SECTION 10 28 00
ELECTRIC HAND DRYERS

1 GENERAL

1.1 SECTION INCLUDES

1.1.1 Electric hand dryers of the following types:
1.1.1.1 High-efficiency, high-speed hand dryers. (DUALFLOW PLUS Series M14)

1.2 RELATED SECTIONS

1.2.1 Section 06 10 00 - Rough Carpentry.

1.2.2 Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

1.3.1 Underwriter's Laboratory (UL): Labeled products.

1.4 SUBMITTALS

1.4.1 Submit under provisions of Section 01 30 00 - Administrative Requirements.

1.4.2 Product Data: Manufacturer's data sheets on each product to be used, including:
1.4.2.1 Preparation instructions and recommendations.
1.4.2.2 Storage and handling requirements and recommendations.
1.4.2.3 Installation methods.
1.4.2.4 Manufacturer's installation and maintenance instructions.

1.4.3 Shop Drawings: Submit shop drawings indicating details of mounting and relationship to adjacent construction.

1.4.4 Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

1.5.1 Product Requirements: Hand dryers shall be certified by Underwriters Laboratory (UL), Inc. and shall bear UL labels.

1.5.2 Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1.5.2.1 Finish areas designated by Architect.
1.5.2.2 Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
1.5.2.3 Refinish mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE, AND HANDLING

1.6.1 Store products in manufacturer's unopened packaging until ready for installation.

1.6.2 Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

1.7.1 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.

1.8 WARRANTY

1.8.1 Manufacturer's Warranty: 5 year limited warranty for electric hand dryers to cover defects in material and workmanship.

2 PRODUCTS

2.1 MANUFACTURERS

2.1.1 Acceptable Manufacturer: SANIFLOW Hand Dryer Corporation, which is located at: 3325 N. W. 70th Ave.; Miami, FL 33122; Toll Free Tel: 877-222-9125; Tel: 305-424-2433; Fax: 305-424-2435; Email:request info (info@saniflowcorp.com); Web:www.saniflowcorp.com

2.1.2 Substitutions: Not permitted.

2.1.3 Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 HIGH-EFFICIENCY, HIGH-SPEED HAND DRYERS (DUALFLOW PLUS Series M14)

2.2.1 Type: Warm air, high speed, rapid drying, surface-mounted, UL-compliant, electric hand dryers activated by putting hands within unit, unit turns off after hands are removed; as manufactured by Mediclinics, S.A. and distributed by its subsidiary Saniflow Corporation.
- 2.2.1.1 Dualflow Plus Hand Dryer Model No. M14A-UL, white finish.
- 2.2.1.2 Dualflow Plus Hand Dryer Model No. M14ACS-UL, satin finish.
- 2.2.1.3 Dualflow Plus Hand Dryer Model No. M14AB-UL, black finish.

2.2.2 Characteristics:
- 2.2.2.1 Voltage: 110/120 volts.
- 2.2.2.2 Voltage: 208 volts.
- 2.2.2.3 Voltage: 220-240 volts.
- 2.2.2.4 Frequency: 50/60 hertz.
- 2.2.2.5 Total Power: 600 to 1,300 watts.
- 2.2.2.6 Motor Power: 350-1,050 watts.
- 2.2.2.7 Heating Element: 250 watt equipped with ON/OFF button.
- 2.2.2.8 Power Consumption: 8-10 amps (120 V) element ON; 6-8 amps (120 V) element OFF.
- 2.2.2.9 Electrical Isolation: Class I, grounding required.
- 2.2.2.10 Protection Level: IPX4.
- 2.2.2.11 Nominal Overall Dimensions: 12-5/8 inches wide by 26-1/8 inches high by 9 inches deep (320 mm wide by 665 mm high by 228 mm deep).
- 2.2.2.12 Weight: 18.3 pounds (8.3 kg).

2.2.3 Operation: Two infrared sensor located at top of unit detects when hands are placed into drying cavity. Within a few seconds warm air flows through air nozzles to dry hands.
- 2.2.3.1 Sensor shall have polycarbonate window.
- 2.2.3.2 Dryer automatically turns off after 30 seconds or when hands are removed from

drying cavity.

2.2.4 Performance Requirements:

2.2.4.1 Unit shall be UL and CSA approved, according to UL 499 and CSA C22.2 standards and with ADA projection requirements.

2.2.4.2 Unit shall be Greenspec listed.

2.2.4.3 Unit shall contribute to LEED credit EAc1 (Optimize Energy Performance) for the following standard:

2.2.4.3.1 LEED NC-2009.

2.2.4.3.2 LEED NC-v2.2.

2.2.4.3.3 LEED Schools-2009.

2.2.4.3.4 LEED CS-2009.

2.2.4.4 Unit shall contribute to LEED credit EAp2 (Minimum Energy Performance) for the following standard:

2.2.4.4.1 LEED NC-2009.

2.2.4.4.2 LEED NC-v2.2.

2.2.4.4.3 LEED Schools-2009.

2.2.4.4.4 LEED CS-2009.

2.2.4.5 Maximum Air Velocity: 20,500 feet per minute (6,250 meters per minute).

2.2.4.6 Approximate hand drying time: 10 to 15 seconds (high speed).

2.2.4.7 Minimum air temperature at 70 degrees F (21 degrees C) ambient temperature: 104 degrees F (40 degrees C).

2.2.4.8 Noise (sound pressure) level at 79 inches (2007 mm): 62-72 decibels maximum, 62 decibels on eco-setting.

2.2.5 Components:

2.2.5.1 Cover: 1-1/8 inch (30 mm) thick ABS plastic, U-shaped design.

2.2.5.1.1 Hygienic Property: Biocote.

2.2.5.2 Drying Cavity: 300 separate air nozzles for distribution of warm air.

2.2.5.3 Filters: Provide HEPA Media Filter in the Dualflow PLUS captures the most of allergens in the air by filtering the air.

2.2.5.4 Drain Container: Removable container within drying cavity to collect water from user's hands and equipped with flashing light and sound signal indicating container needs emptying.

2.2.5.5 Motor: High speed class A universal brush vacuum motor.

2.2.5.5.1 Motor power: 350-1050 watts.

2.2.5.5.2 Revolutions per minute (RPM): 28,000 RPM.

2.2.5.6 Sensor: Infrared detection sensor with polycarbonate viewing window.

2.2.5.7 Mounting Brackets: Galvanized steel brackets pre-drilled with 3 holes for surface mounting. Provide with fasteners for attachment to wall.

2.2.5.8 Odor Control: Provide dryer with replaceable odor mitigation tablets which neutralize toilet room odors (optional).

3 EXECUTION

3.1 COORDINATION

3.1.1 Coordinate requirements for blocking to ensure adequate means for support and installation of hand dryers.

3.1.2 Coordinate requirements for power supply, conduit, disconnect switches, and wiring.

3.1.3 Coordinate dryer installation with application of wall finishes.

3.2 EXAMINATION

3.2.1 Do not begin installation until substrates have been properly prepared.

3.2.2 If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.3 INSTALLATION

3.3.1 Comply with manufacturer's written installation instructions and approved shop drawings.

3.3.2 Mount dryers at heights indicated on Drawings and approved shop drawings.

3.3.3 Install bases securely to supporting substrate so that dryers are level and aligned with each other. Anchor with fasteners of type and size recommended by manufacturer for type of wall substrate.

3.3.4 Install dryers with recess mounting kits such that maximum projection from wall surface is 4 inches (102 mm) in compliance with ICC/ANSI A117.1. Anchor box in rough wall opening with fasteners of type and size recommended by manufacturer. When cover is installed over dryer, ensure that joint between box and wall finish is concealed.

3.4 CLEANING, TESTING, AND DEMONSTRATING

3.4.1 Remove protective wrappings. Clean surfaces with mild soap solution. Do not use abrasives.

3.4.2 Inspect installed dryers to verify mounting is rigid and electrical connections are proper. Test each dryer to verify operation and performance. Correct deficiencies.

3.4.3 Protect dryers from remaining construction activities. Immediately remove and replace dryers that are damaged.

3.4.4 Demonstrate operation and maintenance to Owner's representative.

3.5 PROTECTION

3.5.1 Protect installed products until completion of project.

3.5.2 Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION