

10284 ELECTRIC HAND DRYERS

SPECIFIER: Electric hand dryers of this design and this design only may be used in place of paper towel dispensers. This dryer projects only 1-1/2 in. from the face of the wall, making it hard to dislodge. However, due to MDCPS's bad experiences with electric dryer vandalism, use electric hand dryers only in locations approved by MDCPS.

The recessed dryer specified here is for new construction only, where a recess with electrical power can more easily be provided.

Do not use surface mounted dryers. They are too easily vandalized.

Remember that drying hands with an electric dryer takes from 10 to 20 times as many seconds at the dryer as compared with the time it takes a person to pull a towel loose and step away from the dispenser to dry the hands. Thus, to avoid lineups in toilet rooms that serve crowds, it is necessary to provide space for at least 3 times as many electric hand dryers, with adequate space for users to stand, as was previously provided for paper towel dispensers.

All in all, electric hand dryers are much moiré suited to small toilet rooms that serve a limited number of users at one time.

Check to see if there are any toilet rooms, custodial rooms, teaching areas, kitchens or health suites, where paper towel dispensers are still needed, before eliminating them from 10281 Toilet and Custodial Accessories.

CSI MasterFormat number: 10 28 40.

An optional keynote to the Drawings follows major product titles, for A/Es using National CAD Standard.

PART 1 GENERAL

1.1 RELATED REQUIREMENTS

- A. Coordinate electric hand dryers with work before and after. See especially: wall structure and finish sections, and electric power sections.
- B. Provide dryers from one producer for this project.

1.2 SUBMITTALS

Follow 01330

- A. Special Warranty Text: Obtain A/E's approval before making any other submittals.
- B. Product Data: Include items such as noise level, motor and sensor data, wiring..
- C. Shop Drawings: Show dimensions and method of fastening for maximum vandalism and pull-out resistance
- D. Dryer Mockup: Mount and hook up 1 dryer in place at the project site for demonstration and approval before starting the rest of installation. The mockup dryer, if in good condition, may be installed in the work after A/E's approval.

1.3 SPECIAL WARRANTY

Follow 01910

- A. In addition to the warranty in General Conditions 3.6.1, provide this Special Warranty:
 - 1. Replace electric hand dryers that show manufacturing defects, from the time of installation until 10 years after date of Substantial Completion. For defects in the sensor mechanism, the time after Substantial Completion may be set at 3 years.

2.1 ELECTRIC HAND DRYERS [10284.elechndryr, or 10284.ehd]

- A. Description: Recessed dryer with minimal projection beyond face of wall, blowing hot air in one direction, with outlet not easily accessed for abuse, electric motor activated by sensor only, and with automatic drying cutoff time and high-temperature cutoff.
- B. Shape of dryer: Top surface sharply down-sloping or curving down, with no projections from which clothing, bookbags, or persons can hang or be hung.
1. Maximum projection from wall: 2 in.
 2. Wall fit: Fit in a 3-1/2 in. steel stud partition with 5/8 in gypsum board each side, or in furred gypsum board on 3-3/4 in. block.
 3. Motor / fan / sensor case: Galvanized steel, 18 ga or heavier, with 2 conduit knockouts on opposite sides, and 4 mounting brackets at face for fastening with No.12 toggle bolts or screws to steel framing or to masonry inserts.
 4. Internal splash guards: Provide at sensor, switches, heater, and motor to minimize effects of any liquid intrusion.
 5. Room case: 18 ga stainless steel, No.4 finish, or satin chrome finish on 18 ga steel, with edges beveled 40° to 50° or curved less than quarter-round, designed to resist prying-off and to not allow effective applying of force vertically or sideways.
 6. Room case shape / size: Square, or near-square; 300 to 360 in² overall size of face.
 7. Room case fasteners: Heavy tamper-resistant (TR) screws. Deliver one TR screw bit to Board for each project.
 8. Air outlet: Recessed, with sturdy grille or other guard to resist access to sensor, heating element, fan and motor. Air flow may be sideways or down; but never up. Outlet shall not be rotatable or adjustable by users.
 9. Operation: By automatic infrared sensor only, inconspicuous and located out of view of users; no pushbuttons.
 10. Maximum noise level in operation: 70 dB.
 11. Sensor: Solid state electronic infrared, without relays or moving parts, turning off 2 sec maximum after hands are removed, or 80 sec after start, whichever is earliest.
 12. Airflow: At least 150 ft³/min, at velocity that effectively dries hands in 30 seconds.
 13. Motor: Lowest rpm (to reduce noise) that will produce specified airflow, permanent lubrication, with automatic-reset thermal protection, and circuit breaker; no fuses.
 14. Motor power consumption: 10 to 18 A at 110/120 V AC.
 15. Heater: Nickel/chromium wire to heat without wire glow, thermally protected to cut out at 90 °C / 130 °F., not accessible by users through the air outlet.
- C. Standard: UL listed.
- D. Product / Producer.
1. PDC-R10, by Pinnacle Dryer Corp. www.pinnacledryer.com
 2. Equal product in quality and performance as reviewed and approved by A/E and Board.

3.1 EXAMINATION AND PREPARATION

- A. Coordinate and verify the mounting and opening heights, the size of openings, and the providing of 20 ga steel studs / furring and cats to receive heavy-duty screws or toggle bolts for mounting dryers.
 - 1. If dryers are shown to be placed within 60 in. of plumbing fixtures or brass, notify A/E so that proper protection of users can be accomplished.
- B. Verify that field conditions and opening preparation, as well as electric service are acceptable and are ready to receive dryers.

3.2 INSTALLATION OF ELECTRIC HAND DRYERS

- A. Install dryers following producer's current published directions and recommendations, except as more stringently specified herein.
- B. Fasten dryer motor cases and room cases so as to be pry-resistant and to withstand a withdrawal force of 200 lb at each fastener.
- C. Demonstrate each dryer to be in good working order. Protect dryers until date of Substantial Completion. Leave clean and in good operating condition. ///