



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP - 0448

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [] New [X] Renewal

Manufacturer Information

Manufacturer: Parker Boiler Co.

Manufacturer's Technical Representative: Greg Danenhauer

Mailing Address: 5930 Bandini Blvd., Los Angeles, CA 90040

Telephone: 323-727-9800 Email: gdanenhauer@parkerboiler.com

Product Information

Product Name: Custom Boiler Control Panels

Product Type: Boiler Control Panels

Product Model Number: 911 - Seismic Compliant Panel (See Product Matrices for certified sizes)
(List all unique product identification numbers and/or part numbers)

General Description: Custom boiler control panel in carbon steel enclosure with various internal components.

Mounting Description: Rigid and flexible wall mounted

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Contact Person: Katie Braman

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

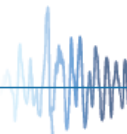
Telephone: 844-878-0200 Email: kbraman@structint.com

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: [Handwritten Signature] Date: 12/31/19

Title: Program Manager Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

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: TRU Compliance, by Structural Integrity Associates, Inc.

Name: Andy Coughlin California License Number: S6082

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

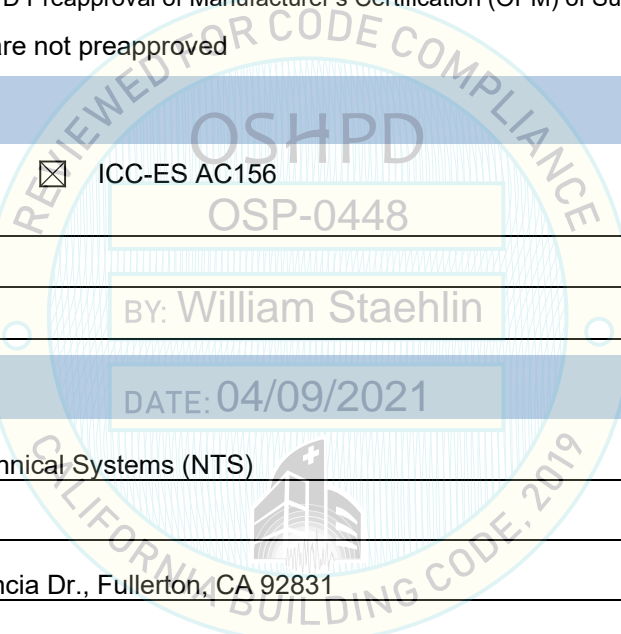
Telephone: 844-878-0200 Email: acoughlin@structint.com

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): _____



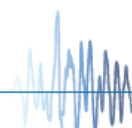
Testing Laboratory

Company Name: National Technical Systems (NTS)

Contact Name: Don Bennet

Mailing Address: 1536 E Valencia Dr., Fullerton, CA 92831

Telephone: 714-879-6110 Email: don.bennet@nts.com





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

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

Design Basis of Equipment or Components (Fp/Wp) = [1.50 (SDS = 2.0g; z/h=1); 1.44 (SDS = 3.2g; z/h=0)] Rigid
[4.50 (SDS = 2.0g; z/h=1); 2.40 (SDS = 3.2g; z/h=0)] Isolated

SDS (Design spectral response acceleration at short period, g) = 2.0 for z/h = 1.0; 3.2g for z/h = 0.0

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

Rp (Equipment or component response modification factor) = 6.0 (Rigid); 2.0 (Spring Isolators)

Omega_0 (System overstrength factor) = 2.0

Ip (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 for SDS = 2.0g, 0.0 for SDS = 3.2 g

Equipment or Component Natural Frequencies (Hz) = Varies (See Attached Tables)

Overall dimensions and weight (or range thereof) = Varies (See Attached Tables)

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

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

SDS (Design spectral response acceleration at short period, g) =

SD1 (Design spectral response acceleration at 1 second period, g) =

R (Response modification coefficient) =

Omega_0 (System overstrength factor) =

Cd (Deflection amplification factor) =

Ip (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 [X] No

List of Attachments Supporting Special Seismic Certification

[X] Test Report(s) [] Drawings [] Calculations [X] Manufacturer's Catalog

[X] Other(s) (Please Specify): UUT Summary Tables, Product Matrix

OSHPD Approval (For Office Use Only) - Approval Expires on December 31, 2025

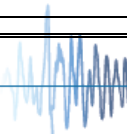
Signature: [Handwritten Signature] Date: April 9, 2021

Print Name: William Staehlin Title: Senior Structural Engineer

Special Seismic Certification Valid Up to : SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable):

[Blank lines for condition of approval]



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co. Table Description: Enclosures								TABLE 2	
Model Line: Custom Boiler Control Panels									
Building Code: CBC 2019		Seismic Certification Limits:				$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 3.2g \quad z/h = 0.0$		$I_p = 1.5$	
Model Line (Manufacturer)	Model	Dimension (in)			Weight (lb)	Material	Notes	UUT	
		Depth	Width	Height					
Enclosure (Saginaw)	SCE-16EL1606LP	6	16	16	24	Carbon steel		Extrap.	
	SCE-24EL2408LP	8	24	24	48	Carbon steel		3	
	SCE-30EL2408LP	8	30	24	55	Carbon steel		Interp.	
	SCE-30EL3008LP	8	30	30	74	Carbon steel		4	
Enclosure (Wiegmann)	N412161606C	6	16	16	26	Carbon steel		Extrap.	
	N412242408C	9.8	24	26.5	53	Carbon steel		Extrap.	
	N412302408C	8	24	30	56	Carbon steel		2	
	N412303012C	12	30	30	89	Carbon steel		1	
Panel (Saginaw)	SCE-16P16		13	13	6	Carbon steel		Extrap.	
	SCE-24P24		24	24	17	Carbon steel		3	
	SCE-30P24		30	24	22	Carbon steel		Interp.	
	SCE-30P30		30	30	28	Carbon steel		4	
Panel (Wiegmann)	NP1616C		16	16	5	Carbon steel		Extrap.	
	NP2424C		24	24	16	Carbon steel		Extrap.	
	NP3024C		24	30	20	Carbon steel		2	
	NP3030C		30	30	24	Carbon steel		1	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	Table Description: VFD's	TABLE 4
Model Line: Custom Boiler Control Panels		

Building Code: CBC 2019 **Seismic Certification Limits:** $S_{DS} = 2.0 g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 3.2 g$ $z/h = 0.0$

Component Type	Manufacturer	Model	Description	Notes	UUT
VFD	Lenze AC Tech	SM005S	1/2 HP, 120VAC/1PH in, 208/240VAC/3PH out		1
		SM205S	1/2 HP, 208/240VAC/1 or 3PH in & 3PH out		Interp.
		SM010S	1 HP, 120VAC/1PH in, 208/240VAC/3PH out		Interp.
		SM210	1 HP, 208/240VAC/3PH in & out		Interp.
		SM220	2 HP, 208/240VAC/3PH in & out		Interp.
		SM230	3 HP, 208/240VAC/3PH in & out		Interp.
		SM250	5 HP, 208/240VAC/3PH in & out		Interp.
		SM405	1/2 HP, 400/480VAC/3PH in & out		Interp.
		SM410	1 HP, 400/480VAC/3PH in & out		Interp.
		SM420	2 HP, 400/480VAC/3PH in & out		Interp.
		SM430	3 HP, 400/480VAC/3PH in & out		Interp.
		SM450	5 HP, 400/480VAC/3PH in & out		Interp.
		SM475	7.5 HP, 400/480VAC/3PH in & out		4

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	Table Description: VFD's	TABLE 4
Model Line: Custom Boiler Control Panels		

Building Code: CBC 2019 **Seismic Certification Limits:** $S_{DS} = 2.0g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 3.2g$ $z/h = 0.0$

Component Type	Manufacturer	Model	Description	Notes	UUT
VFD	Lenze AC Tech	ESV371N01SXB	1/2 HP, 120VAC/1PH in, 208/240VAC/3PH out		1
		ESV371N02YXB	1/2 HP, 208/240VAC/1 or 3PH in & 3PH out		Interp.
		ESV751N01SXB	1 HP, 120VAC/1PH in, 208/240VAC/3PH out		Interp.
		ESV751N02YXB	1 HP, 208/240VAC/3PH in & out		Interp.
		ESV152N02TXB	2 HP, 208/240VAC/3PH in & out		Interp.
		ESV222N02TXB	3 HP, 208/240VAC/3PH in & out		Interp.
		ESV402N02TXB	5 HP, 208/240VAC/3PH in & out		Interp.
		ESV371N04TXB	1/2 HP, 400/480VAC/3PH in & out		Interp.
		ESV751N04TXB	1 HP, 400/480VAC/3PH in & out		Interp.
		ESV152N04TXB	2 HP, 400/480VAC/3PH in & out		Interp.
		ESV222N04TXB	3 HP, 400/480VAC/3PH in & out		Interp.
		ESV402N04TXB	5 HP, 400/480VAC/3PH in & out		Interp.
		ESV552N04TXB	7.5 HP, 400/480VAC/3PH in & out		4

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	Table Description: Electrical Components	TABLE 5
Model Line: Custom Boiler Control Panels		

Building Code: CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g$ $z/h = 1.0$	$I_p = 1.5$
		$S_{DS} = 3.2g$ $z/h = 0.0$	

Component Type	Manufacturer	Model	Description	Notes	UUT	
Switches	Automation Direct	ECX1040-2	Replacement Contact, N.O.	Same as contact in GCX3300 & GCX3320-22	Interp.	
		GCX3100-SC	Pushbutton w/o Contact, IP65		4	
		GCX3300	2 Pos. 1-N.O. MNTND IP65		4	
		GCX3320-22	2 N.O./2 N.C. MNTND 3-Pos. knob		4	
		GCX3252-120L	2 Pos. 1-N.O. MNTND Grn LED 120V		4	
		GCX3262-120L	3 Pos. 2 N.O.-2 N.C. MNTND Grn LED		4	
	Mersen	SCV60	60A UL98			4
		HGPR4L	NEMA 4, 4X, Red/yellow handle			4
		SG320-10	Rod assembly 320mm			4
	Eaton	8411K10	N.C. Push button - Black			2
		8411K13	N.O. Push button - Red			1
	Carling	IM254-73	4PDT toggle			1
		2GM54-73	DPDT toggle			2
	Del City	7300013	DPST toggle			1
Fuses	Littelfuse	FLM-3	13/32x1.5" 500V 3A		2	
		FLQ-1.5	13/32x1.5" 500V 1.5A		2	
	Buss	HPG	13/32x1.5", fuse holder	UUT: (2) installed	2	
Relays	AMF Potter-Brumfield	KRPA-11AN-120	8 pin plug-in relay DPDT 115V coil		2	
	Idec	SR2P-06	Socket for plug-in relay		2	
		RV8H-L-AD110	6A SPDT 6MM 120 VAC coil		4	
		RV8H-L-D24	6A SPDT 6MM 24 VDC coil		4	
		RH2B-ULAC120	120VAC , DPDT, 10A		2	
		SH2B-05	Socket relay, 8-blade, 10A		2	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co. Table Description: Electrical Components		TABLE 5			
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2019		Seismic Certification Limits:		$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 3.2g \quad z/h = 0.0$	
				$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Relays	General Electric	MTO3H	1.35-2.0 amp		2
		MTO3K	3.0-4.7 amp		Interp.
		MTO3L	4.0-6.3 amp		Interp.
		MTO3N	7.5-10.5 amp		2
	Honeywell	R8222D104	DPDT relay 24VAC coil		1
	Gems - Warrick	26B1AOZ-06	Low water level relay		1
	SSAC	ERDM425	0.3-30 sec. 115V 10A		2
		ERDM427	0.1-5 min. 115V 10A	Similar to ERDM425, only varies in timing	Interp.
		KRDB424	1-100 min. 115V 10A		1
	Automation Direct	782-2C-120A	15A DPDT Cube		4
782-2C-SKT		Relay Socket		4	
Fuji Electronics	TK-E02-1800	FLA range 12-18A		4	
Contactor	General Electric	MC1A	3 pole, 115V coil	UUT: (2) installed	2
	Honeywell	DP2030B5004	DPST contactor 30A, 115V		1
	Fuji Electronics	SC-E04-110VAC	18A, 3-pole, 10HP@480V		4
		SZ-A11T	Front mounting, 1 NO + 1 NC		4
	Siemens	3RT1026-1AK60	120VAC Coil, 25A, 3-Pole		3
Contactor	Siemens	3RT1015-1AK61	120VAC Coil, 7A, 3-Pole		3
		3RH1921-1DA11	Auxilliary switch block		3
		3RB2026-1QBO	Overload, 6-25A		3
		3RB2016-1PBO	Overload, 1-4A		3

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co. Table Description: Controllers		TABLE 6			
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2019		Seismic Certification Limits:		$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 3.2g \quad z/h = 0.0$	
				$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Controllers	Honeywell	RM7840L1018	120V, Interrupted pilot, LHL-LF & HF proven	Same as RM7890A1056, only varies in software	Extrap.
		RM7840L1075	120V, Intermittent pilot, w/ VPS, LHL-LF & HF proven	Same as RM7890A1056, only varies in software	Extrap.
		RM7890A1015	120V, Intermittent pilot	Same as RM7890A1056, only varies in software	Extrap.
		RM7890A1056	120V, Intermittent pilot, w/ VPS		2
		RM7895A1014	120V, Intermittent pilot, pre-purge	Same as RM7890A1056, only varies in software	Interp.
		RM7895C1012	120V, Interrupted pilot, pre-purge	Same as RM7890A1056, only varies in software	Interp.
		RM7897A1002	120V, Selectable pilot, w/ shutter control, pre & programmable post purge	Same as RM7890A1056, only varies in software	Interp.
		RM7897C1000	120V, Selectable pilot, w/ shutter control		2
		R7847A1025	Flame amplifier, rectifier - 0.8-1.0 sec. FFRT		2
		R7847A1033	Flame amplifier, rectifier - 2-3 sec. FFRT		2
		R7847B1023	Flame amplifier, ampli-check rectifier - 0.8-1.0 sec. FFRT	Same as R7847A1025, only varies in software	Interp.
		R7849A1023	Flame amplifier, UV - 2-3 sec. FFRT	Same as R7847A1025, only varies in software	Interp.
		R7910A1019	SOLA hydronic control, 120VAC		1
		R7911A1026	SOLA Steam control, 120VAC		1
		Q7800B1003	Metal base for 7800 series modules		2
		ST7800A1013	Prepurge timing card, 7 sec.		2
		ST7800A1039	Prepurge timing card, 30 sec.		Interp.
		ST7800A1054	Prepurge timing card, 60 sec.		Interp.
		ST7800A1062	Prepurge timing card, 90 sec.		2
		T775U2006	Universal temp control, 2-SPDT		2
T775A2009	Remote temp control, 1-SPDT		Interp.		

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.		Table Description: Controllers			TABLE 6	
Model Line: Custom Boiler Control Panels						
Building Code: CBC 2019		Seismic Certification Limits:			$S_{DS} = 2.0g \quad z/h = 1.0$ $S_{DS} = 3.2g \quad z/h = 0.0$	
					$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT	
Controllers	Honeywell	T775B2032	Remote temp control, 2-SPDT		Interp.	
		T775M2048	Modulating temp control, 2-SPDT		2	
	Gems - Warrick	DFL1AOZ-04-04-06	Dual level control, 10K, 6sec. Time delay LLCO			2
		DFL1AOZ-04-04-15	Dual level control, 10K, 15sec. Time delay LLCO			1
		DFM1AOZ-04-04-06	Dual level control, 26K, 6sec. Time delay LLCO			1
	Siemens	LMV36.520A1	115V, Dual fuel control unit			3
		RWF55.50A9	Universal controller 100-240VAC			3
		OCI412.10	Modbus module for LMV			3
	Fireye	MEC120D-B	FS Chassis & cover			2
		MEP100-B	Programmer, relight op., 10sec. PTFI			2
		MEP230	Programmer, selectable purge timing (7, 30, 60, 90 sec.)		Same as MEP100-B, only varies in software	Interp.
		MEP560-B	Programmer, dip switches to select purge timing (7, 30, 60, 90 sec.)			2
		MERT4-B	Flame rod / Photocell amplifier, rectifier, 4 second max FFRT			2
		MEUV1	UV amplifier, 0.8 second max FFRT			2
		MEUV4	UV amplifier, 4 second max FFRT		Same as MEUV1, only varies in software	Interp.
		ED510UG	Top display kit & ED510 for Micro M			2
61-3060-B		Sub-base for Fireye M series			2	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.		Table Description: Miscellaneous		TABLE 7	
Model Line: Custom Boiler Control Panels					
Building Code: CBC 2019		Seismic Certification Limits:		$S_{DS} = 2.0 g \quad z/h = 1.0$ $S_{DS} = 3.2 g \quad z/h = 0.0$	
				$I_p = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
Displays	Honeywell	S7800A1142	Keyboard display module		2
		S7999D1006	Touchscreen display, for SOLA		1
	Schneider electric	TS-6XS-KT	6" Touch screen		3
	Siemens	AZL23.00A9	Programming display unit		3
Alarm	Jenkins	1005	4.25" Bell, 115VAC		2
	Wheelock	31T-115-S	4x4" Horn, 115VAC		2
	Floyd Bell	TMC-V86-201-Q	Alarm buzzer - Volume control		4
Hour meter	Hobbs	20017-14	A.C. hour meter 115V		2
Indicator Lights	Sorenson	3039-3-23-38640	Indicator light - grn - 24V		2
		3050-3-12-38620	Indicator light - 1/2" 115V		2
	Idec	HW4P-24V	Pilot light, 24V LED		4
Motor starter & heater	General Electric	CR306B002	Open starter size 0, 115V coil		3
		CR306C002	Open starter size 1, 115V coil		3
		CR123C6.30A	Heater for CR306		3
Power supply	Idec	PS5R-A24	24VDC 7.5W / 120VAC input		1,3
	Rhino	PSB24-060-P	24VDC 60W		4

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.
Model Line: Custom Boiler Control Panels

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
1a	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 1 -Wall mount -rigid)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
1b	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 1 -Wall mount -isolated)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
2a	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 2 -Wall mount -rigid)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
2b	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 2 -Wall mount -isolated)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
3a	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 3 -Wall mount -rigid)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
3b	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 3 -Wall mount -isolated)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
4a	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 4 -Wall mount -rigid)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5
4b	Custom Boiler Control Panel	PR039503 Revision 1 (UUT 4 -Wall mount -isolated)	National Technical Systems, Fullerton, California	2.0 3.2	0 1	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 1a
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	

Product Construction Summary:
14GA. painted carbon steel enclosure: Wiegmann - N412303012C

Options/Subcomponent Summary:
Transformers: General Electric - 9T58K0047, 9T58K0089; Honeywell - AT40C1004, AT175A1008. VFD: Lenze AC Tech - SM005S, ESV371N01SXB. Switches: Eaton - 8411K13; Carling - IM254-73; Del City - 7300013. Relays: Honeywell - R8222D104; Gems Warrick - 26B1AOZ-06; SSAC - KRDB424. Contactor: Honeywell - DP2030B5004. Terminal: Cooper Bussmann - KT3-WH, KAD. Circuit Breakers: Tyco Electronics - W28 X Q1A-5. Controllers: Honeywell - R7910A1019, R7911A1026; Gems Warrick - DFL1AOZ-04-04-15, DFM1AOZ-04-04-06. Display: Honeywell - S7999D1006. Power Supply: Idec - PS5R-A24.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
136	12	30	30	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85
		3.2	0.0	1.5				

Test Mounting Details:



Rigid wall mounted with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 1b
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	

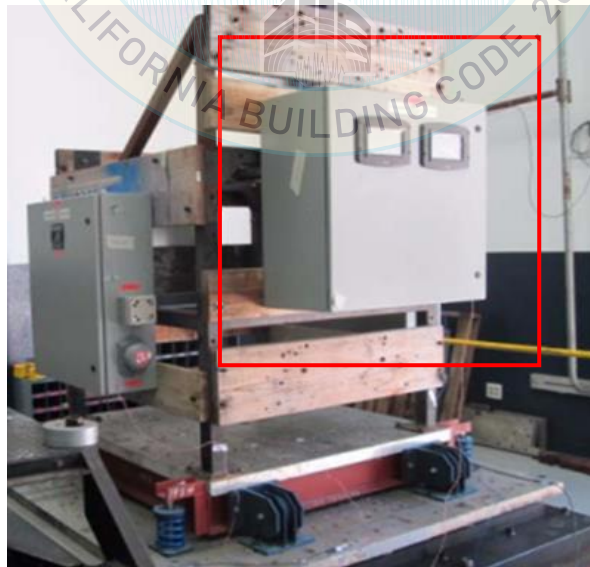
Product Construction Summary:
14GA. painted carbon steel enclosure: Wiegmann - N412303012C

Options/Subcomponent Summary:
Transformers: General Electric - 9T58K0047, 9T58K0089; Honeywell - AT40C1004, AT175A1008. VFD: Lenze AC Tech - SM005S, ESV371N01SXB. Switches: Eaton - 8411K13; Carling - IM254-73; Del City - 7300013. Relays: Honeywell - R8222D104; Gems Warrick - 26B1AOZ-06; SSAC - KRDB424. Contactor: Honeywell - DP2030B5004. Terminal: Cooper Bussmann - KT3-WH, KAD. Circuit Breakers: Tyco Electronics - W28 X Q1A-5. Controllers: Honeywell - R7910A1019, R7911A1026; Gems Warrick - DFL1AOZ-04-04-15, DFM1AOZ-04-04-06. Display: Honeywell - S7999D1006. Power Supply: Idec - PS5R-A24.

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
136	12	30	30	N/A	N/A	N/A

<i>UUT Highest Passed Seismic Run Information</i>									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85	
		3.2	0.0	1.5					

Test Mounting Details:



Isolated- wall mounted with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 2a
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	


Product Construction Summary:
14GA. painted carbon steel enclosure: Wiegmann - N412302408C

Options/Subcomponent Summary:
Switches: Eaton - 8411K10; Carling - 2GM54-73. **Fuses:** Littlefuse - FLM-3, FLQ-1.5; Buss - HPG. **Relays:** AMF Potter-Brumfield - KRPA-11AN-120; Idec - SR2P-06, RH2B-ULAC120, SH2B-05; General Electric - MTO3H, MTO3N; SSAC - ERDM425. **Contactor:** General Electric - MC1A. **Controllers:** Honeywell - RM7890A1056, RM7897C1000, R7847A1025, R7847A1033, Q7800B1003, ST7800A1013, ST7800A1062, T775U2006, T775M2048; Gems Warrick - DFL1AOZ-04-04-06; Fireye - MEC120D-B, MEP100-B, MEP560-B, MERT4-B, MEUV1, ED510UG, 61-3060-B. **Displays:** Honeywell - S7800A1142. **Alarm:** Jenkins - 1005; Wheelock - 31T-115-S. **Hour Meter:** Hobbs - 20017-14. **Indicator Lights:** Sorenson - 3039-3-23-38640, 3050-3-12-38620.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
102	8	24	30	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85	
		3.2	0.0	1.5					

Test Mounting Details:



Rigid-wall mounted with (4) 3/8" grade 5 bolts.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 2b
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	

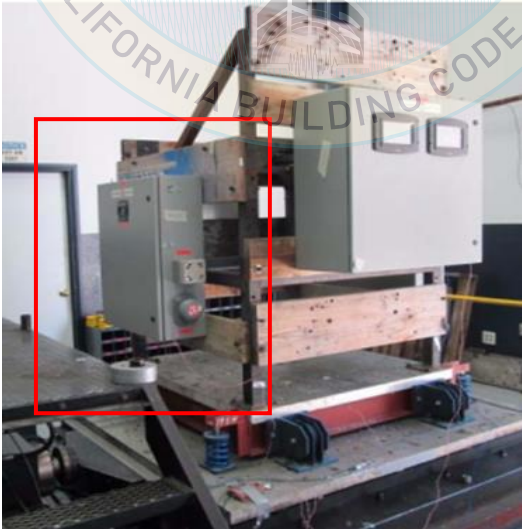
Product Construction Summary:
14GA. painted carbon steel enclosure: Wiegmann - N412302408C

Options/Subcomponent Summary:
Switches: Eaton - 8411K10; Carling - 2GM54-73. **Fuses:** Littlefuse - FLM-3, FLQ-1.5; Buss - HPG. **Relays:** AMF Potter-Brumfield - KRPA-11AN-120; Idec - SR2P-06, RH2B-ULAC120, SH2B-05; General Electric - MTO3H, MTO3N; SSAC - ERDM425. **Contactor:** General Electric - MC1A. **Controllers:** Honeywell - RM7890A1056, RM7897C1000, R7847A1025, R7847A1033, Q7800B1003, ST7800A1013, ST7800A1062, T775U2006, T775M2048; Gems Warrick - DFL1AOZ-04-04-06; Fireye - MEC120D-B, MEP100-B, MEP560-B, MERT4-B, MEUV1, ED510UG, 61-3060-B. **Displays:** Honeywell - S7800A1142. **Alarm:** Jenkins - 1005; Wheelock - 31T-115-S. **Hour Meter:** Hobbs - 20017-14. **Indicator Lights:** Sorenson - 3039-3-23-38640, 3050-3-12-38620.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
102	8	24	30	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85
		3.2	0.0	1.5				

Test Mounting Details:



Isolated-wall mounted with (4) 3/8" grade 5 bolts.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 3a
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	

Product Construction Summary:
14GA. painted carbon steel enclosure: Saginaw - SCE-24EL2408LP

Options/Subcomponent Summary:
Transformer: Siemens - A5Q20002669. **Contactors:** Siemens - 3RT1026-1AK60, 3RT1015-1AK61, 3RH1921-1DA11, 3RB2026-1QB0, 3RB2016-1PB0. **Terminals:** Siemens - AGG3.131. **Controllers:** Siemens - LMV36.520A1, RWF55.50A9, OCI412.10. **Displays:** Schneider Electric - TS-6XS-KT; Siemens - AZL23.00A9. **Motor Starter & Heater:** General Electric - CR306B002, CR306C002, CR123C6.30A. **Power Supply:** Idec - PS5R-A24.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
80	8	24	24	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85	
		3.2	0.0	1.5					

Test Mounting Details:



Rigid- wall mounted with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer:	Parker Boiler Co.	UUT 3b
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Boiler Control Panel	
		Serial Number: N/A

Product Construction Summary:
14GA. painted carbon steel enclosure: Saginaw - SCE-24EL2408LP

Options/Subcomponent Summary:
Transformer: Siemens - A5Q20002669. **Contactors:** Siemens - 3RT1026-1AK60, 3RT1015-1AK61, 3RH1921-1DA11, 3RB2026-1QB0, 3RB2016-1PB0. **Terminals:** Siemens - AGG3.131. **Controllers:** Siemens - LMV36.520A1, RWF55.50A9, OCI412.10. **Displays:** Schneider Electric - TS-6XS-KT; Siemens - AZL23.00A9. **Motor Starter & Heater:** General Electric - CR306B002, CR306C002, CR123C6.30A. **Power Supply:** Idec - PS5R-A24.

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
80	8	24	24	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85
		3.2	0.0	1.5				

Test Mounting Details:



Isolated- wall mounted with (4) 3/8" grade 5 bolts.
 Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
 Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer:	Parker Boiler Co.	UUT 4a
Model Line:	Custom Boiler Control Panels	
Model Number:	Custom Boiler Control Panel	
		Serial Number: N/A

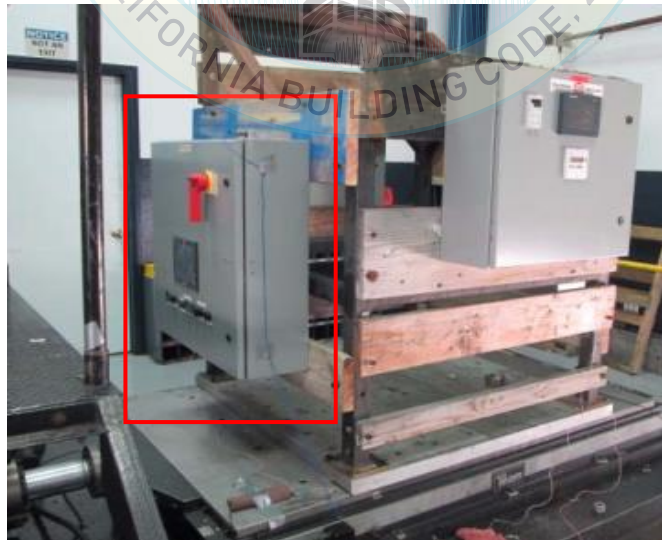
Product Construction Summary:
14GA. painted carbon steel enclosure: Saginaw - SCE-30EL3008LP

Options/Subcomponent Summary:
Transformers: HPS - PH250MQMJ, PH50PG. **VFD:** Lenze AC Tech - SM475, ESV552N04TXB. **Switches:** Automation Direct - GCX3100-SC, GCX3300, GCX3320-22, GCX3252-120L, GCX3262-120L; Mersen - SCV60, HGPR4L, SG320-10. **Relays:** Idec - RV8H-L-AD110, RV8H-L-D24; Automation Direct - 782-2C-120A, 782-2C-SKT; Fuji Electronics - TK-E02-1800. **Contactors:** Fuji Electronics - SC-E04-110VAC, SZ-A11T. **Terminals:** DINnector - DN-G10-10, DN-T12-A, DN-EB35MN, DN-LAB, DN-2J2Y. **Circuit Breakers:** Eaton - WMZS1D10, WMZS2D02, WMZS3D15. **Alarm:** Floyd Bell - TMC-V86-201-Q. **Indicator Light:** Idec - HW4P-24V. **Power Supply:** Rhino - PSB24-060-P.

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
140	8	30	30	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85	
		3.2	0.0	1.5					

Test Mounting Details:



Rigid- wall mounted with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1801233-CR-001 R0



Manufacturer: Parker Boiler Co.	UUT 4b
Model Line: Custom Boiler Control Panels	
Model Number: Custom Boiler Control Panel Serial Number: N/A	

Product Construction Summary:
14GA. painted carbon steel enclosure: Saginaw - SCE-30EL3008LP

Options/Subcomponent Summary:
Transformers: HPS - PH250MQMJ, PH50PG. **VFD:** Lenze AC Tech - SM475, ESV552N04TXB. **Switches:** Automation Direct - GCX3100-SC, GCX3300, GCX3320-22, GCX3252-120L, GCX3262-120L; Mersen - SCV60, HGPR4L, SG320-10. **Relays:** Idec - RV8H-L-AD110, RV8H-L-D24; Automation Direct - 782-2C-120A, 782-2C-SKT; Fuji Electronics - TK-E02-1800. **Contactors:** Fuji Electronics - SC-E04-110VAC, SZ-A11T. **Terminals:** DINnector - DN-G10-10, DN-T12-A, DN-EB35MN, DN-LAB, DN-2J2Y. **Circuit Breakers:** Eaton - WMZS1D10, WMZS2D02, WMZS3D15. **Alarm:** Floyd Bell - TMC-V86-201-Q. **Indicator Light:** Idec - HW4P-24V. **Power Supply:** Rhino - PSB24-060-P.

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
140	8	30	30	N/A	N/A	N/A

<i>UUT Highest Passed Seismic Run Information</i>									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156 (2010)	2.0	1.0	1.5	3.20	2.40	2.15	0.85	
		3.2	0.0	1.5					

Test Mounting Details:



Isolated- wall mounted with (4) 3/8" grade 5 bolts.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.