

SECTION 10 28 14

ELECTRIC HAND DRYERS

******* DUALFLOW (M08) SERIES *******

******* Saniflow Corporation is the American sister-company of Medclinics, S.A. and manufactures several styles of electric, warm-air hand dryers.**

This guide can be used to prepare a specification for incorporating the Dualflow (M08) Series Hand Dryer into a competitively bid construction project. These dryers are warm air, high speed, rapid drying, surface mounted, UL-compliant units that are activated by putting hands within the unit. They automatically turn off after hands are removed. Dualflow Dryers completely dry hands in 10 to 15 seconds.

This specification section is organized by placing information in three standard parts:

PART 1 - GENERAL Describes administrative and procedural requirements.

PART 2 - PRODUCTS Describes electric hand dryers to be incorporated into the construction project.

PART 3 - EXECUTION Describes how the dryers will be installed at the construction site.

Throughout this product guide specification, references are made to other specification sections that might be contained in the project manual. These references are presented as examples and coordination reminders. For each project, these references will need to be revised to reflect actual sections being used.

Within the specification text, Imperial dimensions are presented first in brackets followed by System International Metric (SI) equivalents also in brackets. Depending on project requirements, either the Imperial or the SI metric equivalents will need to be deleted.

The specifier will need to edit this product specification for a specific project to reflect the options being used. The guide section has been written so that most editing can be accomplished by deleting unnecessary requirements and options. Options are indicated by []. Notes to assist the specifier in selecting options and editing the specification guide are printed in bold and indicated with ***. For final editing, all brackets and notes will need to be deleted from the guide.**



PART 1 - GENERAL**1.1 SUMMARY**

- A. Section includes: Warm air, high speed, rapid drying, surface-mounted, UL-compliant, electric hand dryers that are activated by putting hands within the unit and that automatically turn off after hands are removed.

******* List other specification sections dealing with work directly related to this section such as the following. *******

- B. Related sections:

1. Section 06 10 00 - Rough Carpentry: Blocking in stud partitions for mounting hand dryers.
2. Division 26 - Electrical: Electrical supply, conduit, wiring, boxes, and wiring devices for hand dryers.

1.2 REFERENCES

****** List by number and full title reference standards referred to in remainder of specification section. ******

- A. ADA - Americans with Disabilities Act.
- B. ICC/ANSI A117.1 - International Code Council/American National Standards Institute Standard on Accessible and Useable Buildings and Facilities.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 - Submittal Procedures:
1. Product data including certificates or test reports that demonstrate products comply with performance requirements specified in Paragraph 2.2.
 2. Shop drawings showing dimensions, fabrication and installation details, and electrical wiring diagrams for connecting dryers.
 3. Manufacturer's installation and maintenance instructions.
 4. Copy of warranty required by Paragraph 1.5 for review by Architect.



1.4 QUALITY ASSURANCE

******* 110 volt Dualflow hand dryers are provided in the United States and Canada and are certified by Underwriters Laboratories (UL) and Canadian Standards Association (CSA). 220 volt dryers are also available and are European Union (EU) certified. Edit this article to reflect applicable requirements for project location. *******

- A. Hand dryers shall be certified by [Underwriters Laboratory (UL), Inc. complying with UL507] [Canadian Standards Association (CSA)] [European Union (EU)]. Dryers shall bear [UL] [CSA] [EU] labels.

******* Hand dryers in public facilities should be installed to accommodate persons with disabilities. Mounting height and projection of dryer into circulation spaces are factors to consider. Barrier-free regulations may vary depending on project location. Surface mounted Dualflow Hand Dryers project 7-1/2 inches (190.5 mm) from wall and will require placement outside circulation spaces to comply with current ADA requirements. *******

- B. Hand dryers shall be provided and installed in compliance with ADA and ICC/ANSI A117.1.

1.5 WARRANTY

- A. Provide under provisions of Section 01 78 00 - Closeout Submittals: 5-year warranty for electric hand dryers to cover defects in material and workmanship.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01 25 13 - Product Substitution Procedures.



2.2 ELECTRIC HAND DRYER

******* Saniflow Corp. manufactures the following three models of Dualflow Hand Dryer. They vary in finish. All models have similar performance characteristics, size, attributes, and have automatic method of operation.**

M08A: White finish.

M08AC: Bright finish.

M08ACS: Satin finish.

Edit the following paragraph to indicate selected model number. *****

- A. Type: Warm air, high speed, rapid drying, surface-mounted, UL-compliant, electric hand dryers that are activated by putting hands within the unit. They automatically turn off after hands are removed; Dualflow Hand Dryer Model No. [M08A] [M08AC] [M08ACS] as manufactured by Mediclinics, S.A. and distributed by its subsidiary Saniflow Corporation.
- B. Characteristics:
1. Voltage: 110/120 volts.
 2. Frequency: 50/60 hertz.
 3. Heating element power: 1,750 watts.
 4. Power consumption: 15.9 amps.
 5. Air velocity: [11,000 linear feet per minute] [3,353 linear meters per minute].
 6. Electrical isolation: Class II, such that grounding is not required.
 7. Protection level: IP33.
- C. Overall dimensions: [11-3/4 inches wide by 24-1/4 inches high by 7-1/2 inches deep] [298 mm wide by 616 mm high by 190 mm deep].
- D. Weight: [21.1 pounds.] [9.6 kg.]
- E. Operation: 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.
1. Sensor shall have polycarbonate window.
 2. Dryer automatically turns off after 23 seconds of continuous operation or when hands are removed from drying cavity.

F. Performance requirements:

******* Drying time varies depending on air flow, velocity, and Project conditions. *******

1. Approximate hand drying time: 10 to 15 seconds.
2. Minimum air temperature at [70 degrees F] [21 degrees C] ambient temperature:
[104 degrees F] [40 degrees C].

******* Loudness of operating hand dryer is measured as sound pressure level (SPL), which is defined as the ratio of the generated sound to the threshold of hearing. SPL is measured in decibels (db). An SPL of 3 db is barely perceptible, face-to-face conversation is 60 db, and noise inside a speeding automobile is 80 db. A 10 db increase in SPL is perceived as a sound twice as loud. *******

3. Noise (sound pressure) level at [79 inches] [2007 mm]: 70 decibels maximum.

2.3 COMPONENTS

A. Cover: [1/8 inch] [3 mm] thick ABS plastic, U-shaped design.

1. Hygienic property: Cover shall be fabricated with antimicrobial agent embedded into key parts to permanently kill harmful airborne germs for life of unit; Microban as provided by Mediclinics, S.A. (Saniflow Corporation).

******* Dualflow Hand Dryers are provided with three different cover finishes. *******

2. Finish: [White] [Bright] [Satin].
3. Provide drying cavity with 300 separate air nozzles for distribution of warm air.

B. 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.

C. Motors: Two high speed universal brush type, F Class.

1. Motor power: 875 watts.
2. Revolutions per minute (RPM): 3,000 RPM.

D. Fan wheel: Aluminum centrifugal double asymmetric inlet scroll fan with thermal safety cut-off.

E. Sensor: Infrared detection sensor with polycarbonate viewing window.

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

***** **Dualflow Hand Dryers can be provided with optional odor mitigation tablets which neutralize toilet room odors. Include the following paragraph if this option is required.**

- G. Odor control: Provide dryer with replaceable odor mitigation tablets which neutralize toilet room odors.

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 specified in [Section 09 30 10 - Ceramic Tile.] [Section 09 91 00 - Painting.] [_____].

3.2 INSTALLATION

- A. Comply with manufacturer's written installation instructions and reviewed shop drawings.

***** **Recommended mounting height in facilities used by persons with physical disabilities is 32 inches (813 mm) and maximum mounting height to comply with ICC/ANSI A117.1 is 40 inches (1016 mm). Recommended height for adult usage is 38 to 40 inches (965 to 1016 mm). 30 to 36 inches (762 to 914 mm) heights are appropriate for children usage.** *****

- B. Mount dryers at [heights indicated on Drawings and reviewed shop drawings.] [the following heights above floor surface:]
1. Adult usage: [[_____] inches] [[_____] mm].
 2. Children usage: [[_____] inches] [[_____] mm].
 3. Use by persons with physical handicaps: [[_____] inches] [[_____] mm].

***** **Recommended spacing between hand dryers is 14 inches (356 mm). Recommended minimum distance from lavatory, vanity, or other adjacent wall mounted component to hand dryer is 16 inches (406 mm).** *****

- C. Space dryers as follows:
1. Minimum space between dryers: [14 inches] [356 mm] [_____].

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2. Minimum distance from adjacent wall mounted component: [16 inches] [406 mm] [_____].
- D. Install dryers securely to supporting substrate so that units are level and aligned with each other. Anchor with fasteners of type and size recommended by manufacturer for type of wall substrate.

3.3 CLEANING, TESTING, AND DEMONSTRATING

- A. Remove protective wrappings. 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.

END OF SECTION

