SECTION 22 13 19

SANITARY WASTE PIPING SPECIALTIES

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\*\* NOTE TO SPECIFIER \*\* MIFAB, Inc.; roof and scupper drain grates.  
This section is based on the products of MIFAB, Inc., which is located at:1321 W. 119th St.Chicago, IL 60643Toll Free Tel: 800-465-2736Tel: 773-341-3030Fax: 773-341-3047 Email: [request info (sales@mifab.com )](https://arcat.com/rfi?action=email&company=MIFAB%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(15150mfb)%253A%2520&coid=38108&spec=15150mfb&rep=&fax=773-341-3047%2520)  
Web: <https://mifab.com>   
 [ [Click Here](https://arcat.com/company/mifab-inc-38108) ] for additional information.  
Manufacturer of Commercial and Industrial Plumbing and Drainage Products.  
Servingall the USA, Canada, Australia, and the Middle East, MIFAB can provide you with the quality, engineered plumbing and drainage solutions you need. Innovative product designs save the installer time and material cost and provides the owner with higher quality cast stainless steel drains and cleanouts for the same cost as the industry standard nickel bronze.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Backwater valves; horizontal and vertical.
    2. Cleanouts; floor and wall.
    3. Fabricated stainless steel drains.
    4. Floor and area drains.
    5. Other floor and area drains.
    6. Trap Seal Primers; electronic, gravity flow, MI-GARD, regular.
  1. RELATED SECTIONS

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

* + 1. Section 22 05 00 - Common Work Results for Plumbing.
    2. Section 22 10 00 - Plumbing Piping.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     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.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
  1. 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.

* + 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. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: MIFAB, Inc., which is located at:1321 W. 119th St.Chicago, IL 60643Toll Free Tel: 800-465-2736Tel: 773-341-3030Fax: 773-341-3047 Email: [request info (sales@mifab.com )](https://arcat.com/rfi?action=email&company=MIFAB%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(15150mfb)%253A%2520&coid=38108&spec=15150mfb&rep=&fax=773-341-3047%2520);Web: <https://mifab.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.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete paragraphs and products not required.

* 1. BACKWATER VALVES
     1. Horizontal Backwater Valves:
        1. Product: BV1000 Backwater Valve with PVC Flapper: For use in main branch or sewer lines. Prevent backflow from sewers.
           1. Lacquered cast iron backwater valve with no hub inlet and outlet, gasketed bolted cover, and automatic PVC flapper type backwater valve. Gravity flow only. Full opening access through cover to the flapper assembly for repair and maintenance. Pipe Sizes: 2, 3, 4, 6, 8, 10, and12 inch.
        2. Product: BV1200-R Backwater Valve with PVC Flapper and Nickel Bronze Access Cover: For use in main branch or sewer lines. Prevent backflow from sewers.
           1. Lacquered cast iron backwater valve with no hub inlet and outlet, gasketed bolted cover, automatic PVC flapper type backwater valve. Full opening access through cover to flapper assembly for repair and maintenance. Lacquered cast iron extension to receive pipe extension (by others) and nickel bronze scoriated access cover and provides means with an extension pipe (by others) to raise access cover to whatever height is required. Pipe Sizes: 2, 3, 4, and 6 inch.
        3. Product: BV1210 Angle Pit Drain with Backwater Valve: To prevent backflow back into the drain line. For use in base of side walls in pits where a low installation location requires a top inlet grate and horizontal outlet.
           1. Lacquered cast iron angle pit drain with removable backwater valve and seat. Pipe Sizes: 2, 3, 4, and 6 inch.
        4. Product: BV1300 In-Line Manually Operated Gate Type Backwater Valve: For use as a drainage control valve. Provides protection against sewage backflow.
           1. Lacquered cast iron body with automatic PVC flapper valve and bronze gate valve manually controlled by recessed handle underneath floor cover connected to a bronze non-rising threaded control rod. Manually closed gate provides additional protection during severe storms or when the building is not in use. Pipe Sizes: 4 and 6 inch.
     2. Vertical Backwater Valves:
        1. Product: BV1250 Backwater Valve with Neoprene Seat: For use inside the no hub outlet connections of various drain bodies or inside of various floor drain strainers. To prevent backflow of water from the plumbing line up through the strainer.
           1. Pipe Size: 4 inches.
        2. Product: BV1260 Vertical Cast Iron Backwater Valve with Neoprene Seat: For use in piping system directly under various floor drain bodies to prevent backflow of water from plumbing line up through strainer.
           1. Lacquered vertical cast iron backwater valve with neoprene rubber seat.
           2. Pipe Sizes: 2, 3, and 4, inch.

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* 1. CLEANOUTS
     1. Floor Access Cover Cleanouts:
        1. Product: C1300 Scoriated Access Floor Covers: For finished floors. Emergency access to plumbing for removal of blockages.
           1. Round: 7 or 9 inches. Square: 6 or 9 inches. Frame, anchor lugs, and vandal resistant stainless steel allen key screws. Nickel bronze or ductile iron. Scoriated cover provides a non-skid surface. Anchor tabs provide a means to secure frame to sub floor.
        2. Product: C1300-MF Heavy Duty Access Housing with Anchor Flange: For use inside and outside buildings.
           1. Flanges are anchored in concrete to keep housing rigid and free of piping, so no loading is transmitted to plumbing or electrical connections. Lacquered cast iron heavy duty access housing with fixed anchor flanges, ductile iron access cover with 6-1/2 inch clear bottom access.
        3. Product: C1300-UR/US Floor Access Cover Recessed for Terrazzo: 9 inch round, 8 inch square. For finished floors. Emergency access to plumbing for blockage removal.
           1. Recessed cover provides area for floor tile to be installed. Anchor tabs provide a means to secure frame to the sub floor. Nickel bronze with nickel bronze frame, anchor lugs, and vandal resistant stainless steel screws.
        4. Product: C1310 Floor Access Cover: For use in finished floors. Emergency access to plumbing for blockage removal.
           1. Nickel bronze body with round, scoriated secured cover. Pipe Sizes: 2, 3, 4, and 6 inch.
     2. Wall Access Cover Cleanouts:
        1. Product: C1400-R/S Smooth Wall Access Cover: For use in walls. Emergency access to plumbing for blockage removal.
           1. Round: 6 or 9 inches. Square: 7, 9, or 12 inches. Nickel bronze or stainless steel frame, with anchor lugs and vandal resistant stainless steel allen key screws. Anchor tabs provide a means to secure from the wall structure.
        2. Product: C1400-RD Stainless Steel Round Cover with Screw: For use in walls. Emergency access to plumbing for blockage removal.
           1. Smooth stainless steel access cover and 3-1/2 inch long anchor screw. Pipe Sizes: 3, 4, 5, 6, 8, and 10 inch.
        3. Product: C1430 Recessed Head Bronze Line Cleanout Plug: For use in drainage pipe where a cleanout is required.
           1. Cast bronze recessed head bronze line cleanout plug with blind tapping. Recessed head has square sized slot to receive tool for removal. Tapping in plug can receive bolt from wall cleanout plate. Pipe Sizes: 2, 3, 4, 5, 6, and 8 inch.
        4. Product: C1430-RD Round Stainless Steel Smooth Access Cover with Bronze Cleanout Plug and Screw: For use in walls. Emergency access to plumbing for blockage removal.
           1. Cast bronze cleanout plug with round, smooth, stainless steel access cover and 3-1/2 inch long anchor screw. Bronze plug provides access point to stack. Pipe Sizes: 2, 3, 4, 5, 6, and 8 inch.
        5. Product: C1440 Expandable Line Cleanout: For use in drainage pipe where a cleanout is required. Plug expands into pipe opening as tightened.
           1. Tapping in plug can receive bolt from wall cleanout plate. Pipe Sizes: 1-1/2, 2, 3, and 4 inch.
        6. Product: C1440-R Expandable Line Cleanout with Nickel Bronze Wall Access Panel: Installed flush into walls during wall construction to cover and access cleanout plugs installed in drainage pipe. Plug will expand into pipe opening as tightened. Tapping in plug can receive bolt from wall cleanout plate.
           1. Expandable line cleanout plug with tapping and 7 inch round, smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Pipe Sizes: 1-1/2, 2, 3, and 4 inch.
        7. Product: C1440-RD Expandable Line Cleanout with Smooth Round Access Cover: Installed on opening in wall or ceiling. Emergency access to plumbing for blockage removal.
           1. Plug will expand into pipe opening as tightened. Tapping in plug can receive bolt from wall cleanout plate. 3-1/2 inch long anchor screw. Pipe Sizes: 1-1/2, 2, 3, and 4 inch.
        8. Product: C1440-S Expandable Line Cleanout with Square Access Panel: Installed flush into walls during construction. Covers access to cleanout plugs installed in drainage pipe.
           1. Plug will expand into pipe opening as tightened. Tapping in plug can receive bolt from wall cleanout plate. 7 inch square, smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Pipe Sizes: 1-1/2, 2, 3, and 4 inch.
        9. Product: C1450 Line Cleanout Plug with Blind Tapping: For use in drainage pipe where a cleanout is required.
           1. Plug will fit into pipe opening. Available in cast iron, PVC, ABS, or nickel bronze to suit the pipe material. Tapping in plug can receive bolt from cleanout plate. Pipe Sizes: 2, 3, and 4 inch.
        10. Product: C1450-R Line Cleanout with Round, Nickel Bronze Wall Access Panel: Installed flush into walls during construction to cover cleanout plugs installed in drainage pipe.
            1. Drain line cleanout plug with blind tapping and smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Round 6 inch access panel eliminates need to align with adjacent floor and ceiling patterns. Anchor tabs to secure cover to wall structure. Pipe Sizes: 2, 3, and 4 inch.
        11. Product: C1450-RD Line Cleanout with Round, Stainless Steel Smooth Access Cover: Installed on an opening in the finished wall or ceiling. Emergency access to plumbing for blockage removal.
            1. Drain line cleanout plug with blind tapping and 6 inch round, smooth stainless steel access cover with 3-1/2 inch anchor screw. Plug will fit into pipe opening and is available in cast iron, PVC, ABS, or nickel bronze material to suit pipe material. Tapping in plug can receive bolt from wall cleanout plate. Pipe Sizes: 2, 3, and 4 inch.
        12. Product: C1450-S Line Cleanout with Square Wall Access Panel: Installed flush into walls during wall construction to cover and access cleanout plugs installed in drainage pipe.
            1. Drain line cleanout plug with blind tapping and 7 inch square, smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Anchor tabs provide a means to secure cover to wall structure. Pipe Sizes: 2, 3, and 4 inch.
        13. Product: C1460-S Cast Iron Stack Cleanout with Plug and Square Wall Access Cover: Installed flush into walls during construction to cover cleanout plugs in drainage vertical pipe where cleanout is required.
            1. Lacquered cast iron cleanout with large access area, tapered thread plug and square 7 or 9 inch, smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Cleanout plug is secured to pipe with no hub couplings from others. Recessed head has square slot to receive tool for plug removal. Anchor tabs provide a means to secure cover to wall structure. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
     3. Non-Adjustable Finished Floor Cleanouts:
        1. Product: C1230 Line or Floor Cleanout: For use in finished floors. Emergency access to plumbing for blockage removal. Non-adjustable top.
           1. Lacquered cast iron cleanout ferrule with 1/2 inch thick gasketed combined ductile iron cover and plug. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
        2. Product: C1230-WF Floor Cleanout for Wood Floor Installations: For use in finished wood floors. Emergency access to plumbing for blockage removal. Non-adjustable top.
           1. Lacquered cast iron wood floor cleanout. 1-1/2 inch wide anchor flange and combined gasketed access cover and plug. Pipe Sizes: 2, 3, and 4 inch.
        3. Product: C1500 Deck Cleanout: For use in finish floors. Emergency access to plumbing for blockage removal blockages.
           1. Nickel bronze body with round, scoriated secured cover. Pipe Sizes: 3, 4, 6, and 12 inch.
     4. Round Finished Floor Cleanouts:
        1. Product: C1000-R Stainless Steel Floor Cleanout with Heavy Adjustable Cover and Plug: For use in finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange. Heavy duty, cast, Type 304 stainless steel cover and plug. Secondary "O" ring test seal, 4 inch diameter cleanout opening, and heavy duty cast stainless steel scoriated combined cover and plug top assembly with vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        2. Product: C1100-R Floor Cleanout with Adjustable Cover and Plug: For use in finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange. Secondary "O" ring test seal, 4 inch diameter cleanout opening and scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        3. Product: C1100-RC Adjustable Floor Cleanout with Carpet Marker: For use in finished floors. Emergency access to plumbing for blockage removal. Carpet is cut to access assembly. Carpet is replaced and marker re-installed after drain line is cleared.
           1. Lacquered cast iron body and anchor flange. Secondary "O" ring test seal, 4 inch diameter cleanout opening and round nickel bronze scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws. Membrane clamp for membrane floors. Primary gasket seal and 1-1/2 inch round stainless steel carpet marker, bolts to center of cleanout cover providing location of cleanout in carpeted floor areas. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        4. Product: C1100-RFC Adjustable Floor Cleanout with Surface Membrane Clamp: 7 or 9 inch diameter. For finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange, secondary "O" ring test seal, 4 diameter cleanout opening, and heavy duty stainless steel scoriated cover with surface membrane clamp, secondary closure plug, and stainless steel vandal proof allen key screws. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        5. Product: C1100-T Adjustable Floor Cleanout for Tile Areas: For finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange. Secondary "O" ring test seal, 4 inch diameter cleanout opening. Round scoriated combined cover and plug top assembly with 1/8 inch recess for tile and stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        6. Product: C1100-UR Adjustable Floor Cleanout for Terrazzo Areas: For finished floors. Emergency access to plumbing for blockage removal. Typical in floors where a minimum amount of cleanout top is desired to be visible. The recess in the cover is to receive terrazzo or ceramic tile fill.
           1. Lacquered cast iron body and anchor flange. Secondary "O" ring test seal, 4 inch diameter cleanout. Round scoriated combined cover and plug top assembly with 1-1/4 inch recess for terrazzo and stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        7. Product: C1100-XR Floor Cleanout with Heavy Duty Round Adjustable Cover and Plug: For unfinished floors with heavy load traffic; warehouses, manufacturing facilities. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange. Secondary "O" ring test seal, 4 inch diameter cleanout and round heavy duty square scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors.
           2. For unfinished floors with heavy load traffic; warehouses, manufacturing facilities. Emergency access to plumbing for blockage removal. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        8. Product: C1200-C-R Adjustable Isolation Floor Cleanout: Used in computer rooms and areas that have cables and wires underneath a floating floor assembly. Emergency access to plumbing for Blockage removal.
           1. Lacquered cast iron upper and lower body with anchor flanges. Secondary "O" ring test seal. Cast iron membrane clamp rings for waterproofing membrane. Neoprene expansion compensator, 4 inch cleanout and scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws and primary gasket seal. Seepage control is not available since cleanouts must be gas tight. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
           2. Combined Cover and Plug Top Assembly: Round, Round with tile recess, round with terrazzo recess, and round heavy duty.
        9. Product: C1220 Adjustable Floor Cleanout and Adjustable Cover and Secondary Closure Plug: Used in finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body, secondary closure plug and scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
        10. Product P7060. 6 inch Round, Type 316 Stainless Steel Fabricated Industrial Floor Cleanout: 6-5/8 inch diameter, 12 gauge Type 316 stainless steel, sanitary floor cleanout with special duty load rated gasketed 1/2 inch thick cover. Bead blasted finish. PVC secondary plug and Cleanout. Outlet: 3 or 4 inch no hub.
            1. Meets U.S. FDA Standards for corrosion resistance.
        11. Product P7080. 8 inch Round, Type 316 Stainless Steel Fabricated Industrial Floor Cleanout: 8-5/8 inch diameter, 12 gauge Type 316 stainless steel, sanitary floor cleanout with special duty load rated gasketed 1/2 inch thick cover. Bead blasted finish. PVC secondary plug and Cleanout. Outlet: 3, 4, or 6 inch no hub.
            1. Meets U.S. FDA Standards for corrosion resistance.
     5. Square Finished Floor Cleanouts:
        1. Product: C1100-S Floor Cleanout with Adjustable Cover and Plug: Used in finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange, secondary "O" ring test Seal, 4 inch diameter cleanout and square scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        2. Product: C1100-TS Floor Cleanout for Tile Areas with Adjustable Cover and Plug: Used in finished floors. Emergency access to plumbing for blockage removal. Typical in floors where a minimum amount of cleanout top is desired to be visible. The recess in the cover is to receive vinyl or thin floor tile.
           1. Lacquered cast iron body and anchor flange, secondary "O" ring Test Seal, 4 inch diameter cleanout opening and square scoriated combined cover and plug top assembly. 1/8 inch recess for tile and stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        3. Product: C1100-XS Floor Cleanout with Heavy Duty Adjustable Cover and Plug: Used in finished floors. Emergency access to plumbing for blockage removal.
           1. Lacquered cast iron body and anchor flange, secondary "O" ring Test Seal, 4 inch diameter cleanout opening and heavy duty square scoriated combined cover and plug top assembly with stainless steel vandal proof allen key screws and primary gasket seal. Membrane clamp for membrane floors. Placement of surface level cover/plug with neoprene gasket glued to underside provides visual evidence the cleanout has been properly sealed to prevent sewer gases from entering building. Pipe Sizes: 2, 3, 4, 5, and 6 inch.
        4. Product P7060-S. 6 inch Square, Type 316 Stainless Steel Fabricated Industrial Floor Cleanout: 12 gauge Type 316 stainless steel, sanitary floor cleanout with special duty load rated gasketed 1/2 inch thick cover. Bead blasted finish. PVC secondary plug and Cleanout. Outlet: 3 or 4 inch no hub.
           1. Meets U.S. FDA Standards for corrosion resistance.
        5. Product P7080-S. 8 inch Square, Type 316 Stainless Steel Fabricated Industrial Floor Cleanout: 12 gauge Type 316 stainless steel, sanitary floor cleanout with special duty load rated gasketed 1/2 inch thick cover. Bead blasted finish. PVC secondary plug and Cleanout. Outlet: 3, 4, or 6 inch no hub.
     6. Other Cleanouts:
        1. Product: C1460 Cast Iron Stack Cleanout with Plug: Used in drainage vertical pipe where a cleanout is required.
           1. Lacquered cast iron cleanout with large access area and tapered thread plug. Cleanout body is secured to pipe with no hub couplings from others. Recessed head has square sized slot to receive tool for plug removal. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
        2. Product: C1460-R Cast Iron Stack Cleanout with Plug and Round Cover: Used in drainage vertical pipe where a cleanout is required.
           1. Lacquered cast iron cleanout with large access area, tapered thread plug and 6 inch round, smooth nickel bronze access panel with allen key screws and anchor frame with mounting lugs. Cleanout Plug: Secured to pipe with no hub couplings from others. Recessed Head: Square sized slot to receive tool for plug removal. Round access panel eliminates need to align with adjacent floor and ceiling patterns. Anchor tabs to secure cover to wall structure. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
        3. Product: C1460-RD Cast Iron Stack Cleanout with Plug and Smooth Access Cover" Used on openings in finished walls or ceiling.
           1. Lacquered cast iron cleanout with large access area, tapered thread plug and 6 inch round, smooth stainless steel access cover with 3-1/2 inch anchor screw.
           2. Stack cleanout body mounts in drainage vertical pipe where a cleanout is required. Cleanout Plug: Secured to pipe with no hub couplings from others. Recessed Head: Has square sized slot to receive tool for plug removal. Pipe Sizes: 2, 3, 4, 6, and 8 inch.
        4. Product: C1470 Cast Iron Stack Cleanout: Used in concealed drainage lines where access to piping is required via a cleanout that permits testing of piping above the plug through use of internal threads inside of the tee.
           1. Lacquered cast iron stack cleanout with threaded bronze cleanout plug and 1/4 inch NPT access hex head plug. Pipe Sizes: 4 and 6 inch.
        5. Product: C1600 Deep Seal Trap with Floor Cleanout: Used as combination floor drain and cleanout, accessing drainage lines in areas where the floor drain, and cleanout are required to be located close together.
           1. Lacquered cast iron floor drain with anchor flange, strainer, gasketed membrane clamp and side outlet. The membrane clamp is gasketed for a watertight seal and the cover is water and gas tight. Pipe Sizes: 2, 3, and 4 inch. Strainer Sizes: 5, 6, 7, and 8 inch diameter.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete paragraphs and products not required.

* 1. FABRICATED STAINLESS STEEL DRAINS
     1. Floor Fabricated Stainless Steel Drains:
        1. Product: P2060 6 inch Square Floor Drain: Used in industrial, commercial, kitchen and other hygienic areas. Type 304 stainless steel construction provides for ease of cleaning, maintenance, and sanitary installation. Grate openings are polished to a smooth finish.
           1. NSF certified with a load classification of Medium Duty.
           2. Type 304, 16 gauge stainless steel with anchor tabs and slotted Load Class "A" Light duty stainless steel ADA compliant grate. Free Area: 18 sq inches. Bottom Outlets: 2, 3, and 4 inch no hub connections fabricated as part of floor drain. Available with anchor flange and B, C, D or E load rated grates.
        2. Product: P2080 8 inch Square Floor Drain: For industrial, commercial, kitchen and hygienic areas. Type 304 stainless steel construction for ease of cleaning, maintenance, and sanitary installation. All grate openings are polished to a smooth finish.
           1. NSF certified with a load classification of Medium Duty.
           2. Type 304, 16 gauge stainless steel with anchor tabs and slotted Load Class "A" Light duty stainless steel ADA compliant grate. Free Area: 26 sq inches. Bottom Outlets: 2, 3, and 4 inch no hub connections fabricated as part of floor drain. Available with anchor flange and B, C, D or E load rated grates.
        3. Product: P2120 12 inch Square Floor Drain: For industrial, commercial, kitchen and hygienic areas. Type 304 stainless steel construction for ease of cleaning, maintenance, and sanitary installation. All grate openings are polished to a smooth finish.
           1. NSF certified with a load classification of Medium Duty.
           2. Type 304, 16 gauge stainless steel with anchor tabs and slotted Load Class "A" Light duty stainless steel ADA compliant grate. Free Area: 51 sq inches. Bottom Outlets: 2, 3, 4, and 6 inch no hub connections fabricated as part of floor drain. Available with anchor flange and B, C, or D load rated grates.
        4. Product: P3060 6 inch Round, Adjustable Type 316 Stainless Steel Fabricated Floor Drain: 16 gauge, type 316 stainless steel with anchor flange and slotted special duty stainless steel grate with bead blasted finish and sediment bucket. Grate free area: 14 sq inches. Grate Openings: Polished smooth finish. Bottom Outlets: 2 or 3 inch no hub outlet connections, fabricated as part of the floor drain.
           1. NSF certified to ANSI A112.21.1M.
           2. Point Drain Heavy Duty Load Rating: 5,000 to 7,499 lbs.
           3. Function: Industrial, commercial, kitchen and other hygienic areas. Deep sump ideal for installations that require a sediment bucket to receive debris. Adjustable top assembly.
        5. Product: P3080 8 inch Round Adjustable Depth, Type 316 Stainless Steel Floor Drain: 16 gauge, type 316 stainless steel with anchor flange and slotted heavy duty stainless steel grate with bead blasted finish and sediment bucket. Grate free area: of 18 sq inches. Bottom outlets: 4 or 6 inch no hub outlet connections. Fabricated as part of floor drain.
           1. NSF certified to ANSI A112.21.1M.
           2. Point Drain Heavy Duty Load Rating: 5,000 to 7,499 Lbs.
           3. Function: Industrial, commercial, kitchen and other hygienic areas. Deep sump ideal for installations that require a sediment bucket to receive debris. Adjustable top assembly.
        6. Product: P3080 8-S 8 x 8 inch Square Adjustable Depth, Type 316 Stainless Steel Floor Drain: 16 gauge, type 316 stainless steel with anchor flange and slotted special duty stainless steel grate with bead blasted finish and sediment bucket. Grate Free Area: 26 sq inches, polished to a smooth finish. Bottom Outlets: 3 or 4 inch no hub outlet connections. Fabricated as part of the floor drain.
           1. Function: Industrial, commercial, kitchen and other hygienic areas. Deep sump ideal for installations that require a sediment bucket to receive debris. Adjustable top assembly.
        7. Product: P3100. 12 inch Round Adjustable Depth Type 316 Stainless Steel Floor Drain: 16 gauge, anchor flange, and slotted heavy duty stainless steel grate. Bead blasted finish and sediment bucket. Grate free area: 22 sq inches. Bottom outlets: 4, 6 or 8 inch no hub outlet connections and fabricated as part of the floor drain.
           1. Complies with ANSI A112.21.1M.
           2. Point Drain Heavy Duty Load Rating: 5,000 to 7,499 lbs.
           3. Function: Industrial, commercial, kitchen and other hygienic areas. Deep sump ideal for installations that require a sediment bucket to receive debris. Adjustable top assembly.
        8. Product: P3120. 12 x 12 inch Square Adjustable Depth Type 316 Stainless Steel Fabricated Floor Drain with Solid Cover Perimeter Drainage Cover. Bead blasted finish. Sediment bucket. 12 ga Type 316 stainless steel. Solid cover is a 1/2 inch thick Type 316 stainless steel, special duty load rated. Grate free area: 8 sq inches. Bottom outlets: 4, 6 or 8 inch no hub outlet connections and fabricated as part of the floor drain. Grate openings: Polished to smooth finish. Adjustable top assembly.
           1. Complies with ANSI A112.21.1M.
           2. Point Drain Heavy Duty Load Rating: 5,000 to 7,499 lbs.
           3. Function: Industrial, commercial, kitchen and other hygienic areas. Deep sump ideal for installations that require a sediment bucket to receive debris.
        9. Product: P3230. 12 inch Round, 7 inch Deep, Type 316 Stainless Steel Fabricated Funnel Drain: 12 gauge Type 316 stainless steel area drain without inside seams or welds. Standard loose set special duty round slotted 1/2 inch thick grate with finger holes. 9/16 inch thick top frame. Bead blasted finish and sediment bucket. Meets US FDA Standards for corrosion resistance. Outlet: 3, 4 or 6 inch no hub connections.
        10. Product: P3230. 12 x 12 inch Square, 7 inch Deep, Type 316 Stainless Steel Fabricated Funnel Drain: 12 gauge Type 316 stainless steel area drain without inside seams or welds. Standard loose set special duty round slotted 1/2 inch thick grate with finger holes. 9/16 inch thick top frame. Bead blasted finish and sediment bucket. Meets US FDA Standards for corrosion resistance. Outlet: 3, 4 or 6 inch no hub connections.
     2. Frame Grate Fabricated Stainless Steel Drains:
        1. Product: P6150 1-1/2 inch Wide, Stainless Steel Frame System: Used in front of walk in coolers, barrier free showers and industrial, commercial, kitchen and other hygienic areas. Grate openings are polished to a smooth finish.
           1. Load Class "A" Light duty slotted trench drain. ADA compliant grate of Type 304 stainless steel. 10 gauge stainless steel angle frame and anchor tabs. Free area: 2.0 sq inches per 1 ft section. Also available with B, C, D and E load rated stainless steel grates. Optional anchor flange.
        2. Product: P6220. 14 inch Wide, 12 inch Internal Width Stainless Steel Frame and Grate System. 10 ga, Type 304 stainless steel angle frame and anchor tabs with bead blasted finish.
        3. Product: P6230 3 inch Wide, 2 inch Internal Width, Stainless Steel Frame and Grate System: 10 gauge, Type 304 stainless steel angle frame and anchor tabs with bead blasted finish.
           1. Length: As indicated on the Drawings.
           2. Used in kitchens, food processing and other sanitary areas that require a narrow opening to collect wastewater.
        4. Product: P6260 6 inch Wide, 4 inch Internal Width, Stainless Steel Frame and Grate System: 10 gauge, Type 304 stainless steel angle frame and anchor tabs with bead blasted finish.
           1. Length: As indicated on the Drawings.
           2. Used in high corrosive areas.
        5. P6280. 10 inch Wide, 8 inch Internal Width Stainless Steel Frame and Grate System. 10 ga, Type 304 stainless steel angle frame and anchor tabs with bead blasted finish.
     3. Other Fabricated Stainless Steel Drains:
        1. Product: P4080 10 inch Square, 6 inch Deep Fabricated Floor Sink: Used in industrial, commercial, kitchen and hygienic areas. Grate Openings: Polished to smooth finish.
           1. NSF certified with a load classification of Medium Duty.
           2. Type 304, 16 gauge, stainless steel with anchor tabs and slotted. Load Class "A" Light duty ADA compliant full grate. Free Area: 26 sq inches. Bottom Outlets: 2, 3, 4 or 6 inch no hub outlet connections and fabricated as part of the floor sink. Available with anchor flange and B, C, D or E load rated grates.
        2. Product: P4120-10D. 12 x 12 x 10 inch Stainless Steel Fabricated Floor Sink. 16 gauge, Type 304 stainless steel with anchor flange, sediment bucket, and heavy duty stainless steel grate with bead blasted finish. Grate Free Area: 51 sq inches. Bottom Outlets: 3 or 4 inch no hub outlet connections and part of the floor sink. Grate openings are polished to a smooth finish.
        3. Product: P4120-8D. 12 x 12 x 8 inch Stainless Steel Fabricated Floor Sink. 16 gauge, Type 304 stainless steel with anchor flange, sediment bucket, and heavy duty stainless steel grate with bead blasted finish. Grate Free Area: 51 sq inches. Bottom Outlets: 3 or 4 inch no hub outlet connections and part of the floor sink. Grate openings are polished to a smooth finish.
        4. Product: P4120-6D. 12 x 12 x 4 inch Stainless Steel Fabricated Floor Sink. 16 gauge, Type 304 stainless steel with anchor flange, sediment bucket, and heavy duty stainless steel grate with bead blasted finish. Grate free area: 51 sq inches. Bottom outlets: 3 or 4 inch no hub outlet connections and part of the floor sink. Grate openings are polished to a smooth finish.
        5. Product: P4120-4D. 12 x 12 x 4 inch Stainless Steel Fabricated Floor Sink. 16 gauge, Type 304 stainless steel with anchor flange, sediment bucket, and heavy duty stainless steel grate with bead blasted finish. Grate Free Area: 51 sq inches. Bottom Outlets: 3 or 4 inch no hub outlet connections and part of the floor sink. Grate openings are polished to a smooth finish.
        6. Product: P5000. Stainless Steel Kettle Drain: 16 gauge, Type 304 stainless steel with anchor tabs and slotted Load Class "A" Light duty stainless steel loose set full grate with bead blasted finish. Centered Bottom Outlets: 4, 6 or 8 inch no hub outlet connections and fabricated as part of the drain. Available with anchor flange (Suffix -FL) and B, or C load rated grates. Grate openings are polished to a smooth finish.
        7. Product: P6325. 2 inch Deep, 3.10 inch Wide, Stainless Steel Slot Drain with 3/4 inch Slot Opening. 16 gauge fabricated Type 304 stainless steel presloped slot drain (1/8 inch per foot). 3/4 inch wide opening and anchor tabs. Flanged end connections with neoprene rubber gaskets. End outlets: 2 inch no hub outlet connections and fabricated as part of the trench drain system. Stainless steel construction provides an anti - microbial finish.
        8. Product: P6335. 4 inch Deep, 3.10 inch Wide, Stainless Steel Slot Drain with 3/4 inch Opening. 16 gauge fabricated Type 304 stainless steel. Lengths: 1 and 2 meter channel lengths. Bead blast finish. Flanged end connections with neoprene rubber gaskets. End and bottom outlets: 2 inch no hub outlet connections. Stainless steel construction provides an anti - microbial finish.
        9. Product: P6345. 3-1/2 inch Deep, 3.10 inch Wide, Stainless Steel Slot drain with 3/4 inich Wide Slot Opening. 16 gauge Type 304 stainless steel presloped slot drain (1/8 inch per ft) with 3/4 inch wide opening and anchor tabs. Flanged end connections with neoprene rubber gaskets. End and bottom outlets: 2 inch no hub outlet connections. Stainless steel construction provides an anti - microbial finish.
        10. Product: P6400. Heavy Duty Stainless Steel Subway Bar, Grate and Frame. Load Class "C", Type 304 stainless steel subway bar grates with 3/16 x 1 inch thick reinforcing bars at each joint and frame with anchor tabs. Available with anchor flange.
        11. Product: P8400 Stainless Steel Fabricated Washing Machine Box: Used to house controls required to operate washing machines. Stainless steel construction provides an anti-microbial finish.
            1. Type 304, 16 gauge stainless steel with mounting tabs and 2 inch NPT bottom outlet. Side or top inlet.
     4. Shower Fabricated Stainless Steel Drains:
        1. Product: P9000 2-7/8 inch Wide, Stainless Steel Drain: For installation in shower areas. Where 2 inch concrete pour is required. Drain adjustable upward an additional 1 inch in height. Eliminates need to slope finished flooring in multiple directions. Floor can be pitched in one direction toward linear shower drain. Stainless steel provides anti-microbial resistance, durability, and low maintenance.
           1. Drain (W x D): 2-7/8 x 1-1/16 inch. Type 304, CF8 stainless steel, vertically adjustable top assembly, and frame and 2 inch cast iron no hub center outlet connection with anchor flange and membrane clamp and light-duty satin finished stainless steel grate with square hole pattern.
        2. Product: P9000-CFL 2-1/2 inch Wide, Stainless Steel Drain: For installation in shower areas where a minimum of 2 inch concrete pour is required. Drain adjustable upward an additional 1/2 inch in height. Anchor flange allows for liquid or fabric waterproofing. Eliminates need to slope finished flooring in multiple directions. Floor can be pitched in one direction toward linear shower drain. Stainless steel provides anti-microbial resistance, durability, and low maintenance.
           1. Drain (W x D): 2-1/2 x 1-1/16 inch. Type 304 CF8 fabricated stainless steel linear shower drain. Vertically adjustable top assembly and frame and 2 inch cast iron no hub center outlet connection with anchor flange, membrane clamp and light-duty satin finished stainless steel grate with square hole pattern.P9000-FL 2-1/2 inch Wide, Stainless Steel Drain:
        3. Product: P9000-FL-SO 2-1/2 inch Wide, Stainless Steel Drain: For shower areas where a minimum of 2 inch concrete pour is required. Drain adjustable upward an additional 1/2 inch in height. The anchor flange allows for liquid or fabric waterproofing. Floor can be pitched in one direction toward the linear shower drain. Type 304 construction provides anti-microbial resistance, durability, and low maintenance.
           1. Drain (W x D): 2-1/2 x 1-1/16 inch. Type 304 CF8 fabricated stainless steel linear shower drain. Anchor flange and vertically adjustable top assembly and frame, 2 inch stainless steel no hub side outlet connection and light-duty satin finished stainless steel grate with square hole pattern.
        4. Product: P9000-TI 2-7/8 inch Wide, Stainless Steel Drain: For shower areas where a 2 inch concrete pour is required. Drain adjustable upward 1 inch in height. Floor can be pitched in one direction toward the linear shower drain. Type304 construction provides anti-microbial resistance, durability, and low maintenance. Recessed tile insert frame allows for tile to be inserted minimizing appearance of drain.
           1. Drain (W x D): 2-7/8 x 1-5/8 inch Type 304 CF8 stainless steel linear shower drain. 2 inch cast iron no hub center outlet connection with anchor flange, membrane clamp and recessed tile insert frame.
        5. Product: P9000-TI-CFL 2-1/2 inch Wide, Stainless Steel Drain: For shower areas where a of 2 inch concrete pour is required. Anchor flange allows for liquid or fabric waterproofing. Floor can be pitched in one direction toward the linear shower drain. Type 304 provides anti-microbial resistance, durability, and low maintenance. Recessed tile insert frame allows for tile to be inserted minimizing appearance of drain.
           1. Drain (W x D): 2-7/8 x 1-3/16 inch Type 304 CF8 stainless steel linear shower drain. 2 inch cast iron no hub center outlet connection with anchor flange, membrane clamp and recessed tile insert frame.
        6. Product: P9000-TI-FL 2-1/2 inch Wide, Stainless Steel Drain: For shower areas where a of 2 inch concrete pour is required. Anchor flange allows for liquid or fabric waterproofing. Floor can be pitched in one direction toward the linear shower drain. Type 304 provides anti-microbial resistance, durability, and low maintenance. Recessed tile insert frame allows for tile to be inserted minimizing appearance of drain.
           1. Drain (W x D): 2-1/2 x 1-3/16 inch Type 304 CF8 stainless steel linear shower drain. 2 inch cast iron no hub center outlet connection with anchor flange, membrane clamp and recessed tile insert frame.
        7. Product: P9000-TI-SO 2-1/2 inch Wide, Stainless Steel Drain: For shower areas where a of 2 inch concrete pour is required. Anchor flange allows for liquid or fabric waterproofing. Floor can be pitched in one direction toward the linear shower drain. Type 304 provides anti-microbial resistance, durability, and low maintenance. Recessed tile insert frame allows for tile to be inserted minimizing appearance of drain.
           1. Drain (W x D): 2-7/8 x 1-3/16 inch Type 304 CF8 stainless steel linear shower drain. 2 inch cast iron no hub side outlet connection with anchor flange, membrane clamp and recessed tile insert frame.
     5. Trench Fabricated Stainless Steel Drains:
        1. Product: P6012 1-1/2 inch Wide Stainless Steel Fabricated Drain: Used in front of walk in coolers, barrier free showers, kitchens, and other areas. Stainless steel provides ease of cleaning, maintenance, and sanitary installation. Body is manufactured without overlapping material. Grate openings are polished to a smooth finish.
           1. Drain: 1-1/2 inch wide, 16 gauge Type 304 stainless steel. Presloped trench drain, 1/8 inch per foot with slotted Load Class "A" Light duty stainless steel ADA compliant grates. Free Area: 2.0 sq inches per 1 ft section. Flanged ends connect to each other with a neoprene rubber gasket in between. Bottom and end outlets are available in 1-1/2 or 2 inch no hub outlet connections fabricated as part of trench drain. Available with B, C, D and E load rated stainless steel grates. Available with anchor flange.
        2. Product: P6030 3 inch Wide 2 inch Internal Width Stainless Steel Channel and Grate System: 16 gauge type 304 stainless steel presloped trench drain; 1 percent per foot up to 1/8 inch per foot. Lengths: 1 and 2 meters. Flanged ends connect to each other with neoprene rubber gasket in between. End Outlets: Available in 2 inch no hub outlet connections. Bottom Outlets: 2 or 3 inch no hub outlet connections.
           1. Used in kitchens, food processing and other sanitary areas that require a narrow opening to collect wastewater.
        3. Product: P6060 6 inch Wide, 4 inch Internal Width, Stainless Steel Channel and Grate System. 16 gauge fabricated Type 304 stainless steel presloped trench drain (1 percent / 1/8 inch per ft). Available in 1 and 2 meter lengths. Flanged end connections with neoprene rubber gasket in between. Bottom and end outlets available in 3 or 4 inch no hub outlet connections.
           1. Made without overlapping material to ensure bacteria does not have a place to grow. Grate openings are polished to a smooth finish.
        4. Product: P6060-LT 6 inch Wide, 4 inch Internal Width, Stainless Steel Lint Through Drain:. Type 304 stainless steel lint trough with removable stainless steel filter screens. Perforated stainless steel bottom dome strainer and 4 inch no hub bottom outlet. construction provides an anti - microbial finish.
           1. Lengths: Increments of one meter.
        5. Product: P6080. 10 inch Wide, 8 inch Internal Width, Stainless Steel Body and Grate System. 16 gauge fabricated Type 304 stainless steel presloped trench drain (1 percent / 1/8 inch per ft). Lengths: 1 and 2 meters. Flanged end connections with neoprene rubber gaskets. Bottom and End outlets: 3 or 4 inch no hub connections. Inner surface is manufactured without overlapping material. Grate Openings: Polished to smooth finish.
        6. Product: P6090-ELTD 9 inch Wide, 8 inch Internal Width, Stainless Steel Elevator Trench Drain: 16 gauge fabricated Type 304 stainless steel channels with anchor tabs and slotted, Load Class "A" stainless steel grates with bead blasted finish. Grate free area (grate intake): 19 sq inches per 1 ft section. Lengths: 36, 43 or 96 inch. Center Outlets: 4 and 6 inch no hub connections and part of the trench drain system. IAPMO tested and certified to a 100 gpm flow rate.
           1. ADA compliant, heel-proof grating construction meets City of San Francisco SFFC Code, Section 511.1 and California State Building Code sections 403.6.1, 403.6.2, 3007.4 and 3008.4.
        7. Product: P6120. 14 inch Wide, 12 inch Internal Width, Stainless Steel Body and Grate System. 16 ga fabricated Type 304 stainless steel presloped trench drain (1 percent / 1/8 inch per ft). Channels are available in 1 and 2 meter lengths. Flanged end connections with neoprene rubber gasket. Bottom and End Outlets: 6, 8 or 12 inch no hub outlet connections.
           1. Inner body is manufactured without overlapping material ensuring bacteria does not have a place to grow. Grate openings are polished to a smooth finish.
        8. Product: P6120-ELTD. 14 inch Wide, 12 inch Internal Width, Stainless Steel Elevator Trench Drain: 16 gauge Type 304 stainless steel channels with anchor tabs and slotted, Load Class "A" stainless steel grates with bead blasted finish. Grate free area (grate intake): 28 sq inches per 1 ft section. Lengths: 36, 43 or 96 inch lengths. Center outlets: 4 or 6 inch no hub connections and fabricated as part of the trench drain system. IAPMO tested and certified to a 100 GPM flow rate.
           1. ADA compliant, heel-proof grating construction meets City of San Francisco SFFC Code, Section 511.1 and California State Building Code sections 403.6.1, 403.6.2, 3007.4 and 3008.4.
        9. Product: P6130. 18 inch Wide, Internal Width, Stainless Steel Trench Drain. 16 inch internal width, 16 ga Type 304 stainless steel channels. Anchor tabs and Load Class "A"slotted grates with bead blasted finish. Lengths: As required. Center outlets: 6 inch no hub outlet connections and part of the drain.
        10. Product: P6140. 24 inch Wide, 22 inch Internal Width Stainless Steel Trench Drain. 16 ga Type 304 stainless steel channels. Anchor tabs and Load Class "A" slotted grates with bead blasted finish. Lengths: As required. Center outlets: 6 inch no hub outlet connections and part of the drain.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete paragraphs and products not required.

* 1. FLOOR AND AREA DRAINS
     1. Dome Type:
        1. Product: F1100-C-K Floor Drain with Dome Strainer: Used in recessed areas and gutters and other membrane finished areas where debris build up occurs. The dome strainer provides drainage even when partly covered. Membrane clamp is provided to secure the waterproofing membrane.
           1. Lacquered cast iron floor drain with anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and "K" dome strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        2. Product: F1100-C-W(D) Overflow Drain with Standpipe; Optional Dome: Used in fountains, pools, fishponds, and similar areas. Dome assembles to top of standpipe. Prevents debris from entering drain. Membrane clamp secures waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, and membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Adjustable 4 inch diameter ABS standpipe and stainless steel dome. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        3. Product: F1100-K Floor Drain with Recessed Flange: Used in recessed areas and gutters and other non-membrane finished areas where debris build up occurs. The dome strainer provides drainage even when partly covered.
           1. Lacquered cast iron drain, anchor flange, weepholes, and "K" dome strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        4. Product: F1100-W(D) Overflow Drain with Standpipe; Optional Dome: Used in fountains, pools, fishponds, and similar areas. Dome assembles to top of standpipe. Prevents debris from entering drain. Membrane clamp secures waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, and membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Adjustable 4 inch diameter ABS standpipe and stainless steel dome. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
     2. Hinged Grates - Finished Floor Area Drains:
        1. Product: F1100-C-HG Floor Drain with Round Hinged Strainer: Used in showers, kitchens, restrooms, and other membrane finished areas. Hinged grate ensures that grate is not lost during maintenance. Round adjustable stainless steel hinged strainer is used for all types of poured finished floors. Strainer will not dish or corrode and is foot friendly.
           1. Lacquered cast iron floor drain, anchor flange, and membrane clamp with primary and secondary weepholes for waterproofing membrane, and hinged heavy duty, polished stainless steel strainer with vandal resistant stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, and 7 inch diameter.
        2. Product: F1100-C-SD Square Floor Drain: Used in showers, kitchens, restrooms, and other membrane finished areas where infrequent drain use is required. Solid cover prevents debris from entering drain which should be cleaned up before washdown. Square adjustable strainer is for floors that are finished of material or straight line patterns. Membrane clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Reinforced, 6 inch square strainer with solid hinged cover and secondary grate. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        3. Product: F1100-C-SHG Floor Drain with Square Adjustable Hinged Strainer: Used in showers, kitchens, restrooms, and membrane finished areas. Hinged grate ensures grate is not lost during maintenance. For poured finished floors.
           1. Lacquered cast iron floor drain, anchor flange, and membrane clamp with primary and secondary weepholes for waterproofing membrane and square, hinged heavy duty, polished stainless steel strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 6 and 8 inch square.
        4. Product: F1100-C-VD Round 5 inch Floor Drain with Solid Hinged Round: Used in membrane finished areas of irregular drain use. For all types of poured finished floors.
           1. Lacquered cast iron floor drain, anchor flange, and weepholes. Stainless steel solid cover and secondary strainer prevents debris from entering drain. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        5. Product: F1100-HG Floor Drain with Round Adjustable Hinged Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of poured finished floors. Strainer will not dish or corrode and is foot friendly.
           1. Lacquered cast iron floor drain with anchor flange, weepholes, and hinged heavy duty, polished stainless steel strainer with vandal resistant stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 7, and 8 inch diameter.
        6. Product: F1100-SD Floor Drain with 6 inch Square Solid Hinged Cover: Used in showers, kitchens, restrooms, and non-membrane finished areas of infrequent drain use. Solid cover prevents debris from entering drain.
           1. Lacquered cast iron floor drain with anchor flange, and weepholes. 6 inch square strainer with solid hinged cover and secondary grate. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        7. Product: F1100-SHG Floor Drain with Square Adjustable Hinged Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of poured finished floors.
           1. Lacquered cast iron floor drain with anchor flange, weepholes, and square, hinged, heavy duty, polished stainless steel strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 6 and 8 inch square.
        8. Product: F1100-VD Round 5 inch Floor Drain with Solid Hinged Round Cover: Used in non-membrane areas of irregular drain use. Stainless steel solid cover and secondary strainer prevents debris from entering the drain. For all types of poured finished floors.
           1. Lacquered cast iron floor drain with anchor flange and weepholes. Stainless steel solid cover with secondary grate. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
     3. Integral Deep Seal Traps - Finished Floor Area Drains:
        1. Product: F1120T-C Floor Drain: Used in showers, kitchens, restrooms, and non-membrane finished areas where side outlet body with integral deep seal trap is required. For all types of poured finished floors.
           1. Lacquered cast iron body with anchor flange, integral deep seal trap, and standard reinforced strainer, Pipe Sizes: 2, 3, and 4 inches. Strainer Diameter: 5, 6, 7, 8, and 10 inches.
        2. Product: F1130C Floor Drain and Cleanout: Used in kitchens, supermarkets and membrane finished areas where side outlet body connection with integral deep seal trap and cleanout access is required. Round adjustable strainer and round floor cleanout top
           1. Lacquered cast iron drain, anchor flange, and membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Seepage collection sump, integral deep seal trap, reinforced strainer and reinforced 5 inch diameter top assembly floor cleanout with access cover, "O" ring test seal and plug with primary gasket seal. Pipe Sizes: 2, 3, and 4 inches. Strainer Diameter: 5, 6, 7, 8, and 10 inches.
        3. Product: F1140C Floor Drain with Round Tractor Grate: Used in kitchens, supermarkets and membrane finished areas where side outlet body connection with integral deep seal trap, heavy duty tractor grate and cleanout access is required. or all types of poured finished floors.
           1. Lacquered cast iron floor drain, anchor flange, clamp ring with primary and secondary weepholes for waterproofing membrane. Seepage collection sump, integral deep seal trap, and 1 inch thick, 7 or 9 inch round tractor grate and reinforced 5 inch diameter floor cleanout with access cover, "O" ring test seal and plug with primary gasket seal.
        4. Product: F1160-C Prison Cell Floor Drain: Used in prisons, detention and any other areas that require a drain with security screws to prevent access and tampering. Side outlet with integral deep seal trap permits easy installation in areas with limited installation space.
           1. Lacquered cast iron body, anchor flange, weepholes, 3 or 4 inch no hub side outlet, integral deep seal trap with cleanout plug. Adjustable strainer with T-20 torx and pin security screws. Pipe Sizes: 3 and 4 inches. Strainer Diameter: 4 inches.
        5. Product: F1170-C Drain with Multi Inlets: Used in toilets, kitchens and membrane finished areas where additional inlets are required to receive drainage. Prevents sewer gas from entering area.
           1. Lacquered cast iron body and anchor flange and weepholes. Hub inlets as shown and required; maximum three at 90 degrees. Pipe Sizes: 3 and 4 inches. Strainer Diameter: 5, 6, 7, and 8 inches.
        6. Product: F1170-C-SD Drain with Multi Inlets: Used in toilets, kitchens and membrane finished areas where additional inlets are required to receive drainage. Integral deep seal trap prevents sewer gas from entering area.
           1. Lacquered cast iron floor drain with integral trap, 2 inch cleanout , anchor flange, membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Adjustable 6 inch square hinged cover and secondary grate. No hub inlets as shown and required; maximum three at 90 degrees. Pipe Sizes: 3 and 4 inches. Strainer Diameter: 5, 6, 7, 8, and 10 inches.
     4. Round Tops - Finished Floor Area Drains:
        1. Product: F1000 Floor Drain with Heavy Duty Round Stainless Steel Adjustable Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of poured finished floors. Strainer will not dish or corrode and is foot friendly.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and standard heavy duty polished stainless steel strainer.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        2. Product: F1000-C Floor Drain with Heavy Duty Stainless Steel Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of poured finished floors. Strainer will not dish or corrode and is foot friendly.
           1. Lacquered cast iron floor drain with anchor flange, weepholes, membrane clamp, and standard heavy duty, polished stainless steel strainer.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        3. Product: F1000-C-LR Floor Drain with Heavy Duty Stainless Steel Ligature Resistant Strainer: Used in security areas that have waterproof membrane application. Unique strainer design limits the ability for picking, tying-off and hiding contraband. Round, adjustable stainless steel strainer is used for all types of finished floors.
           1. Lacquered cast iron floor drain with anchor flange, weepholes, membrane clamp, and ligature resistant, heavy duty stainless steel strainer.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, and 6 inch diameter.
        4. Product: F1100 Floor Drain: Used in showers, kitchens, restrooms, and other non-membrane finished areas. Round adjustable nickel bronze strainer is used for all types of poured finished floors.
           1. Lacquered cast iron floor drain with anchor flange, and standard satin finished nickel bronze strainer with vandal resistant stainless steel allen key screws.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        5. Product: F1100-90 Floor Drain with Side Outlet for Non-Membrane Floor Areas: Used in showers, kitchens, restrooms, and non-membrane finished areas where shallow side outlet body connection is required. For all types of poured finished floors.
           1. Lacquered cast iron floor drain with anchor flange, weepholes, threaded side outlet, and reinforced strainer.
           2. Pipe Sizes: 2, 3, and 4 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        6. Product: F1100-C Floor Drain: Used in showers, kitchens, restrooms, and other membrane finished areas. For all types of poured finished floors.
           1. Lacquered cast iron floor drain, anchor flange, membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Satin finished nickel bronze strainer with vandal resistant stainless steel all on key screws.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        7. Product: F1100-C-90 Floor Drain with Side Outlet for Membrane Floor Areas: Used in showers, kitchens, restrooms, and membrane finished areas where shallow side outlet body connection is required. For all types of poured finished floors. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, threaded side outlet, anchor flange, membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Reinforced strainer.
           2. Pipe Sizes: 2, 3, and 4 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        8. Product: F1100-C-FC Floor Drain with Surface Membrane Clamp: Used in showers, kitchens, restrooms, and other areas where a surface membrane is required. For all types of poured finished floors. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Round, reinforced satin finished nickel bronze strainer with surface membrane clamp and vandal resistant, allen key screws.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 7 and 9 inch diameter.
        9. Product: F1100-C-FT Floor Drain with Recessed Flange for Membrane Floor Areas: Used in showers, kitchens, restrooms, and membrane finished areas where integral flange is required to receive a floor covering. Flange is set 1/8 inch below rim. Integral flange may have option of tapped holes for securing pan and gasket. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain with anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Reinforced 6 inch diameter satin finished nickel bronze strainer with 1/8 inch recessed tile flange, and vandal resistant, stainless steel allen key screws.
           2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 6 inch diameter.
        10. Product: F1100-C-N Floor Drain with Tractor Grate: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where heavy wheeled loads are expected and loose set, non-tilt tractor grate is needed. Clamp to secure waterproofing membrane.
            1. Lacquered cast iron floor drain, anchor flange, cast iron clamp ring with primary and secondary weepholes for waterproofing membrane, 7 or 9 inch tractor grate. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 6 inch diameter.
        11. Product: F1100-C-T Floor Drain with Spanner Wrench Cover: Used in non-membrane finished areas where irregular drain use is required. Solid, gas tight, spanner wrench, vandal proof, stainless steel cover ensures secure access. Used for all types of poured finished floors.
            1. Lacquered cast iron floor drain, anchor flange, membrane clamp with primary and secondary weepholes for waterproofing membrane. Heavy duty, solid, gas tight, spanner wrench, vandal proof, stainless steel cover for secured access.
            2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 6 and 7 inch diameter.
        12. Product: F1100-C-X Floor Drain with Heavy Duty Strainer for Membrane Floor Areas: Used in showers, kitchens, restrooms, and other membrane finished areas where heavy wheeled loads are expected, and a heavy duty rated strainer is required. For all types of poured finished floors. Clamp to secure waterproofing membrane.
            1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and heavy duty strainer.
            2. Pipe Sizes: 2, 3, and 4 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        13. Product: F1100-C-Z Floor Drain with Elastomeric Flange for Membrane Floor Areas: Used in showers, kitchens, restrooms, and membrane finished areas. Four inch wide cast iron anchor flange provides large surface area for traffic bearing deck covering. Integral flange is set 1/8 inch below grate. Clamp to secure waterproofing membrane
            1. Elastomeric 13-1/4 inch diameter flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane Reinforced 5 inch diameter strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        14. Product: F1100-FC Floor Drain with Surface Membrane Clamp: Used in showers, kitchens, restrooms, and other areas where a surface membrane is required. For all types of poured finished floors.
            1. Lacquered cast iron floor drain with anchor flange, weepholes, and "FC" round, reinforced satin finished nickel bronze strainer with surface membrane clamp and vandal resistant, allen key screws.
            2. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 7 and 9 inch diameter.
        15. Product: F1100-FT Floor Drain with Recessed Flange for Non Membrane Floor Areas: Used in showers, kitchens, restrooms, and non-membrane finished areas where an integral flange is required to receive a floor covering. Integral flange is set 1/8 inch below rim. Integral flange may have option of tapped holes for securing pan and gasket.
            1. Lacquered cast iron floor drain, anchor flange, weepholes, and reinforced 6 inch diameter satin finished nickel bronze strainer with 1/8 inch recessed tile flange, and vandal resistant, stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 6 inch diameter.
        16. Product: F1100-N Floor Drain with Tractor Grate: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where heavy wheeled loads are expected and loose set, non-tilt tractor grate is needed. Clamp to secure waterproofing membrane.
            1. Lacquered cast iron floor drain, anchor flange, cast iron clamp ring with primary and secondary weepholes for waterproofing membrane, and 7 or 9 inch tractor grate. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        17. Product: F1100-T Floor Drain with Spanner Wrench Cover: Used in non-membrane finished areas where irregular drain use is required. Solid, gas tight, spanner wrench, vandal proof, stainless steel cover ensures secure access. For all types of poured finished floors.
            1. lacquered cast iron floor drain with anchor flange, weepholes, and heavy duty, solid, gas tight, spanner wrench, vandal proof, stainless steel cover for secure access. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 6 and 7 inch diameter.
        18. Product: F1100-X Floor Drain with Heavy Duty Strainer for Non-Membrane Floor Areas: Used in showers, kitchens, restrooms, and non-membrane finished areas where heavy wheeled loads are expected, and a heavy duty rated strainer is required. For all types of poured finished floors.
            1. Lacquered cast iron floor drain with anchor flange, weepholes, and standard heavy duty strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 7, 8, and 10 inch diameter.
        19. Product: F1100-Z Floor Drain with Elastomeric Flange for Non-Membrane Floor Areas: Used in showers, kitchens, restrooms, and other non-membrane finished areas. 4 inch wide cast iron anchor flange provides large surface area for traffic bearing deck covering. Integral flange is set 1/8 inch below grate.
            1. Lacquered cast iron floor drain with anchor flange, weepholes, and 1/8 inch recessed, 13-1/4 inch diameter elastomeric flange, with reinforced 5 inch diameter strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        20. Product: F1212TC Floor Drain for Membrane Floor Areas: Used in showers, kitchens, restrooms, and membrane finished areas. For all types of poured finished floors. Clamp to secure waterproofing membrane.
            1. Lacquered cast iron floor drain, anchor flange, cast iron clamp ring with weepholes for waterproofing membrane, and polished chrome plated strainer. Pipe Size: 2 inches. Strainer Diameter: 4-1/8 inch.
        21. Product: F1220 Floor Drain for Non-Membrane Floor Areas: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of poured finished floors. Narrow diameter body is ideal for tenant improvement projects where core drilling is required to allow placement of floor drains.
            1. Lacquered cast iron floor drain with standard strainer and vandal resistant allen.
            2. key screws. Pipe Sizes: 2, 3, and 4 inches. Strainer Diameter: 5 inches.
        22. Product: F1230 Floor Drain for Non-Membrane Floor Areas: Used in showers, kitchens, restrooms, and non-membrane finished areas. For all types of finished floors. Shallow depth body is ideal for shallow pour applications.
            1. Lacquered cast iron floor drain with 5 inch diameter strainer. Pipe Sizes: 2, 3, and 4 inches. Strainer Diameter: 5 inches.
     5. Square Tops - Finished Floor Area Drains:
        1. Product: F1000-C-S Floor Drain with Heavy Duty Square Adjustable Stainless Steel Strainer: Used in showers, kitchens, restrooms, and membrane finished areas.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, membrane clamp, and heavy duty square polished stainless steel strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        2. Product: F1000-C-S-LR Floor Drain with Heavy Duty Square Stainless Steel Strainer: Used in security areas that have waterproof membrane application. Limits ability for picking, tying-off and hiding contraband. For all types of finished floors.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, membrane clamp, and ligature resistant, heavy duty, square stainless steel strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5 and 6 inch square.
        3. Product: F1000-S Floor Drain with Heavy Duty Square Stainless Steel Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and standard heavy duty square polished stainless steel strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        4. Product: F1100-AS Floor Drain with Angle Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas. Drain is installed at floor and wall junction. Vertical grate openings allow water to drain if horizontal grate openings become clogged.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and "AS" angle satin finished nickel bronze strainer with vandal resistant stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 4 x 5 x 4 inches.
        5. Product: F1100-C-AS Floor Drain with Angle Strainer: : Used in showers, kitchens, restrooms, and membrane finished areas. Drain is installed at floor and wall junction. Vertical grate openings allow water to drain if horizontal grate openings become clogged. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and "AS" angle satin finished nickel bronze strainer with vandal resistant stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 4 x 5 x 4 inches.
        6. Product: F1100-C-RS Floor Drain with Rectangular Strainer: Used in showers, gutters and membrane finished areas where a large grate free area is required, and limited width is available. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and "RS" rectangular strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 4 x 8, 4 x 12, 5 x 17 inches.
        7. Product: F1100-C-S Square Adjustable Floor Drain: Used in showers, kitchens, restrooms, and membrane finished areas. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and standard reinforced, square strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        8. Product: F1100-C-XS Square Floor Drain with Adjustable Heavy Duty Strainer: Used in showers, kitchens, restrooms, and membrane finished areas where heavy wheeled loads are expected, and a heavy duty rated strainer is required. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane, and standard heavy duty square strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        9. Product: F1100-C-ZS Floor Drain with Adjustable Square Strainer and Elastomeric Flange: Used in showers, kitchens, restrooms, and other membrane finished areas. Wide cast iron anchor flange provides large surface area for traffic bearing deck covering. Integral flange is set 1/8 inch below grate. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange and 1/8 inch recessed, 13-1/4 inch square elastomeric flange, cast iron membrane clamp ring with primary and secondary weepholes for waterproofing membrane. Reinforced 6 inches square. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
        10. Product: F1100-RS Floor Drain with Rectangular Strainer: Used in showers, gutters and other non-membrane finished areas where a large grate free area is required, and limited width is available.
            1. Lacquered cast iron floor drain, anchor flange, weepholes, and "RS" rectangular strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 4 x 8, 4 x 12, 5 x 17 inches.
        11. Product: F1100-S Square Floor Drain: : Used in showers, kitchens, restrooms, and other non-membrane finished areas. Square adjustable strainer is used for floors that are finished of material or straight line patterns.
            1. Lacquered cast iron floor drain, anchor flange, weepholes, and standard reinforced, square strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        12. Product: F1100-XS Square Floor Drain with Adjustable Heavy Duty Strainer: Used in showers, kitchens, restrooms, and non-membrane finished areas where heavy wheeled loads are expected, and a heavy duty rated strainer is required.
            1. Lacquered cast iron floor drain, anchor flange, weepholes, and heavy duty, square strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        13. Product: F1100-ZS Floor Drain with Adjustable Square Strainer and Elastomeric Flange: Used in showers, kitchens, restrooms, and other non-membrane finished areas. Wide cast iron anchor flange provides large surface area for traffic bearing deck covering. Integral flange is set 1/8 inch below grate.
            1. Lacquered cast iron floor drain with anchor flange, weepholes, and 1/8 inch recessed, 13-1/4 inch square elastomeric flange, with reinforced 67 inch square strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches.
     6. Funnel/Indirect Waste - Finished Floor Area Drains:
        1. Product: F1100-C-DD Drain with Angle Strainer: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into the hub. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron hub drain, anchor flange, and Clamp ring with primary and secondary weepholes for waterproofing membrane, and indirect waste hub. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches. Hub Adjustment: 1-1/2 to 2-5/8 inches.
        2. Product: F1100-C-EF Round Funnel Floor Drain: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into hub. Funnel prevents splashing and directs waste into drain. The exposed section of grate drains any other water on the floor. Funnel is bolted to grate with a concealed screw and may be moved to any other grate location. The 4 inch round funnel is recommended for single pipe use only. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, and lamp ring with primary and secondary weepholes for waterproofing membrane. 4 inch bronze funnel assembly with vandal resistant allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches.
        3. Product: F1100-C-EG Oval Funnel Floor Drain: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into hub. Funnel prevents splashing and directs waste into drain. The exposed section of grate drains any other water on the floor. Funnel is bolted to grate with a concealed screw and may be moved to any other grate location. The 4 x 9 inch oval funnel is recommended for multiple pipe use. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, and clamp ring with primary and secondary weepholes for waterproofing membrane. 4 x 9 inch oval open throat funnel with vandal resistant, stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches.
        4. Product: F1100-C-ER Extended Rim Floor Drain: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater and there is no room for a funnel. Extended rim permits use as an anti-flood and anti-splash drip pan. Clamp provided to secure waterproofing membrane.
           1. Lacquered cast iron floor drain, anchor flange, clamp ring with primary and secondary weepholes for waterproofing membrane. Extended rim satin finished nickel bronze strainer with vandal resistant, stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 7 and 9 inches.
        5. Product: F1100-DD Hub Drain: Used in restaurants, hospitals, industrial laboratories, and non-membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into the hub.
           1. Lacquered cast iron hub drain, anchor flange, weepholes, and indirect waste hub. Lacquered cast iron hub drain, anchor flange, and Clamp ring with primary and secondary weepholes for waterproofing membrane, and indirect waste hub. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches. Hub Adjustment: 1-1/2 to 2-5/8 inches.
        6. Product: F1100-EF Round Funnel Floor Drain: Used in restaurants, hospitals, industrial laboratories, and non-membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into the hub. Funnel prevents splashing and directs waste into drain. Exposed grate drains other water on the floor. Funnel is bolted to grate with concealed screw and may be moved to other grate locations. The 4 inch round funnel is recommended for single pipe use only.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and 4 inch round funnel assembly with vandal resistant allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches.
        7. Product: F1100-EG Oval Funnel Floor Drain: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater into hub. Funnel prevents splashing and directs waste into drain. The exposed section of grate drains any other water on the floor. Funnel is bolted to grate with a concealed screw and may be moved to any other grate location. The 4 x 9 inch oval funnel is recommended for multiple pipe use.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and 4 x 9 inch open throat funnel with vandal resistant, stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 5 inches.
        8. Product: F1100-ER Extended Rim Floor Drain: Extended Rim Floor Drain: Used in restaurants, hospitals, industrial laboratories, and membrane finished areas where indirect waste lines above the floor drip condensate or wastewater and there is no room for a funnel. Extended rim permits use as an anti-flood and anti-splash drip pan.
           1. Lacquered cast iron floor drain, anchor flange, weepholes, and extended rim satin finished nickel bronze strainer with vandal resistant, stainless steel allen key screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 7 and 9 inches.
        9. Product: F1780 Indirect Waste Funnel: Used in hospitals and laboratories with indirect waste lines installed above the floor. Funnel receives condensate, drip, or wastewater from the indirect waste lines. MIFAB's MI-950 deep seal trap connected to MIFAB's M-500 Series of trap seal primers are recommended for use with F1780 to prevent sewer gases from entering the room.
           1. Lacquered cast iron indirect waste funnel. Pipe Sizes: 2, 3, 4, and 6 inches.
        10. Product: F1790 Indirect Waste Funnel with Backwater Valve: Used in hospitals and laboratories with indirect waste lines installed above the floor. Funnel receives condensate, drip, or wastewater from indirect waste lines. MIFAB's MI-950 deep seal trap connected to MIFAB's M-500 Series of trap seal primers are recommended for use with the F1790 to prevent sewer gases from entering the room.
            1. Lacquered cast iron indirect waste funnel with backwater valve. Pipe Sizes: 2, 3, 4, and 6 inches.

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* 1. OTHER FLOOR AND AREA DRAINS
     1. Catch Basins:
        1. Product: F1570 Heavy Duty Parking Area Catch Basin: Used in industrial factories, mechanical rooms, parking garages and membrane finished areas. 24 inch square tractor for all types of poured finished floors. Anchor flange provides support for drain. Extra deep sump body to handle large flows of water.
           1. Powder epoxy coated heavy duty parking area catch basin with anchor flange, and extra heavy duty 24 inch square two section grates. Free Area: 200 sq inches. Grates to have 13/16 inch openings. No Hub Pipe Sizes: 2, 3, 4, and 6 inches.
        2. Product: F1580 Heavy Duty Deep Sump Drain with Bottom Outlet: : Used in industrial factories, mechanical rooms, parking garages and membrane finished areas. 24 inches square tractor grate for all types of poured finished floors.
           1. Powder epoxy coated deep sump drain with secondary dome strainer, bottom outlet, and extra heavy duty 24 inch square, two section ductile iron grates. Free Area: 200 sq inches. Grates to have 13/16 inch openings. No Hub Pipe Sizes: 2, 3, 4, and 6 inches.
        3. Product: F1590 Heavy Duty Drain with Offset Bottom Outlet: Used in industrial factories, mechanical rooms, parking garages and membrane finished areas. 24 inches square tractor grate for all types of poured finished floors. Anchor flange provides support for drain.
           1. Powder epoxy coated drain with offset bottom outlet, anchor flange, and extra heavy duty 24 inch square two section ductile iron grates. Free Area: 200 sq inches. Grates to have 13/16 inch openings. No Hub Pipe Sizes: 2, 3, 4, and 6 inches.
        4. Product: F1590-90 Heavy Duty Parking Drain with Side Outlet: Used in industrial factories, mechanical rooms, parking garages and membrane finished areas. 24 inches square tractor grate for all types of poured finished floors. Anchor flange provides support for drain.
           1. Powder epoxy coated drain with offset side outlet, anchor flange, and extra heavy duty 24 inch square two section ductile iron grates. Free Area: 200 sq inches. Grates to have 13/16 inch openings. No Hub Pipe Sizes: 2, 3, 4, and 6 inches.
     2. Dual Set:
        1. Product: F1640 9 inch Adjustable Slotted Grate Drain Set: Used in packing house slaughtering areas. Permits drainage of blood to holding tank while gasketed covered drain adjacent is connected to sewer. Gasketed cover removed and placed into drain holding slotted grate during washdown, and slotted grate is to be placed into drain previously holding the gasketed cover. This ensures water used in cleaning operation is directed to sewer and not to the blood storage tank.
           1. Blood and water drain set consisting of two lacquered cast iron bodies with anchor flange and weepholes. One body with a 9 inch diameter lacquered cast iron adjustable top assembly and special duty ductile iron grate. One body with solid gasketed ductile iron cover with lift ring. Interchangeable top assemblies. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 9 inches.
     3. Flushing Rim:
        1. Product: F1650 Drain with Flushing Connection: Used in hospital operating and veterinary rooms, industrial and educational laboratories where waste must be drained to sewer. Appropriate for mental institutions, zoos and prisons as drain type water closets.
           1. Flushing rim floor drain with white epoxy coated interior and exterior cast iron body. 3/4 inch NPT flushing connection, anchor flange, membrane clamp, and stain finished grate and frame with stainless steel allen key vandal proof screws.
        2. Product: F1650-G Drain with Flushing Connection and Deep Seal Trap: Used in hospital operating and veterinary rooms, industrial, and educational laboratories where waste must be drained to the sewer. Appropriate for mental institutions, zoos and prisons as drain type water closets.
           1. Flushing rim floor drain. White epoxy coated interior and exterior cast iron body. Double wall deep seal trap with flushing connection, 3/4 inch NPT flushing connection in top assembly, anchor flange, membrane clamp, and stain finished hinged grate and frame with stainless steel allen key vandal proof screws. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Size: 9 inches.
        3. Product: F1660 Large Capacity Flushing Rim Drain: Used in animal dens and laboratories. Large grate openings allow solids and animal wastes to pass into drain. Acid resistant epoxy coating and flushing connection provide for sanitary condition.
           1. Drain: 25 inch square large capacity flushing rim floor drain with white acid resistant epoxy coated cast iron interior and exterior body. 24 inch diameter nickel bronze grate and 1 inch flushing connection in body.
        4. Product: F1670 Water Supply Control Box: Used to supply hot, cold, or tempered water to garbage can washing drains flushing rim drains, or other drains requiring a water supply. Cylinder key lock hinged door. Hot and cold water supplies with integral screwdriver stops permitting maintenance of control valves by not having to shut off the main water supply.
           1. Manufactured with No. 4 satin finished type 304 stainless steel. Cylinder lock, hinged door, bronze control valves, screwdriver stops, and atmospheric type vacuum breaker. Dimensions (W x H x D): 11-1/2 x 12-1/2 x 7-3/4 inch.
     4. Hopper:
        1. Product: F1860 Large Planting Drain with Standpipe/Dome: Used in non-traffic prone areas providing water drainage from objects placed in the hopper.
           1. Open Top Drain: 12 inch square, 11 inch deep with epoxy coated steel body and loose set ductile iron bottom grate. Pipe Sizes: 2, 3, and 4 inches.
        2. Product: F1870 Open Drain with Loose Bottom Grate: Used in non-traffic prone areas providing water drainage from objects placed in the hopper.
           1. Open Top Drain: 16 inch square, 11 inch deep with epoxy coated steel body and loose set ductile iron bottom grate. Pipe Sizes: 3, 4, and 6 inches.
        3. Product: F1880 Open Sight Drip Drain: Used in non-traffic prone areas providing indirect waste drainage. Rectangular shape facilitates installation with long dimension against the wall.
           1. Open Sight Drip Drain: 4 x 8 inch with Type 304 stainless steel body in plain finish and aluminum bottom dome strainer. Pipe Sizes: 2, 3, and 4 inches.
        4. Product: F1890 Open Sight Drip Drain: Used in non-traffic prone areas providing indirect waste drainage. Rectangular shape facilitates installation with long dimension against the wall.
           1. Open Sight Drip Drain: 6 x 12 inch with Type 304 stainless steel body in plain finish and aluminum bottom dome strainer. Pipe Sizes: 2, 3, and 4 inches.
     5. Isolation Floor Drains:
        1. Product: F1600-C Drain with Adjustable Strainer: Used in computer rooms, data centers, and membrane finished areas where cables and wiring are in a sub floor. Flexible flooring requires a drain bottom outlet connected to waste piping, and a top strainer level with the finished floor to be connect by a neoprene expansion compensator. The compensator flexes with the floor. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain with upper and lower bodies, anchor flanges, membrane clamp rings with primary and secondary weepholes for waterproofing membrane. Neoprene expansion compensator, and reinforced satin finished strainer. Pipe Sizes: 2, 3, 4, 5, and 6 inches. Strainer Sizes: 5, 6, 8, and 10 inch square.
        2. Product: F1620-C Drain with Adjustable Strainer Tractor Grate: Used in computer rooms, data centers, and membrane finished areas where cables and wiring are in a sub floor. Flexible flooring requires a drain bottom outlet connected to waste piping, and a top strainer level with the finished floor to be connect by a neoprene expansion compensator. The compensator flexes with the floor. Clamp to secure waterproofing membrane.
           1. Lacquered cast iron floor drain. Upper and lower bodies, anchor flanges, clamp rings with primary and secondary weepholes for waterproofing membrane, neoprene expansion compensator, and standard 1 inch thick, 9 inch round tractor grate.

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* 1. TRAP SEAL PRIMERS
     1. Electronic Trap Seal Primers: Prevents sewer gas from entering area through floor drains. Used in areas requiring frequent automatic distribution of water into floor drain traps to maintain the water seal. Lead free.
        1. Product: MI-100 Electronic Enclosed Trap Seal Primer:
           1. Equal distribution of water to all ports. Can be located anywhere in water supply. Capable of priming 1 to 30 floor drain traps.
           2. Manifold ensures 2 pr more ounces of water at 20 psig is delivered to every port over a twenty-four hour period. The frequency and amount of water delivered is adjustable through a timer and stainless steel solenoid valve. Made of lead free materials that touch water.
           3. Mount unit 12 inches above finished floor for every 20 ft of water supply line. Can be installed with a cabinet cover.
        2. Product: MI-100-DR Enclosed Electronic Trap Seal Primer System with Pressure Vacuum Breaker:
           1. Equal distribution of water to all ports. Can be located anywhere in water supply. Capable of priming 1 to 30 floor drain traps.
           2. Manifold ensures 2 pr more ounces of water at 20 psig is delivered to every port over a twenty-four hour period. The frequency and amount of water delivered is adjustable through a timer and stainless steel solenoid valve. Made of lead free materials that touch water.
           3. Mount unit 12 inches above finished floor for every 20 ft of water supply line. Can be installed with a cabinet cover.
           4. Pressure Vacuum Breaker: Accessible for repair and maintenance to meet requirements of CSA Standard B64.
        3. Product: MI-100-MFRU Electronic Trap Seal Primer, with Fire Rated Access Door:
           1. Equal distribution of water to all ports. Can be located anywhere in water supply. Capable of priming 1 to 30 floor drain traps.
           2. Manifold ensures 2 pr more ounces of water at 20 psig is delivered to every port over a twenty-four hour period. The frequency and amount of water delivered is adjustable through a timer and stainless steel solenoid valve. Made of lead free materials that touch water.
           3. Mount unit 12 inches above finished floor for every 20 ft of water supply line.
           4. Fire Rated Access Door: To maintain the wall fire rating.
        4. Product: MI-200 Electronic Trap Seal Primer with Air Gap, Solenoid Valve and Manifold:
           1. Connect to low-voltage building energy management system. Locatable anywhere in water supply. Manifold: Up to 5 drains can be served.
           2. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems.
           3. Access Door: UA 12 inch square for access when installed in a wall.
           4. Timer: Not included.
        5. Product: MI-300 Electronic Trap Seal Primer with Air Gap, Solenoid Valve, Manifold and Control Panel:
           1. Connect to low-voltage building energy management system. Locatable anywhere in water supply. Battery Pack Controller: Lasts approximately one year. Manifold: Up to 5 drains can be served.
           2. Water Discharge Frequency: Adjustable to meet building's needs.
           3. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems.
           4. Enclosure: 12 inch square when installed in a wall.
           5. Stainless steel solenoid valve, air gap, copper manifold and electronic controller.
           6. Access Door: UA 18x18 is suggested for access to MI-300 when installed in wall.
        6. Product: MI-300-BP Electronic Trap Seal Primer with Air Gap, Solenoid Valve, Manifold, Control Panel and Battery Pack Power System:
           1. Connect to low-voltage building energy management system. Locatable anywhere in water supply. Manifold: Up to 5 drains can be served.
           2. Water Discharge Frequency: Adjustable to meet building's needs.
           3. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems.
           4. Enclosure: 12 inch square when installed in a wall.
           5. Stainless steel solenoid valve, air gap, copper manifold and electronic controller.
           6. Access Door: UA 18x18 is suggested for access to MI-300 when installed in wall.
        7. Product: MI-300-DU Electronic Trap Seal Primer with Air Gap, Distribution Unit and Control Panel:
           1. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems; copper air gap, stainless steel body, 1/2 inch solenoid valve. Distribution unit: 1 to 4 ports with 1/2 or 5/8 inch port connections.
           2. Electronic Components: Include single point power connection at 120 VAC, 220C or 24VDC, manual override switch, 5 amp breaker, 24 hour timer with relay and adjustable delay.
           3. Operating Pressure: 100 psi.
           4. manufactured in accordance with the per ANSI/ASME A112.1.2 air gap in plumbing systems Standard.
        8. Product: MI-300-ENC Electronic Trap Seal Primer with Air Gap, Solenoid Valve, Manifold, Control Panel and Enclosure:
           1. Locatable anywhere in the water supply. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems; stainless steel solenoid valve, air gap, electronic controller, and copper manifold serving up to 5 drains.
           2. Water Discharge Frequency: Adjustable to meet building's needs.
           3. Access Door: UA 18x18 when installed in a wall.
        9. Product: MI-350-DU Electronic Trap Seal Primer with Air Gap, Distribution Unit and Control Panel in Enclosure:
           1. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems; copper air gap, stainless steel body, 1/2 inch solenoid valve. Distribution Unit: 1 to 4 ports with 1/2 or 5/8 inch port connections.
           2. Electronic Components: Include single point power connection at 120 VAC, 220C or 24VDC, manual override switch, 5 amp breaker, 24 hour timer with relay and adjustable delay.
           3. Operating Pressure: 100 psi.
           4. Enclosure Box: Powder epoxy coated steel.
        10. Product: MR-ENC Trap Seal Primer in Box with Shut Off Valve: Encloses an MR Series pressure drop activated trap seal primer within a wall for convenient inspection and maintenance.
            1. Enclosure Box: 16 gauge powder epoxy coated steel. Stainless steel 16 gauge is available. Bottom of box slopes to front. Cover with cylinder key lock is optional.
            2. Mounting Brackets. 4.
            3. Beeco low lead 1/2 inch ball valve.
            4. MR-500-NPM Pressure drop activated trap seal primer.
            5. All pipe penetrations sealed watertight by grommets.
            6. Copper Pipe: 1/2 inch by others.
        11. Product: MR-ENC-AG Trap Seal Primer in a Box with Shut Off Valve, Air Gap, and Distribution Unit: Encloses an MR Series pressure drop activated trap seal primer within a wall for convenient inspection and maintenance.
            1. Enclosure Box: 16 gauge powder epoxy coated steel. Stainless steel 16 gauge is available. Bottom of box slopes to front. Cover with cylinder key lock is optional.
            2. Mounting Brackets: 4.
            3. Beeco low lead 1/2 inch ball valve.
            4. MR-500-NPM Pressure drop activated trap seal primer.
            5. All pipe penetrations sealed watertight by grommets.
            6. Copper Pipe: 1/2 inch by others.
            7. Distribution Unit: Serves up to 4 drains.
            8. Brass Connection Connectors: 1/2 or 5/8 port connections,
        12. Product: MR-ENC-DU Trap Seal Primer in a Box with Shut Off Valve and Distribution Unit: Encloses an MR Series pressure drop activated trap seal primer within a wall for convenient inspection and maintenance.
            1. Enclosure Box: 4 inches deep. 16 gauge powder epoxy coated steel. Stainless steel 16 gauge is available. Bottom of box slopes to front. Cover with cylinder key lock is optional.
            2. Mounting Brackets: 4.
            3. Beeco low lead 1/2 inch ball valve.
            4. MR-500-NPB Pressure drop activated trap seal primer.
            5. All pipe penetrations sealed watertight by grommets.
            6. Copper Pipe: 1/2 inch by others.
            7. Distribution Unit: Serves up to 4 drains.
            8. Brass Connection Connectors: 1/2 or 5/8 port connections,
     2. Gravity Flow Trap Seal Primers:
        1. Product: MI-700 Tailpiece Trap Seal Primer: Replace standard flush valve connection providing a freshwater discharge to replenish the floor drain trap seal. Three ounces of water will flow through the priming tube connection each time the flush valve operates.
           1. Primes one floor drain trap no further than twenty feet from fixture.
           2. Body: 17 gauge chrome plated cast brass body.
           3. Make Up Water Line: 1/2 inch copper connecting trap seal primer to floor drain trap.
           4. MI-750 Tailpiece Trap Seal Primer with Braided Connecting Hose: Used to collect condensate from air conditioning and refrigeration equipment. Condensate gravity drains through piping to tapped inlet on fixture side of the primer. Braided hose drains condensate from trap to line connected to trap seal primer tapping in floor drain bodies to maintain the trap seal.

Body: Polished chrome plated cast brass body with bottom cleanout, gasketed ground joint elbow with 1-1/2 inch tailpiece, 1-1/2 inch slip nuts and washers, 1-1/4 inch slip nut and washer for 1-1/4 inch sink tail piece installation, escutcheons, braided hose primer tubing and compression fitting.

* + - 1. Product: MI-TSP Continuous Flow Trap Seal Primer: Installed in cold water supply line to any fixture to provide intermittent water supply to a floor drain trap to maintain the trap seal. Opening the valve in a horizontal supply line will cause the poppet to rise from its seat and allow a metered amount of water to enter the trap supply line. Closing the valve will cause the poppet to reseat. Slots on each side of the trap seal primer offer visual inspection of water flow from the trap seal primer to the trap and acts as a vacuum breaker.
         1. Brass trap seal primer with removable poppet, integral vacuum breaker, gasketed access cover, 1/2 inch NPT inlet and outlet connections, complete with 1/2 inch sweat connection adapters and 1/2 NPT drip line connection.
    1. MI-GARD Trap Seal Primers:
       1. Product: MI-GARD Inline Floor Drain Trap Seal: Used in outlet connections of floor drain bodies, or inside of floor drain strainers to seal floor drain opening. Four flexible silicone sealing ribs ensure easy installation into openings that have variations in size. Opens to allow drainage and closes when there is no water flow.
          1. UV resistant ABS plastic frame,
          2. Silicon rubber sealing flapper and four flexible sealing ribs.
          3. Tested and certified to ASSE 1072. Listed with IAPMO and IPC.
          4. Connection Sizes: 1-1/2, 2, 3, 3-1/2, 4 or 6 inches.
    2. Other Trap Seal Primers:
       1. Product: MI-730 P-Trap with Cleanout: Collects and holds water at bottom of the J-Bend to stop back flow of sewer gas. Equipped with a wall tube and decorative escutcheon to cover entrance of wall tube thru wall.
          1. Material: 17 gauge polished chrome plated brass.
          2. Removable clean out plug at lowest gravitational point of the J-Bend.
          3. Slip joints connection and lock nuts to tighten and hold in place.
       2. Product: MI-DU Distribution Unit: Used underneath a pressure drop activated trap seal primer to distribute water to either two, three or four floor drain traps.
          1. Receive a metered amount of water from a trap seal primer and distributes water equally to two, three or four floor drain traps.
          2. Compression Connection: 1/2 or 5/8 inch.
          3. Lid: Has numbers 2, 3 and 4 marked on it.
          4. Body: Has a guide marker on the top.
          5. Numbers and guide marker are positioned by removing three Lid screws and rotating lid to match appropriate numbers with guide marker providing priming for desired number of drains.
          6. Underside is marked with numbers 1-4 for ease in determining which ports will receive the water.
       3. Product: MI-GAP-NPB Brass Air Gap Fitting: The unobstructed vertical distance through the open atmosphere between the lowest opening from any pipe or faucet supplying water to a tank or plumbing fixture and the flood level rim of the receptor.
          1. Manufactured per ANSI/ASME A112.1.2 air gap in plumbing systems.
          2. Minimum required air gap: Twice diameter of effective opening.
          3. Effective Opening": The minimum cross-sectional area at the point of water supply discharge, control port, or of the supply pipe, whichever is less. Measured in terms of the diameter of a circle, or if opening is not circular, the diameter of a circle or equivalent cross sectional area.
          4. Inlet Supply: 1/2 inch male NPT fitting incorporating a stream directing nozzle,
       4. Product: MI-TEMP-NPB Automatic Pressure Balance Valve: Holds a selected water temperature to within one degree from any constant hot water supply regardless of pressure changes in supply lines. Ensures a blend of mixed hot and cold water at shower head and is fully automatic. Only one moving part will equalize hot and cold supply line pressures. As supply line pressures fluctuate, a brass piston moves enough to compensate for change in pressure and release water only at preselected temperature.
          1. Body: Rough chrome plated cast brass body,
          2. Piston and Shell: Type 304 stainless steel
          3. Inlets: Two 1/2 inch FPT and two 1/2 inch FPT outlet connections.
          4. Brass plug at end. Tapped 1/8 inch for soap dish attachment.
          5. Complies with AB 1953 low lead requirements.
       5. Product: MI-THERM Thermostatic Low Lead Mixing Valve:
          1. Delivers mixed temperature water to single or multiple outlets.
          2. Accounts for changes in supply conditions ensuring outlet water temperature remains constant.
          3. Tested and third party certified to ASSE 1070. Listed with IAPMO.
       6. Product: WCTSP Water Closet Trap Seal Primer: Provides two ounces of a water prime every time toilet is flushed. Easy retro-fit to existing toilets. Uses existing water that is wasted when toilet is flushed to prime floor drain traps within twenty feet of the toilet. Continuously sloped 5/8 inch OD copper make-up water line installed between WCTSP-1 and floor drain trap.
    3. Regular:
       1. Product: M-500 Pressure Drop Activated Trap Seal Primer (Up to 6 Drains): Connects to any cold water line, and is automatically activated when a valve or faucet, on the line, is opened.
          1. Pressure Drop of 3 psi. activates the trap seal primers.
          2. May be disassembled in the field permitting filter replacement without affecting performance of primer.
          3. "O" ring seals are tested for reliability at a temperature range of minus 40 to 450 degrees F.
          4. No adjustment required.
          5. Opening Range for trap seal primer is 20 to 80 psi.
          6. Listed with IAPMO and CSA. Tested and certified to ASSE 1018 and so marked.
       2. Product: M3-500-NPB Pressure Drop Activated Trap Seal Primer with Adjustment Screw: Connects to any cold water line, and is automatically activated when a valve or faucet, on the line, is opened.
          1. Pressure Drop of 3 psi. activates the trap seal primers.
          2. May be disassembled in the field permitting filter replacement without affecting performance of primer.
          3. "O" ring seals are tested for reliability at a temperature range of minus 40 to 450 degrees F.
          4. Adjustment Screw: Allows for water delivery in areas of low line pressure and in areas that do not sense the pressure drop.
          5. Opening Range for trap seal primer is 20 to 80 psi.
          6. Listed with IAPMO and CSA. Tested and certified to ASSE 1018 and so marked.
    4. Trap Seal Primer Connectors:
       1. Product: MI-600 PVC and ABS Trap Seal Primer Connector: Used as a trap seal primer connection underneath the outlet of a floor drain, area drain or floor sink.
          1. ABS or PVC schedule 40 DWV. Pipe Size: 2, 3 or 4 inch.
          2. Brass Compression Fitting Connection: 1/2 or 5/8 inch, to attach to a trap seal primer water supply line.
          3. Meets ASTM D2661 and ASTM D2665.
       2. Product: MI-600-50 Cast Iron Trap Seal Primer: Typically used as a trap seal primer connection underneath the outlet of a floor drain, area drain or floor sink. No hub outlet connection.
          1. Lacquered cast iron adaptor with primer tapping boss; 1/2 inch IPS tapping for installation between floor drain and deep seal trap.
          2. Pipe Sizes: 2, 3, and 4.

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. FIELD QUALITY CONTROL
      1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. 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