

ARCHITECT AND MEP ENGINEERING NOTICE REPORT

FIRE-RATED SHOWER VALVE PENETRATION PROTECTION

SECTION 07 84 43

CSI 3-Part Specification Format | Division 07 Firestopping with Division 22 Coordination

Project Use	Related Products	Related Listings	Related Work
Fire-resistance-rated wall assemblies penetrated by shower valves, mixing valves, diverter valves, and similar recessed plumbing fixtures.	FRPS FN-Z 14-14-3 SV fire-rated in-wall shower valve enclosure; FRPS FN-7.5 x 7.5 surface-applied Gap-Fill Gasket; or approved listed system.	Intertek FRPS/FME 60-07 / 60-09 and Intertek PF 60-01, subject to project assembly and manufacturer requirements.	Division 07 Firestopping; Division 09 Gypsum Board and wet-area substrates; Division 22 Plumbing rough-in and valve installation.

Specifier Note: Edit this section to match the project fire-resistance-rated wall assemblies, approved listing details, AHJ requirements, and selected valve products. Do not use this language as a substitute for project-specific code review.

FRPS Fire-Rated In-Wall Shower Valve Enclosure and Surface-Applied Gap-Fill Gasket

This notice informs Architectural and MEP teams that shower valve installations penetrating fire-rated wall assemblies shall utilize a listed FRPS fire-rated penetration protection system to maintain the required fire-resistance rating.

- FRPS metal **In-Wall** fire-rated enclosure, Part No. FN-Z 14-14-3 SV, Intertek Listing Nos. FRPS/FME 60-07 and FRPS/FME 60-09.
- FRPS Patent Pending surface-applied **Gap-Fill Gasket**, Part No. FN-7.5 x 7.5, Intertek Listing No. PF 60-01.

Field-built drywall boxes, mineral-wool patches, putty pads, and sealant-only solutions are not recognized tested systems for this condition and do not comply with building code requirements for membrane penetrations when used in place of a listed shower valve penetration protection system.

Shower valves installed within 1-hour and 2-hour fire-rated wall assemblies are classified as membrane penetrations under:

- IBC Chapter 7 - Penetrations and fire-resistance-rated construction requirements.
- ASTM E119 / UL 263 - Fire-resistance-rated construction requirements.
- ASTM E814 / UL 1479 - Where applicable to annular-space firestopping.

Because the valve body and required access opening interrupt the fire-rated membrane, the assembly shall incorporate a listed penetration protection system that has been laboratory tested to maintain the fire rating of the wall.

Wet-Area Substrate Coordination

ALERT Do not use moisture-resistant drywall alone inside the shower or tub wet area.

Gypsum board color guidance for coordination:

Board Type	General Meaning	Wet-Area Limitation
Green Board	Moisture-resistant only; not waterproof; allowed in damp areas.	Not rated for continuous water exposure and not recommended as the primary substrate inside a tub or shower stall.
Purple Board	Mold- and moisture-resistant; better performance than greenboard.	Some products are approved for limited water exposure but still require waterproofing and manufacturer approval for shower applications.
Blue Board	Designed for veneer plaster systems.	Not moisture-resistant and not recommended for bathrooms or showers.
Pink Board	Fire-resistant Type X gypsum.	Color does not indicate moisture resistance and is not appropriate by itself for tub/shower wet areas.

For direct wet areas, such as surfaces to be tiled or exposed to water, acceptable substrates commonly include cement board, fiber-cement board, and glass-mat water-resistant panels when installed with approved waterproofing. Drywall of any color is not permitted as the direct tile substrate in wet areas unless covered by a continuous waterproof membrane, such as Schluter Kerdi sheet membrane, and installed in accordance with manufacturer approval and project requirements.

Industry best practice for tub and shower stalls is cement board plus a waterproofing membrane, either liquid-applied or sheet-applied. Examples include RedGard, HydroBan, and Kerdi membrane systems.

Required Product - FRPS Fire-Rated Shower Valve Enclosure and Gasket

The FRPS enclosure and surface-applied gap-fill gasket are factory-constructed, third-party tested fire-rated wall penetration protection systems designed for:

- Shower valve bodies.
- Mixing valves.
- Plumbing fixture rough-in located inside rated corridors, shafts, dwelling separations, and party walls.

Key performance requirements include:

- Maintains 1-hour or 2-hour wall rating depending on the listed assembly.
- Tested to ASTM E119 / UL 263 or ASTM E814/ UL 1479 as applicable to the listed design.
- Carries an Intertek design listing.
- Eliminates non-compliant field-fabricated drywall boxes.
- Approved for use with copper, PEX, and CPVC plumbing configurations where permitted by the manufacturer listing, applicable code, and project documents.

Observations / Issue Summary

During site review, the following non-compliant conditions may be observed and shall be corrected where present:

- [] Shower valve rough-ins installed directly into the stud cavity of a fire-rated wall.
- [] Oversized cutouts in gypsum membrane without listed enclosure or gasket protection.
- [] Field-fabricated drywall boxes constructed without fire testing.
- [] Incomplete or missing firestop treatment around valve penetrations.
- [] Plastic pipe assemblies penetrating rated walls without approved firestop details.

These conditions compromise the fire-resistance rating of the assembly and require correction before concealment or final acceptance.

Required Corrective Action

Mandatory Fix: Install FRPS fire-rated shower valve enclosure or FRPS surface-applied gap-fill gasket listed product per manufacturer instructions and applicable Intertek listing.

Additional requirements:

- Ensure full integration into the listed wall assembly.
- Seal all perimeter joints using the listed firestop material specified in the FRPS system.
- Submit product data, listing details, and installation photos to the design team and AHJ.

MEP Coordination Notes

- Coordinate exact valve locations with framing layout to ensure enclosure or gasket fit.
- Maintain required clearance and depth for FRPS enclosure or gasket installation.
- Coordinate finish-wall build-up to ensure enclosure front plane remains flush and trim remains serviceable.
- Ensure insulation and vapor barriers are not compromised by enclosure placement.

Architectural Notes

- Update wall types in plans and details to state: Shower valves in rated walls to be installed using FRPS listed fire-rated enclosure or surface-applied Gap-Fill Gasket system. Field-fabricated enclosures not permitted.
- Incorporate FRPS detail into wall-section detail sheets for fire-rated corridors, shafts, dwelling separations, and party walls.
- Include product and listing numbers in project specifications with Division 07 and Division 22 cross-references.

Closeout Documentation Required	Distribution
Photo documentation of each installed enclosure or gasket; manufacturer installation certification or compliance sheet; updated as-built wall type drawings; firestop inspection sign-off if required by AHJ.	☐ Architect of Record ☐ MEP Engineer of Record ☐ General Contractor ☐ Plumbing Contractor ☐ Fire-Stopping Contractor ☐ Owner / Facilities Team

SCROLL DOWN TO VIEW CSI DIVISION 07 AND APPENDIX 22 DOCUMENTATION

DIVISION 07 84 43

FIRE-RATED SHOWER VALVE PENETRATION PROTECTION

CSI 3-Part Specification Format

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide tested and listed fire-rated penetration protection systems for shower valves, mixing valves, diverter valves, and similar recessed plumbing fixtures installed in fire-resistance-rated wall assemblies.
- B. Purpose: Maintain the required 1-hour or 2-hour fire-resistance rating of rated wall assemblies interrupted by recessed plumbing valve bodies, access openings, and related penetrations.
- C. Application: Work applies to rated corridors, shafts, dwelling unit separations, party walls, and other fire-resistance-rated partitions where shower or mixing valves are installed.

1.2 RELATED REQUIREMENTS

Section 07 84 00 - Firestopping: Firestop systems and inspection requirements.

Section 09 29 00 - Gypsum Board: Rated gypsum wall assemblies and wet-area substrate coordination.

Section 22 05 00 - Common Work Results for Plumbing: Plumbing coordination and rough-in requirements.

Section 22 40 00 - Plumbing Fixtures: Shower valves, mixing valves, diverter valves, and fixture trim.

1.3 REFERENCES

International Building Code, Chapter 7 - Fire and Smoke Protection Features, including requirements for penetrations in fire-resistance-rated assemblies.

ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

UL 263 - Fire Tests of Building Construction and Materials.

ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems, where applicable to annular-space firestopping conditions.

UL 1479 - Fire Tests of Penetration Firestops, where applicable to annular-space firestopping conditions.

Intertek listed designs applicable to the selected FRPS enclosure or gasket system.

1.4 DEFINITIONS

- A. Membrane Penetration: A penetration through one side of a fire-resistance-rated wall assembly that interrupts the gypsum membrane or other rated membrane.
- B. Listed System: A fire-rated penetration protection assembly tested by an accredited third-party laboratory and installed in accordance with its published listing and manufacturer instructions.
- C. Field-Fabricated Solution: A non-listed assembly built from gypsum board scraps, mineral wool, putty pads, sealant, or other jobsite materials without a tested listing for the specific penetration condition.

1.5 PERFORMANCE REQUIREMENTS

Maintain the required fire-resistance rating of the wall assembly for the rating indicated on the drawings, including 1-hour and 2-hour assemblies where applicable.

Provide only systems tested and listed for recessed shower valve, mixing valve, or similar plumbing fixture penetration conditions in fire-resistance-rated walls.

System shall accommodate plumbing materials permitted by the listing and project requirements, including copper, PEX, or CPVC where allowed by code and the manufacturer.

System shall not permit installation with unlisted field modifications that compromise the tested assembly.

Penetration protection shall be compatible with wall framing, valve depth, finish wall build-up, wet-area substrate, waterproofing system, and fixture trim requirements.

1.6 SUBMITTALS

Product data for each fire-rated shower valve enclosure or surface-applied gap-fill gasket system.

Current third-party listing or design documentation showing rating, approved wall assemblies, installation limits, and required accessories.

Manufacturer installation instructions for the selected system.

Shop drawings or coordination drawings indicating valve location, wall type, rough-in depth, enclosure or gasket use, and finish-wall relationship.

Firestop materials data for sealants, accessories, and perimeter treatments included in the tested system.

Closeout documentation including installation photographs, listing documentation, manufacturer compliance sheet, updated as-built wall type drawings, and firestop inspection sign-off where required by the AHJ.

1.7 QUALITY ASSURANCE

Installer shall be familiar with installation of listed firestop and penetration protection systems in rated assemblies.

Coordinate with Architect, MEP Engineer, General Contractor, Plumbing Contractor, Firestopping Contractor, and AHJ before closing rated wall assemblies.

Do not cover concealed conditions until required inspections and photographic documentation have been completed.

Where a third-party firestop inspector is required, coordinate inspection of each shower valve penetration before concealment.

1.8 DESIGN AND FIELD COORDINATION

Coordinate exact valve locations with stud layout to ensure enclosure or gasket fit.

Maintain required clearance, depth, access, and finished wall plane alignment for the listed system.

Coordinate insulation, vapor barriers, waterproofing membranes, backing, and finish wall build-up so they do not compromise the listed assembly.

Report conflicts immediately to Architect and MEP Engineer before proceeding with rough-in or wall closure.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Manufacturer: FRPS - Fire Rated Product Specialties / Fire Rated Penetration Systems.

B. Substitutions: Substitutions are not permitted unless the proposed system is third-party tested and listed for the same fire-resistance rating, wall assembly, valve condition, plumbing materials, and installation configuration. Submit complete listing and installation documentation for review before use.

2.2 FIRE-RATED SHOWER VALVE PENETRATION SYSTEMS

A. In-Wall Fire-Rated Shower Valve Enclosure: FRPS metal fire-rated enclosure, Part No. FN-Z 14-14-3 SV, Intertek Listing Nos. FRPS/FME 60-07 and FRPS/FME 60-09, or approved listed system meeting this specification.

B. Surface-Applied Gap-Fill Gasket: FRPS Patent Pending surface-applied Gap-Fill Gasket, Part No. FN-7.5 x 7.5, Intertek Listing No. PF 60-01, or approved listed system meeting this specification.

C. System Requirements: Factory-constructed or manufacturer-supplied assembly specifically intended for shower valve, mixing valve, or similar recessed plumbing fixture protection in fire-rated wall assemblies.

- Maintain wall rating as required by the approved listing and project documents.
- Include required firestop materials, perimeter treatments, fasteners, gaskets, sealants, or accessories identified by the tested system.
- Allow installation of plumbing valve bodies and supply lines only within the limits of the listing.
- Provide durable protection that remains accessible and compatible with required plumbing service access.

2.3 FIRESTOP MATERIALS

Provide firestop sealants, accessories, and perimeter treatments only as required or permitted by the selected listed system.

Do not substitute sealants, mineral wool, putty pads, gaskets, fasteners, or accessories unless accepted in writing by the manufacturer and permitted by the listing.

Materials shall be compatible with adjacent gypsum, framing, plumbing, insulation, waterproofing, and finish materials.

2.4 UNACCEPTABLE PRODUCTS AND METHODS

- Field-built gypsum board boxes, drywall scrap enclosures, or jobsite-fabricated chases without a tested listing.
- Mineral-wool stuffing used as the sole protection method for the shower valve membrane penetration.
- Putty pads, caulk-only, sealant-only, or ad hoc patching used in place of a listed shower valve penetration protection system.
- Rated-wall penetrations left unprotected or concealed without required documentation and inspection.

PART 3 - EXECUTION

3.1 EXAMINATION

Verify wall assembly rating, wall type, stud depth, valve body size, plumbing material, finish wall thickness, and access requirements before installation.

Verify that selected FRPS system is appropriate for the project wall assembly and penetration condition.

Do not proceed where rough-in conditions prevent installation in accordance with the listed system.

3.2 INSTALLATION

Install fire-rated enclosure or surface-applied gap-fill gasket strictly in accordance with manufacturer instructions and the applicable tested listing.

Maintain alignment of enclosure or gasket with the finished wall plane and plumbing trim requirements.

Seal required joints, perimeter interfaces, annular spaces, and penetrations using materials included in the tested system.

Coordinate valve depth, supply pipe routing, support, blocking, insulation, waterproofing, and finish-wall work so the installation remains within the listing limits.

Do not modify, cut, notch, omit, or replace components of the listed system except as permitted by the manufacturer and listing.

3.3 FIELD QUALITY CONTROL

Inspect each shower valve penetration in a rated wall for conformance with the approved listed system before concealment.

Document each installation with photographs showing wall type, valve location, enclosure or gasket installation, perimeter treatment, and final condition before cover-up where applicable.

Remove and replace nonconforming installations, including unlisted field boxes, oversized cutouts without listed protection, missing perimeter seal, or rated-wall penetrations without approved documentation.

Coordinate with AHJ and third-party firestop inspector where required.

3.4 CLOSEOUT DOCUMENTATION

- Product data and manufacturer installation instructions for installed system.
- Current Intertek or other approved listing documentation for installed system.
- Photographic documentation of each installed enclosure or gasket.
- Manufacturer installation certification or compliance sheet.
- Updated as-built wall type drawings or valve layout drawings indicating locations of protected penetrations.
- Firestop inspection sign-off, if required by AHJ or project firestop quality control program.

3.5 DRAWING NOTE

A. Add the following note to rated wall plans and details: Shower valves, mixing valves, diverter valves, and similar recessed plumbing fixtures installed in fire-resistance-rated walls must be protected with a listed FRPS fire-rated enclosure or surface-applied Gap-Fill Gasket system. Field-fabricated enclosures, mineral-wool patches, putty pads, and sealant-only solutions are not permitted.

APPENDIX A - DIVISION 22 COORDINATION LANGUAGE

Specifier Note: Use the following language in Section 22 05 00 or related plumbing sections to coordinate plumbing scope with Division 07 firestopping requirements.

A.1 GENERAL

Plumbing Contractor shall coordinate installation of shower valves, mixing valves, diverter valves, and similar recessed plumbing fixtures in fire-resistance-rated wall assemblies with Division 07 Firestopping requirements.

Valves installed within fire-resistance-rated partitions shall be installed only with a listed fire-rated enclosure or surface-applied gap-fill gasket system approved for the rated wall assembly and valve condition.

A.2 PRODUCT COORDINATION

Basis-of-design: FRPS fire-rated in-wall shower valve enclosure, Part No. FN-Z 14-14-3 SV, or FRPS surface-applied Gap-Fill Gasket, Part No. FN-7.5 x 7.5, as applicable to the approved listing.

Verify wall framing layout, valve body dimensions, rough-in depth, finish-wall build-up, plumbing material, and required access before installation.

Report conflicts to Architect and MEP Engineer before rough-in or wall closure.

A.3 EXECUTION

Install shower valves in rated walls only with the approved listed FRPS enclosure or gasket system.

Seal penetrations, openings, and interfaces only as required by the listed assembly.

Ensure piping supports, blocking, waterproofing, insulation, and finish trim do not interfere with system integrity or listing requirements.

Remove and replace any valve installed in a rated wall without an approved listed fire-rated penetration protection system.

APPENDIX B - ARCHITECT / MEP FIELD NOTICE CHECKLIST

Specifier Note: Use this field notice when nonconforming shower valve penetrations are observed in rated walls.

Observed Condition	Status	Required Action
Shower valve rough-in installed directly into stud cavity of a fire-rated wall.	☐ Observed	Install listed FRPS enclosure or gasket system.
Oversized cutout in rated gypsum membrane without listed protection.	☐ Observed	Repair opening and install tested/listed system.
Field-fabricated drywall box or scrap-material enclosure.	☐ Observed	Remove and replace with listed system.
Incomplete or missing firestop treatment around valve penetration.	☐ Observed	Seal per listed system and manufacturer instructions.
Plastic pipe assembly penetrating rated wall without approved firestop detail.	☐ Observed	Submit and install approved listed firestop detail.

APPENDIX C - WET-AREA SUBSTRATE COORDINATION NOTE

Specifier Note: This advisory note is provided for coordination only. Confirm final wet-area substrate and waterproofing requirements with project documents, governing code, tile system manufacturer, and AHJ.

Do not use moisture-resistant gypsum board alone as the primary substrate in direct tub or shower wet areas.

Common acceptable substrates for tub/shower walls include cement board, fiber-cement board, and glass-mat water-resistant panels when installed with approved waterproofing systems.

Drywall products of any color are not suitable as direct tile substrates in wet areas unless covered by a continuous waterproof membrane and installed in accordance with the membrane manufacturer requirements and project approvals.

Green board is moisture-resistant, not waterproof; purple board is mold- and moisture-resistant; blue board is for veneer plaster systems; pink board indicates fire-resistant Type X gypsum and does not indicate moisture resistance.

APPENDIX D - DISTRIBUTION AND CLOSEOUT TRACKING

Distribution Recipient	Included
Architect of Record	☐
MEP Engineer of Record	☐
General Contractor	☐
Plumbing Contractor	☐
Fire-Stopping Contractor	☐
Owner / Facilities Team	☐

Closeout Item	Submitted
Photo documentation of each installed enclosure or gasket.	☐
Manufacturer installation certification or compliance sheet.	☐
Updated as-built wall type drawings.	☐
Firestop inspection sign-off, if required by AHJ.	☐