SECTION 07 84 13

PENETRATION FIRESTOPPING DEVICES

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\*\* NOTE TO SPECIFIER \*\* FireShield LLC / Fire Rated Solutions LLC; grease duct doors, shower valve penetration box, wall penetration box.  
This section is based on the products of FireShield LLC / Fire Rated Solutions LLC, which is located at:  
2700 E. Patrick Ln. Suite 14  
Las Vegas, NV 89120  
Tel: 702-622-9385  
Email: [request info (jim@fireratedsolutions.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=FireShield+LLC+/+Fire+Rated+Solutions+LLC&coid=52162&rep=&fax=&message=RE:%20Spec%20Question%20(07840fir):%20%20&mf=)  
Web: <https://www.fireshieldlv.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos52/arc52162.html) ] for additional information.  
FireShield, LLC is looking forward to working with you on systems and solutions on all your Fire stopping projects. We are a team of highly dedicated professionals committed to developing quality, innovative, easy to install, code compliant Fire stopping solutions. FireShield, LLC continues to work on the next generation of products. We proudly are Made in the USA.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Penetration Firestopping Devices of the following types:
       1. Grease Duct Door. (Easy Access Grease Duct Door)
       2. Shower Valve Membrane Penetration Box. (Barri-Box)
       3. Wall Penetration Box. (Barricade)
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 10 44 19 - Fire Blankets.
    2. Section 11 40 00 - Foodservice Equipment.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
       1. ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems.
       2. ASTM E2336 - Standard Test Methods for Fire Resistive Grease Duct Enclosure Systems.
    2. American National Standards Institute (ANSI):
       1. ANSI/UL 1479 (ASTM E816) - Standard for Fire Tests of Penetration Firestops.
    3. Intertek Group plc (Intertek).
    4. National Fire Protection Association (NFPA):
       1. NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
    5. Standards Council of Canada (CAN/ULC):
       1. CAN/ULC S115 - Standard Method of Fire Tests of Firestop Systems.
    6. Underwriters Laboratories (UL):
       1. UL 1978 - Standard for Grease Ducts.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.
     3. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project. Delete if not required.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. SEQUENCING
     1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
  5. WARRANTY
     1. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: FireShield LLC / Fire Rated Solutions LLC, which is located at: 2700 E. Patrick Ln. Suite 14; Las Vegas, NV 89120; Tel: 702-622-9385; Email: [request info (jim@fireratedsolutions.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=FireShield+LLC+/+Fire+Rated+Solutions+LLC&coid=52162&rep=&fax=&message=RE:%20Spec%20Question%20(07840fir):%20%20&mf=); Web: <https://www.fireshieldlv.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Currently, doors on the market all have the same problem in that they are mounted at the plane of the duct, and extension rods, insulation layers, and cover plates are then added. The problem is, all of these items need to be removed to access the duct for cleaning. Easy Access Grease Duct Door solves this by having an insulated frame and allowing the hinged door to open at the plane of the wrapped system. A fail proof system, with nothing to remove, drop, or set aside, avoiding incorrect reinstallation. Just open, clean, and close! Delete if not required.

* 1. GREASE DUCT DOOR
     1. Basis of Design: Easy Access Grease Duct Door; as manufactured by FireShield, LLC.
        1. A hinged cover and quick access captive fasteners allow for opening and closing of door in seconds.
        2. Compression gasket plate assembly keeps grease in the duct.
        3. Door body frame installs separately, allowing wrap to butt to it, eliminating seams and taping.

\*\* NOTE TO SPECIFIER \*\* Select size required. Delete sizes not required.

* + - 1. Size: 6 x 10 inches (152 x 254 mm).
      2. Size: 8 x 12 inches (203 x 305 mm).
      3. Size: 12 x 12 inches (305 x 305 mm).
      4. Size: 12 x 16 inches (305 x 406 mm).
      5. Size: 20 x 20 inches (508 x 508 mm).
    1. Performance and Design Requirements:
       1. Standards Compliance:
          1. UL 1978: Tested and listed grease and liquid tight fitting for hood and duct penetrations.
          2. Listed with Intertek for use with Intertek approved fire resistive grease duct enclosure systems.
          3. NFPA 96 compliant.
       2. Pre-insulated in accordance with ASTM E2336.
       3. No fasteners penetrating duct walls.

\*\* NOTE TO SPECIFIER \*\* BarriBox solves the existing problem of protecting the membrane penetrations created in fire rated wall by shower valves. This is perhaps the most overlooked firestop item due to the complexities of a moving valve, numerous supply lines, and often a non-metallic escutcheon plate. BarriBox can be inserted into a wall for new construction, or slipped over existing pipes in a retrofit application. Delete if not required.

* 1. SHOWER VALVE MEMBRANE PENETRATION BOX
     1. Basis of Design: BarriBox; as manufactured by FireShield, LLC.
        1. Construction: Galvanized steel with separate back piece to allow for retrofit applications.
        2. Slots in box allow for running supply lines through the mat material.

\*\* NOTE TO SPECIFIER \*\* Select size required. Delete sizes not required.

* + - 1. Size: 7 x 7 inches (178 x 178 mm).
      2. Size: 7 x 8 inches (178 x 203 mm).
      3. Size: 8 x 8 inches (203 x 203 mm).
      4. Size: 10 x 10 inches (254 x 254 mm).
      5. Depth: 2.75 inches (69.8 mm).
      6. Depth: 3.25 inches (82.5 mm)
    1. Accessory Products:
       1. Sealant: 3M Fire Barrier Sealant CP 25WB.
       2. Water Tight Sealant: 3M Fire Barrier Water Tight Sealant 3000WT.
    2. Performance and Design Requirements:
       1. Standards Compliance:
          1. Tested in back to back applications.
          2. Tested in shaft walls.
          3. Tested with metallic, PVC, and PEX supply lines.
          4. Suitable for wood and metal studs.
       2. ANSI/UL 1479/ ASTM E814:

\*\* NOTE TO SPECIFIER \*\* Select ratings required. Delete ratings not required.

* + - * 1. F Rating: 1 hour.
        2. F Rating: 2 hour.
        3. T Rating: 1 hour.
        4. T Rating: 2 hour.
      1. CAN/ULC S115:

\*\* NOTE TO SPECIFIER \*\* Select ratings required. Delete ratings not required.

* + - * 1. F Rating: 1 hour.
        2. F Rating: 2 hour.
        3. FT Rating: 1 hour.
        4. FT Rating: 2 hour.
        5. FH Rating: 1 hour.
        6. FH Rating: 2 hour.
        7. FTH Rating: 1 hour.
        8. FTH Rating: 2 hour.

\*\* NOTE TO SPECIFIER \*\* The Barricade solution results in a product that is more cost effective than "five-siding", allowing the contractor to install and follow code compliance in less time, for less money, than it would be to have it done incorrectly. Delete if not required.

* 1. WALL PENETRATION BOX
     1. Basis of Design: Barricade; as manufactured by FireShield, LLC.
        1. Construction: High temperature fire board back with sides of a flexible intumescent mat material that fold inward when inserted, sealing the framed opening.
        2. Color: Red, easily identifiable as a fire resistant product.

\*\* NOTE TO SPECIFIER \*\* Select applications required. Delete applications not required.

* + - 1. Application: Fire extinguisher cabinets.
      2. Application: Electrical panel boxes.
      3. Application: Med-gas mixing valves.
      4. Application: Utility boxes.
      5. Application: Wall safes.
      6. Application: Utility controllers.
      7. Application: Eye wash stations.
      8. Application: \_\_\_\_\_.
    1. Accessory Products:
       1. Sealant: 3M Fire Barrier Sealant CP 25WB.
       2. Water Tight Sealant: 3M Fire Barrier Water Tight Sealant 3000WT.
    2. Performance and Design Requirements:
       1. Standards Compliance:
          1. UL tested and listed for membrane penetrations.
          2. Tested in metal and wood stud construction.
       2. ANSI/UL 1479/ ASTM E814:

\*\* NOTE TO SPECIFIER \*\* Select ratings required. Delete ratings not required.

* + - * 1. F Rating: 1 hour.
        2. F Rating: 2 hour.
        3. T Rating: 1 hour.
        4. T Rating: 2 hour.
      1. CAN/ULC S115:

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        2. F Rating: 2 hour.
        3. FT Rating: 1 hour.
        4. FT Rating: 2 hour.
        5. FH Rating: 1 hour.
        6. FH Rating: 2 hour.
        7. FTH Rating: 1 hour.
        8. FTH Rating: 2 hour.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
   4. CLEANING AND PROTECTION
      1. Clean products in accordance with the manufacturer's recommendations.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION