



## SECTION 10811

### ELECTRIC HAND DRYERS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Electric hand dryers. Basis-of-design model:
  - 1. Conventional, Universal Nozzle Hand Dryer – Automatic or Push Button

##### 1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Blocking in stud partitions for mounting hand dryers.
- B. Section 16100 - Wiring Methods: Electrical supply, conduit, wiring, boxes, and wiring devices for hand dryers.

##### 1.3 REFERENCES

- A. ICC/ANSI A117.1 - American National Standard for Accessible and Useable Buildings and Facilities; 1998.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Operation instructions and performance.
  - 3. Storage and handling requirements and recommendations.
  - 4. Installation methods.
- C. Shop drawings showing dimensions, method of attachment, and required supports.

##### 1.5 QUALITY ASSURANCE

- A. Product Requirements: Hand dryers shall be certified as per applicable safety standards of Underwriters Laboratory (UL), Inc. and Canadian Standards Association and shall bear UL or ETL markings.
- B. Product Requirements: Hand dryers shall be certified as per applicable safety standards for CE certification for non-US export applications.

#### PART 2 PRODUCTS

## 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: World Dryer Corporation.; 340 County Line Road, Bensenville IL 60106
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

## 2.2 ELECTRIC HAND DRYERS – BASIS OF DESIGN MODEL

- A. Conventional, Universal Nozzle Hand Dryer – Automatic or Push Button: Model A as manufactured by World Dryer:
  - 1. Mounting: Surface-mounted
  - 2. Mounting: Recess-mounted (complies with American Disabilities Act – ADA)
  - 3. Activation: Automatic infrared optical sensor with 110 second shut-off if hands are not removed.
  - 4. Activation: Push-button with 30 second operation timer.
  - 5. Electrical Rating: 2300 watts, 20 Amps, 110 – 120VAC, 50/60 Hz
  - 6. Electrical Rating: 2300 watts, 10 Amps, 208/220-240VAC, 50/60 Hz
  - 7. Electrical Rating: 2300 watts, 8.3 Amps, 277VAC, 50/60 Hz
  - 8. Electrical Rating: (For export only) 2300 watts, 10 Amps, 220-240VAC, 50 Hz
  - 9. Electrical Rating: 1725 watts, 15 Amps, 110-120VAC, 60 Hz
    - a. With optional reduced wattage heating element
  - 10. Air Flow: 200 CFM at 83 mph (7300 LFM)
  - 11. Motor: Universal brushed motor; 1/10 HP, 7,500 RPM with replaceable motor brushes and automatic resetting thermostat.
  - 12. Heater: Nichrome wire element mounted inside fan housing with automatic resetting thermostat to open when air flow is restricted and close when air flow is resumed; heated air temperature is 140°F at an ambient temperature of 70°F
  - 13. Sound Level: 76 dBA at operator with hands; 66 dBA at 2 meters, no hands.
  - 14. Warranty: 10 YR Limited (not including replaceable motor brushes)
    - a. Electronic controls – 5 YRS
  - 15. Cast iron, white porcelain enamel finish
  - 16. Stainless steel, brushed finish (Not available for recess mounted with push-button models)
  - 17. Stainless steel, polished finish (Not available for recess mounted models)
  - 18. Steel, white epoxy enamel paint finish (Not available for recess mounted models)



- 1. Mount dryers at heights indicated on Drawings.
- 2. Mount at the following heights above floor surface:
  - a. Surface Mounting
    - 1) Men's Toilets: 46 inches (117 cm)
    - 2) Women's Toilets: 44 inches (112 cm).
    - 3) Teenagers' Toilets: 44 inches (112 cm).
    - 4) Young Children's Toilets: 36 inches (91 cm).
    - 5) Toilets for Persons with Physical Disabilities: 37 inches (94 cm).
  - b. Recess Mounting
    - 1) Men's Toilets: 42 inches (107 cm)
    - 2) Women's Toilets: 40 inches (102 cm).
    - 3) Teenagers' Toilets: 40 inches (102 cm).
    - 4) Young Children's Toilets: 32 inches (81 cm).
    - 5) Toilets for Persons with Physical Disabilities: 34 inches (86 cm).

**PART 3 EXECUTION**

**3.1 COORDINATION**

- A. Coordinate requirements for blocking to ensure adequate means for support and installation of hand dryers.
- B. Coordinate requirements for power supply, conduit, disconnect switches, and wiring.
- C. Coordinate dryer installation with application of wall finishes.

**3.2 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

**3.3 INSTALLATION**

- A. Comply with manufacturer's written installation instructions and approved shop drawings.
- B. Mount dryers at heights indicated on Drawings and approved shop drawings.
- C. 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.

**3.4 CLEANING, TESTING, AND DEMONSTRATING**

- A. Remove protective packaging. Clean surfaces with mild soap solution. Do not use abrasives.
- B. Inspect installed dryers to verify mounting is rigid and electrical connections are proper. Test each dryer to verify operation and performance. Correct deficiencies.

- C. Protect dryers from remaining construction activities. Immediately remove and replace dryers that are damaged.
- D. Demonstrate operation and maintenance to Owner's representative.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

