



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

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

OFFICE USE ONLY

**APPLICATION #: OSP-0302**

**OSHPD Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Price Industries Limited

Manufacturer's Technical Representative: Chris Hildebrand

Mailing Address: 638 Raleigh Street, Winnipeg, MB R2K3Z9

Telephone: (204) 669-4220

Email: ChrisHi@priceindustries.com

**Product Information**

Product Name: Air Conditioning Units

Product Type: Air Conditioning Units - Inline Fan and Terminal

Product Model Number: See attachments

General Description: Single duct terminal units, chilled beams and fan filter units.

Mounting Description: See Certified Product Tables, Suspended

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: DCL Labs

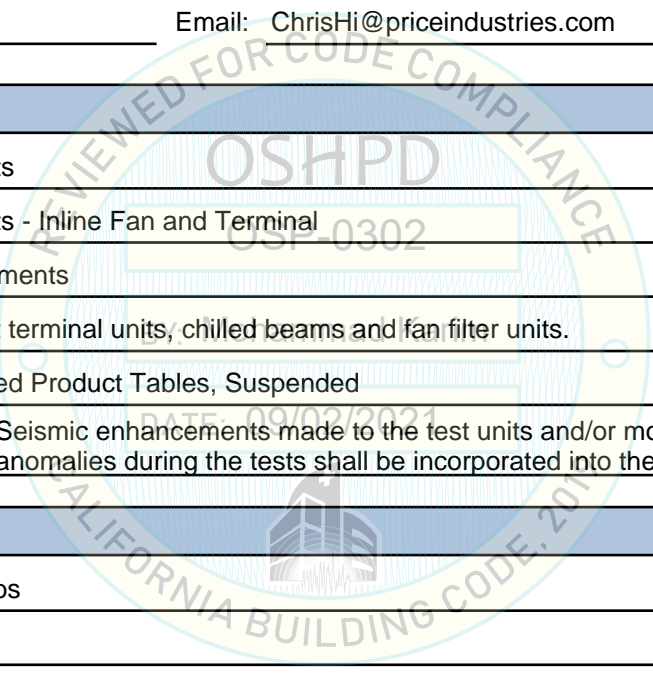
Contact Person: Kelly Laplace

Mailing Address: 1315 Greg St, Ste 109, Sparks, NV 89431

Telephone: (775) 358-5085

Email: kelly@shaketest.com

Title: Business Manager





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

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

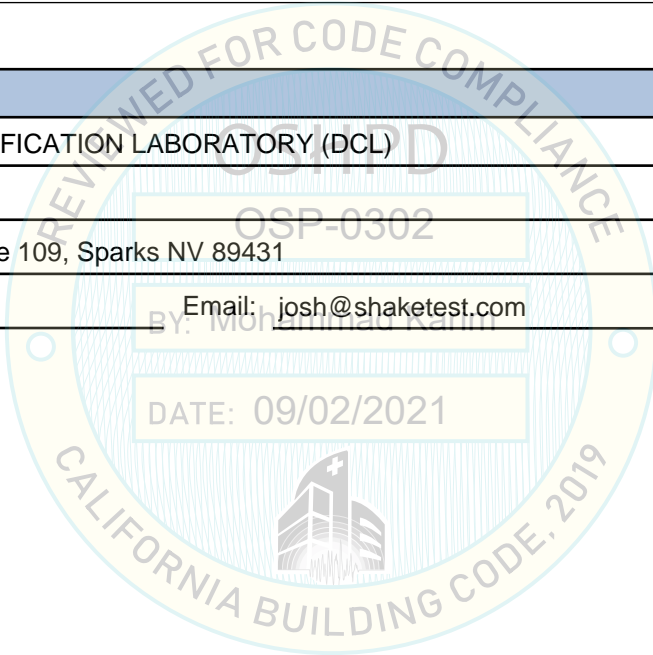
Company Name: THE VMC GROUP  
Name: Kenneth Tarlow California License Number: S2851  
Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814  
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

**Certification Method**

GR-63-Core       ICC-ES AC156       IEEE 344       IEEE 693       NEBS 3  
 Other (Please Specify): \_\_\_\_\_

**Testing Laboratory**

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)  
Contact Person: Josh Sailer  
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431  
Telephone: (775) 358-5085 Email: josh@shaketest.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = See attachments

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

$a_p$  (Amplification factor) = 2.5

$R_p$  (Response modification factor) = 2.5 (w/ spring isolators); 6.0 (w/out spring isolators)

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

$z/h$  (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

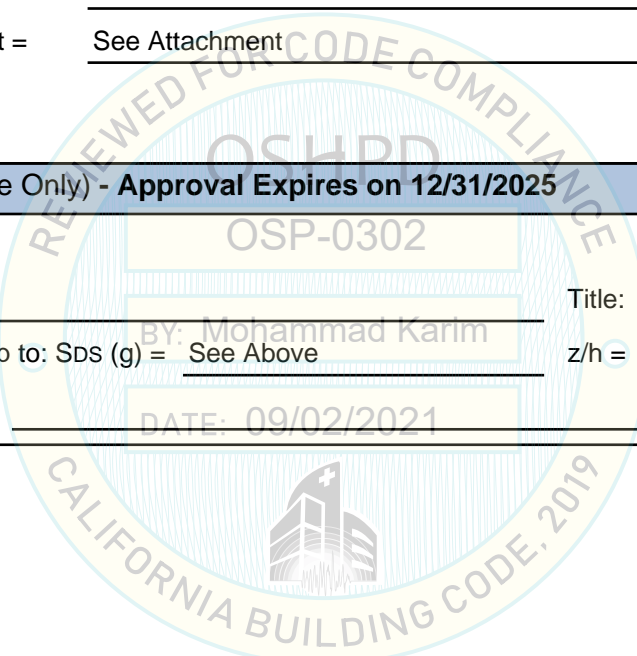
**OSHPD Approval (For Office Use Only) - Approval Expires on 12/31/2025**

Date: 9/2/2021

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = 1

Condition of Approval (if applicable): DATE: 09/02/2021



**Special Seismic Certification**  
**Certified Components: SDV / SDVQ**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited **TABLE 1**

**Product Line:** Air handling units -- Terminal Units SDV / SDVQ

**Mounting Description:** Ceiling suspended (with or without spring isolators)

**Seismic Certification Limits:** Sds = 2.50 g at z/h=1.0 (Fp/Wp = 1.88 or 4.50)

**Notes:** Cabinet construction is zinc coated carbon steel; silencer is 3', 5', elbow or none

New Model Number <sup>1</sup>	Old Model Number	Cabinet Dimensions (in)				Max. Weight (lb)	Unit
		Length w/ Access Section	Length	Width	Height		
SDV / SDVQ Sz 4	SDV / SDVQ 5xxx/8xxx Sz 4	32 1/2	22 1/8	12	8	33	UUT1
SDV / SDVQ Sz 4	SDV / SDVQ 5xxx/8xxx Sz 4	32 1/2	22 1/8	12	8	60	UUT15A
SDV / SDVQ Sz 4	SDV / SDVQ 5xxx/8xxx Sz 4	32 1/2	22 1/8	12	8	60	UUT15B
SDV / SDVQ Sz 4	SDV / SDVQ 5xxx/8xxx Sz 4	N/A	42 1/4	12	8	49	UUT24A
SDV / SDVQ Sz 4	SDV / SDVQ 5xxx/8xxx Sz 4	N/A	42 1/4	12	8	49	UUT24B
SDV / SDVQ Sz 5	SDV / SDVQ 5xxx/8xxx Sz 5	32 1/2	22 1/8	12	8	33 to 177	Interpolated
SDV / SDVQ Sz 6	SDV / SDVQ 5xxx/8xxx Sz 6	32 1/2	20 1/8	12	8		Interpolated
SDV / SDVQ Sz 7	SDV / SDVQ 5xxx/8xxx Sz 7	32 1/2	20 1/8	12	10		Interpolated
SDV / SDVQ Sz 8	SDV / SDVQ 5xxx/8xxx Sz 8	32 1/2	20 1/8	12	10		Interpolated
SDV / SDVQ Sz 9	SDV / SDVQ 5xxx/8xxx Sz 9	32 1/2	20 1/8	14	12 1/2		Interpolated
SDV / SDVQ Sz 10	SDV / SDVQ 5xxx/8xxx Sz 10	32 1/2	20 1/8	14	12 1/2		Interpolated
SDV / SDVQ Sz 12	SDV / SDVQ 5xxx/8xxx Sz 12	32 1/2	20 1/8	16	15		Interpolated
SDV / SDVQ Sz 14	SDV / SDVQ 5xxx/8xxx Sz 14	35 5/8	23 5/8	20	17 1/2		Interpolated
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	81	UUT2
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13A
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13B
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13C
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13D
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT18A
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13E
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13F
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13G
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT13H
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT14A
SDV / SDVQ Sz 16	SDV / SDVQ 5xxx/8xxx Sz 16	35 5/8	23 5/8	24	18	177	UUT18B
SDV / SDVQ Sz 24x16	SDV / SDVQ 5xxx/8xxx Sz 24x16	31	19	38	18	260	UUT12B
SDV / SDVQ Sz 24x16	SDV / SDVQ 5xxx/8xxx Sz 24x16	31	19	38	18	260	UUT12C
SDV / SDVQ Sz 24x16	SDV / SDVQ 5xxx/8xxx Sz 24x16	N/A	38 1/2	38	18	340	UUT25A
SDV / SDVQ Sz 24x16	SDV / SDVQ 5xxx/8xxx Sz 24x16	N/A	38 1/2	38	18	340	UUT25B

Notes:

1. SDVQ is an SDV with housing extension including optional access door section.

# Special Seismic Certification

Certified Components: ACBL, ACBL HE, ACBM HE, ACBH



DCL Project No. 21854-2001

Manufacturer: Price Industries Limited

TABLE 2

Product Line: Air handling units -- Chilled Beams: ACBL, ACBL HE, ACBM HE, ACBH

Mounting Description: Ceiling suspended (without spring isolators)

Seismic Certification Limits: Sds = 1.93 g at z/h=1.0 (Fp/Wp = 1.45)

Notes: Cabinet construction is powder coated carbon steel

Model	Cabinet Dimensions (in)			Max. Weight (lb)	Unit
	Length	Width	Height		
ACBL 12x24	23 3/4	11 3/4	10	19	UUT3A
ACBL 12x24	23 3/4	11 3/4	10	21	UUT3B
ACBL 12x36	35 3/4	11 3/4	10	19 to 100	Interpolated
ACBL 12x48	47 3/4	11 3/4	10		Interpolated
ACBL 12x60	59 3/4	11 3/4	10		Interpolated
ACBL 12x72	71 3/4	11 3/4	10		Interpolated
ACBL 12x84	83 3/4	11 3/4	10		Interpolated
ACBL 12x96	95 3/4	11 3/4	10		Interpolated
ACBL 12x108	107 3/4	11 3/4	10		Interpolated
ACBL 12x120	119 3/4	11 3/4	10	100	UUT4B
ACBL HE 24x24	23 3/4	23 3/4	10	28	UUT5A
ACBL HE 24x24	23 3/4	23 3/4	10	33	UUT5B
ACBL HE 24x24	23 3/4	23 3/4	10	33	UUT5C
ACBL HE 24x36	35 3/4	23 3/4	10	28 to 153	Interpolated
ACBL HE 24x48	47 3/4	23 3/4	10		Interpolated
ACBL HE 24x60	59 3/4	23 3/4	10		Interpolated
ACBL HE 24x72	71 3/4	23 3/4	10		Interpolated
ACBL HE 24x84	83 3/4	23 3/4	10		Interpolated
ACBL HE 24x96	95 3/4	23 3/4	10		Interpolated
ACBL HE 24x108	107 3/4	23 3/4	10		Interpolated
ACBL HE 24x108	107 3/4	23 3/4	10	153	UUT22
ACBL HE 24x120	119 3/4	23 3/4	10	136	UUT9B
ACBL HE 24x120	119 3/4	23 3/4	10	136	UUT9A
ACBL HE 24x120	119 3/4	23 3/4	10	172	UUT23
ACBM HE 24x24	23 3/4	23 3/4	12	32	UUT10A
ACBM HE 24x24	23 3/4	23 3/4	12	32	UUT10B
ACBM HE 24x48	23 3/4	47 3/4	12	32-107	Interpolated
ACBM HE 48x24	47 3/4	23 3/4	12		Interpolated
ACBM HE 48x48	47 3/4	47 3/4	12		Interpolated
ACBM HE 24x72	71 3/4	23 3/4	12	107	UUT11B
ACBM HE 24x72	71 3/4	23 3/4	12	107	UUT11D
ACBH 48	48	17	8	130	UUT7B

**Special Seismic Certification**  
**Certified Components: FFU and FFU HE**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited

**TABLE 3**

**Product Line:** Air handling units -- Fan Filter Units: FFU and FFU-HE

**Mounting Description:** Ceiling suspended (without spring isolators)

**Seismic Certification Limits:** Sds = 2.0 g at z/h=1.0 (Fp/Wp = 1.50)

**Notes:** Cabinet construction is Stainless steel, aluminum or painted aluminum, w/ 1" thick insulation

Model	Cabinet Dimensions (inches)			Weight (lb)	Unit
	Length	Width	Height		
FFU 2 x 2	23 3/4	23 3/4	18 7/8	60	UUT16
FFU 2 x 3	35 3/4	23 3/4	18 7/8 Max	60 - 74	Interpolated
FFU 2 x 4	47 3/4	23 3/4	18 1/8	74	UUT17
FFU HE 2 x 2	23 1/3	23 2/3	19 1/4	54	UUT21
FFU HE 2 x 3	35 3/4	23 3/4	19 1/4 Max	54 - 66	Interpolated
FFU HE 2 x 4	47 7/8	23 7/8	17 2/5	66	UUT20
FFU HE 2 x 4	47 7/8	23 7/8	19 1/4	96	UUT19A,B,C



**Special Seismic Certification**  
**Certified Subcomponents: SDV / SDVQ**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited **TABLE 4**

**Product Line:** Air handling units: SDV / SDVQ

**Mounting Description:** Ceiling suspended (with or without spring isolators)

**Seismic Certification Limits:** Sds = 2.50 g at z/h=1.0 (Fp/Wp = 1.88 or 4.50)

**Water Coils**

Model Number	Manufacturer	Fin Material	Tube Material	Weight (lb)	Unit
1 row	Price	Aluminum	Copper	21	UUT15A-B
2 Row				30	Interpolated
3 Row				42	Interpolated
4 row				52	UUT1, 2, 12B-C, 13A-H

**Electric Coils (EC)**

Model Number	Manufacturer	Material	Weight (lb)	Unit
EC Sz. 4 / 5 / 6	Price	Zinc-coated carbon steel	26	UUT24A-B
EC Sz. 7 / 8			28	Interpolated
EC Sz. 9 / 10			32	Interpolated
EC Sz. 12			37	Interpolated
EC Sz. 14			43	Interpolated
EC Sz. 16			48	Interpolated
EC Sz. 24x16			76	UUT25A-B

**Liners (Terminal Casing and Silencer/Attenuator)**

Model Number	Manufacturer	Material	Weight (lb)	Unit
CRAF	Price	Cleanroom aluminum foil faced fiberglass	8	UUT12B-C
SM		Solid metal (22 gauge zinc-coated carbon steel)	20	UUT13A-H, 25A-B
PM		Perforated metal (22 gauge zinc-coated carbon steel)	15	UUT13A-H
AFPM		Aluminum foil faced fiberglass with perforated metal	12	UUT13A-H
FF		Fiber free foam	5	UUT15A-B
FB		Foil faced fiberglass board	5	UUT15A-B
FG		Fiberglass	5	UUT1, 2, 18A-B, 24A-B
FC		Fiberglass cloth (silencer/attenuator only)	10	UUT15A-B, 13A-H
PL		Polymer film liner (silencer/attenuator only)	8	UUT12B-C

**SDV Attenuators / SDVQ Silencers**

Model Number	Manufacturer	Liner Material	Weight (lb)	Unit
SDVQ Elbow Silencer	Price	Casing may be the same as terminal casing liner (CRAF, SM, PM, AFPM, FF, FB, FG). Attenuators/silencers may have optional fiberglass cloth (FC) or polymer film (PL) liner.	52	UUT15A-B
SDVQ 3' Silencer (36")			52	UUT13A-H
SDV 3' Attenuator (36")			49	Interpolated
SDV 5' Attenuator (59")			82	Interpolated
5' Silencer (60")			87	UUT12B-C, 25A-B



**Special Seismic Certification**  
**Certified Subcomponents (Continued): SDV / SDVQ**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited

**TABLE 5**

**Product Line:** Air handling units: SDV / SDVQ

**Mounting Description:** Ceiling suspended (with or without spring isolators)

**Seismic Certification Limits:** Sds = 2.50 g at z/h=1.0 (Fp/Wp = 1.88 or 4.50)

**Damper Actuator Controller**

Model Number	Manufacturer	Description	Material	Weight (lb)	Unit
PIC	Price	Controller w/ integral actuator; 24V	Plastic cover with circuit board	10	UUT2, 13B, 13G, 24A-B, 25A-B
PAC		Controller, 24V w/KMC MEP 4003 actuator		10	UUT12B-C
W7751F	Honeywell	Controller, 24V (208/240V transformer)		8	UUT13A, 13H
W7751H		Controller w/ integral actuator, 24V (120V transformer)		8	UUT13D, 13E
W7751D		Controller, 24V		8	Interpolated
W7751B		Controller, 24V		8	Interpolated
PVL6436AS		Controller w/ integral actuator, 24V		8	UUT13C, 13F
MS VMA1620		Johnson Controls		Controller w/ integral actuator, 24V	7
GDE131.1P	Siemens	Damper actuator controller, 24V (120V transformer)		6	UUT1
540-100 & GDE131		Controller / actuator combo, 24V (277V transformer)		9	UUT15A, 15B
540-110 & GDE131		Controller / actuator combo, 24V (277V transformer)		9	Same as UUT15A-B
550-065 & GDE131		Controller / actuator combo, 24V		9	Same as UUT13B,G
550-066 & GDE131		Controller / actuator combo, 24V		9	Same as UUT13B,G
550-067 & GDE131		Controller / actuator combo, 24V		9	Same as UUT13B,G
550-068 & GDE131		Controller / actuator combo, 24V		9	UUT13B, 13G
550-767 & GDE131		Controller / actuator combo, 24V		9	Same as UUT13D-E
540-844 & GDE131		Controller / actuator combo, 24V		9	UUT13D-E
MR-VAV-AX		Schneider Electric (TAC)		Controller w/ integral actuator, 24V	7
Xenta 102-AX	Controller w/ integral actuator, 24V			8	UUT13C, 13F
b3-866-V	Schneider Electric (Andover)	Controller w/ integral actuator, 24V		7	Same as UUT12B-C
b3-865-V		Controller w/ integral actuator, 24V	7	Same as UUT12B-C	
i2 866-V		Controller w/ integral actuator, 24V	7	Same as UUT12B-C	
i2 865-V		Controller w/ integral actuator, 24V	7	Same as UUT12B-C	
MNL-V2RV3	Schneider Electric (Invensys)	Controller w/ integral actuator, 24V	7	Same as UUT12B-C	
ZN141V+	Automated Logic	Controller w/ integral actuator, 24V	7	Same as UUT18A-B	
ZN341V+		Controller w/ integral actuator, 24V	7	UUT18A-B (x2)	



# Special Seismic Certification

Certified Subcomponents: ACBL, ACBL HE, ACBM HE, ACBH



DCL Project No. 21854-2001

Manufacturer: Price Industries Limited

TABLE 6

Product Line: Air handling units: Chilled Beams: ACBL, ACBL HE, ACBM HE, ACBH

Mounting Description: Ceiling suspended (without spring isolators)

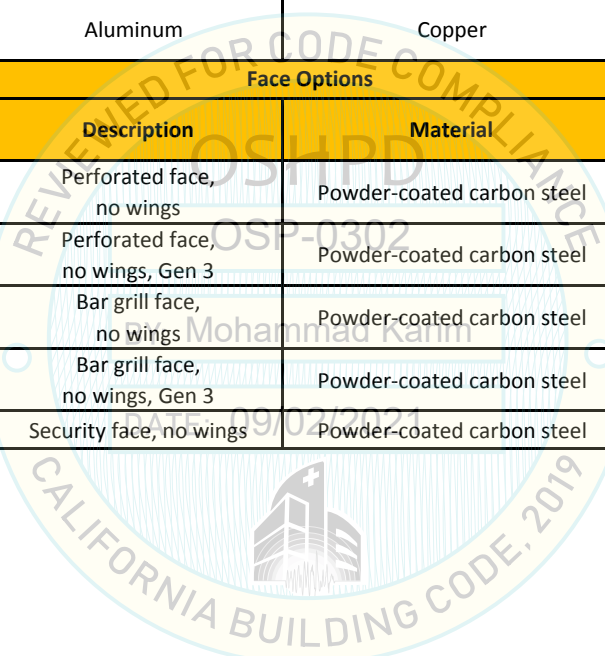
Seismic Certification Limits: Sds = 1.93 g at z/h=1.0 (Fp/Wp = 1.45)

### Coils

Model Number	Manufacturer	Fin Material	Tube Material	Max. Weight (lb)	Unit
1 row, 2 pipe	Price	Aluminum	Copper	27	Extrapolated
1 row, 4 pipe		Aluminum	Copper	29	UUT10A-B, 11B-D
2 row, 2 pipe		Aluminum	Copper	30	UUT7B
2 row, 4 pipe		Aluminum	Copper	32	UUT3A-B, 4B, 5A-C, 22, 23

### Face Options

Model Number	Manufacturer	Description	Material	Max. Weight (lb)	Unit
n/a	Price	Perforated face, no wings	Powder-coated carbon steel	28	UUT10A-B, 11B-D, UUT3A, 5A
n/a		Perforated face, no wings, Gen 3	Powder-coated carbon steel	28	UUT23
n/a		Bar grill face, no wings	Powder-coated carbon steel	45	UUT3B, 5B
n/a		Bar grill face, no wings, Gen 3	Powder-coated carbon steel	45	UUT22
n/a		Security face, no wings	Powder-coated carbon steel	12	UUT7B



**Special Seismic Certification**  
**Certified Subcomponents: FFU and FFU HE**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited **TABLE 7**

**Product Line:** Air handling units: Fan Filter Units: FFU and FFU HE

**Mounting Description:** Ceiling suspended (without spring isolators)

**Seismic Certification Limits:** Sds = 2.0 g at z/h=1.0 (Fp/Wp = 1.50)

**Duct Inlet**

Model Number	Manufacturer	Duct Diameter (in)	Material	Weight (lb)	Unit
237661-003	Price	8	Aluminum	4	Extrapolated
237661-001		10		4	UUT16
237661-002		12		4	UUT17

**Fan Motor**

Model Number	Manufacturer	Voltage	HP	Type <sup>1</sup>	Material	Weight (lb)	Unit
5KCP39GGWE97S	Genteq	115V	1/6	PSC	Painted carbon steel, copper	12	Extrapolated
5KCP39GGWE96S		208-240V		PSC		12	Extrapolated
5KCP39GGZ340S		115V	1/5	PSC		12	UUT20
5KCP39GGZ363S		208-240V		PSC		12	Interpolated
5KCP39GGZ362S		277V		PSC		12	UUT21
5SAD39DLV519S	Broad Ocean	120/240/277V	1/3	ECM	Painted carbon steel, copper	9	UUT16, 17
5SAB39DLV5487		115/240V	1/3	ECM		9	UUT19A
019219-001		115V	1/3	ECM		9	UUT19B
019219-002		240V	1/3	ECM		9	UUT19C
019219-003		277V	1/3	ECM		9	Extrapolated

**Fan Wheel**

Model Number	Manufacturer	Description	Inlet	Material	Weight (lb)	Unit
BC-1075-300S	Revcor	Forward curved wheel	Single	Zinc plated carbon steel	6	UUT16
BC-1162-400S			Single		6	UUT17
33-30016	Morrison	Backward curved wheel	Single	Aluminum	8	UUT20

1. PSC= permanent split capacitor (constant speed); ECM = electrically commutated motor (variable speed)

**Special Seismic Certification**  
**Certified Subcomponents: FFU and FFU HE (Continued)**



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited

**TABLE 8**

**Product Line:** Air handling units: Fan Filter Units: FFU and FFU HE

**Mounting Description:** Ceiling suspended (without spring isolators)

**Seismic Certification Limits:** Sds = 2.0 g at z/h=1.0 (Fp/Wp = 1.50)

Filters (HEPA, ULPA)							
Model Number	Manufacturer	Description	Size (in)	Material	Weight (lb)	Unit	
0-007-3-19-06-SU-52-00-19P19P	Flanders	HEPA filter	12	Aluminum frame, glass microfiber media	12	UUT16	
0-007-2-19-06-SU-52-00-19P31P			15		15	Interpolated	
0-007-2-19-06-SU-52-00-19P43P			19		18	UUT17	
0-009-3-19-06-SU-52-00-19P19P		ULPA filter	12		12	Extrapolated <sup>1</sup>	
0-009-2-19-06-SU-52-00-19P31P			15		15	Extrapolated <sup>1</sup>	
0-009-2-19-06-SU-52-00-19P43P			19		18	Extrapolated <sup>1</sup>	
45349PI	Filtration Group	Room Side Replaceable (RSR)	24 x 24	Aluminum frame, glass microfiber media	12	UUT21	
45350PI			24 x 36		15	Interpolated	
45351PI			24 x 48		18	UUT19A,B,C	
45384PI		Bench Top Replaceable (BTR)	HEPA filter		24 x 24	14	Extrapolated <sup>2</sup>
45385PI			24 x 36		17	Extrapolated <sup>2</sup>	
45386PI			24 x 48		20	UUT20	
45352PI		Room Side Replaceable (RSR)	HEPA filter		24 x 24	12	Extrapolated <sup>1</sup>
45353PI					24 x 36	15	Extrapolated <sup>1</sup>
45354PI					24 x 48	18	Extrapolated <sup>1</sup>
45387PI		Bench Top Replaceable (BTR)	ULPA filter		24 x 24	14	Extrapolated <sup>1</sup>
45388PI					24 x 36	17	Extrapolated <sup>1</sup>
45389PI					24 x 48	20	Extrapolated <sup>1</sup>

1. Extrapolated filters are identical to the tested filters, except for the coarseness of the filter media.

2. Extrapolated filters are bookended in type and construction by the tested units.

# Special Seismic Certification

## Certified Subcomponents: FFU and FFU HE (Continued)



DCL Project No. 21854-2001

**Manufacturer:** Price Industries Limited

**TABLE 9**

**Product Line:** Air handling units: Fan Filter Units: FFU and FFU HE

**Mounting Description:** Ceiling suspended (without spring isolators)

**Seismic Certification Limits:** Sds = 2.0 g at z/h=1.0 (Fp/Wp = 1.50)

LED Kit						
Model Number	Manufacturer	Description	Material	Weight (lb)	Unit	
FL	Price	LED filter indicator option	Plastic	3	UUT16, 17	
ML		LED motor indicator option		3	UUT16, 17	
Controller						
Model Number	Manufacturer	Description	Material	Weight (lb)	Unit	
ECMDX	Price	ECM Deluxe Speed Controller	Galvanized carbon steel plate, fiberglass circuit board	5	UUT16, 17	
ECM		ECM Standard Speed Controller		5	Extrapolated <sup>1</sup>	
BFC		BACnet Flow Controller		5	UUT19A-C	
USC 115V		Universal Speed Controller		5	UUT 20	
USC 208-240/277V		Universal Speed Controller		5	UUT 21	
Contactors						
Model Number	Manufacturer	Description	Outer Material	Winding Material	Weight (lb)	Unit
HCT-01D0AA03173	Hartland Controls	3"L x 3"D x 2"H	Plastic cover with carbon steel	Copper	1	UUT16, 17
HCT-03D0AA03173		3"L x 3"D x 2"H			1	UUT19C
HCT-09D0AA03173		3"L x 3"D x 2"H			1	Extrapolated <sup>2</sup>
FFU Options						
Model Number	Manufacturer	Description	Material	Weight (lb)	Unit	
ATS	Price	Aerosol test system	Aluminum port, rubber tubing	2	UUT16, 17	
Pressure Port		Static pressure port	Stainless steel bolt, aluminum rivet nut	1	UUT16, 17	
FL		LED filter indicator option	Galvanized carbon steel box, LED, electrical components	1	UUT16, 17	
ML		LED motor indicator option	Galvanized carbon steel box, LED, electrical components	1	UUT16, 17	
FBAS		Filter building automation signal option	Galvanized carbon steel box, electrical components	1	UUT16, 17	
MBAS		Motor building automation system signal option	Galvanized carbon steel box, electrical components	1	UUT16, 17	

1. Extrapolated controller is a depopulated version of the controller tested in UUT16 and UUT17.

2. Extrapolated contactor identical in material, configuration, size and weight to the contactors tested in UUT16 and UUT17.

**Special Seismic Certification  
Tested Components**



DCL Project No. 21854-2001

Manufacturer: Price Industries Limited

TABLE 10

Product Line: Air handling units

Mounting Description: Ceiling suspended (with or without spring isolators)

Model <sup>1</sup>	Cabinet Construction	Cabinet Dimensions (in)			Weight (lb)	Threaded Rod Hanger Dia. (in)	Diagonal Cable Brace Dia. (in)	Max. Hanger Rod Length w/out Stiffener (in)	Max. Hanger Rod Spacing, Unit Only (in)	Max. Hanger Rod Spacing, Including Silencer (in)	Spring Isolators	Sds (g), z/h=1	F <sub>p</sub> /W <sub>p</sub>	Report Number	Unit	
		Length w/ Access Section	Length	Width												Height
<b>SDV, SDVQ</b>																
SDV 4	Zinc-coated carbon steel	n/a	22 1/8	12	8	33	3/8	3/16	12	12	n/a	No	2.50	1.88	82100-1201	UUT1
SDV 4	Zinc-coated carbon steel w/ EC	n/a	42 1/4	12	8	40	3/8	3/16	12	12	n/a	No	2.50	1.88	21854-2001	UUT24A
SDV 4	Zinc-coated carbon steel w/ EC	n/a	42 1/4	12	8	40	3/8	3/16	12	12	n/a	Yes	2.50	4.50	21854-2001	UUT24B
SDV 16	Zinc-coated carbon steel	n/a	23 5/8	24	18	81	3/8	3/16	12	16	n/a	No	2.50	1.88	82100-1201	UUT2
SDV 16	Zinc-coated carbon steel	n/a	23 5/8	24	18	81	3/8	3/16	n/a	16	n/a	Yes	2.50	4.50	82100-1202	UUT14A
SDV 16	Zinc-coated carbon steel	n/a	23 5/8	24	18	42	3/8	3/16	n/a	22	n/a	No	2.50	1.88	58004-1501	UUT18A
SDV 16	Zinc-coated carbon steel	n/a	23 5/8	24	18	42	3/8	3/16	n/a	22	n/a	Yes	2.50	4.50	58004-1501	UUT18B
SDVQ 4	Zinc-coated carbon steel w/ elbow silencer	32 1/2	22 1/8	12	8	60	3/8	3/16	n/a	12	35	No	2.50	1.88	82100-1202	UUT15A
SDVQ 4	Zinc-coated carbon steel w/ elbow silencer	32 1/2	22 1/8	12	8	60	3/8	3/16	n/a	12	35	Yes	2.50	4.50	82100-1202	UUT15B
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	No	2.50	1.88	82100-1202	UUT13A
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	No	2.50	1.88	82100-1202	UUT13B
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	No	2.50	1.88	82100-1202	UUT13C
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	No	2.50	1.88	82100-1202	UUT13D
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	Yes	2.50	4.50	82100-1202	UUT13E
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	Yes	2.50	4.50	82100-1202	UUT13F
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	Yes	2.50	4.50	82100-1202	UUT13G
SDVQ 16	Zinc-coated carbon steel w/ 3ft silencer	35 5/8	23 5/8	24	18	177	3/8	3/16	n/a	16	47	Yes	2.50	4.50	82100-1202	UUT13H
SDVQ 24x16	Zinc-coated carbon steel w/ 5ft silencer	31	19	38	18	260	3/8	3/16	n/a	12	75	No	2.50	1.88	82100-1202	UUT12B
SDVQ 24x16	Zinc-coated carbon steel w/ 5ft silencer	31	19	38	18	260	3/8	3/16	n/a	12	75	Yes	2.50	4.50	82100-1202	UUT12C
SDVQ 24x16	Zinc-coated carbon steel w/ EC, 5ft silencer	n/a	38 1/2	38	18	285	3/8	3/16	12	12	75	No	2.50	1.88	21854-2001	UUT25A
SDVQ 24x16	Zinc-coated carbon steel w/ EC, 5ft silencer	n/a	38 1/2	38	18	285	3/8	3/16	12	12	75	Yes	2.50	4.50	21854-2001	UUT25B

1. SDVQ is an SDV with housing extension including optional access door section.



**Special Seismic Certification  
Tested Components (Continued)**



DCL Project No. 21854-2001

Manufacturer: Price Industries Limited

TABLE 11

Product Line: Air handling units

Mounting Description: Ceiling suspended (with or without spring isolators)

Model	Cabinet Construction	Cabinet Dimensions (in)			Weight (lb)	Threaded Rod Hanger Diameter (in)	Diagonal Cable Brace Diameter (in)	Max. Hanger Rod Length w/out Stiffener (in)	Max. Hanger Rod Spacing, unit only (in)	Spring Isolators	Sds (g), z/h=1	F <sub>p</sub> /W <sub>p</sub>	Report Number	Unit
		Length	Width	Height										
<b>ACBL, ACBL HE, ACBM HE, ACBH</b>														
ACBL 12x24	Powder-coated carbon steel	23 3/4	11 3/4	10	19	3/8	1/8	12	12	No	2.50	1.88	82100-1201	UUT3A
ACBL 12x24	Powder-coated carbon steel	23 3/4	11 3/4	10	21	3/8	1/8	12	12	No	2.50	1.88	82100-1201	UUT3B
ACBL 12x120	Powder-coated carbon steel	119 3/4	11 3/4	10	100	1/2	3/16	n/a	62	No	2.50	1.88	82100-1203	UUT4B
ACBL HE 24x24	Powder-coated carbon steel	23 3/4	23 3/4	10	28	3/8	1/8	12	12	No	2.50	1.88	82100-1201	UUT5A
ACBL HE 24x24	Powder-coated carbon steel	23 3/4	23 3/4	10	33	3/8	1/8	12	12	No	2.50	1.88	82100-1201	UUT5B
ACBL HE 24x24	Powder-coated carbon steel	23 3/4	23 3/4	10	33	3/8	1/8	12	12	Yes	2.50	4.50	82100-1203	UUT5C
ACBL HE 24x120	Powder-coated carbon steel	119 3/4	23 3/4	10	136	3/8	3/16	n/a	54	No	2.50	1.88	82100-1203	UUT9A
ACBL HE 24x120	Powder-coated carbon steel	119 3/4	23 3/4	10	136	3/8	3/16	n/a	54	Yes	1.93	3.47	82100-1203	UUT9B
ACBL HE 24x108	Powder-coated carbon steel	107 3/4	23 3/4	10	153	3/8	3/16	n/a	37	No	2.50	1.88	51223-1601	UUT22
ACBL HE 24x120	Powder-coated carbon steel	119 3/4	23 3/4	10	172	3/8	3/16	n/a	37	No	2.50	1.88	51223-1601	UUT23
ACBM HE 24x24	Powder-coated carbon steel	23 3/4	23 3/4	12	32	3/8	3/16	n/a	18	No	2.50	1.88	82100-1203	UUT10A
ACBM HE 24x24	Powder-coated carbon steel	23 3/4	23 3/4	12	32	3/8	3/16	n/a	18	Yes	2.50	4.50	82100-1203	UUT10B
ACBM HE 24x72	Powder-coated carbon steel	71 3/4	23 3/4	12	107	3/8	3/16	n/a	50	No	2.50	1.88	82100-1203	UUT11B
ACBM HE 24x72	Powder-coated carbon steel	71 3/4	23 3/4	12	107	3/8	3/16	n/a	50	Yes	2.50	4.50	82100-1203	UUT11D
ACBH 48	Powder-coated carbon steel	48	17	8	130	3/8	3/16	10	49	No	2.50	1.88	82100-1201	UUT7B
<b>FFU, FFU HE</b>														
FFU 2 x 2	Painted aluminum	23 3/4	23 3/4	18 7/8	60	3/8	3/16	n/a	21	No	2.50	1.88	44923-1401	UUT16
FFU 2 x 4	Painted aluminum	47 3/4	23 3/4	18 1/8	74	3/8	3/16	n/a	44	No	2.50	1.88	44923-1401	UUT17
FFU HE 2 x 2	Painted aluminum	23 2/3	23 2/3	19 1/4	54	3/8	3/16	n/a	22	No	2.00	1.50	62341-1601	UUT21
FFU HE 2 x 4	Stainless steel	47 7/8	23 7/8	19 1/4	96	3/8	3/16	n/a	46	No	2.00	1.50	62341-1601	UUT19A
FFU HE 2 x 4	Stainless steel	47 7/8	23 7/8	19 1/4	96	3/8	3/16	n/a	46	No	2.00	1.50	62341-1601	UUT19B
FFU HE 2 x 4	Stainless steel	47 7/8	23 7/8	19 1/4	96	3/8	3/16	n/a	46	No	2.00	1.50	62341-1601	UUT19C
FFU HE 2 x 4	Aluminum	47 7/8	23 7/8	17 2/5	66	3/8	3/16	n/a	46	No	2.00	1.50	62341-1601	UUT20

BY: Mohammad Karim

DATE: 09/02/2021





# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited					<b>UUT 1</b>			
<b>Product Line:</b> Air Handling Units								
<b>Model Number:</b> SDV 4								
<b>Product Construction Summary:</b> Zinc-coated steel cabinet								
<b>Options / Component Summary:</b> 1 row water coil, fiberglass liner, Siemens GDE131.1P controller, 24V with 120V transformer								
<b>Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.</b>								
<b>UUT Properties</b>								
Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)				
	Length	Width	Height	Front-Back	Side-Side	Vertical		
33	22 1/8	12	8	N/A	N/A	N/A		
<b>Seismic Test Parameters</b>								
Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 2</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDV 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil, fiberglass liner, Price (PIC) controller 24V with 120V transformer

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
81	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 3A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL 12x24

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, perforated face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
19	23 3/4	11 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, 1/8-inch diameter steel cable, and four manufacturer-provided friction clip brackets. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 3B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL 12x24

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, bar grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
21	23 3/4	11 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, 1/8-inch diameter steel cable, and four manufacturer-provided friction clip brackets. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 4B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL 12x120

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, bar grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
100	119 3/4	11 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 1/2-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using six manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 5A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL HE 24x24

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, perforated face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
28	23 3/4	23 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, 1/8-inch diameter steel cable and four manufacturer-provided friction clip brackets. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 5B</b>
<b>Product Line:</b> Air Handling Units	

<b>Model Number:</b> ACBL HE 24x24
<b>Product Construction Summary:</b> Powder-coated carbon steel

<b>Options / Component Summary:</b> 2-row 4-pipe water coils, bar grill face with no wings
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**Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.**

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
33	23 3/4	23 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, 1/8-inch diameter steel cable and four manufacturer-provided friction clip brackets. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 5C</b>
<b>Product Line:</b> Air Handling Units	
<b>Model Number:</b> ACBL HE 24x24	
<b>Product Construction Summary:</b> Powder-coated carbon steel	
<b>Options / Component Summary:</b> 2-row 4-pipe water coils, bar grill face with no wings	
<b>Note:</b> The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.	

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
33	23 3/4	23 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod (12-inch length between attachment points), SCBH Mason brackets, 1/8-inch diameter steel cable and four manufacturer-provided friction clip brackets. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited <b>Product Line:</b> Air Handling Units	<b>UUT 7B</b>
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<b>Model Number:</b> ACBH 48 <b>Product Construction Summary:</b> Powder-coated steel cabinet
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<b>Options / Component Summary:</b> 2-row 2-pipe water coils, security face
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**Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.**

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
130	48	17	8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



Terminal bracket used for UUT7B tests. Brackets are 12 gage zinc-coated steel attached to unit with four #14 sheet metal screws.

Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (10-inch length between attachment points), SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, connected to the unit with four #14 sheet metal screws each. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 9A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL HE 24x120

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, bar grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
136	119 3/4	23 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, 3/16-inch diameter steel cable, and six manufacturer-provided friction clip brackets. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 9B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL HE 24x120

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
2-row 4-pipe water coils, bar grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
136	119 3/4	23 3/4	10	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 2019	ICC-ES AC156	1.93	1.0	1.5	3.09	2.32	1.29	0.51

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, 3/16-inch diameter steel cable, and six manufacturer-provided friction clip brackets. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 10A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBM HE 24x24

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
4-pipe water coils, grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
32	23 3/4	23 3/4	12	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

### Unit Mounting Description:

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 10B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBM HE 24x24

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
4-pipe water coils, grill face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
32	23 3/4	23 3/4	12	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to the Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 11B</b>
<b>Product Line:</b> Air Handling Units	
<b>Model Number:</b> ACBM HE 24x72	
<b>Product Construction Summary:</b> Powder-coated carbon steel cabinet	
<b>Options / Component Summary:</b> 4-pipe water coils, perforated face with no wings	
<b>Note:</b> The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.	

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
107	71 3/4	23 3/4	12	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 11D</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBM HE 24x72

**Product Construction Summary:**  
Powder-coated carbon steel cabinet

**Options / Component Summary:**  
4-pipe water coils, perforated face with no wings

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
107	71 3/4	23 3/4	12	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

### Unit Mounting Description:

BY: Mohammad Karim



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using four manufacturer-supplied terminal brackets, model 222628-001, connected to the unit with four #8 sheet metal screws each. The threaded rod was stiffened with slotted A-12 channeled and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 12B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 24x16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; CRAF liner; Schneider MR-VAV-AX-C controller and Price Analog Controller (PAC) w/KMC MEP-4003 actuator; Straight 5 ft silencer w/ PL liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
260	31	19	38	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 12C</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 24x16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; CRAF liner; Schneider MR-VAV-AX-C controller and Price Analog Controller (PAC) w/KMC MEP-4003 actuator; Straight 5 ft silencer w/ PL liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
260	31	19	38	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Johnson Controls MS-VMA-1620 and Honeywell W7751F controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

DATE: 09/02/2021

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Siemens 550-068 and Price (PIC) controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13C</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Honeywell PVL6436AS and TAC Xenta 102-AX controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

DATE: 09/02/2021

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13D</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Honeywell W7751H and Siemens 540-844 controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

DATE: 09/02/2021

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13E</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Honeywell W7751H and Siemens 540-844 controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

DATE: 09/02/2021

**Unit Mounting Description:**



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13F</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Honeywell PVL6436AS and TAX Xenta 102-AX controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

**Unit Mounting Description:**



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13G</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Siemens 550-068 and Price PIC controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

**Unit Mounting Description:**



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 13H</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
4 row water coil; SM/PM liner and AFPM liner; Johnson MS-VMA-1620 and Honeywell W7751F controllers; Straight 3 ft silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
177	35 5/8	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

DATE: 09/02/2021

**Unit Mounting Description:**



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively), each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 14A</b>
<b>Product Line:</b> Air Handling Units	
<b>Model Number:</b> SDV 16	
<b>Product Construction Summary:</b> Zinc-coated steel cabinet	
<b>Options / Component Summary:</b> 4-row water coil; SM/PM liner and AFPM liner	
<b>Note:</b> The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.	

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
81	n/a	23 5/8	24	18	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal brackets, model 222628-001, each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 8-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 15A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 4

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
1 row water coil; FF / FB liner; Siemens 540-100 controller; Elbow silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
60	32 1/2	22 1/8	12	8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal brackets, model 222628-001, each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to the interface frame with strut nuts and the Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 15B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 4

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
1 row water coil; FF / FB liner; Siemens 540-100 controller; Elbow silencer w/ FC liner

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Access Section	Length	Width	Height	Front-Back	Side-Side	Vertical
60	32 1/2	22 1/8	12	8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



Unit was ceiling-suspended (with spring isolators) from the DCL shake table interface frame using 3/8-inch diameter threaded rod, SCBH Mason brackets, and 3/16-inch diameter steel cable. The threaded rod was attached to the unit using manufacturer-supplied terminal brackets, model 222628-001, each connected to the unit with four #8 sheet metal screws, as shown in the above photograph (right). The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 10-inches on-center. The rod was attached to Mason RW30N-B-138 spring isolators, which were in turn attached to the interface frame with strut nuts. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 16</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU 2 x 2

**Product Construction Summary:**  
Painted aluminum cabinet

**Options / Component Summary:**  
10" duct inlet, 120V 1/3 HP motor with fan, HEPA filter, controller, aerosol test system, static pressure port, LED kit (filter and motor indicator options), and filter and motor building automation signal options

**Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.**

### UUT Properties

Operating Weight (lb)	Overall Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
60	23 3/4	23 3/4	18 7/8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

BY: Mohammad Karim

**Unit Mounting Description:**



The unit was suspended from the DCL steel shake table interface ceiling fixture with 3/8-inch diameter all-thread rod using four Price-supplied model P50 brackets on top of the unit. The threaded rod was stiffened with 1-5/8-inch channel, using three clips per stiffener. The threaded rod was spaced at 20 - 5/8 inches on-center. Lateral bracing was comprised of 3/16-inch diameter steel cable with Mason SCB2 brackets. The Mason brackets were attached to the DCL fixture with 3/8-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 17</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU 2 x 4

**Product Construction Summary:**  
Painted aluminum cabinet

**Options / Component Summary:**  
12" duct inlet, 120V 1/3 HP motor with fan, HEPA filter, controller, aerosol test system, static pressure port, LED kit (filter and motor indicator options), and filter and motor building automation signal options

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Overall Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
74	47 3/4	23 3/4	18 1/8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim

DATE: 09/02/2021



The unit was suspended from the DCL steel shake table interface ceiling fixture with 3/8-inch diameter all-thread rod using two Price-supplied model P50 brackets and two model P51 brackets on top of the unit. The threaded rod was stiffened with 1-5/8-inch channel, using three clips per stiffener. The threaded rod was spaced at 43 - 1/2" inches on-center. Lateral bracing was comprised of 3/16-inch diameter steel cable with Mason SCB2 brackets. The Mason brackets were attached to the DCL fixture with 3/8-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 18A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDV 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
Fiberglass liner, two Automated Logic ZN341V+ controllers, 24V with 120V transformer

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical
42	23 5/8"	19 1/2"	24"	18"	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



The unit was suspended from the DCL shake table interface frame using 3/8-inch diameter all-thread rod and four manufacturer-provided 12-gage 90-degree brackets, model 222628-001, each attached to the unit with four #8 SMS. The threaded rod was spaced at 22" in the long direction of the unit, and the unit was hung 16.5" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCBH-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 18B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDV 16

**Product Construction Summary:**  
Zinc-coated steel cabinet

**Options / Component Summary:**  
Fiberglass liner, two Automated Logic ZN341V+ controllers, 24V with 120V transformer

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical
42	23 5/8"	19 1/2"	24"	18"	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



The unit was suspended from the DCL shake table interface frame using four Mason hangers, Model RW30N-B-138, 3/8-inch diameter all-thread rod and four manufacturer-provided 12-gage 90-degree brackets, model 222628-001, each attached to the unit with four #8 SMS. The threaded rod was spaced at 22" in the long direction of the unit, and the unit was hung 16.5" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCBH-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 19A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU-HE 2x4

**Product Construction Summary:**  
Stainless steel cabinet

**Options / Component Summary:**  
Aluminum duct inlet, 1/3 HP 115/240V motor, forward curved fan wheel, RSR filter, BACnet Flow Controller, contactor, aerosol test system and static pressure port

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

<i>UUT Properties</i>								
Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)			
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical	
96	n/a	47 7/8	23 7/8	19 1/4	N/A	N/A	N/A	
<i>Seismic Test Parameters</i>								
Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was suspended from the DCL shake table interface frame using four brackets integral to the test unit, 3/8-inch diameter all-thread rod. The threaded rod was spaced at 46" in the long direction of the unit, and the unit was hung 16" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCB-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 19B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU-HE 2x4

**Product Construction Summary:**  
Stainless steel cabinet

**Options / Component Summary:**  
Aluminum duct inlet, 1/3 HP 115V motor, forward curved fan wheel, RSR filter, BACnet Flow Controller, contactor, aerosol test system and static pressure port

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical
96	n/a	47 7/8	23 7/8	19 1/4	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was suspended from the DCL shake table interface frame using four brackets integral to the test unit, 3/8-inch diameter all-thread rod. The threaded rod was spaced at 46" in the long direction of the unit, and the unit was hung 16" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCB-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 19C</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU-HE 2x4

**Product Construction Summary:**  
Stainless steel cabinet

**Options / Component Summary:**  
Aluminum duct inlet, 1/3 HP 240V motor, forward curved fan wheel, RSR filter, BACnet Flow Controller, contactor, aerosol test system and static pressure port

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical
96	n/a	47 7/8	23 7/8	19 1/4	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was suspended from the DCL shake table interface frame using four brackets integral to the test unit, 3/8-inch diameter all-thread rod. The threaded rod was spaced at 46" in the long direction of the unit, and the unit was hung 16" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCB-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 20</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** FFU-HE 2x4

**Product Construction Summary:**  
Aluminum cabinet

**Options / Component Summary:**  
Aluminum duct inlet, 1/5 HP 115V motor, backward curved fan wheel, BTR filter, Universal Speed Controller, contactor, static pressure port

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

<i>UUT Properties</i>								
Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)			
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical	
66	n/a	47 7/8	23 7/8	17 2/5	N/A	N/A	N/A	
<i>Seismic Test Parameters</i>								
Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was suspended from the DCL shake table interface frame using four brackets integral to the test unit, 3/8-inch diameter all-thread rod. The threaded rod was spaced at 46" in the long direction of the unit, and the unit was hung 16" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCB-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 21</b>
<b>Product Line:</b> Air Handling Units	
<b>Model Number:</b> FFU-HE 2x2	
<b>Product Construction Summary:</b> Painted aluminum cabinet	
<b>Options / Component Summary:</b> Aluminum duct inlet, 1/5 HP 277V motor, forward curved fan wheel, RSR filter, Universal Speed Controller, contactor, static pressure port	
<b>Note:</b> The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.	

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)				Lowest Natural Frequency (Hz)		
	Length w/ Duct Attachment	Length	Width	Height	Front-Back	Side-Side	Vertical
54	n/a	23 2/3	23 2/3	19 1/4	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 2019	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.67	0.67
		2.50	0.0	1.5				

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was suspended from the DCL shake table interface frame using four brackets integral to the test unit, 3/8-inch diameter all-thread rod. The threaded rod was spaced at 22" in the long direction of the unit, and the unit was hung 16" from the underside of the shake table interface frame ceiling. The threaded rod was stiffened using 1-5/8" slotted channel with A307 rod stiffener clips spaced at 6 inches on center. Lateral bracing consisted of 3/16-inch diameter steel cable and Mason SCB-2/SSB-2 brackets. The Mason brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 22</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL HE 24x108

**Product Construction Summary:**  
Powder-coated carbon steel

**Options / Component Summary:**  
2-row 4-pipe water coils, bar grill face with no wings (Gen 3)

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
153	107 3/4	23 3/4	10	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (8 pieces), spaced at a maximum of 37 inches on-center. Grade 5 nuts, 3/8-inch spring nuts and 16-inch long rod stiffeners, consisting of strut and rod stiffening clips, were used. Lateral bracing consisted of 8 SCB1 and SCBH1 brackets and 3/16 inch diameter steel cable. The unit was suspended approximately 18 inches from the top of the shake table interface frame.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 23</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** ACBL HE 24x120

**Product Construction Summary:**  
Powder-coated carbon steel

**Options / Component Summary:**  
2-row 4-pipe water coils, perforated face with no wings (Gen 3)

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

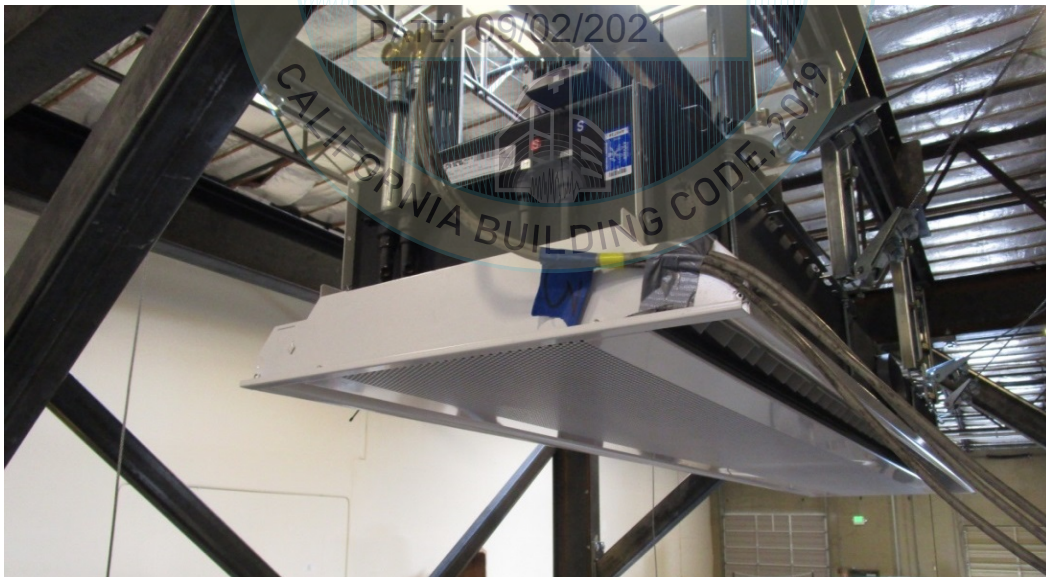
Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
172	119 3/4	23 3/4	10	N/A	N/A	N/A

### 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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



The unit was ceiling-suspended from the DCL shake table interface frame using 3/8-inch diameter threaded rod (8 pieces), spaced at a maximum of 37 inches on-center. Grade 5 nuts, 3/8-inch spring nuts and 16-inch long rod stiffeners, consisting of strut and rod stiffening clips, were used. Lateral bracing consisted of 8 SCB1 and SCBH1 brackets and 3/16 inch diameter steel cable. The unit was suspended approximately 18 inches from the top of the shake table interface frame.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 24A</b>
<b>Product Line:</b> Air Handling Units	
<b>Model Number:</b> SDV 4	
<b>Product Construction Summary:</b> Powder-coated carbon steel	
<b>Options / Component Summary:</b> Electric coil sz. 4; fiberglass liner; Price PIC controller with actuator	
<b>Note:</b> The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.	

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
49	42 1/4	12	8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



Unit was ceiling-suspended from the DCL shake table interface frame using (4) lengths of 1/2-inch diameter threaded rod (17" vertical drop and distances between attachment points varying from 15" to 32" on each side), VMC SB-125 brackets, and 3/16-inch diameter steel cable. Each threaded rod was attached to the unit using 1/2-inch Grade 5 nuts and washers, 1/4"x1-1/2"x1-1/2" carbon steel plate washer, and manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively). Each manufacturer supplied bracket was connected to the unit with four #8 sheet metal screws. The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 7-inches on-center. The rod was attached to the interface frame with strut nuts and the SB-125 brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.

# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 24B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDV 4

**Product Construction Summary:**  
Powder-coated carbon steel

**Options / Component Summary:**  
Electric coil sz. 4; fiberglass liner; Price PIC controller with actuator

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
49	42 1/4	12	8	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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**



Unit was ceiling-suspended with VMC HSP-1C-50 spring isolators from the DCL shake table interface frame using (4) lengths of 1/2-inch diameter threaded rod (17" vertical drop and distances between attachment points varying from 15" to 32" on each side), VMC SB-125 brackets, and 3/16-inch diameter steel cable. Each threaded rod was attached to the unit using 1/2-inch Grade 5 nuts and washers, 1/4"x1-1/2"x1-1/2" carbon steel plate washer, and manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively). Each manufacturer supplied bracket was connected to the unit with four #8 sheet metal screws. The rod was attached to the spring isolators, which were in turn attached to the interface frame with strut nuts. The SB-125 brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 25A</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 24 x 16

**Product Construction Summary:**  
Powder-coated carbon steel

**Options / Component Summary:**  
Electric coil sz. 24x16; solid metal liner (22 ga. zinc-coated carbon steel); 5' silencer; Price PIC controller with actuator

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
350	38.5*	38	18	N/A	N/A	N/A

\*Total length with tested 5-foot silencer is 100".

### 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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



Unit was ceiling-suspended from the DCL shake table interface frame using (8) lengths of 1/2-inch diameter threaded rod (17" vertical drop and distances between attachment points varying from 12" to 52" on each side), VMC SB-125 brackets, and 3/16-inch diameter steel cable. Each threaded rod was attached to the unit using 1/2-inch Grade 5 nuts and washers, 1/4"x1-1/2"x1-1/2" carbon steel plate washer, and manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively). Each manufacturer supplied bracket was connected to the unit with four #8 sheet metal screws. The threaded rod was stiffened with slotted A-12 channel and rod stiffening clips spaced at approximately 7-inches on-center. The rod was attached to the interface frame with strut nuts and the SB-125 brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.



# UNIT UNDER TEST (UUT) SUMMARY SHEET



DCL Project No. 21854-2001

<b>Manufacturer:</b> Price Industries Limited	<b>UUT 25B</b>
<b>Product Line:</b> Air Handling Units	

**Model Number:** SDVQ 24 x 16

**Product Construction Summary:**  
Powder-coated carbon steel

**Options / Component Summary:**  
Electric coil sz. 24x16; solid metal liner (22 ga. zinc-coated carbon steel); 5' silencer; Price PIC controller with actuator

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

### UUT Properties

Operating Weight (lb)	Cabinet Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
350	38 1/2	38	18	N/A	N/A	N/A

\*Total length with tested 5-foot silencer is 100".

### 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 2019	ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

BY: Mohammad Karim



UUT25b was ceiling-suspended with VMC HSP-1C-100 spring isolators from the DCL shake table interface frame using (8) lengths of 1/2-inch diameter threaded rod (17" vertical drop and distances between attachment points varying from 12" to 52" on each side), VMC SB-125 brackets, and 3/16-inch diameter steel cable. Each threaded rod was attached to the unit using 1/2-inch Grade 5 nuts and washers, 1/4"x1-1/2"x1-1/2" carbon steel plate washer, and manufacturer-supplied terminal and shear brackets (model 222628-001 and 222628-002, respectively). Each manufacturer supplied bracket was connected to the unit with four #8 sheet metal screws. The rod was attached to the spring isolators, which were in turn attached to the interface frame with strut nuts and the SB-125 brackets were attached to the interface frame with 1/2-inch diameter Grade 5 bolts.