SECTION 22 42 16

COMMERCIAL LAVATORIES

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\*\* NOTE TO SPECIFIER \*\* Excel Dryer Inc.; Electric Hand Dryers.  
This section is based on the products of Excel Dryer Inc., which is located at:357 Chestnut St., P. O. Box 365East Longmeadow, MA 01028Tel: 413-525-4531Fax: 413-525-2853Email: [request info (sales@exceldryer.com)](https://arcat.com/rfi?action=email&company=Excel%252BDryer%252BInc.&message=RE%253A%2520Spec%2520Question%2520(15412exl)%253A%2520&coid=32383&spec=15412exl&rep=&fax=413-525-2853)  
Web: <https://www.exceldryer.com>   
 [ [Click Here](https://arcat.com/company/excel-dryer-inc-32383) ] for additional information.  
Excel Dryer, Inc. is the innovator of the original, patented, high-speed and energy efficient XLERATOR Hand Dryer that helps architects and interior designers reduce energy consumption, maintenance, and waste, while preserving aesthetic appeal. Excel Dryer's new, expanded, and enhanced product line - featuring XLERATOR, XLERATOReco and ThinAir Hand Dryers - facilitates the design of the very best hand drying solution for any restroom environment. By making some of the most popular features standard, Excel Dryer continues to enhance the user experience and provide smarter products that are easier to maintain. Enhanced standard features include adjustable speed and sound controls, adjustable heat settings (high, medium, low, and off), an externally visible Service LED and multi-voltage options available in 110V-120V or 208V-277V volts in 50 or 60 hertz, accommodating global electrical needs.  
Not only did Excel Dryer set the new industry standard in 2001 with the release of XLERATOR, but they also continued a rich history of innovation with a recently released model in 2013, XLERATOReco Hand Dryer. The XLERATOReco Hand Dryer model extends Excel Dryer's commitment to providing the most energy-efficient and cost-saving hand dryers with the same proven performance, reliability and durability that are expected from XLERATOR. Using 'No Heat' technology, XLERATOReco dries hands in 10 seconds\* using only 500 watts, making it the most environmentally friendly way to dry hands on the planet. XLERATOReco sets another new industry standard in green innovation and sustainability and will allow facilities to use even less energy than ever before.  
More recently Excel introduced the ThinAir Hand Dryer which dries hands fast using 950 watts or less and when surface-mounted, meets ADA compliance standards. ThinAir, like all high-efficiency hand dryer models from Excel Dryer, now comes with new enhanced standard features, including adjustable sound, speed and heat controls, multi-voltage options available in 110V-120V or 208V-277V volts in 50 or 60 hertz, accommodating global electrical needs, and an externally visible service LED. In addition to the original ABS polymer cover, ThinAir is now available in brushed stainless steel and features a washable pre-filter to extend the life of the unit. As a sensor-activated, touch-free hand dryer, ThinAir reduces touch points and decreases the risk of cross-contamination from users contacting potentially unclean surfaces in a restroom. ThinAir Hand Dryers are also Made in USA Certified, BuildingGreen Approved, and help qualify for several LEED v4 Credits and Green Globes to meet corporate or government sustainability goals.  
XLERATOR, XLERATOReco, and ThinAir Hand Dryers can be installed in new or existing facilities. Excel Dryer offers several optional accessories including: newly designed ADA compliant XChanger paper towel dispenser retro-fit kits enabling a complete transformation from paper towels to XLERATOR equipped restrooms without major renovation needed; an anti-microbial wall guard supporting superior hygienic standards; the 1.1 noise reduction nozzle; and exclusive digital imaging technology for custom cover designs adopted by organizations such as the New England Patriots, Dunkin Donuts, Starbucks, Coca-Cola and many more.  
\*Dry time based on third party testing performed by SGS International on standard XLERATOReco hand dryer with 0.8 nozzle to 0.2g or less of residual moisture.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Integrated sink system with deck-mounted hand wash station accessories.
  1. RELATED SECTIONS

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

* + 1. Division 22 Section "Domestic Water Piping Specialties" for thermostatic mixing valves.
  1. REFERENCES

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

* + 1. American Society of Sanitary Engineering (ASSE):
       1. ASSE 1070 - Water Temperature Limiting Devices.
    2. American National Standards Institute (ANSI):
       1. ANSI Z 124.3 - Plastic Lavatories.
       2. ANSI/ICPA SS-1-2001 - Performance Standard for Solid Surface Materials.
    3. American Society of Mechanical Engineers (ASME):
       1. ASME A112.18.1 - Plumbing Fixture Fittings.
       2. ASME A112.18.2 - Plumbing Fixture Waste Fittings.
       3. ASME A112.18.3 M - Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings.
    4. ASTM International (ASTM):
       1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
    5. Canadian Standards Association (CSA):
       1. CSA B125 - See ASME A112.18.1 - Plumbing Fixture Fittings.
    6. International Association of Plumbing and Mechanical Officials (IAPMO):
       1. Universal Plumbing Code (cUPC both U.S. and Canada).
    7. International Code Council (ICC):
       1. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
    8. NSF International (NSF):
       1. NSF 61 - Drinking Water System Components - Health Effects.
    9. Public Law 102-486, Energy Policy Act, requires that public lavatories manufactured after December 31, 1996, have flow rate or consumption not greater than 0.5 gpm (1.5 L per min.) or 0.25 gal. (0.95 L) per metering cycle.
    10. Underwriters Laboratories, Inc. (UL):
        1. UL 499 - Standard for Electric Heating Appliances.
        2. UL 723 - Test for Surface Burning Characteristics of Building Materials.
        3. UL 1951 - Electric Plumbing Accessories.
    11. U.S. Federal Government:
        1. Public Law 102-486 - Energy Policy Act. 1992.
        2. U.S. Architectural and Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Operating instructions and performance.
        3. Storage and handling requirements and recommendations.
        4. Electrical wiring diagrams.
        5. Installation methods.
     3. Sustainable Design Submittals:

\*\* NOTE TO SPECIFIER \*\* Retain paragraphs below as appropriate to Project sustainable design requirements.

* + - 1. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
      2. Product Data: For adhesives, indicating VOC content.
      3. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low- emitting materials.
      4. Laboratory Test Reports: For composite wood products, indicating compliance with requirements for low-emitting materials.
    1. Installation Drawings: Include unit installation instructions, seam location and treatment if any, requirements for concealed blocking, plumbing and electrical rough-in and connection requirements, and wiring diagrams.
    2. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
    3. Operation and maintenance data.
    4. Warranty for review by Architect.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing electric hand dryers with 10 years minimum experience.
        1. Approved manufacturer is listed in this section. Manufacturers seeking approval must submit the following:
           1. Product data, including test data from qualified independent testing agency indicating compliance with requirements.
           2. Samples of each component of product specified.
           3. List of successful installations of similar products available for evaluation by Architect.
           4. Submit substitution request in compliance with Division 00 and Division 01 requirements.
     2. Source Limitations: Obtain each type of plumbing fixture and compatible accessories through one source from a single approved manufacturer.

\*\* NOTE TO SPECIFIER \*\* D13 Integrated Sink System complies with ADA/ABA and ICC A117.1, when installed according to height requirements.

* + 1. Accessibility Requirements: Comply with requirements of ADA/ABA and with requirements of authorities having jurisdiction.
    2. Water Flow and Consumption Requirements: Comply with Public Law 102-486 "Energy Policy Act."
    3. Drinking Water Standard: Comply with NSF 61, "Drinking Water System Components - Health Effects," where applicable.
    4. Electrical Components: Listed and labeled per NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
  1. WARRANTY
     1. Provide manufacturer's standard limited warranty for product specified.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as applicable. XLERATOR, XLERATOReco, and XLERATORsync all have a 7 year warranty. ThinAir has a 5 year warranty.

* + - 1. Warranty Period of 7 years following the date of Substantial Completion.
      2. Warranty Period 5 years following date of Substantial Completion.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Excel Dryer Inc., which is located at:357 Chestnut St., P. O. Box 365East Longmeadow, MA 01028Tel: 413-525-4531Fax: 413-525-2853Email: [request info (sales@exceldryer.com)](https://arcat.com/rfi?action=email&company=Excel%252BDryer%252BInc.&message=RE%253A%2520Spec%2520Question%2520(15412exl)%253A%2520&coid=32383&spec=15412exl&rep=&fax=413-525-2853);Web: <https://www.exceldryer.com>
      2. Basis-of-Design Product: Subject to compliance with requirements of this section, provide D13 Group, D13 Integrated Sink System, featuring XLERATORsync Technology, 245 West Central Street, Natick MA 01760; 1-888-670-3107; design@d13group.com; www.d13group.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 the provisions of Section 01 60 00 - Product Requirements.
  1. SYSTEM DESCRIPTION
     1. The D13 Sink System featuring the XLERATORsync hand dryer is a highly customizable ADA-compliant integrated sink system incorporating soap, faucet, and hand dryer within each basin. Users hands are washed and dried in-place, avoiding the drips and blowback typically associated with electric hand drying.
        1. Faucet and Soap Dispenser: Choose from any manufacturer.
        2. Sink: Modular for easy installation.
        3. Fixtures: Deck mounted, and sensor operated.
        4. Frame and Enclosure: A variety of finish options.
        5. A plumber is required to install the waste and water lines.
        6. Dryer Power Supply: Plugs directly into a below-counter electrical receptacle.
        7. Solid Surface Sink Bowl: Coved inside corners.
        8. Unit Configuration: Highly flexible.
           1. Modular Lengths: Starting at 30 inches (762 mm) wide with unlimited ganging and positioning options.
        9. Countertops: Sized to project requirements. A wide variety of material choices for the counter top and base cabinet, including phenolic panels, quartz, and other stone varieties.
        10. Unit Mounting Options: Surface, alcove, or floating mount (standalone) available.
        11. The Dryer: XLERATORsync Drying System: A state-of-the-art machine utilizing patented XLERATOR technology. Engineered to keep water and air in the basin and off the user to create an elevated user experience.
            1. Adjustable Controls: Sound, speed, and heat.
            2. Electrostatic HEPA Filtration System: LED illumination of drying area that also serves as a Service LED. Quiet high-speed energy efficient hand dryer with sound-suppression air delivery system. Designers may select from multiple available dryer nozzle finishes.
     2. The Manufacturer can design-assist for high-end commercial restroom design, offering an array of finishes with freedom to choose many accessories.
  2. INTEGRATED SINK (LAVATORY) SYSTEM

\*\* NOTE TO SPECIFIER \*\* Integrated Sink System (ISS) bowl is designed to control air and water flow preventing backsplash and updrafts.

* 1. If specifying more than one unit with different characteristics, copy and paste paragraph below and edit to describe individual units.
     1. Integrated Sink System Unit (ISS): Deck with integral rectangular bowl, with under-deck enclosure panels, low-flow faucet, [soap dispenser,] and hand dryer, with stainless steel support system.

\*\* NOTE TO SPECIFIER \*\* Integrated Sink System (ISS) offers flexible configurations, with modular lengths starting at 30 inches wide and unlimited ganging/positioning/height options. Worktops can be sized to project requirements. Delete configurations, mounting, mounting height, deck materials, and color options not required.

* + - 1. Basis of Design Manufacturer/Model: D13 Group, D13 Sink Integrated System, featuring XLERATORsync Technology.
      2. Configuration: Single wash station unit.
         1. Size: 24 by 30 inch (584 by 762 mm).
      3. Configuration: Two wash station units.
         1. Size: 24 by 60 inch (584 by 1524 mm).
      4. Configuration: Three wash station units.
         1. Size: 24 by 90 inch (584 by 2286 mm).
      5. Configuration: \_\_\_\_ wash station units.
         1. Size: As indicated on Drawings.
      6. Mounting: Wall-mounted, free-standing.
      7. Mounting: Wall-mounted, alcove.
      8. Mounting: Floating stand-alone.
      9. Mounting Height to Sink Rim: 34 inch (863 mm). unless otherwise indicated on Drawings.
      10. Mounting Height to Sink Rim: \_\_ inch (\_\_ mm), unless otherwise indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Specifier: Consult D13 for additional deck material options.

* + - 1. Deck Material: Solid surface material.
         1. Color: \_\_\_\_\_\_\_\_.
         2. Color: As selected by Architect from manufacturer's full range.
      2. Deck Material: Quartz agglomerate material.
         1. Color: \_\_\_\_\_\_\_\_.
         2. Color: As selected by Architect from manufacturer's full range.
      3. Deck Material: Stone.
         1. Color: \_\_\_\_\_\_\_\_.
         2. Color: As selected by Architect from manufacturer's full range.
      4. Style of Deck to include bowls or gradient with infinity drain.
         1. Bowl: Solid surface material, under-mounted, 25 by 15 inches (635 by 381 mm).
         2. Gradient: Solid surface material with infinity drain.
         3. Color: \_\_\_\_\_\_\_\_.
         4. Color: As selected by Architect from manufacturer's full range.
      5. Enclosure: Solid surface material demountable panels.
         1. Color and Pattern: \_\_\_\_\_\_\_\_.
         2. Color and Pattern: As selected by Architect from manufacturer's full range.
      6. Enclosure: Stainless Steel demountable panels.
         1. Color and Pattern: \_\_\_\_\_\_\_\_.
         2. Color and Pattern: As selected by Architect from manufacturer's full range.
      7. Enclosure: HDPE Plastic demountable panels.
         1. Color and Pattern: \_\_\_\_\_\_\_\_.
         2. Color and Pattern: As selected by Architect from manufacturer's full range.
      8. Enclosure: Plastic- laminate-clad MDF demountable panels.
         1. Color and Pattern: \_\_\_\_\_\_\_\_.
         2. Color and Pattern: As selected by Architect from manufacturer's full range.
      9. Enclosure: Phenolic demountable panels.
         1. Color and Pattern: \_\_\_\_\_\_\_\_.
         2. Color and Pattern: As selected by Architect from manufacturer's full range.
      10. Enclosure: \_\_\_\_\_\_\_\_ demountable panels.
          1. Color and Pattern: \_\_\_\_\_\_\_\_.
          2. Color and Pattern: As selected by Architect from manufacturer's full range.
    1. Accessories:
       1. Hand Dryer: High-speed drying system integrated into lavatory deck with above-deck air spout that reverses air flow toward the back of the basin and away from the user. Equipped with infrared optical sensor, adjustable speed/sound level and heating temperature controls, and Electrostatic HEPA filtration system with removable and washable stainless-steel mesh pre- filter.
          1. Basis of Design Manufacturer/Model: Excel, XLERATORsync.
          2. Dry Time and Energy Use: 10 to 15 seconds.
          3. Dryer Nozzle Material and Finish: Diecast.
          4. Dryer Nozzle Material and Finish: Polished chrome finish.
          5. Dryer Nozzle Material and Finish: Custom painted.

Color: \_\_\_\_\_\_\_\_

Color: As selected by Architect from manufacturer's full range.

* + - * 1. Dryer Nozzle Material and Finish: Custom coating.

Color: \_\_\_\_\_\_\_\_

Color: As selected by Architect from manufacturer's full range.

* + - * 1. Dryer Nozzle Material and Finish: \_\_\_\_\_\_\_\_.

Color: \_\_\_\_\_\_\_\_

Color: As selected by Architect from manufacturer's full range.

\*\* NOTE TO SPECIFIER \*\* Coordinate requirement for 4-gang GFI receptacle to provide power to hand dryer and other accessories; see ISS installation drawings.

* + - * 1. Power Supply: Voltage: 110 VAC, 1500 W, 12.5 A. Equip unit with power chord for use with NEMA 5-20 receptacle on 20 A dedicated circuit, located as indicated on shop drawings.

\*\* NOTE TO SPECIFIER \*\* D13 can accommodate many selected models for faucet and soap dispenser accessories. Coordinate finishes with selected hand dryer finish. Delete options not required.

* + - 1. Faucet: Deck-mounted electronic handwashing faucet.
         1. Basis of Design Manufacturer/Model: Stern Condor 1010E.
         2. Basis of Design Manufacturer/Model: \_\_\_\_\_\_\_\_.
         3. Flow Rate: Not greater than 1.50 gpm (3.78 lpm).
         4. Flow Rate: \_\_\_\_ gpm (\_\_\_ lpm).
         5. Material and Finish: Diecast, polished chrome finish.
         6. Material and Finish: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete water supply options not required.

* + - * 1. Water Supply: Hot and cold supply.

Solenoid Valve: 6.75 VDC, 50/60 Hz, electronically activated, in removable carrier.

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following paragraphs not required.

Mixer Lever: Removable mechanical lever for manual pre-setting of temperature.

Thermostatic Mixing Valve: ASSE 1070 listed, with stop/strainer/check valves, and flexible stainless-steel connectors.

* + - * 1. Water Supply: Tempered supply.

Solenoid Valve: 6.75 VDC, 50/60 Hz, electronically activated, in removable carrier.

* + - * 1. Activation Controls: Low-voltage self-adjusting sensor using infrared transmitting beam and adjustable timed turn-off delay.

Power Pack: Class II, UL, CSA-listed plug-in transformer.

\*\* NOTE TO SPECIFIER \*\* The soap dispenser is optional. The model below is an example; D13 can accommodate many deck- mounted units.

* + - 1. Soap Dispenser: Below-deck-mounted unit with electronic sensor-operated valve, integrated into lavatory basin, with integral check valve.
         1. Basis of Design Manufacturer/Model: Stern, Green Soap E.
         2. Basis of Design Manufacturer/Model: \_\_\_\_\_\_\_\_.
         3. Material and Finish: Diecast, polished chrome finish.
         4. Material and Finish: \_\_\_\_\_\_\_\_.
         5. Soap Refills: 0.4 gal (1.5 L) Reservoir for bulk soap.
         6. Soap Refills: .3 gal (5 L) Reservoir for bulk soap.
         7. Soap Refills: Disposable proprietary cartridges.
  1. LAVATORY DECK MATERIALS

\*\* NOTE TO SPECIFIER \*\* Select one of three lavatory deck materials paragraphs below.

* + 1. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.
       1. Products: Provide one of the following:
          1. E. I. du Pont de Nemours and Company; Corian.
          2. LG Chemical Ltd.; HiMacs Solid Surface.
          3. \_\_\_\_\_\_\_\_.
       2. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with optional tethered stainless-steel strainers and integral tailpieces.
    2. Quartz Agglomerate: Solid sheets consisting of quartz aggregates bound together with a matrix of filled plastic resin and complying with performance requirements of ANSI/ICPA-SS-1-2001.
       1. Products: Provide one of the following:
          1. Cosentino USA, Silestone.
          2. E. I. du Pont de Nemours and Company, Zodiaq.
          3. LG Chemical Ltd, Viaterra.
          4. Wilsonart Quartz.
          5. \_\_\_\_\_\_\_\_.
       2. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with tethered stainless-steel strainers and integral tailpieces.

\*\* NOTE TO SPECIFIER \*\* Consult D13 for custom selection of stone material for unit top.

* + 1. Stone: Granite.
       1. Varieties and Sources: Provide the following:

\*\* NOTE TO SPECIFIER \*\* Insert names of varieties and producers, distributors, or importers.

* + - * 1. \_\_\_\_\_\_\_\_.
        2. \_\_\_\_\_\_\_\_.
      1. Cut stone from contiguous, matched slabs in which natural markings occur.
      2. Finish: Polished.
      3. Finish: Honed.
      4. Finish: Thermal.
      5. Finish: As indicated.
      6. Finish: Match Architect's sample.
      7. Match Architect's samples for color, finish, and other stone characteristics relating to aesthetic effects.
      8. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with tethered stainless-steel strainers and integral tailpieces.
    1. Stone: Marble.
       1. Varieties and Sources: Provide the following:

\*\* NOTE TO SPECIFIER \*\* Insert names of varieties and producers, distributors, or importers.

* + - * 1. \_\_\_\_\_\_\_\_.
        2. \_\_\_\_\_\_\_\_.
      1. Cut stone from contiguous, matched slabs in which natural markings occur.
      2. Finish: Polished.
      3. Finish: Honed.
      4. Finish: Thermal.
      5. Finish: As indicated.
      6. Finish: Match Architect's sample.
      7. Match Architect's samples for color, finish, and other stone characteristics relating to aesthetic effects.
      8. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with tethered stainless-steel strainers and integral tailpieces.
    1. Stone: Insert stone type.
       1. Varieties and Sources: Provide the following:

\*\* NOTE TO SPECIFIER \*\* Insert names of varieties and producers, distributors, or importers.

* + - * 1. \_\_\_\_\_\_\_\_.
        2. \_\_\_\_\_\_\_\_.
      1. Cut stone from contiguous, matched slabs in which natural markings occur.
      2. Finish: Polished.
      3. Finish: Honed.
      4. Finish: Thermal.
      5. Finish: As indicated.
      6. Finish: Match Architect's sample.
      7. Match Architect's samples for color, finish, and other stone characteristics relating to aesthetic effects.
      8. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with tethered stainless-steel strainers and integral tailpieces.
  1. ENCLOSURE MATERIALS

\*\* NOTE TO SPECIFIER \*\* Delete enclosure material options not required, then delete product options not required.

* + 1. Enclosure Material: Solid surface material. Homogeneous-filled plastic resin complying with ICPA SS-1.
       1. Product: E. I. du Pont de Nemours and Company; Corian.
       2. Product: LG Chemical Ltd.; HiMacs Solid Surface.
       3. Product: \_\_\_\_\_\_\_\_.
       4. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with optional tethered stainless-steel strainers and integral tailpieces.
    2. Enclosure Material: High-Pressure Decorative Laminate. NEMA LD 3, Grade HGS.
       1. Products: Formica Corporation; Formica Laminate.
       2. Products: Wilsonart; High Pressure Laminate.
       3. Products: \_\_\_\_\_\_\_\_.
    3. Enclosure Material: Phenolic Composite. Solid, high-pressure decorative laminate fused to substrate during panel manufacture, complying with NEMA LD 3, Grade CGS.
       1. Product: Formica Corporation; Compact Structural Laminates.
       2. Product: Wilsonart; Compact Laminate.
       3. Products: \_\_\_\_\_\_\_\_.
    4. Enclosure Material: Stainless Steel. 18-22 gauge fabricated stainless-steel enclosure.
       1. Products: Type 304, Brushed Stainless Finish.
       2. Products: Type 304, Finish: As approved by Architect.
       3. Products: \_\_\_\_\_\_\_\_.
    5. Enclosure Material: HDPE Formed Plastic. 0.25 - 0.375 inch thick formed plastic enclosure.
       1. Products: GEM Plastics.
       2. Products: King Plastics.
       3. Products: \_\_\_\_\_\_\_\_.
  1. ACCESSORY MATERIALS
     1. Composite Wood Products: Formaldehyde-free.
        1. Medium-Density Fiberboard (MDF): ANSI A208.2, Grade 130.
        2. Softwood Plywood: DOC PS 1, exterior.
     2. Stainless Steel Brackets: AISI Type 304, cold-formed.
     3. Removable Access Panel Fasteners: Integrated Z-clips or Sliding by-pass doors.
     4. Fabrication Adhesive: Product recommended by material manufacturer.
        1. Adhesives shall have a VOC content of 70 g/L or less.
        2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
     5. Installation Sealant for Unit-to-Wall Joints: Silicone, mildew-resistant, single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, acid-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 25, Use NT.
  2. FABRICATION

\*\* NOTE TO SPECIFIER \*\* Retain one of two "Deck Joints" paragraphs below.

* + 1. Deck Joints: Fabricate decks without joints.
    2. Deck Joints: Fabricate units in sections for joining in field, with joints at locations indicated on approved installation drawings.
    3. Cutouts and Holes:

\*\* NOTE TO SPECIFIER \*\* Undercounter Fixtures: Make cutouts for fixtures in shop using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.

* + - 1. Install fixtures in factory to greatest extent practical.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until the substrates have been properly prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect 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. Coordinate requirements for blocking to ensure adequate means for support and installation of hand dryers.
      4. Coordinate requirements for power supply, conduit, disconnect switches and wiring.
   3. INSTALLATION
      1. Assemble fixtures and associated fittings and trim in accordance with manufacturer's instructions.
      2. Install unit supports firmly attached to building structure. Fasten units to wall by bolting through frame into blocking concealed in wall.
      3. Install fixtures level, plumb, and in accordance with manufacturer's rough-in instructions.

\*\* NOTE TO SPECIFIER \*\* Retain three subparagraphs below if installing large units requiring joints in unit decks.

* + 1. Bond deck joints with adhesive and draw tight as units are set. Mask areas of deck adjacent to joints to prevent adhesive smears.
    2. Install splines in kerfs in deck edges at joints. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.
    3. Clamp units to temporary bracing, supports, or each other to ensure that units are properly aligned.
    4. Install water supply piping. Provide stop on each supply in a readily serviceable location. Fasten supply piping to supports or substrate.
    5. Install trap and waste piping to each fixture.
    6. Install escutcheons at exposed piping penetrations in finished locations and within cabinets.
    7. Seal joints between fixtures and walls, floors, and units with mildew-resistant silicone sealant.
  1. TESTING AND ADJUSTING
     1. Set field-adjustable temperature set points of water mixing valves. Adjust set point within allowable temperature range.
     2. Test and adjust installation.
  2. CLEANING AND PROTECTION
     1. Repair or replace defective work, including damaged fixtures and components.
     2. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.
     3. Install new batteries in battery-operated devices at time of Substantial Completion.
     4. Turn over keys, tools, maintenance instructions, and maintenance stock to Owner.
     5. Protect units with water-resistant temporary covering. Do not allow temporary use of plumbing fixtures. Remove protection at Substantial Completion and dispose.

END OF SECTION