Intertek

LISTING REPORT - MACHINING
Issued: Jul 8 2008 9:44AM

Inspection Tests And Evaluation Of

GP 45-90 Min Firestop Door Frame (16940)

RENDERED TO
Georgia-Pacific Gypsum, LLC
55 Park Place - 19th Floor
Atlanta, GA 30303

GENERAL: This Report gives the results of the inspection, tests and evaluation of the above for compliance with applicable requirements of the following standards: UL 10(c) (1998) UBC 7-2 (1997) UBC 7-2 (1994) UL 10(b) (1997)

LISTEES

This information is only available to the applicant.

PRODUCT DESCRIPTION

Product Covered:

GP 45-90 Min Firestop Door Frame

Product Description:

NEUTRAL PRESSURE DOORFRAME

Wood or HPL-Faced, Composite Mineral Core Type (Firestop*) Door Frame (Knock-Down) for installation in up to 1-1/2 hour locations in steel/wood stud drywall or masonry openings.

Max. Rating	Max. Size	Wall Construction	Min. Wall Thickness	Door Type
90 Minute	4'0" wide x 8'0" high – Single	Masonry & Steel/Wood Stud Drywall	5"	Wood & Mineral Core
90 Minute	8'0" wide x 8'0" high – Standard Pair	Masonry & Steel/Wood Stud Drywall	5"	5" Wood & Mineral Core

Testing Standard

UBC 7-2-94/UL-10B (Neutral Pressure).

Evaluated to the following...

Unless otherwise noted, assemblies in this section have been tested to the following standards:

ASTM-E152, Methods of Fire Tests of Door Assemblies;
CAN4-S104(ULC-S104), Standard Method for Fire Tests of Door Assemblies;
CSFM-43.7, Methods of Fire Tests of Door Assemblies;
NFPA-252, Standard Methods of Fire Tests of Door Assemblies;
UBC-7-2-94, Uniform Building Code;
UL-10(b), Fire Tests of Door Assemblies;

and are installed, unless otherwise noted, in accordance with the following:

NFPA-80, Fire Doors & Windows.
Manufacturer's Instructions.

Listed maximum sizes of lights are based on sizes tested and may exceed local code requirements.

All frames are identified by either a label or embossed marking bearing the wording "Listed (Product)" and the WHI Certification Mark. Frames rated for less than 3 hours also bear the time interval. Frame labels that do not include a time interval are rated for 3 hours.

POSITIVE PRESSURE DOORFRAME

Wood or HPL-Faced, Composite Mineral Core Type (GP Firestop Plus* - Proprietary, Concealed-ln-Rabbet Intumescent Edge-Seal System) for installation in up to 1-1/2 hour locations.

Max. Rating	Max. Size	Wall Construction	Min. Wall Thickness	Door Type	Edge-Seal
90 Min.	4'0" wide x 8'0" high - Single	Masonry & Steel/Wood Stud Drywall	5"	Wood & Mineral Core	Proprietary Concealed
60 Min.	4'0" wide x 9'0" high - Single	Masonry & Steel/Wood Stud Drywall	5"	Wood & Mineral Core	Proprietary Concealed
60 Min.	8'0" wide x 9'0" high - Standard Pair	Masonry & Steel/Wood Stud Drywall	5"	Wood & Mineral Core	Proprietary Concealed

*Manufacturer's Designation

Testing Standard

UBC-7-2-97/UL-10C (Positive Pressure)

Evaluated to the following...

This category includes frames not based on ANSI-A155.1/UL-63 construction Type (such as aluminum, wood, light gauge steel, composite, etc.). These listings will reference specific door types for which each frame is qualified. All frames listed in this section may be used in positive pressure assemblies per the terms and limitations of the individual listing.

All frames in this category are identified by a label or marking bearing the wording, "Listed Fire Door Frame", the Warnock Hersey Certification Mark, "UBC-7-2-97/UL-10C". Frames rated at less than 3 hours will have a time interval noted on

the label/marking.

Attribute	Value
Architecture Code	08200 Wood and Plastic Doors and Frames
Fire Resistance	45 Min PP Category C Proprietary Frame
Fire Resistance	45 Min NP Fire Doorframe
Fire Resistance	60 Min NP Fire Doorframe
Fire Resistance	90 Min NP Fire Doorframe
Fire Resistance	60 Min PP Category C Proprietary Frame
Fire Resistance	90 Min PP Category C Proprietary Frame
Swing	Single Swing
Swing	Standard Pairs
Listed or Inspected	LISTED
Report Number	March 1999
Criteria	UL 10(c) (1998)
Criteria	UBC 7-2 (1997)
Criteria	UBC 7-2 (1994)
Criteria	UL 10(b) (1997)
Intertek Services	Certification
Test Original Issue Date	June 1994

MACHINING INFORMATION

Area intentionally left blank; refer to attached diagrams for Machining Information.

SIGNATURE PAGE

Reported By:

Original signature on file

Reviewed By:

Original signature on file

DRAWING INDEX

Components for Positive Pressure Firestop Plus Frame
Jamb - With Steel Plates
Jamb/Head - Without Steel Plates
Veneer Clad Door Frame Corner Details

Components for Positive Pressure Firestop Plus Frame

A

G-P Gypsum Division
Manufacturing of 45/60/90 Minute Firestop® Core Frames
June 1994; Revised FEBRUARY 1999

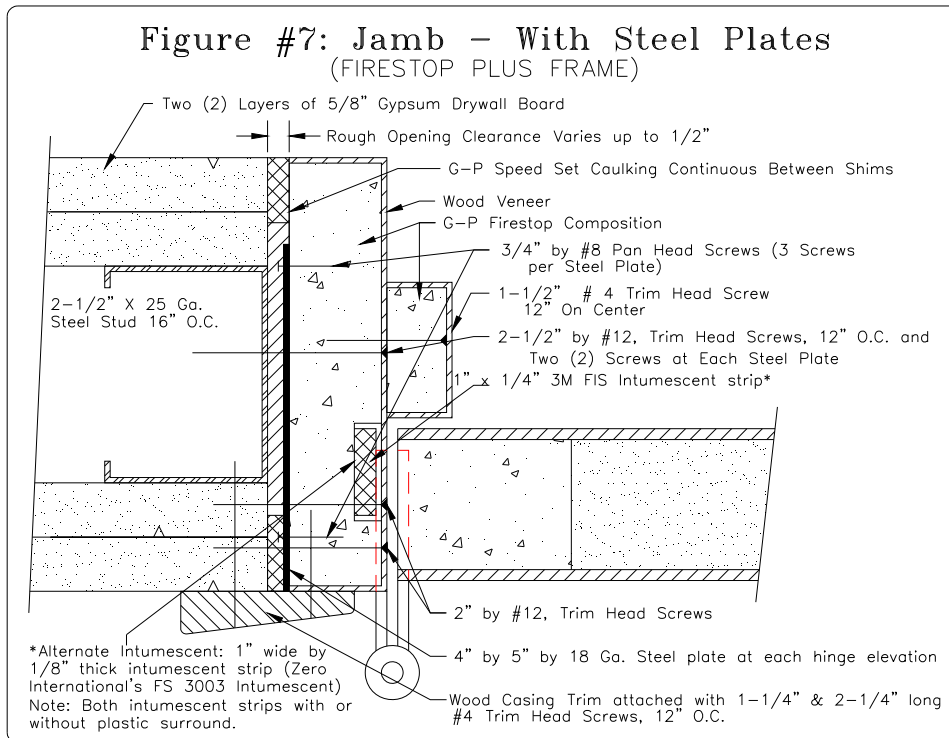Figure #4: Components for UBC 7-2 (1997)
(FIRESTOP PLUS FRAME)
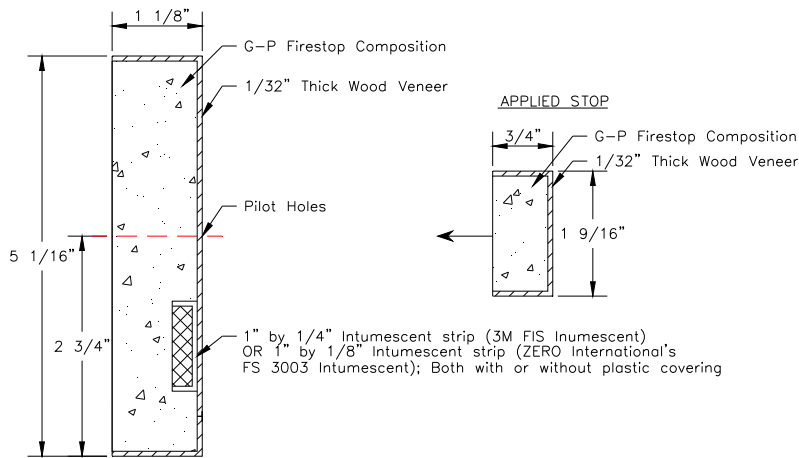
Jamb - With Steel Plates

A

G-P Gypsum Division
Manufacturing of 45/60/90 Minute Firestop® Core Frames
June 1994; Revised FEBRUARY 1999

Figure #7: Jamb – With Steel Plates
(FIRESTOP PLUS FRAME)

Jamb/Head - Without Steel Plates

A

G-P Gypsum Division
Manufacturing of 45/60/90 Minute Firestop® Core Frames
June 1994; Revised FEBRUARY 1999

Figure #8: Jamb / Head - Without Steel Plates
(FIRESTOP PLUS FRAME)

Two (2) Layers of 5/8" Gypsum Drywall Board

Rough Opening Clearance
Varies upto 1/2"

G-P Speed Set Caulking Continuous Between Shims
Wood Veneer
G-P Firestop Composition

2-1/2" X 25 Ga.
Steel Stud 16" O.C.

1-1/2" #4 Trim Head Screws
12" On Center

2-1/2" by #12, Trim Head Screws, 12" O.C.

1" x 1/4" 3M FIS Intumescent strip OR
1" x 1/8" Zero International FS 3003 Intumescent strip*

1-1/4" by #12, Trim Head Screws

Wood Casing Trim attached with 1-1/4" &
2-1/4" Long, # 4 Trim Head Screws, 12" O.C.

*Both intumescent strips with or without plastic surround.
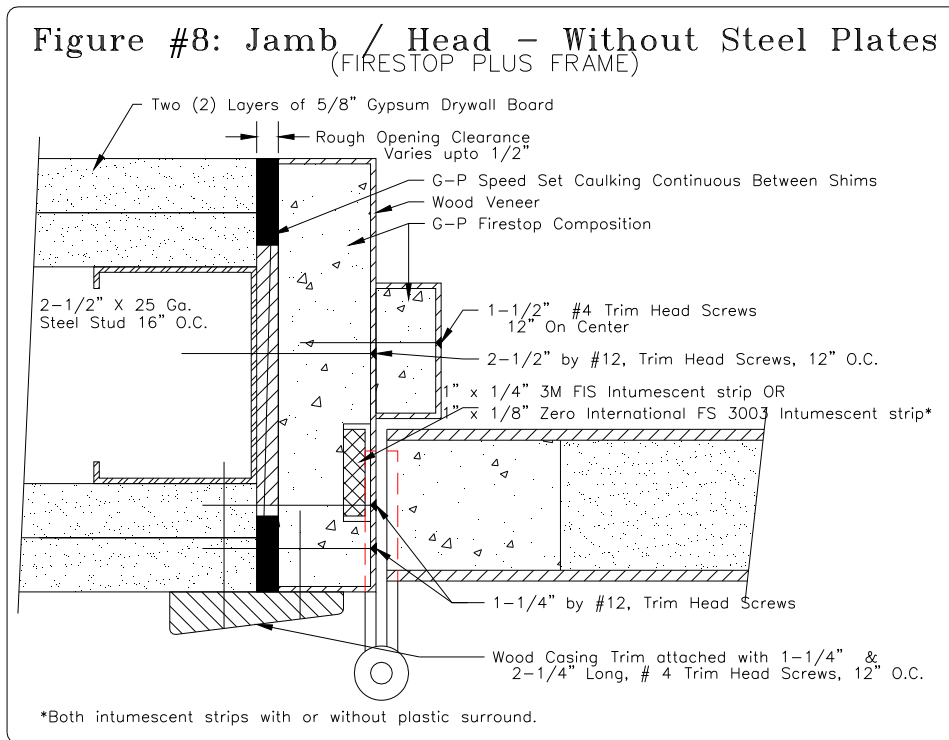
Veneer Clad Door Frame Corner Details
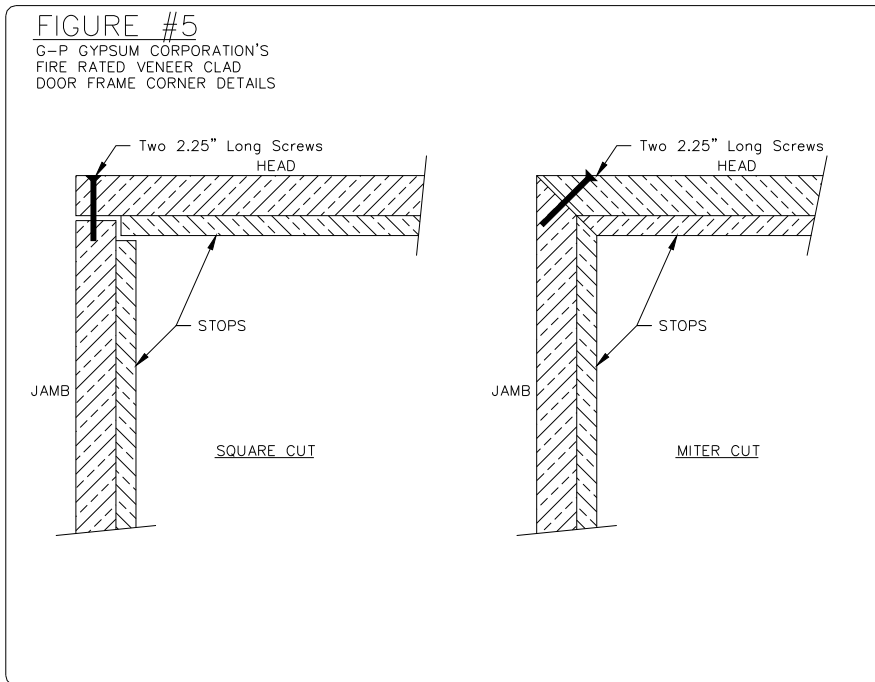
COMPONENTS

Casing - Doorframes

CASING - DOORFRAMES

Material: Solid wood with a minimum density of 23 pcf.

Minimum Size: 1-5/8" wide X 5/16" thick

Construction Components - Door Frames

This Component does not include Machining information; area intentionally left blank.

Identification Stamp - Jambs and Headers - Door Frames

IDENTIFICATION STAMP - JAMBS AND HEADERS

Jambs and headers intended for further processing (machining for hardware) shall bear a marking on the unexposed face of each component. The marking indicates eligibility for bearing a Warnock Hersey Certification Label upon completion of all machining by a licensed machiner.

The marking shall contain the following information (at a minimum):

1. Manufacturer ID
2. Specification - "GP"
3. WHI
4. Rating - "XLV, LX, or XC"
5. Manufacturing date (month/year only)
6. STANDARD frame – "STD"
7. If FIRESTOP PLUS (Positive Pressure) frame – "FS PLUS"

The marking may be an ink stamp, wood-burn, or other suitable means of identification.

XC GP 3/99 STD   WH®
XC GP 3/99 FS PLUS   WH®

Installation Instructions - Packaging of GP Core Frame

INSTALLATION INSTRUCTIONS - PACKAGING OF GP CORE FRAME

Each labeled frame shall be independently packaged and contain all components needed for installation of

the frame in the rough wall opening. Each package shall include Installation Instructions.

The machiner shall insure that all miscellaneous components needed for installation of the frame are included in the package. These miscellaneous components include:

> A. Shims

> B. Steel Plates

> C. Rock Wool or Setting Type Caulk (example: Georgia-Pacific Speed Set 90 Caulking)

> D. Appropriate fasteners per the Installation Instructions.

> E. Frame Installation Instructions (See attachements for an example of Installation Instructions)

For specific jobs with multiple openings, frame components may be separately shipped in bulk containers at the option of the machiner.

Addendum to the Installation Instructions.

For 45 and 60 minute openings only: Steel Backing Plates NOT REQUIRED.

Stops

> Material: Solid wood with a minimum specific gravity of 0.54 at 12% Moisture (Birch, Maple, or similar hardwood species) or veneer wrapped Firestop.
> Size: 1" wide by 5/8" thick minimum.

Fasteners

> Frame to Wall: #8 by 2-1/2" drywall screws located under the stop 24" on center. Through holes must be pre-drilled through the frame.
> Stop to Frame: 1-1/2" long finish nails located 12" on center.
> Casing to Wall and Frame: 1-1/2" long finish nails located 24" on center.

Listing Report General Information

LISTING REPORT GENERAL INFORMATION

The Applicant have agreed to produce, test and label Intertek Listed products in accordance with the requirements of this Report. The Applicant has also agreed to notify Intertek and request authorization prior to using alternate parts, components or materials.

INSTRUCTIONS FOR USE

- One copy of this Report is submitted to the Applicant and used by the Intertek Field Representative

for Follow-up Service Inspections; and
- One copy is retained in files at the Intertek Regional Certification Center.

The Applicant is to use this Report as a guide for the operation of the certification program, and will manufacture the Listed product(s) in accordance with the specifications information stated herein.

The Intertek Field Representative shall determine that the product is manufactured in accordance with this Report and that certification procedures are followed.

In the case where a discrepancy exists between the product and this Report, this Report will be considered correct, and therefore the Applicant has the responsibility for making the necessary corrections so that the product will meet the specifications stated herein.

COMPONENTS

Components used shall be those itemized in this Intertek Report covering the product, including any amendments and/or revisions.

CERTIFICATION MARK

The Intertek Certification Mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the Intertek Certification Mark is subject to the control of Intertek.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced Follow-up Service Inspections of the manufacturing facility shall be conducted by Intertek. A Follow-up Service Inspection Report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the Intertek Certification Mark with the requirements of this Report and the Intertek Certification Agreement.
3. In-plant quality control procedures and personnel.
4. Manufacturing processes and changes.
5. Performance of specified manufacturing and production tests.

In the event that the Intertek Field Representative identifies variance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the Intertek Certification Mark from non-conforming product.
3. Contact the Intertek office that issued this Report for additional instructions.

GENERAL REQUIREMENTS AND DEFINITIONS

Accepted - Accepted by Intertek. All inquiries regarding change to Listed products must be presented to Intertek in writing for consideration and acceptance.

Authorized - Authorized by Intertek. All inquiries regarding change to Listed products must be presented to Intertek in writing for consideration and approval.

C.S.A. - Canadian Standards Association.

Certified - Equipment or material included in a list published by a nationally recognized certification agency that conducts periodic inspections of production of Listed equipment or materials and whose listing stated either that the equipment or material meets recognized standards or has been tested and found suitable for use in a specified manner.

Construction Details - For specific construction details, reference should be made to the following photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements may also apply as applicable.

Discrepancy - A difference between this Report and a product described in this Report. This will result in the filing of a Variance Report on which a management level decision for the corrective action will be based.

Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the Manufacturer as required by the standard.

Listed - Equipment or materials included in a list published by a nationally recognized certification agency that conducts periodic inspections of production of listed equipment of materials, and whose listing states either that the equipment or materials meets nationally recognized standards, or has been tested and found suitable for use in a specified manner.

Listed Component - Identifies any product covered under the Listing or Certification service of an NRTL (US) or a CO (Canada).

Markings - The Intertek Certification Mark shall be visible after installation. Other markings may be required as identified in this Report. If evaluated to a Canadian standard, the products may be required to have markings in both French and English. If so, it is the responsibility of the Applicant to determine any such requirement and provide bilingual markings, where applicable, in accordance with the Provincial Regulatory Authorities.

N.F.P.A. - National Fire Protection Association.

Production Test Requirements - When applicable, the Manufacturer shall have the necessary test facilities to carry out production tests on the Listed product.

Products - The product as described under "Authorization to Mark" is eligible to carry the Intertek Certification Mark.

Recognized Component - Identifies any component, part or sub-assembly, covered under the

recognition service of an NRTL (US) or a CO (Canada), and intended for use in Intertek Listed, Intertek Classified, or Intertek Recognized products.

Records - Records of the use of the Intertek Certification Mark must be maintained by the Applicant and must be available for review during normal business hours.

Shipping - As practically as possible, each Listed product is to be shipped completely assembled and incorporate the necessary safety and installation instructions.

Standards - The Manufacturer shall have in his possession all the current standards/specifications for the Listed product.

U.L. - Underwriters Laboratories Inc.

ULC - Underwriters' Laboratories of Canada.

Unlisted Component – Because unlisted components are uncontrolled, and they do not fall under a third party follow up program, ITS may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process.

Use of Mark - The Components containing the Intertek Certification Mark (i.e. ink stamps, labels) must be kept in a secure area, preferably locked and must not leave the designated manufacturing plant(s) location(s) unless authorized by Intertek. Records on the use of the mark are to be maintained up-to-date. The Intertek Certification Mark and associated product identification must be clearly visible and legible when applied to the finished product. Products to be marked must have successfully passed the production tests and scrutiny of the quality control personnel, determining that the product complies with the specifications stated in this Report. Failure to comply with procedures constitutes ground for withdrawal of Intertek authorization to use the Intertek Certification Mark.

Ordering Labels - It is the responsibility of the Applicant to ensure that an adequate stock of labels is maintained. Label quantities in stock are indicated on all packing slips issued by Intertek.

Modification Procedure - Intertek may approve modifications of a product based on an additional evaluation or tests. Fees are charged for this service. If modifications are desired, such as substituting a different material, changing the cosmetic appearance, changing the rating, altering a component to simplify the manufacturing or improve the product, or any other change, the following procedure must be followed:

1. Write the Intertek office that issued this Report requesting an evaluation of the modification required. Include a clear description and detailed drawings if required showing exactly what is involved, and state your reason for wanting to make the modifications.
2. Wait until written authorization is received from Intertek complete with additional or revised pages to be inserted into your Report. Only after written authorization is received may the Applicant proceed with the modification.

INITIAL FACTORY AUDIT

Purpose - The purpose of this audit is to ensure the following:

1. The Plant Manager, Foreman and Quality Control Personnel are familiar with this Report.
2. The Plant Quality Control Program will assure that the product is manufactured to the requirements in this Report.
3. Key personnel are familiar with and recognize the need for Follow-up Service Inspections as well as proper handling of the Intertek Certification Mark and the use of log sheets, where applicable.
4. The duties of the Controller of the Intertek Certification Mark are properly understood.

Equipment or Supplies Needed

1. Applicable Specifications.
2. Applicable Standards.
3. Supply of log sheets where applicable.
4. Intertek Certification Mark Controller instruction sheet with sample log sheet.
5. Supply of open stock/custom labels or stamp, etc.

Initial Factory Audit Procedures - The initial inspection (pre-arranged with date and time agreeable to both the Applicant and the Intertek Field Representative) will consist of an initial meeting with the Plant Manager, Plant Foreman, Quality Control Manager and other key personnel. The initial meeting will cover a complete review of the Report and production facilities.

INTERTEK FOLLOW-UP SERVICE INSPECTIONS

The Intertek Field Representative shall determine that the product is manufactured in accordance with this Report, and that label procedures are followed.

Label Control - Record serial numbers of labels if applicable, in the plant. Inspect label log sheets. The following information should be recorded in the label log sheets by the manufacturer:

1. Label numbers, date labeled or shipped, product labeled, and destination.
2. Labels removed from, returned, freight damage, or rejected products should be picked up.

Examination of Product - At each Follow-up Service Inspection the Intertek Field Representative shall determine that the product which is intended to bear the Intertek Certification Mark is manufactured in accordance with the specified standards as per the test program and stated herein. The Intertek Field Representative shall pay special attention to the following:

1. Materials used must be free from defects that could affect the performance of the product.
2. Suitable protective packaging.
3. Complete safety and installation instructions are supplied with each product. No modification to these instructions shall be made without Intertek authorization.

Examination of Applicant's Inspection Programs - At each Follow-up Service Inspection, the Intertek Field Representative shall determine that the Applicant's methods of inspection conform to the specifications included in the quality control procedures. The Intertek Field Representative will pay attention to:

1. The Applicant's quality control report is complete and conforms to the procedure accepted by Intertek and included in this Report.
2. The equipment used for inspection conforms to the specification in the quality control procedure.The work area is suitable for a good quality control program.
3. Regular manufacturing production line tests are carried out by the Applicant.

Discrepancies - The Intertek Field Representative shall complete his Follow-up Service Inspection sheet detailing the discrepancy and issue a Variance Report. A signature on the Intertek Field Representative's copy shall be obtained from the Applicant's representative, giving evidence that they were issued a copy. Copies shall be forwarded to the Intertek Regional Certification Office.

The Intertek Field Representative shall require that the Applicant remove the Intertek Certification Mark from all products which do not meet the conformance requirements of this Report, and advise the Applicant not to use the Intertek Certification Mark until further advised.

In the case of minor cosmetic changes the Intertek Field Representative will note the variance on his Follow-up Services Inspection Report and determine the action to be taken by the Applicant. Actions may be to have the Applicant apply to Intertek for an evaluation of the variance and if approved, the subsequent modification of this Report, or to have the Applicant agree to correct the variance on all affected units.

On subsequent routine Follow-up Service Inspections, the Intertek Field Representative will pay special attention to any variances listed in previous Follow-up Inspection Reports. If it is found that a variance has not been corrected as agreed to by the Applicant, the Intertek Field Representative will contact Intertek Regional Certification Center for appropriate instructions. In extreme cases, service could be immediately suspended.

In the case of a difference existing between this Report and the product that could result in a safety hazard, the Intertek Field Representative will fill out a Variance Report. The determination of what constitutes a variance is left to the discretion of the Intertek Field Representative, but any modification or change that could affect the operating characteristics of a product must be reported. The action taken by Intertek will be:

1. Removal of all labels or the Intertek Certification Mark or halting the shipping of the affected product until the Applicant corrects the variance, or has an evaluation carried out by Intertek, the modification approved, and this Report updated.
2. For units already shipped, procedures must be taken per Intertek SOP 7.14.2.

Pre-Machining Inspection (for Fire Doors & Frames)

Before commencing work, a Machiner shall visually inspect the product for certification marking(s) which shall be at a minimum:

- Intertek WH Recognized Component Mark [1] without Country Identifiers or
- Intertek WHI Certification Mark with Country Identifiers.
- Product Designation including name/model [2]
- Rating (if a product is eligible for mulitple ratings of the same type, for example 20 minute and 45 minute fire resistance rating, only one rating may be applied to the product at any time)

- Control Number [3] or Manufacturer's Name [4]

OPTIONAL:

- Date of manufacture (month/year only)
- Positive Pressure designation
- Category designation for Positive Pressure – ex. "Cat. C"

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[1] If space or size do not permit the reproduction of the Intertek name, it may be omitted.
[2] The Product Designation must be sufficient to identify the product's manufacturing Listing Report.
[3] Control Number = Applicant's Account Number or previous Intertek Client Number.
[4] If multiple plants, then location or a location code shall be marked on the product.

Strike for Frames

STRIKES FOR FRAMES

Steel, Mortise, or Surface Applied ONLY for labeled flushbolts, deadbolts, and latchsets. All mortising shall be per template, so 7/16" diameter holes shall be drilled through the frame for each (strike or strike bracket plate) screw required for latchsets.

NOTES:

a) This is to prepare the frame for steel screw sleeves and long screws, replacing the strike screws furnished with the labeled latchset. For installation in walls with a single layer of gypsum board on the door rabbet side, the special 2" by 12" steel plates are not required.

b) The 7/16" holes shall extend through both stop and frame as required in case of strikes or strike brackets for rim exit devices or vertical rod fire exit devices.

c) 7/16" holes are not required for separate deadbolt strikes.

Two, 2-1/4" long #10 screws and 2" minimum length of steel screw sleeve for each screw shall be furnished in the frame package by the machiner for each latchset strike or strike bracket. Steel screw sleeves shall be cut from 1/8" I.D. Schedule 40, black or galvanized steel pipe. Steel screw sleeves must be cut to length at the job site. (Refer to frame installation instructions.)

Strikes in Doors - All Ratings

STRIKES IN DOORS - ALL RATINGS

Strikes (Including Electric Strikes) On pairs of doors bearing 3-point latching the inactive leaf of a pair shall be machined for the strike.

A steel dust box (or shield) shall be used (plastic dust boxes/shields are not allowed).

Electric Strikes, with a maximum cutout of 1-7/16" wide by 3-7/8" high by 2-3/8" deep, shall be listed and labeled for 45 to 90 minute solid core fire doors per UBC 7-2-1997.

WH Labeling - Fire Door Frame - US & Canada

LABELING REQUIREMENTS FOR PRODUCTS BEARING THE WHI CERTIFICATION MARK

FIRE DOOR FRAMES - US and Canada

REQUIRED ITEMS:

- WHI Certification Mark [1] with Country Identifiers [2]
- The word "LISTED"
- The product category "FIRE DOOR FRAME", "FIRE DOOR FRAME WITH TRANSOM AND/OR SIDELITE", OR "FIRE DOOR FRAME WITH TRANSOM AND/OR SIDE PANEL"
- Product Designation including name/model [3]
- If less than 3 hour fire rating, Fire Protection Rating (if a product is eligible for multiple ratings of the same type, for example 20 minute and 45 minute fire resistance rating, only one rating may be applied to the product at any time) [4]
- For all non-3-sided, ANSI A155.1 (UL 63) frames, the Serial Number [5] or Date Code
- Control Number [6] or Listee's Name [7]
- The words "DO NOT REMOVE OR COVER THIS LABEL" [8] (Optional for Stamped or Embossed Frames)
- The words "SEE INSTALLATION INSTRUCTIONS" [9]

OTHER ITEMS: [10]

- POSITIVE PRESSURE statement:

  Positive Pressure information is not required on frames. However, if Positive Pressure labeling is required, the following is required.

    Required: The words "MEETS UBC 7-2-97 / UL 10C" or "MEETS UBC 7-2-97" or "MEETS UL 10C"
    Optional: "POSITIVE PRESSURE"

- SMOKE AND DRAFT CONTROL statement:

  The $\boxed{S}$ mark is not required on frames. However if the $\boxed{S}$ mark is desired, then the label shall provide the required positive pressure statements (see Positive Pressure requirements above).

  If the $\boxed{S}$ mark is applied, it is recommended that the additional language "SMOKE AND DRAFT CONTROL RATING REQUIRES A LISTED GASKET." be included.

- WITHOUT HOSE STREAM

For doors not meeting hose stream test requirements, then the label will state "20 MINUTE WITHOUT HOSE STREAM" [11]

Note: Refer to the attached diagram for example of the Mark

[1]   If space or size do not permit the reproduction of the Intertek and/or Warnock Hersey name, it may be omitted.

[2]   "C" for Canada and "US" for United States. For doors both identifiers may be used except when the doors are

       20 Minute Without Hose Stream. Then the "US" identifier only shall be used.

[3]   The Product Designation must be sufficient to identify the product's manufacturing Listing Report.

[4]   Optional for 3 hour or greater rating (if a product is eligible for multiple ratings of the same type, for example 20 minute

       and 45 minute fire resistance rating, only one rating may be applied to the product at any time)

[5]   For open stock labels, the serial number is unique and therefore also satisfies the requirement for a control number

       or listee's name.

[6]   Control Number = Listee's Oracle Client Number or previous Intertek Client Number.

[7]   If multiple plants, then location or location code shall be noted on label.

[8]   Not applicable for embossed or stamped frames.

[9]   Not applicable for embossed or stamped frames.

[10]   Depending on code requirements or test results, some additional labeling information will be required

[11]   This shall be verified by the test report and the Listing Report. When the doors are 20 Minute Without Hose Stream. Then the "US" identifier only shall be used.

ADDITIONAL REQUIREMENTS DRAWING INDEX

Installation Instructions Firestop Door Frame
WHI Certification Mark - US & Canada

Installation Instructions Firestop Door Frame

ITS Intertek Testing Services

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G-P Gypsum Corporation
Machining of 45/60/90 Minute FireStop ® Core Frames
June, 1994; REVISED: March 1999

APPENDIX: INSTALLATION INSTRUCTIONS

Note: 1. Wood Shims may be used instead of Firestop Shims.
2. Any "Setting Type Caulk" can be used in place of "G-P Speed Set"

GEORGIA-PACIFIC CORPORATION
INSTALLATION INSTRUCTIONS
90 MINUTE RATED
VENEERED FIRESTOP DOOR FRAME

DOOR REQUIREMENTS:

Consult the door manufacturer to make sure that the doors are qualified
for the hardware to be installed, and particularly if for use in door pairs.

WALL REQUIREMENTS:

Two hour rated, wood or steel framed wall or masonry wall
Minimum thickness: 5 inches
Framing: 2" x 4" nominal dimension lumber or 2-1/2" x 0.019"
              (25 gauge) minimum steel framing
Rough opening size for FIRESTOP frames:
      (3 ± 1)" wider than net opening width for door
      (1 1/2 ± 1/2)" higher than net opening height for door
      Note:
          1.   Dimensions are based on those to webs of buck
                framing members.
          2.   For masonry, a 2" x 3" nominal dimension lumber
                buck frame shall be attached to masonry with 3/8"
                expansion masonry anchors, spaced 26" on centers
                maximum.

ROUGH OPENING PREPARATION: See Figure 1

Two inch wide by 12" long by 0.036" (20 gauge) steel plates shall be
supplied with the frame. These plates are for supplementary anchoring
at each door hinge and strike plate, along the header or jambs of the
frame. Plates shall be approximately centered at each hinge or strike
plate elevation with approximately 1" lap over the web of the buck
framing on the side of the wall that hinges are to be installed. Secure
each plate to the buck framing with three suitable fasteners about 5"
apart. Use 3/8" long, #6 pan head framing screws for steel buck
framing. Use 1" long type 'S' or 'W' drywall screws for wood buck
framing. Alternatively, 3 penny box nails may be used through predrilled
holes in the steel plate for wood buck framing.

1

Installation Instructions Firestop Door Frame (page 2 of 6)

G-P Gypsum Corporation
Machining of 45/60/90 Minute FireStop ® Core Frames
June, 1994; REVISED: March 1999

FIRESTOP FRAME DESIGN LIMITATIONS:

Minimum jamb depth: 5"
Minimum rabbet for door: 1-7/8"
Minimum stop height: 5/8"
Minimum soffit: 1"
Maximum Sizes: (inches)

For Swinging Doors	Net Opening		Overall	
	Width	Height	Width	Height
Singles	48	96	50	97
Pairs	96	96	98	97

Hinges: Size and spacing to be in accordance with Table 2-8(a) of NFPA 80, mortise type only.
Strikes: Per Templates for labeled latch sets, (including cylindrical, mortise or unit type), rim exit device, vertical rod fire exit device, flush bolts and/or dead bolts.

FIRESTOP FRAME INSTALLATION: See Figures 2 through 5

Remove the frame from the carton and become familiar with the components by checking each component versus the shipping list. Obtain any hardware item not supplied with your purchase (but required by these instructions) at your local door/frame hardware or building materials dealer.

In the event your FIRESTOP frame was supplied without casing trim, you may install any wood, plastic or metal casing trim obtained from your local dealer.

In the event your FIRESTOP frame was supplied without the required screws, they may be obtained from your local hardware dealer.

To reduce soiling and staining of the frame finish and for ease of installation, it is recommended that all holes for fasteners through the frame be predrilled before the fastener is inserted. Use 5/32" drill bits for #10 screws or 3/32" drill bits for #7 screws. Pilot holes from 65-70% of the fastener shank diameter are best.

If needed, up to 3/4" may be sawed from the bottom of each jamb to fit the rough opening. Use caution to make sure that this does not require trimming the bottom of the door. Some doors may not be trimmed at the bottom.

2

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Align the header section to the top of each jamb section. Drive two 2-1/4" long, #7 screws through predrilled holes at each end of the header to the top of each jamb.

Orient, position, align and square the assembled frame within the rough opening in the wall. See Figure 2. Position FIRESTOP shims at about 2" from the top and bottom to fill the opening between the hinge jamb and wall buck framing. Drive a 2-1/4" long, #7, trim head screw immediately above or below each set of shims through the door rabbet of the frame. Do not completely tighten these screws until you are sure the shims have been adjusted to have the head within the width of the rough opening and with the hinge jamb in plumb. Tighten the two screws, then drive additional 2-1/4", #7 trim screws through the frame on the opposite side of the stop to the buck framing at the same elevation.

Install the door to the frame at top and bottom hinges only. Close the door to check and adjust for alignment of the door from the frame stops and for 1/8" maximum clearance for wood doors or 3/16" maximum clearance for steel doors from the header and both jambs. In the case of door pairs, both doors should be similarly installed to adjust for 1/8" clearance for wood doors or 3/16" clearance for steel doors between the meeting edges and for 1/8" maximum offset along the meeting edges. When alignment is satisfactory, install FIRESTOP shims, 26" on center maximum, between buck framing and along both jamb and header sections. Drive and tighten 2-1/4" long, #7, trim head screws through the frame on each side of the stop soffit to the buck framing, adjoining each set of FIRESTOP shims. Recheck clearances and readjust if necessary. Install the remaining hinges with the hinge screws provided, except replace one screw at each hinge with a 2-1/4" long, #10 screw, driving this screw through the 2" x 12" x 20 gauge steel plates, previously attached to the buck framing. See Figure 4.

If stops were supplied loose, they should be attached with spiral nails or trim head screws, 12" on center, through the predrilled holes at this time. Pre-position the stops on the frame to allow for any required labeled gasketing with the doors in the closed position.

For flushbolt or latchset strikes, cut to length and insert 1/8" inside diameter steel screw sleeves through the 7/16" diameter predrilled holes in the frame to span the distance between the strike and the buck framing or the 2" x 12" x 20 gauge steel plate previously installed to the buck framing. Install the strikes with #10 screws, 2-1/4" long minimum through the steel sleeves.

3

Note: Wood Shims may be used instead of FIRESTOP Shims.

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Surface strikes used for rim exit devices and vertical rod fire exit devices are sometimes installed to the soffit. These strikes require that 7/16" diameter holes be predrilled through both the stop and frame. Steel screw sleeves and 3" long, #10 screws are used to install surface strikes to the soffit.

Dead bolt strikes (mortise type) closer and surface brackets for closer arms do not require the 7/16" diameter holes, nor the steel screw sleeves. It is recommended that holes for the screws be predrilled. If mounted to the soffit, screws should extend through the stop and penetrate the frame by 1/2" minimum. If mounted to the face of the frame, a 16 gauge steel mounting plate may be cut up to 2" high by the width of the bracket or closer body and surface attached to the face of the frame with not less than two, #8, 3/4" long screws through predrilled holes in the plate. The closer or closer arm bracket may then be screw attached to the mounting plate, using self tapping screws provided with the closer.

Check and adjust hardware to make sure door(s) are self-closing and self-latching.

Break or saw off any FIRESTOP shims that extend beyond the frame or wall on each side of the assembly. Mix Georgia-Pacific Speed Set 90 Compound with water according the directions on each bag. Fill the area between sets of FIRESTOP shims, FIRESTOP frame and buck framing on each side of the wall to a minimum depth of 1". See Figure 3. This may be accomplished with joint finishing tools. A caulking tube and gun may simplify this installation. For installation in masonry, extend the Speed Set 90 over the buck framing to bridge the FIRESTOP frame to the masonry. See Figure 5. After the Speed Set 90 has hardened, install the casing trim on each side of the wall to the buck framing and to the FIRESTOP frame with suitable fasteners, spaced 24" on center maximum. Use 1-5/8" or 2-1/4" long, #7 trim head screws for installation of casing trim to wood or steel buck framing or the FIRESTOP frame. As an alternate, 6 penny finishing nails may be used for installation of casing trim to wood buck framing. Casing trim fastener length should be selected to penetrate the FIRESTOP frame or wood buck by 1/2" minimum. If desired, the screw and nail heads may be covered using a veneer color matched caulking or putty stick. If the frame has a natural wood veneer, it may be stained and finished with a clear varnish or drying oil.

CONGRATULATIONS! You may now enjoy the safety and appearance of a 90 minute rated Georgia-Pacific FIRESTOP frame.BB/jh:184
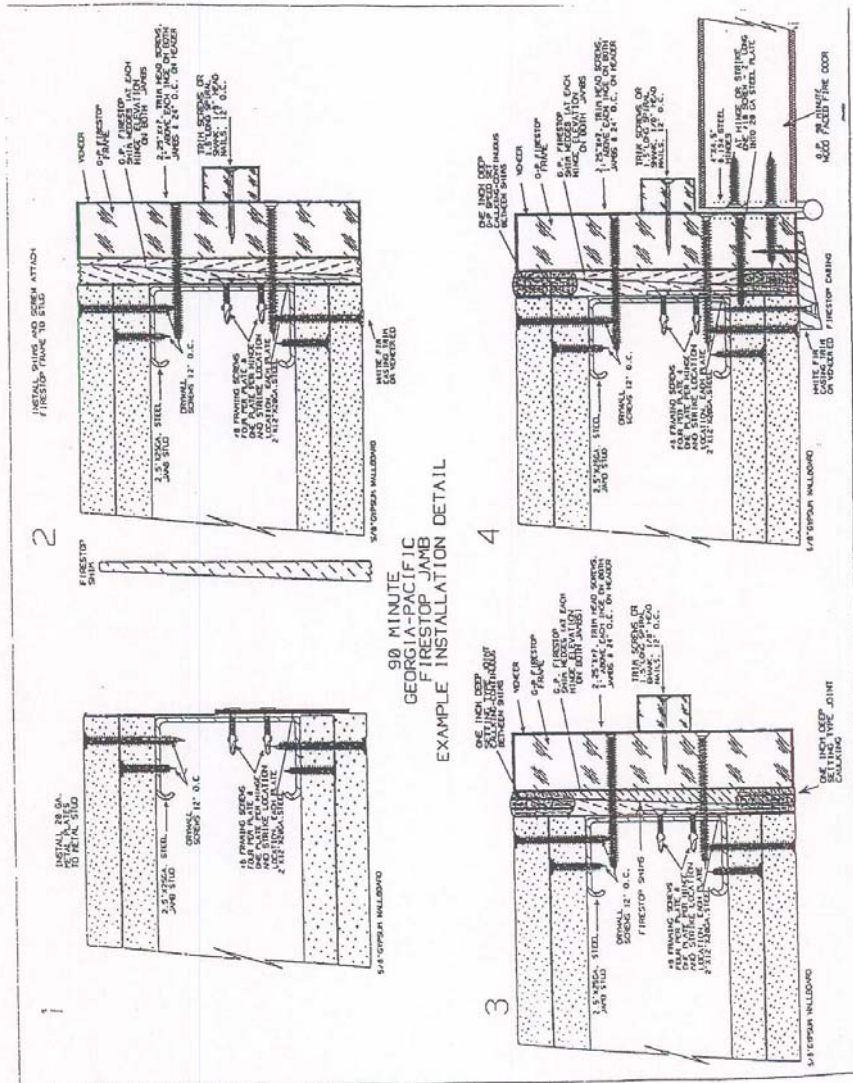
Note: Wood Shims may be used instead of FIRESTOP Shims. Any Setting Caulk may be used instead of G-P Speed Set 90 Compound.

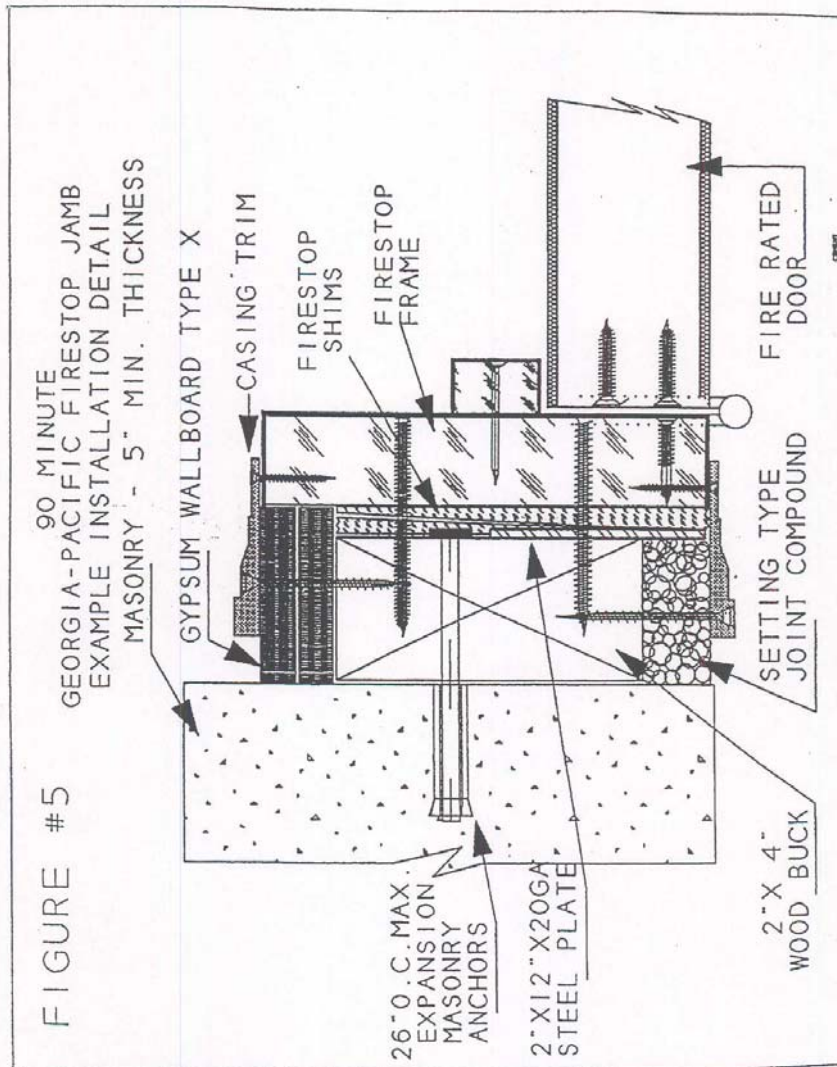# Installation Instructions Firestop Door Frame (page 5 of 6)

Note: Wood Shims may be used instead of FIRESTOP Shims. Any Setting Caulk may be used instead of G-P Speed Set 90 Compound.

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FIGURE #5

90 MINUTE
GEORGIA-PACIFIC FIRESTOP JAMB
EXAMPLE INSTALLATION DETAIL
MASONRY - 5" MIN. THICKNESS

GYPSUM WALLBOARD TYPE X
CASING TRIM
FIRESTOP SHIMS
FIRESTOP FRAME
FIRE RATED DOOR
SETTING TYPE JOINT COMPOUND

26" O.C. MAX.
EXPANSION
MASONRY ANCHORS
2"X12"X20GA STEEL PLATE
2"X 4" WOOD BUCK

Note: Wood Shims may be used instead of FIRESTOP Shims. Any Setting Caulk may be used instead of G-P Speed Set 90 Compound.

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LISTED CERTIFICATION MARK

"C & US" - MEETS US & CANADIAN STANDARDS

DESIGNATES LISTED PRODUCTS "WITH HOSE STREAM"