet (DriSteem)	160727-101	Stainless Steel, top/back/bottom 18 ga., sub panel 14 ga.; Carbon Steel, door 18ga.		8
	160727-102			Interp.
	160727-103			Interp.
	160727-104			Interp.
	160727-001			Interp.
	160727-002			Interp.
	160727-003			Interp.
	160727-004			9
Enclosure Assembly (DriSteem)	601033-001	Galvanized steel construction; 14ga. back/bottom, lifting brackets, cylinder support, subpanel; all panels 18ga.	Same for all outdoor models	60,61
Controller (Quantum Controls)	408496-006	Glass reinforced epoxy on nylon snap lock mounts		8,9
Interface Board (Control Products)	408495-004	Molded plastic housing		8,9
Electronic Controller (Control Products)	530013-004	Glass reinforced epoxy on nylon snap lock mounts		8
	530013-005			9
Fill Valve (GEMS Sensor)	505096	Stainless Steel Valve		8,9
Fill Valve (Detrol Controls)	601038	Glass filled nylon body with solenoid	Models XT-002 through XT-017	60
	601039		Models XT-025 through XT-048	61
Drain Valve (OEM Solutions, Inc)	405901	Glass filled nylon housing with solenoid	Same for al XT models	8,9,60,61
Boiling Chamber (DriSteem)	194600-008	Polypropylene		8
	194600-028			9

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: XTP Series Humidifier

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 14

Table Description: XTP Electrode Steam Humidification System

Component (Manufacturer)	Model	Description	Notes	UUT
Boiling Chamber (DriSteem)[1]	194800-001	Single Phase Power, 208/240V, 277V		60
	194800-002	Single Phase Power, 380/400V		Interp.
	194800-008	Single Phase Power, 208/240V, 277V		Interp.
	194800-009	Single Phase Power, 380/400V		Interp.
	194800-101	Single Phase Power, 230V		Interp.
	194800-102	Single Phase Power, 380/400V		Interp.
	194800-108	Single Phase Power, 208/240V		Interp.
	194800-109	Single Phase Power, 380/400V		Interp.
	194800-004	Three Phase Power, 208/240V		Interp.
	194800-006	Three Phase Power, 480V		Interp.
	194800-011	Three Phase Power, 208/240V		Interp.
	194800-013	Three Phase Power, 480V		Interp.
	194800-015	Three Phase Power, 208/240V		Interp.
	194800-016	Three Phase Power, 380/400V		Interp.
	194800-017	Three Phase Power, 480V		Interp.
	194800-019	Three Phase Power, 208/240V		Interp.
	194800-020	Three Phase Power, 380/400V		Interp.
	194800-022	Three Phase Power, 480V		Interp.
	194800-023	Three Phase Power, 380/400V		Interp.
	194800-025	Three Phase Power, 480V		Interp.
	194800-026	Three Phase Power, 380/400V		Interp.
	194800-028	Three Phase Power, 480V		61
	194800-105	Three Phase Power, 380/400V		Extrap.
	194800-112	Three Phase Power, 380/400V		Extrap.
Contactor (Siemens)	3RT1025-1AC	Molded plastic housing		8
	3RT1035-1AC			9
Transformer (Tyco Electronics)	408965-00	Carbon steel core and frame		8,9
Subpanel Assembly (DriSteem)	198411-001	Outdoor enclosure controls assembly		60
	198411-002			Interp.
	198411-003			61

Note:
[1]No differences in part number for standard or low conductivity. Electrodes have different placement to achieve standard or low conductivity.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: XTP Series Humidifier

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 14

Table Description: XTP Electrode Steam Humidification System

Component (Manufacturer)	Model	Description	Notes	UUT
Subpanel Assembly (DriSteem)	198411-004	Outdoor enclosure controls assembly		Interp.
Fill Cup Assembly (DriSteem)	194605-004	Glass filled nylon & thermoplastic rubber		8
	194605-006			9
	194605-200		Same for all outdoor models	60, 61
Inlet Orifice (Vernay)	VL3007-105	EPDM		8
	VL3007-110			Interp.
	VL3007-157			9
Heater - Enclosure	600390	Electric resistive heater, 120V, 400W	Optional item	60, 61
	600390-001	Electric resistive heater, 230V, 400W	Optional item	60, 61
Ventilation Fan (Mechatronics)	407109-002	Axial fan, 120V/230V	Same for all outdoor models	60, 61
Electrical Door (O&A Mfg.)	530013-204	Carbon steel, 18 ga.		8
	530013-205			Interp.
	530013-206			Interp.
	530013-207			9
Cylinder Door (O&A Mfg.)	530013-200	Carbon steel, 18 ga.		8
	530013-201			Interp.
	530013-202			9

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: VM

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 15

Table Description: Vapormist (VM)

Component (Manufacturer)	Model	Description	Notes	UUT
Cabinet (DriSteem)	120277	Stainless steel, back panel 18 ga. Carbon steel, sub panel 14 ga., electrical panel 18ga.		13,14
Vapor Logic Controller (Quantum)	408496-00	Glass reinforced epoxy on nylon snap lock mounts		13,14
Electric Heating Elements (Chromalox)	409600-00	Brass fitting w/incoloy sheathing		13
	409600-03			14
	409600-04			14
Water Probes (DriSteem)	406303-00	Fiberglass Thermostat Polyester w/Stainless Steel rods		13
	406303-006			14
Boiling Chamber (DriSteem)	160013-001	All stainless steel construction		13
	160013-004	All stainless steel construction		14
Steam Outlet (DriSteem)	122425-002	Stainless Steel		13
	122435-002	Stainless Steel		14
Drain Valve (Honeywell)	V8043A1029/B	Brass Body		13,14
Fill Valve (Gem)	B2026-S19	Stainless Steel Valve		13,14
Temperature Sensor (Johnson Controls)	A99BC-25C	Stainless Steel Bulb		13,14
Transformer (Tyco Electronics)	4000-08J41K999	Carbon steel core and frame		13,14
Contactor (Siemens)	407010-001	Molded Plastic Housing		13
	407010-002	Molded Plastic Housing		14

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Mini-Bank

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 16

Table Description: Mini-Bank Humidification System

Component (Manufacturer)	Model	Description	Notes	UUT
Duct Plate (DriSteem)	162500-004	Stainless Steel	Mounted in Duct only - Ceiling suspended rigid	15
	162501-004	Carbon Steel		16
Deflector Plate (DriSteem)	12330-001	Stainless Steel	Mounted in Duct or AHU	15,16,17,18
Multi-baffle Plate (Engle Diversified)	280002-005	Stainless Steel	Mounted in Duct or AHU	15,16,17,18
Steam Valve (Schneider Electric)	520201-008	Electric Brass Valve	Mounted in Duct or AHU	15,16,17,18
	520201-006	Pneumatic Brass Valve	Mounted in Duct or AHU	15,16,17,18
Brass Tublet	203450-002	Brass	Mounted in Duct or AHU	15,16,17,18

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: Ultra-Sorb

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 17

Table Description: Ultra-Sorb Humidification System

Component (Manufacturer)	Model	Description	Notes	UUT
Steam Valve (Schneider Electric)	510700-004	Electric Brass Valve	Mounted in Duct only - Ceiling suspended rigid	20
	510701-002			30
	502803-009			27
	520200-014			28
	520200-02			26
	520202-004		Mounted in AHU Only - Base mounted rigid	21
	520201-004			19
	520201-014	Pneumatic Brass Valve	Mounted in Duct only - Ceiling suspended rigid	29
	520203-025			25
Thermal-resin Tubelet (Steinwall)	310275-001	Plastic	Mounted in AHU Only - Base mounted rigid	19,20, 21
	310275-003		Mounted in Duct only - Ceiling suspended rigid	28,29, 30
	310275-004			25,26, 27
Internal Drying Tube (DriSteem)	100032-010	Copper	Mounted in AHU Only - Base mounted rigid	21,24
	100032-070		Mounted in Duct only - Ceiling suspended rigid	27
	100032-118			30

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS-LX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 18

Table Description: GTS-LX Mechanical & Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Tank Weld Flange (DriSteem)	600436-10x	LX 50/75/100, 304/316, 48 lbs.[1]		48,49, 50
	600436-15x	LX 150, 304/316, 80 lbs.[1]		Interp.
	600414-xxx	LX 200-300, 304/316, 135 lbs.[1]		Interp.
	600157-xxx	LX 200-300, 304/316, 135 lbs.[2]		Interp.
	600295-xxx	LX 400-600, 304/316, 178 lbs.[3]		52
	600087-xxx	LX 400-600, 316, 178 lbs.[2]		51,53
Steam Distributions (Ferguson Ent.)	250540-00	Coupling, 2" NPT Shld Half, 2 lbs.[1]		48,50
	205500-0xx	Flange 3" Ø Back-up 304/316 SST, 5.9 lbs.[3]		Interp.
	205500-00	Flange 3" Ø Back-up 304/316 SST, 4.8 lbs.[3]		Interp.
	205500-0xx	Flange 4" Ø Back-up 304/316 SST, 8 lbs.[3]		52
	205500-004	Flange 4" Ø Back-up Steel, 6.4 lbs.[3]		52
Primary Heat Exchangers (DriSteem)	600553-076	LX50/75 Assy 316 SST, 32 lbs.[1]		48,49, 50
	600553-075	LX50/75 Assy 304 SST, 32 lbs.[1]		48,49, 50
	600553-101	LX 100 Assy 316 SST, 32 lbs.[1]		Interp.
	600553-100	LX 100 Assy 304 SST, 32 lbs.[1]		Interp.
	600553-151	LX 150 Assy 316 SST, 32 lbs. [1]		Interp.
	600553-150	LX 150 Assy 304 SST, 32 lbs.[1]		Interp.
	600249-001	200/250 19.16" Centr Assy 316, 77 lbs.[1]		Interp.
	600249	200/250 19.16" Centr Assy 304, 77 lbs.[1]		Interp.
	600161-001	300 19.16" Centr Assy 316, 87 lbs.[1]		Interp.
	600161	300 19.16" Centr Assy 304, 87 lbs.[1]		Interp.
	600250-001	400/500 19.16" Centr Assy 316, 147 lbs.[1]		Interp.
	600250	400/500 19.16" Centr Assy 304, 147 lbs.[1]		Interp.
	600088-001	600 19.16" Centr Assy 316, 168 lbs.[1]		51,52, 53
	600088	600 19.16" Centr Assy 304, 168 lbs.[1]		51,52, 53

Notes: [1]Indoor/Outdoor, [2]Indoor, [3]Outdoor, [4]Skinless Indoor

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS-LX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 18

Table Description: GTS-LX Mechanical & Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Secondary Heat Exchangers (DriSteem)	600373	Sec 19 Hole Rolled Weldment, 30 lbs.[1]		48,49, 50
	600190	Sec 19 Hole Rolled Weldment, 30 lbs.[1]		51,52, 53
Burner Assembly (DriSteem)	600445	Burner Assy. 50/75/100, 6.5 lbs.[1]		48,49, 50
	600446	Burner Assy. 150, 6.5 lbs.[1]		Interp.
	600396	Burner Assy. 200 to 600, 6.5 lbs.[1]		51,52, 53
Probe (DriSteem)	184315-003	Probe Assy., 9.07, 3 lbs.[1]		48,49, 50, 51,52, 53
Ignition Control (Fenwal)	405811-011	24VAC Spark, 1 per burner, 2 lbs.[1]		48,49, 50, 51,52, 53
Pressure Switch (Cleveland Controls)	127601-001	1" WC, 1 per burner, 1lb.[1]		48,49, 50, 51,52, 53
Thermal Cut-Out (Therm-O-Disc)	409560-001	VF/VM/CRU/VLC, 0.045 lbs.[1]		48,49, 50, 51,52, 53
Tank Temperature Sensor (Probes Unlimited)	405763	Sensor 1/4" NPT, 0.45 lbs.[1]		48,49, 50, 51,52, 53
Drain Sensor (Probes Unlimited)	406774-00	Sensor -10/82" N1P6T, 0.45 lbs.		48,49, 50, 51,52, 53

Notes: [1]Indoor/Outdoor, [2]Indoor, [3]Outdoor, [4]Skinless Indoor

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS-LX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 18

Table Description: GTS-LX Mechanical & Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Flue Sensor (Probes Unlimited)	600430	Sensor 155F 1/4" NPT, 1 lb.[1]		48,49, 50, 51,52, 53
Fill Assembly (DriSteem)	600432-001			48,49, 50, 51,52, 53
Drain Manifold (Busch Brothers)	600024	SST Block Drain, 5 lbs.[1]		48,49, 50, 51,52, 53
	600024-100	Al Block Drain, 2 lbs. [1]		49
Drain Assembly (DriSteem)	600199-103	Drain manifold Assy, 4 lbs.[3]		49,52
	600199-100	Drain manifold Assy, 4 lbs.[2]		48,50, 51,53
Heater (Chromalox)	600390	Heater O.E 120V 400W, 1 lb.[3]		49,52
Mount (DriSteem)	127593-001	Intake/exhaust flue adaptor, 1.8 lbs.[4]		50,53
	600217	Intake/exhaust flue adaptor, 2.7 lbs.[4]		Interp.
	600133	Intake/exhaust flue adaptor, 3.5 lbs.[4]		53
Sub Panel Cover (DriSteem)	600105	Cover sub panel[4]		50,53
Control Cabinet (DriSteem)	600284-001	Subpanel Assy Indoor 1 Burner, 20 lbs.[2]		48,50
	600284-002	Subpanel Assy Indoor 1 Burner, 20 lbs.[3]		49
	600562-001	Subpanel Assy Indoor 2 Burner, 20 lbs.[2]		51,53
	600562-002	Subpanel Assy Indoor 2 Burner, 20 lbs.[3]		52
Curbs (DriSteem)	600683-001	Seismic Curb 50-100 O.E., 18 lbs.[3]		49
	600683-002	Seismic Curb 150 O.E., 22 lbs.[3]		Interp.
	600683-003	Seismic Curb 200-300 O.E., 27 lbs.[3]		Interp.
	600683-004	Seismic Curb 400-600 O.E., 37 lbs.[3]		52

Notes: [1]Indoor/Outdoor, [2]Indoor, [3]Outdoor, [4]Skinless Indoor

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS-LX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 18

Table Description: GTS-LX Mechanical & Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Seismic Mounting Brackets (DriSteem)	600783	LX50-100, 2.3 lbs.[2]		48,50
	600782	LX150, 3.6 lbs.[2]		Interp.
	600781	LX200-600, 6.2 lbs.[2]		51,53
Tank Assembly (DriSteem)	600595-100	Tank assembly, 1-stage, Indoor & Outdoor	Weight: 37 lbs.	58
	600595-200	Tank assembly, 2-stage, Indoor & Outdoor	Weight: 58 lbs.	54,59
	600595-300	Tank assembly, 3,4- stage, Indoor & Outdoor	Weight: 111 lbs.	55,56, 57
Level Probe (Infopac)	406303-116	Water Level Prove Assy	Under 10 lbs.	54-59
Tank Temp Sensor (Probes Unlimited)	600804	Tank Temp Sensor/Thermal Fuse 1/4" NPT	Under 10 lbs.	54-59
Drain Temp Sensor (Probes Unlimited)	600973	Drain Temp Sensor 1/8" NPT	Under 10 lbs.	54-59
Heating Element (SJH)	600931-XX	Heater 2kW-9kW 120V-600V	Under 10 lbs.	54-59
Drain Valve (Tofine)	505077-003	Drain Valve 3/4" Normally Closed	Under 10 lbs., Indoor Units	54-59
	505077-004	Drain Valve 3/4" Normally Open	Under 10 lbs., Outdoor Units	54,55
Fill Valve (Deltrol)	600568-001	Fill Valve 0.26 GPM Restrictor	Under 10 lbs.	54-59
	600568-002	Fill Valve 0.53 GPM Restrictor	Under 10 lbs.	54-59
	600568-003	Fill Valve 0.80 GPM Restrictor	Under 10 lbs.	54-59
	600568-004	Fill Valve 1.30 GPM Restrictor	Under 10 lbs.	54-59
Subpanel O.E (DriSteem)	198200-450	Panel w/ 10A breaker	Under 10 lbs.	54,55
Heater - Outdoor Enclosure (Chromalox)	600390	Heater OE, 120V	Under 10 lbs.	54,55

Notes: [1]Indoor/Outdoor, [2]Indoor, [3]Outdoor, [4]Skinless Indoor

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: GTS-LX

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 18

Table Description: GTS-LX Mechanical & Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Ran Assembly - Outdoor Enclosure (Mechatronics)	185110-003	Fan OE, 120V	Under 10 lbs.	54,55
Control Cabinet (DriSteem)	600610-002	Subpanel Assy 1-Stg RTS	Indoor & Outdoor	58
	600610-004	Subpanel Assy 2-Stg RTS	Indoor & Outdoor	54,59
Control Cabinet (DriSteem)	600610-103	Subpanel Assy 3 & 4 Stage RTS	Indoor & Outdoor	55,56, 57
	600610-xxx	Subpanel Assy		Extrap.
Display (Quantum)	408494-100	Touchscreen	Under 10 lbs.	54-59

Notes: [1]Indoor/Outdoor, [2]Indoor, [3]Outdoor, [4]Skinless Indoor

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Frame (DriSteem)	601236-013-d	FRAME WELD 24" X 24" SINGLE PUMP BLK, 36 lbs.	Models 250 thru 1750 (4) Indoor/ Outdoor	62
	601236-014-d	FRAME WELD 24" X 30" SINGLE PUMP BLK, 41 lbs.	Models 2500 thru 5500 (3) Indoor/ Outdoor	Interp.
	601236-015-d	FRAME WELD 24" X 30" REDUNDANT PUMP BLK, 51 lbs.	Redundant models 250 thru 5500 (7) Indoor/ Outdoor	63
Frame (Marksmen Metals)	601236-013-m	FRAME WELD 24" X 24" SINGLE PUMP BLK, 36 lbs.	Models 250 thru 1750 (4) Indoor/ Outdoor	64
	601236-014-m	FRAME WELD 24" X 30" SINGLE PUMP BLK, 41 lbs.	Models 2500 thru 5500 (3) Indoor/ Outdoor	Interp.
	601236-015-m	FRAME WELD 24" X 30" REDUNDANT PUMP BLK, 51 lbs.	Redundant models 250 thru 5500 (7) Indoor/ Outdoor	65
Low Pressure Panel Assembly (DriSteem)	185245-001	PANEL SIDE ASSY LP 24" SINGLE, 24.6 lbs.	Models 250 thru 1750 (4) Indoor/ Outdoor	62,64
	185245-002	PANEL SIDE ASSY LP 30" SINGLE, 27 lbs.	Models 2500 thru 5500 (3) Indoor/ Outdoor	Interp.
	185246-001	PANEL SIDE ASSY LP 30" TO 1750 REDUN, 27.8 lbs.	Redundant models 250 thru 1750 (4) Indoor/ Outdoor	Interp.
	185246-002	PANEL SIDE ASSY LP-30" TO 5500 REDUN, 27.8 lbs.	Redundant models 2500 thru 5500(4) Indoor/ Outdoor	63,65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
High Pressure Panel Assembly (DriSteem)	185255-006	PANEL SIDE ASSY HP 24" SINGL 250 TO 1000, 9 lbs.	Model 250 thru 1000 (3) Indoor/ Outdoor	62,64
	185255-001	PANEL SIDE ASSY HP 24" SINGLE 1750, 9 lbs.	Model 1750 (1) Indoor/ Outdoor	Interp.
	185255-002	PANEL SIDE ASSY HP 30" SINGLE 2500, 9 lbs.	Model 2500 (1) Indoor/ Outdoor	Interp.
	185255-003	PANEL SIDE ASSY HP 30" SINGLE 3500-5500, 9.8 lbs.	Model 3500 thru 5500 (2) Indoor/ Outdoor	Interp.
	185255-007	PANEL SIDE ASSY HP 30" REDUN 250 TO 1000, 10 lbs.	Redundant model 250 thru 1000 (3) Indoor/ Outdoor	Interp.
	185255-004	PANEL SIDE ASSY HP 30" REDUN 1750-2500, 10 lbs.	Redundant model 1750 thru 2500 (2) Indoor/ Outdoor	Interp.
	185255-005	PANEL SIDE ASSY HP 30" REDUN 3500-5500, 10.5 lbs.	Redundant model 3500 thru 5500 (2) Indoor/ Outdoor	63,65
Control Cabinet Assembly (DriSteem)	185306	CONTROL CABINET SUB ASSY HPS HIGH, 31 lbs.	Model 250 thru 5500 (7) Single	62,64
	185307	CONTROL CABINET SUB ASSY HPS LOW, 34 lbs.	Model 250 thru 5500 (7) Redundant	63,65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Motor (PFC Equipment Inc.)	407025-001	MOTOR -3 PHASE 1 HP 208-230/460V, 54 lbs.	Model 250 Single Qty 1/ Redundant Qty2 (240/480V)	62,64
	407025-002	MOTOR - 3 PHASE 1.5 HP 208-230/460V, 56 lbs.	Model 500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	407025-004	MOTOR - 3 PHASE 3 HP 208-230/460V, 99 lbs.	Model 1000 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	407025-005	MOTOR - 3 PHASE 5 HP 208-230/460V, 108 lbs.	Model 1750 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	407025-005	MOTOR - 3 PHASE 5 HP 208-230/460V, 108 lbs.	Model 2500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	407025-006	MOTOR - 3 PHASE 7.5 HP 208-230/460V, 165 lbs.	Model 3500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	407025-007	MOTOR - 3 PHASE 10 HP 208-230/460V, 172 lbs.	Model 5500 Single Qty 1/ Redundant Qty2 (240/480V)	65
	407025-101	MOTOR - 3 PHASE 1 HP 575V, 54 lbs.	Model 250 Single Qty 1/ Redundant Qty2 (600V)	Interp.
	407025-102	MOTOR - 3 PHASE 1.5 HP 575V, 56 lbs.	Model 500 Single Qty 1/ Redundant Qty2 (600V)	Interp.
	407025-104	MOTOR - 3 PHASE 3 HP 575V, 99 lbs.	Model 1000 Single Qty 1/ Redundant Qty2 (600V)	Interp.
	407025-105	MOTOR - 3 PHASE 5 HP 575V, 108 lbs.	Model 1750 Single Qty 1/ Redundant Qty2 (600V)	Interp.

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Motor (PFC Equipment Inc.	407025-105	MOTOR - 3 PHASE 5 HP 575V, 108 lbs.	Model 2500 Single Qty 1/ Redundant Qty2 (600V)	Interp.
	407025-106	MOTOR - 3 PHASE 7.5 HP 575V, 165 lbs.	Model 3500 Single Qty 1/ Redundant Qty2 (600V)	Interp.
	407025-107	MOTOR - 3 PHASE 10 HP 575V, 172 lbs.	Model 5500 Single Qty 1/ Redundant Qty2 (600V)	63
High Pressure Pump (Danfoss)	400285-001	PUMP HIGH PRESSURE- PAHT 2CC/REV, 9.7 lbs.	Model 250 Single Qty 1/ Redundant Qty2 (240/480V)	62,64
	400285-001	PUMP HIGH PRESSURE- PAHT 2CC/REV, 9.7 lbs.	Model 500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	400285-003	PUMP HIGH PRESSURE- PAHT 4CC/REV, 9.7 lbs.	Model 1000 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	400285-004	PUMP HIGH PRESSURE - PAHT 6.3CC/REV, 9.7 lbs.	Model 1750 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	400285-005	PUMP HIGH PRESSURE - PAHT 10CC/REV, 17 lbs.	Model 2500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	400285-006	PUMP HIGH PRESSURE - PAHT 12.5CC/REV, 17 lbs.	Model 3500 Single Qty 1/ Redundant Qty2 (240/480V)	Interp.
	400286-001	PUMP HIGH PRESSURE- PAHT 20CC/REV, 42 lbs.	Model 5500 Single Qty 1/ Redundant Qty2 (240/480V)	63,65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
VFD (Danfoss)	407020-101	DRIVE VARIABLE FREQ 2HP (1.5KW) 230V 1PH, 3.5 lbs.	Model 250 thru 500	Extrap.
	407020-103	DRIVE VARIABLE FREQ 2HP (1.5KW) 480V 3PH, 3.5 lbs.	Model 250 thru 500	62,64
	407021-101	DRIVE VARIABLE FREQ 2HP (1.5KW) 600V 3PH, 14.5 lbs.	Model 250 thru 500	Interp.
	407020-102	DRIVE VARIABLE FREQ 3HP (2.2KW) 230V 1PH, 6.6 lbs.	Model 1000	Interp.
	407020-104	DRIVE VARIABLE FREQ 3HP (2.2KW) 480V 3PH, 3.5 lbs.	Model 1000	Interp.
	407021-102	DRIVE VARIABLE FREQ 3HP (2.2KW) 600V 3PH, 14.5 lbs.	Model 1000	Interp.
	407020-105	DRIVE VARIABLE FREQ 5HP (4KW) 480V 3PH, 6.6 lbs.	Model 1750	Interp.
	407021-103	DRIVE VARIABLE FREQ 5HP (4KW) 600V 3PH, 14.5 lbs.	Model 1750	Interp.
	407020-106	DRIVE VARIABLE FREQ 7.5HP(5.5KW) 480V 3P, 6.6 lbs.	Model 2500 thru 3500	Interp.
	407021-104	DRIVE VARIABLE FREQ 7.5HP(5.5KW) 600V 3P, 14.5 lbs.	Model 2500 thru 3500	Interp.
	407020-107	DRIVE VARIABLE FREQ 10HP (7.5KW) 480V 3P, 6.6 lbs.	Model 5500	65
	407021-105	DRIVE VARIABLE FREQ 10HP (7.5KW) 600V 3P, 14.5 lbs.	Model 5500	63
Transformer (Wabash Transformer)	4089800-001	TRANSFORMER 120/277/600V - 24V 50/60HZ, 2 lbs.	Model 250 thru 5500	64
	408980-002	TRANSFORMER 208/240/480V - 24V 50/60HZ, 3 lbs.	Model 250 thru 5500	62,63, 65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Motor Stater (Siemens)	407015-101	STARTER MOTOR 1.1 - 1.6 AMP SIEMENS, 0.75 lbs.	Model 250 (480/600V) (Single QTY-1/ Redundant Qty-2)	62,64
	407015-102	STARTER MOTOR 1.4 - 2.0 AMP SIEMENS, 0.75 lbs.	Model 500 (600V) (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-103	STARTER MOTOR 1.8 - 2.5 AMP SIEMENS, 0.75 lbs.	Model 500 (480V) (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-105	STARTER MOTOR 2.8 - 4.0 AMP SIEMENS, 0.75 lbs.	Model 1000 (600V) (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-106	STARTER MOTOR 3.5 - 5.0 AMP SIEMENS, 0.75 lbs.	Model 1000 (480V) (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-107	STARTER MOTOR 4.5 - 6.3 AMP SIEMENS, 0.75 lbs.	Model1750/2500 (600V) & Model 250 (240V); (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-108	STARTER MOTOR 5.5 - 8.0 AMP SIEMENS, 0.75 lbs.	Model1750/2500 (480V); (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-109	STARTER MOTOR 7 - 10 AMP SIEMENS, 0.75 lbs.	Model 3500 (480/600V) & Model 500 (240V); (Single QTY-1/ Redundant Qty-2)	Interp.
	407015-110	STARTER MOTOR 9 - 12.5 AMP SIEMENS, 0.75 lbs.	Model 5500 (600V); (Single QTY-1/ Redundant Qty-2)	Interp.

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Motor Stater (Siemens)	407015-111	STARTER MOTOR 11 - 16 AMP SIEMENS, 0.75 lbs.	Model 5500 (480V) & Model1000 (240V); (Single QTY-1/ Redundant Qty-2)	63,65
Heater-Outdoor Enclosure (Chromalox)	600390	Heater O.E 120V 400W GTS LX, 1 lbs.	All units with outdoor enclosure (Model 250 to 5500)	64,65
Keypad Main Controller (Copeland)	408495-001	Main Controller VLW, 0.2 lbs		62,63, 64,65
Outdoor Enclosure (DriSteem)	601460-002	Base, HPA Pump Station O.E. Seismic - 91 lbs.		64,65
	165110-102	Bracket L, HPA PS, Seismic Mount- 1.4 lbs.		64,65
	601491	Top Cover, HPA Pump Station O.E.-33.1 lbs.		64,65
	601492	Rear Panel, HPA Pump Station O.E.-57 lbs.		64,65
	601493	Right Panel, HPA Pump Station O.E.-28.5 lbs.		64,65
	601494	Left Panel, HPA Pump Staion O.E.-28.5 lbs.		64,65
	601495	Front Door Panel, HPA Pump Station O.E. -41 lbs.		64,65
	601496	Right Door Panel, HPA Pump Station O.E.-43.5 lbs.		64,65
	601497	Left Door Panel, HPA Pump Station O.E.-43.5 lbs.		64,65
	185110-003	Fan Assy O.E. Cabient 120V- 1 lbs.		64,65
	185110-005	Fan Assy OA172AP, 293 CFM, 120V- 1.5 lbs.		64,65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Pump Station

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 19

Table Description: HPA Pump Station

Component (Manufacturer)	Model	Description	Notes	UUT
Outdoor Enclosure (DriSteem)	601481	Subpanel Fan/Stat HPA O.E. - 1.5 lbs.		64,65
Curb (DriSteem)	601480-002	Curb Assy,14" Height, HPA PS O.E. Seismic - 60lbs.	Outdoor Model Only	64,65

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Dispersion

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 20

Table Description: HPA Dispersion-Duct Mounted

Component (Manufacturer)	Model	Description	Notes[1]	UUT
Staging Valve (DriSteem)	197100-025	Valve Assy HPAS 60 PPH, 3 lbs.	18" x 18" Grid	66
	197100-035	Valve Assy HPAS 120 PPH, 3 lbs.	18" to 120" Grid	Interp.
	197100-047	Valve Assy HPAS 210 PPH, 3 lbs.	18" to 120" Grid	Interp.
	197100-063	Valve Assy HPAS 380 PPH, 3 lbs.	18" to 120" Grid	Interp.
	197100-125	Valve Assy HPAS 1500 PPH, 3 lbs.	18" to 120" Grid	67
	6000832	Valve Assy HPAS 2000 PPH, 4.5 lbs.	18" to 120" Grid	67
Depressurization Valve (DriSteem)	197100-005	Valve Assy Depressure HPAS, 3 lbs.		66,67
Manifold Stick (DriSteem)	902372-18	Manifold Assy HPA 10-24 Saddle Disp. AHU 18", 1.5 lbs.	18"x 2 number manifold sticks with nozzles. Qty. 2, 5" on center	66
	902372-18 to 902372-110	Manifold Assy HPA 10-24 Saddle Disp. AHU 18" -110", 1.5 lbs. to 15 lbs.		Interp.
	902372-110	Manifold Assy HPA 10-24 Saddle Disp AHU 110", lbs.	110"x 17 number manifold sticks with nozzles. Qty. 27, 4" on center	67
Nozzle (Leader Spray Technology Co. Ltd)	270010-006	Nozzle Assy 6 lb/hr. 0.15 MM Hole, 0.02 lbs.		66,67
	270010-010	Nozzle Assy 10 lb/hr. 0.20 MM Hole, 0.02 lbs.		Interp.
	270010-015	Nozzle Assy 15 lb/hr. 0.30MM Hole, 0.02 lbs.		Interp.
Manual Flow Control Valve (Apex Industrial Solutions)	505005-001	Ball Valve 316SST H-700 1/2" CMP, 1 lb.		66,67
Staging - Depressurization Valve Coil (Danfoss A/S High Pressure Pumps)	505086-007	Valve Coil Solenoid, 1 lb.		66,67

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENTS

Manufacturer: DriSteem Corporation
Product Type: Humidification Systems
Model Line: HPA Dispersion

Seismic Parameters			Building Codes
S_{DS} = 2.0g for	R_μ=1.3, H_f=3.5	I_p=1.5	CBC 2025
S_{DS} = 2.5g for	R_μ=1.0, H_f=1.0		

TABLE 20

Table Description: HPA Dispersion-Duct Mounted

Component (Manufacturer)	Model	Description	Notes[1]	UUT
Staging - Depressurization Valve Body (Danfoss A/S High Pressure Pumps)	505086-008	Valve 1/4" VDHT Solenoid High Pressure, 1 lb.		66,67
	505086-010	Valve 3/8" VDHT Solenoid High Pressure, 1 lb.		67
Final Evaporative Media Filter (MISTOP)	FEM 17.5x17.5	17.5"X17.5"X1" 304SST, 3 lbs.	Qty. 1	66
	FEM 17.5x23.5	17.5"X23.5"X1" 304SST, 3 lbs.	Mounted in filter rack per DriSteem Seismic Certification Option IOM Manual	Interp.
	FEM 17.5x29.5	17.5"X29.5"X1" 304SST, 9 lbs.		Interp.
	FEM 23.5x23.5	23.5"X23.5"X1" 304SST, 9 lbs.		Interp.
	FEM 23.5x29.5	23.5"X29.5"X1" 304SST, 11 lbs.		Interp.
	FEM 29.5x29.5	29.5"X29.5"X1" 304SST, 11 lbs.	Qty. 16	67

Notes:
[1]See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Model	Test Report	Test Laboratory	S_{DS}	R_μ	H_f	I_p
1	VLC 2-1	JID: 17-0228 (UUT 5)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
2	VLC 2-1 (w/ weather enclosure)	EL: 9706 (UUT 2)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
3	VLC 100-4	EL: 9706 (UUT 3)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
4	VLC 100-4 (w/ weather enclosure)	EL: 9706 (UUT 4)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
5	Control Panel XXL	EL: 9675 (UUT 5)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
6	STS 25S	JID: 17-0228 (UUT 6)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
7	STS 800C	EL: 9706 (UUT 7)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
8	XTP-006	D252672 (UUT 1)-2016	Applied Technical Services (ATS)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
9	XTP-096	D252672 (UUT 2)-2016	Applied Technical Services (ATS)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
13	VM-2	EL: 9675 (UUT 11)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
14	VM-34	EL: 9675 (UUT 12)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
15	Mini-Bank – 12”x12” Duct	EL: 9767 (UUT 13)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
16	Mini-Bank – 24”x48” Duct	EL: 9767 (UUT 14)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
17	Mini-Bank – 12”x12” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
18	Mini-Bank – 24”x48” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
19	Ultra-Sorb LV - 12”x12” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
20	Ultra-Sorb LH - 12”x12” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
21	Ultra-Sorb XV - 12”x12” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
22	Ultra-Sorb LV - 120”x120” AHU	JID: 17-0228-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5

Note:

SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Model	Test Report	Test Laboratory	S_{DS}	R_μ	H_f	I_p
23	Ultra-Sorb LH - 120”x120” AHU	EL: 9767 (UUT 15)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
24	Ultra-Sorb XV - 110”x116” AHU	JID: 17-0228 (UUT 2)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
25	Ultra-Sorb LV - 12”x12” Duct	EL: 9767 (UUT 13)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
26	Ultra-Sorb LH - 12”x12” Duct	EL: 9767 (UUT 13)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
27	Ultra-Sorb XV - 12”x12” Duct	EL: 9767 (UUT 13)-2011	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
28	Ultra-Sorb LV - 80”x80” Duct	JID: 17-0228 (UUT 3)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
29	Ultra-Sorb LH - 80”x80” Duct	JID: 17-0228 (UUT 3)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
30	Ultra-Sorb XV - 80”x80” Duct	JID: 17-0228 (UUT 3)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
31	Ultra-Sorb MP - 12”x12” AHU	JID: 17-0228 (UUT 2)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
32	Ultra-Sorb MP - 110”x116” AHU	JID: 17-0228 (UUT 2)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
33	Ultra-Sorb MP - 12”x12” Duct	JID: 17-0228 (UUT 4)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
34	Ultra-Sorb MP - 80”x80” Duct	JID: 17-0228 (UUT 3)-2017	Clark Testing	2.0 2.5	1.3 1.0	3.5 1.0	1.5
35	STS800 SNC	PR069604.02 (UUT1)-2017	National Technical Systems - Silicon Valley	2.0 2.5	1.3 1.0	3.5 1.0	1.5
36	Ultra-Sorb LV - 120”x120” - AHU Stainless	1700754-TR-001-R2 (UUT5)-2020	ERDC-CERL[1]	2.0 2.5	1.3 1.0	3.5 1.0	1.5
37	Ultra-Sorb LV - 40”x40” - AHU Stainless	1700754-TR-001-R2 (UUT6a)-2020	ERDC-CERL1	2.0 2.5	1.3 1.0	3.5 1.0	1.5
38	Ultra-Sorb LV - 107”x102” - AHU Stainless	1700754-TR-001-R2 (UUT10)-2020	ERDC-CERL1	2.0 2.5	1.3 1.0	3.5 1.0	1.5
39	Ultra-Sorb LH - 120”x120” - AHU Stainless	1801166-TR-001-R0 (UUT13)-2019	PEER	2.0 2.5	1.3 1.0	3.5 1.0	1.5
40	Ultra-Sorb MP- 110”x116” - AHU Stainless	1801166-TR-001-R0 (UUT13)-2019	PEER	2.0 2.5	1.3 1.0	3.5 1.0	1.5
41	Ultra-Sorb XV - 110”x116” - AHU Stainless	1801166-TR-001-R0 (UUT13)-2019	PEER	2.0 2.5	1.3 1.0	3.5 1.0	1.5

Notes: 1. ERDC-CERL is not ISO 17025 accredited but has been reviewed by Pre Compliance and found to meet the requirements for ICC- ES AC156 testing. Review form is on file with Pre Compliance.
*See DriSteem seismic certification option installation manual at end of OSP, in addition to UUT specific installation requirements.

SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Model	Test Report	Test Laboratory	S_{DS}	R_μ	H_f	I_p
42	Ultra-Sorb XV - 110"x116" AHU Stainless	1801166-TR-001-R0 (UUT13)-2019	PEER	2.0 2.5	1.3 1.0	3.5 1.0	1.5
43	Ultra-Sorb LH - 80"x80" Stainless	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
44	Ultra-Sorb LV - 80"x80" Stainless	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
45	Ultra-Sorb XV - 80"x80" Stainless	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
46	Ultra-Sorb MP - 80"x80" Stainless	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
47	Ultra-Sorb MP - 12"x12" Stainless	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
48	GTS LX 50 Indoor (w/ enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
49	GTS LX 50 Outdoor (w/ enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
50	GTS LX 50 Indoor (w/o enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
51	GTS LX 600 Indoor (w/ enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
52	GTS LX 600 Outdoor (w/ enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
53	GTS LX 600 Indoor (w/o enclosure)	1800819-TR-001-R1 2020	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
54	RX-162-2 (Outdoor Enc. - Base Mnt)	1901043-TR-001-R0 (UUT1)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
55	RX-324-4 (Outdoor Enc. - Base Mounted on Curb)	1901043-TR-001-R0 (UUT2)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
56	RX-243-3 (Indoor Enc. - Base Mnt)	1901043-TR-001-R0 (UUT3)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
57	RX-324-4 (Indoor Enc. - Base Mnt)	1901043-TR-001-R0 (UUT4)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
58	RX-75-1 (Indoor Enc. - Wall Mnt)	1901043-TR-001-R0 (UUT5)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
59	RX-162-2 (Indoor Enc. - Wall Mnt)	1901043-TR-001-R0 (UUT6)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
60A	XTP002AL (Outdoor Enc. - Wall Mnt)	2200099-TR-001-R0 (UUT60A)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5

SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Model	Test Report	Test Laboratory	S_{DS}	R_μ	H_f	I_p
60B	XTP002AL (Outdoor Enc. - Base Mnt)	2200099-TR-001-R0 (UUT60B)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
61A	XTP048L3 (Outdoor Enc. - Wall Mnt)	2200099-TR-001-R0 (UUT61A)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
61B	XTP048L3 (Outdoor Enc. - Base Mnt)	2200099-TR-001-R0 (UUT61B)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
62	I-HPA250-S	TR241629-01-R0 (UUT 1)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
63	I-HPA5500-R	TR241629-01-R0 (UUT 2)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
64	O-HPA250-S	TR241629-01-R0 (UUT 3)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
65	O-HPA5500-R	TR241629-01-R0 (UUT4)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
66	HPADG18x18 with FEM	TR241629-01-R0 (UUT 5)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5
67	HPADG120X120 with FEM	TR241629-01-R0 (UUT 6)	Environmental Testing Laboratory (ETL)	2.0 2.5	1.3 1.0	3.5 1.0	1.5

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 1

Test Report# JID: 17-0228 (UUT5)

Manufacturer: DriSteem Corporation
Model Line: VLC
Model Number: VLC 2-1
Serial Number: 1252334-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
14.8	34	30.3	181

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
23.4	11.4	>33.3

Building Codes

CBC 2025

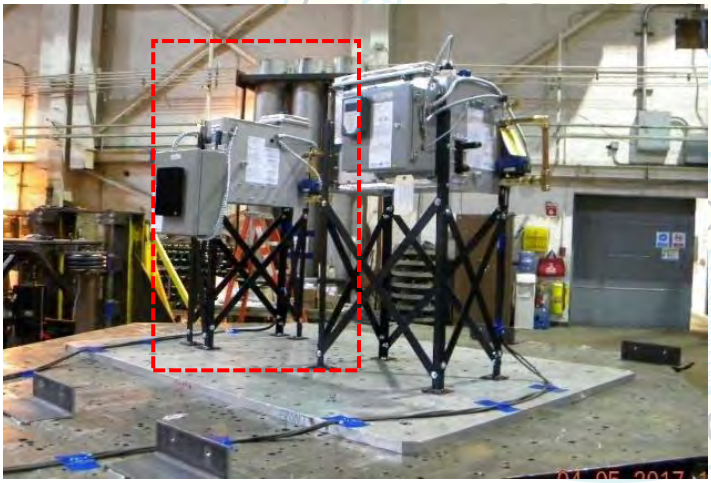
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of light gauge stainless steel with insulating pads on all sides; carbon steel angle legs with plate steel seismic cross bracing (DriSteem Part #190735-004).

UUT Mounting Details:



UUT1 attached to seismic support legs which are secured to the table platen using four (4) 3/8” dia. Grade 5 bolts. One at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

16x14x6 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/277/480/600x24 Copper winding; Marathon: Terminal 20A, Power Block 35A; Siemens: Contactor 35A; Ferraz Shawmut 0.5-30A fuse; ABB: 480V breaker 4A; Control Products: Vaporlogic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 2

Test Report# EL: 9706 (UUT2)

Manufacturer: DriSteem Corporation
Model Line: VLC
Model Number: VLC 2-1 (w/ Weather Enclosure)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
35	44	66	524

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
19.0	16.1	19.9

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

The weather enclosure is constructed of structural carbon steel tubing with 18 ga. carbon steel panels enclosing the unit. The unit is constructed of light gauge stainless steel with insulating pads on all sides, mounted directly onto weather enclosure structural carbon steel tubing.

UUT Mounting Details:

UUT2 directly bolted to the table platen using four (4) 3/8” Dia. Grade 2 bolts. One at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 300 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

16x14x6 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/277/480/600x24 copper winding; Marathon: Terminal 20A, Power Block 35A; Siemens: Contactor 35A; Ferraz Shawmut: 0.5-30A fuse 600V; ABB: 480V 1.6A breaker; Control Products: Vapor- logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 3 Test Report# EL9706 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: VLC
Model Number: VLC 100-4
Serial Number: 1192577-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
40.4	32	46.1	563

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.5	20.0	>33.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of light gauge stainless steel with insulating pads on all sides; carbon steel angle legs with plate steel seismic cross bracing (DriSteem Part #190735-008).

UUT Mounting Details:

UUT3 attached to seismic support legs which are secured to the table platen using four (4) 3/8” dia. Grade 2 bolts. One at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 435 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

30x24x8 NEMA-4 control cabinet: Tyco: Transformer 120/208/240/480x24 copper winding; Marathon: Terminal 20A, Power Block 335A; Siemens: Contactor 35A; Ferraz Shawmut 35-60A fuse 480V; ABB: 480V 4A breaker; Control Products: Vapor-logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 4

Test Report# EL9706 (UUT4)

Manufacturer: DriSteem Corporation
Model Line: VLC
Model Number: VLC 100-4 (w/ Weather Enclosure)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
50.0	44.0	66.0	1,063

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
12.4	16.1	27.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

The weather enclosure is constructed of structural carbon steel tubing with 18 ga. carbon steel panels enclosing the unit. The unit is constructed of light gauge stainless steel with insulating pads on all sides; with insulating pads on all sides, mounted directly onto weather enclosure structural carbon steel tubing.

UUT Mounting Details:

UUT4 directly bolted to the table platen using four (4) 3/8” Dia. Grade 2 bolts. One at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 655 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

30x24x8 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/277/480/600x24 copper winding; Marathon: Terminal 20A, Power Block 335A; Siemens: Contactor 35A; Ferraz Shawmut 35-60A 480V fuse; ABB: 480V breaker; Control Products: Vapor-logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 5

Test Report# EL9675 (UUT5)

Manufacturer: DriSteem Corporation
Model Line: VLC, STS, VM, XTP, GTS LX, Mini-Bank, Ultra-Sorb, RX
Model Number: Extra Extra Large (XXL) Control Panel
Serial Number: 1192577-37-01-CC

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
9	30	36	130

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

NEMA 12 rated control panel.

UUT Mounting Details:

UUT5 mounted to wall test fixture using four (4) 3/8” dia. Grade 2 bolts with washer, lock washer and nut.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

36x30x9 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/277/480/600x24 copper winding; Marathon: Terminal 20A, Power Block 175A; Siemens: Contactor 35A; Ferraz Shawmut 10-60A 600V fuse; ABB: 480V 4A breaker; Control Products: Vapor- logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 6

Test Report# JID: 17-0228 (UUT6)

Manufacturer: DriSteem Corporation
Model Line: STS
Model Number: STS-25 S
Serial Number: 1252334-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
23.7	14.8	19.5	236

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
23.4	11.4	>33.3

Building Codes

CBC 2025

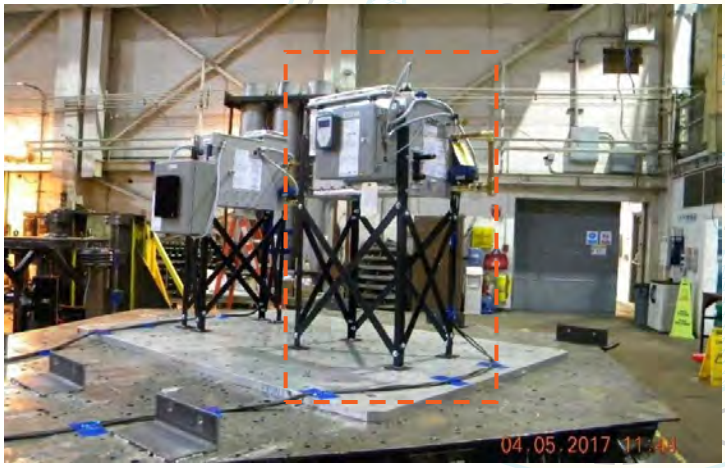
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of light gauge stainless steel; carbon steel angle legs with plate carbon steel seismic cross bracing (DriSteem Part #190735-001).

UUT Mounting Details:



UUT6 attached to seismic support legs which are secured to the table platen using a total of four (4) 3/8" dia. Grade 5 bolts; One at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Ball float valve, stainless steel heat exchanger, automatic steam valve, and temperature sensor. Attached 12x12x6 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/480x24 copper winding; Marathon: Terminal 20A; Siemens: Contactor 35A; Ferraz Shawmut 35-60A 480V fuse; ABB: 480V 1.6A breaker; Control Products: Vapor-logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor. with Vapor-logic interface controller attached to exterior of door panel.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 7

Test Report# EL: 9706 (UUT7)

Manufacturer: DriSteem Corporation
Model Line: STS
Model Number: STS-800 C
Serial Number: 1192577-06-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
55.2	30.3	29.8	1,250

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
19.6	17.4	>33.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of light gauge stainless steel mounted on “H” style carbon steel tubes with carbon steel plate seismic cross bracing(DriSteem Part #190735-009).

UUT Mounting Details:

UUT7 attached to seismic support legs which are secured to the table platen using a total of eight (8) 3/8” dia. Grade 2 bolts; two at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 520 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

Copper heat exchanger. Attached 12x12x6 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/480x24 copper winding; Marathon: Terminal 20A; Siemens: Contactor 35A; Ferraz Shawmut 35-60A 480V fuse; ABB: 480V 4A breaker; Control Products: Vapor-logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor. with Vapor-logic interface controller attached to exterior of door panel.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 8

Test Report# D252672 (UUT1)

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP006B1
Serial Number: 1242630-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
8.7	14.6	20.6	47

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

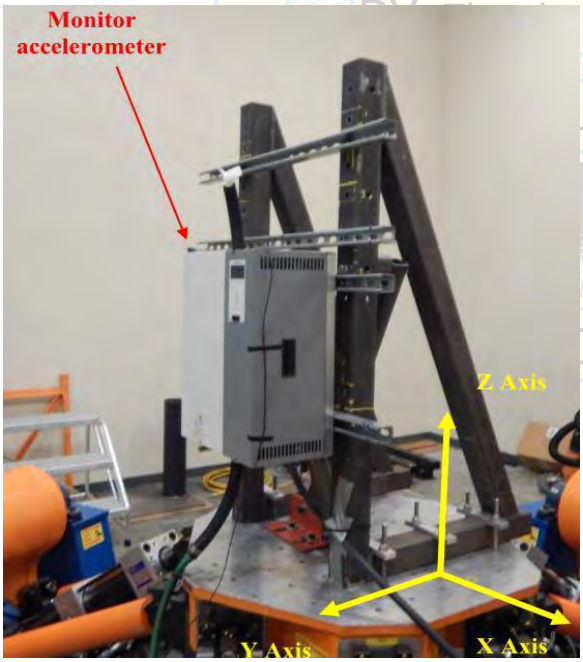
Test Criteria

ICC-ES AC156

Construction/Option Summary

The unit, 208V-Single Phase, is constructed of 18ga. stainless steel back/bottom/top/side, and 14 ga. stainless steel sub-panel panels with 18 ga. carbon steel door

UUT Mounting Details:



UUT8 was wall mounted - rigid using four (4) 3/8" dia. Grade 2 bolts with washer, lock washer and nut.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet (160727-101), Controller (408496-006), Interface Board (408495-004), Boiling Chamber (194600-008), Electronic Controller (530013-004), Drain Valve (405901), Fill Valve (505096), Contactor (3RT1025-1AC20), Fill Cup Assembly (194605-004), Transformer (408965-001), Electrical Door (530013-204), Cylinder Door (530013-200), Inlet Orifice (VL3007-105)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 9

Test Report# D252672 (UUT2)

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP096P3
Serial Number: 1242630-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
13.4	39.6	25.6	218

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

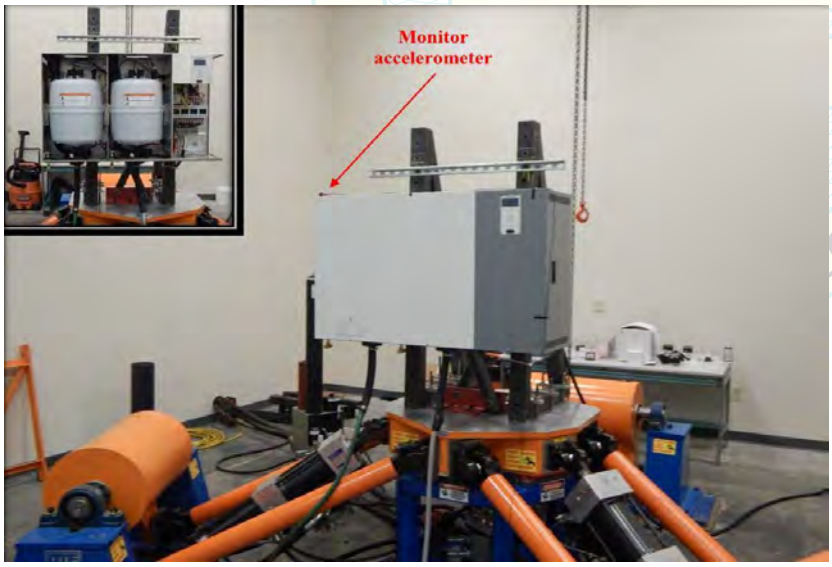
Test Criteria

ICC-ES AC156

Construction/Option Summary

The unit, 600V-Three Phase, is constructed of 18ga. stainless steel back/bottom/top/side, and 14 ga. stainless steel sub-panel panels with 18 ga. carbon steel door panels.

UUT Mounting Details:



UUT9 was wall mounted - rigid using four (6) 3/8" dia. Grade 2 bolts with washer, lock washer and nut.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet (160727-004), Controller (408496-006), Interface Board (408495-004), Boiling Chamber (194600-028), Electronic Controller (530013-005), Drain Valve (405901), Fill Valve (505096), Contactor (3RT1035-1AC20), Fill Cup Assembly (194605-006), Transformer (408965-001), Electrical Door (530013-207), Cylinder Door (530013-203), Inlet Orifice (VL3007-157)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 13

Test Report# EL: 9675 (UUT11)

Manufacturer: DriSteem Corporation
Model Line: VM
Model Number: VM-2
Serial Number: 1192577-13-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
24.2	16.1	18.6	95

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

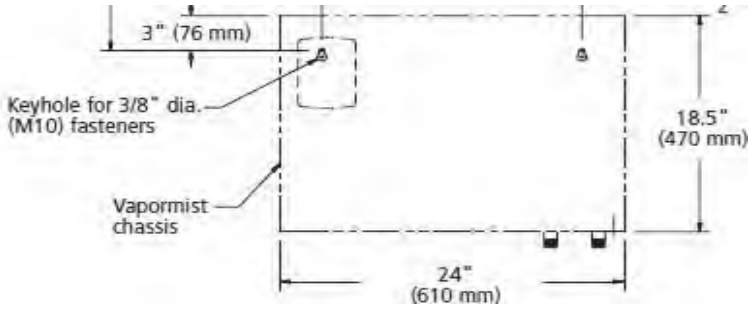
Test Criteria

ICC-ES AC156

Construction/Option Summary

The VM models are constructed of a 14 ga. carbon steel sub-panel, 18ga. carbon steel electrical cover, and 18ga. stainless steel back panels with a thin plastic housing over entire unit.

UUT Mounting Details:



UUT13 was wall mounted - rigid using two (2) 3/8" dia. grade 2 bolts with washer, lock washer and nut.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 55 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

Tyco: Transformer 120/208/240/480x24 copper winding; Siemens: Contractor 35A; Marathon: Terminal 20A, Power Block 85A; Control Products: Vapor-logic controller; Carlo Gavazzi: SSR 1 pole 480V 50A, ABB: 480V 4A breaker. Drain Valve, Fill Valve, Float switch, Temp sensor. Resistive electric heating elements, conductive water probes, stainless steel boiling chamber, and steam outlet for distribution.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 14

Test Report# EL:9675 (UUT12)

Manufacturer: DriSteem Corporation
Model Line: VM
Model Number: VM-34
Serial Number: 1192577-14-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
24.2	16.1	18.6	156

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

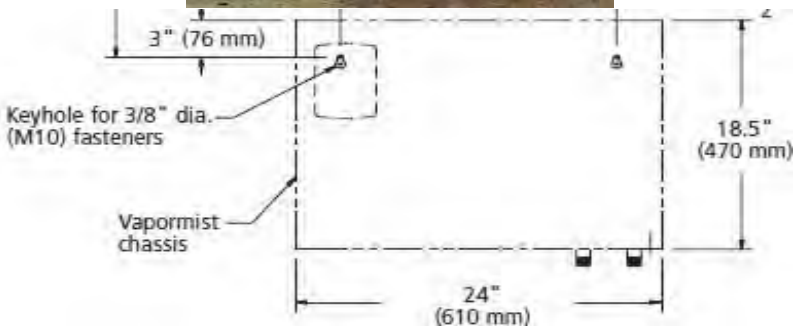
Test Criteria

ICC-ES AC156

Construction/Option Summary

The VM models are constructed of a 14 ga. carbon steel sub-panel, 18ga. galvanized carbon steel electrical cover, and 18ga. stainless steel back panels with a thin plastic housing over entire unit.

UUT Mounting Details:



UUT14 was wall mounted - rigid using two (2) 3/8" dia. grade 2 bolts with washer, lock washer and nut.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 75 lbs. w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

Tyco: Transformer 120/208/240/480x24 copper winding; Siemens: Contractor 55A; Marathon: Terminal 20A, Power Block 85A; Control Products: Vapor-logic controller; Carlo Gavazi: SSR 2 pole 480V 50A, SSR 1 pole 480 V 63A; ABB: 480V 1.6A breaker. Drain Valve, Fill Valve, Float switch, Temp sensor. Resistive electric heating elements, conductive water probes, stainless steel boiling chamber, and steam outlet for distribution.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 15

Test Report# EL:9767 (UUT13)

Manufacturer: DriSteem Corporation
Model Line: Mini-Bank
Model Number: 12”x12” Mini-Bank (Duct Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	16

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

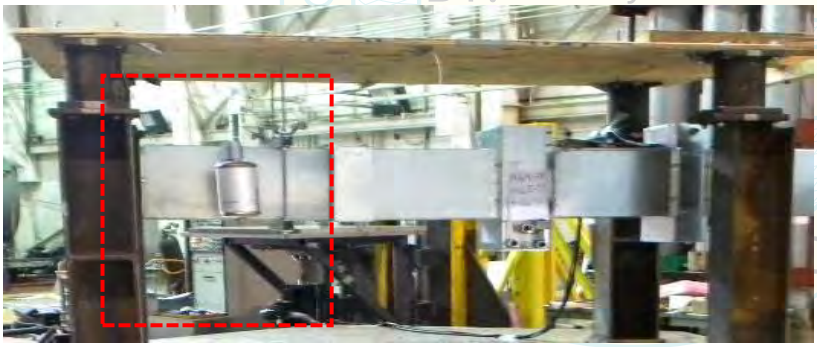
Test Criteria

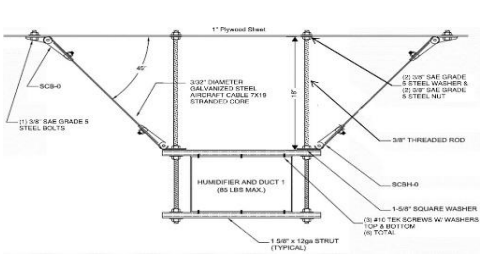
ICC-ES AC156

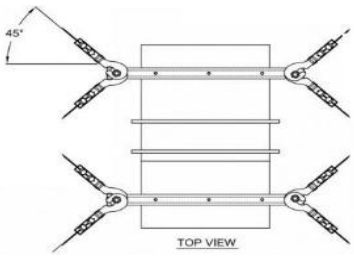
Construction/Option Summary

Constructed of square stainless steel metal tubes with nozzles punched along their length. The tubes are spaced at 3” and installed horizontal to the ground and perpendicular to the duct air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes depends upon the duct height.

UUT Mounting Details:







Mini-bank is attached to the duct through a cut opening on one side which is secured with metal cover plates and attached to duct with self-tapping screws. The opposite side is secured to the duct using three (3) 1/8” dia. screws through duct into a threaded hole in the end plate of the Mini-bank unit.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal-resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 16

Test Report# EL:9767 (UUT14)

Manufacturer: DriSteem Corporation
Model Line: Mini-Bank
Model Number: 24”x48” Mini-Bank (Duct Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	48.0	24.0	36

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

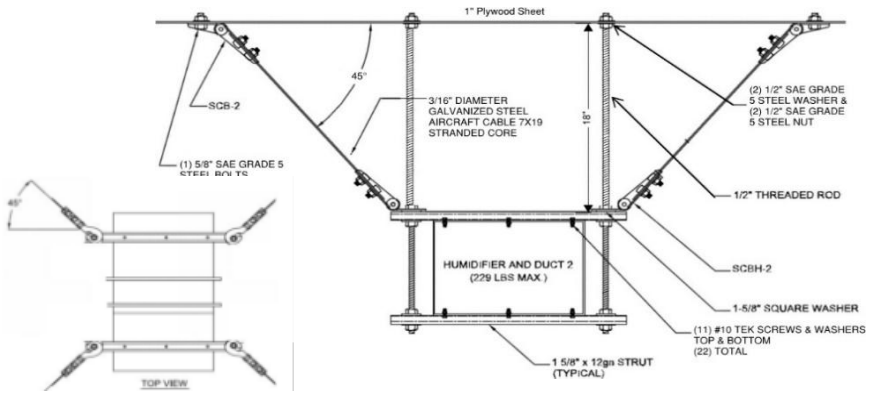
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of square stainless steel metal tubes with nozzles punched along their length. The tubes are spaced at 3” and installed horizontal to the ground and perpendicular to the duct air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes depends upon the duct height.

UUT Mounting Details:



Mini-bank is attached to the duct through a cut opening on one side and secured with cover plates over opening to duct with self- tapping screws. The opposite side is secured to the inside face of duct using six (6) 1/8” dia. screws through duct into the threaded end of the Mini-bank unit. The entire duct assembly is attached to ceiling fixture using Mason SCB/H Seismic Cable Bracing Assembly.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal-resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 17

Test Report# EL:9767 (UUT15)

Manufacturer: DriSteem Corporation
Model Line: Mini-Bank
Model Number: 12" x 12" Mini-Bank (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	16

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

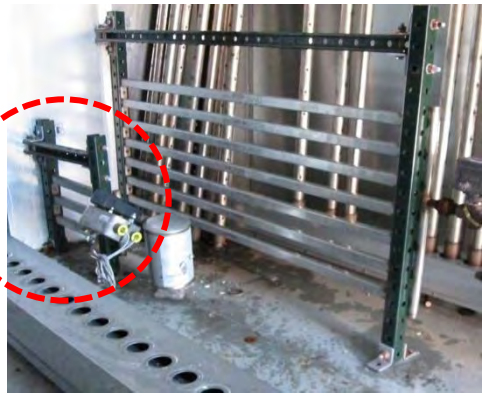
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of square stainless steel tubes with nozzles punched along their length. The tubes are spaced at 3" and installed horizontal to the ground and perpendicular to the AHU air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes depends upon the desired height.

UUT Mounting Details:



Mini-bank is attached to the Air Handling Unit using vertical 1-5/8" 12 gauge strut-rails on both ends of the tubes and one along the top: Secured to the AHU using 3 sets of ¼" dia self-tapping screws through ¼" thick angles per leg; Strut-rail secured to the Mini-Bank unit using 3/8" dia. through bolts at base and one side.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal-resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 18

Test Report# EL:9767 (UUT15)

Manufacturer: DriSteem Corporation
Model Line: Mini-Bank
Model Number: 24” x 48” Mini-Bank (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	48.0	24.0	36

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

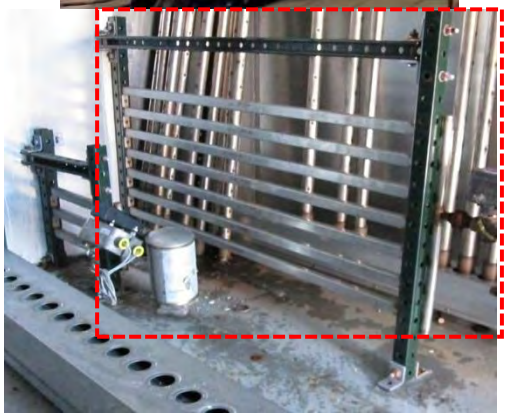
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of square stainless steel tubes with nozzles punched along their length. The tubes are spaced at 3” and installed horizontal to the ground and perpendicular to the AHU air flow using a stainless steel plate at one end and stainless steel piping at the other end. The number of tubes depends upon the desired height.

UUT Mounting Details:



Mini-bank is attached to the Air Handling Unit using vertical 1-5/8" 12 gauge strut-rails on both ends of the tubes and one along the top: Secured to the AHU using 3 sets of ¼” dia self-tapping screws through ¼” thick angles per leg; Strut-rail secured to the Mini-Bank unit using 3/8” dia. through bolts at base and one side.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal-resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 19

Test Report# EL:9767 (UUT19)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12” x 12” Ultra-Sorb LV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

Mounted on parallel 1-5/8" 12 gauge strut-rails, which run from the AHU floor to ceiling, using four (4) 3/8” dia. through bolts; One at each corner. Strut-rails secured to AHU using ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 20 Test Report# EL:9767 (UUT15)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12” x 12” Ultra-Sorb LH (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

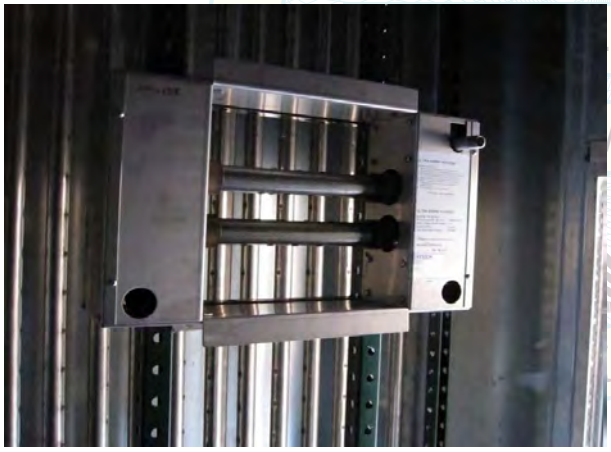
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their
length. The tubes are oriented horizontal to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:



Mounted on parallel 1-5/8" 12 gauge strut-rails, which run from the AHU floor to ceiling, using four (4) 3/8” dia. through bolts; One at each corner. Strut-rails secured to AHU using ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 21

Test Report# EL:9767 (UUT15)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12” x 12” Ultra-Sorb XV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

Mounted on parallel 1-5/8" 12 gauge strut-rails, which run from the AHU floor to ceiling, using four (4) 3/8” dia. through bolts; One at each corner. Strut-rails secured to AHU using ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 22 Test Report# JID:17-0228

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 120” x 120” Ultra-Sorb LV (AHU Mounte
Serial Number: 1250998-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	120.0	120.0	347

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
8.2	9.4	12.7

Building Codes

CBC 2025

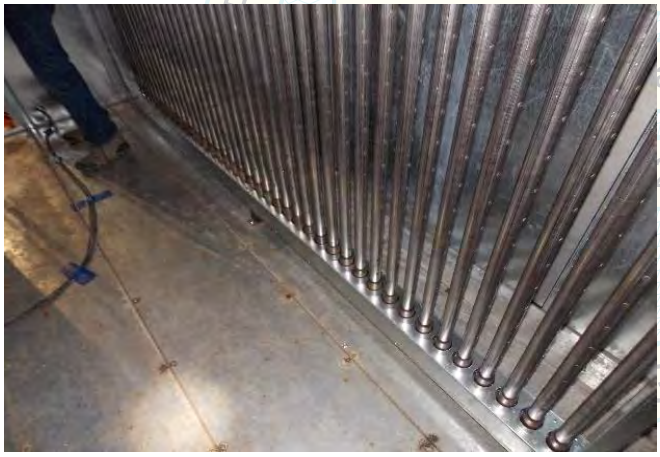
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:



AHU was mounted onto the seismic table using (6) L 6"X 4" X 3/8" X 12" angle brackets (3 on each side - 6 total). Brackets were mounted to the AHU using (2) 1/2" - 13 grade bolts, washers, lock washers and nuts per each bracket. The brackets are welded to the seismic table using (4) 1/4" X 3" fillet welds. the unit was mounted to the AHU using Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts and nyloc nuts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate. Bracing from unit wall was 1'-0" upstream of unit in test.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 23

Test Report# EL:9767 (UUT15)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 120” x 120” Ultra-Sorb LH (AHU Mounte
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	120.0	120.0	347

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.7	5.8	12.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate. Bracing from unit wall was 1'-0" upstream of unit in test.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 24

Test Report# JID: 17-0228 (UUT2)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 116” x 110” Ultra-Sorb XV (AHU Mounte
Serial Number: 1250998-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	110.0	116.0	352

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
9.0	8.7	14.4

Building Codes

CBC 2025

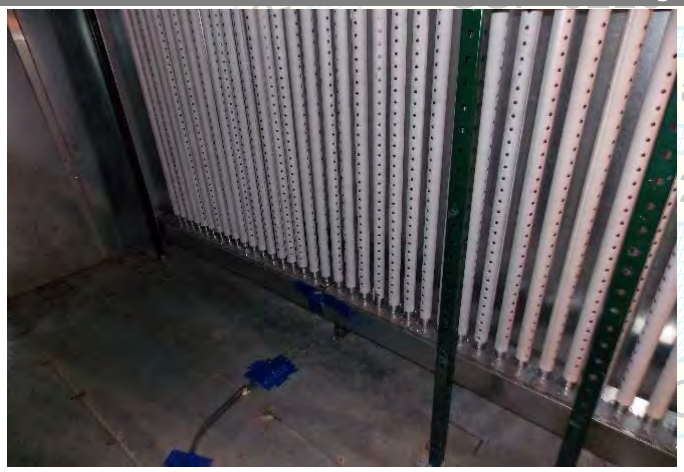
Test Criteria

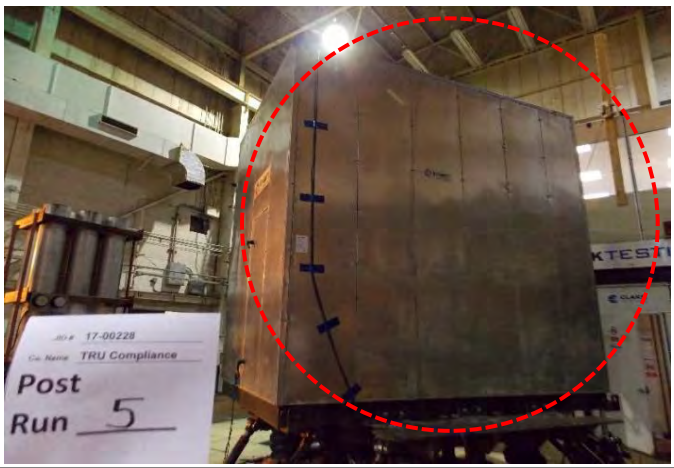
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:





AHU was mounted onto the seismic table using (6) L 6"X 4" X 3/8" X 12" angle brackets (3 on each side - 6 total). Brackets were mounted to the AHU using (2) 1/2" - 13 grade bolts, washers, lock washers and nuts per each bracket. The brackets are welded to the seismic table using (4) 1/4" X 3" fillet welds. the unit was mounted to the AHU using Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts and nyloc nuts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate. Bracing from unit wall was 1'-0" upstream of unit in test.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Exterior insulated tubes.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 25

Test Report# EL: 9767 (UUT13)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12” x 12” Ultra-Sorb LV (Duct Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

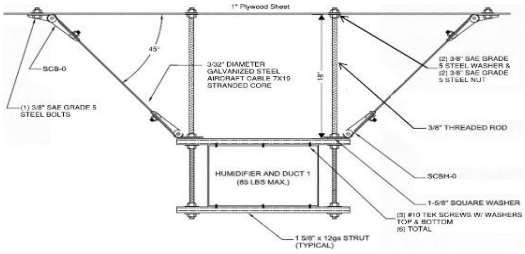
Test Criteria

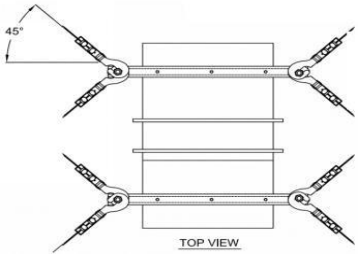
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the duct air flow.

UUT Mounting Details:





Ultra-Sorb LV is attached to the duct along both vertical sides using an angle bracket with ½” dia. bolts: two (2) to the duct and three (3) to the Ultra-Sorb. The entire duct assembly is attached to ceiling fixture using Mason SCB/H Seismic Cable Bracing Assembly.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 26

Test Report# EL: 9767 (UUT13)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12" x 12" Ultra-Sorb LH (Duct Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

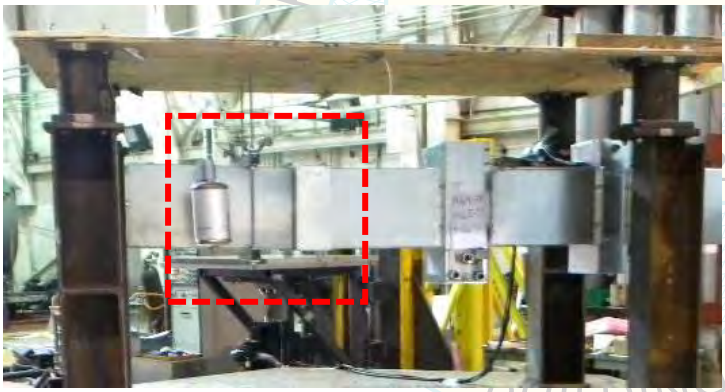
Test Criteria

ICC-ES AC156

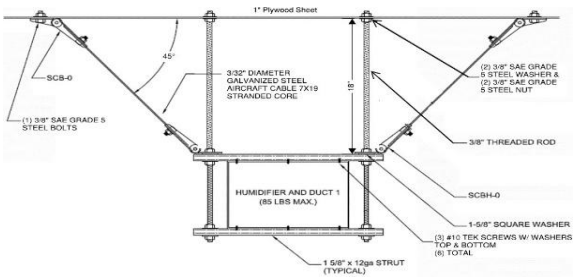
Construction/Option Summary

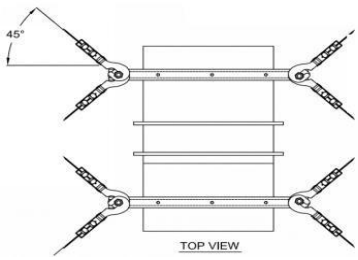
Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the duct air flow.

UUT Mounting Details:



Ultra-Sorb LH is attached to the duct along both top and bottom sides using an angle bracket with ½" dia. bolts: two (2) to the duct and three (3) to the Ultra-Sorb. The entire duct assembly is attached to ceiling fixture using Mason SCB/H Seismic Cable Bracing Assembly.





Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 27

Test Report# EL: 9767 (UUT13)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12" x 12" Ultra-Sorb XV (Duct Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	12.0	12.0	23

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

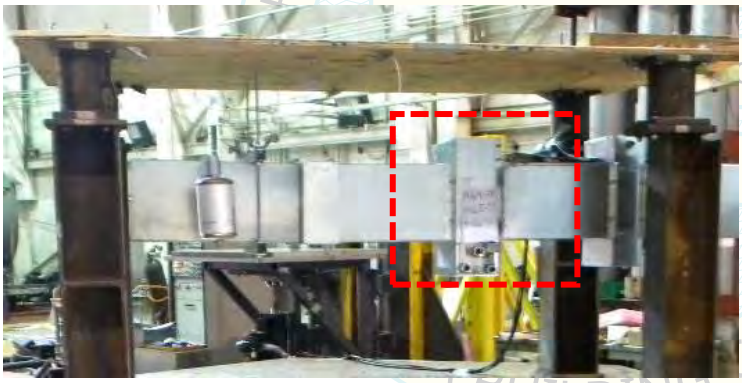
Test Criteria

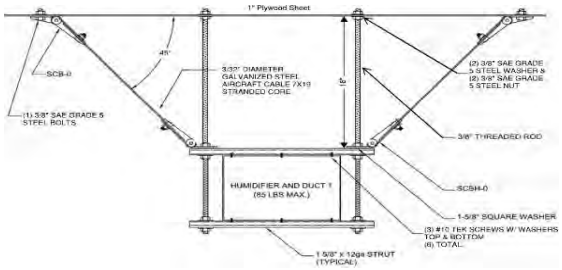
ICC-ES AC156

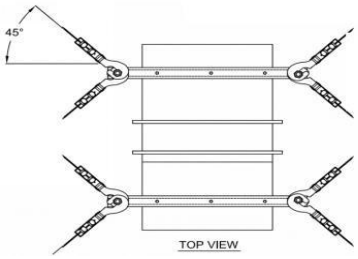
Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the duct air flow.

UUT Mounting Details:







Ultra-Sorb XV is attached to duct along each vertical side using an angle bracket with ½" dia. bolts: two (2) to the duct and three (3) to the Ultra-Sorb. All bolts use washers on both ends, and nylon locknuts. The entire duct assembly is attached to ceiling fixture using Mason SCB/H Seismic Cable Bracing Assembly (attached).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Exterior insulated tubes.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 28

Test Report# JID: 17-0228 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 80" x 80" Ultra-Sorb LV (Duct Mounted)
Serial Number: 1252334-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	80.0	80.0	210

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

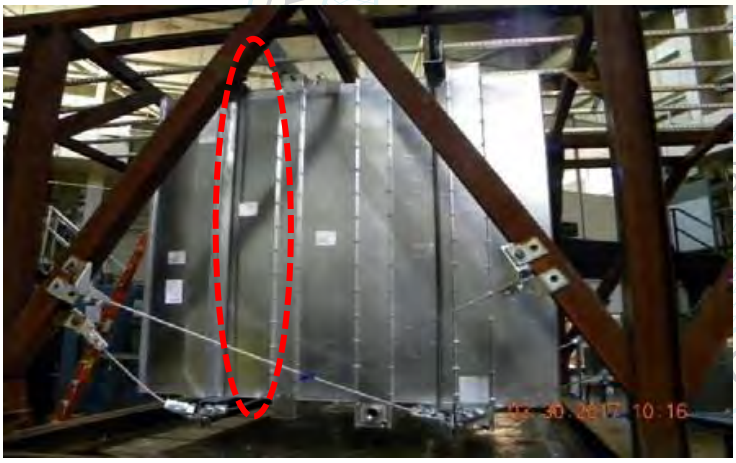
Test Criteria

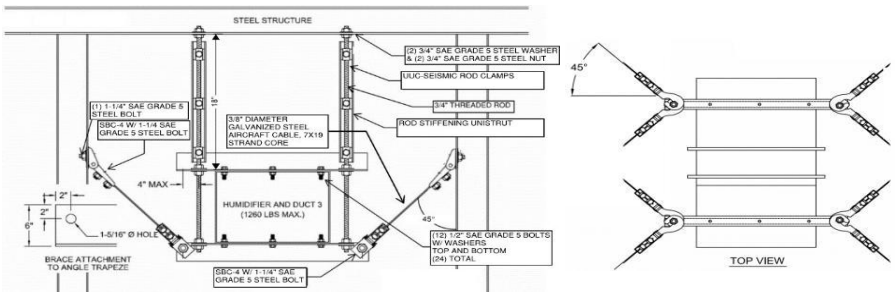
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the duct air flow.

UUT Mounting Details:





Duct Mounted using ¼" dia. thru bolts along top and bottom spaced at 6" O.C. and ¼-20 self taping screws along sides spaced at 6" O.C. The entire duct assembly is supported using 1/8" SS angle hangers secured with ¼" thru bolts spaced at 6" and 3/4" dia. thread rod through both up to ceiling support fixture. Each corner is laterally supported with two (2) 3/8" dia. aircraft cables.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Horizontal dispersion tubes, Insulated piping, deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal- resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 29

Test Report# JID: 17-0228 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 80" x 80" Ultra-Sorb LH (Duct Mounted)
Serial Number: 1252334-04-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5	80	80	210

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

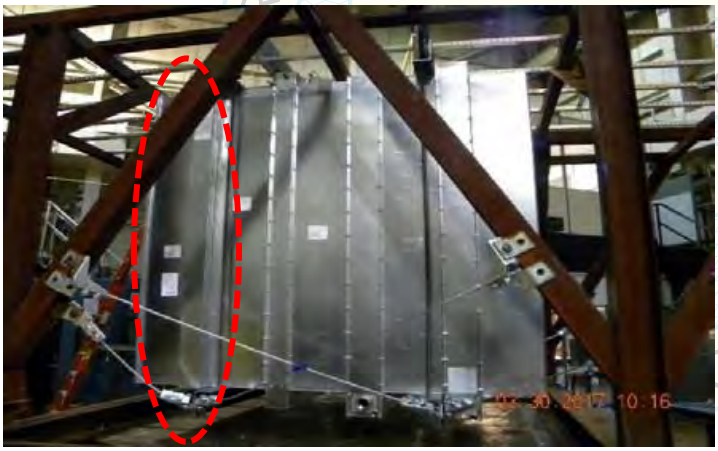
Test Criteria

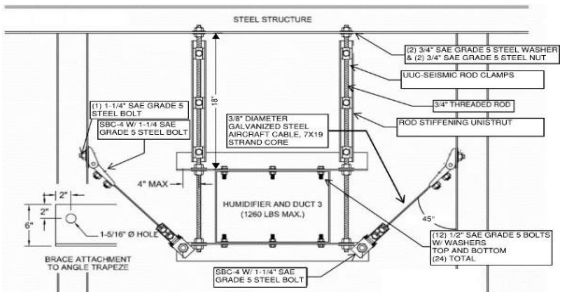
ICC-ES AC156

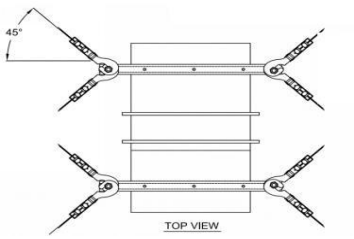
Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the duct air flow.

UUT Mounting Details:







Duct Mounted using ¼" dia. thru bolts along top and bottom spaced at 6" O.C. and ¼-20 self taping screws along sides spaced at 6" O.C. The entire duct assembly is supported using 1/8" SS angle hangers secured with ¼" thru bolts spaced at 6" and 3/4" dia. thread rod through both up to ceiling support fixture. Each corner is laterally supported with two (2) 3/8" dia. aircraft cables.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Horizontal dispersion tubes, Insulated piping, deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal- resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 30

Test Report# JID: 17-0228 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 80" x 80" Ultra-Sorb XV (Duct Mounted)
Serial Number: 1252334-05-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	80	80	220

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

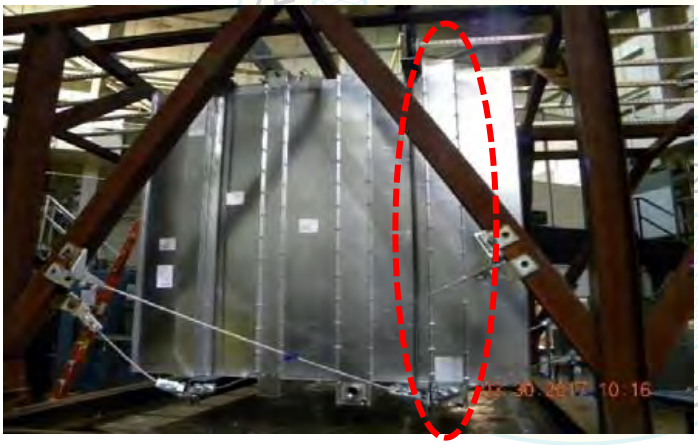
Test Criteria

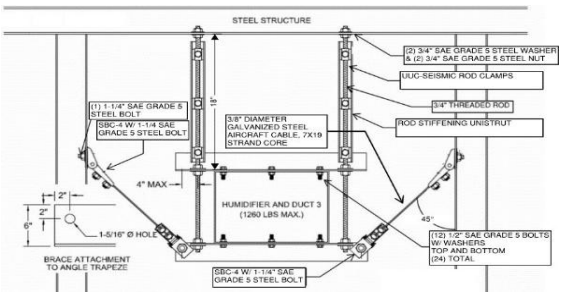
ICC-ES AC156

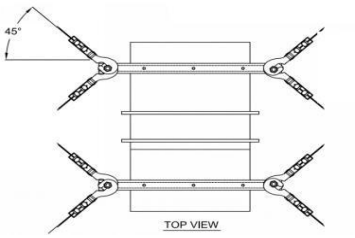
Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the duct air flow.

UUT Mounting Details:







Duct Mounted using ¼" dia. thru bolts along top and bottom spaced at 6" O.C. and ¼-20 self taping screws along sides spaced at 6" O.C. The entire duct assembly is supported using 1/8" SS angle hangers secured with ¼" thru bolts spaced at 6" and 3/4" dia. thread rod through both up to ceiling support fixture. Each corner is laterally supported with two (2) 3/8" dia. aircraft cables.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Exterior insulated tubes.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 31

Test Report# JID: 17-0228 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12” x 12” Ultra-Sorb MP (AHU Mounted)
Serial Number: 1250998-04-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)[1]
7.2	12.0	12.0	30

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
9.0	8.7	14.4

Building Codes

CBC 2025

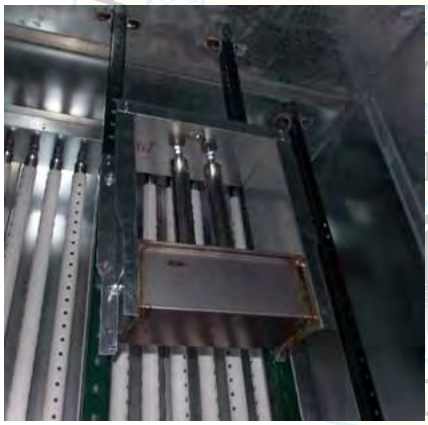
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:



AHU was mounted onto the seismic table using (6) L 6"X 4" X 3/8" X 12" angle brackets (3 on each side - 6 total). Brackets were mounted to the AHU using (2) 1/2" - 13 grade bolts, washers, lock washers and nuts per each bracket. The brackets are welded to the seismic table using (4) 1/4" X 3" fillet welds. The unit was mounted to the AHU using Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts and nyloc nuts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate. Bracing from unit wall was 1'-0" upstream of unit in test.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

[1]Laboratory reported dry weight of 20 lb w/o water. Contents were included in testing per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 32

Test Report# JID: 17-0228 (UUT2)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 110" X 116" Ultra-Sorb MP (AHU Mounted
Serial Number: 1250998-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	110.0	116.0	308

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
8.2	9.4	12.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

AHU was mounted onto the seismic table using (6) L 6"X 4" X 3/8" X 12" angle brackets (3 on each side - 6 total). Brackets were mounted to the AHU using (2) 1/2" - 13 grade bolts, washers, lock washers and nuts per each bracket. The brackets are welded to the seismic table using (4) 1/4" X 3" fillet welds. the unit was mounted to the AHU using Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts and nyloc nuts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate. Bracing from unit wall was 1'-0" upstream of unit in test.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 33

Test Report# JID: 17-0228 (UUT4)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 12" x 12" Ultra-Sorb MP (Duct Mounted)
Serial Number: 1251143-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	24	12	50

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

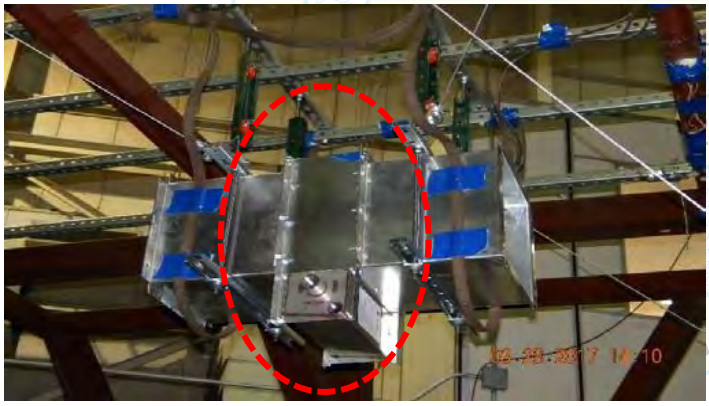
Test Criteria

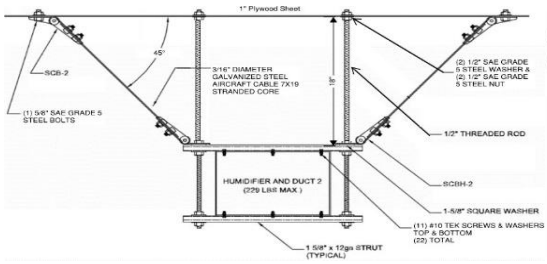
ICC-ES AC156

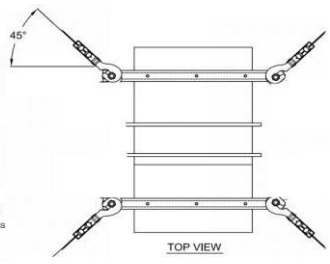
Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the duct air flow.

UUT Mounting Details:







Ultra-Sorb LV is attached to the duct along both vertical sides using an angle bracket with ½" dia. bolts: two (2) to the duct and three (3) to the Ultra-Sorb. The entire duct assembly is attached to ceiling fixture using Mason SCB/H Seismic Cable Bracing Assembly.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 34

Test Report# JID: 17-0228 (UUT3)

Manufacturer: DriSteem Corporation
Model Line: Ultra-Sorb
Model Number: 80" x 80" Ultra-Sorb MP (Duct Mounted)
Serial Number: 1251143-01-02

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	80.0	80.0	205

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

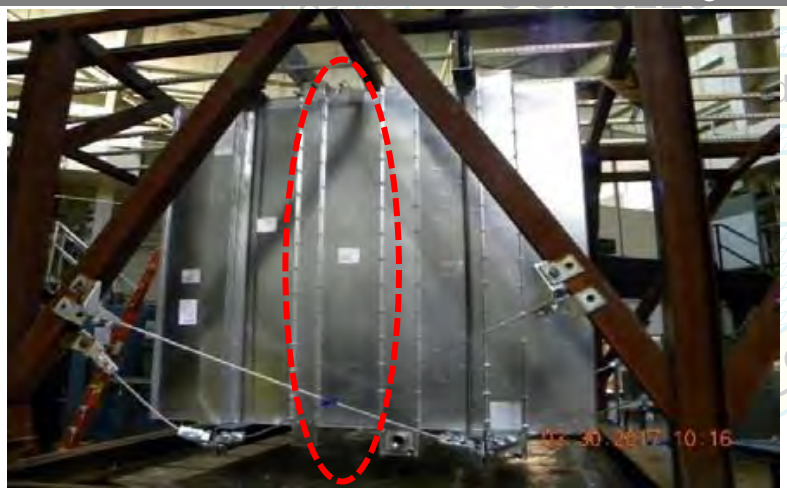
Test Criteria

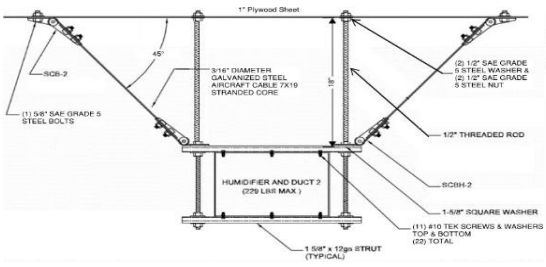
ICC-ES AC156

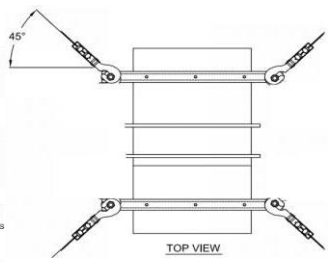
Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5" dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the duct air flow.

UUT Mounting Details:







Duct Mounted using ¼" dia. thru bolts along top and bottom spaced at 6" O.C. and ¼-20 self taping screws along sides spaced at 6" O.C. The entire duct assembly is supported using 1/8" SS angle hangers secured with ¼" thru bolts spaced at 6" and 3/4" dia. thread rod through both up to ceiling support fixture. Each corner is laterally supported with two (2) 3/8" dia. aircraft cables.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Horizontal dispersion tubes, Insulated piping, deflector plate, multi-baffle plate, internal drying tube, steam valve, and thermal- resin tubelet.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 35

Test Report# PR069604.02 (UUT1)

Manufacturer: DriSteem Corporation
Model Line: STS
Model Number: STS-800 SNC
Serial Number: 1256563-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
55.2	30.3	29.8	1,250

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
>33.3	29.0	>33.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of light gauge stainless steel mounted on “H” style carbon steel tubes with carbon steel plate seismic cross bracing (DriSteem Part #190735-009).

UUT Mounting Details:

Unit attached to seismic support legs which are secured to the table platen using a total of eight (8) 3/8” dia. Grade 5 bolts; two at each leg.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Teflon Stainless Steel heat exchanger. Attached 12x12x6 NEMA-12 control cabinet: Tyco: Transformer 120/208/240/480x24 copper winding; Marathon: Terminal 20A; Siemens: Contactor 35A; Ferraz Shawmut 35-60A 480V fuse; ABB: 480V 4A breaker; Control Products: Vapor-logic keypad and board. Drain valve, Fill Valve, Float Switch, Temp Sensor. with Vapor-logic interface controller attached to exterior of door panel.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 36

Test Report# 1700754-TR-001-R2 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 120"x120" Ultra Sorb LV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	120.0	120.0	347

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
6.42	7.71	22.08

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

AHU was mounted onto the seismic table's interface frame using six (6) 5/8" SAE Grade 8 bolts. The base frame was mounted to the table using thirty-six (36) 1-1/4" SAE Grade 8 bolts.
Mounting details for the Ultra Sorb LV within the AHU are detailed on the next page.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 36

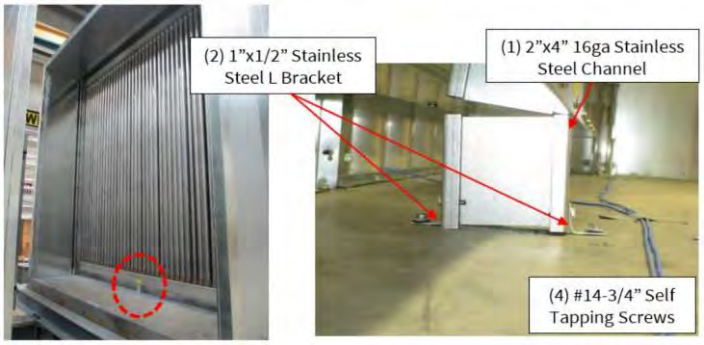
Test Report# 1700754-TR-001-R2 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 120"x120" Ultra Sorb LV (AHU Mounted)
Serial Number: N/A

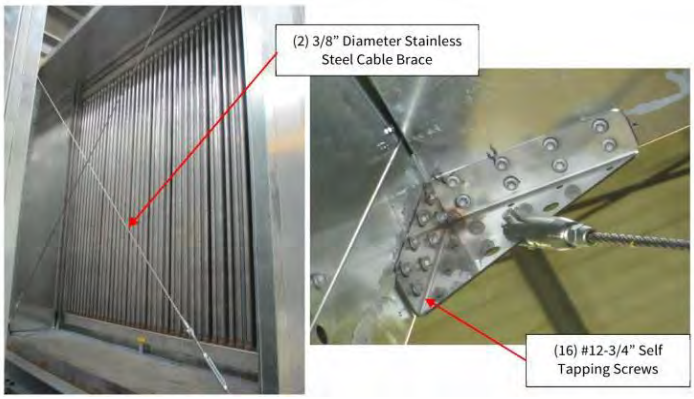
Highest Passed Test Level							
S_{DS}	R_μ	H_f	I_p	$A_{flx\text{-}h}$	$A_{rig\text{-}h}$	$A_{flx\text{-}v}$	$A_{rig\text{-}v}$
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Seismic Upgrades Implemented:
Attachment of the humidifier grid: 1-5/8" 12ga Unistrut member was attached to the ceiling with #12-3/4" self tapping screws at 8" O.C. The Unistrut member was attached to the vertical humidifier supports via 3/8"f stainless steel thru bolts.(2) 3"x3" L-shaped blank offs were added to the vertical Unistrut supports and wall panels. Blank offs were attached to the vertical Unistrut via 3/8"f stainless steel thru bolts at 24" O.C., and to the wall panel with #12-3/4" self tapping screws at 6" O.C.

Bearing Support of Humidifier Grid: (1) 16 ga. stainless steel 2"x4" channel that was cut to length to bear against the base structure and the bottom of the humidifier header tube. The channel was mounted to the floor using (4) #14-3/4" tapping screws and (2) 1"x1/2" 12 ga. stainless steel L-brackets.



Additional Lateral Bracing: (2) 3/8" stainless steel braces fastened with (16) #12-3/4" self tapping screws per 12 ga. stainless steel mounting bracket.



SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 37

Test Report# 1700754-TR-001-R2 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 40"x40" Ultra Sorb LV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	40.0	40.0	122

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
11.0	6.4	28.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

AHU was mounted to the shake tables interface frame using six (6) 5/8" SAE Grade 8 bolts. The base frame was mounted to the table using thirty-six (36) 1-1/4" SAE Grade 8 bolts.

Mounting details for the Ultra Sorb LV within the AHU are detailed on the next page.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 37

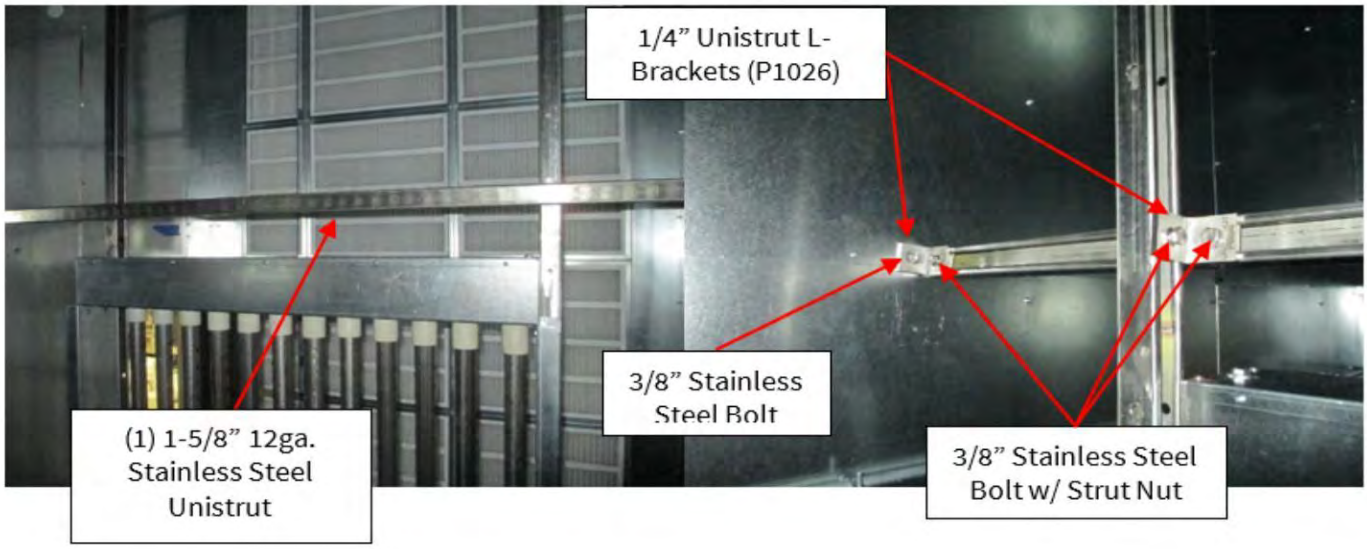
Test Report# 1700754-TR-001-R2 (UUT

Manufacturer:	DriSteem Corporation
Model Line:	Ultra Sorb
Model Number:	40"x40" Ultra Sorb LV (AHU Mounted)
Serial Number:	N/A

Highest Passed Test Level							
S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Seismic Upgrades Implemented:
UUT37 was mounted within the AHU and seismic upgrades consisted of mounting a 1-5/8” stainless steel 12 ga. Unistrut (P1000) cut to the width of the unit and mounted to the wall and vertical Unistrut support of the humidifier. The wall and Unistrut interface connection consisted of a 3/8” stainless steel bolt and 1/4” stainless steel Unistrut L-bracket (P1026), while the Unistrut to Unistrut connection consisted of a 3/8” stainless steel bolt, strut nut, and 1/4” Unistrut L-bracket (P1026).

UUT37 was mounted to the Unistrut with 3/8" bolts, nyloc nuts and washers at 24" intervals and screwed to the wall with #12 self- drilling screws.



SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 38

Test Report# 1700754-TR-001-R2 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 107"x102" Ultra Sorb LV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	107.0	102.0	279

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
10.1	10.0	25.1

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

UUT38 was base mounted- rigid onto the seismic table interface frame using twelve (12) 3/4" SAE Grade 8 bolts. Mounting details for the Ultra Sorb LV within the AHU are detailed on the next page.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 38

Test Report# 1700754-TR-001-R2 (UUT

Manufacturer:	DriSteem Corporation
Model Line:	Ultra Sorb
Model Number:	107"x102" Ultra Sorb LV (AHU Mounted)
Serial Number:	N/A

Highest Passed Test Level							
S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Seismic Upgrades Implemented:
The seismic upgrade for UUT38 consisted of mounting a 16ga 2”x4” stainless steel channel that was cut to length to bear against the edge of the drain pan and the bottom of the humidifier header tube. The channel was mounted to the blank off using (2) #12- 3/4” self tapping screws.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 39

Test Report# 1801166-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 120"x120" Ultra Sorb LH (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	120.0	120.0	347

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.4	29.6	21.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

UUT39 was mounted to an I-beam test frame using twenty-four (24) 3/4" SAE grade 8 bolts with flat washers (spaced at 24" OC max along the long directions).

Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 40

Test Report# 1801166-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 12"x12" Ultra Sorb MP (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	12.0	12.0	30

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.4	29.3	21.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

UUT40 was mounted to an I-beam test frame using twenty-four (24) 3/4" SAE grade 8 bolts with flat washers (spaced at 24" OC max along the long directions).

Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 41

Test Report# 1801166-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 110"x116" Ultra Sorb MP (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	110	116	308

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.4	29.3	21.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

The AHU was mounted to an I-beam test frame using twenty-four (24) 3/4" SAE grade 8 bolts with flat washers (spaced at 24" OC max along the long directions).

Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 42

Test Report# 1801166-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: 110"x116" Ultra Sorb XV (AHU Mounted)
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	110	116	352

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.4	29.3	21.7

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground and perpendicular to the AHU air flow.

UUT Mounting Details:

The AHU was mounted to an I-beam test frame using twenty-four (24) 3/4" SAE grade 8 bolts with flat washers (spaced at 24" OC max along the long directions).

Strut-rails (1-5/8" 12 gauge) placed vertically along each side and center of unit and secured with 3/8” dia. bolts spaced at 6” on center. Strut-rails secured to the AHU at roof and floor level using 3 sets of ¼” dia. self taping screws through ¼” thick angle plate.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 43

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: Ultra-Sorb LH 80x80
Serial Number: 1281776-06-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	80.0	80.0	211.3

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

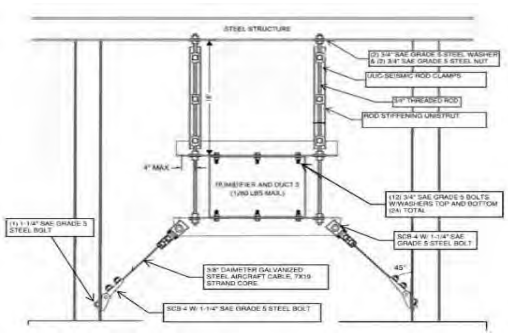
Test Criteria

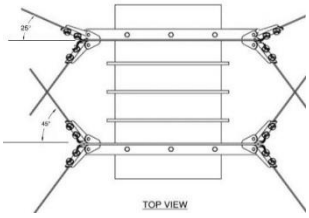
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground.

UUT Mounting Details:





Duct mounted using twenty (20) #10 self tapping screws at vertical mounting junctions, screws 6" O.C. Unit mounted to horizontal mounting junction using twenty-one (21) 1/4" ø thru bolts spaced at 6" O.C.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 44

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: Ultra-Sorb LV 80x80
Serial Number: 1281776-05-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
5.0	80.0	80.0	223.5

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

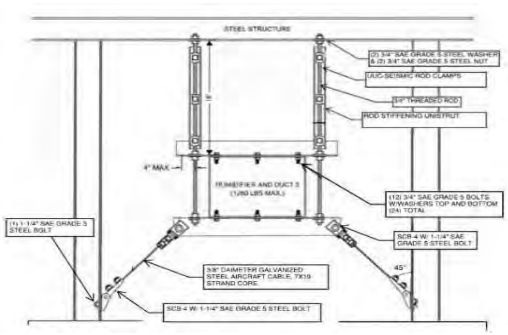
Test Criteria

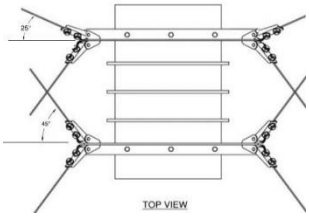
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground.

UUT Mounting Details:





Duct mounted using twenty (20) #10 self tapping screws at vertical mounting junctions, screws 6" O.C. Unit mounted to horizontal mounting junction using twenty-one (21) 1/4" ø thru bolts spaced at 6" O.C.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 45

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: Ultra-Sorb XV 80x80
Serial Number: 1281776-07-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	80.0	80.0	261.4

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

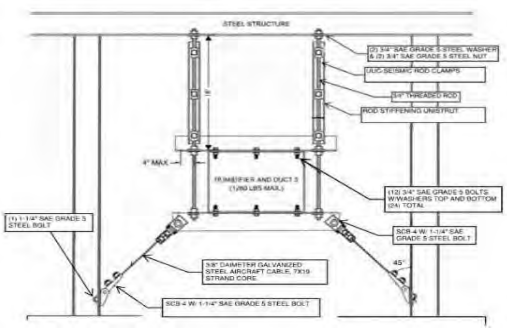
Test Criteria

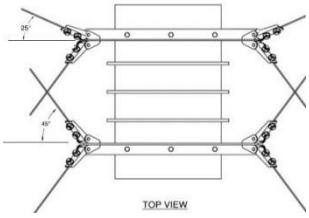
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground.

UUT Mounting Details:





Duct mounted using twenty (20) #10 self tapping screws at vertical mounting junctions, screws 6" O.C. Unit mounted to horizontal mounting junction using twenty-one (21) 1/4" ø thru bolts spaced at 6" O.C.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 46

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: Ultra-Sorb MP 80x80
Serial Number: 1281776-08-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	80.0	80.0	232.4

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

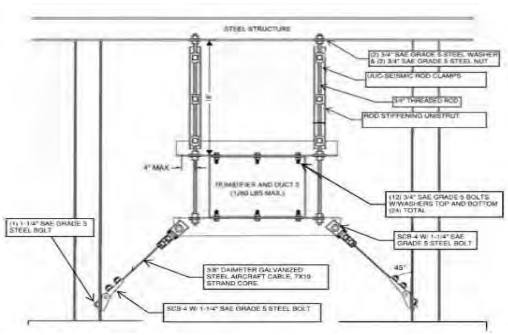
Test Criteria

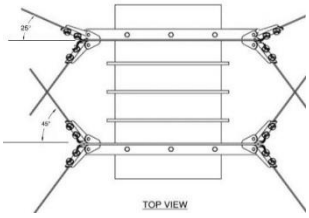
ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented horizontal to the ground.

UUT Mounting Details:





Duct mounted using twenty-seven (27) #10 self tapping screws on top horizontal mounting junctions and twenty (20) #10 self tapping screws on bottom horizontal mounting junctions. Unit mounted to vertical mounting junction (flange) using twenty-one
(21) 1/4" ø thru bolts spaced at 6" O.C.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 47

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: Ultra Sorb
Model Number: Ultra-Sorb MP 80x80
Serial Number: 1281776-08-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
7.2	12.0	12.0	29.5

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

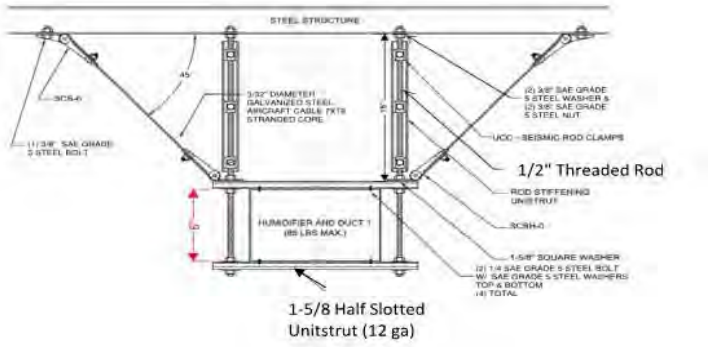
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of a light gauge stainless steel header, sill and 1.5” dia. stainless steel tubes with nozzles punched along their length. The tubes are oriented vertical to the ground.

UUT Mounting Details:



UUT47 was ceiling mounted - rigid with 1/2" threaded rod, rod stiffening Unistrut, and Mason SCB-0/SCBH-0.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

There are no other internal components.

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 48

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-50 Indoor w/ Enclosure
Serial Number: 1281776-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
36	27.4	57	326.5

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
12.1	12.6	19.5

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum with carbon steel enclosure.

UUT Mounting Details:

UUT48 was base mounted-rigid to shake table with two (2) 3/8" grade 8 bolts and washers in each DriSteem seismic angle (PN: 600783). Each of the two seismic angle attached to the sides of the unit with two (2) 1/4"-20 grade 5 integral washer self tapping screws.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Weld Flange (600436-10x), Steam Distributions (250540-00x), Primary Heat Exchangers (600553-076, 600533-075), Secondary Heat Exchangers (600373), Burner Assembly (600445), Probe (184315-003), Ignition Control (405811-011), Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774-002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold-SS (600024), Drain Assembly (600199-100), Control Cabinet (600284-001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 49

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-50 Outdoor w/ Enclosure
Serial Number: 1281776-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
36	27.4	57	578.5

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
17.72	5.27	>33.3

Building Codes

CBC 2025

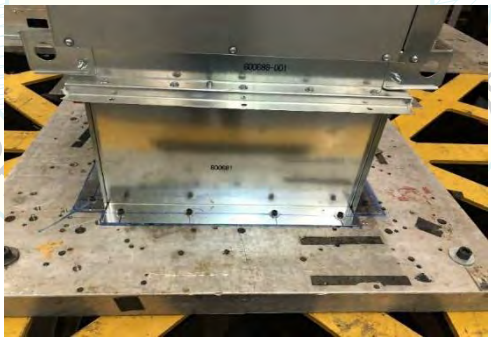
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum with carbon steel enclosure.

UUT Mounting Details:



UUT49 was mounted to DriSteem curb (PN: 600683-001). A bead of Dowsil 732 RTV (PN: 732-300ML CLR MIL-A-46106) was placed on the top of the curb before the unit was attached with twenty-two (22) 1/4"-20 bolts and washer on both sides of the curb-unit junction. Five (5) bolts were used on the shorter side of the unit space 6" O.C. "and Six (bolts) were used on the long side of the unit spaced 6" O.C. Curb mounted to the shake table with sixteen 3/8" Grade 8 bolts and washers, four (4) per side of unit.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Weld Flange (600436-10x), Primary Heat Exchangers (600553-076, 600533-075), Heater (600390), Burner Assembly (600445), Probe (184315-003), Ignition Control (405811-011), Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774-002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold- Aluminum (600024-100), Drain Assembly (600199-103), Control Cabinet (600284-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 50

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-50 Indoor w/o Enclosure
Serial Number: 1281776-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
23.3	23.3	42.8	310

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
4.98	7.52	7.58

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum and carbon steel frame.

UUT Mounting Details:

UUT50 was base mounted-rigid to shake table with two (2) 3/8" grade 8 bolts and washers in each DriSteem seismic angle (PN: 600783). Each of the two seismic angle attached to the sides of the unit with two (2) 1/4"-20 grade 5 integral washer self tapping screws.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Sub Panel Cover (600105), Flue adaptor bracket (127593-001), Tank Weld Flange (600436-10x), Steam Distributions (250540-00x), Primary Heat Exchangers (600533-075, 600533-76), Secondary Heat Exchangers (600373), Burner Assembly (600445), Probe(184315-003), Ignition Control (405811-011), Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774-002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold-SS (600024), Drain Assembly (600199-100), Control Cabinet (600284-001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 51

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-600 Indoor w/ Enclosure
Serial Number: 1281776-04-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
57.4	39.1	62.0	1,338.50

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
9.00	8.99	26.11

Building Codes

CBC 2025

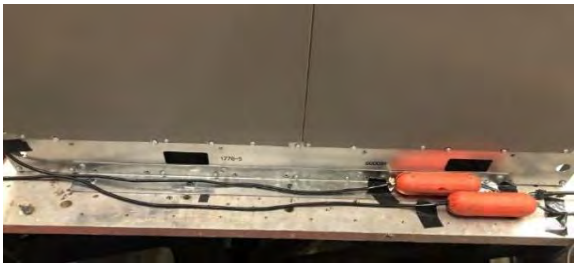
Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum with carbon steel enclosure.

UUT Mounting Details:



UUT51 was base mounted-rigid to shake table with five (5) 3/8" grade 8 bolts and square washers in each DriSteem seismic angle (PN: 600781). Angle attached to unit with four (4) 1/4"-20 grade 5 integral washer self tapping screws.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Weld Flange (600087-xxx), Primary Heat Exchangers (600088-001, 600088), Secondary Heat Exchangers (600190), Burner Assembly (600396), Probe (184315-003), Ignition Control (405811-011), Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774-002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold-(600024), Drain Assembly (600199-100), Control Cabinet (600562-001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 52

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-600 Outdoor w/ Enclosure
Serial Number: 1281776-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
57.4	39.1	62.0	1,796

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
7.05	7.82	26.65

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum with carbon steel enclosure.

UUT Mounting Details:

UUT52 was mounted to DriSteem curb (PN: 600683-004). A bead of Dowsil 732 RTV (PN: 732-300ML CLR MIL-A-46106) was placed on the top of the curb before the unit was attached with thirty-four (34) 1/4"-20 bolts and washer on both sides of the curb-unit junction. Seven (7) bolts were used on the shorter side of the unit space 6" O.C. "and ten (10) bolts were used on the long side of the unit spaced 6" O.C. Curb mounted to the shake table with sixteen 3/8" Grade 8 bolts and washers, four (4) per side of unit.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Weld Flange (600295-xxx), Steam Distributions (205500-0xx, 205500-004), Primary Heat Exchangers (600088-001, 600088), Secondary Heat Exchangers (600190), Heater (600390), Burner Assembly (600396), Probe (184315-003), Ignition Control (405811-011), Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774- 002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold-(600024), Drain Assembly (600199-103), Control Cabinet (600562-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 53

Test Report# 1800819-TR-001-R1

Manufacturer: DriSteem Corporation
Model Line: GTS
Model Number: GTS LX-600 Indoor w/o Enclosure
Serial Number: 1281776-04-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
56	34	53	1,286

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
8.52	8.14	8.56

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of carbon steel base and aluminum with carbon steel enclosure.

UUT Mounting Details:

UUT53 was base mounted-rigid to shake table with five (5) 3/8" grade 8 bolts and square washers in each DriSteem seismic angle (PN:600781). Mounting angle attached to unit with four (4) 1/4"-20 grade 5 integral washer self tapping screws.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Sub Panel Cover(600105), Flue adaptor bracket (600133), Tank Weld Flange (60087-xxx), Primary Heat Exchangers (600088-001, 600088), Secondary Heat Exchangers (600190), Burner Assembly (600396), Probe (184315-003), Ignition Control (405811-011),Pressure Switch (127601-001), Thermal Cut-Out (409560-001), Tank Temperature Sensor (405763), Drain Sensor (406774-002), Flue Sensor (600430), Fill Assembly (600432-001), Drain Manifold-(60024), Drain Assembly (600199-100), Control Cabinet (600562- 001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 54

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-162-2 Outdoor w/ Enclosure
Serial Number: 1300984-04-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
53.6	32.8	62	571.6

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
5.52	7.87	12.63

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Constructed of galvanized steel enclosure

UUT Mounting Details:

UUT54 was base mounted-rigid to shake table with six (6) 3/8" grade 8 bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-200), Level Probe (406303-116), Tank temp Sensor (600804), Drain temp Sensor (600973), Heating Element (600931-XXX), Drain Valve (505077-004), Fill Valve (6000568-001, -002, -003, -004), Subpanel O.E. (198200-450), Heater-Outdoor Enclosure (600390), Fan Assembly-Outdoor Enclosure (185110-003), Control Cabinet (600610-004), Display (408494-100).

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 55

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-324-4 Outdoor Enclosure w/ Curb
Serial Number: 1300984-05-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
62.8	32.8	62	794

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
5.84	8.29	32.19

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel curb with galvanized steel enclosure

UUT Mounting Details:

UUT55 was base mounted-rigid on 14"curb (PN: 600683-003) to shake table with twenty-six (26) 3/8" grade 8 bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-300), Level Probe (406303-116), Tank temp sensor (600804), Drain temp sensor (600973), Heating Element (600931-XXX), Drain Valve (505077-004), Fill Valve (600568-001, -002, -003, -004), Subpanel O.E. (198200-450), Heater-Outdoor Enclosure (600390), Fan Assembly-Outdoor Enclosure (185110-003), Control Cabinet (600610-103), Display (408494-100)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 56

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-243-3 Indoor w/ Enclosure
Serial Number[1]: 1300984-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
37.4	21.6	41.3	462

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
6.97	8.31	12.22

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Aluminum Enclosure
[1]The serial number for UUT 56 and UUT 57 are identical. UUT 57 is fully populated and UUT 56 is depopulated.

UUT Mounting Details:

UUT56 was base mounted-rigid to shake table with six (6) 3/8" grade 8 bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-300), Level Probe (406303-116), Tank temp sensor (600804), Drain temp sensor (600973), Heating Elements (600931-XXX), Drain Valve (505077-003), Fill Valve (600568-001, -002, -003, -004), Control Cabinet (600610-103), Display(408494-100)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

Pre No. CC241629-01-R0

UUT 57

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-324-4 Indoor w/ Enclosure
Serial Number[1]: 1300984-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
37.4	21.6	41.3	469

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
15.73	8.76	17.04

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Galvanized steel enclosure

[1]The serial number for UUT 56 and UUT 57 are identical. UUT 57 is fully populated and UUT 56 is depopulated.

UUT Mounting Details:

UUT57 was base mounted-rigid to shake table with six (6) 3/8" grade 8 bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-300), Level Probe (406303-116), Tank temp sensor (600804), Drain temp sensor (600973), Heating Element (600931-XXX), Drain Valve (505077-003), Fill Valve (600568-001, -002, -003, -004), Control Cabinet (600610-103), Display(408494-100)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 58

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-75-1 Indoor w/ Enclosure
Serial Number: 1300984--01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
24.8	16.4	24.9	142.2

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

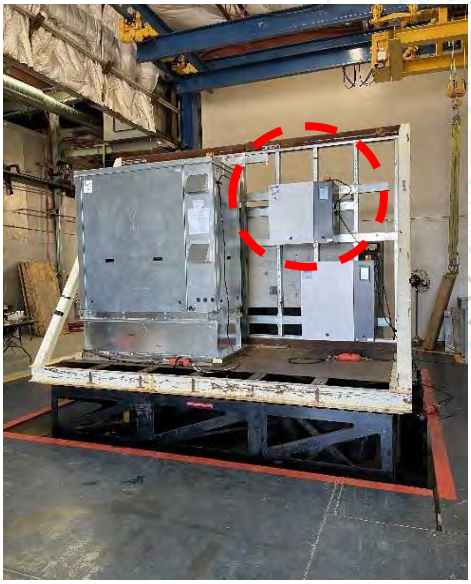
Test Criteria

ICC-ES AC156

Construction/Option Summary

Aluminum Enclosure

UUT Mounting Details:



UUT58 was wall mounted-rigid to shake table wall fixture with four (4) 3/8" grade 8 bolts and square washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-100), Level Probe (406303-116), Tank temp sensor (600804), Drain temp sensor (600973), Heating Element (600931-XXX), Drain Valve (505077-003), Fill Valve (600568-001, -002, -003, -004), Control Cabinet (600610-002), Display(408494-100)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 59

Test Report# 1901043-TR-001-R0 (UUT

Manufacturer: DriSteem Corporation
Model Line: RX
Model Number: RX-162-2 Indoor w/ Enclosure
Serial Number: 1300984-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
26.1	21	31.4	265.1

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Aluminum Enclosure

UUT Mounting Details:

UUT59 was wall mounted-rigid to shake table wall fixture with four (4) 3/8" grade 8 bolts and square washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Tank Assembly (600595-200), Level Probe (406303-116), Tank temp sensor (600804), Drain temp sensor (600973), Heating Element (600931-XXX), Drain Valve (505077-003), Fill Valve (600568-001, -002, -003, -004), Control Cabinet (600610-004), Display(408494-100)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 60A

Test Report# 220099-TR-001-R0

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP002AL
Serial Number: 1311421-01-01

Highest Passed Test Level

S_{DS}	R_{μ}	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
18	26	42	149

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel NEMA 3R enclosure

UUT Mounting Details:

UUT60A was wall mounted - rigid with four (4) 3/8" lag bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet: DriSteem (601033-001), Boiling Chamber: DriSteem (194800-XXX), Drain Valve: OEM Solutions Inc. (405901) Fill Valve: Detrol Controls (601038), Fill Cup Assembly: DriSteem (194605-200), Subpanel Assembly: DriSteem (198411-XXX). Heater - Enclosure: Chromalox (600390, 600390-001), Ventilation Fan: Mechatronics (407109-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 60B

Test Report# 220099-TR-001-R0

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP002AL
Serial Number: 1311421-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
18	26	42	149

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
16.71	24.67	>33.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel NEMA 3R enclosure

UUT Mounting Details:

UUT60B was base mounted - rigid with four (4) 3/8"-3" stainless steel bolts into wood.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet: DriSteem (601033-001), Boiling Chamber: DriSteem (194800-XXX), Drain Valve: OEM Solutions Inc. (405901) Fill Valve: Detrol Controls (601038), Fill Cup Assembly: DriSteem (194605-200), Subpanel Assembly: DriSteem (198411-XXX). Heater - Enclosure: Chromalox (600390, 600390-001), Ventilation Fan: Mechatronics (407109-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 61A

Test Report# 220099-TR-001-R0

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP048L3
Serial Number: 1311421-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
18	26	42	207

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel NEMA 3R enclosure

UUT Mounting Details:

UUT61A was wall mounted - rigid with four (4) 3/8" lag bolts and washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet: DriSteem (601033-001), Boiling Chamber: DriSteem (194800-XXX), Drain Valve: OEM Solutions Inc. (405901) Fill Valve: Detrol Controls (601039), Fill Cup Assembly: DriSteem (194605-200), Subpanel Assembly: DriSteem (198411-XXX). Heater - Enclosure: Chromalox (600390, 600390-001),
Ventilation Fan: Mechatronics (407109-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 61B

Test Report# 220099-TR-001-R0

Manufacturer: DriSteem Corporation
Model Line: XTP
Model Number: XTP048L3
Serial Number: 1311421-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
18	26	42	207

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
18.04	24.14	>33.33

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel NEMA 3R enclosure

UUT Mounting Details:

UUT61B was base mounted - rigid with four (4) 3/8"-3" stainless steel bolts into wood.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Cabinet: DriSteem (601033-001), Boiling Chamber: DriSteem (194800-XXX), Drain Valve: OEM Solutions Inc. (405901) Fill Valve: Detrol Controls (601039), Fill Cup Assembly: DriSteem (194605-200), Subpanel Assembly: DriSteem (198411-XXX). Heater - Enclosure: Chromalox (600390, 600390-001), Ventilation Fan: Mechatronics (407109-002)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 62

Test Report# TR241629-01-R0 (UUT1)

Manufacturer: DriSteem Corporation
Model Line: HPA Pump Station
Model Number: I-HPA250-S
Serial Number: 134486801-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
24	24	60	243.5

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
19.3	14.1	28.36

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon Steel Frame

UUT Mounting Details:

UUT 62 was base mounted - rigid with four (4) 3/8" Grade 8 bolts with washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Frame: DriSteem (601236-013-d), Low Pressure Panel Assembly: DriSteem (185245-001), High Pressure Panel Assembly: DriSteem (185255-006), Control Cabinet Assembly: DriSteem (185306), Motor: PFC Equipment Inc. (407025-001), High Pressure Pumps: Danfoss (400285-001), VFD: Danfoss (407020-103), Transformer: Wabash Transformer (408980-002), Motor Stater: Siemens (407015-101), Keypad Main Controller: Copeland (408495-001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 63

Test Report# TR241629-01-R0 (UUT2)

Manufacturer: DriSteem Corporation
Model Line: HPA Pump Station
Model Number: I-HPA5500-R
Serial Number: 1344868-02-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
24	30	76	710

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
11.5	16.3	13.2

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon Steel Frame, 600V

UUT Mounting Details:

UUT 63 was base mounted - rigid with four (4) 3/8" Grade 8 bolts with washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Frame: DriSteem (601236-015-d), Low Pressure Panel Assembly: DriSteem (185246-002), High Pressure Panel Assembly: DriSteem (1185255-005), Control Cabinet Assembly: DriSteem (185307), Motor: PFC Equipment Inc. (407025-107), High Pressure Pumps: Danfoss (400286-001), VFD: Danfoss (407021-105), Transformer: Wabash Transformer (408980-002), Motor Stater: Siemens (407015-111), Keypad Main Controller: Copeland (408495-001)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 64

Test Report# TR241629-01-R0 (UUT 3)

Manufacturer: DriSteem Corporation
Model Line: HPA Pump Station
Model Number: O-HPA250-S
Serial Number: 1344868-03-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)[1]	Weight (lbs.)[1]
42.2	50.1	82	573.5

[1]Weight and height listed does not include Curb. Height of curb is 14" and curb weight is 60 lbs.

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
8.7	8.9	14.1

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon Steel Frame (Internal), Curb Mounted, Outdoor Enclosure

UUT Mounting Details:

UUT 64 was base mounted - rigid on curb (PN:601480-002). Unit was thru mounted to curb with (28) 1/4" -20 Grade 5 bolts, (28) 1/4" nuts, and (56) washers. Bolts (8) on long side of unit spaced at 5.48" O.C.. Bolts (6) bolts on short side of unit spaced at 5.64" O.C. Curb was mounted to fixture with twenty seven (27) 3/8" Grade 8 bolts with washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Frame: Marksmen Metals (601236-013-m), Curb: DriSteem (601480-002, Low Pressure Panel Assembly: DriSteem (185245-001), High Pressure Panel Assembly: DriSteem (185255-006), Control Cabinet Assembly: DriSteem (185306), Motor: WEG (407025-001), High Pressure Pumps: Danfoss (400285-001), VFD: Danfoss (407020-103), Transformer: Wabash Transformer (4089800-001), Motor Stater: Siemens (407015-101), Keypad Main Controller: Copeland (408495-001), Heater - Outdoor Enclosure: Chromalox: (600390), Outdoor Enclosure: DriSteem: (601480-002 ,601460-002, 165110-102, 601491, 601492, 601493, 601494, 601495, 601496, 601497, 185110-003, 601481)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 65

Test Report# TR241629-01-R0 (UUT 4)

Manufacturer: DriSteem Corporation
Model Line: HPA Pump Station
Model Number: O-HPA5500-R
Serial Number: 1340421-01-01

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)[1]	Weight (lbs.)[1]
42.2	50.1	82	1033

1Weight and height listed does not include Curb. Height of curb is 14" and curb weight is 60 lbs.

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
9.1	7.4	>33.3

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon Steel Frame (Internal), Curb Mounted, Outdoor Enclosure

UUT Mounting Details:

UUT 65 was base mounted - rigid on curb (PN:601480-002). Unit was thru mounted to curb with (28) 1/4" -20 Grade 5 bolts, (28) 1/4" nuts, and (56) washers. Bolts (8) on long side of unit spaced at 5.48" O.C.. Bolts (6) bolts on short side of unit spaced at 5.64" O.C. Curb was mounted to fixture with twenty seven (28) 3/8" Grade 8 bolts with washers.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Frame-Internal: Marksmen Metals (601236-013-m), Curb: DriSteem (601480-002),Low Pressure Panel Assembly: DriSteem (185246-002), High Pressure Panel Assembly: DriSteem (1185255-005), Control Cabinet Assembly: DriSteem (185307), Motor: PFC Equipment Inc. (407025-107), High Pressure Pumps: Danfoss (400286-001), VFD: Danfoss (407021-105), Transformer: Wabash Transformer (408980-002), Motor Stater: Siemens (407015-111), Keypad Main Controller: Copeland (408495-001), Heater - Outdoor Enclosure: Chromalox: (600390), Outdoor Enclosure: DriSteem: (601480-002 ,601460-002, 165110-102, 601491, 601492, 601493, 601494, 601495, 601496, 601497, 185110-003, 601481)

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 66

Test Report# TR241629-01-R0 (UUT 5)

Manufacturer: DriSteem Corporation
Model Line: HPA Dispersion
Model Number: HPADG18X18
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)	Width (in)	Height (in)	Weight (lbs.)
48	18	18	24

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

Test Criteria

ICC-ES AC156

Construction/Option Summary

Unit mounted into a carbon steel duct section. The duct was ceiling mounted.

UUT Mounting Details:

UUT 66 was mounted into hanging duct. The duct was ceiling mounted with 3/8" threaded rod with eight (8) SCB-0/SCBH-0 Mason braces. Unstrut with (2) Mason UCC Seismic Rod Clamp used on each rod . Details of unit attachment to duct on the next page.

[1]Depth is report as the distance between the filter rack and the dispersion portion of the unit. [2]Weight includes dispersion unit, filter frame, and filters. Total weight including the duct was 116 lbs.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Staging Valve (DriSteem):197100-025, Depressurization Valve (DriSteem):197100-005, Manifold Stick (DriSteem):902372-18, Nozzle (Leader Spray Technology Co. Ltd): 270010-006, Manual Flow Control Valve (Apex Industrial Solutions):505005-001, Stagging - Depressurization Valve Coil (Danfoss A/S High Pressure Pumps):505086-007, Stagging - Depressurization Valve Body (Danfoss A/S High Pressure Pumps):505086-008, Final Evaporative Media Filter (MISTOP):FEM 17.5x17.5

UUT 66

Test Report# TR241629-01-R0 (UUT 5)

UUT Duct Mount Details:
Mounted in filter rack per Dristeem Seismic Certification Option IOM Manual

FIGURE 30-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION IN DUCT DISPERSION WITH MIST ELIMINATOR INSTALLATION (18" W X 18" H)

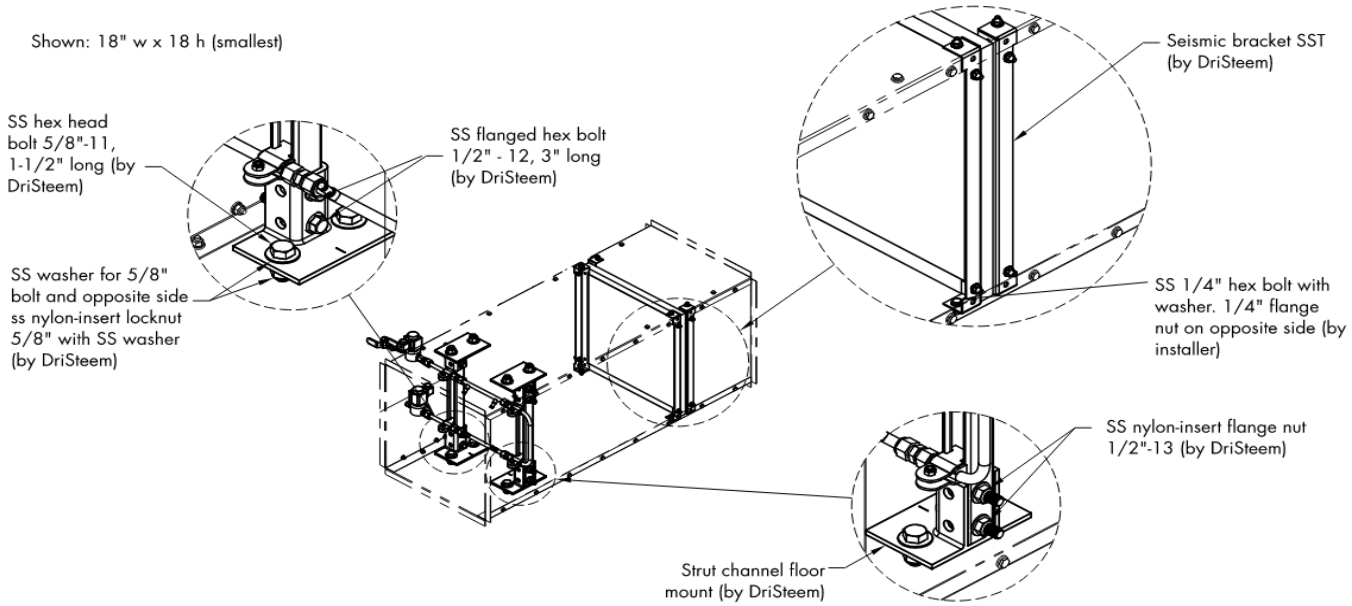
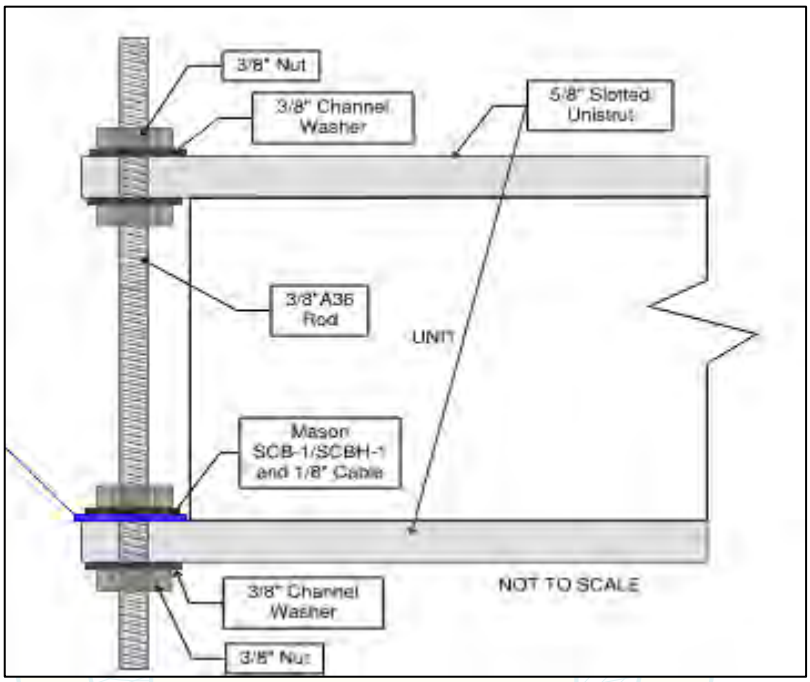
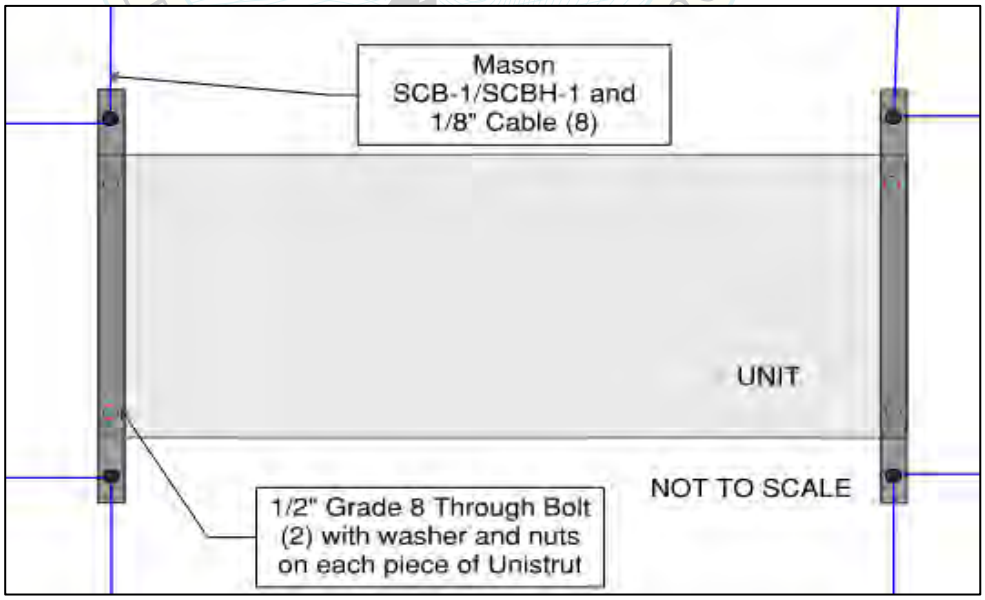


Image from Dristeem Seismic Certification IOM Manual



Side of Unit



Top of Unit

SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

UUT 67

Test Report# TR241629-01-R0 (UUT 6)

Manufacturer: DriSteem Corporation
Model Line: HPA Dispersion
Model Number: HPADG120X120
Serial Number: N/A

Highest Passed Test Level

S_{DS}	R_μ	H_f	I_p	A_{flx-h}	A_{rig-h}	A_{flx-v}	A_{rig-v}
2.0	1.3	3.5	1.5	3.20	2.15	1.67	0.67
2.5	1.0	1.0					

Dimensions/Weights

Depth (in)[1]	Width (in)	Height (in)	Weight (lbs.)[2]
48	120	120	507

Lowest Natural Frequency (Hz)

Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes

CBC 2025

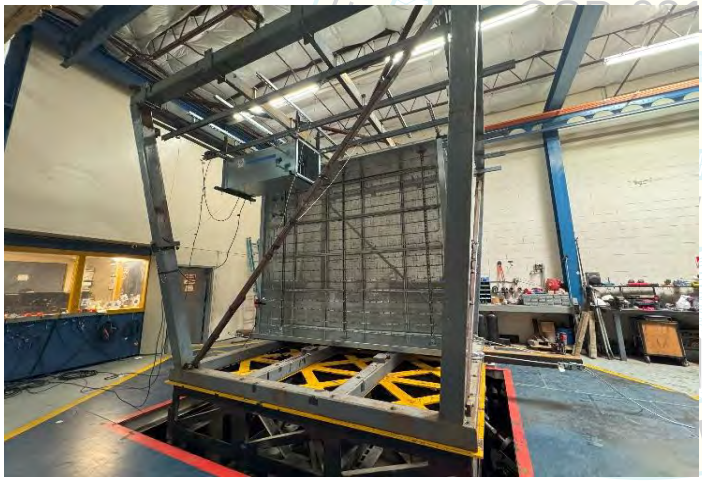
Test Criteria

ICC-ES AC156

Construction/Option Summary

Unit mounted into a carbon steel duct section. The duct was ceiling mounted.

UUT Mounting Details:



UUT 67 was mounted into hanging duct. The duct was ceiling mounted with 3/4" threaded rod with four (4) SCB-4 Mason braces with 1-1/4" Grade 8 bolts. Details of unit attachment to duct on the next page.

[1]Depth between the filter rack and the dispersion portion of the unit is 24". [2]Weight includes dispersion unit, filter frame, and filters. Total weight including the duct was 1363 lbs.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions. UUT did not contact base of frame assembly throughout test and remained in a suspended configuration.

List of Included Subcomponents

Staging Valve (DriSteem):197100-125,6000832 Depressurization Valve (DriSteem):197100-005, Manifold Stick (DriSteem):902372-110 , Nozzle (Leader Spray Technology Co. Ltd): 270010-015, Manual Flow Control Valve (Apex Industrial Solutions):505005-001, Stagging - Depressurization Valve Coil (Danfoss A/S High Pressure Pumps):505086-007, Stagging - Depressurization Valve Body (Danfoss A/S High Pressure Pumps):505086-010, Final Evaporative Media Filter(MISTOP):FEM 29.5x29.5

UUT 67

Test Report# TR241629-01-R0 (UUT 6)

UUT Duct Mount Details:
Mounted in filter rack per Dristeem Seismic Certification Option IOM Manual

FIGURE 31-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION IN DUCT DISPERSION WITH MIST ELIMINATOR INSTALLATION (120" W X 120" H)

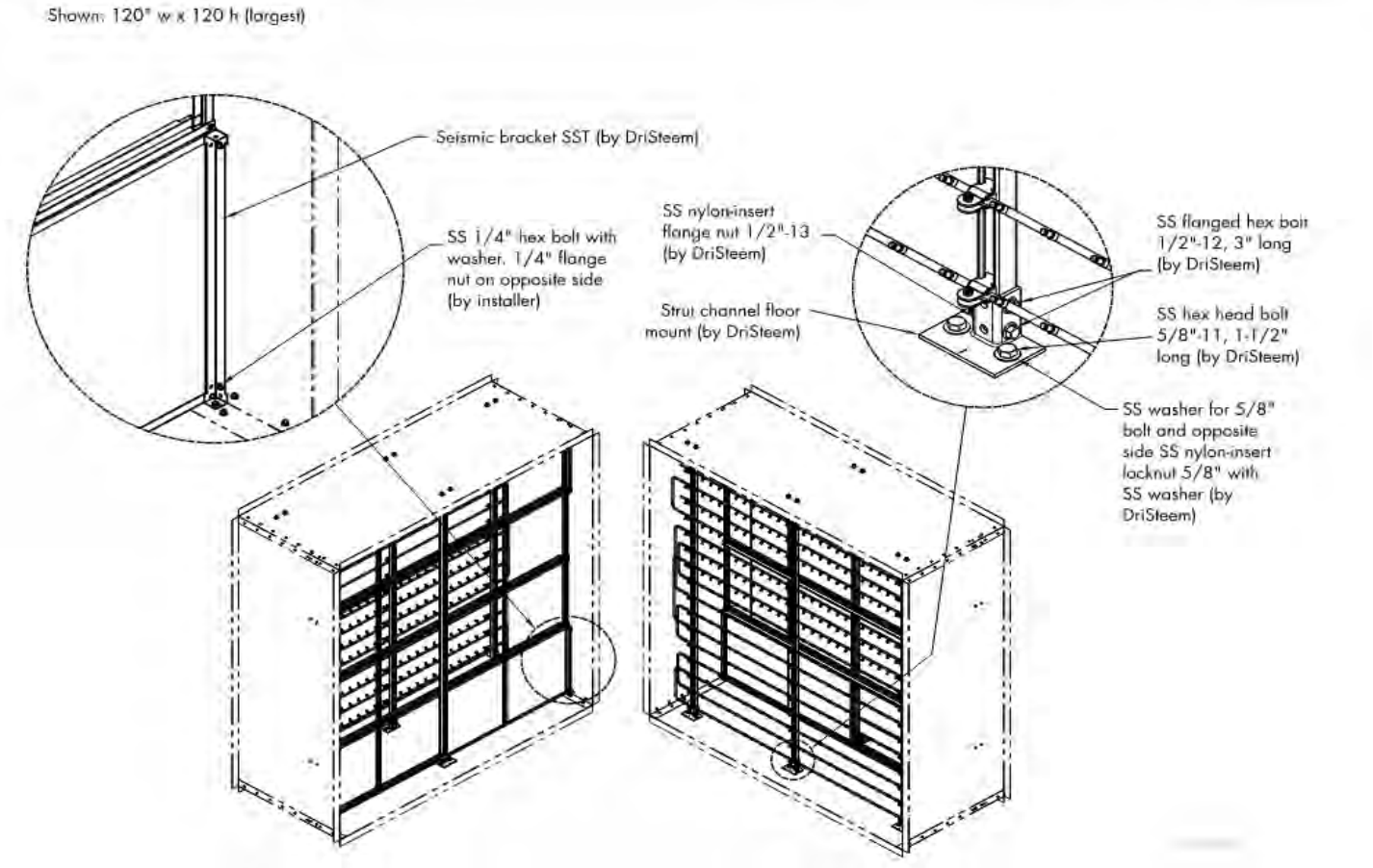
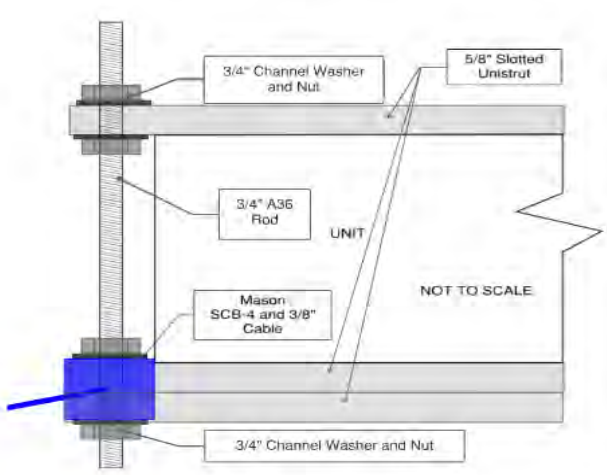
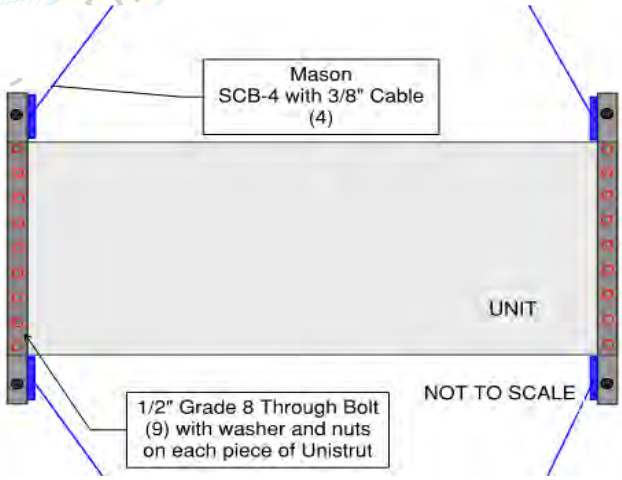


Image from Dristeem Seismic Certification IOM Manual

UUT 67

Test Report# TR241629-01-R0 (UUT 6)





Bottom of Unit

Seismic

Certification Option

Installation, Operation, and Maintenance Manual

Read and save these instructions

driSteem

Warnings and cautions

⚠ WARNING	CAUTION
Indicates a hazardous situation that could result in death or serious injury if instructions are not followed.	Indicates a hazardous situation that could result in damage to or destruction of property if instructions are not followed.

⚠ WARNING

Read all warnings and instructions

This page provides important safety instructions; it is intended to supplement — not replace — the humidifier's Installation, Operation, and Maintenance Manual (IOM). Read the IOM that was provided with the humidifier before performing service or maintenance procedures on any part of the system other than installing the Seismic Certification option. Failure to follow all warnings and instructions could produce the hazardous situations described here and in the IOM, resulting in property damage, personal injury, or death.

If the IOM is missing, go to www.dristeem.com to download a replacement.

Hot surfaces and hot water

Steam humidification systems have extremely hot surfaces, and water in tanks, electrode cylinders, steam pipes, and dispersion assemblies can be as hot as 212 °F (100 °C). To avoid severe burns, allow the entire humidification system to cool.

Follow the cool-down procedure in the humidifier's IOM before performing service or maintenance procedures on any part of the system.

Shut down the energy source

Before performing service or maintenance procedures on any part of the humidification system, verify that all energy sources are off. Energy sources can be electricity, gas, steam, or hot liquid. Failure to shut down the energy source could result in carbon monoxide poisoning, fire, explosion, electrical shock, and other hazardous conditions. These hazardous conditions could cause property damage, personal injury, or death.

Contact with energized circuits can cause property damage, severe personal injury or death as a result of electrical shock or fire. Do not remove the shroud/cover, electrical panel cover/door, access panels, or heater terminal cover until electrical power is disconnected.

Follow the shutdown procedure in the humidifier's IOM before performing service or maintenance procedures on any part of the system.

Electrical shock hazard

If the humidifier starts up at a call for humidity during maintenance, severe bodily injury or death from electrical shock could occur. To prevent such start-up, follow the procedure below before performing service or maintenance procedures on this humidifier (after the tank has cooled down and drained):

1. Use the Vapor-logic keypad to change the control mode to Standby.
2. Shut off all electrical power to the humidifier using the field-installed fused disconnect, and lock all power disconnect switches in the OFF position.
3. Close the field-installed manual water supply shut-off valve.

⚠ CAUTION

Damage from hot discharge water

Discharge water can be as hot as 212 °F (100 °C) and can damage the drain plumbing.

If the humidifier is equipped with a water tempering device such as a DriSteem Drane-kooler™, it needs fresh make-up water in order to function properly. Make sure the water supply to the Drane-kooler remains open during draining.

If the humidifier is not equipped with a water tempering device, allow the tank to cool before opening the drain valve.

Table of contents

DriSteem humidification systems listed in this manual meet HCAI Seismic Certification Preapproval (OSP) requirements for healthcare facilities in California. These requirements also satisfy IBC 2015 and ICC-ES AC-156 test criteria throughout North America.

DriSteem's Seismic Certification option validates that the product meets OSP criteria for preapproval. It is available for specific configurations of GTS LX series, STS, RTS, Vapormist, Vaporstream, XT (humidifiers and steam blowers), Mini-bank, Ultra-sorb, and High-pressure atomization systems.

The HCAI and IBC certificates are available on www.dristeem.com.

GTS humidifier LX series: Floor mount installation drawing

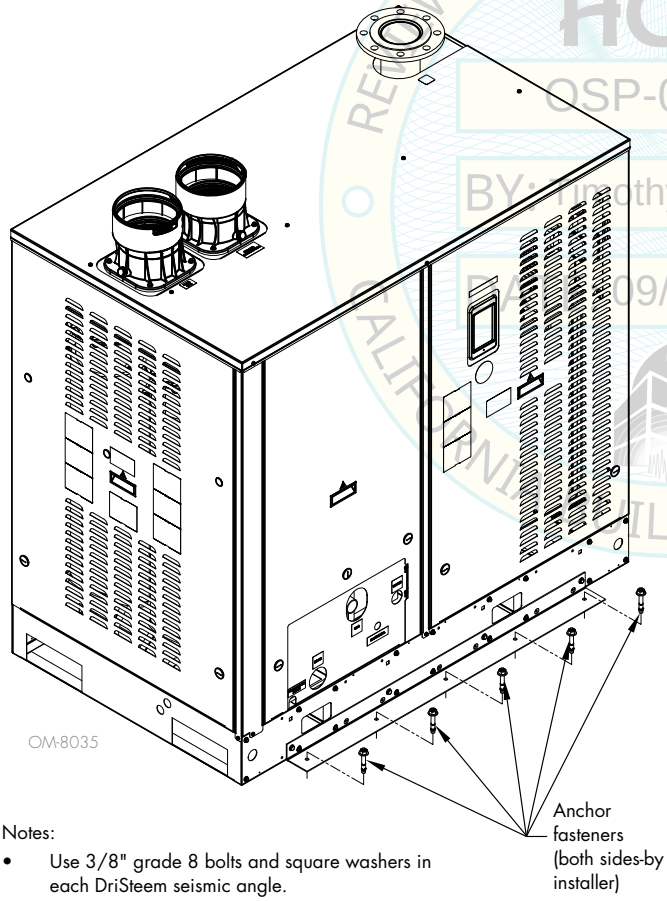
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the GTS humidifier LX series IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 2-1 and Figure 2-2.

NOTE: Use 3/8" grade 8 bolts and square washers in each DriSteem seismic angle.

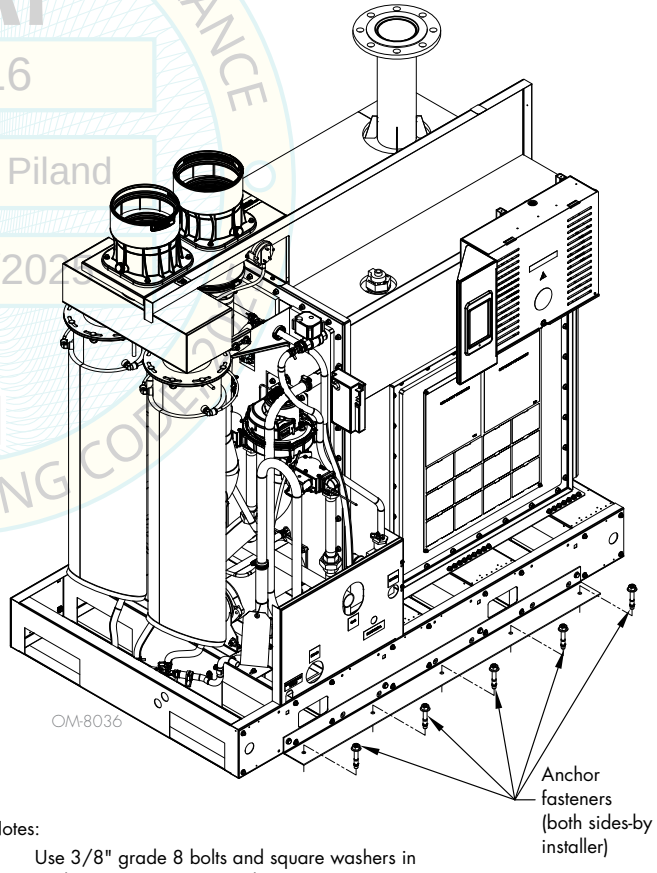
FIGURE 2-1: LX SERIES FLOOR MOUNT SEISMIC CERTIFICATION WITH ENCLOSURE OPTION INSTALLATION



Notes:

- Use 3/8" grade 8 bolts and square washers in each DriSteem seismic angle.
- Confirm the door of unit is attached with quarter-turn before operating.

FIGURE 2-2: LX SERIES FLOOR MOUNT SEISMIC CERTIFICATION NO ENCLOSURE OPTION INSTALLATION



Notes:

- Use 3/8" grade 8 bolts and square washers in each DriSteem seismic angle.

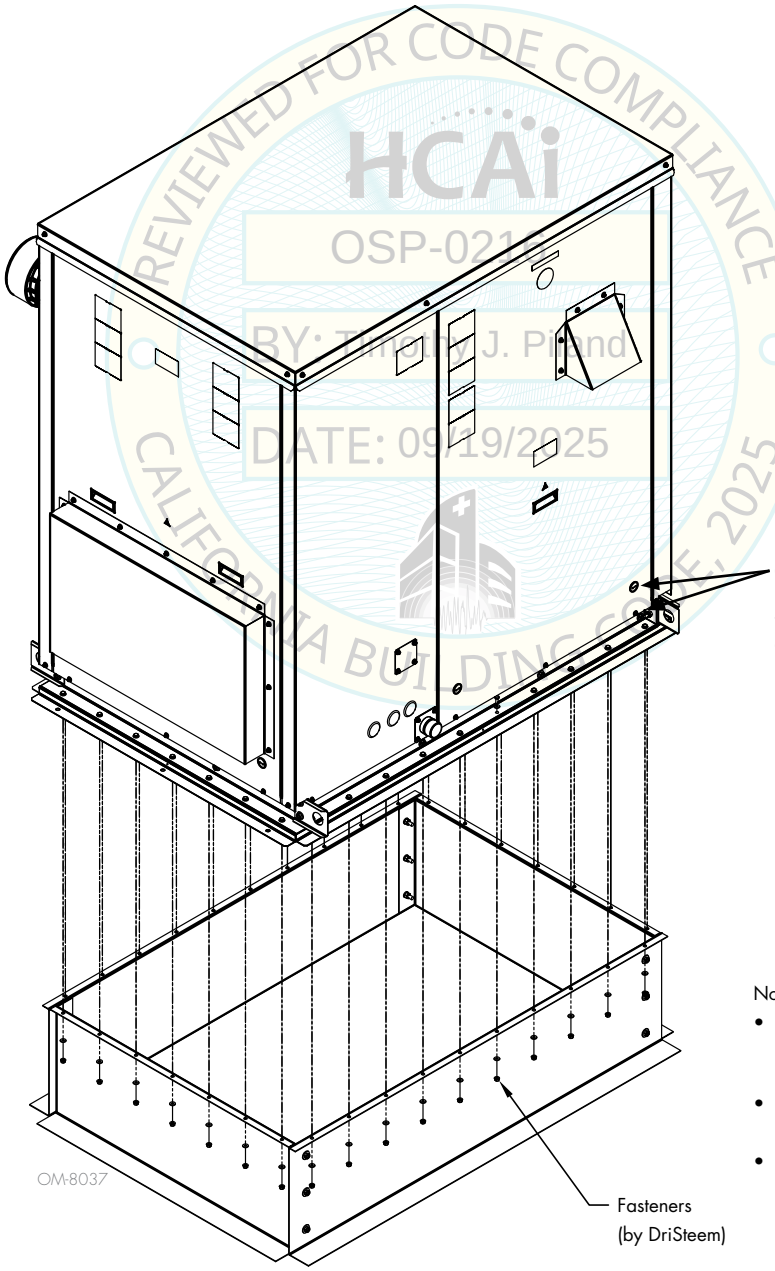
GTS humidifier LX series: Outdoor enclosure installation drawing

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the GTS humidifier LX series IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 3-1.

FIGURE 3-1: LX SERIES OUTDOOR ENCLOSURE SEISMIC CERTIFICATION CURB MOUNT OPTION INSTALLATION



Notes:

- Curb must be mounted to structure with 3/8" Grade 8 bolts and washers, spaced evenly around the perimeter every 6" on center.
- Confirm the door of unit is attached with both quarter-turn and screws before operating.
- Use a continuous bead of RTV adhesive between the curb and the humidifier.

STS-25 through STS-100 floor mount installation drawing

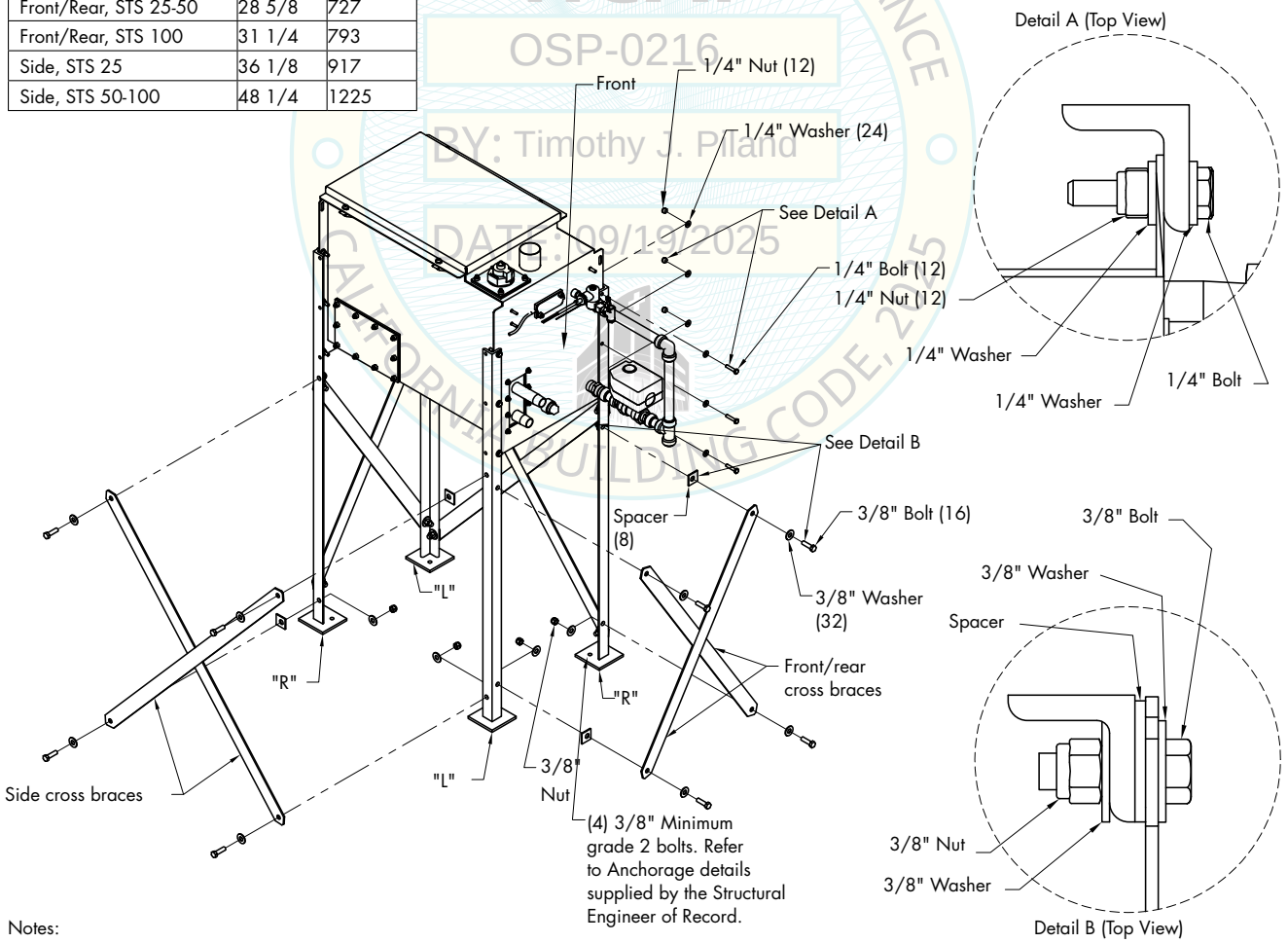
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the STS IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 4-1 and the installation steps on the next page.

FIGURE 4-1: STS-25 THROUGH STS-100 FLOOR MOUNT SEISMIC CERTIFICATION OPTION INSTALLATION

Crossbrace	Length	
	in	mm
Front/Rear, STS 25-50	28 5/8	727
Front/Rear, STS 100	31 1/4	793
Side, STS 25	36 1/8	917
Side, STS 50-100	48 1/4	1225



Notes:

1. The height from floor to bottom of tank is 32 1/8 in (815 mm).
2. All hardware shown supplied by DriSteem.
3. All cabinet mounted keypads require captive bracket. All controllers require captive standoffs.

DM-11911

STS-25 through STS-100 floor mount installation steps

1. Attach legs to tank assembly. See Detail A in Figure 4-1.
   a. Identify "Front Right" and "Back Left" leg weldments. The side of the humidifier with the drain assembly and heat exchanger connections is the front. The two leg weldments with "R" marked on the bottom of the feet are used in these locations. Holding the leg weldments so that the angle iron is in the shape of an "L" when looking at it from the top, these have the fourth hole closer to the third hole on the horizontal part of the "L". Reference Figure 2-1 for proper locations.
   b. The other two weldments, marked "L" on the bottom of the feet, are used in the "Front Left" and "Back Right" locations. See Figure 2-1 for back view callout. Callout will help orientation during installation.
   c. Use supplied 1/4"-20 x 1/4" bolts to attach leg weldments to tank. Use all three bolt locations on all legs.
   d. Leave these bolts loose until after cross braces are completely assembled and tightened in step 2.
2. Attach cross braces to legs. See Detail B in Figure 4-1.
   a. Attach cross braces to legs as shown. Use three square spacers on each side of the outer cross braces to prevent bowing.
   b. Torque all cross brace bolts to 30 ft-lbs (40 N-m).
3. Torque all leg bolts to 8 ft-lbs (10 N-m).
4. Attach legs to support structure using all four bolt hole locations and in accordance to instructions by the Structural Engineer of Record.
5. Refer to the STS IOM for all other installation, operation, and maintenance instructions.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

STS-200 through STS-800 floor mount installation drawing

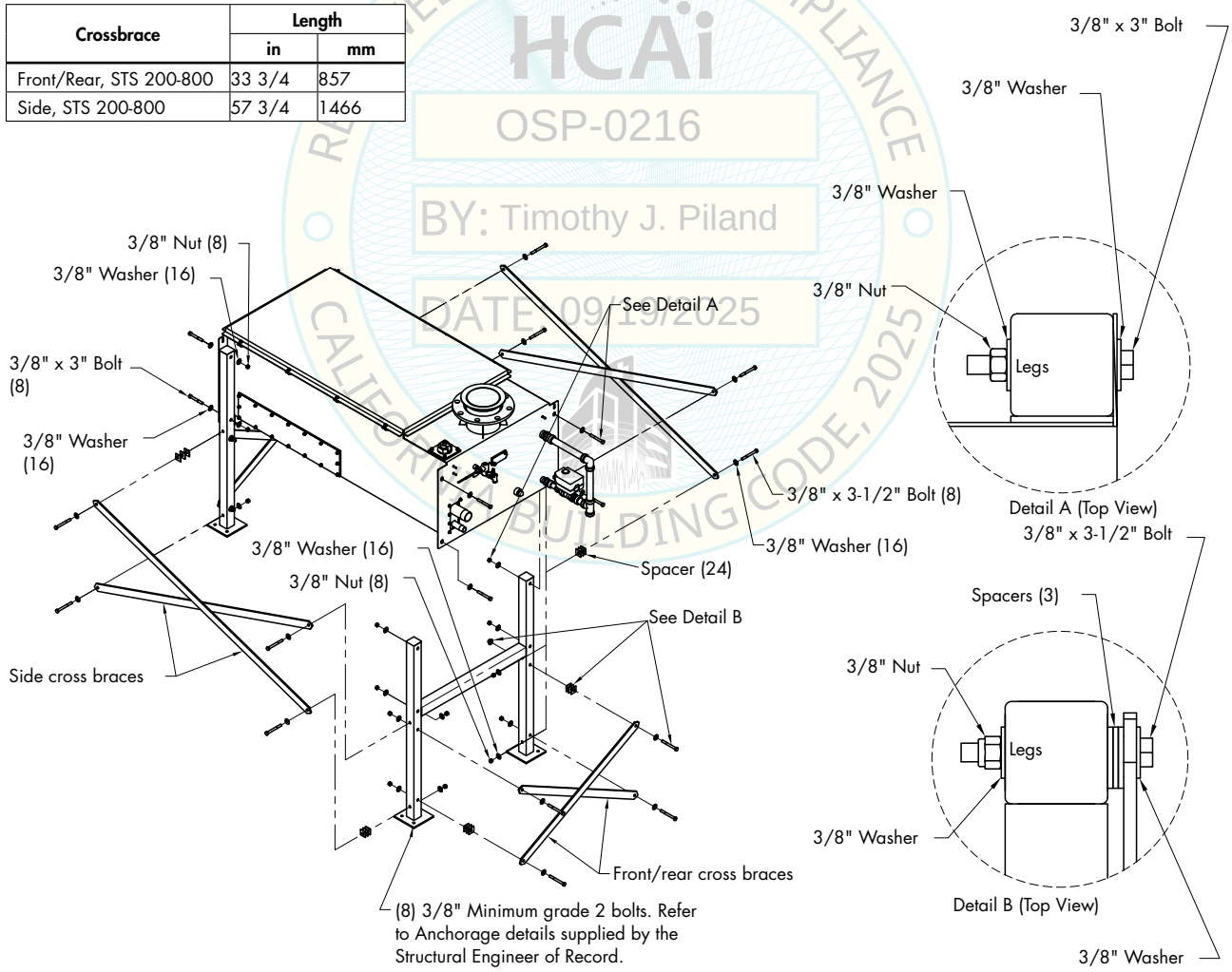
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Steam-to-Steam (STS® humidifier) IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 6-1 and the installation steps on the next page.

FIGURE 6-1: STS-200 THROUGH STS-800 FLOOR MOUNT SEISMIC CERTIFICATION OPTION INSTALLATION

Crossbrace	Length	
	in	mm
Front/Rear, STS 200-800	33 3/4	857
Side, STS 200-800	57 3/4	1466



Notes:

1. The height from floor to bottom of tank is 23 7/8 in (606 mm).
2. All hardware shown supplied by DriSteem.
3. All cabinet mounted keypads require captive bracket. All controllers require captive standoffs.

DM-11912

STS-200 through STS-800 floor mount installation steps

1. Attach legs to tank assembly. See Detail A in Figure 6-1.
   a. Use supplied 3/8" x 3" bolts to attach leg weldments to tank. Use both bolt locations on all legs.
   b. Leave these bolts loose until after cross braces are completely assembled and tightened in step 2.
2. Attach cross-braces to legs. See Detail B in Figure 6-1.
   a. Use supplied 3/8" x 31/2" bolts to attach cross braces to legs as shown. Use three square spacers on each side of the outer cross braces to prevent bending.
   b. Torque all cross-brace bolts to 30 ft-lbs (40 N-m).
3. Torque all leg bolts to 30 ft-lbs (40 N-m).
4. Attach legs to support structure using all eight bolt hole locations and in accordance to instructions by the Structural Engineer of Record.
5. Refer to the STS IOM for all other installation, operation, and maintenance instructions.

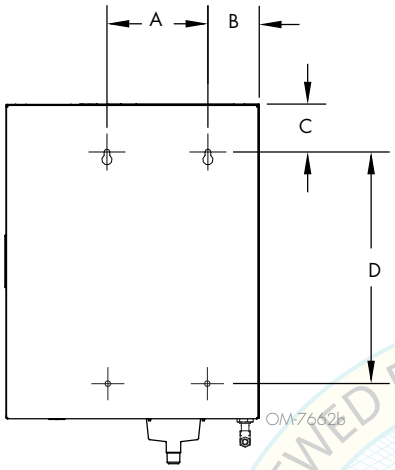
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

XT series humidifier: Indoor mounting

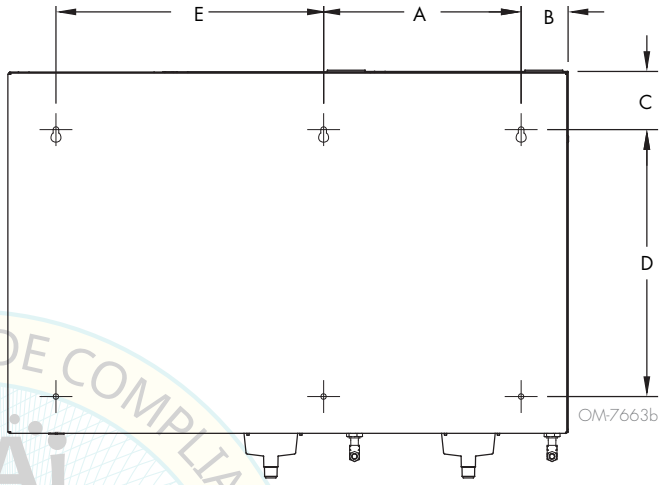
FIGURE 8-1: XT SERIES HUMIDIFIER SEISMIC CERTIFICATION OPTION WALL MOUNT INSTALLATION

Models XTS / XTP 002 through 048



Mounting hardware to be (four) 3/8" diameter grade 2 (minimum) bolts with washers, lock washers, and nuts.

Models XTP 050 through 096



Mounting hardware to be (six) 3/8" diameter grade 2 (minimum) bolts with washers, lock washers, and nuts.

Note: Refer to the anchorage details supplied by the Structural Engineer of Record

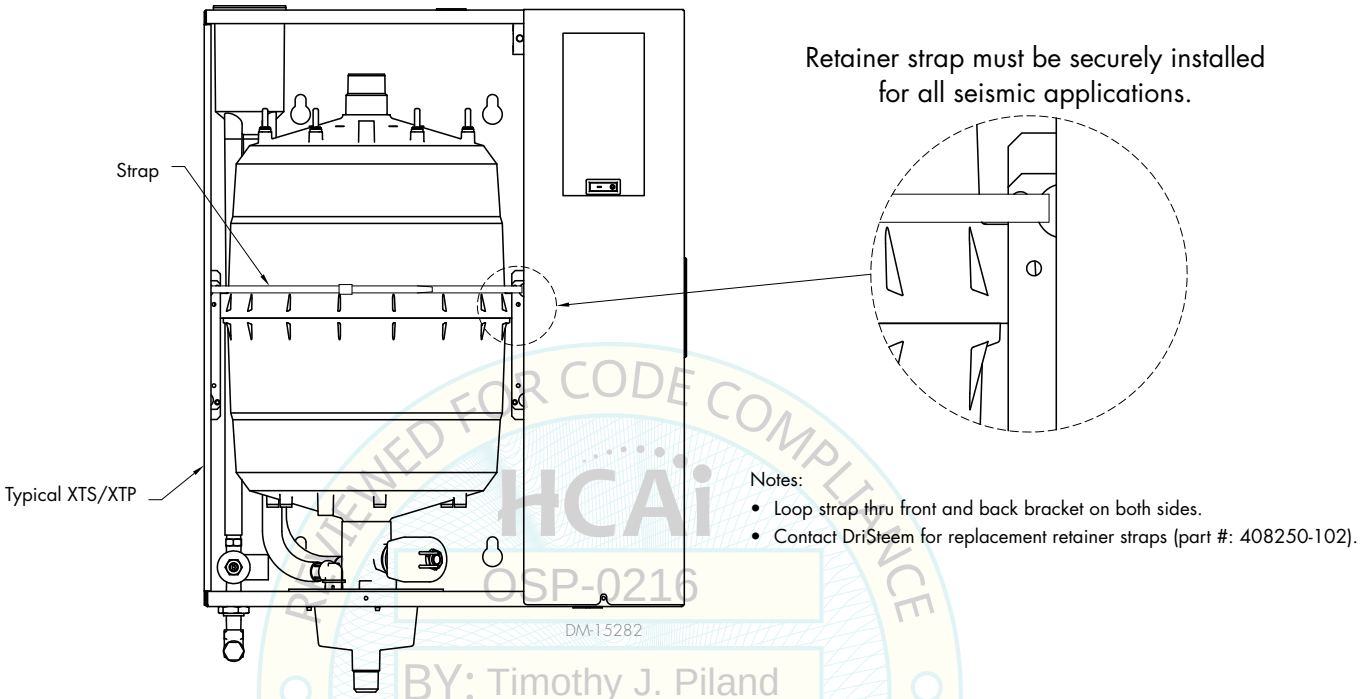
Table 8-1:
XT Series humidifier mounting keyhole dimensions

Dimension	Model XTS / XTP							
	002, 003, 006		010, 017		025, 033, 042, 048		050*, 067*, 083*, 096*	
	inches	mm	inches	mm	inches	mm	inches	mm
A	3.9	100	7.1	180	7.5	190	14.0	356
B	3.0	75	3.6	92	3.4	86	3.3	84
C	3.2	81	4.4	112	4.1	104	4.1	104
D	14.0	355	16.3	414	18.9	480	18.9	480
E	—	—	—	—	—	—	19.0	483

* Model XTP only

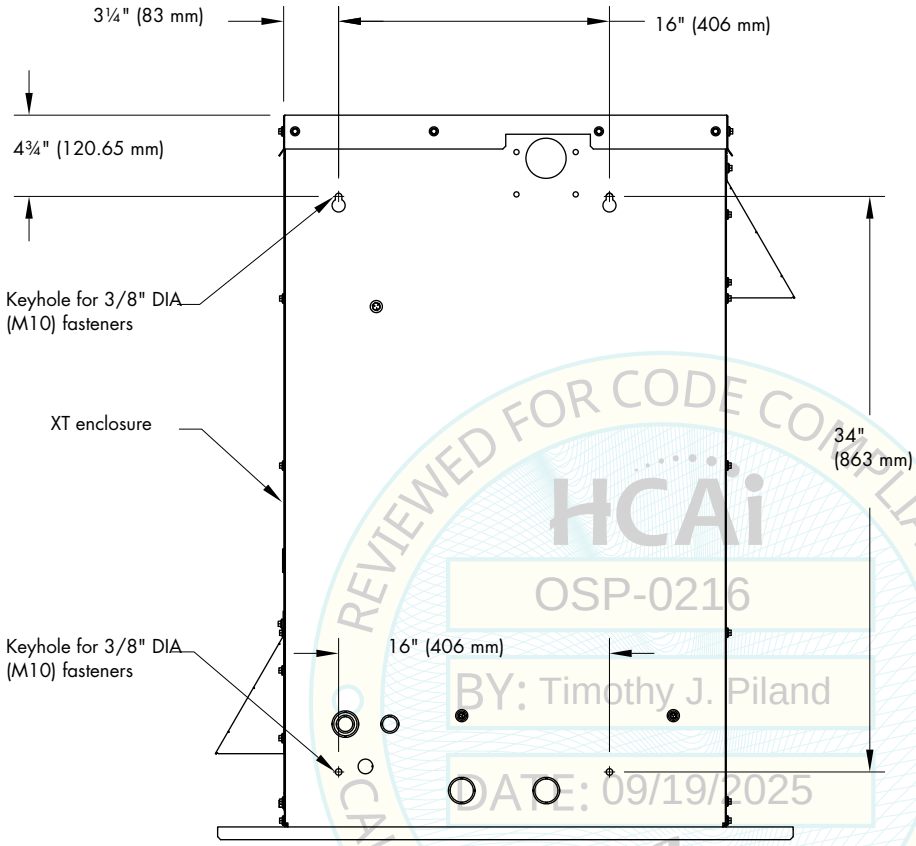
XT series humidifier: Indoor mounting

FIGURE 9-1: SEISMIC CERTIFICATION RETAINING STRAP INSTALLATION



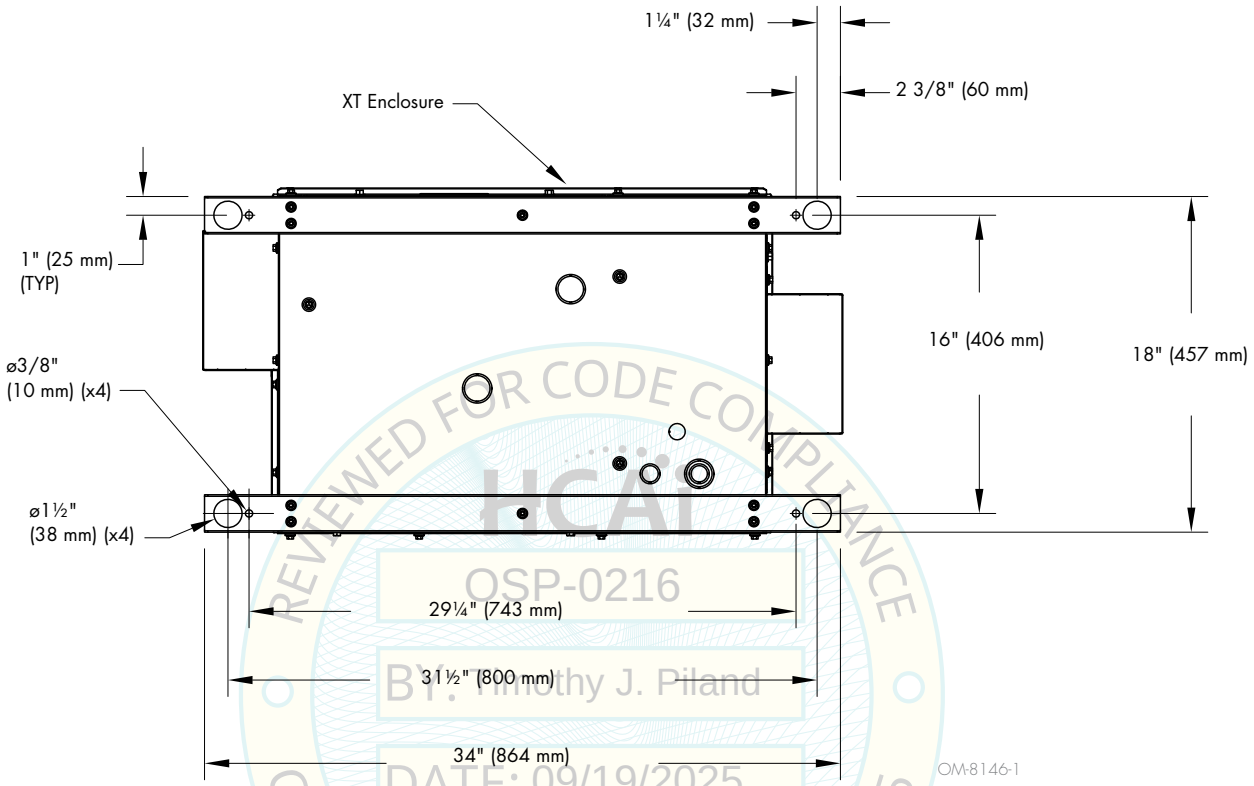
XT series humidifier: Outdoor mounting

FIGURE 10-1: OUTDOOR ENCLOSURE



XT series humidifier: Outdoor mounting

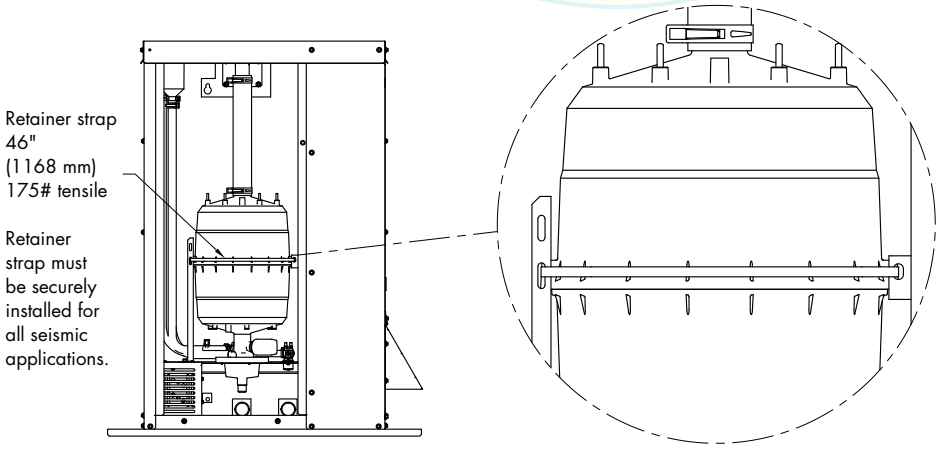
FIGURE 11-1: XT OUTDOOR MOUNTING DIMENSIONS



NOTES:
For all outdoor mounting methods:

- Mounting hardware to be four 3/8" diameter grade 8 bolts and washers.
- A rigid and structurally sound wall or equipment rails are required. Consult with the Structural Engineer on Record to determine acceptability of mounting structure.

FIGURE 11-2: XT OUTDOOR MOUNTING



NOTES:

- Loop strap through all slots on both side cylinder stabilizing brackets.
- Contact DriSteem for replacement retainer straps (part #: 408250-102).

RTS humidifier RX series: Mounting installation drawing

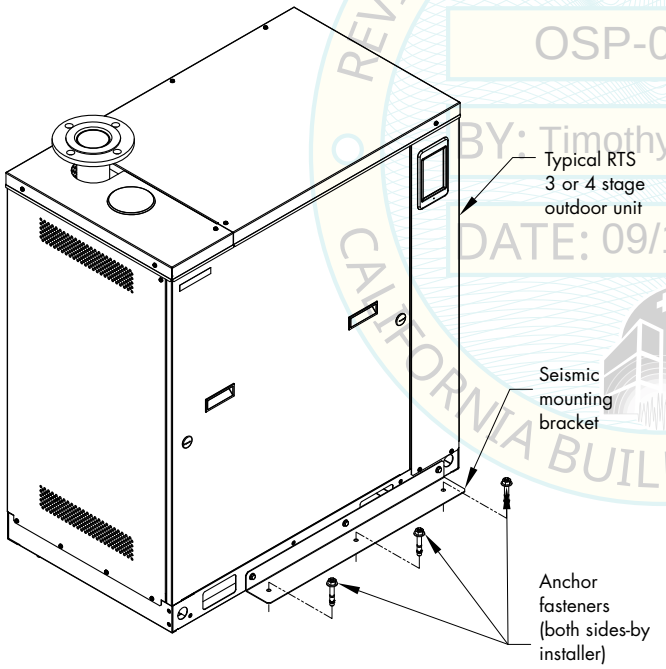
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the RTS humidifier RX series IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 12-1 and Figure 12-2.

NOTE: Use 3/8" grade 8 bolts and washers for mounting.

FIGURE 12-1: RX-XX-3 AND RX-XX-4 INDOOR FLOOR MOUNT SEISMIC CERTIFICATION INSTALLATION

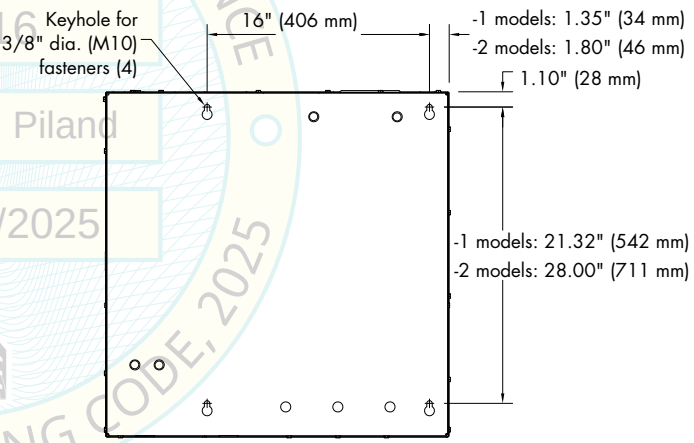


OM-8145

Notes:

- Use 3/8" grade 8 bolts and washers in each DriSteem seismic bracket.
- Confirm the door of unit is attached with quarter-turn before operating.

FIGURE 12-2: RX-XX-1 AND RX-XX-2 INDOOR WALL MOUNT SEISMIC CERTIFICATION INSTALLATION



OM-8043

Notes:

- Use 3/8" grade 8 bolts and washers in each keyhole.
- Confirm the door of unit is attached with quarter-turn before operating.

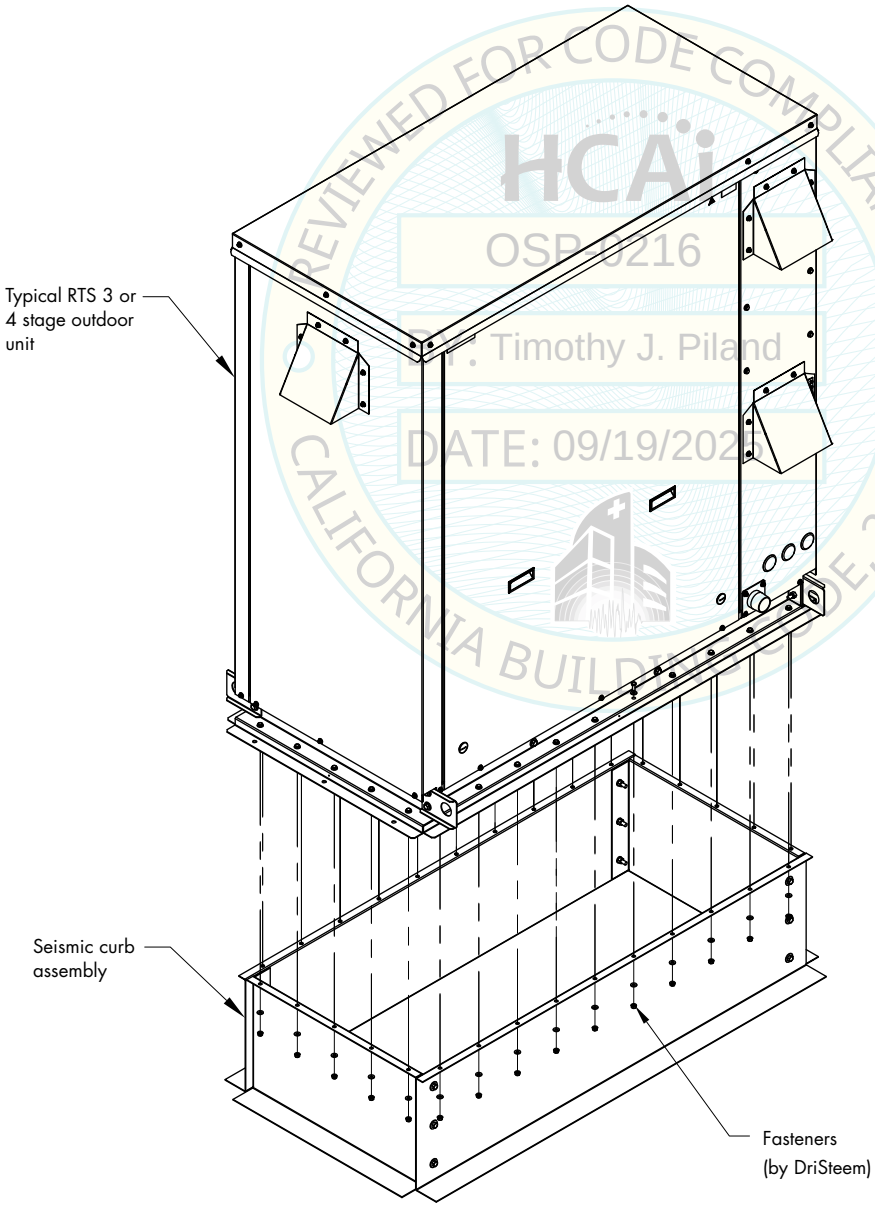
RTS humidifier RX series: Outdoor enclosure installation drawing

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the RTS humidifier RX series IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 13-1.

FIGURE 13-1: RX SERIES OUTDOOR ENCLOSURE SEISMIC CERTIFICATION CURB MOUNT OPTION INSTALLATION



Notes:

- Curb must be mounted to structure with 3/8" Grade 8 bolts and washers, spaced evenly around the perimeter every 6" on center.
- Confirm the door of unit is attached with both quarter-turn and screws before operating.
- Use a continuous bead of RTV adhesive between the curb and the humidifier.
- When base mounting with no curb, mount with six 3/8" Grade 8 bolts and washers

OM-8144

Vaporstream: Floor mount installation drawing

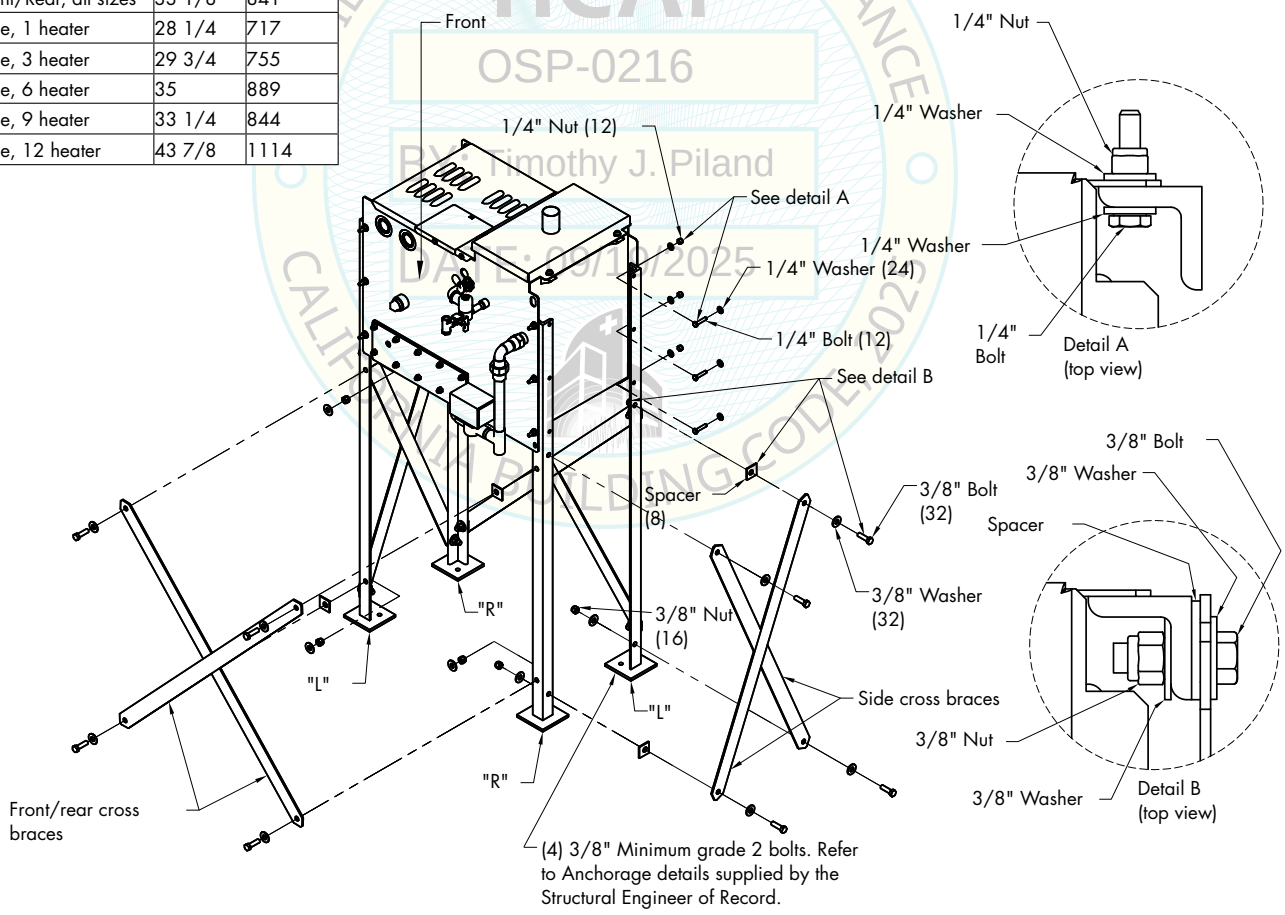
⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Vaporstream® IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 14-1 and the installation steps on the next page.

FIGURE 14-1: VAPORSTREAM FLOOR MOUNT SEISMIC CERTIFICATION OPTION INSTALLATION

Crossbrace	Length	
	in	mm
Front/Rear, all sizes	33 1/8	841
Side, 1 heater	28 1/4	717
Side, 3 heater	29 3/4	755
Side, 6 heater	35	889
Side, 9 heater	33 1/4	844
Side, 12 heater	43 7/8	1114



Notes:

1. The two leg weldments with "R" marked on the bottom of the feet are used in these locations. Holding the leg weldments so that the angle iron is in the shape of an "L" when looking at it from the top, these have the fourth hole closer to the third hole on the vertical part of the "L".
2. The height from floor to bottom of tank is 30 ½ in (774 mm).
3. All hardware shown supplied by DriSteem.
4. All cabinet mounted keypads require captive bracket. All controllers require captive standoffs.

DM-11906

Vaporstream: Floor mount installation steps

1. Attach legs to tank assembly - See Detail A in Figure 14-1.
   a. Vaporstream with remote control cabinet - identify “Front Right” and “Back Left” leg weldments. Side of the tank with drain assembly and clean-out plate is front.
      - Weldments marked "L" on the bottom of feet are used in “Front Left” and “Back Right” locations.
      - Use 1/4"-20 x 1¼" bolts to attach leg weldments to tank. Use all three bolt locations on all legs.
      - Leave these bolts loose until after cross braces are completely assembled and tightened (Step 2).
   b. Vaporstream with control cabinet factory mounted on humidifier - identify “Front Right” and “Back Left” leg weldments. Side of the tank with drain assembly and clean-out plate is considered front. See Figure 14-1 for front view callout. Callout will help orientation during installation.
      - Remove the control cabinet from tank and support it within range of motion the flexible conduit allows.
      - Two weldments, marked "L" on the bottom of feet, are used in “Front Left” and “Back Right” locations.
      - Use included 1/4”-20 x 1¼” bolts to attach leg weldments to tank. Use all three bolt locations on all legs.

      Note: Available space between control cabinet brackets and tank flange is tight. It is recommended to insert bolts and washers though the holes in leg assembly and tape them in place before assembling them to tank. Once washers and nuts are started on bolts, tape can be removed.

      - Leave bolts loose until after cross braces are completely assembled and tightened (Step 2).
2. Attach cross-braces to legs - See Detail B in Figure 14-1.
   a. Use square spacers on one of each side's set of cross-braces. Vaporstream with control cabinet factory mounted on humidifier:
      - Attach the cross-braces on the control cabinet side.
      - Attach cross-braces to legs.
      - Depending on tank and control cabinet size there may be slots in the control cabinet support brackets. Insert cross-braces through slots.
      - Torque all cross brace bolts to 30 ft-lbs (40.7 N-m).
      - Replace control cabinet onto tank.
3. Torque all leg bolts to 8 ft-lbs (10.8 N-m).
4. Attach legs to support structure using all four bolt hole locations and in accordance with instructions by the Structural Engineer of Record.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

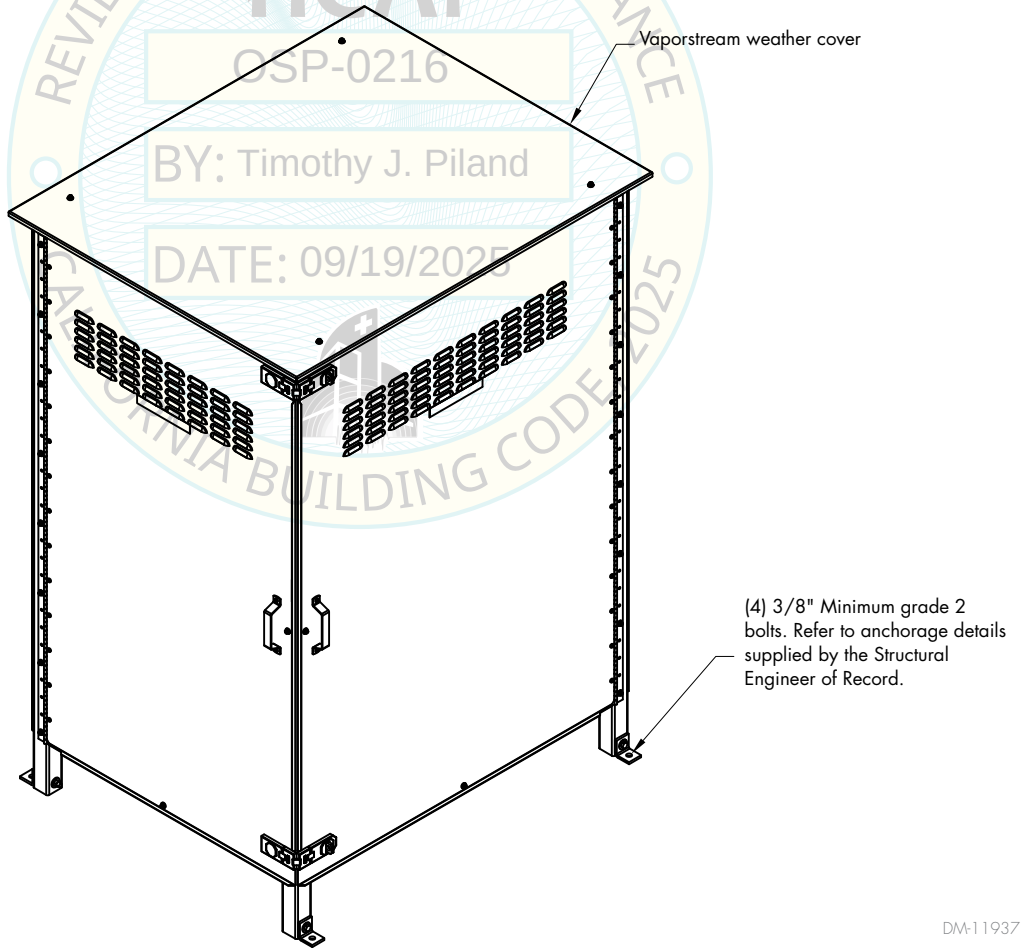
Vaporstream: Weather cover installation drawing

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Vaporstream IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 16-1.

FIGURE 16-1: VAPORSTREAM WEATHER COVER SEISMIC CERTIFICATION OPTION INSTALLATION



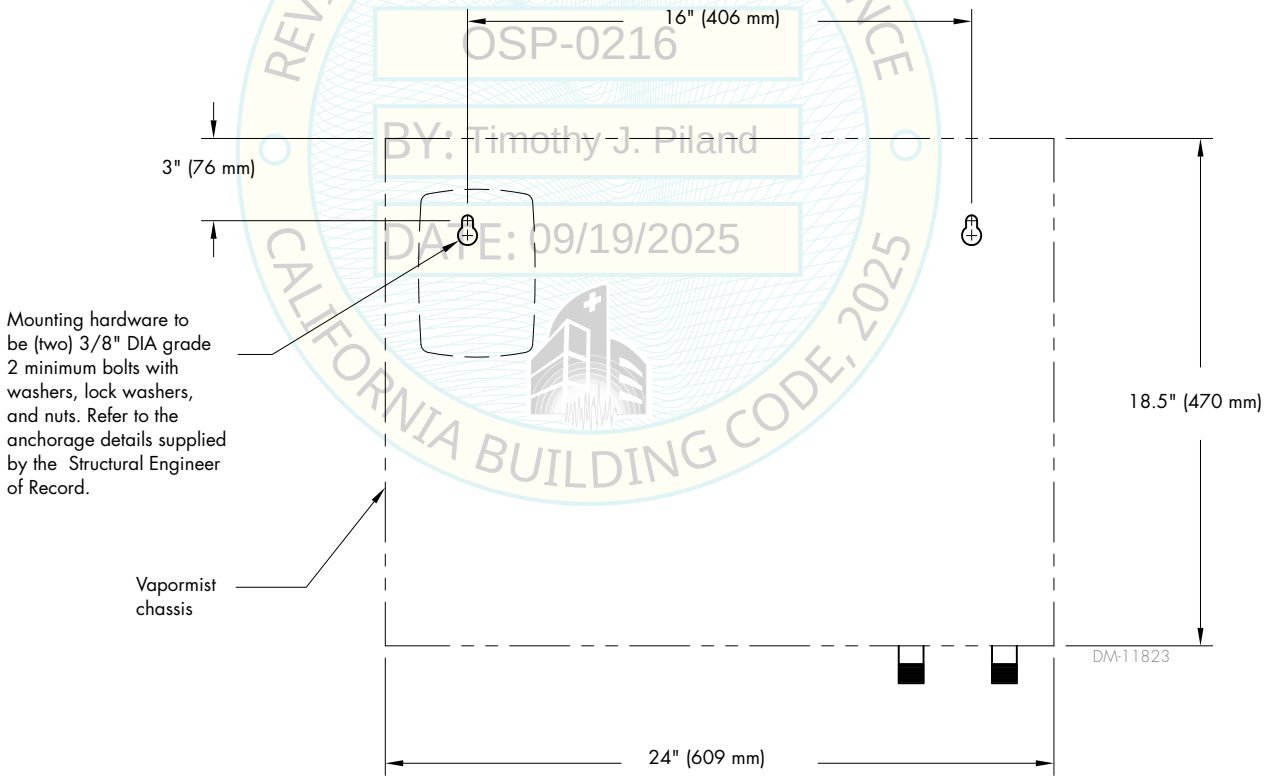
Vapormist: Wall mount installation drawing

Refer to the Vapormist® IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 17-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 17-1: VAPORMIST SEISMIC CERTIFICATION OPTION WALL MOUNT INSTALLATION



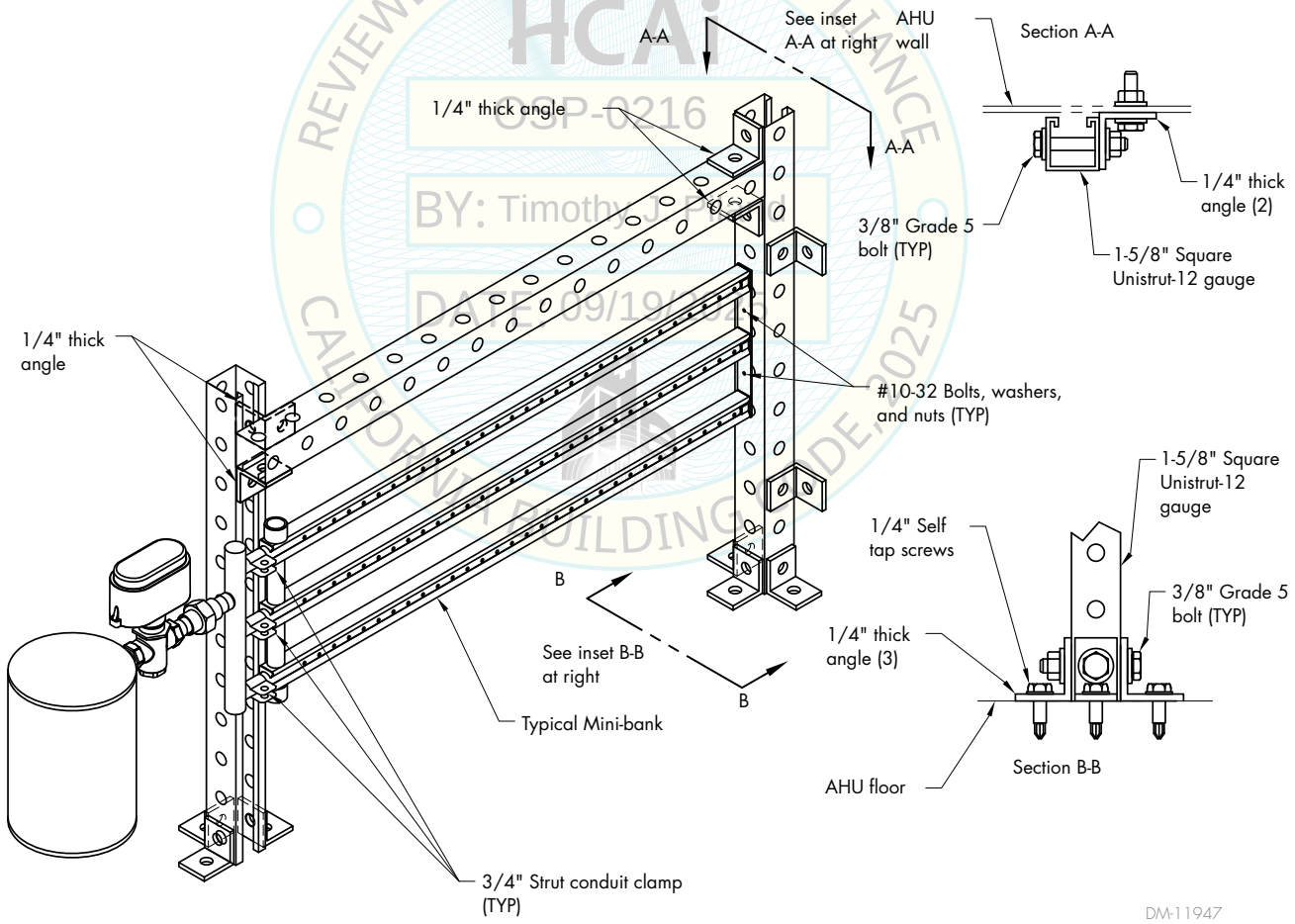
Mini-bank: Installation drawing in an air handling unit

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Steam Injection IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 18-1.

FIGURE 18-1: MINI-BANK SEISMIC CERTIFICATION OPTION INSTALLATION IN AN AIR HANDLING UNIT



Note: Use Nylon style locking nuts on all UniStrut hardware connections.

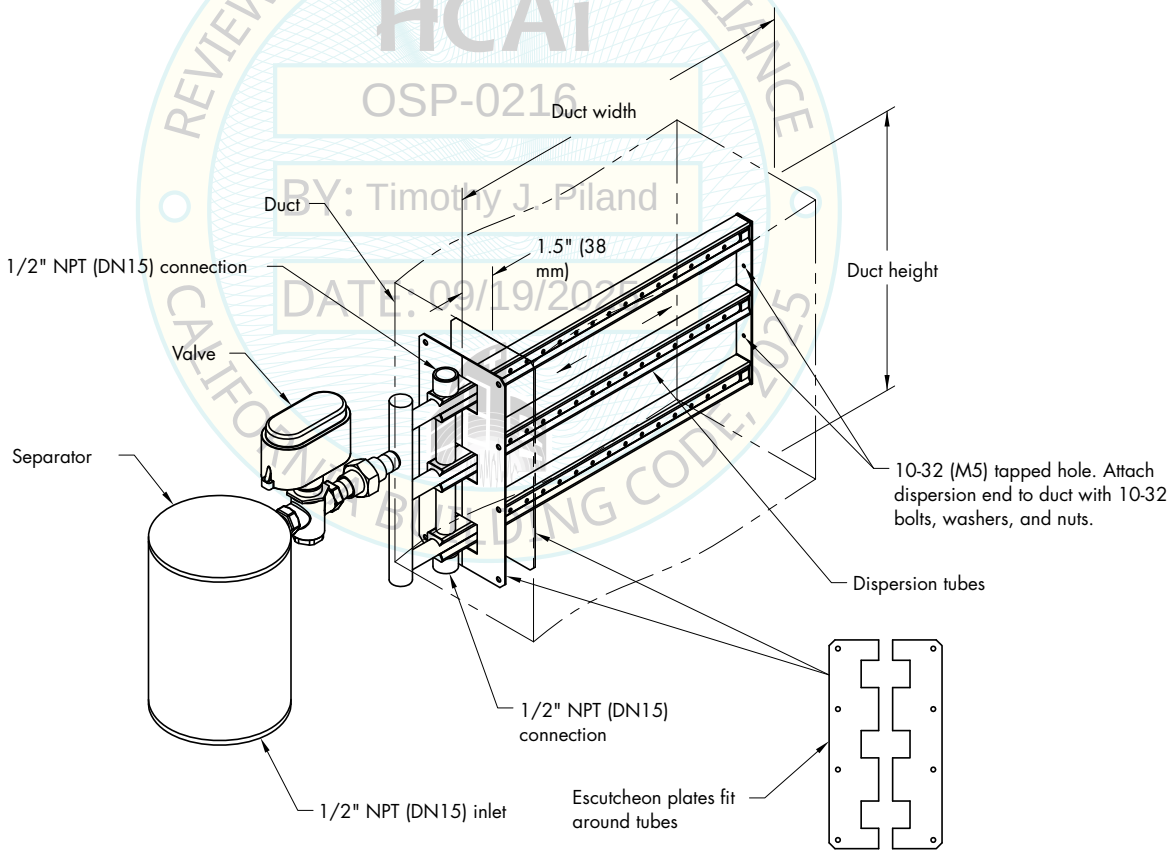
Mini-bank: Installation drawing in a duct

Refer to the Steam Injection IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 19-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 19-1: MINI-BANK SEISMIC CERTIFICATION OPTION INSTALLATION IN A DUCT



DM-11946

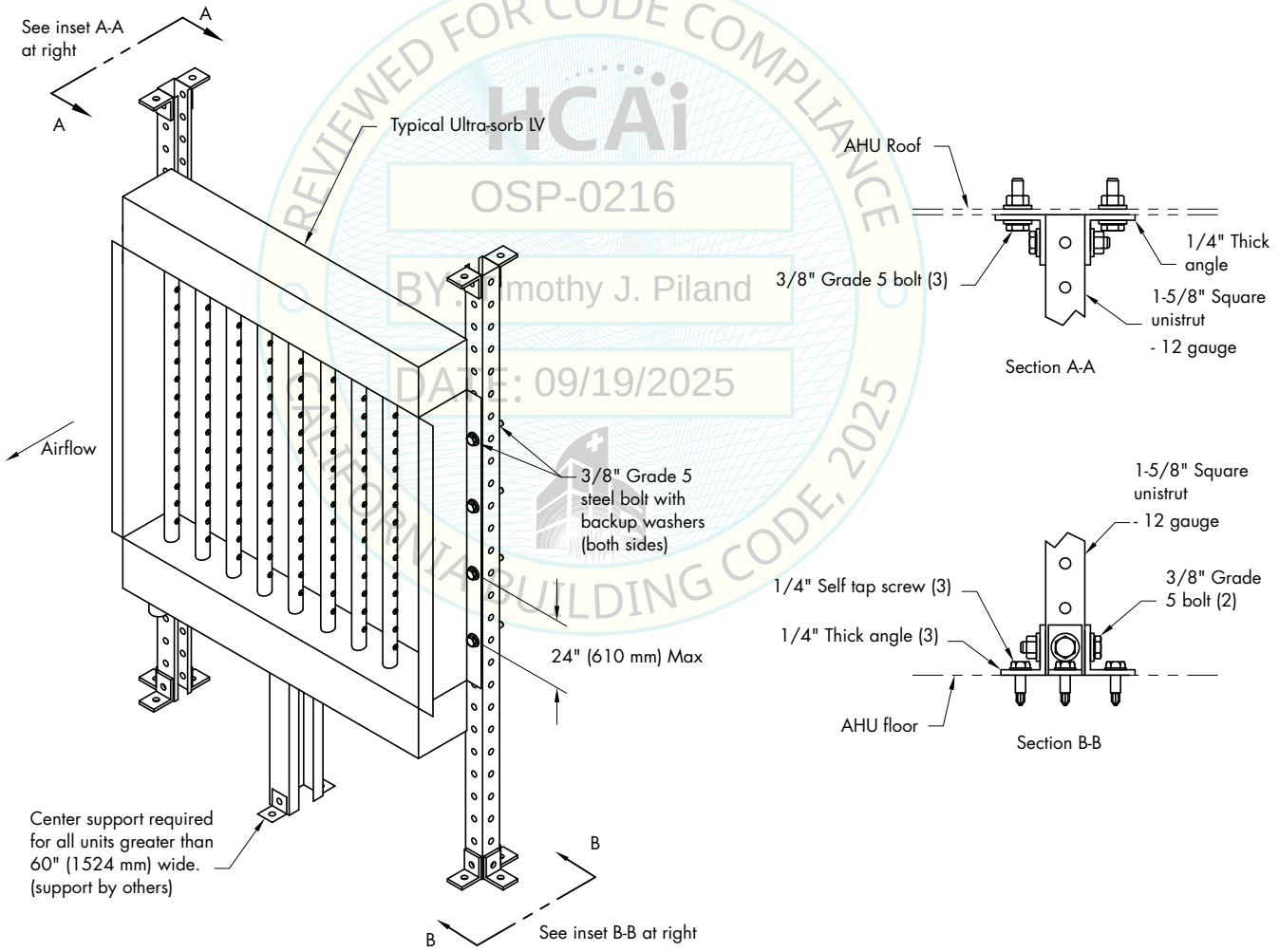
Ultra-sorb: Model LV Installation drawing in an air handling unit

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Ultra-sorb® Models LV and LH IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 20-1.

FIGURE 20-1: ULTRA-SORB MODEL LV SEISMIC CERTIFICATION OPTION INSTALLATION IN AN AIR HANDLING UNIT



DM-11805

Notes:

- Use Nylon style locking nuts on all UniStrut hardware connections.
- Air handling unit end wall or lateral bracing shall be spaced at no great than 96" (2438 mm) o.c.
- For center support, use 2" x 4" 16 ga. steel channel support or equivalent support mounted to the floor of the air handling unit using (4) #14-3/4" self tapping screws and (2) 1-1/2" 12 ga. stainless steel L-brackets.. Do not penetrate the return header enclosure with any fastener.

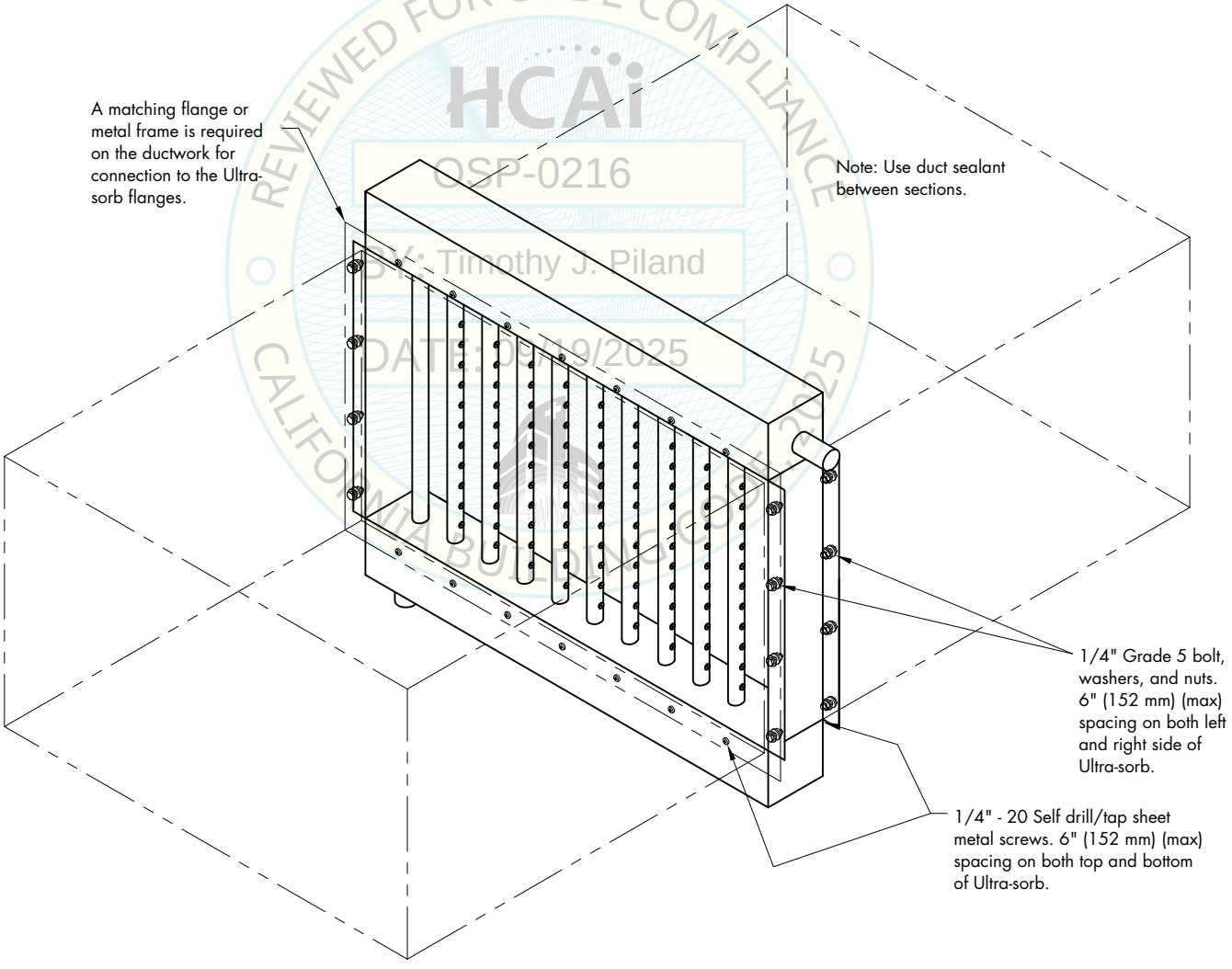
Ultra-sorb: Model LV Installation drawing in a duct

Refer to the Ultra-sorb Models LV and LH IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 21-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 21-1: ULTRA-SORB MODEL LV SEISMIC CERTIFICATION OPTION INSTALLATION IN A DUCT



Note:

- To avoid damaging the header, screws and drill bits must not penetrate more than 3/4" (20 mm) into the header assembly.

DM-11822

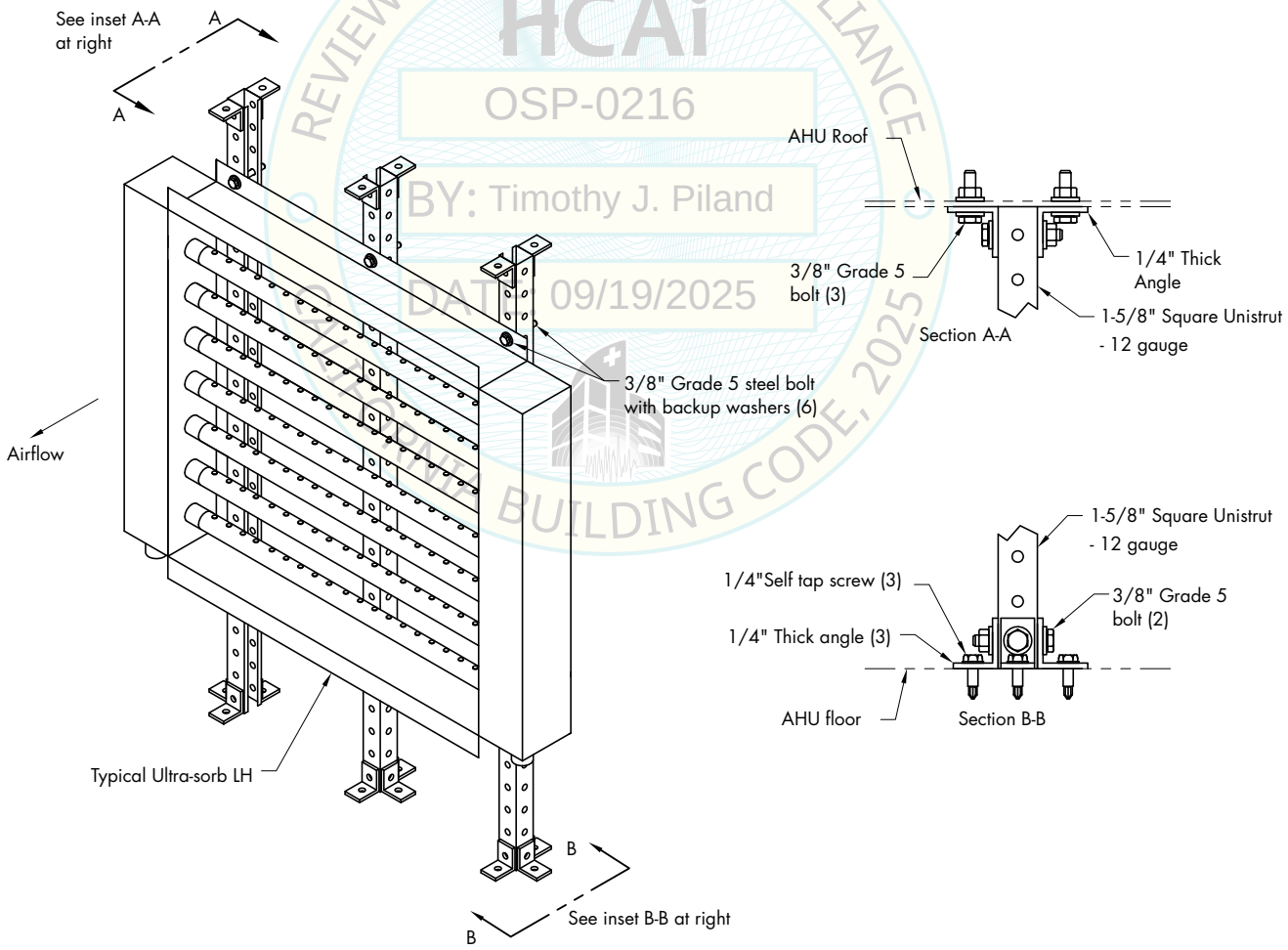
Ultra-sorb: Model LH Installation drawing in an air handling unit

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Ultra-sorb Models LV and LH IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 22-1.

FIGURE 22-1: ULTRA-SORB MODEL LH SEISMIC CERTIFICATION OPTION INSTALLATION IN AN AIR HANDLING UNIT



Notes:

- Use Nylon style locking nuts on all UniStrut hardware connections.
- Air handling unit end wall or lateral bracing shall be spaced at no great than 96" (2438 mm) o.c.

DM-11814

Ultra-sorb: Model LH Installation drawing in a duct

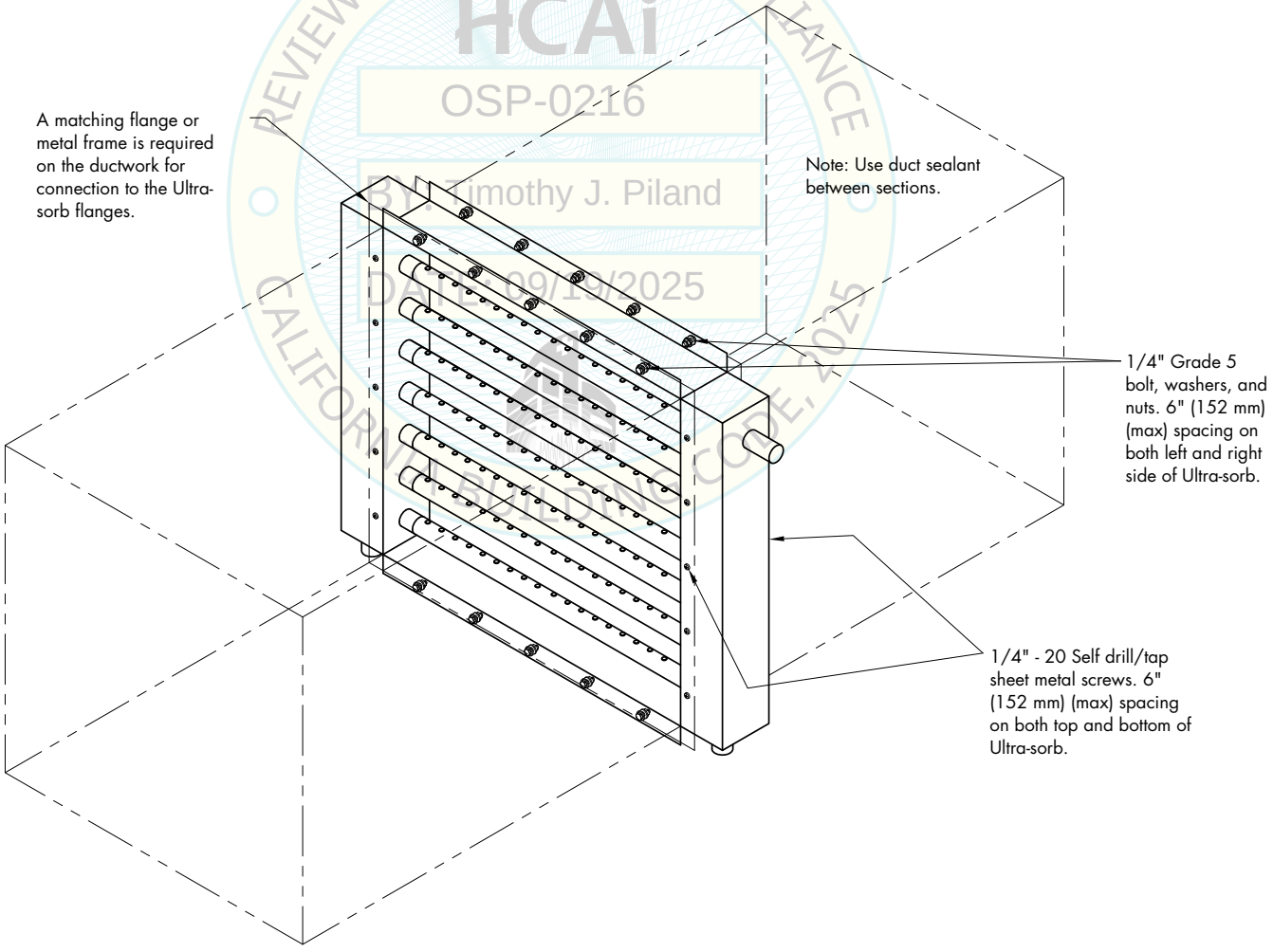
Refer to the Ultra-sorb Models LV and LH IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 23-1.

Note: For Model LH, seismic certification is only available with horizontal airflow.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 23-1: ULTRA-SORB MODEL LH SEISMIC CERTIFICATION OPTION INSTALLATION IN A DUCT



Note:

- To avoid damaging the header, screws and drill bits must not penetrate more than 3/4" (20 mm) into the header assembly.

DM-11829

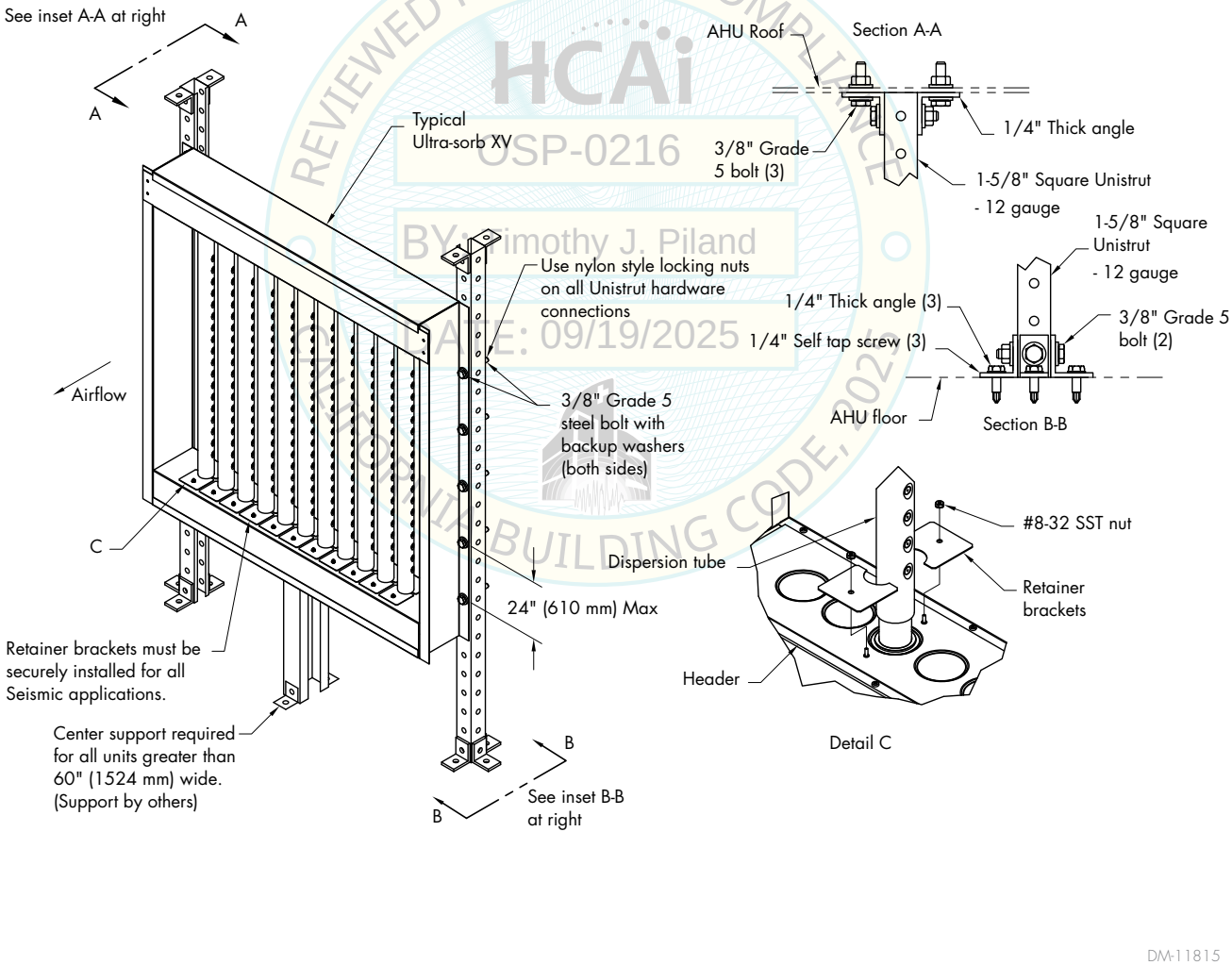
Ultra-sorb: Model XV Installation drawing in an air handling unit

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Ultra-sorb Model XV IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 24-1.

FIGURE 24-1: ULTRA-SORB MODEL XV SEISMIC CERTIFICATION OPTION INSTALLATION IN AN AIR HANDLING UNIT



Notes:

- Use Nylon style locking nuts on all UniStrut hardware connections.
- Air handling unit end wall or lateral bracing shall be spaced at no great than 96" (2438 mm) o.c.
- For center support, use 2" x 4" 16 ga. steel channel support or equivalent support mounted to the floor of the air handling unit using (4) #14-3/4" self tapping screws and (2) 1-1/2" 12 ga. stainless steel L-brackets. . Do not penetrate the supply header enclosure with any fastener.

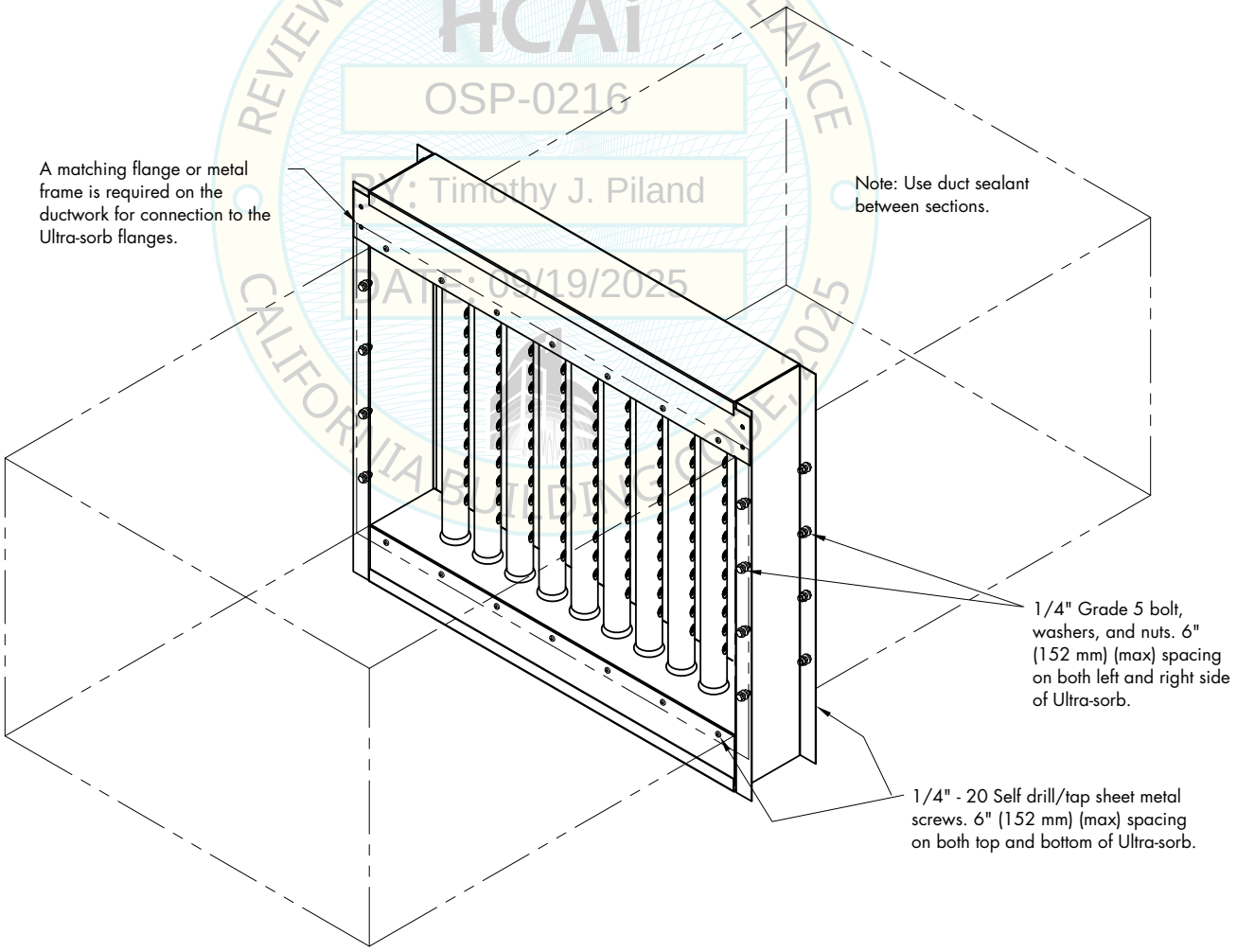
Ultra-sorb: Model XV Installation drawing in a duct

Refer to the Ultra-sorb Model XV IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 25-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 25-1: ULTRA-SORB MODEL XV SEISMIC CERTIFICATION OPTION INSTALLATION IN A DUCT



Note:

- To avoid damaging the header, screws and drill bits must not penetrate more than 3/4" (20 mm) into the header assembly.

DM-11844

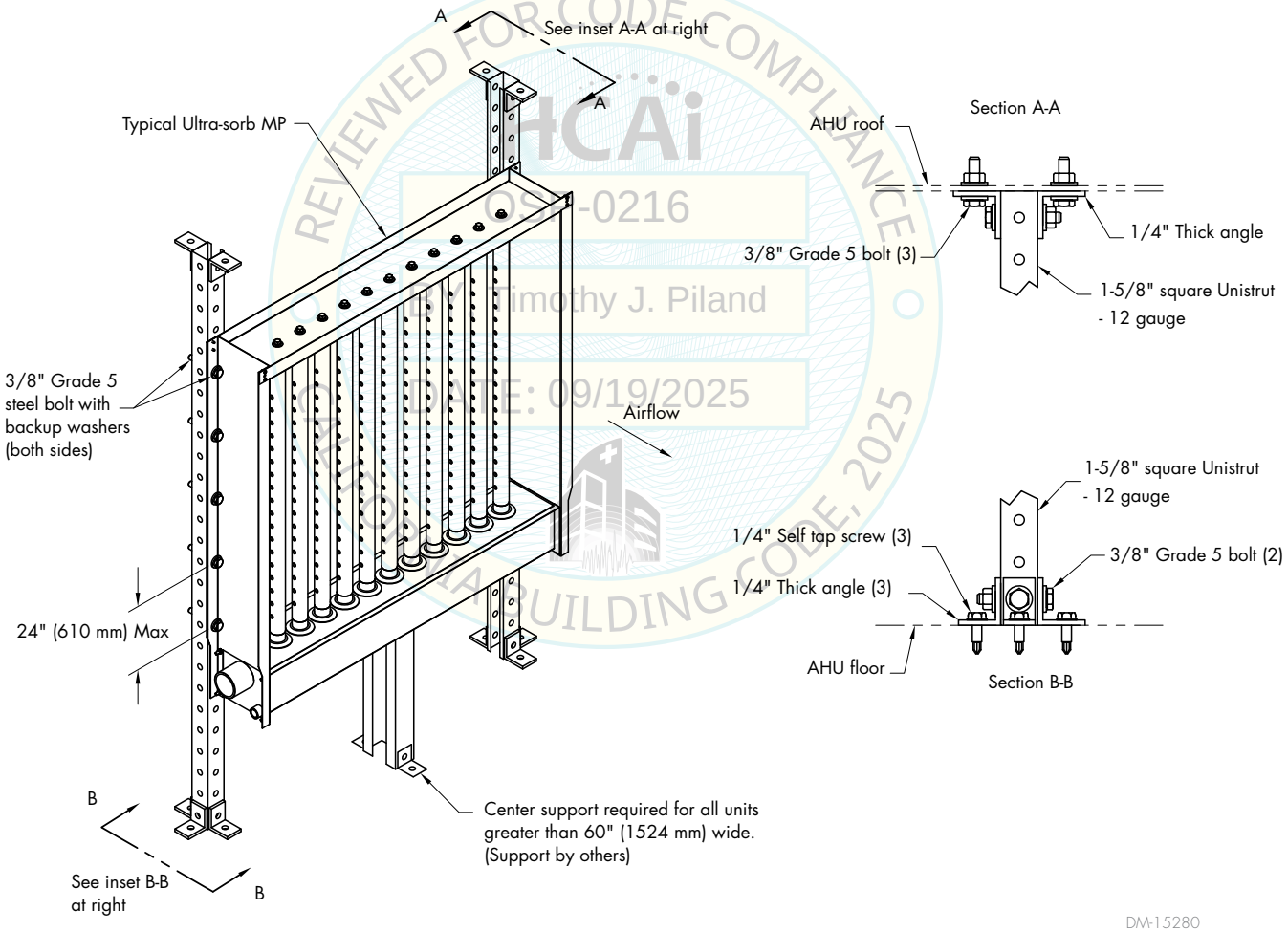
Ultra-sorb: Model MP Installation drawing in an air handling unit

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

Refer to the Ultra-sorb Model MP IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 26-1.

FIGURE 26-1: ULTRA-SORB MODEL MP SEISMIC CERTIFICATION OPTION INSTALLATION IN AN AIR HANDLING UNIT



Notes:

- Use Nylon style locking nuts on all UniStrut hardware connections.
- Air handling unit end wall or lateral bracing shall be spaced at no great than 96" (2438 mm) o.c.
- For center support, use 2" x 4" 16 ga. steel channel support or equivalent support mounted to the floor of the air handling unit using (4) #14-3/4" self tapping screws and (2) 1-1/2" 12 ga. stainless steel L-brackets. Do not penetrate the supply header enclosure with any fastener.

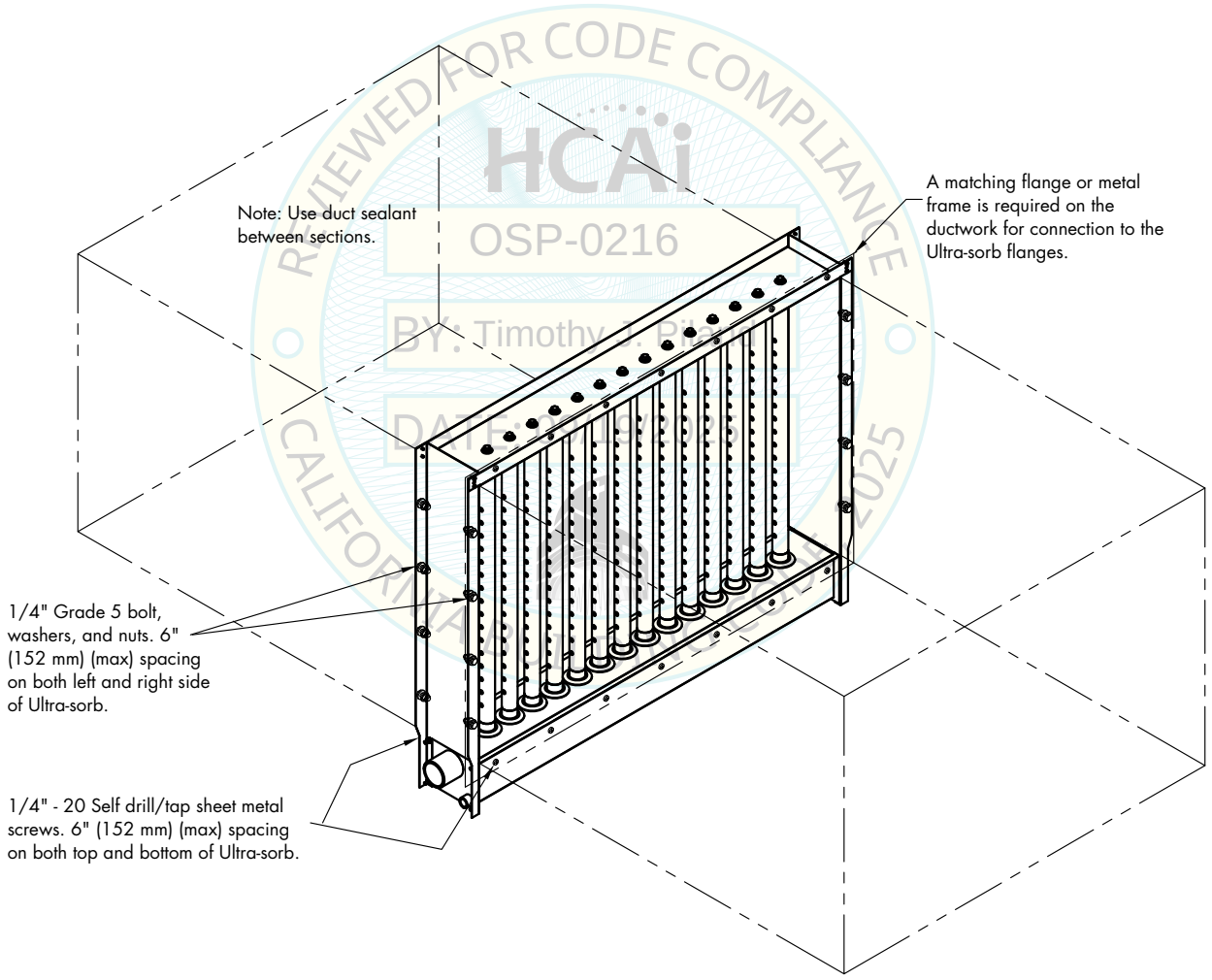
Ultra-sorb: Model MP Installation drawing in a duct

Refer to the Ultra-sorb Model MP IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 27-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 27-1: ULTRA-SORB MODEL MP SEISMIC CERTIFICATION OPTION INSTALLATION IN A DUCT



Note:

- To avoid damaging the header, screws and drill bits must not penetrate more than 3/4" (20 mm) into the header assembly.

DM-15281

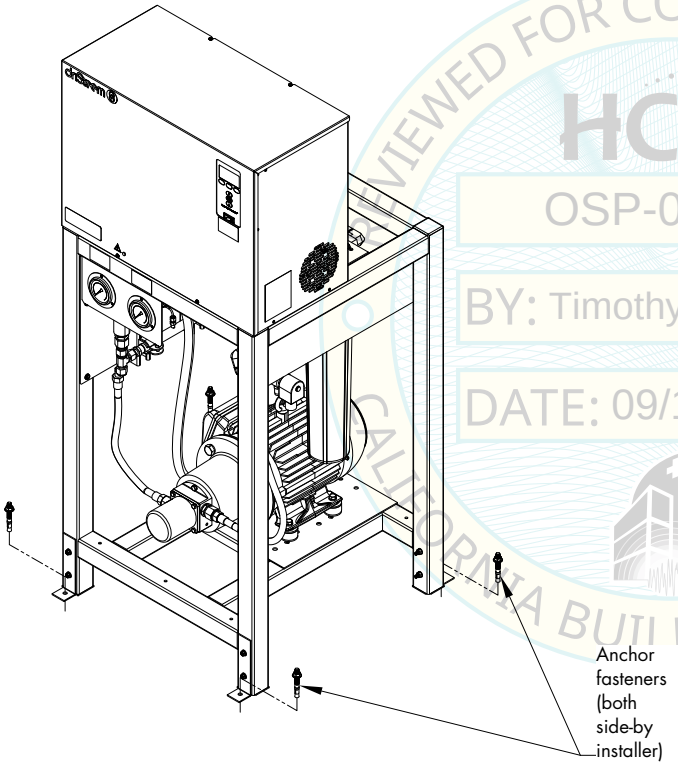
Adiatec high-pressure system:Indoor mounting

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

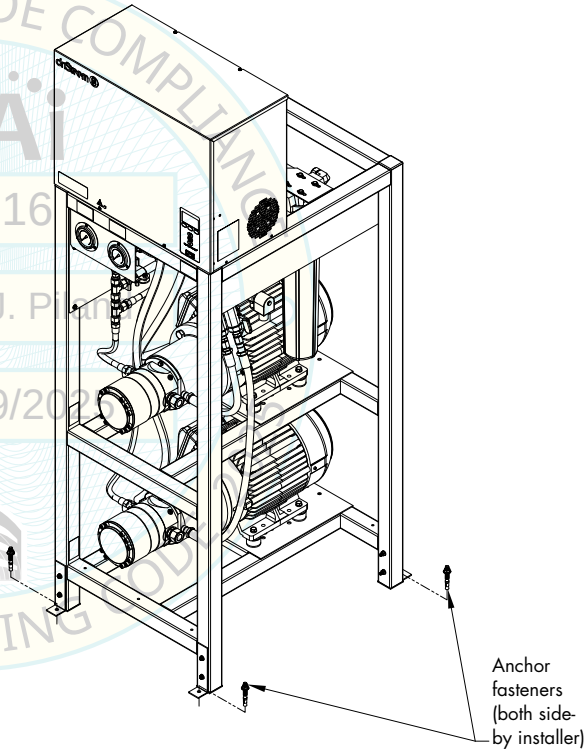
Refer to the Adiatec High-Pressure System IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 28-1.

FIGURE 28-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION INDOOR INSTALLATION



Notes: Use 3/8" grade 8, Qty- 4 bolts with washers in each DriSteem provided mounting brackets.

OM-8289



Notes: Use 3/8" grade 8, Qty- 4 bolts with washers in each DriSteem provided mounting brackets.

OM-8290

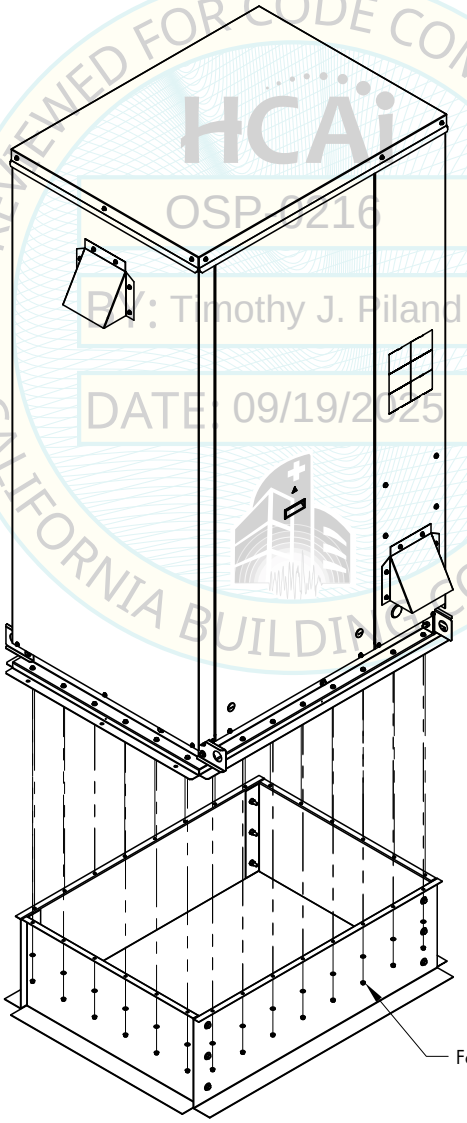
Adiatec high-pressure system: Outdoor mounting

Refer to the Adiatec High-Pressure System IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 29-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 29-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION OUTDOOR INSTALLATION



Notes:

- Curb must be mounted to structure with 3/8" Grade 8, Qty-27 bolts and washers, spaced evenly around the perimeter every 6" on center.
- Confirm the door of unit is attached with both quarter-turn and screws before operating.
- Use a continuous bead of RTV adhesive between the curb and the humidifier.

OM-8291

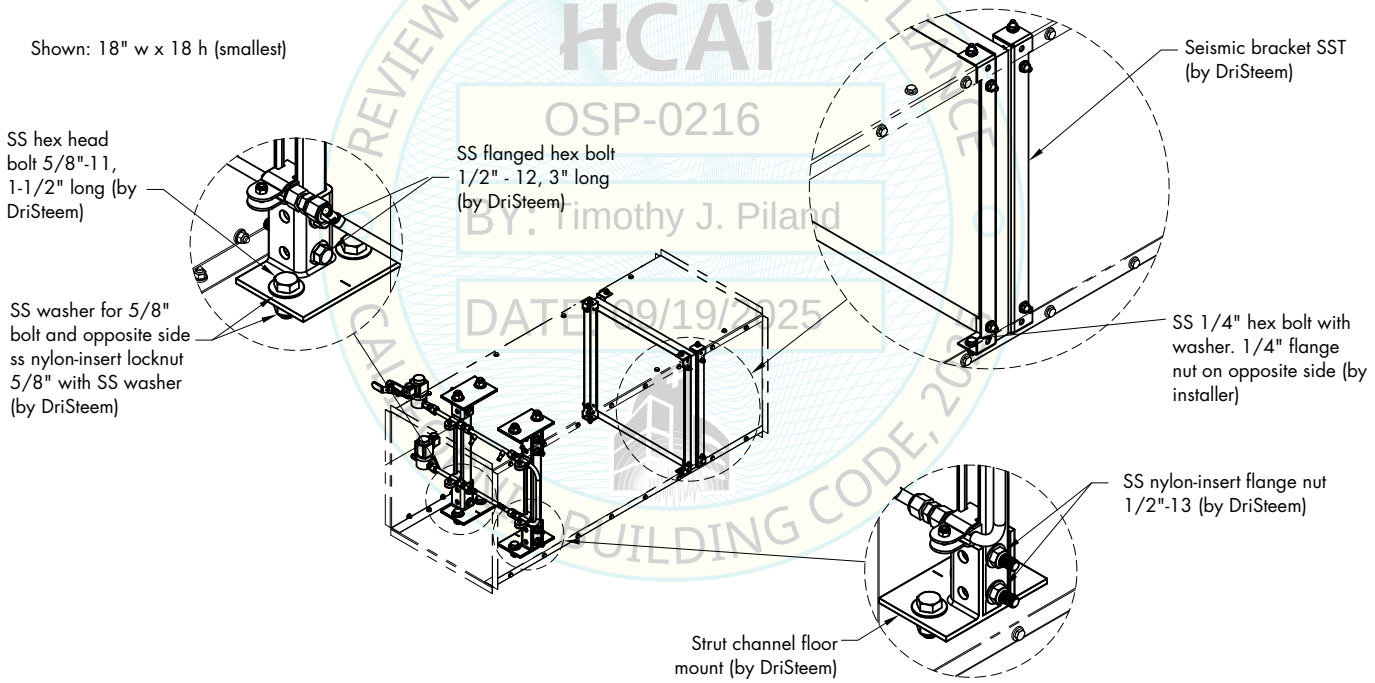
Adiatec high-pressure system: In duct dispersion with mist eliminator

Refer to the Adiatec High-Pressure System IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 30-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 30-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION IN DUCT DISPERSION WITH MIST ELIMINATOR INSTALLATION (18" W X 18" H)



OM-8293

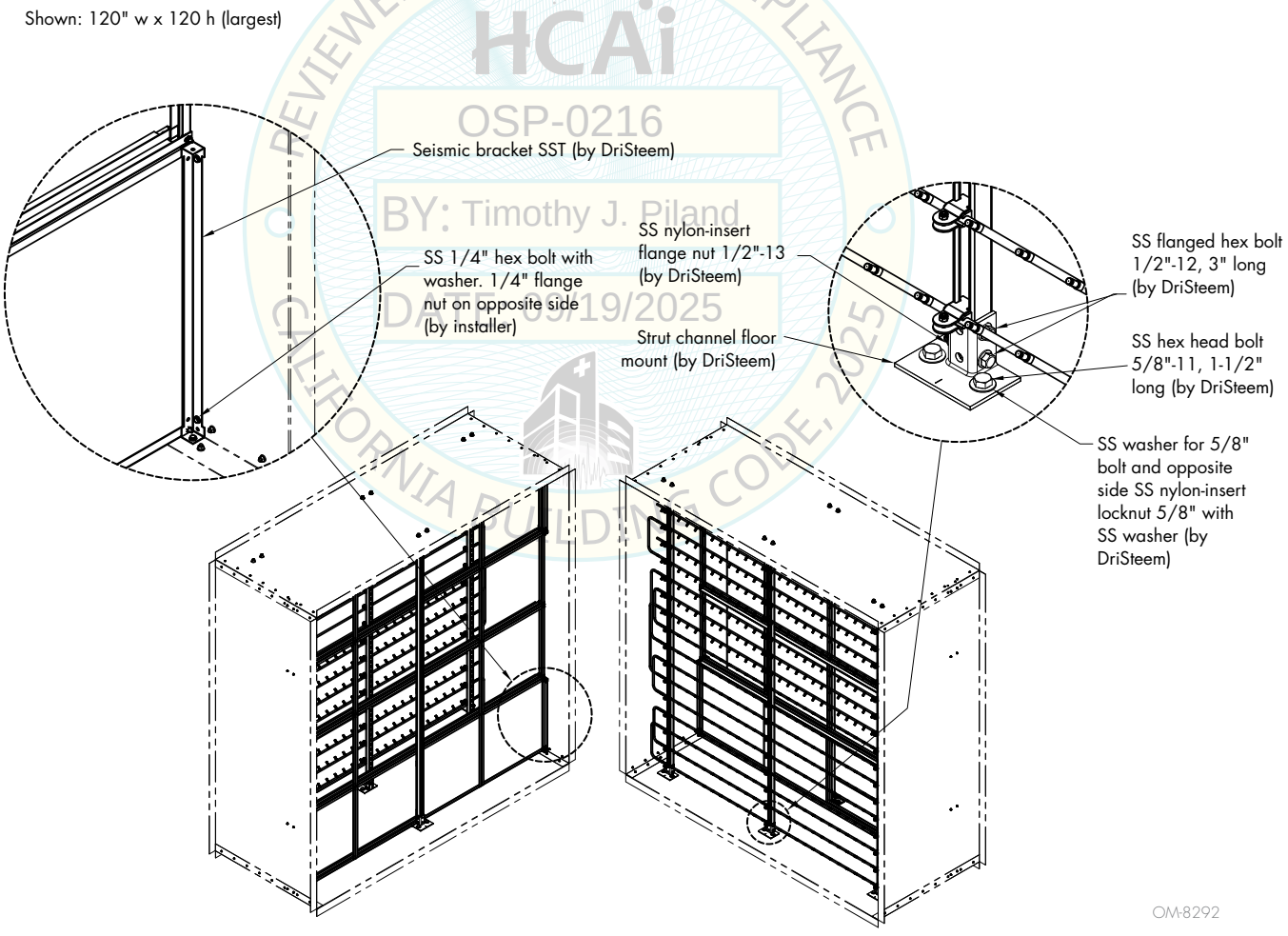
Adiatec high-pressure system: In duct dispersion with mist eliminator

Refer to the Adiatec High-Pressure System IOM for all other installation, operation, and maintenance instructions. Complete the seismic installation as shown in Figure 31-1.

⚠ WARNING

Mount humidifier per the instructions in this manual and to a structurally stable surface. Improper mounting of the humidifier can cause it to fall or to tip, resulting in severe personal injury or death.

FIGURE 31-1: HIGH-PRESSURE SYSTEM SEISMIC CERTIFICATION OPTION IN DUCT DISPERSION WITH MIST ELIMINATOR INSTALLATION (120" W X 120" H)



Expect quality from the industry leader

Since 1965, DriSteem has led the industry with innovative methods for humidifying and cooling air with precise control. DriSteem also leads the industry with a Two-year Limited Warranty and optional extended warranty.

For more information

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For the most recent product information visit our website: www.dristeem.com

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952-229-3200 (fax)

Form No. SEISMIC-IOM-EN-REVH-0825
Part No. 890000-450 Rev H

TWO-YEAR LIMITED WARRANTY

DRI-STEEM Corporation ("DriSteem") warrants to the original user that its products will be free from defects in materials and workmanship for a period of two (2) years after installation or twenty-seven (27) months from the date DriSteem ships such product, whichever date is the earlier.

If any DriSteem product is found to be defective in material or workmanship during the applicable warranty period, DriSteem's entire liability, and the purchaser's sole and exclusive remedy, shall be the repair or replacement of the defective product, or the refund of the purchase price, at DriSteem's election. DriSteem shall not be liable for any costs or expenses, whether direct or indirect, associated with the installation, removal or reinstallation of any defective product. Excluded from the Limited Warranty are all consumable and wear and tear items such as cylinders, membranes, filters, or media replacements. These items are subject to usual wear and tear during usage.

DriSteem's Limited Warranty shall not be effective or actionable unless there is compliance with all installation and operating instructions furnished by DriSteem, or if the products have been modified or altered without the written consent of DriSteem, or if such products have been subject to accident, misuse, mishandling, tampering, negligence or improper maintenance. Any warranty claim must be submitted to DriSteem in writing within the stated warranty period. Defective parts may be required to be returned to DriSteem. Excluded from the Limited Warranty are all consumable and wear and tear items such as cylinders, membranes, filters, or media replacements. These items are subject to usual wear and tear during usage.

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By purchasing DriSteem's products, the purchaser agrees to the terms and conditions of this Limited Warranty.

EXTENDED WARRANTY

The original user may extend the term of the DriSteem Limited Warranty for a limited number of months past the initial applicable warranty period and term provided in the first paragraph of this Limited Warranty. All the terms and conditions of the Limited Warranty during the initial applicable warranty period and term shall apply during any extended term. An extended warranty term of an additional twelve (12) months or twenty four (24) months of coverage may be purchased. The extended warranty term may be purchased until eighteen (18) months after the product is shipped, after which time no extended warranties are available. When a Dristeem humidifier is purchased with a DriSteem RO system, an extended twenty-four (24) month coverage is included.

Any extension of the Limited Warranty under this program must be in writing, signed by DriSteem, and paid for in full by the purchaser.