

Padvault — Three-Phase Fusing Cabinet

1 Scope

This specification outlines the minimum requirements for padvaults to be used in conjunction with PacifiCorp-owned three-phase fusing cabinets. The specification applies whether the padvault is to be installed by company personnel, contractor, customer, or the supplier.

2 Applicable Documents

The latest revisions of the documents, standards, codes and requirements listed in 2.1, *PacifiCorp Material Specifications*, and 2.2, Codes and Standards, in effect on the date of invitation to bid apply to the extent specified herein.

2.1 PacifiCorp Material Specifications

ZG 301, *General Equipment Base and Enclosure Requirements*

ZG 311, *Concrete Requirements*

ZG 621, *Padvault — 5-Foot by 7-Foot (56" × 84")*, for Three-Phase, Sectionalizing Cabinets and Metering

ZG 562, *Padvault — 7' × 12' (94" × 155")* for 600-Amp, Dead-Front Switchgear

ZG 821, *Incidental-Traffic Cover For Padvaults*

2.2 Codes and Standards

ANSI/SCTE 77 2007, Tier 8

3 General

3.1 Application Information

This specification states material and construction requirements which are applicable only to all three-phase fusing cabinet padvaults.

3.2 Authorized Material Specification

This material specification shall not be considered valid until each page contains the approval signature or initials of the persons named in the title blocks.

**MATERIAL SPECIFICATION
Distribution**

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*

**Padvault — Three-
Phase Fusing Cabinet**



8 May 12

ZG 551
Page 1 of 6

ZG 551

4 Applicable Stock Item Numbers

Materials being submitted for the following PacifiCorp stock item numbers are subject to evaluation in accordance with the requirements in this specification.

4.1 Stock Item Numbers

7992604, PADVAULT, FUSE CABINET, 3-PHASE, 15/25 KV, 3-4 POSITION

7992881, PADVAULT, FUSE CABINET, 3-PHASE, 15/25 KV, 5 POSITION

5 Design and Manufacturing Requirements

The purpose of a three-phase fusing cabinet padvault is to support a three-phase fusing cabinet.

5.1 Padvault Layout

Unless otherwise approved by PacifiCorp Engineering, all dimensions and placement of hardware shall conform to those shown in Figure 1 or Figure 2, shown below. The pads found in this specification are unique to the fusing cabinets used by PacifiCorp.

5.2 Inserts and Mounting Hardware

For three- or four-position fusing cabinet padvaults, the supplier shall provide:

- two 2" × 4" × 78" composite boards, cast flush with the top of the padvault lid, at the locations specified in Figure 2.

For five-position fusing cabinet padvaults, the supplier shall provide:

- two 2" × 4" × 114" composite boards, cast flush with the top of the padvault lid, at the locations specified in Figure 1.

Hardware to fasten the fusing cabinet to the composite boards shall be provided:

by PacifiCorp:

- six 1/2" × 2" hot-dip galvanized lag screws (SI# 7992810)
- six 1/2" stainless steel belleville washers

by the Supplier:

- six 1 1/4" × 2 1/2" stainless steel hold-down cleats with 1/4" lift and 9/16" × 1 1/2" holes.

All loose hardware shall be packaged, and the package shall be attached to one of the padvault walls.

5.3 Pulling Attachments

Descriptions of cable-pulling attachments are found in ZG 621 and ZG 711. Pulling attachments shall be rated for 4000 lbs. of pulling tension.



ZG 551
Page 2 of 6

8 May 12

Padvault — Three-Phase Fusing Cabinet

MATERIAL SPECIFICATION Distribution

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*

5.4 Conduit Entrances

TERM-A-DUCTS are used for the conduit entrances. The layout of TERM-A-DUCTS can be found in ZG 621 and ZG 562. ■

5.5 Lifting Attachments

Enough lifting attachments shall be provided to ensure safe installation of all pieces at the site.

5.6 Grounding Grid

The enclosure for the fusing cabinet padvault comes with an internal grounding grid. The details of the grounding grid may be found in ZG 621 and ZG 562. ■

5.7 Access Panel

The access panel for the fusing cabinet padvaults may not be larger than 24" × 60". For a detailed outline of access panels, refer to ZG 821.

5.8 Installation

This unit shall be installed at the site by the supplier or contractor. There shall be a 6" base of 3/4"-minus gravel compacted to 90% of dry density under the padvault and leveled to within 2% slope before setting the padvault. All joints between concrete sections shall be sealed using tar or mastic. The top of the pad should be two to four inches above final grade, when installed in a non-pedestrian area. The pad shall be flush with final grade in pedestrian areas.

5.9 Grounding

The pad shall have one insert grounding as described in ZG 621 and ZG 562. ■

**MATERIAL SPECIFICATION
Distribution**

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*

**Padvault — Three-
Phase Fusing Cabinet**



8 May 12

ZG 551
Page 3 of 6

ZG 551

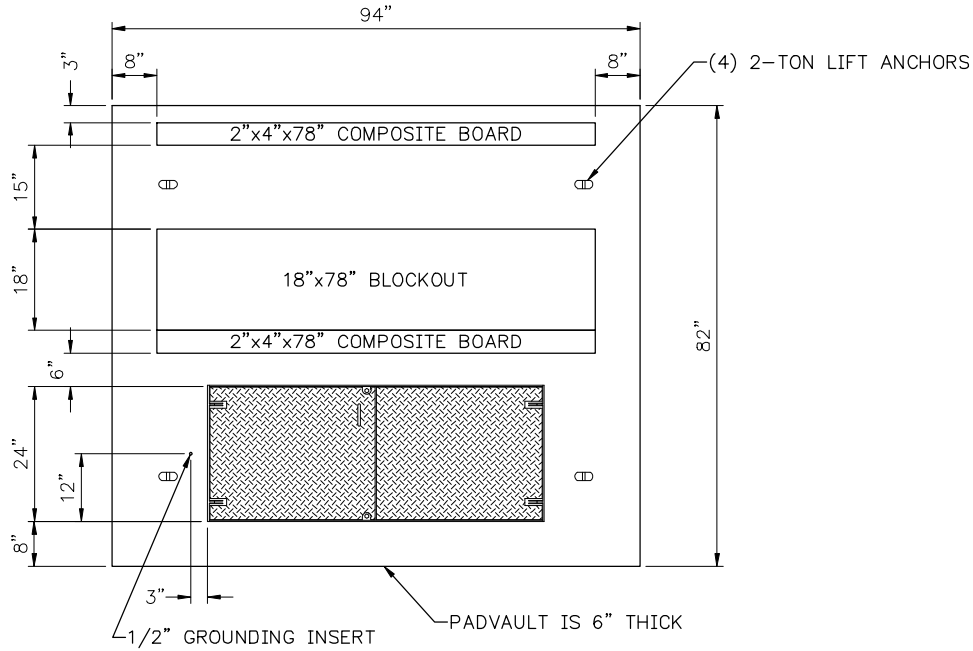


Figure 1—3- or 4-Position Three-Phase Fusing Cabinet Padvault (SI# 7992604)

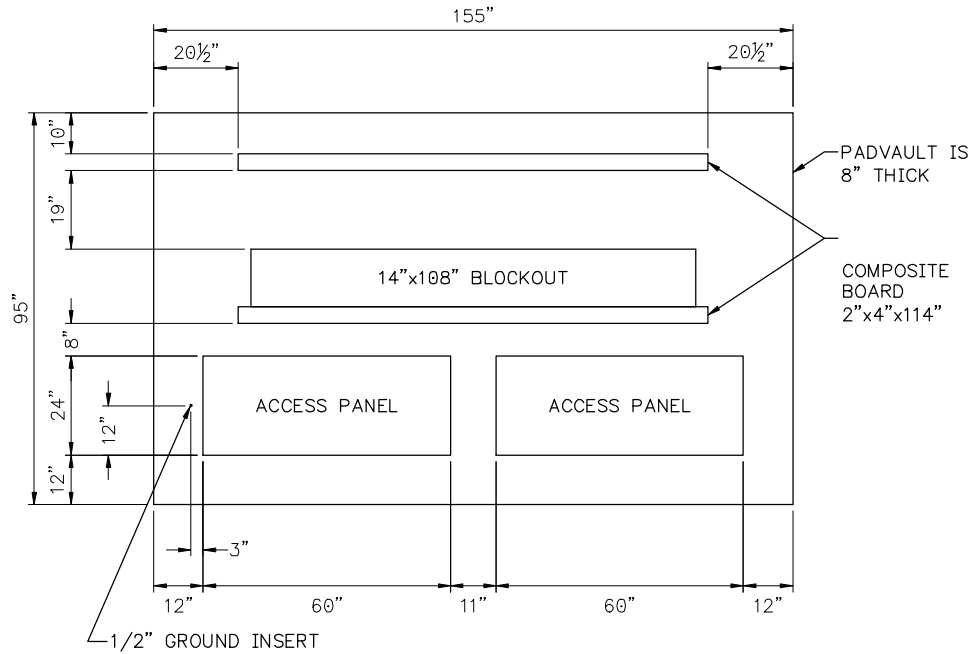


Figure 2—5-Position Three-Phase Fusing Cabinet Padvault (SI# 7992881)



ZG 551
Page 4 of 6

8 May 12

Padvault — Three-Phase Fusing Cabinet

MATERIAL SPECIFICATION Distribution

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*

6 Testing

6.1 Test Compliance

Padvaults submitted under this specification shall meet all tests and requirements contained in ZG 301, *General Equipment Base and Enclosure Requirements*; ZG 311, *Concrete Requirements*; and this specification. Padvaults shall also comply with requirements in applicable national standards.

6.2 Security Test

Fusing cabinet padvaults must be designed and tested to ensure that padmount equipment is not compromised by uneven pad setting. And, with the appropriate fusing cabinet mounted, attempt to pass a #14 AWG soft-drawn copper wire through the interface between the cabinet and pad. If the wire can be passed through the interface, the padvault has failed the test and will be rejected by PacifiCorp.

7 Issuing Department

The Engineering Documentation department of PacifiCorp published this document. Questions regarding editing, revision history and document output may be directed to the lead editor at (503) 813–5293. Technical questions and comments may be directed to Ehsan Maleki, Standards Engineering, (503) 813–7089.

This document shall be used and duplicated only in support of PacifiCorp projects. This document is considered a valid publication when the signature blocks below have been signed by the authoring engineer and standards manager.

**MATERIAL SPECIFICATION
Distribution**

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*

**Padvault — Three-
Phase Fusing Cabinet**



8 May 12

ZG 551
Page 5 of 6

ZG 551

This page is left blank intentionally.



ZG 551
Page 6 of 6

8 May 12

Padvault — Three-Phase Fusing Cabinet

MATERIAL SPECIFICATION Distribution

© 2012 by PacifiCorp. All rights reserved.

Engineer (E. Maleki): *AEM*
Standards Manager (D. Asgharian): *DDA*