



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: **OSP – 0226 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Envisco Co.

Manufacturer's Technical Representative: Dave Irish

Mailing Address: 7421 Orangewood Avenue, Garden Grove, CA 92841

Telephone: (562) 577-6078 Email: DIrish@enviseco.com

Product Information

Product Name: Temperature Control Panels

Product Type: Electrical Equipment

Product Model Number: See Attachments

(List all unique product identification numbers and/or part numbers)

General Description: The units are 120V and consist of control modules, power supplies, and various electrical subcomponents. Enclosures are 14 or 16 gage powder-coated carbon steel, NEMA 1 or 4.

Mounting Description: Rigid wall mounted or mounted to manufacturer's proprietary stand

Applicant Information


Applicant Company Name: The VMC Group

Contact Person: John Giuliano

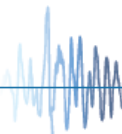
Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780 Email: john.giuliano@thevmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 4/11/17
Title: President Company Name: The VMC Group

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

Company Name: The VMC Group

Name: Ken Tarlow California License Number: SE-2851

Mailing Address: 980 9th Street, Sacramento, CA 95814

Telephone: (916) 449-9918 Email: Ken.tarlow@thevmcgroup.com

Supports and Attachments Preapproval

- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
- Other (Please Specify): _____

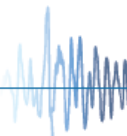
Testing Laboratory

Company Name: DCL Labs

Contact Name: Kelly Laplace

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085 Email: Kelly@shaketest.com





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 1.45 ($S_{DS} = 1.93 g$), 1.88 ($S_{DS} = 2.5 g$)

S_{DS} (Design spectral response acceleration at short period, g) = See attachment

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attachment

Overall dimensions and weight (or range thereof) = See Attachment

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): _____

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature:  Date: May 30, 2017

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = 1

Condition of Approval (if applicable): _____

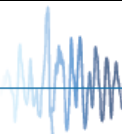


Table 1:
Certified Components



Manufacturer: Envisé Co.

Product Line: Temperature Control Panels

Certified Product Construction: 14 or 16 gage powder-coated carbon steel, NEMA 1 or NEMA 4

Certified Options: 120V, control modules, power supply, terminal blocks

Mounting Description: Rigid wall mounted or mounted to manufacturer-provided stand

Model	Dimensions (inches)			Operating Weight (lb)	Mounting	Sds (g), z/h=1	Unit
	Depth	Width	Height				
PNL-2	6	12	16	19	Rigid wall mounted or mounted to manufacturer-provided stand	1.93	UUT2a,b
PNL-3	6.6	12	16	24		1.93	Interpolated
PNL-4	6.6	12	16	24		1.93	Interpolated
PNL-10	6.6	16	20	35		1.93	Interpolated
PNL-7	6.6	12	16	39		1.93	Interpolated
PNL-6	6	16	20	40		1.93	Interpolated
PNL-5	6	16	20	41		1.93	Interpolated
PNL-8	6	16	20	41		1.93	Interpolated
PNL-9	6	16	20	42		1.93	Interpolated
PNL-11	6.6	16	20	42		1.93	Interpolated
PNL-12	6.6	20	24	59		1.93	Interpolated
PNL-13	6	20	24	62		1.93	Interpolated
PNL-19	6	20	24	62		1.93	Interpolated
PNL-14	6.6	24	24	76		1.93	Interpolated
PNL-20	6.6	24	24	78		1.93	Interpolated
PNL-15	8	24	30	98		1.93	Interpolated
PNL-18	8	30	30	108		1.93	Interpolated
PNL-17	8	30	30	109		1.93	Interpolated
PNL-16	8	30	30	112		1.93	Interpolated
PNL-1	6.6	30	36	123	1.93	UUT1a,b	
PNL-102	6.6	20	24	54	Rigid wall mounted or mounted to manufacturer-provided stand	2.5	UUT4a,b
PNL-103	6.6	24	24	89		2.5	Interpolated
PNL-101	6.6	30	36	123		2.5	UUT3a,b

Note: Certification level is limited to the lower rating of either the certified components, as listed here, or the subcomponents, as listed on the Certified Subcomponent tables.

Table 2:**Certified Subcomponents - Enclosures**

Model Number	Manufacturer	Description	Construction Material	NEMA Rating	Sds (g), z/h=1 ¹	Unit
C-SD16126/C-P1612	Hoffman	Cabinet, 14 or 16 gage carbon steel, ANSI 61 gray polyester powder paint inside and out	Carbon steel, 16 ga.	4	1.93	UUT2a,b
A-16N12ALP/A-16N12MP			Carbon steel, 16 ga.	1	1.93	Interpolated
C-SD20166/C-P2016			Carbon steel, 16 ga.	4	1.93	Interpolated
A-20N16ALP/A-20N16			Carbon steel, 16 ga.	1	1.93	Interpolated
A-20N16ALP/A-20N16MP			Carbon steel, 16 ga.	1	1.93	Interpolated
A-24N20ALP/A-24N20MP			Carbon steel, 16 ga.	1	1.93	Interpolated
C-SD24206/C-P2420			Carbon steel, 16 ga.	4	2.5	UUT4a,b
A-24N24ALP/A-24N24MP			Carbon steel, 14 ga.	1	2.5	Interpolated
C-SD24246 / C-P2424			Carbon steel, 14 ga.	4	2.5	Interpolated
C-SD30248/C-P3024			Carbon steel, 14 ga.	4	2.5	Interpolated
C-SD30308/C-P3030			Carbon steel, 14 ga.	4	2.5	Interpolated
C-SD36308 / C-P3630			Carbon steel, 14 ga.	4	2.5	Interpolated
A-36N30ALP/A-36N30MP			Carbon steel, 14 ga.	1	2.5	UUT1a,b, UUT3a,b

1. Certification level is limited to the lower rating of either the certified subcomponents, as listed here, or the components, as listed on the Certified Components tables.

**Table 3:
Certified Subcomponents - Various**

Model Number	Manufacturer	Description	Material	Sds (g) z/h=1 ¹	Unit
M4/6	ABB	Terminal Blocks	Plastic	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
FEM6	ABB	Terminal Block End Section	Plastic	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
SCF6	ABB	Terminal Block Circuit Separator	Plastic	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
BAM2	ABB	Terminal Block End Stop	Plastic	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
BAM-1000	ABB	35mm Aluminum Din Rail	Aluminum	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
QL-1	CBI	Circuit Breaker	Plastic	2.5	UUT2a,b, UUT4a,b
QL-8	CBI	Circuit Breaker	Plastic	2.5	UUT1a,b, UUT3a,b
PS5R-VC24	IDEC	DC Power Supply	Metal	1.93	UUT1a,b
PS5R-VD24	IDEC	DC Power Supply	Metal	2.5	UUT3a,b
EISK8-100T	Comtemporary Controls	8-Port Unmanaged Ethernet Switch	Plastic	2.5	UUT1a,b, UUT3a,b, UUT4a,b
M4/6	ABB	Terminal Blocks	Plastic	2.5	UUT1a,b, UUT3a,b, UUT4a,b
FEM6	ABB	Terminal Block End Section	Plastic	2.5	UUT1a,b, UUT3a,b, UUT4a,b
BAM2	ABB	Terminal Block End Stop	Plastic	1.93	UUT1a,b
BAM-1000	ABB	35mm Aluminum Din Rail	Aluminum	1.93	UUT1a,b
TR20VA001	Functional Devices	Transformer	Metal	1.93	UUT2a,b
TR100VA002	Functional Devices	Transformer	Metal	2.5	UUT1a,b, UUT3a,b, UUT4a,b
38.51.7.012.0050	Finder	Din Rail Relay Module	Plastic	1.93	UUT1a,b
TRM-768	Delta	RS-485 LAN Terminator	Metal/Plastic	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
DZNR-768	Delta	Repeater	Metal/Plastic	1.93	UUT2a,b
DSC-606E THRU DSC-1616E	Delta	System Controller	Metal/Plastic	1.93	UUT1a,b
DFM-1600	Delta	Field Expansion Module	Metal/Plastic	1.93	UUT1a,b
TY1X3WPW6C	ABB	1"W x 3"H Wire Panduit w/Cover	Plastic	1.93	UUT2a,b
TY15X3WPW6C	ABB	1.5"Wx3"H Wire Panduit w/Cover	Plastic	2.5	UUT1a,b, UUT3a,b, UUT4a,b
TY2X3WPW6C	ABB	2"Wx3"H Wire Panduit w/Cover	Plastic	2.5	UUT1a,b, UUT3a,b, UUT4a,b
3LN44	Thomas & Betts	Ground Lug Connector	Aluminum	2.5	UUT1a,b, UUT2a,b, UUT3a,b, UUT4a,b
eBMGR	Delta	BACNET Building Controller	Metal/Plastic	2.5	UUT3a,b, UUT4a,b
eBX-04	Delta	Expansion Module - 4 Modules	Metal/Plastic	2.5	Extrapolated
eBX-08	Delta	Expansion Module - 8 Modules	Metal/Plastic	2.5	UUT3a,b, UUT4a,b
eBM-000	Delta	I/O Blank Module	Metal/Plastic	2.5	Extrapolated
eBM-404-H	Delta	I/O Module - 4UI, 4BO	Metal/Plastic	2.5	Extrapolated
eBM-440-M	Delta	I/O Module - 4UI, 4AO (0-10VDC)	Metal/Plastic	2.5	UUT3a,b, UUT4a,b
eBM-440I-M	Delta	I/O Module - 4UI, 4AO (0-20mA)	Metal/Plastic	2.5	UUT3a,b, UUT4a,b
eBM-800	Delta	I/O Module - 8UI	Metal/Plastic	2.5	UUT3a,b, UUT4a,b

1. Certification level is limited to the lower rating of either the certified subcomponents, as listed here, or the components, as listed on the Certified Components tables.

Table 4:
Tested Components



Manufacturer: Envisé Co.
Product Line: Temperature Control Panels
Tested Product Construction: 14 or 16 gage powder-coated carbon steel, NEMA 1 or NEMA 4
Tested Options: 120V, control modules, power supply, terminal blocks
Mounting Description: Rigid wall mounted or mounted to manufacturer-provided stand

Model	Dimensions (inches)			Operating Weight (lb)	Mounting	Sds (g), z/h=1	Unit
	Depth	Width	Height				
PNL-1	6.6	30	36	123	Rigid wall mounted	1.93	UUT1a
PNL-1	6.6	30	36	123	Mounted to manufacturer-provided stand	1.93	UUT1b
PNL-2	6	12	16	19	Rigid wall mounted	1.93	UUT2a
PNL-2	6	12	16	19	Mounted to manufacturer-provided stand	1.93	UUT2b
PNL-101	6.6	30	36	123	Rigid wall mounted	2.5	UUT3a
PNL-101	6.6	30	36	123	Mounted to manufacturer-provided stand	2.5	UUT3a
PNL-102	6.6	20	24	54	Rigid wall mounted	2.5	UUT4a
PNL-102	6.6	20	24	54	Mounted to manufacturer-provided stand	2.5	UUT4a

UUT1a Unit Under Test Summary Sheet



Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-1

Product Construction Summary:

14 gage powder-coated carbon steel, NEMA 1

Options / Component Summary:

120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
123	6.6	30	36	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	1.93	1.0	1.5	3.09	2.32	1.29	0.51

Unit Mounting Description:



UUT1a was mounted to a rigid test wall using four 3/8-inch Grade 5 bolts, strut and strut nuts, utilizing the existing manufacturer-provided mounting holes in the back of the enclosure. The unit was operational before and after shaking, and was tested full of operating content.

UUT1b Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-1

Product Construction Summary:

14 gage powder-coated carbon steel, NEMA 1

Options / Component Summary:

120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
123	6.6	30	36	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	1.93	1.0	1.5	3.09	2.32	1.29	0.51

Unit Mounting Description:



UUT1b was mounted to a manufacturer-provided stand using four 3/8-inch Grade 5 bolts, strut and strut nuts. The stand was attached to the shake table using 1/2-inch Grade 5 bolts. The unit was operational before and after shaking, and was tested full of operating content.

UUT2a Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-2

Product Construction Summary:

16 gage powder-coated carbon steel, NEMA 4

Options / Component Summary:

120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
19	6	12	16	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	1.93	1.0	1.5	3.09	2.32	1.29	0.51

Unit Mounting Description:



UUT2a was mounted to a rigid test wall using four 3/8-inch Grade 5 bolts, strut and strut nuts, utilizing the existing manufacturer-provided mounting holes in the back of the enclosure. The unit was operational before and after shaking, and was tested full of operating content.

UUT2b Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-2

Product Construction Summary:

16 gage powder-coated carbon steel, NEMA 4

Options / Component Summary:

120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
19	6	12	16	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	1.93	1.0	1.5	3.09	2.32	1.29	0.51

Unit Mounting Description:



UUT2b was mounted to a manufacturer-provided stand using four 3/8-inch Grade 5 bolts, strut and strut nuts. The stand was attached to the shake table using 1/2-inch Grade 5 bolts. The unit was operational before and after shaking, and was tested full of operating content.

UUT3a Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-101

Product Construction Summary:

14 gage powder-coated carbon steel, NEMA 1

Options / Component Summary:

120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
123	6.6	30	36	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.5	1.0	1.5	3.20	3.00	1.67	0.67

Unit Mounting Description:



UUT3a was mounted to a rigid test wall using four 3/8-inch Grade 5 bolts, strut and strut nuts, utilizing the existing manufacturer-provided mounting holes in the back of the enclosure. The unit was operational before and after shaking, and was tested full of operating content.

UUT3b Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-101

Product Construction Summary:
14 gage powder-coated carbon steel, NEMA 1

Options / Component Summary:
120V, control modules, power supply, terminal blocks

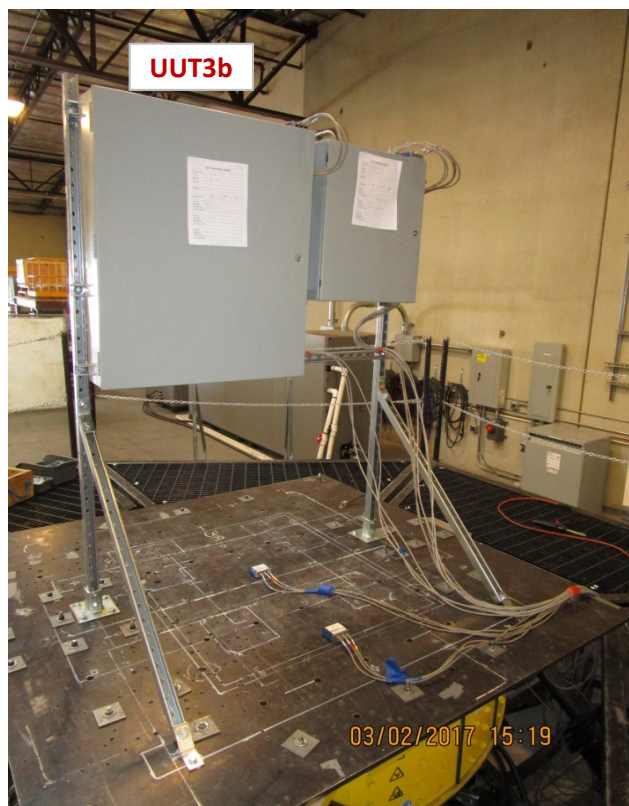
UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
123	6.6	30	36	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.5	1.0	1.5	3.20	3.00	1.67	0.67

Unit Mounting Description:



UUT3b was mounted to a manufacturer-provided stand using four 3/8-inch Grade 5 bolts, strut and strut nuts. The stand was attached to the shake table using 1/2-inch Grade 5 bolts. The unit was operational before and after shaking, and was tested full of operating content.

UUT4a Unit Under Test Summary Sheet

Manufacturer: Envisie Co.
Product Line: Temperature Control Panels
Model Number: PNL-102
Product Construction Summary:
 16 gage powder-coated carbon steel, NEMA 4
Options / Component Summary:
 120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
54	6.6	20	24	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.5	1.0	1.5	3.20	3.00	1.67	0.67

Unit Mounting Description:



UUT4a was mounted to a rigid test wall using four 3/8-inch Grade 5 bolts, strut and strut nuts, utilizing the existing manufacturer-provided mounting holes in the back of the enclosure. The unit was operational before and after shaking, and was tested full of operating content.

UUT4b Unit Under Test Summary Sheet

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

Model Number: PNL-102

Product Construction Summary:
16 gage powder-coated carbon steel, NEMA 4

Options / Component Summary:
120V, control modules, power supply, terminal blocks

UUT Properties

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
54	6.6	20	24	N/A	N/A	N/A

Seismic Test Parameters

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2016	ICC-ES AC156	2.5	1.0	1.5	3.20	3.00	1.67	0.67

Unit Mounting Description:



UUT4b was mounted to a manufacturer-provided stand using four 3/8-inch Grade 5 bolts, strut and strut nuts. The stand was attached to the shake table using 1/2-inch Grade 5 bolts. The unit was operational before and after shaking, and was tested full of operating content.

UUT1a, 2a, 3a, 4a Wall Mounting Detail

Manufacturer: Envisie Co.

Product Line: Temperature Control Panels

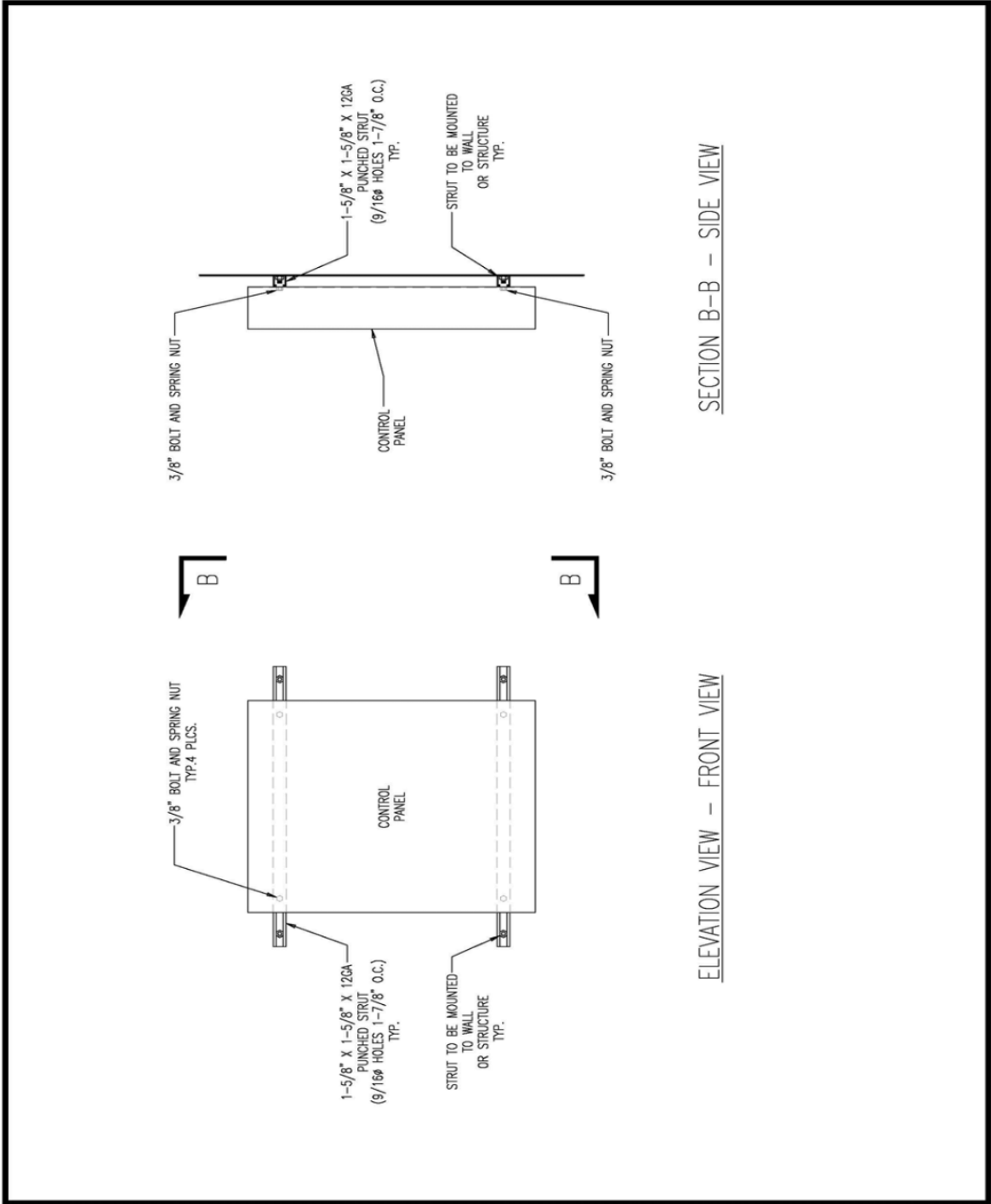
NO.	DESCRIPTION	DATE	BY

DRAWING TITLE WALL MOUNT CONTROL PANEL OSP	
JOB TITLE	

DATE	9-2-11
SCALE	1/8" = 1"
DRAWN BY	ARS
DESIGNED BY	
CHECKED BY	
JOB NO.	

Southland Industries
74221 ORANGEWOOD AVE
GARDEN GROVE, CALIFORNIA
92647-1400
(714) 901-5800

DRAWING NO	SK-02
OF SHEETS	



Southland Industries CAD File: C:\Users\oseresen\Desktop\Control Panel Support.dwg T: SK-02 J Date: 09-09-2011 2:29:02pm User: oseresen

UUT1b, 2b, 3b, 4b Stand Mounting Detail

Manufacturer: Envisie Co.

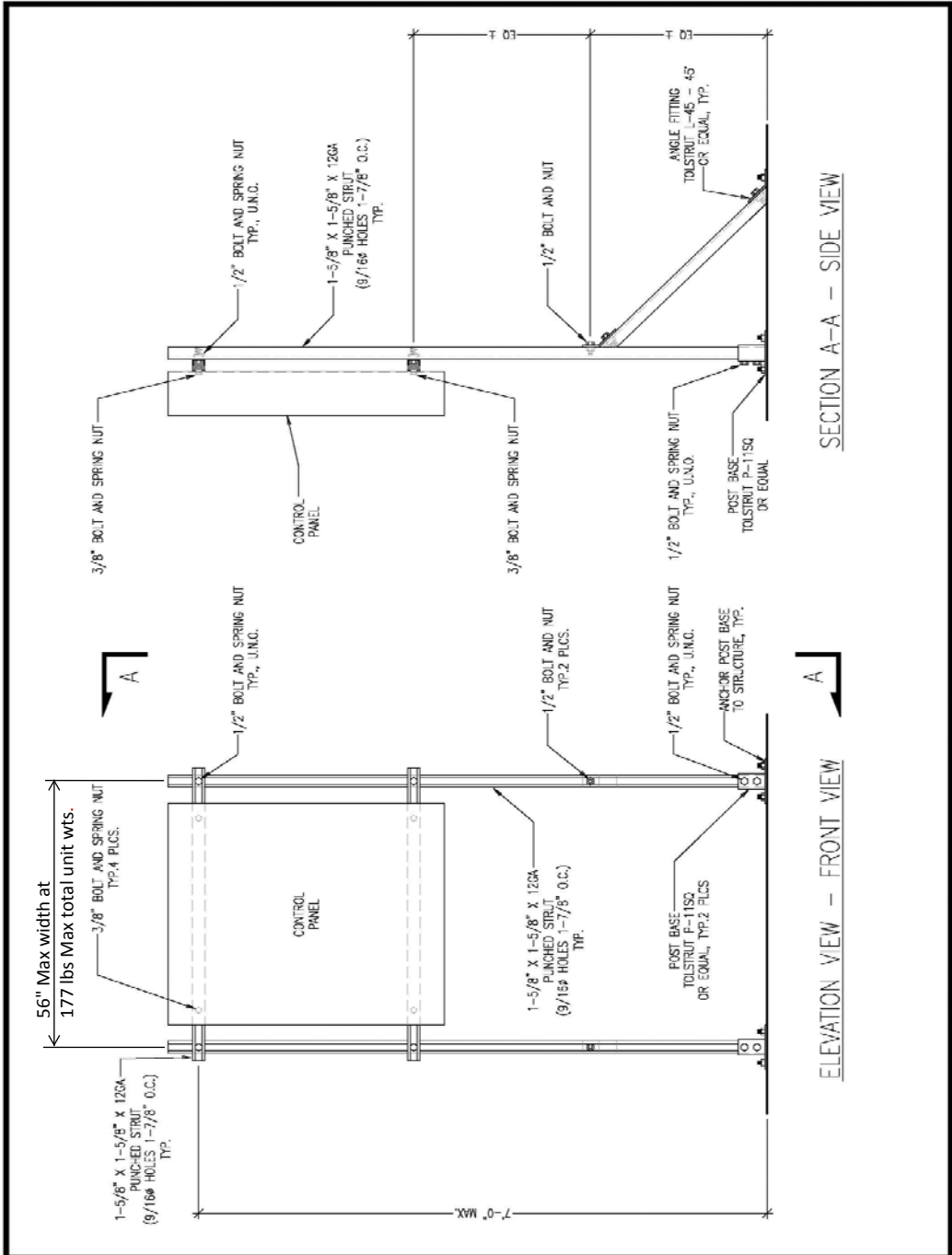
Product Line: Temperature Control Panels

REVISIONS	
NO.	DESCRIPTION

DRAWING TITLE CONTROL PANEL OSP	
JOB TITLE POST MOUNT	
DATE	3-4-17
SCALE	AS SHOWN
DRAWN BY	AK
DESIGNED BY	
CHECKED BY	
JOB NO.	

Southland Industries
 7427 ORANGEWOOD AVE
 GARDEN GROVE, CA 92643
 (714) 901-5800

DRAWING NO
SK-01
OF SHEETS



Southland Industries CAD File: C:\Users\jcorneen\OneDrive\Control Panel Support.dwg [SK-01] Date: 05-08-2017 21:45:29m User: jcorneen