



SECTION 10811 [10 28 13]

ELECTRIC HAND DRYERS

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**** NOTE TO SPECIFIER ** Excel Dryer, Inc.; Electric Hand Dryers.**

This section is based on the products of Excel Dryer, Inc., which is located at:

357 Chestnut Street
P.O. Box 365
East Longmeadow, MA 01028
Tel: (413) 525-4531
Fax: (413) 525-2853
Email: sales@exceldryer.com
Web: www.exceldryer.com
[click Here] for additional information.

Excel Dryer manufactures the line of high efficiency XLERATOR® Hand Dryers for hygienic, cost-effective, sustainable, and touchless hand drying. The XLERATOR reduces facilities hand drying expenses by 95% versus paper towels, while eliminating their labor, maintenance, and waste. Combined with the most options and complete line of accessories including a HEPA Filtration System proven to remove 99.999% of viruses from the airstream.

Excel has long been a leader in the industry accomplishing many firsts, starting with establishing the high-speed, energy-efficient category for hand dryers. They manufacture the first and only hand dryer that is Made in the USA Certified® which contributes to their vision of being a U.S. manufacturer that is recognized as the number one innovator and producer of the world's best hand dryers, designed to provide the ultimate user experience, minimize environmental impact, and optimize personal hygiene, health and safety.

Excel has published the first global PCR for the hand dryer category along with independently verified Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs) to support transparency efforts. Excel continues to be innovative by pioneering the integrated sink category by unveiling the D|13 Sink System, which features the state-of-the-art XLERATORsync® Hand Dryer. During the COVID-19 pandemic, Excel introduced the XLERATOR® Hand Dryer Mobile Hand Hygiene Station to help support front-line health workers at mobile or “pop-up” facilities. Excel looks forward to the future to keep making advancements in the industry.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER ** Delete items below not required for project.**

- A. High Efficiency XL Series Heated Air Electric Hand Dryer
- B. High Efficiency XL Series Non-Heated Electric Air Hand Dryer
- C. High Efficiency Surface Mounted ADA Compliant Electric Hand Dryer

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 06100 - Rough Carpentry: Blocking in stud partitions for mounting hand dryers.
- B. Section 16100 – Low-Voltage Electrical Power Conductors and Cables: Low voltage electrical supply, conduit, wiring, boxes, and wiring devices for hand dryers.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. ICC/ANSI A117.1 - American National Standard for Accessible and Useable Buildings and Facilities; 2017.
- B. UL, LLC / UL Environment - Product Category Rules (PCR) for Hand Dryers, 2016.
- C. U.S. Green Building Council, LEED Building Design and Construction (BD+C) Version 4.0 Rating System. (LEED v4.0)
- D. ISO 14025 – Environmental Labels and Declarations.
- E. EN 15804 – Environmental Labels and Declarations.
- F. UL, LLC / UL Environment - Product Category Rules (PCR) for Hand Dryers, 2016.
- G. UL, LLC / UL Environment - Product Category Rules (PCR) for Hand Dryers, 2016.
- H. ASTM F2100-20 Standard Specification for Performance of Materials Used in Medical Face Masks.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300 [01 33 26] - Submittal Procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Operating instructions and performance.
 - 3. Storage and handling requirements and recommendations.
 - 4. Electrical wiring diagrams
 - 5. Installation methods.

- C. Shop Drawings: Shop Drawings showing dimensions, method of attachment, and required support

**** NOTE TO SPECIFIER ** Applies to XLERATOR Hand Dryer, XLERATOReco Hand Dryer and ThinAir Hand Dryer. Select one of the following LEED Category paragraphs as applicable if LEED is required. Delete if not required. Contact the Manufacturer for additional information.**

- D. LEED Submittals: Provide Product Data for Credit IEQ 4.1, LEED-NC, LEED-CI, and LEED-CS; coordinate with requirements for air dryers.
1. LEED v4 BD+C: For new construction or major renovations. Includes: Schools, Retail, Hospitality, Data Centers, Warehouses & Distribution Centers and Healthcare:
 - a. EA Prerequisite Minimum Energy Performance.
 - b. EA Credit Optimize Energy Performance
 - c. MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations (EPD)
 - d. MR Credit Building Product Disclosures and Optimization – Sourcing of Raw Material
 - e. MR Credit Building Product Disclosures and Optimization – Material Ingredients Innovation
 2. LEED v4 BD+C: Schools, Retail, Healthcare, Data Centers, Hospitality, Warehouses and Distribution Centers, Multifamily Midrise
 - a. EA Prerequisite Minimum Energy Performance.
 - b. EA Credit Optimize Energy Performance
 - c. MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations (EPD)
 - d. MR Credit Building Product Disclosures and Optimization – Sourcing of Raw Material
 - e. MR Credit Building Product Disclosures and Optimization – Material Ingredients Innovation
 3. LEED v4 ID+C For complete interior fit-out projects. Includes: Commercial Interiors including applications for Retail and Hospitality.
 - a. EA Prerequisite Minimum Energy Performance.
 - b. EA Credit Optimize Energy Performance
 - c. MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations (EPD)
 - d. MR Credit Building Product Disclosures and Optimization – Sourcing of Raw Material
 - e. MR Credit Building Product Disclosures and Optimization – Material Ingredients Innovation
 4. LEED v4 O+M Building Operations and Maintenance For existing buildings that are undergoing improvement work or little to no construction. Includes: O+M also includes applications for Schools, Retail, Hospitality, Data Centers, and Warehouses & Distribution Centers.
 - a. EA Prerequisite Minimum Energy Performance.
 - b. MR Prerequisite Ongoing Waste Policy
 - c. MR Prerequisite Ongoing Waste Management
 - d. MR Prerequisite Green Cleaning Policy
 - e. MR Prerequisite Green Cleaning Custodial Effectiveness Assessment
 5. LEED v4 ND: Neighborhood Development For new land development projects or redevelopment projects containing residential uses, nonresidential uses, or a mix.
 - a. Green Infrastructure and Building Energy Performance, Plan and Project
 - b. Green Infrastructure and Building Optimize Energy Performance, Plan and Project

**** NOTE TO SPECIFIER ** EPD applies to and is available for all products specified. Delete if not applicable.**

- E. Environmental applicable Product Declaration:
 - 1. Provide Environmental Product Declaration (EPD) conforming to ISO 14025 and EN 15804 with content declarations for each product.

**** NOTE TO SPECIFIER ** HPD applies to and is available for all products specified except products with painted and chrome covers. Delete if not applicable.**

- F. Health Product Declaration:
 - 1. Provide applicable Health Product Declaration (HPD) with content inventory for each product.
- G. Warranty for review by Architect.
- H. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing electric hand dryers with 10 years minimum experience.
- B. Installer Qualifications: Obtain all electric hand dryers from a single source and from single manufacturer.

**** NOTE TO SPECIFIER ** CE or CSA certifications for export applications may apply for non-US applications.**

- C. Equipment certified by Underwriters Laboratory, Inc., with UL and ULC labels.

**** NOTE TO SPECIFIER ** Barrier free requirements will depend on type of project and local jurisdiction. Edit and include the following paragraph if toilet rooms and installation of hand dryers need to accommodate persons with physical disabilities.**

- D. Comply with ICC/ANSI A117.1.

1.6 WARRANTY

- A. Provide manufacturer's standard limited warranty for product specified.

**** NOTE TO SPECIFIER ** Select one of the following two paragraphs as applicable. XLERATOR, XLERATOReco, and XLERATORsync all have a 7 year warranty. ThinAir has a 5 year warranty.**

- 1. Warranty Period of 7 years following date of Substantial Completion.
- 2. Warranty Period 5 years following date of Substantial Completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Excel Dryer Inc., which is located at: 357 Chestnut St. P. O. Box 365; East Longmeadow, MA 01028. ASD. Tel: 413-525-4531; Fax: 413-525-2853; Email: sales@exceldryer.com; Web: www.exceldryer.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01600 [01 62 00].

2.2 PERFORMANCE

**** NOTE TO SPECIFIER ** Include the following paragraph for XLERATOR High Efficiency Heated Air Hand Dryer only. Delete if not applicable.**

- A. UL Product Category Rule (PCR) Tested:
 - 1. XLERATOR Hand Dryer (120V Model)
 - a. Dry Time: Not greater than 8 seconds.
 - b. Energy per Use: Not greater than 3.7 W-h (13.32 J).
 - 2. XLERATOR Hand Dryer (230V Model)
 - a. Dry Time: Not greater than 7 seconds.
 - b. Energy per Use: Not greater than 3.2 W-h (11.48 J).
 - 3. XLERATOReco Hand Dryer (120V Model)
 - a. Dry Time: Not greater than 10 seconds
 - b. Energy Per Use: Not greater than 1.7 Wh (6.12 J)
 - 4. XLERATOReco Hand Dryer (230V Model)
 - a. Dry Time: Not greater than 9 seconds
 - b. Energy Per Use: Not greater than 1.4 Wh (5.12 J)
 - 5. ThinAir Hand Dryer (120V Model)
 - a. Dry Time: Not greater than 14 seconds
 - b. Energy Per Use: Not greater than 3.7 Wh (13.32 J)
 - 6. ThinAir Hand Dryer (230V Model)
 - a. Dry Time: Not greater than 13 seconds
 - b. Energy Per Use: Not greater than 3.5 Wh (12.37 J)
- B. Electrical Components: Listed and labeled per NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

**** NOTE TO SPECIFIER ** CE or CSA certifications for export applications may apply for non-US applications.**

- C. Certification: Products certified by Underwriters Laboratory, Inc., with UL and ULC labels.
- D. Accessibility Requirements: Comply with requirements of ADA/ABA and accessibility requirements of authorities having jurisdiction.
 - 1. Comply with ICC/ANSI A117.1.

**** NOTE TO SPECIFIER ** Coordinate the following paragraph with Part 1 submittal requirements for sustainable design transparency requirements.**

- E. Environmental and Health Disclosure: Building products used in this section will be required to disclose their environmental and health impacts by providing the following sources of information.
 - 1. Environmental Product Declarations

**** NOTE TO SPECIFIER ** HPD applies to all products except products with painted and chrome covers. Delete if not applicable.**

- 2. Health Product Declarations (HPD): Documentation demonstrating the chemical inventory of the product to at least 0.1 percent (1000ppm)

**** NOTE TO SPECIFIER ** Select the Electric Hand Dryer Model(s) required from the following paragraphs and delete those not required.**

2.3 ELECTRIC HAND DRYERS

- A. High Efficiency Heated Air Hand Dryer: XLERATOR; Hand Dryer; High-speed, energy-efficient, rapid-drying heated electric hand dryer with automatic sensor, adjustable speed and sound control, and adjustable heat control. Hand Dryers have been independently tested to UL Environment Global Hand Dryer Product Category Rules (PCR), received Environmental Product Declarations (EPDs), and Health Product Declarations (HPDs), and Made in the USA Certified. Warranty 7 years limited.

**** NOTE TO SPECIFIER ** Select the Model and finish required from the following paragraphs and delete those not required.**

1. Model XL-BW:
 - a. Cover: Bulk Molding Composite (BMC)
 - b. Finish: White color
2. Model XL-W:
 - a. Cover: Zinc die cast
 - b. Finish: White painted
3. Model XL-GR:
 - a. Cover: Zinc die cast
 - b. Finish: Textured graphite painted
4. Model XL-C:
 - a. Cover: Zinc die cast
 - b. Finish: Chrome plated
5. Model XL-SB:
 - a. Cover: Stainless steel
 - b. Finish: Brushed Number 4 finish

NOTE TO SPECIFIER ** XL-SI dryer can be branded with your company logo, school colors, team mascots, green message or any other high resolution image. XL-SI Custom Special Image is a patented digital imaging technology that allows you to design your own digital artwork or develop the cover graphics with the help of our design team. A high resolution file ranging from 300 dpi up to 2,500 dpi is all that is needed. Special Image Logos may be processed on Stainless Steel covers at an additional charge.

6. Model XL-SI:
 - a. Cover: Zinc die cast
 - b. Cover: Custom special image

NOTE TO SPECIFIER ** XL-SP Custom Special Paint allows the Specifier to select an array of colors and textures for custom designed powder coated covers.

7. Model XL-SB-SI:
 - a. Cover: Stainless steel
 - b. Finish: Custom special image
8. Model XL-SP:
 - a. Cover: Zinc die cast
 - b. Finish: Custom special color painted
9. Options:

****NOTE TO SPECIFIER ** Select the following Optional HEPA Filtration System if required. Delete if not required.**

- a. HEPA Filtration System: Removes 99.999 percent of viral surrogate organisms of E.coli bacteriophage MS2 (ATCC 15597-B1) as tested using parts of ASTM F 2100 and ASTM F 2101

****NOTE TO SPECIFIER ** Use Optional Noise Reduction Nozzle if required. Delete if not required.**

- b. Noise Reduction Nozzle: Reduces air deflection noise level by 9 dB and increases the dry time by 2-3 seconds.

**** NOTE TO SPECIFIER ** Select mounting type required and delete the one not required.**

10. Mounting:
 - a. Surface Mounted

**** NOTE TO SPECIFIER ** Optional ADA compliant recess kit if required. Delete if not required. Kit adheres to ADA 4 inch protrusion requirements.**

- b. Recessed: ADA compliant recess kit is fabricated of 22 GA 18-8 type 304 stainless steel with #4 satin finish with 16 GA 18-8 type 304 stainless steel dryer mounting plate. All welded construction. 16-3/8 inches (416 mm) wide by 26 inches (660 mm) high by 3-3/8 inches (86 mm) deep.
11. Controls: Automatic, activated by infrared optical sensor located next to the air outlet. Dryer will operate if hands are under the air outlet and has a 35-second lockout feature if hands are not removed. Control includes adjustable sound and speed control mechanism, adjustable heat control with High, Medium, Low and Off settings and a filter sensor which is activated should the filter become clogged. Sensor equipped with externally visible Red LED light that flashes error codes to assist in troubleshooting. Control assembly sealed for protection against moisture, lint, dust, and vandalism.
12. Air Intake: Inlet openings on bottom of cover.
13. Air Outlet: Delivers focused air stream of 19,000 LFM at nozzle and 16,000 LFM at average hand position of 4 inches (102 mm) below air outlet.
14. PreFilter: Extends the lifespan and improves reliability. Reduces lint, dust and other airborne debris from entering the internal motor chamber. Filter sensor is activated if filter becomes clogged.
15. Nominal Size: 11-3/4 inches (298 mm) wide by 12-11/16 inches (322 mm) high by 6-11/16 inches (170 mm) deep.
16. Weight:

**** NOTE TO SPECIFIER ** Delete all but one of the following covers.**

- a. 17 pounds (7.7 kg) die cast cover.
- b. 16 pounds (7.2 kg) stainless cover.
- c. 15 pounds (6.8 kg) bulk molding composite cover.
17. Power Source:

**** NOTE TO SPECIFIER ** Delete all but one of the following power sources.**

- a. 110 - 120 Volts, 11.3 - 12.2 Amps, 50/60 Hz, 1213 - 1450 Watts.
- b. 208 - 240 Volts, 5.6 - 6.2 Amps, 50/60 Hz, 1135 - 1450 Watts.
- c. 208 - 277 Volts, 5.6 - 6.2 Amps, 50/60 Hz, 1135 - 1450 Watts.
- d. 230 Volts, 6.1 Amps, 50 Hz, 1400 Watts
18. Combination Motor and Blower: Series commutated, through-flow discharge, vacuum type; 5/8 HP, 24,000 RPM. Airflow rate: 20,000 linear feet per minute (101 meters per second) at air outlet, 17000 linear feet per minute (86) meters per second) at average hand position of 4 inches (102 mm) below air outlet. Includes a washable metal mesh filter for more reliable performance.
19. Heater: Nichrome wire element, mounted inside blower housing to be vandal resistant. Heater Safeguard: Automatic resetting thermostat to open when airflow is restricted and close when airflow is resumed.
20. Air Temperature: 130 degrees F (54 degrees C) measured at average hand position of 4 inches (102 mm) below air outlet. Air Heater Output: 970 watts.
21. All metal parts coated according to Underwriters Laboratories, Inc. requirements.
22. Mount at the following heights above floor surface:

**** NOTE TO SPECIFIER ** The following are typical mounting heights. Modify as required. Indicate mounting heights on Drawings or designate as part of Specification; do not indicate mounting heights in both Specifications and Drawings**

- a. Men's Toilets: 45 inches (1143 mm).
- b. Women's Toilets: 43 inches (1092 mm).
- c. Teenagers' Toilets: 41 inches (1041 mm).
- d. Young Children's Toilets: 35 inches (889 mm).
- e. Toilets for Persons with Physical Disabilities: 37 inches (940 mm).
- f. Mount dryers at heights indicated on Drawings.

23. Optional Accessories:

**** NOTE TO SPECIFIER ** Select Wall Guard type if required. Delete if not required. Standard height and ADA height kits are available.**

- a. Anti-Microbial Wall Guards: Plastic Microban Anti-microbial Wall Guards 31-3/4 inches (806 mm) by 15-3/4 inches (400 mm) by 1/16 inch (1.5 mm) deep with 1/2 inch (13 mm) radius corners with double sided construction grade 3M adhesive tape on the mounting side.

**** NOTE TO SPECIFIER ** Select Anti-Microbial Wall Guards color required. Delete the one not required.**

- 1) White plastic.
- 2) Black plastic.

- b. Brushed Stainless Steel Wall Guards.

**** NOTE TO SPECIFIER ** Use Optional XChanger Combo kit if required. Delete if not required. Standard height and ADA height kits are available.**

- c. XChanger Combo Kit: Recessed Model #'s 40575 (Includes #40502 & 40550) & 40576 (Includes # 40502 & 40551) retrofit kit is fabricated of 18 GA 18-8 type 304 stainless steel with #4 satin finish. All welded construction. 17-1/4 inches (416 mm) high by 56 inches (660 mm) wide by 1 inch (25 mm) deep.

- B. High Efficiency Non-Heated Air Hand Dryer: XLERATOReco; High speed, rapid drying, energy, efficient electric hand dryer with adjustable automatic sensor, adjustable speed, sound controls; surface mounted or semi-recessed; entire dryer internally grounded. Hand Dryers have been independently tested to UL Environment Global Hand Dryer Product Category Rules (PCR) Guidelines. Made in the USA Certified. Warranty 7 years limited.

**** NOTE TO SPECIFIER ** Select the Model and finish required from the following paragraphs and delete those not required.**

1. Model XL-BW-ECO:
 - a. Cover: Bulk Molding Composite (BMC).
 - b. Finish: White color.
2. Model XL-W-ECO:
 - a. Cover: Zinc die cast.
 - b. Finish: White epoxy painted.
3. Model XL-GR-ECO:
 - a. Cover: Zinc die cast.
 - b. Finish: Textured graphite painted.
4. Model XL-C-ECO:
 - a. Cover: Zinc die cast.
 - b. Finish: Chrome plated.
5. Model XL-SB-ECO:
 - a. Cover: Stainless steel.
 - b. Finish: Brushed Number 4 finish.

NOTE TO SPECIFIER ** XL-SI Eco dryer can be branded with your company logo, school colors, team mascots, green message or any other high resolution image. XL-SI Custom Special Image is a patented digital imaging technology that allows you to design your own digital artwork or develop the cover graphics with the help of our design team. A high resolution file ranging from 300 dpi up to 2,500 dpi is all that is needed. Special Image Logos may be processed on Stainless Steel covers at an additional charge.

6. Model XL-SI-ECO:
 - a. Cover: Zinc die cast.
 - b. Cover: Custom special image.
7. Model XL-SB-SI-ECO:
 - a. Cover: Zinc die cast.
 - b. Cover: Custom special image.

NOTE TO SPECIFIER ** XL-SP Eco Custom Special Paint: Special Paint powder coated covers option allows the Specifier to select an array of colors and textures.

8. Model XL-SP-ECO:
 - a. Cover: Zinc die cast.
 - b. Finish: Custom special color painted.
9. Options:

****NOTE TO SPECIFIER ** Select the following Optional HEPA Filtration System if required. Delete if not required.**

- a. HEPA Filtration System: Removes 99.999 percent of viral surrogate organisms of E.coli bacteriophage MS2 (ATCC 15597-B1) as tested using parts of ASTM F 2100 and ASTM F 2101.

****NOTE TO SPECIFIER ** Use Optional Noise Reduction Nozzle if required. Delete if not required.**

- b. Noise Reduction Nozzle: Reduces air deflection noise level by 9 dB and increases the dry time by 2-3 seconds.

**** NOTE TO SPECIFIER ** Select mounting type required and delete the one not required.**

10. Mounting:
 - a. Surface Mounted.

**** NOTE TO SPECIFIER ** Optional ADA compliant recess kit if required. Delete if not required. Kit adheres to ADA 4 inch protrusion requirements.**

- b. Recessed: ADA compliant recess kit Model # 40502 is fabricated of 22 GA 18-8 type 304 stainless steel with #4 satin finish with 16 GA 18-8 type 304 stainless steel dryer mounting plate. All welded construction. 16-3/8 inches (416 mm) wide by 26 inches (660 mm) high by 3-3/8 inches (86 mm) deep.

11. Controls: Automatic, activated by infrared optical sensor located next to the air outlet. Dryer operates if hands are under the air outlet and has a 35-second lockout feature if hands are not removed. Control includes adjustable sound and speed control mechanism, and a filter sensor which is activated should the filter become clogged. Sensor equipped with externally visible Red LED light that flashes error codes to assist in troubleshooting. Control assembly sealed for protection against moisture, lint, dust, and vandalism.
12. All metal parts coated according to Underwriters Laboratories, Inc. requirements.
13. Air Intake: Inlet openings on bottom of cover.
14. Air Outlet: Provides air velocity of 20,000 LFM at the air outlet and 17,000 LFM at the hands, 4 inches (102 mm) below air outlet.
15. Nominal Size: 11-3/4 inches (298 mm) wide by 12-11/16 inches (322 mm) high by 6-11/16 inches (170 mm) deep.
16. Weight:

**** NOTE TO SPECIFIER ** Delete all but one of the following covers.**

- a. 17 pounds (7.7 kg) die cast cover.
- b. 16 pounds (7.2 kg) stainless cover.
- c. 15 pounds (6.8 kg) bulk molding composite.

17. Power Source:

**** NOTE TO SPECIFIER ** Delete all but one of the following power sources.**

- a. 110 - 120 Volts, 4.3 - 4.5 Amps, 50/60 Hz, 442 - 513 Watts..
- b. 208 - 240 Volts, 2.0 - 2.2 Amps, 50/60 Hz, 416 - 495 Watts
- c. 08 - 277 Volts, 2.0 - 2.2 Amps, 50/60 Hz, 416 - 495 Watts.
- d. 230 Volts, 2.2 Amps, 50 Hz, 500 Watts.
18. Combination Motor and Blower: Series commutated, through-flow discharge, vacuum type; 5/8 HP, 20,000 RPM. Airflow rate: 19,000 linear feet per minute (97 meters per second) at air outlet, 16,000 linear feet per minute (81 meters per second) at average hand position of 4 inches (102 mm) below air outlet. Includes a washable metal mesh filter for more reliable performance.
19. Air Temperature: Ambient room temperature.

20. All metal parts coated according to Underwriters Laboratories, Inc. requirements.
21. Mount at the following heights above floor surface:

**** NOTE TO SPECIFIER ** The following are typical mounting heights. Modify as required. Indicate mounting heights on Drawings or designate as part of Specification; do not indicate mounting heights in both Specifications and Drawings**

- a. Men's Toilets: 45 inches (1143 mm).
- b. Women's Toilets: 43 inches (1092 mm).
- c. Teenagers' Toilets: 41 inches (1041 mm).
- d. Young Children's Toilets: 35 inches (889 mm).
- e. Toilets for Persons with Physical Disabilities: 37 inches (940 mm).
- f. Mount dryers at heights indicated on Drawings.

22. Optional Accessories:

**** NOTE TO SPECIFIER ** Select Wall Guard type if required. Delete if not required. Standard height and ADA height kits are available.**

- a. Anti-Microbial Wall Guards: Plastic Microban Anti-microbial Wall Guards 31-3/4 inches (806 mm) by 15-3/4 inches (400 mm) by 1/16 inch (1.5 mm) deep with 1/2 inch (13 mm) radius corners with double sided construction grade 3M adhesive tape on the mounting side.

**** NOTE TO SPECIFIER ** Select Anti-Microbial Wall Guards color required. Delete the one not required.**

- 1) White plastic. (2 per set)
- 2) Black plastic. (2 per set)
- b. Brushed Stainless Steel Wall Guards. (2 per set)

**** NOTE TO SPECIFIER ** Use Optional XChanger Combo kit if required. Delete if not required. Standard height and ADA height kits are available.**

- c. XChanger Combo Kit: Recessed Model #'s 40575 (Includes #40502 & 40550) & 40576 (Includes # 40502 & 40551) retrofit kit is fabricated of 18 GA 18-8 type 304 stainless steel with #4 satin finish. All welded construction. 17-1/4 inches (416 mm) high by 56 inches (660 mm) wide by 1 inch (25 mm) deep.

- C. High Efficiency Surface Mounted ADA Compliant Hand Dryer: ThinAir; High speed, energy efficient, rapid drying, automatic sensor, surface mounted, ADA Compliant, adjustable speed and sound control, adjustable heat control, electric hand dryer; entire dryer internally grounded. Hand Dryers have been independently tested to UL Environment Global Hand Dryer Product Category Rules (PCR) Guidelines. Made in the USA Certified. Warranty 5 years limited.

**** NOTE TO SPECIFIER ** Select the Model and finish required from the following paragraphs and delete the those not required.**

1. Model TA-ABS:
 - a. Cover: ABS – White polymer with SanaFor antimicrobial additive.
 - b. Finish: White Polymer.
2. Model TA-W:
 - a. Cover: Stainless steel.
 - b. Finish: White epoxy painted.
3. Model TA-GR:
 - a. Cover: Stainless steel.
 - b. Finish: Textured graphite painted.
4. Model TA-SB:
 - a. Cover: Stainless steel.
 - b. Finish: Brushed Number 4 finish.
5. Model TA-SI:
 - a. Cover: Stainless steel.
 - b. Finish: Custom special image.
6. TA-SB-SI

- a. Cover: Stainless steel.
- b. Finish: Custom special image.
- 7. TA-SP
 - a. Cover: Stainless steel
 - b. Finish: Custom special color painted
- 8. Options:

****NOTE TO SPECIFIER ** Select the following Optional HEPA Filtration System if required. Delete if not required.**

- a. HEPA Filtration System: Removes 99.999 percent of viral surrogate organisms of E.coli bacteriophage MS2 (ATCC 15597-B1) as tested using parts of ASTM F 2100 and ASTM F 2101.
- 9. Mounting: Surface Mounted (ADA Complaint).
- 10. Controls: Automatic, activated by infrared optical sensor located next to the air outlet. Dryer will operate as long as hands are under the air outlet and has a 35-second lockout feature if hands are not removed. Control includes adjustable sound and speed control mechanism, adjustable heat control with High, Medium, Low and Off settings. Sensor equipped with externally visible Red LED light that flashes error codes to assist in troubleshooting. Control assembly sealed for protection against moisture, lint, dust and vandalism.
- 11. Air Intake: Inlet openings on bottom of cover.
- 12. Air Outlet: Air baffle; designed to keep foreign objects out of dryer.
- 13. Nominal Size: 9-5/32 inches (2336 mm) wide by 13-15/16 inches (3548 mm) high by 4 inches (102 mm) deep.
- 14. Weight:

**** NOTE TO SPECIFIER ** Select the Model required from the following paragraphs and delete the one not required.**

- a. 8 pounds (3.6 kg) ABS cover.
- b. 10 pounds (4.5 kg) Stainless Steel cover.
- 15. Power Source:

**** NOTE TO SPECIFIER ** Delete all but one of the following power sources.**

- a. 110 - 120 Volts, 7 - 7.7 Amps, 50/60 Hz, 770 - 915 Watts.
- b. 208 - 240 Volts, 3.8-4.1 Amps, 50/60 Hz, 750 - 950 Watts
- c. 208 - 277 Volts, 3.8-4.1 Amps, 50/60 Hz, 750 - 950 Watts
- d. 230 Volts, 3.9 Amps, 50 Hz, 890 Watts.
- 16. Motor: Thermally protected, series commutated, through-flow discharge vacuum motor/blower (1/2 hp / high-30,000 rpm, low-20,000 rpm) which provides air velocity of up to 16,000 LFM (linear feet per minute) at the air outlet and 7,000 LFM at the hands (4 inches [102 mm] below the air outlet).
- 17. Heater: Nichrome wire element, mounted inside blower housing to be vandal resistant. Heater Safeguard: Automatic resetting thermostat to open when airflow is restricted and close when airflow is resumed.
 - a. Air Temperature: 135 degrees F (57 degrees C) average at outlet.
- 18. All metal parts coated according to Underwriters Laboratories, Inc. requirements.
- 19. Mount at the following heights above floor surface:

**** NOTE TO SPECIFIER ** The following are typical mounting heights. Modify as required. Indicate mounting heights on Drawings or designate as part of Specification; do not indicate mounting heights in both Specifications and Drawings**

- a. Men's Toilets: 45 inches (1143 mm).
- b. Women's Toilets: 43 inches (1092 mm).
- c. Teenagers' Toilets: 41 inches (1041 mm).
- d. Young Children's Toilets: 35 inches (889 mm).
- e. Toilets for Persons with Physical Disabilities: 37 inches (940 mm).
- f. Mount dryers at heights indicated on Drawings.
- 20. Optional Accessories:

**** NOTE TO SPECIFIER ** Select Wall Guard type if required. Delete if not required. Standard height and ADA height kits are available.**

- a. Anti-Microbial Wall Guards: Plastic Microban Anti-microbial Wall Guards 31-3/4 inches (806 mm) by 15-3/4 inches (400 mm) by 1/16 inch (1.5 mm) deep with 1/2 inch (13 mm) radius corners with double sided construction grade 3M adhesive tape on the mounting side.

**** NOTE TO SPECIFIER ** Select Anti-Microbial Wall Guards color required. Delete the one not required.**

- 1) White plastic. (2 per set)
- 2) Black plastic. (2 per set)
- b. Brushed stainless steel. (2 per set)

PART 3 EXECUTION

3.1 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.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Coordinate requirements for blocking to ensure adequate means for support and installation of hand dryers.
- D. Coordinate requirements for power supply, conduit, disconnect switches and wiring.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

**** NOTE TO SPECIFIER ** Accessible layout for persons with physical disabilities must ensure a minimum clear floor space of 30 inches by 48 inches (762 mm by 1219 mm) in front of or parallel to hand dryers. A portion of the hand dryer may project into this clear space if there is a 29 inches (737 mm) minimum knee and toe space beneath the hand dryer; recommended to install at least one hand dryer for persons with physical disabilities in multiple hand dryer installations.**

- B. Install dryers at specified heights.
- C. Install dryers securely to supporting substrate so that fixtures are level and aligned with each other. Use type and length of fastener as recommended by manufacturer for type of substrate.

3.4 PROTECTION

- A. Inspect installation to verify secure and proper mounting. Test each dryer to verify operation, control functions, and performance. Correct deficiencies.
- B. Protect installed products until completion of project.

C. Replace damaged products before Substantial Completion.

END OF SECTION