D|13 SINK SYSTEM FEATURING THE XLERATORsync® HAND DRYER

The D|13 Sink System featuring the new XLERATORsync® hand dryer is an integrated solution that addresses numerous challenges in effective restroom design. By incorporating soap, faucet, and hand dryer within each basin, users can now wash and dry in-place, avoiding the drips and blowback typically associated with electric hand drying. This system is designed to provide intuitive operation, polite user experience, and an agnostic aesthetic which complements other high-end fixtures.

THE DESIGN

D|13 offers highly customizable ADA-compliant integrated sink systems. D|13 can be your design-assist partner for high-end commercial restroom design, offering an array of finishes with freedom to choose many accessories.

THE SINK

The designer has flexibility in the choice of aesthetics. D|13 offers a wide variety of material choices for the counter top and base cabinet, including phenolic panels, quartz, and other stone varieties. We offer other design/customization options such as baby changing units, built-in trash receptacles, and varying countertop elevations.

THE DRYER

XLERATORsync® Drying System is a state-of-the-art machine that utilizes the patented XLERATOR® technology, it has an elegant fixture design that is engineered to keep water and air in the basin and off the user to create an elevated user experience.

The hand dryer also includes adjustable sound, speed, and heat controls, a HEPA filtration system, LED illumination of the drying area that also serves as a Service LED to streamline maintenance and is the quietest high-speed energy efficient hand dryer because of its new sound- suppression air delivery system. Designers may select from multiple available dryer nozzle finishes.

THE FAUCET AND THE SOAP DISPENSER

The designer has the flexibility to choose the faucet and the soap dispenser by any manufacturer.

THE INSTALLATION

The sink is modular for easy installation. All fixtures are deck mounted and sensor operated. Systems include frame and enclosure with a variety of finish options. Only a plumber is needed to install the waste and water lines. The dryer plugs directly into a below-counter electrical receptacle. The solid surface sink bowl is designed with coved inside corners for hygienic operation and maintenance ease. Unit configuration is highly flexible, with modular lengths starting at 30 inches wide offering unlimited ganging/positioning options. Countertops can be sized to project requirements. Unit mounting options: Surface, alcove, or floating mount (standalone) available.

The D|13 Group, 245 West Central Street, Natick MA 01760; Phone: 1-888-D13-SYNC (313-7962)
design@d13group.com; or visit D13 at www.d13group.com.

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[SECTION 102519 – MODULAR INTEGRATED LAVATORY SYSTEMS]

[SECTION 224216 - COMMERCIAL LAVATORIES]

PART 1 – GENERAL

1.1 SECTION INCLUDES

1. Integrated sink system with deck-mounted hand wash station accessories.

1.2 RELATED SECTIONS

Specifier: Delete any paragraphs below that do not apply to this project.

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

1.3 REFERENCES:

A. American Society of Sanitary Engineering (ASSE):

1. ASSE 1070 – Water Temperature Limiting Devices.

B. American National Standards Institute (ANSI):

1. ANSI Z 124.3 - Plastic Lavatories.
2. ANSI/ICPA SS-1-2001 - Performance Standard for Solid Surface Materials.

C. 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.

D. ASTM International (ASTM):

1. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

E. Canadian Standards Association (CSA):

1. CSA B125 - (See ASME A112.18.1 - Plumbing Fixture Fittings).

F. International Association of Plumbing and Mechanical Officials (IAPMO):

1. Universal Plumbing Code (cUPC both U.S. and Canada).

G. International Code Council (ICC):

1. ICC/ANSI A117.1 – Accessible and Usable Buildings and Facilities.

H. NSF International (NSF):

1. NSF 61 - Drinking Water System Components - Health Effects.

I. 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/min.) or 0.25 gal. (0.95 L) per metering cycle.

J. Underwriters Laboratories, Inc.

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.

K. US Federal Government:

1. Public Law 102-486 - Energy Policy Act. 1992.
2. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).

1.4 ACTION SUBMITTALS

A. Product Data: Manufacturer's data sheets for lavatory unit and components.

B. Sustainable Design Submittals:

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.

C. 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.

1.5 INFORMATION SUBMITTALS

A. Manufacturer's Certificates: Indicate compliance with specification requirements.

1.6 MAINTENANCE SUBMITTALS

A. Operation and maintenance data.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: Approved manufacturer 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.

B. Source Limitations: Obtain each type of plumbing fixture and compatible accessories through one source from a single approved manufacturer.

Specifier: D13 Integrated Sink System complies with ADA/ABA and ICC A117.1, when installed according to height requirements.

C. Accessibility Requirements: Comply with requirements of ADA/ABA and with requirements of authorities having jurisdiction.

D. Water Flow and Consumption Requirements: Comply with Public Law 102-486 "Energy Policy Act."

E. Drinking Water Standard: Comply with NSF 61, "Drinking Water System Components – Health Effects," where applicable.

F. Electrical Components: Listed and labeled per NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements of this section, provide D|13 Group, D|13 Integrated Sink System, featuring XLERATORsync® Technology, 245 West Central Street, Natick MA 01760; 1-888-670-3107; design@d13group.com; www.d13group.com.

Specifier: Retain one of three paragraphs below based upon Project requirements for sole or multiple source specification.

1. Submit comparable products of one of the following for approval by Architect:

   a. [Specifier: Insert name of manufacturer of comparable product.]

2. Submit requests for substitution in accordance with Instructions to Bidders and Division 01 General Requirements.
3. Provide specified product.

2.2 INTEGRATED SINK (LAVATORY) SYSTEM

Integrated Sink System (ISS) bowl is designed to control air and water flow preventing backsplash and updrafts.

If specifying more than one unit with different characteristics, copy and paste paragraph below and edit to describe individual units.

A. 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.

1. Basis of Design Manufacturer/Model: **D|13 Group, D|13 Sink Integrated System, featuring XLERATORsync® Technology**.

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.

2. Configuration: [Single] [Two] [Three] [Insert number] wash station unit.

   a. Size: [24 by 30 inch (584 by 762 mm)] [24 by 60 inch (584 by 1524 mm)] [24 by 90 inch (584 by 2286 mm)] [As indicated on Drawings].

3. Mounting: [Wall-mounted, free-standing] [Wall-mounted, alcove] [Floating stand-alone].

   a. Mounting Height to Sink Rim: [34 inch (863 mm)] [Insert dimension], unless otherwise indicated on Drawings.

Specifier: Consult D|13 for additional deck material options.

4. Deck Material: [Solid surface material] [Quartz agglomerate material] [Stone].

   a. Color: [As selected by Architect from manufacturer's full range] [Insert color].
   b. Color: [As selected by Architect from manufacturer's full range.]

Specifier: Choose style of deck.

5. Style of Deck to include bowls or gradient with infinity drain

   a. Bowl: Solid surface material, under-mounted, 25 by 15 inches (635 by 381 mm).
   b. Gradient: Solid surface material with infinity drain.
   c. Color: [As selected by Architect from manufacturer's full range.]

Specifier: D13 enclosure panels are available in several standard and custom materials.

6. Enclosure: [Solid surface material] [Stainless Steel] [HDPE Plastic] [Plastic- laminate-clad MDF] [Phenolic] [Insert material] demountable panels.

   a. Color and Pattern: [As selected by Architect from manufacturer's full range] [Insert color].

B. 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 HEPA filtration system with removable and washable stainless-steel mesh pre-filter.

    a. Basis of Design Manufacturer/Model: Excel, XLERATORsync®.
    b. Dry Time and Energy Use: 10-15 seconds.
    c. Dryer nozzle Material and Finish: [Die-cast, polished chrome finish, custom painted, custom coating] [Insert finish].

Specifier: Coordinate requirement for 4-gang GFI receptacle to provide power to hand dryer and other accessories; see ISS installation drawings.

    d. 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.

Specifier: D|13 can accommodate many selected models for faucet and soap dispenser accessories. Coordinate finishes with selected hand dryer finish.

2. Faucet: Deck-mounted electronic handwashing faucet.

    a. Basis of Design Manufacturer/Model: [Stern Condor 1010E] [Insert faucet model].
    b. Flow Rate: [Not greater than 1.50 gpm [insert flowrate.]
    c. Material and Finish: [Die-cast, polished chrome finish] [Insert finish].
    d. Water Supply: [Hot and cold supply] [Tempered supply].

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

Specifier: Retain either mixing lever or thermostatic mixing valve below if required for hot and cold installation; delete both for tempered supply application.

        2) Mixer Lever: Removable mechanical lever for manual pre-setting of temperature.
        3) Mixing Valve: Thermostatic mixing valve, ASSE 1070 listed, with stop/strainer/check valves, and flexible stainless-steel connectors.

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

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

Specifier: The soap dispenser is optional. Model below is example; D|13 can accommodate many deck-mounted units.

3. Soap Dispenser: Below-deck-mounted unit with electronic sensor-operated valve, integrated into lavatory basin, with integral check valve.

    a. Basis of Design Manufacturer/Model: [Stern, Green Soap E] [Insert soap dispenser model].

b. Material and Finish: [Die-cast, polished chrome finish] [Insert finish].
c. Soap Refills: [1.5L Reservoir for bulk soap] [5L Reservoir for bulk soap] [Disposable proprietary cartridges].

2.3 LAVATORY DECK MATERIALS

Specifier: Select one of three lavatory deck materials paragraphs below.

A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.

1. Products: Provide one of the following:

a. E. I. du Pont de Nemours and Company; Corian.
b. LG Chemical, Ltd.; HiMacs Solid Surface.
c. [Insert name of manufacturer of comparable product]

2. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with optional tethered stainless-steel strainers and integral tailpieces.

B. Quartz Agglomerate: Solid sheets consisting of quartz aggregates boun 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:

a. Cosentino USA, Silestone.
b. E. I. du Pont de Nemours and Company, Zodiaq.
c. LG Chemical, Ltd, Viaterra.
d. Wilsonart Quartz.
e. [Insert name of manufacturer of comparable product].

2. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with tethered stainless-steel strainers and integral tailpieces.

Specifier: Consult D|13 for custom selection of stone material for unit top.

C. Stone: [Granite] [Marble] [Insert stone type].

1. Varieties and Sources: Provide the following:

a. <Insert names of varieties and producers, distributors, or importers>.

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

2.4 ENCLOSURE MATERIALS

Specifier: Select one of six enclosure materials paragraphs below.

A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.

1. Products: Provide one of the following:

a. E. I. du Pont de Nemours and Company; Corian.
b. LG Chemical, Ltd.; HiMacs Solid Surface.
c. [Insert name of comparable product]

2. Integral Sink Bowls: Solid surface material complying with CSA B45.5/IAPMO Z124, with optional tethered stainless-steel strainers and integral tailpieces.

Specifier: Consult D|13 for custom selection of stone material for unit top.

B. High-Pressure Decorative Laminate: NEMA LD 3, Grade HGS.

1. Products: Provide one of the following:

a. Formica Corporation; Formica Laminate.
b. Wilsonart; High Pressure Laminate.

C. Phenolic Composite: Solid, high-pressure decorative laminate fused to substrate during panel manufacture, complying with NEMA LD 3, Grade CGS.

1. Products: Provide one of the following:

a. Formica Corporation; Compact Structural Laminates.
b. Wilsonart; Compact Laminate.

D. Stainless Steel: 18-22 gauge fabricated stainless-steel enclosure.

1. Products: Provide one of the following
a. Type 304, Brushed Stainless Finish
b. Type 304, [Finish approved by Architect]

E. HDPE Formed Plastic: 0.25 – 0.375 inch thick formed plastic enclosure

1. Products: Provide one of the following:
a. GEM Plastics
b. King Plastics
c. [Insert name of Manufacturer comparable product]

2.5 ACCESSORY MATERIALS

A. Composite Wood Products: Formaldehyde-free.

1. Medium-Density Fiberboard (MDF): ANSI A208.2, Grade 130.

2. Softwood Plywood: DOC PS 1, exterior.

B. Stainless Steel Brackets: AISI Type 304, cold-formed.

C. Removable Access Panel Fasteners: Integrated Z-clips or Sliding by-pass doors.

D. 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."

E. 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.

2.6 FABRICATION

Retain one of two "Deck Joints" paragraphs below.

A. Deck Joints: Fabricate decks without joints.

B. Deck Joints: Fabricate units in sections for joining in field, with joints at locations indicated on approved installation drawings.

C. Cutouts and Holes:

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.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Assemble fixtures and associated fittings and trim in accordance with manufacturer's instructions.

B. Install unit supports firmly attached to building structure. Fasten units to wall by bolting through frame into blocking concealed in wall.

C. Install fixtures level, plumb, and in accordance with manufacturer's rough-in instructions.

Specifier: Retain three subparagraphs below if installing large units requiring joints in unit decks.

D. Bond deck joints with adhesive and draw tight as units are set. Mask areas of deck adjacent to joints to prevent adhesive smears.

E. 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.

F. Clamp units to temporary bracing, supports, or each other to ensure that units are properly aligned.

G. Install water supply piping. Provide stop on each supply in readily-serviceable location. Fasten supply piping to supports or substrate.

H. Install trap and waste piping to each fixture.

I. Install escutcheons at exposed piping penetrations in finished locations and within cabinets.

J. Seal joints between fixtures and walls, floors, and units with mildew-resistant silicone sealant.

3.2 CLEANING AND PROTECTION

A. Repair or replace defective work, including damaged fixtures and components.

B. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.

C. Install new batteries in battery-operated devices at time of Substantial Completion.

D. Turn over keys, tools, maintenance instructions, and maintenance stock to Owner.

E. Protect units with water-resistant temporary covering. Do not allow temporary use of plumbing fixtures. Remove protection at Substantial Completion and dispose.

3.3 TESTING AND ADJUSTING

A. Set field-adjustable temperature set points of water mixing valves. Adjust set point within allowable temperature range.

B. Test and adjust installation.

END OF SECTION