



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

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

OFFICE USE ONLY

APPLICATION #: OSP-0642

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: FireFlex

Manufacturer's Technical Representative: Antoine Leblanc

Mailing Address: 1935 Lionel-Bertrand Blvd., Boisbriand, QC J7H1N8

Telephone: (450) 437-3473

Email: ALeblanc@fireflex.com

Product Information

Product Name: TOTALPAC3

Product Model Number(s): See attached

Product Category: Electrical Control Panels on Life Safety/Critical Branch

Product Sub-Category: Fire Alarm & Security Panels

General Description: Integrated Fire Protection Systems

Mounting Description: Base Mounted Rigid

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: Dynamic Certification Laboratories

Contact Person: Rachel Wolfe

Mailing Address: 1315 Greg Street, Sparks, NV 89431

Telephone: (775) 358-5085

Email: rachel.wolfe@shaketest.com

Title: Seismic Test Engineer





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

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: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Jim Gaudette

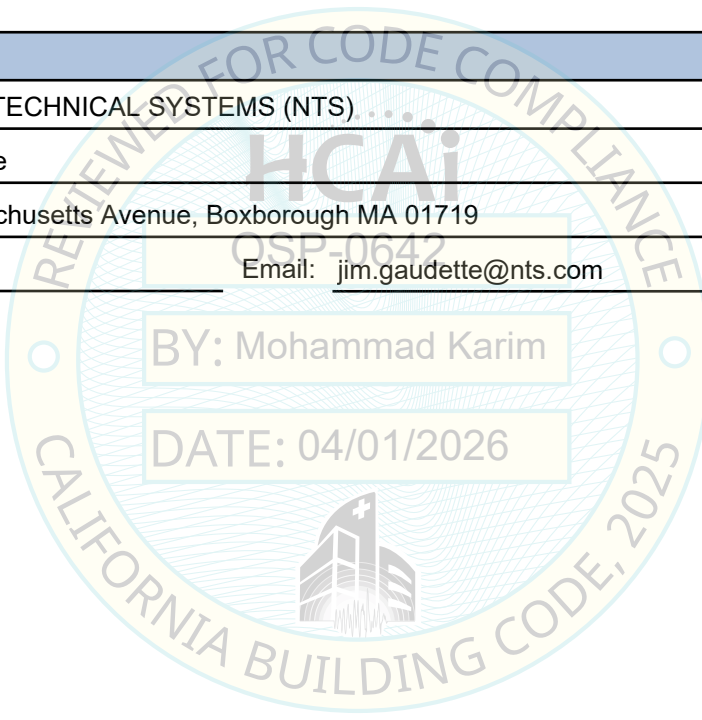
Mailing Address: 1146 Massachusetts Avenue, Boxborough MA 01719

Telephone: (978) 266-1001

Email: jim.gaudette@nts.com

BY: Mohammad Karim

DATE: 04/01/2026





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT**

Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

| | | | | |
|------------|---------------|-------------|---------------|-------------|
| Horizontal | (A Flx-H), g= | <u>3.54</u> | (A Rig-H), g= | <u>2.39</u> |
| Vertical | (A Flx-V), g= | <u>1.48</u> | (A Rig-V), g= | <u>0.60</u> |

SDS (Design spectral response acceleration at short period, g) = 2.21

Hf (Force amplification height factor) = 3.5 at z/h=1.0; 1 at z/h=0

Ru (Structure ductility reduction factor) = 1.3 at z/h=1.0; 1 at z/h=0

I_p (Importance factor) = 1.5

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

HCAI Approval (For Office Use Only) - Approval Expires on 04/01/2032

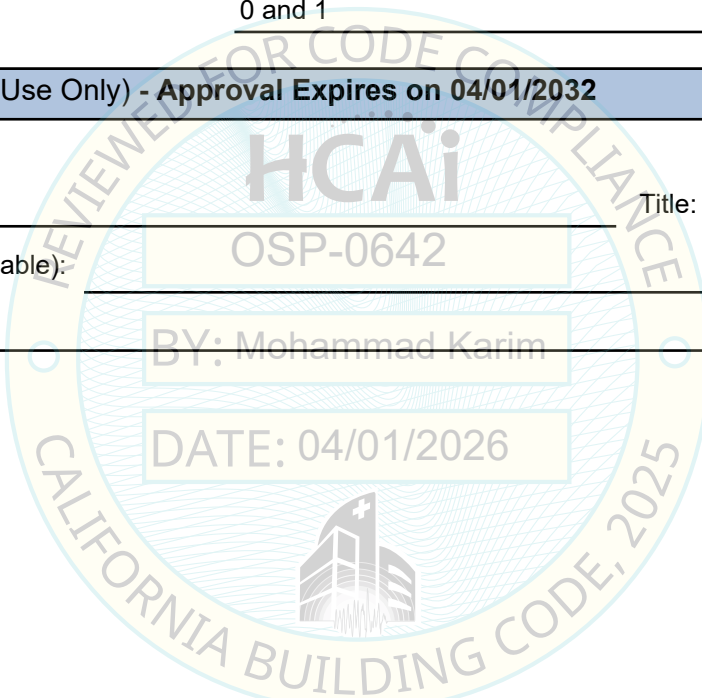
Date: 4/1/2026

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable): OSP-0642

BY: Mohammad Karim

DATE: 04/01/2026



Special Seismic Certification

Table 1 - Certified Components - Without Enclosures, without Control

Panels



DCL Project Number: 22684-2601

Manufacturer: FireFlex

Product Line: TOTALPAC3

Certified Product Construction: 11ga-7ga Cold Rolled Steel

Mounting: Rigid Base Mounted

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

Factors for Force Amplification and Structure Ductility Reduction: $H_f = 3.5$ at $z/h=1.0$; 1.0 at $z/h=0$ and $R_w = 1.3$ at $z/h=1.0$; 1.0 at $z/h=0$

| Model Number ¹ | Description | Dimensions [in.] | | | Weight [lb.] | Unit |
|---------------------------|------------------------------------|------------------|--------|-------|----------------|--------------------|
| | | Depth | Height | Width | | |
| T3PXXSK15 | 1-1/2" Preaction Skid Mounted Unit | 23 | 45 | 25 | 285 | Extrapolated |
| T3DPASK15 | 1-1/2" Preaction Skid Mounted Unit | 23 | 59 | 25 | 285 | UUT-1 ² |
| T3PXXSK20 | 2" Preaction Skid Mounted Unit | 23 | 45 | 25 | 290 | Interpolated |
| T3PXXSK30 | 3" Preaction Skid Mounted Unit | 36 | 48 | 25 | 477 | Interpolated |
| T3PXXSK40 | 4" Preaction Skid Mounted Unit | 36 | 53 | 25 | 490 | Interpolated |
| T3PXXSK60 | 6" Preaction Skid Mounted Unit | 46 | 65 | 25 | 695 | Interpolated |
| T3DXXSK15 | 1-1/2" Deluge Skid Mounted Unit | 23 | 45 | 25 | 280 | Extrapolated |
| T3DXXSK20 | 2" Deluge Skid Mounted Unit | 23 | 45 | 25 | 285 | Interpolated |
| T3DXXSK30 | 3" Deluge Skid Mounted Unit | 36 | 48 | 25 | 395 | Interpolated |
| T3DXXSK40 | 4" Deluge Skid Mounted Unit | 36 | 53 | 25 | 410 | Interpolated |
| T3DXXSK60 | 6" Deluge Skid Mounted Unit | 46 | 65 | 25 | 665 | Interpolated |
| T3FXXSK15 | 1-1/2" Firecylce Skid Mounted Unit | 23 | 45 | 25 | 295 | Interpolated |
| T3FXXSK20 | 2" Firecylce Skid Mounted Unit | 23 | 45 | 25 | 300 | Interpolated |
| T3FXXSK30 | 3" Firecylce Skid Mounted Unit | 36 | 48 | 25 | 485 | Interpolated |
| T3FXXSK40 | 4" Firecylce Skid Mounted Unit | 36 | 53 | 25 | 500 | Interpolated |
| T3FXXSK60 | 6" Firecylce Skid Mounted Unit | 46 | 65 | 25 | 705 | Interpolated |
| T3SXXSK15 | 1-1/2" Surefire Skid Mounted Unit | 23 | 45 | 25 | 305 | Interpolated |
| T3SXXSK20 | 2" Surefire Skid Mounted Unit | 23 | 45 | 25 | 310 | Interpolated |
| T3SXXSK30 | 3" Surefire Skid Mounted Unit | 36 | 48 | 25 | 495 | Interpolated |
| T3SXXSK40 | 4" Surefire Skid Mounted Unit | 36 | 53 | 25 | 510 | Interpolated |
| T3SXXSK60 | 6" Surefire Skid Mounted Unit | 46 | 65 | 25 | 715 | Interpolated |
| T3DRXXSK40 | 4" Dry Pipe Skid Mounted Unit | 36 | 53 | 25 | 445 | Interpolated |
| T3DRXXSK60 | 6" Dry Pipe Skid Mounted Unit | 46 | 65 | 25 | 665 | Interpolated |

Note:

- T3xxXXSKxx Units do not include a control panel or enclosure and are bookended by Units on Table 2.
- Maximum options were tested on UUT-01, thus increasing the height from the standard size

Special Seismic Certification

Table 2 - Certified Components - With Enclosures, without Control Panels



DCL Project Number: 22684-2601

Manufacturer: FireFlex

Product Line: TOTALPAC3

Certified Product Construction: 14ga-7ga Cold Rolled Steel

Mounting: Rigid Base Mounted

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

Factors for Force Amplification and Structure Ductility Reduction: $H_f = 3.5$ at $z/h=1.0$; 1.0 at $z/h=0$ and $R_d = 1.3$ at $z/h=1.0$; 1.0 at $z/h=0$

| Model Number ¹ | Description | Dimensions [in.] | | | Weight [lb.] | Unit |
|---------------------------|---------------------------------|------------------|--------|-------|----------------|--------------|
| | | Depth | Height | Width | | |
| T3PXXNP15 | 1-1/2" Preaction Enclosure Unit | 23 | 77 | 25 | 450 | Interpolated |
| T3PXXNP20 | 2" Preaction Enclosure Unit | 23 | 77 | 25 | 455 | Interpolated |
| T3PXXNP30 | 3" Preaction Enclosure Unit | 36 | 77 | 25 | 730 | Interpolated |
| T3PXXNP40 | 4" Preaction Enclosure Unit | 36 | 77 | 25 | 755 | Interpolated |
| T3PXXNP60 | 6" Preaction Enclosure Unit | 46 | 77 | 25 | 1025 | Interpolated |
| T3PXXNP80 | 8" Preaction Enclosure Unit | 54 | 81 | 31 | 1475 | Interpolated |
| T3DXXNP15 | 1-1/2" Deluge Enclosure Unit | 23 | 77 | 25 | 455 | Interpolated |
| T3DXXNP20 | 2" Deluge Enclosure Unit | 23 | 77 | 25 | 450 | Interpolated |
| T3DXXNP30 | 3" Deluge Enclosure Unit | 36 | 77 | 25 | 690 | Interpolated |
| T3DXXNP40 | 4" Deluge Enclosure Unit | 36 | 77 | 25 | 705 | Interpolated |
| T3DXXNP60 | 6" Deluge Enclosure Unit | 46 | 77 | 25 | 1010 | Interpolated |
| T3DXXNP80 | 8" Deluge Enclosure Unit | 54 | 81 | 31 | 1470 | Interpolated |
| T3FXXNP15 | 1-1/2" Firecycle Enclosure Unit | 23 | 77 | 25 | 460 | Interpolated |
| T3FXXNP20 | 2" Firecycle Enclosure Unit | 23 | 77 | 25 | 465 | Interpolated |
| T3FXXNP30 | 3" Firecycle Enclosure Unit | 36 | 77 | 25 | 740 | Interpolated |
| T3FXXNP40 | 4" Firecycle Enclosure Unit | 36 | 77 | 25 | 755 | Interpolated |
| T3FXXNP60 | 6" Firecycle Enclosure Unit | 46 | 77 | 25 | 1035 | Interpolated |
| T3FXXNP80 | 8" Firecycle Enclosure Unit | 54 | 81 | 31 | 1485 | Interpolated |
| T3SXXNP15 | 1-1/2" Surefire Enclosure Unit | 23 | 77 | 25 | 470 | Interpolated |
| T3SXXNP20 | 2" Surefire Enclosure Unit | 23 | 77 | 25 | 475 | Interpolated |
| T3SXXNP30 | 3" Surefire Enclosure Unit | 36 | 77 | 25 | 750 | Interpolated |
| T3SXXNP40 | 4" Surefire Enclosure Unit | 36 | 77 | 25 | 765 | Interpolated |
| T3SXXNP60 | 6" Surefire Enclosure Unit | 46 | 77 | 25 | 1045 | Interpolated |
| T3SXXNP80 | 8" Surefire Enclosure Unit | 54 | 81 | 31 | 1495 | Interpolated |
| T3DRXXNP40 | 4" Dry Pipe Enclosure Unit | 36 | 77 | 25 | 675 | Interpolated |
| T3DRYENP40 | 4" Dry Pipe Enclosure Unit | 36 | 77 | 25 | 675 | UUT-2 |
| T3DRXXNP60 | 6" Dry Pipe Enclosure Unit | 46 | 77 | 25 | 995 | Interpolated |

Note:

1. T3xxXXNPxx units do not include a control panel and are bookended by units on Table 1 and 3.

Special Seismic Certification

Table 3 - Certified Components - With Enclosures, with Control Panels



DCL Project Number: 22684-2601

Manufacturer: FireFlex

Product Line: TOTALPAC3

Certified Product Construction: 14ga-7ga Cold Rolled Steel

Mounting: Rigid Base Mounted

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

Factors for Force Amplification and Structure Ductility Reduction: $H_f = 3.5$ at $z/h=1.0$; 1.0 at $z/h=0$ and $R_w = 1.3$ at $z/h=1.0$; 1.0 at $z/h=0$

| Model Number | Description | Dimensions [in.] | | | Weight [lb.] | Unit |
|--------------|---------------------------------|------------------|--------|-------|----------------|---------------------------|
| | | Depth | Height | Width | | |
| T3PXXWP15 | 1-1/2" Preaction Enclosure Unit | 23 | 77 | 25 | 475 | Interpolated |
| T3PDPAWP20 | 2" Preaction Enclosure Unit | 23.0 | 77.1 | 25.0 | 500 | UUT-3 |
| T3PXXWP20 | 2" Preaction Enclosure Unit | 23 | 77 | 25 | 500 | Interpolated |
| T3PXXWP30 | 3" Preaction Enclosure Unit | 36 | 77 | 25 | 755 | Interpolated |
| T3PXXWP40 | 4" Preaction Enclosure Unit | 36 | 77 | 25 | 770 | Interpolated |
| T3PDPAWP40 | 4" Preaction Enclosure Unit | 36 | 77 | 25 | 775 | UUT-4 |
| T3PXXWP60 | 6" Preaction Enclosure Unit | 46 | 77 | 25 | 1050 | Interpolated |
| T3PXXWP80 | 8" Preaction Enclosure Unit | 54 | 81 | 31 | 1500 | Interpolated |
| T3PDPAWP80 | 8" Preaction Enclosure Unit | 54 | 81 | 31 | 1600 | UUT-5 |
| T3DXXWP15 | 1-1/2" Deluge Enclosure Unit | 23 | 77 | 25 | 470 | Interpolated |
| T3DXXWP20 | 2" Deluge Enclosure Unit | 23 | 77 | 25 | 475 | Interpolated |
| T3DXXWP30 | 3" Deluge Enclosure Unit | 36 | 77 | 25 | 715 | Interpolated |
| T3DXXWP40 | 4" Deluge Enclosure Unit | 36 | 77 | 25 | 730 | Interpolated |
| T3DXXWP60 | 6" Deluge Enclosure Unit | 46 | 77 | 25 | 1035 | Interpolated |
| T3DXXWP80 | 8" Deluge Enclosure Unit | 54 | 81 | 31 | 1495 | Interpolated |
| T3FXXWP15 | 1-1/2" Firecycle Enclosure Unit | 23 | 77 | 25 | 485 | Interpolated |
| T3FXXWP20 | 2" Firecycle Enclosure Unit | 23 | 77 | 25 | 490 | Interpolated |
| T3FXXWP30 | 3" Firecycle Enclosure Unit | 36 | 77 | 25 | 765 | Interpolated |
| T3FXXWP40 | 4" Firecycle Enclosure Unit | 36 | 77 | 25 | 780 | Interpolated |
| T3FXXWP60 | 6" Firecycle Enclosure Unit | 46 | 77 | 25 | 1060 | Interpolated |
| T3FXXWP80 | 8" Firecycle Enclosure Unit | 54 | 81 | 31 | 1510 | Interpolated |
| T3SXXWP15 | 1-1/2" Surefire Enclosure Unit | 23 | 77 | 25 | 495 | Interpolated |
| T3SXXWP20 | 2" Surefire Enclosure Unit | 23 | 77 | 25 | 500 | Interpolated |
| T3SXXWP30 | 3" Surefire Enclosure Unit | 36 | 77 | 25 | 775 | Interpolated |
| T3SXXWP40 | 4" Surefire Enclosure Unit | 36 | 77 | 25 | 790 | Interpolated |
| T3SXXWP60 | 6" Surefire Enclosure Unit | 46 | 77 | 25 | 1050 | Interpolated |
| T3SFDWP60 | 6" Surefire Enclosure Unit | 46.0 | 77.1 | 25.0 | 1050 | UUT-6 |
| T3SXXWP80 | 8" Surefire Enclosure Unit | 54 | 81 | 31 | 1520 | Interpolated ¹ |

Note:

1. Component is bookended by UUT-5.

Special Seismic Certification
Table 4 - Nomenclature Chart



DCL Project Number: 22684-2601

Manufacturer: FireFlex

Product Line: TOTALPAC3

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

Sample Part Number: T3PXXXWS

| Character | Category | Allowable Value | Description | Unit |
|-----------|---|-----------------|--|--|
| T3 | Product Name | T3 | TotalPac 3 | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| P | Type of System | P | Preaction | UUT-1, UUT-3, UUT-4, UUT-5 |
| | | DE | Deluge | Interpolated |
| | | F | Preaction with Firecycle Release | Interpolated |
| | | FD | Deluge with Firecycle Release | Interpolated |
| | | DHPE | High Pressure Dry | Interpolated |
| | | SF | Surefire ¹ | UUT-6 |
| | | DRYE | Dry | UUT-2 |
| XXX | Type of Release Mechanism | DPA | Double Interlock Electric-Pneumatic Release | UUT-1, UUT-3, UUT-4, UUT-5 |
| | | NEL | Non-interlocked Electric Release | Interpolated |
| | | NPN | Non-interlocked Pneumatic Release | Interpolated |
| | | SEL | Single Interlock Electric Release | Interpolated |
| | | SPN | Single Interlock Pneumatic Release | Interpolated |
| | | DEP | Double Interlock Electric-Pneumatic Release | Interpolated |
| | | DPP | Double Interlock Pneumatic-Pneumatic Release | Interpolated |
| | | EL | Electric release (for deluge system only) | Interpolated |
| | | HY | Hydraulic release (for deluge system only) | Interpolated |
| | | PN | Pneumatic release (for deluge system only) | Interpolated |
| | | SIN | Single Interlock Electric Release (For Preaction system with Firecycle Release only) | Interpolated |
| | | DOU | Double Interlock Electric Release (For Preaction system with Firecycle Release only) | Interpolated |
| | | SI | Surefire Single Interlock | Interpolated |
| | | DO | Surefire Double Interlock | UUT-6 |
| W | Control Panel Option and Enclosure Type | WP | With control panel with enclosure (self-contained unit) | UUT-3, UUT-4, UUT-5, UUT-6 |
| | | NP | Without control panel with enclosure (remote unit) | UUT-2 |
| | | SK | Skid unit (without control panel, without enclosure) | UUT-1 |
| S | Size of main Pipe | 15 | 1 1/2" | UUT-1 |
| | | 20 | 2" | UUT-3 |
| | | 30 | 3" | Interpolated |
| | | 40 | 4" | UUT-2, UUT-4 |
| | | 60 | 6" | UUT-6 |
| | | 80 | 8" | UUT-5 |

Note:

1. All surefire systems are Preaction systems.

Special Seismic Certification
Table 5 - Certified Subcomponents



DCL Project Number: 22684-2601

Product Line: TOTALPAC3

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

| Model Number | Manufacturer | Description | Material | Size | Weight [lb.] | Unit | |
|--------------------|----------------------------------|---|-------------------------------|-----------------------------------|--|--|-------|
| Valves | | | | | | | |
| F-1, 12125 | Viking Corp. | Differential Diaphragm Flood Valve | Iron, Brass | 1-1/2" | 36 | UUT-1 | |
| F-1, 12057 | | Differential Diaphragm Flood Valve | | 2" | 37 | UUT-3 | |
| J-1, 12129 | | Differential Diaphragm Flood Valve | | 1-1/2" | 37 | Interpolated | |
| J-1, 12061 | | Differential Diaphragm Flood Valve | | 2" | 38 | Interpolated | |
| J-1, 12024 | | Differential Diaphragm Flood Valve | | 3" | 81 | Interpolated | |
| F-1, 12022 | | Differential Diaphragm Flood Valve | | 3" | 82 | Interpolated | |
| J-1, 11516 | | Differential Diaphragm Flood Valve | | 4" | 125 | Interpolated | |
| F-1, 07627 | | Differential Dry Valve | | 4" | 130 | UUT-2 | |
| F-1, 11513 | | Differential Diaphragm Flood Valve | | 4" | 146 | UUT-4 | |
| F-1, 12654 | | Differential Dry Valve | | 6" | 197 | Interpolated | |
| J-1, 11527 | | Differential Diaphragm Flood Valve | | 6" | 235 | Interpolated | |
| F-1, 11524 | | Differential Diaphragm Flood Valve | | 6" | 271 | UUT-6 | |
| J-1, 11019 | | Differential Diaphragm Flood Valve | | 8" | 405 | Interpolated | |
| F-1, 11018 | | Differential Diaphragm Flood Valve | | 8" | 466 | UUT-5 | |
| Model Number | | Manufacturer | | Description | Material | Size | Unit |
| L-1, 11054 | | Viking Corp. | | In-Line Swing Check Valve Grooved | Brass, Stainless Steel | 1-1/2" | UUT-1 |
| L-1, 11059 | | | | In-Line Swing Check Valve Grooved | | 2" | UUT-3 |
| F-1, 08507 | Easy Riser Swing Check Valve | | Ductile Iron, Stainless Steel | 3" | Interpolated | | |
| F-1, 08510 | Easy Riser Swing Check Valve | | | 4" | UUT-4 | | |
| F-1, 08513 | Easy Riser Swing Check Valve | | | 6" | UUT-6 | | |
| F-1, 08516 | Easy Riser Swing Check Valve | | | 8" | UUT-5 | | |
| H-1 | Pneumatic Actuator | | Brass | NA | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| 11591 | Solenoid Valve 24VDC/NC 250 psi | | Brass | 1/2" | UUT-1, UUT-3, UUT-4, UUT-6 | | |
| 11595 | Solenoid Valve 24V.DC/NO 250psi | | | 1/2" | UUT-5 | | |
| D-1, 10730 | Drip Check Del & Flow Valve | | Brass, Stainless Steel | NA | UUT-1, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| D-3, 10732 | Drip Check For Dry Valve | | | NA | UUT-2 | | |
| D-3, 16970 | Pressure Operated Relief Valve | | | NA | UUT-1, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| 10110 | 1/4" X .062" Restriction Orifice | | | Brass | NA | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | |
| 05781A | Swing Check Valve With .067 Hole | | Brass, Stainless Steel | 1/2" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| 04947A | Spring Loaded Check Valve | | Brass, Stainless Steel | 1/4" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| V-014-4-6-6-G-W9 | Victaulic | | 1-1/2" Grooved end valve | Ductile Iron | 1-1/2" | UUT-1 | |
| V-020-4-6-6-G-W9 | | | 2" Grooved end valve | | 2" | UUT-3 | |
| GD47653-0300 | Nibco | 3" Grooved Butterfly Valve | Ductile Iron | 3" | Extrapolated | | |
| GD47653-0400 | | 4" Grooved Butterfly Valve | | 4" | Extrapolated | | |
| GD47653-0600 | | 6" Grooved Butterfly Valve | | 6" | UUT-6 | | |
| GD47653-0800 | | 8" Grooved Butterfly Valve | | 8" | UUT-5 | | |
| T-FP-600A, NL998H4 | Nibco | Ball Valve – Brass, Two-Piece, Full Port, NPT x NPT | Brass | 1/4" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| T-FP-600A, NL998H6 | | Ball Valve – Brass, Two-Piece, Full Port, NPT x NPT | | 1/2" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| T-FP-600A, NL998H8 | | Ball Valve – Brass, Two-Piece, Full Port, NPT x NPT | | 3/4" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 | | |
| T-FP-600A, NL998H8 | | Ball Valve – Brass, Two-Piece, Full Port, NPT x NPT | | 1-1/4" | Interpolated | | |
| T-FP-600A, NL998HD | | Ball Valve – Brass, Two-Piece, Full Port, NPT x NPT | | 2" | UUT-3, UUT-4, UUT-5, UUT-6 | | |

Special Seismic Certification
Table 6 - Certified Subcomponents



DCL Project Number: 22684-2601

Product Line: TOTALPAC3

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

| Model Number | Manufacturer | Description | Material | Size | Unit |
|------------------------|----------------|--|---------------------------|----------|--|
| Valves | | | | | |
| HPG300 (Fireriser HPG) | Fivalco | 3" Grooved Butterfly Valve | Ductile Iron | 3" | Extrapolated |
| HPG400 (Fireriser HPG) | | 4" Grooved Butterfly Valve | | 4" | UUT-4 |
| HPG600 (Fireriser HPG) | | 6" Grooved Butterfly Valve | | 6" | Interpolated |
| HPG800 (Fireriser HPG) | | 8" Grooved Butterfly Valve | | 8" | UUT-5 |
| 941151LF (F-1 100T) | KVC Industries | 600 WOG FP NPT Forged Ball Valve | Brass | 1/4" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| 941153LF (F-1 100T) | | 600 WOG FP NPT Forged Ball Valve | | 1/2" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| 941154LF (F-1 100T) | | 600 WOG FP NPT Forged Ball Valve | | 3/4" | UUT-1, UUT-3 |
| 941156LF (F-1 100T) | | 600 WOG FP NPT Forged Ball Valve | | 1-1/4" | Interpolated |
| 941158LF (F-1 100T) | | 600 WOG FP NPT Forged Ball Valve | | 2" | UUT-4, UUT-5, UUT-6 |
| B-8CP2-1/3 | Swagelok | Spring loaded check valve for air compressor | Brass | 1/2" | UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| A-1 10883 | Viking Corp. | Float check valve for air compressor | Aluminum, Silicon, Bronze | 1/2" | UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| Pipes | | | | | |
| T3PIPPMA15 | Fireflex | Main Pipe | Carbon Steel | 1-1/2" | UUT-1 |
| T3PIPPMA20 | | Main Pipe | | 2" | UUT-3 |
| T3PIPPMA30 | | Main Pipe | | 3" | Interpolated |
| T3PIPPMA40 | | Main Pipe | | 4" | UUT-4 |
| T3PIPPMA60 | | Main Pipe | | 6" | UUT-6 |
| T3PIPPMA80 | | Main Pipe | | 8" | UUT-5 |
| T3PIPPDR15 | Fireflex | Drain Pipe | Carbon Steel | 1-1/2" | UUT-1 |
| T3PIPPDR20 | | Drain Pipe | | 2" | UUT-3 |
| T3PIPPDR30 | | Drain Pipe | | 3" | Interpolated |
| T3PIPPDR40 | | Drain Pipe | | 4" | UUT-4 |
| T3PIPPDR60 | | Drain Pipe | | 6" | UUT-6 |
| T3PIPPDR80 | | Drain Pipe | | 8" | UUT-5 |
| Gauges | | | | | |
| 50021214 | Wika | Water Gauge kilo 0-300 psi/kPa | Stainless Steel | 1/4" NPT | UUT-1, UUT-2, UUT-3, UUT-5, UUT-6 |
| 4279931 | | Air Gauge kilo 0-80 and 250 psi/kPa | | 1/4" NPT | UUT-1, UUT-2, UUT-3, UUT-5, UUT-6 |
| PFE3933 | Winters | Water Gauge kilo 0-300 psi/kPa | Aluminum | 1/4" NPT | UUT-4 |
| PFE3932 | | Air Gauge kilo 0-80 and 250 psi/kPa | Stainless Steel, Aluminum | 1/4" NPT | UUT-4 |
| Miscellaneous | | | | | |
| 200-50 ME | United Brass | Strainer 50 mesh | Brass | 1/4" | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| T3EMERG001 | Fireflex | Emergency release assembly for unit in a cabinet | Galvanized Steel, Brass | NA | UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| T3EMBOX001 | | Emergency release assembly in a box for skid units | | NA | UUT-1 |
| 08055 | Viking Corp | Accelerator E-1 without anti-flood device | Brass | NA | UUT-4 |
| 08116 | | Accelerator E-1 With anti-flood device fro dry Pipe system | | NA | UUT-2 |
| 04624A | | Air pressure maintenance device AMPD | | NA | UUT-1 |
| 14800 | | Anti-column Device LD-1 | | NA | UUT-2 |
| 01285A | | Dehydrator | | Plastic | NA |

Special Seismic Certification
Table 7 - Certified Subcomponents



DCL Project Number: 22684-2601

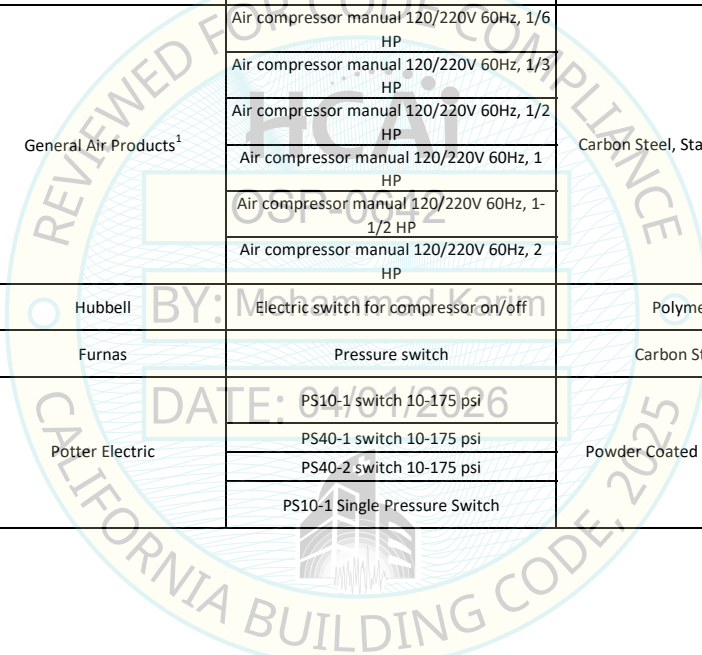
Product Line: TOTALPAC3

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

| Model Number | Manufacturer | Description | Material | Unit |
|-------------------|-----------------------------------|--|-------------------------------|--|
| Electrical | | | | |
| VFR-500 | Viking Corp. | Control Panel Board | Carbon Steel | UUT-3, UUT-4, UUT-5, UUT-6 |
| SB 1275 | Power Max | Batteries 12V 7.5 Ah | Plastic Case, Lead Acid | UUT-3, UUT-4 |
| SB 12120 | | Batteries 12V 12 Ah | | UUT-6 |
| SB 12180 | | Batteries 12V 18 Ah | | UUT-5 |
| WP7.5-12 | Enerwatt, AGM Series | Batteries 12V 7.5 Ah | Plastic Case, Lead Acid | UUT-3, UUT-4 |
| WP12-12 | | Batteries 12V 12 Ah | | UUT-6 |
| WP20-12 | | Batteries 12V 20 Ah | | UUT-5 |
| T3WIRING01 | Fireflex | Electrical wiring for VFR-400 panel in a junction box | Non-metallic Sheathed Cables | UUT-3, UUT-4, UUT-5, UUT-6 |
| T3WIRING02 | | Electrical wiring for VFR-400 panel in a junction box if Panel is installed by others, outside of the unit | | Same as tested |
| OL12516A | General Air Products ¹ | Air compressor manual 120/220V 60Hz, 1/6 HP | Carbon Steel, Stainless Steel | UUT-3 |
| OL25033A | | Air compressor manual 120/220V 60Hz, 1/3 HP | | UUT-4 |
| OL36550A | | Air compressor manual 120/220V 60Hz, 1/2 HP | | UUT-2 |
| OL615100A | | Air compressor manual 120/220V 60Hz, 1 HP | | UUT-6 |
| OL915150A | | Air compressor manual 120/220V 60Hz, 1-1/2 HP | | Interpolated |
| OL1225200A | | Air compressor manual 120/220V 60Hz, 2 HP | | UUT-5 |
| HBL 1221I | Hubbell | Electric switch for compressor on/off | Polymer | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| 69HA3 | Furnas | Pressure switch | Carbon Steel | UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |
| 1340103 | Potter Electric | PS10-1 switch 10-175 psi | Powder Coated Aluminum | UUT-1, UUT-3, UUT-4, UUT-5, UUT-6 |
| 1340403 | | PS40-1 switch 10-175 psi | | UUT-1, UUT-3, UUT-4, UUT-5 |
| 1340404 | | PS40-2 switch 10-175 psi | | UUT-2, UUT-6 |
| 1340101 | | PS10-1 Single Pressure Switch | | UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6 |

Note:

1. Air supplies are tankless.



Special Seismic Certification
Table 8 - Tested Units



DCL Project Number: 22684-2601

Manufacturer: FireFlex

Product Line: TOTALPAC3

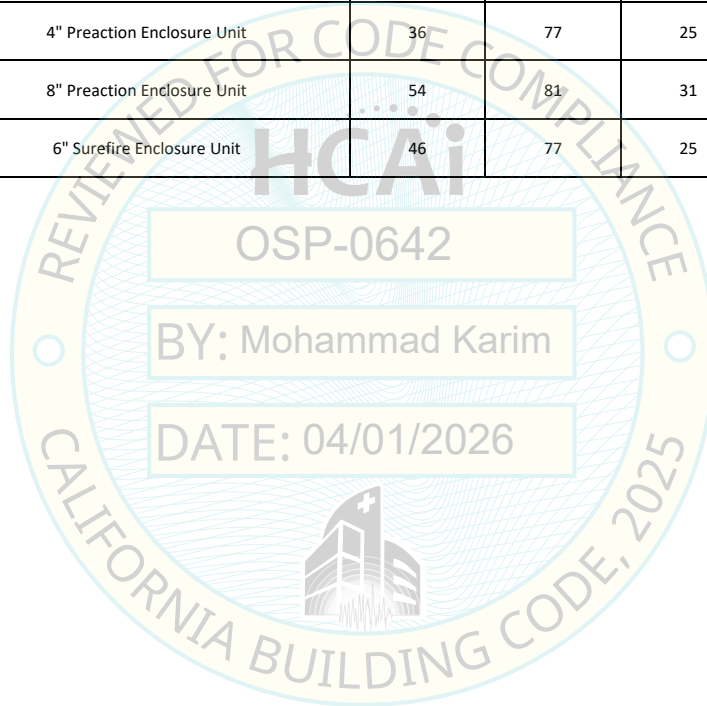
Certified Product Construction: 11ga-7ga Cold Rolled Steel (UUT-1); 14ga-7ga Cold Rolled Steel (UUT-2 - UUT-6)

Mounting: Rigid Base Mounted

Certified Seismic Levels: Sds= 2.21g at z/h=1 and z/h=0

Factors for Force Amplification and Structure Ductility Reduction: $H_r = 3.5$ at $z/h=1.0$; 1.0 at $z/h=0$ and $R_{\mu} = 1.3$ at $z/h=1.0$; 1.0 at $z/h=0$

| Model Number | Description | Dimensions [in.] | | | Weight [lb.] | Unit |
|--------------|------------------------------------|------------------|--------|-------|----------------|-------|
| | | Length | Height | Width | | |
| T3PDPASK15 | 1-1/2" Preaction Skid Mounted Unit | 23 | 59 | 25 | 285 | UUT-1 |
| T3DRYENP40 | 4" Dry Pipe Enclosure Unit | 36 | 77 | 25 | 675 | UUT-2 |
| T3PDPAWP20 | 2" Preaction Enclosure Unit | 23 | 77 | 25 | 500 | UUT-3 |
| T3PDPAWP40 | 4" Preaction Enclosure Unit | 36 | 77 | 25 | 775 | UUT-4 |
| T3PDPAWP80 | 8" Preaction Enclosure Unit | 54 | 81 | 31 | 1600 | UUT-5 |
| T3SFDOWP60 | 6" Surefire Enclosure Unit | 46 | 77 | 25 | 1050 | UUT-6 |



UNIT UNDER TEST (UUT) Summary Sheet



UUT-1

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 1 1/2" Preaction Double Interlock Electric-Pneumatic Skid-mounted Unit

Model Number: T3PDPASK15

Product Construction Summary: 11ga-7ga Cold Rolled Steel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 285 | 23 | 59 | 25 | 7.1 | 6.8 | 25.1 |

Seismic Test Parameters

| Building Code | Test Criteria | Sds (g) | z/h | H _f | R _μ | Ip | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------|-----|----------------|----------------|-----|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim



UNIT UNDER TEST (UUT) Summary Sheet



UUT-1

Options / Component Summary:

| Model Number | Manufacturer | Material |
|---------------------|-----------------|-------------------------|
| Valves | | |
| F-1, 12125 | Viking Corp. | Ductile Iron, Brass |
| L-1, 11054 | Viking Corp. | Brass, Stainless Steel |
| H-1 | Viking Corp. | Brass |
| 11591 | Viking Corp. | Brass |
| D-1, 10730 | Viking Corp. | Brass, Stainless Steel |
| D-3, 16970 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| V-014-4-6-6-G-W9 | Victaulic | Ductile Iron |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| Valves | | |
| 941151LF (F-1 100T) | KVC Industries | Brass |
| 941153LF (F-1 100T) | KVC Industries | Brass |
| 941154LF (F-1 100T) | KVC Industries | Brass |
| Pipes | | |
| T3PIPPMA15 | Fireflex | Carbon Steel |
| T3PIPPDR15 | Fireflex | Carbon Steel |
| Gauges | | |
| 50021214 | Wika | Stainless Steel |
| 4279931 | Wika | Stainless Steel |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMBOX001 | Fireflex | Galvanized Steel, Brass |
| 04624A | Viking Corp | Brass |
| Electrical | | |
| HBL 1221I | Hubbell | Polymer |
| 1340103 | Potter Electric | Powder Coated Aluminum |
| 1340403 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |

UNIT UNDER TEST (UUT) Summary Sheet



UUT-2

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 4" Dry Pipe Enclosure Unit

Model Number: T3DRYENP40

Product Construction Summary: 14ga-7ga Cold Rolled Cabinet without Control Panel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 675 | 36 | 77 | 25 | 7.7 | 6.6 | >33.3 |

Seismic Test Parameters

| Building Code | Test Criteria | Sds (g) | z/h | H _r | R _μ | Ip | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------|-----|----------------|----------------|-----|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim

DATE: 04/01/2026



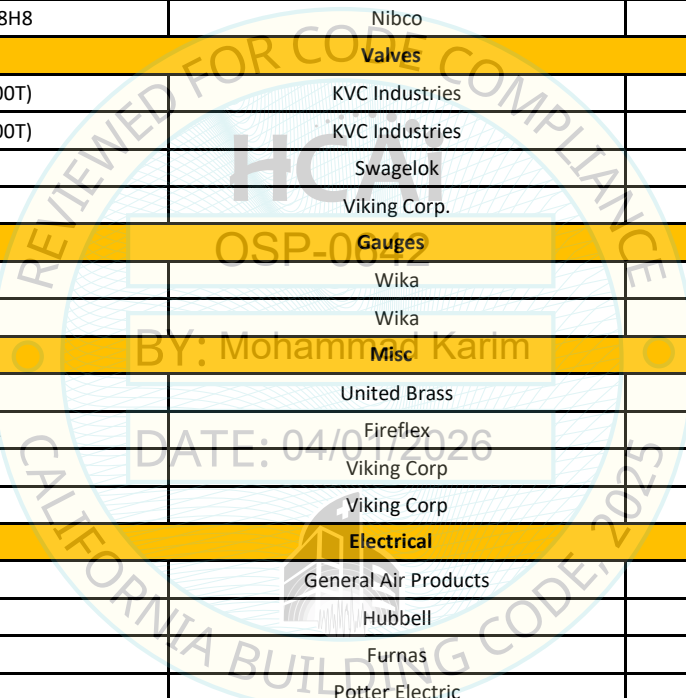
UNIT UNDER TEST (UUT) Summary Sheet



UUT-2

Options / Component Summary:

| Model Number | Manufacturer | Material |
|---------------------|----------------------|-------------------------------|
| Valves | | |
| F-1, 07627 | Viking Corp. | Iron, Brass |
| H-1 | Viking Corp. | Brass |
| D-3, 10732 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| Valves | | |
| 941151LF (F-1 100T) | KVC Industries | Brass |
| 941153LF (F-1 100T) | KVC Industries | Brass |
| B-8CP2-1/3 | Swagelok | Brass |
| A-1 10883 | Viking Corp. | Aluminum, Silicon, Bronze |
| Gauges | | |
| 50021214 | Wika | Stainless Steel |
| 4279931 | Wika | Stainless Steel |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMERG001 | Fireflex | Galvanized Steel, Brass |
| 8116 | Viking Corp | Brass |
| 14800 | Viking Corp | Brass |
| Electrical | | |
| OL36550A | General Air Products | Carbon Steel, Stainless Steel |
| HBL 1221I | Hubbell | Polymer |
| 69HA3 | Furnas | Carbon Steel |
| 1340404 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |



UNIT UNDER TEST (UUT) Summary Sheet



UUT-3

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 2" Preaction Double Interlock Electric-Pneumatic Enclosure Unit

Model Number: T3PDPAWP20

Product Construction Summary: 14ga-7ga Cold Rolled Steel Cabinet with Control Panel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 500 | 23 | 77 | 25 | 9.8 | 6.9 | >33.3 |

Seismic Test Parameters

| Building Code | Test Criteria | S _{ds} (g) | z/h | H _r | R _μ | I _p | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------------------|-----|----------------|----------------|----------------|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim

DATE: 04/01/2026



UNIT UNDER TEST (UUT) Summary Sheet



UUT-3

Options / Component Summary:

| Model Number | Manufacturer | Material |
|---------------------|----------------------|-------------------------------|
| Valves | | |
| F-1, 12057 | Viking Corp. | Ductile Iron, Brass |
| L-1, 11059 | Viking Corp. | Brass, Stainless Steel |
| H-1 | Viking Corp. | Brass |
| 11591 | Viking Corp. | Brass |
| D-1, 10730 | Viking Corp. | Brass, Stainless Steel |
| D-3, 16970 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| V-020-4-6-6-G-W9 | Victaulic | Ductile Iron |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| T-FP-600A, NL998HD | Nibco | Brass |
| Valves | | |
| 941151LF (F-1 100T) | KVC Industries | Brass |
| 941153LF (F-1 100T) | KVC Industries | Brass |
| 941154LF (F-1 100T) | KVC Industries | Brass |
| B-8CP2-1/3 | Swagelok | Brass |
| A-1 10883 | Viking Corp. | Aluminum, Silicon, Bronze |
| Pipes | | |
| T3PIPPMA20 | Fireflex | Carbon Steel |
| T3PIPPDR20 | Fireflex | Carbon Steel |
| Gauges | | |
| 50021214 | Wika | Stainless Steel |
| 4279931 | Wika | Stainless Steel |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMERG001 | Fireflex | Galvanized Steel, Brass |
| 01285A | Viking Corp | Plastic |
| Electrical | | |
| VFR-500 | Viking Corp. | Carbon Steel |
| SB 1275 | Power Max | Plastic Case, Lead Acid |
| WP7.5-12 | Enerwatt, AGM Series | Plastic Case, Lead Acid |
| T3WIRING01 | Fireflex | Non-metallic Sheathed Cables |
| OL12516A | General Air Products | Carbon Steel, Stainless Steel |
| HBL 1221I | Hubbell | Polymer |
| 69HA3 | Furnas | Carbon Steel |
| 1340103 | Potter Electric | Powder Coated Aluminum |
| 1340403 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |

UNIT UNDER TEST (UUT) Summary Sheet



UUT-4

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 4" Preaction Double Interlock Electric-Pneumatic Enclosure Unit

Model Number: T3PDPAWP40

Product Construction Summary: 14ga-7ga Cold Rolled Steel Cabinet with Control Panel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 775 | 36 | 77 | 25 | 8.2 | 7.6 | >33.3 |

Seismic Test Parameters

| Building Code | Test Criteria | Sds (g) | z/h | H _f | R _μ | I _p | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------|-----|----------------|----------------|----------------|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim

DATE: 04/01/2026



UNIT UNDER TEST (UUT) Summary Sheet



UUT-4

Options / Component Summary:

| Model Number | Manufacturer | Material |
|------------------------|----------------------|-------------------------------|
| Valves | | |
| F-1, 11513 | Viking Corp. | Ductile Iron, Brass |
| F-1, 08510 | Viking Corp. | Ductile Iron, Stainless Steel |
| H-1 | Viking Corp. | Brass |
| 11591 | Viking Corp. | Brass |
| D-1, 10730 | Viking Corp. | Brass, Stainless Steel |
| D-3, 16970 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| T-FP-600A, NL998HD | Nibco | Brass |
| Valves | | |
| HPG800 (Fireriser HPG) | Fivalco | Ductile Iron |
| 941151LF (F-1 100T) | KVC Industries | Brass |
| 941153LF (F-1 100T) | KVC Industries | Brass |
| 941158LF (F-1 100T) | KVC Industries | Brass |
| B-8CP2-1/3 | Swagelok | Brass |
| A-1 10883 | Viking Corp. | Aluminum, Silicon, Bronze |
| Pipes | | |
| T3PIPPMA40 | Fireflex | Carbon Steel |
| T3PIPPDR40 | Fireflex | Carbon Steel |
| Gauges | | |
| PFE3933 | Winters | Aluminum |
| PFE3932 | Winters | Stainless Steel, Aluminum |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMERG001 | Fireflex | Galvanized Steel, Brass |
| 08055 | Viking Corp | Brass |
| Electrical | | |
| VFR-500 | Viking Corp. | Carbon Steel |
| SB 1275 | Power Max | Plastic Case, Lead Acid |
| WP7.5-12 | Enerwatt, AGM Series | Plastic Case, Lead Acid |
| T3WIRING01 | Fireflex | Non-metallic Sheathed Cables |
| OL25033A | General Air Products | Carbon Steel, Stainless Steel |
| HBL 1221I | Hubbell | Polymer |
| 69HA3 | Furnas | Carbon Steel |
| 1340103 | Potter Electric | Powder Coated Aluminum |
| 1340403 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |

UNIT UNDER TEST (UUT) Summary Sheet



UUT-5

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 8" Preaction Double Interlock Electric-Pneumatic Enclosure Unit

Model Number: T3PDPAWP80

Product Construction Summary: 14ga-7ga Cold Rolled Steel Cabinet with Control Panel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 1,600 | 54 | 81 | 31 | 4.0 | 5.4 | 13.8 |

Seismic Test Parameters

| Building Code | Test Criteria | Sds (g) | z/h | H _f | R _μ | Ip | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------|-----|----------------|----------------|-----|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim

DATE: 04/01/2026



UNIT UNDER TEST (UUT) Summary Sheet



UUT-5

Options / Component Summary:

| Model Number | Manufacturer | Material |
|------------------------|----------------------|-------------------------------|
| Valves | | |
| F-1, 11018 | Viking Corp. | Ductile Iron, Brass |
| F-1, 08516 | Viking Corp. | Ductile Iron, Stainless Steel |
| H-1 | Viking Corp. | Brass |
| 11595 | Viking Corp. | Brass |
| D-1, 10730 | Viking Corp. | Brass, Stainless Steel |
| D-3, 16970 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| GD47653-0800 | Nibco | Ductile Iron |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| T-FP-600A, NL998HD | Nibco | Brass |
| Valves | | |
| HPG800 (Fireriser HPG) | Fivalco | Ductile Iron |
| 941151LF (F-1 100T) | KVC Industries | Brass |
| 941153LF (F-1 100T) | KVC Industries | Brass |
| 941158LF (F-1 100T) | KVC Industries | Brass |
| B-8CP2-1/3 | Swagelok | Brass |
| A-1 10883 | Viking Corp. | Aluminum, Silicon, Bronze |
| Pipes | | |
| T3PIPPMA80 | Fireflex | Carbon Steel |
| T3PIPPDR80 | Fireflex | Carbon Steel |
| Gauges | | |
| 50021214 | Wika | Stainless Steel |
| 4279931 | Wika | Stainless Steel |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMERG001 | Fireflex | Galvanized Steel, Brass |
| Electrical | | |
| VFR-500 | Viking Corp. | Carbon Steel |
| SB 12180 | Power Max | Plastic Case, Lead Acid |
| WP20-12 | Enerwatt, AGM Series | Plastic Case, Lead Acid |
| T3WIRING01 | Fireflex | Non-metallic Sheathed Cables |
| OL1225200A | General Air Products | Carbon Steel, Stainless Steel |
| HBL 1221I | Hubbell | Polymer |
| 69HA3 | Furnas | Carbon Steel |
| 1340103 | Potter Electric | Powder Coated Aluminum |
| 1340403 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |

UNIT UNDER TEST (UUT) Summary Sheet



UUT-6

NTS Report Number: TR026390-14N-SEI

Test Date: 01/28/14

Manufacturer: FireFlex

Product Line: TOTALPAC3

Description: Integrated Fire Protection Systems

Product Type: 6" Surefire Double Interlock Enclosure Unit

Model Number: T3SFDOWP60

Product Construction Summary: 14ga-7ga Cold Rolled Steel Cabinet with Control Panel

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 before and after the AC 156 test.

UUT Properties

| Operating Weight (lb) | Dimensions (in) | | | Lowest Natural Frequency (Hz) | | |
|-----------------------|-----------------|--------|-------|-------------------------------|-----------|----------|
| | Depth | Height | Width | Front-Back | Side-Side | Vertical |
| 1,050 | 46 | 77 | 25 | 5.4 | 7.8 | >33.3 |

Seismic Test Parameters

| Building Code | Test Criteria | Sds (g) | z/h | H _f | R _μ | Ip | Aflx-H (g) | Arig-H (g) | Aflx-V (g) | Arig-V (g) |
|---------------|---------------|---------|-----|----------------|----------------|-----|------------|------------|------------|------------|
| CBC 2025 | ICC-ES | 2.21 | 1.0 | 3.5 | 1.3 | 1.5 | 3.54 | 2.65 | N/A | N/A |
| | AC156-24 | 2.21 | 0.0 | 1.0 | 1.0 | | N/A | N/A | 1.48 | 0.60 |

Unit Mounting Description:

Unit was mounted with (4) 1/2" -13 Grade 5 bolts.

BY: Mohammad Karim

DATE: 04/01/2026



UNIT UNDER TEST (UUT) Summary Sheet



UUT-6

Options / Component Summary:

| Model Number | Manufacturer | Material |
|--------------------|----------------------|-------------------------------|
| Valves | | |
| F-1, 11524 | Viking Corp. | Ductile Iron, Brass |
| F-1, 08513 | Viking Corp. | Ductile Iron, Stainless Steel |
| H-1 | Viking Corp. | Brass |
| 11591 | Viking Corp. | Brass |
| D-1, 10730 | Viking Corp. | Brass, Stainless Steel |
| D-3, 16970 | Viking Corp. | Brass, Stainless Steel |
| 10110 | Viking Corp. | Brass |
| 05781A | Viking Corp. | Brass, Stainless Steel |
| 04947A | Viking Corp. | Brass, Stainless Steel |
| GD47653-0600 | Nibco | Ductile Iron |
| T-FP-600A, NL998H4 | Nibco | Brass |
| T-FP-600A, NL998H6 | Nibco | Brass |
| T-FP-600A, NL998H8 | Nibco | Brass |
| T-FP-600A, NL998HD | Nibco | Brass |
| Valves | | |
| 941151LF | KVC Industries | Brass |
| 941153LF | KVC Industries | Brass |
| 941158LF | KVC Industries | Brass |
| B-8CP2-1/3 | Swagelok | Brass |
| A-1 10883 | Viking Corp. | Aluminum, Silicon, Bronze |
| Pipes | | |
| T3PIPPMA60 | Fireflex | Carbon Steel |
| T3PIPPDR60 | Fireflex | Carbon Steel |
| Gauges | | |
| 50021214 | Wika | Stainless Steel |
| 4279931 | Wika | Stainless Steel |
| Misc | | |
| 200-50 ME | United Brass | Brass |
| T3EMERG001 | Fireflex | Galvanized Steel, Brass |
| Electrical | | |
| VFR-500 | Viking Corp. | Carbon Steel |
| SB 12120 | Power Max | Plastic Case, Lead Acid |
| WP12-12 | Enerwatt, AGM Series | Plastic Case, Lead Acid |
| T3WIRING01 | Fireflex | Non-metallic Sheathed Cables |
| OL615100A | General Air Products | Carbon Steel, Stainless Steel |
| HBL 1221I | Hubbell | Polymer |
| 69HA3 | Furnas | Carbon Steel |
| 1340103 | Potter Electric | Powder Coated Aluminum |
| 1340403 | Potter Electric | Powder Coated Aluminum |
| 1340404 | Potter Electric | Powder Coated Aluminum |
| 1340101 | Potter Electric | Powder Coated Aluminum |