STANLEY Access Technologies

PROCARE™ 8300A SERIES

SINGLE SLIDE TRACKLESS, AUTOMATIC

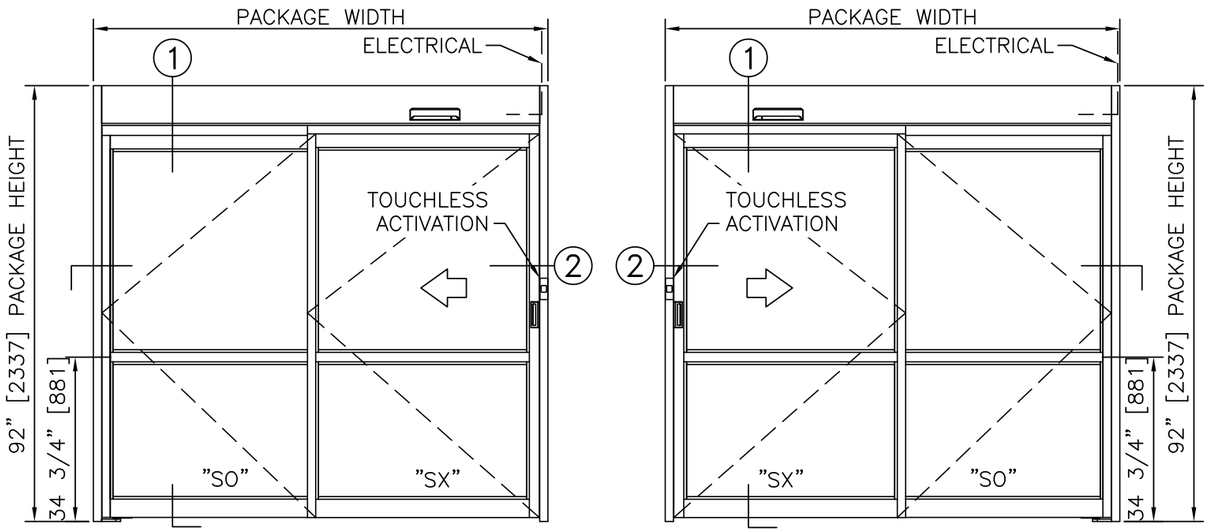
PROJECT INFORMATION

PROJECT NAME:

LOCATION:

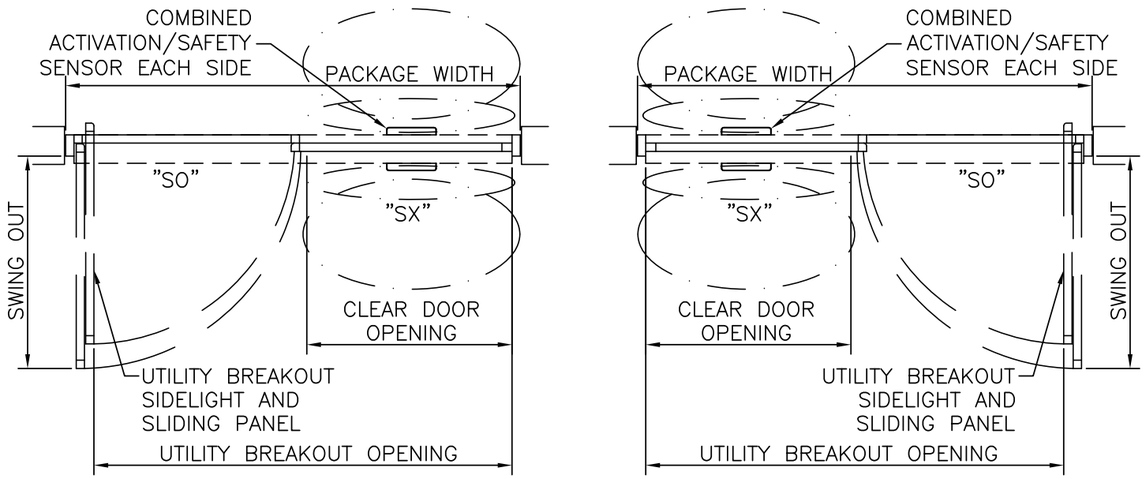
DOOR NUMBER(S):

DATE: SHEET: OF



ELEVATION VIEW

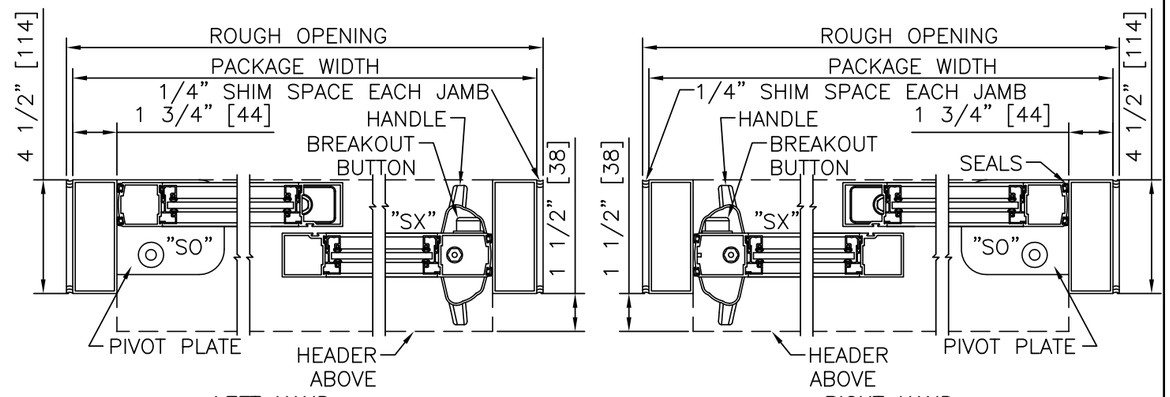
SCALE: 3/8" = 1'–0"



PLAN VIEW

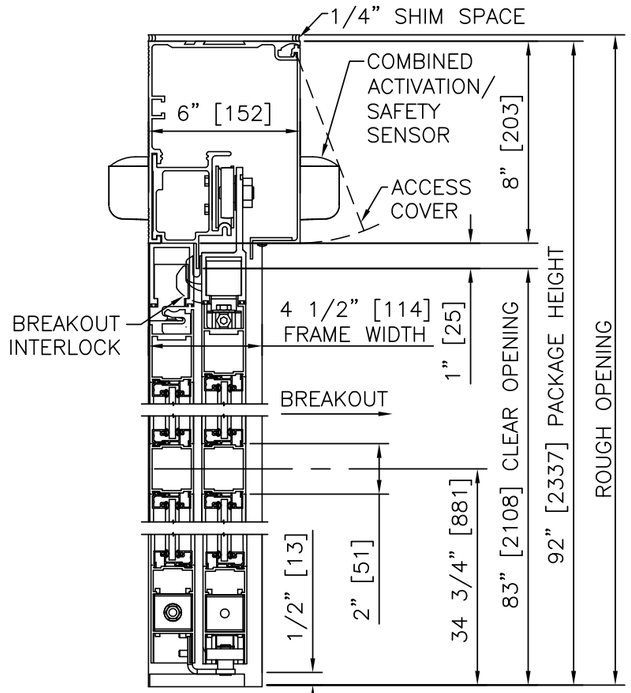
SCALE: 3/8" = 1'–0"

NOTES
1. ELECTRICAL REQUIREMENTS: BY ELECTRICAL CONTRACTOR.
   120 VAC, 5 AMP MIN TO POWER OPERATOR
   CONTROL CIRCUIT FROM REMOTE ACTIVATION TO OPERATOR.
2. ROUGH OPENING SHALL PROVIDE 1/4"[6] SHIM SPACE ON SIDES AND TOP OF PACKAGE.
3. STANDARD PACKAGE EXCLUDES LATCHING OR LOCKING. POSITIVE LATCHING AND LOCKING SYSTEMS AVAILABLE; POSITIVE LATCHING INCLUDED ON LEAKAGE RATED ASSEMBLIES; SMOKE & DRAFT, AND ISOLATION PACKAGES.
4. STANDARD GLAZING STOPS FOR ALL PANELS ARE 1/4"[6]; 1/2"[13], 5/8"[16], AND 1"[25] AVAILABLE.
5. STANDARD STILES, BOTTOM RAILS AND MUNTINS SHOWN; BOTTOM RAILS TO 12"[305], AND 4 1/4"[108] MUNTINS AVAILABLE.
6. SLIDING PANELS MUST BE DRIVEN TO FULL OPEN POSITION AND ENGAGE FLOOR MOUNTED HINGE PINS PRIOR TO PANEL BREAKOUT.
7. LIMITS OF ACTIVATION AND SAFETY ZONES ARE FOR REFERENCE ONLY; SEE ANSI/BHMA A156.10 FOR DETAILED REQUIREMENT. SENSORS NOT REQUIRED WHEN INSTALLED TO OPERATE UNDER ANSI/BHMA A156.38 STANDARD.
8. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



② HORIZONTAL SECTION

SCALE: 2" = 1'–0"



① VERTICAL SECTION

SCALE: 2" = 1'–0"

TYPICAL PACKAGE DIMENSIONS					
PACKAGE WIDTH	NOMINAL CLEAR DOOR OPENING	SLIDING DOOR NOMINAL WIDTH	SIDELIGHT NOMINAL WIDTH	UTILITY BREAKOUT NOMINAL WIDTH	SWING OUT NOMINAL WIDTH
84" [2134]	37.3" [949]	42.7" [1086]	39.9" [1013]	76.3" [1937]	40.5" [1028]
96" [2438]	43.3" [1101]	48.7 [1238]	45.9" [1165]	88.3" [2242]	46.5" [1181]
108" [2743]	49.3" [1253]	54.7" [1391]	51.9" [1318]	100.3" [2546]	52.5" [1333]

PRODUCT OPTIONS

OPERATING STANDARD
- ☐ A156.10 ☐ A156.38

FINISH
- ☐ ANODIZED CLEAR CL2
- ☐ CUSTOM

LATCHING/LOCKING
- ☐ POSITIVE LATCH W/ ELECTRIC STRIKE
- ☐ 1–POINT LOCK ☐ LOCK INDICATOR

BOTTOM RAILS
- ☐ STANDARD 4"
- ☐ OPTIONAL 6" 8" 10" 12"

MUNTINS
- ☒ 2" ☐ 4 1/4"
- ☐ QUANTITY 0 1 2

ACTIVATION AND SAFETY
- ☒ COMBINED ACTIVATION/SAFETY SENSORS
- ☒ TOUCHLESS ACTIVATION

GLAZING
- ☐ TEMPERED GLASS
- ☐ PRIVACY GLASS BLINDS
- ☐ ELECTRIC PRIVACY GLASS

OTHER OPTIONS
- ☐ SMOKE & DRAFT CONTROL PACKAGE
- ☐ ISOLATION PACKAGE (+/– PRESSURE)
- ☐ ANTI–MICROBIAL COATING
  - ☐ TOUCH POINTS
  - ☐ PANELS, FRAME, HEADER
- ☐ STC PACKAGE

SINGLE SLIDE FORMULAS

PACKAGE WIDTH = 2 X CLEAR DOOR OPENING + 9.3"[236]
CLEAR DOOR OPENING = 1/2 PACKAGE WIDTH – 4.7"[118]
UTILITY BREAKOUT WIDTH = PACKAGE WIDTH – 7.7"[197]
SX DOOR PANEL WIDTH = 1/2 PACKAGE WIDTH + 0.7"[19]
SO DOOR PANEL WIDTH = 1/2 PACKAGE WIDTH – 2.1"[54]
SWING OUT WIDTH = SX PANEL WIDTH – 2.3"[57]

SINGLE SLIDE TRACKLESS, AUTOMATIC

PROCARE™ 8300A SERIES

STANLEY Access Technologies

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PROCARE™ 8300A SERIES

SINGLE SLIDE RIGHT HAND TRACKLESS, AUTOMATIC

PROJECT INFORMATION

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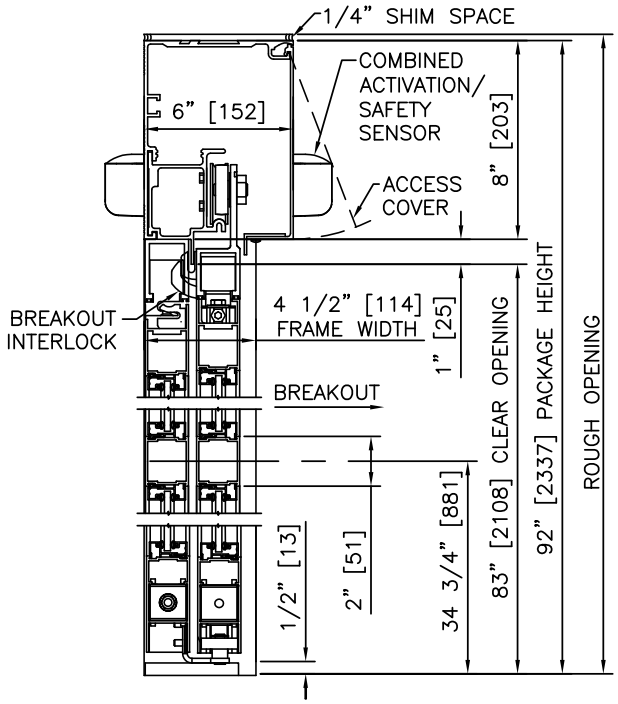
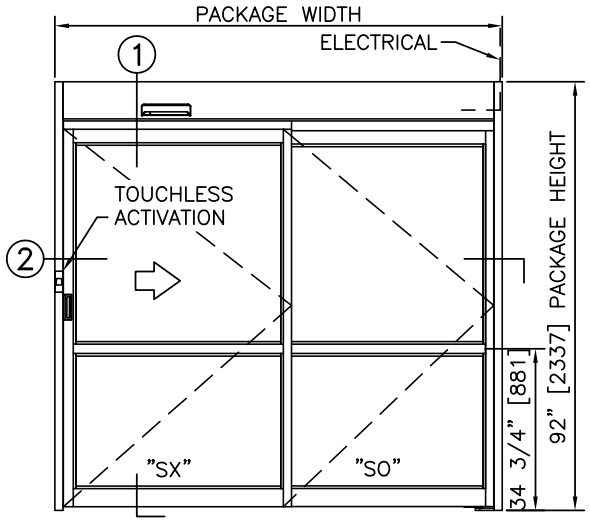
DOOR NUMBER(S):

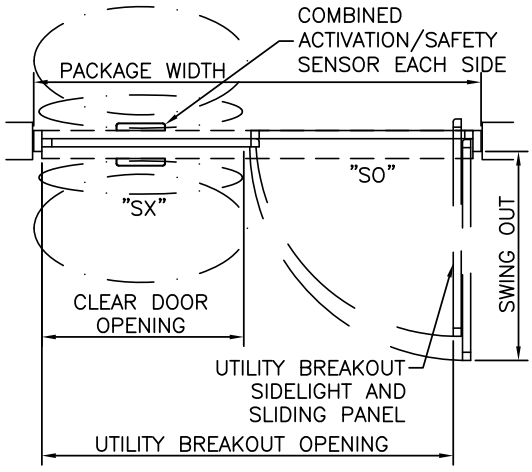
DATE: SHEET: OF



1 VERTICAL SECTION



ELEVATION



PLAN

NOTES

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2. ROUGH OPENING SHALL PROVIDE 1/4"[6] SHIM SPACE ON SIDES AND TOP OF PACKAGE.
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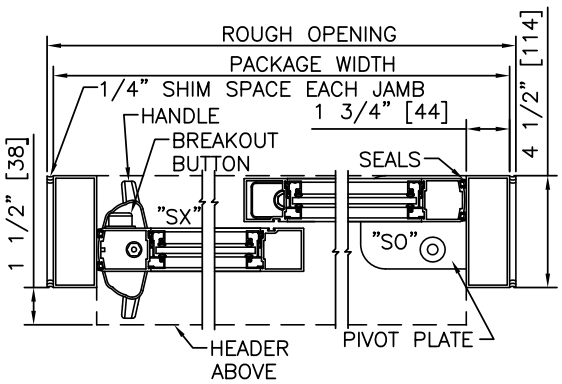
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



2 HORIZONTAL SECTION

TYPICAL PACKAGE DIMENSIONS					
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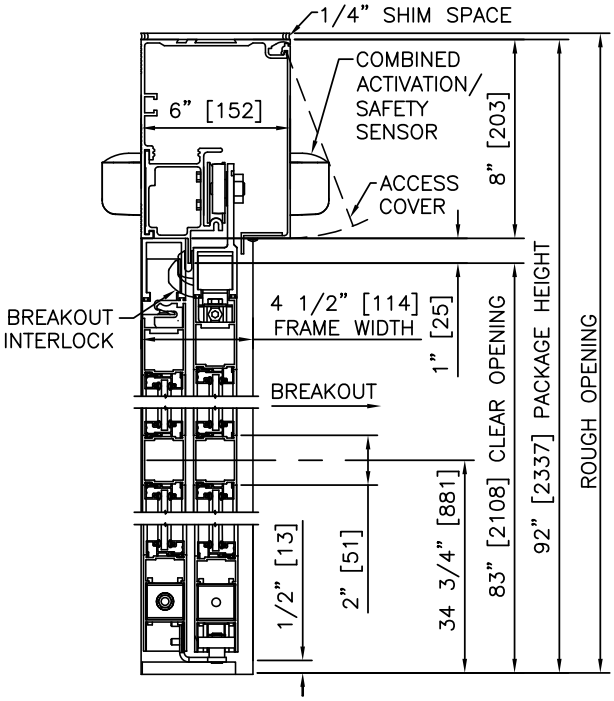
STANLEY Access Technologies

PROCARE™ 8300A SERIES

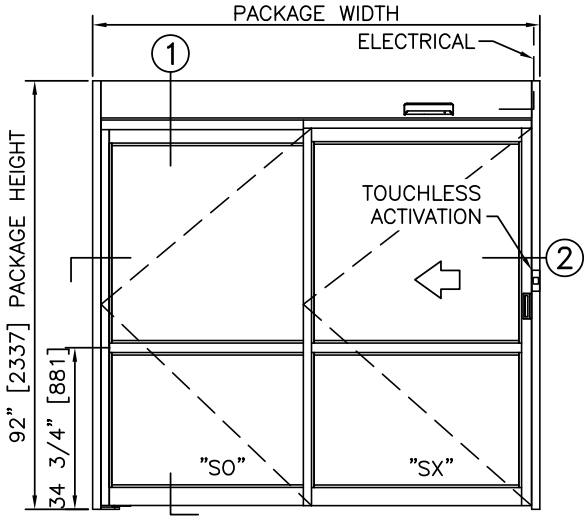
SINGLE SLIDE LEFT HAND TRACKLESS, AUTOMATIC

PROJECT INFORMATION

PROJECT NAME:	
LOCATION:	
DOOR NUMBER(S):	
DATE:	SHEET: OF



1 VERTICAL SECTION



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NOTES
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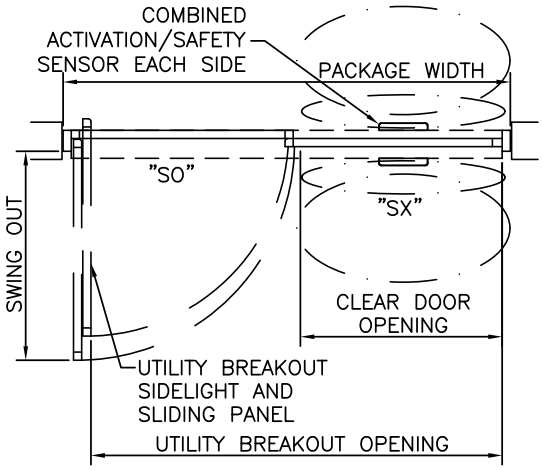
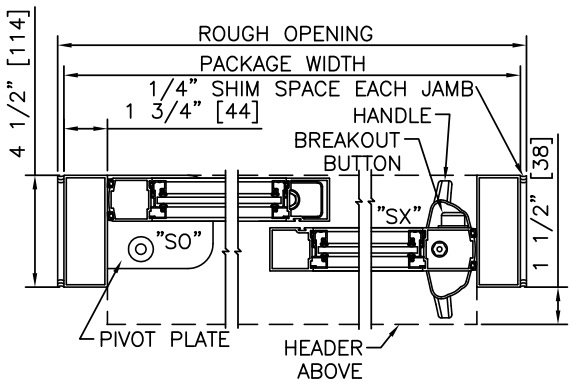


PLAN



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TYPICAL PACKAGE DIMENSIONS

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STANLEY Access Technologies

PROCARE™ 8300A SERIES

SINGLE SLIDE RIGHT HAND TRACKLESS, SMOKE & DRAFT, AUTOMATIC	
PROJECT INFORMATION	
PROJECT NAME:	
LOCATION:	
DOOR NUMBER(S):	
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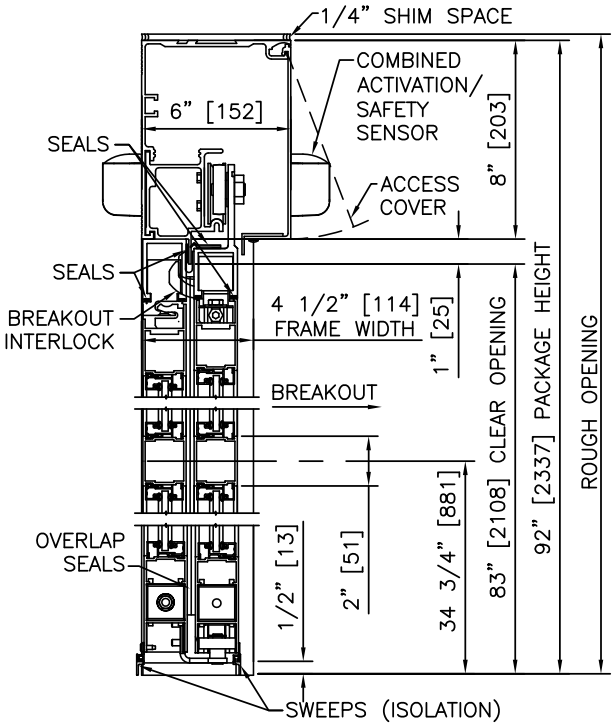
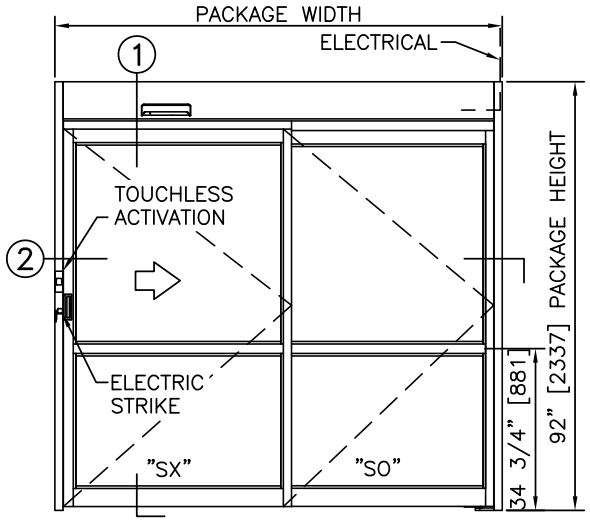


1 VERTICAL SECTION



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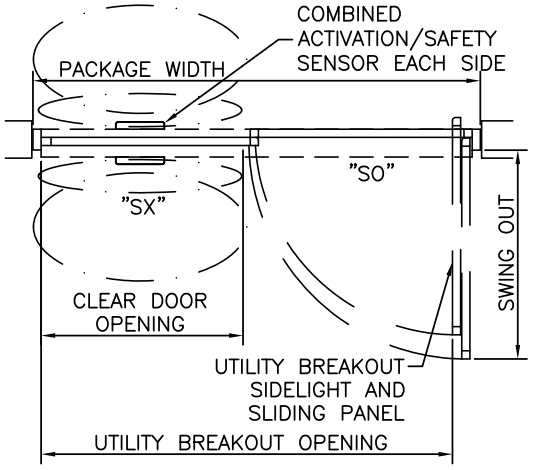
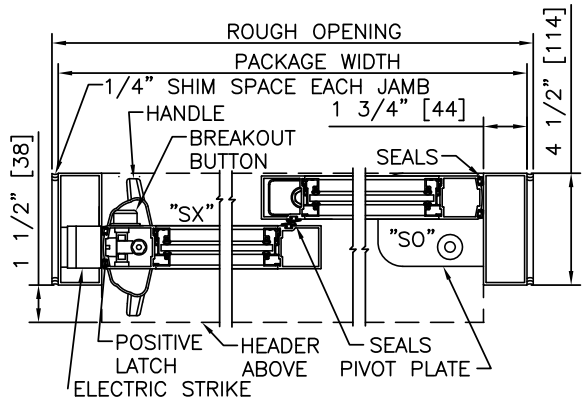
6. PRODUCT IS CERTIFIED AS AN EFFECTIVE BARRIER AGAINST THE PASSAGE OF SMOKE IN ACCORDANCE WITH UL1784 AND NFPA 105.
7. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



PLAN



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STANLEY Access Technologies

PROCARE™ 8300A SERIES

SINGLE SLIDE LEFT HAND TRACKLESS, SMOKE & DRAFT, AUTOMATIC

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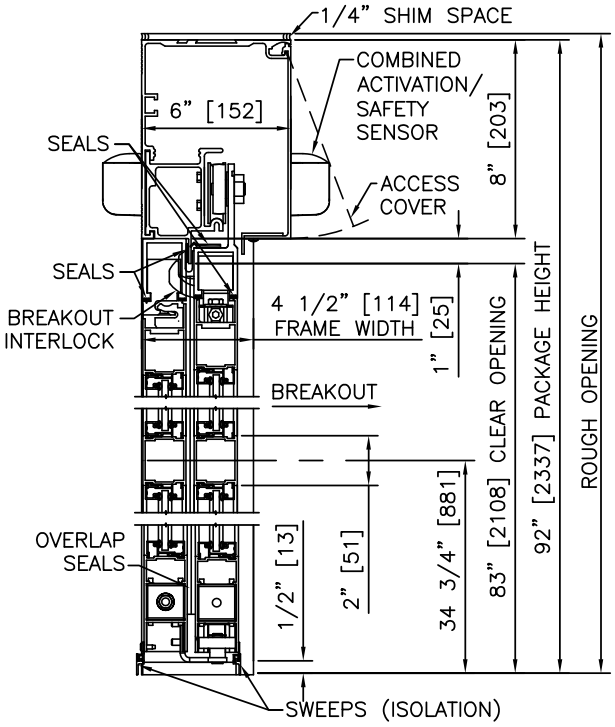
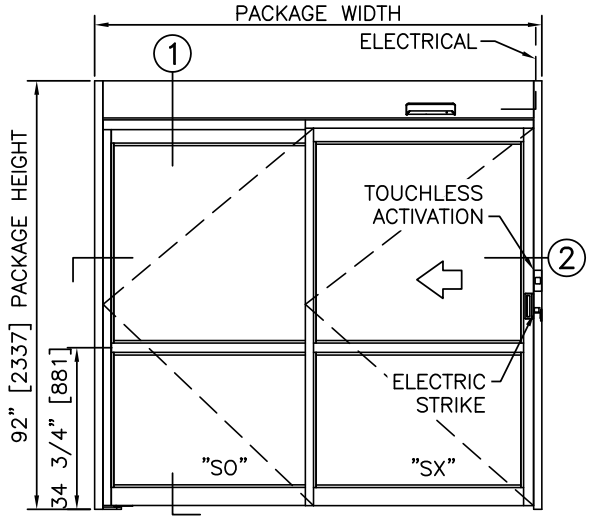


1 VERTICAL SECTION



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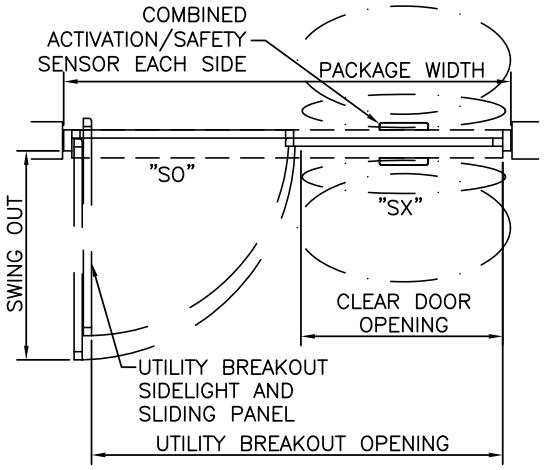
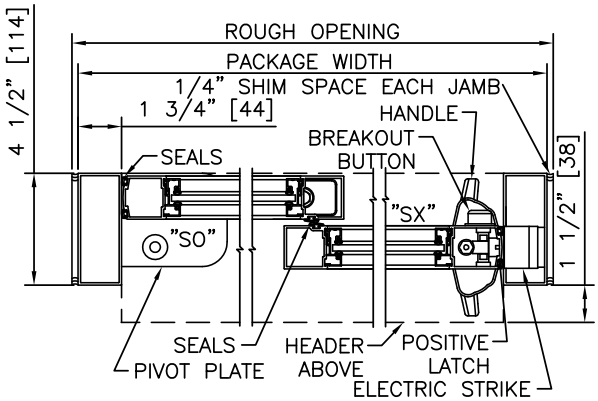


PLAN



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SECTION 08 42 43
INTENSIVE CARE UNIT/CRITICAL CARE UNIT ENTRANCES

Specifier Note: This specification document shall serve as a guide specification for typical projects where the Stanley Access Technologies ProCare 8300A Series automatic ICU/CCU entrance will be the basis of design. Specification must be reviewed for applicability on a per project basis. The specifier is directed to select appropriate options included herein. Consult with the local Access Technologies Territory Manager, when options, not specified, are required. See last page of this document for a summary of unspecified options.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following types of intensive care unit/critical care unit (ICU/CCU) entrances:
   1. Interior, single slide, automatic sliding ICU/CCU entrances; trackless.
   2. Entrances shall be rated as an effective barrier limiting the passage of smoke.

B. Related Sections:
   1. Division 7 Sections for caulking to the extent not specified in this section.
   2. Division 8 Section "Door Hardware" for hardware to the extent not specified in this Section.
   3. Division 8 Section Glazing for materials and installation requirements of glazing for ICU/CCU entrances.
   4. Division 26 Sections for electrical connections provided separately, including conduit and wiring, for power to automatic sliding ICU/CCU entrances.

1.3 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections throughout.
- **For “Full Energy”, fast moving door solutions, retain reference to ANSI/BHMA A156.10 below and retain “Combined Activation and Safety Sensors” in Part 2.**
- **For “Low Energy”, slow moving door solutions, retain reference to ANSI/BHMA A156.38 below and delete “Combined Activation and Safety Sensors” in Part 2.**

B. American National Standards Institute (ANSI) / Builders’ Hardware Manufacturers Association (BHMA):
   1. ANSI A117.1: Accessible and Usable Buildings and Facilities

2. [ANSI/BHMA A156.10: Standard for Power Operated Pedestrian Doors.]
3. [ANSI/BHMA A156.38: Standard for Low Energy Power Operated Sliding and Folding Doors.]

C. American Society for Testing and Materials (ASTM):
1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

D. American Association of Automatic Door Manufacturers (AAADM):

E. International Organization for Standardization (ISO):
1. ISO 9001 - Quality Management Systems

F. National Fire Protection Association (NFPA):
1. NFPA 70 – National Electric Code.
2. NFPA 105 – Standard for the Installation of Smoke Door Assemblies

G. National Association of Architectural Metal Manufacturers (NAAMM):
1. Metal Finishes Manual for Architectural and Metal Products.

H. American Architectural Manufacturers Association (AAMA):
1. AAMA 607.1 - Clear Anodic Finishes for Architectural Aluminum.
2. AAMA 701 Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.

I. Underwriters Laboratories UL:
1. UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.
2. UL 1784 – Air Leakage Tests for Door Assemblies

1.4 DEFINITIONS

A. Activation Device: Device that, when actuated, sends an electrical signal to the door operator to open the door.

B. Knowing act: Consciously initiating the opening of a power operated door using acceptable methods including wall mounted switches such as push plates and controlled access devices such as keypads, card readers and key switches.

C. Safety Device: Device that prevents a door from opening or closing, as appropriate.

1.5 PERFORMANCE REQUIREMENTS

A. General: Provide ICU/CCU entrances capable of withstanding structural loads and thermal movements based on testing manufacturer's standard units in assemblies similar to those indicated for this Project.

B. Operating Range: Minus 30 deg F (Minus 34 deg C) to 130 deg F (54 deg C).

C. Smoke and Draft Control: Provide smoke and draft control system on ICU/CCU entrances. Smoke and draft control system shall provide an effective barrier for limiting the passage of smoke. Smoke and draft control system shall comply with the following:
   1. Air Leakage Rates: The maximum air leakage rate for ICU/CCU entrances shall be as follows:
      a. Tested without artificial bottom seal, at 0.10 in water column (25 Pa), leakage shall be less than 2.5 $ft^3/min/ft^2$ (0.8 $m^3/min/m^2$) of framed opening at ambient temperature; and, less than 1.0 $ft^3/min/ft^2$ (0.3 $m^3/min/m^2$) of framed opening at elevated temperature.
      b. Tested with artificial bottom seal, at 0.30 in water column (75 Pa), leakage shall be less than 2.0 $ft^3/min/ft^2$ (0.6 $m^3/min/m^2$) of framed opening at ambient temperature; and, less than 1.0 $ft^3/min/ft^2$ (0.3 $m^3/min/m^2$) of framed opening at elevated temperature.
   2. Door shall be tested in accordance UL 1784.
   3. Installation shall be in accordance with NFPA 105.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain 30 lbf (133 N).**
- **For "Low Energy", slow moving door solutions, retain 15 lbf (67 N).**

D. Closing-Force Requirements: Not more than **[30 lbf (133 N)] [15 lbf (67 N)]** required to prevent door from closing.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain.**
- **For "Low Energy", slow moving door solutions, delete.**

E. [Sliding automatic entrances specified with automatic latching shall be designed to function as follows when set for automatic operation:
   1. Entrances shall be normally closed and latched by automatic latching system with motion activation system disabled.
   2. Upon signal from knowing act activation device, sliding automatic entrances will unlatch and open enabling motion activation system. Entrance will be held open as long as a pedestrian remains in the activation or safety zones.
   3. Once all activation and safety zones have cleared the entrance will close and re-latch, returning to normal state.]

1.6 SUBMITTALS

A. General: Submit the following in accordance with Conditions of the Contract and Division 1 Specification Sections.

B. Shop Drawings: Include plans, elevations, sections, details, hardware mounting heights, and attachments to other work.

C. Color Samples for selection of factory-applied color finishes.

D. Closeout Submittals:
   1. Owner's Manual.

2. Warranties.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative, with certificate issued by AAADM, who is trained for installation and maintenance of units required for this Project.

B. Manufacturer Qualifications: A qualified manufacturer with a manufacturing facility compliant with ISO 9001.

C. Manufacturer shall have in place a national service dispatch center providing 24 hours a day, 7 days a week, emergency call back service.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain ANSI/BHMA A156.10.**
- **For "Low Energy", slow moving door solutions, retain ANSI/BHMA A156.38.**

D. Certifications: Automatic ICU/CCU sliding door systems shall be certified by the manufacturer to meet performance design criteria in accordance with:
1. **[ANSI/BHMA A156.10] [ANSI/BHMA A156.38]**.
2. UL 325
3. UL 1784
4. NFPA 105

E. Source Limitations: Obtain ICU/CCU entrances through one source from a single manufacturer.

F. Product Options: Drawings indicate sizes, profiles, and dimensional requirements of ICU/CCU entrances and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

G. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.8 PROJECT CONDITIONS

A. Field Measurements: General Contractor shall verify openings to receive ICU/CCU entrances by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Mounting Surfaces: General Contractor shall verify all surfaces to be plumb, straight and secure; substrates to be of proper dimension and material.

C. Other trades: General Contract shall advise of any inadequate conditions or equipment.

1.9 COORDINATION

A. Templates: Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing ICU/CCU entrances to comply with indicated requirements.

B. Electrical System Roughing-in: Coordinate layout and installation of automatic entrance door assemblies with connections to power supplies.

1.10 WARRANTY

A. ICU/CCU entrances shall be free of defects in material and workmanship for a period of one (1) year from the date of substantial completion.

B. During the warranty period the Owner shall engage a factory-trained technician to perform service and affect repairs. A safety inspection shall be performed after each adjustment or repair and a completed inspection form shall be submitted to the Owner.

C. During the warranty period all warranty work, including but not limited to emergency service, shall be performed during normal working hours.

PART 2 - PRODUCTS

2.1 ICU/CCU ENTRANCES

A. Manufacturer: Stanley Access Technologies; ProCare™ 8300A Series automatic sliding ICU/CCU entrances.

2.2 MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
1. Headers, stiles, rails, and frames 6063-T6
2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
3. Sheet and Plate: ASTM B 209.

B. Sealants and Joint Fillers: Performed under Division 7 Section "Joint Sealants".

2.3 ICU/CCU ENTRANCE ASSEMBLIES

A. General: Provide manufacturer's standard ICU/CCU entrance assemblies including doors, sidelights, framing, headers, carrier assemblies, roller tracks, pivots, and accessories required for a complete installation.

B. ICU/CCU Entrances:
1. Configuration: One sliding panel and one full sidelight; single slide.
2. Traffic Pattern: Two-way providing 43 1/4 inch (1099 mm) clear sliding opening with an overall frame width of 96 inch (2438 mm).
3. Breakaway Capability: Sliding panels and sidelights, from fully open position.
4. Mounting: Between jambs.
5. Track: None, trackless.

2.4 COMPONENTS

A. Framing Members: Manufacturer's standard extruded aluminum reinforced as required to support imposed loads. Nominal size shall be 1 3/4 inch by 4 1/2 inch (44 mm by 115 mm).

Specifier Note: Modify paragraph below to suit project requirements.

- **Select "Bottom Rail Design"; 4 inch is standard.**
- **Select "Muntin Bars"; 2 inch is standard.**

B. Stile and Rail Doors and Sidelights: Manufacturer's standard 1 ¾ inch (45 mm) thick glazed doors with extruded-aluminum tubular stile and rail members. Incorporate concealed tie-rods that span full length of top and bottom rails.
   1. Glazing Stops and Gaskets: Snap-on, extruded-security aluminum stops and preformed gaskets.
   2. Stile Design: Narrow stile; up to 2 1/8 inch (54 mm) nominal width.
   3. Bottom Rail Design: Minimum **[4 inch (102 mm)] [6 inch (152 mm)] [8 inch (203 mm)] [10 inch (254 mm)] [12 inch (305 mm)]** nominal height.
   4. Muntin Bars: **[None.] [Horizontal tubular rail member for each door; [2 inch (51 mm)] [4 1/4 inch (108 mm)] nominal height.]**

Specifier Note: Modify paragraph below to suit project requirements. 1/4 inch Tempered glass is standard; privacy glazing with integral blinds is optional. Confirm total thickness of privacy glazing from supplier prior to specifying.

C. Glazing: Furnished under Division 8 Section Glazing. All Glazing furnished under separate section shall be **[1/4 inch (6 mm) tempered] [privacy glazing, [1 inch (25 mm)] [1 ¼ inch (32 mm)] insulated with integral blinds]**.

D. Headers: Fabricated from extruded aluminum and extending full width of automatic entrance door units to conceal door operators, carrier assemblies, and roller tracks. Provide hinged or removable access panels for service and adjustment of door operators and controls. Secure panels to prevent unauthorized access.
   1. Mounting: Concealed, with one side of header flush with framing.
   2. Capacity: Capable of supporting up to 220 lb (100 kg) per panel, up to four panels, over spans up to 14 feet (4.3 m) without intermediate supports.

E. Carrier Assemblies and Overhead Roller Tracks: Manufacturer's standard carrier assembly that allows vertical adjustment of at least 1/8 inch (3 mm); consisting of urethane with precision steel lubricated ball-bearing wheels, operating on a continuous roller track. Support panels from carrier assembly by load wheels and anti-rise mechanism with factory adjusted cantilever and pivot assembly. Minimum two ball-bearing load wheels for each active leaf. Minimum load wheel diameter shall be 2 1/2 inch (64 mm).

F. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

2.5 DOOR OPERATORS

A. General: Provide door operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, operation under normal traffic load for type of occupancy indicated.

B. Electromechanical Operators: Self-contained overhead unit powered by a minimum of 1/4 horsepower, permanent-magnet DC motor with gear reduction drive, microprocessor controller; and encoder.
   1. Operation: Power opening and power closing.
   2. Features:

a. Adjustable opening and closing speeds.
b. Adjustable open check and close check speeds.
c. Adjustable hold-open time between 0 and 30 seconds.
d. Obstruction recycle.
e. On/Off switch to control electric power to operator.
f. Energy conservation switch that reduces door-opening width.
g. Closed loop speed control with active braking and acceleration.
h. Adjustable obstruction recycle time delay.
i. Self-adjusting stop position.
j. Self-adjusting closing compression force.
k. Onboard sensor power supply.
l. Onboard sensor monitoring.
m. Optional Switch to open/Switch to close operation.
n. Fire alarm interface, configurable to safely open or close the entrance on signal from fire alarm system.
o. Adjustable assisted manual operation function, reducing the force required to manually open the entrance.

3. Mounting: Concealed.
4. Drive System: Synchronous belt type.

C. Electrical service to door operators shall be provided under Division 26 Electrical. Minimum service to be 120 VAC, 5 amps.

2.6 ELECTRICAL CONTROLS

A. Electrical Control System: Electrical control system shall include a microprocessor controller and a high-resolution position encoder. The encoder shall monitor revolutions of the operator shaft and send signals to microprocessor controller to define door position and speed.
1. The high-resolution encoder shall have a resolution of not less than 1024 counts per revolution. Systems utilizing external magnets and magnetic switches are not acceptable.
2. Electrical control system shall include a 24 VDC auxiliary output rated at 1 amp.

B. Performance Data: The microprocessor shall collect, and store performance data as follows:
1. Counter: A non-resettable counter to track operating cycles.
2. Event Reporting: Unit shall include non-volatile event and error recording including number of occurrences of events and errors, and cycle count of most recent events and errors.
3. LED Display: Display presenting the current operating state of the controller.

C. Controller Protection: The microprocessor controller shall incorporate the following features to ensure trouble free operation:
1. Automatic Reset Upon Power Up.
2. Main Fuse Protection.
3. Electronic Surge Protection.
4. Internal Power Supply Protection.
5. Resetable sensor supply fuse protection.
6. Motor Protection, over-current protection.

D. Soft Start/Stop: A “soft-start” “soft-stop” motor driving circuit shall be provided for smooth normal opening and recycling.

E. Obstruction Recycle: Provide system to recycle the sliding panels when an obstruction is encountered during the closing cycle. If an obstruction is detected, the system shall search for that object on the next closing cycle by reducing door closing speed prior to the previously encountered obstruction location, and will continue to close in check speed until doors are fully closed, at which time the doors will reset to normal speed. If obstruction is encountered again, the door will come to a full stop. The doors shall remain stopped until obstruction is removed and operate signal is given, resetting the door to normal operation.

F. Programmable Controller: Microprocessor controller shall be programmable and shall be designed for connection to a local configuration tool. Local configuration tool shall be a software driven handheld interface. The following parameters may be adjusted via the configuration tool.
1. Operating speeds and forces as required to meet specified ANSI/BHMA standard.
2. Adjustable and variable features as specified in 2.5, B., 2.
3. Reduced opening position.
4. Fail Safe/Secure control.
5. Firmware update.
6. Trouble Shooting
   a. I/O Status.
   b. Electrical component monitoring including parameter summary.
7. Software for local configuration tool shall be available as a free download from the ICU/CCU entrance manufacturer's internet site. Software shall be compatible with the Android® operating system platform.
8. Manual programming shall be available through local interface which has a two-digit display with a selection control including three push buttons.

2.7 ACTIVATION AND SAFETY DEVICES

A. Touchless Activation Switch: Where scheduled, provide touchless activation switches for primary activation of automatic sliding ICU/CCU entrances. Face plates shall be high impact polycarbonate, engraved with waving hand logo and "Wave To Open" text.
1. Switches shall be jamb style, 1 3/4 inch by 4 ½ inch (44 mm x 114 mm), frame mounted hardwired to door operator controls.
2. Units shall incorporate active infra-red to detect all motion in the detection zone. Detection zone shall be adjustable from 1 inch to 28 inch (25 mm to 711 mm).
3. Relay shall be rated at 3 A at 30 VAC/VDC.
4. Relay hold time adjustable from 3 to 30 sec.
5. Touchless activation switches shall be equal to or better than Camden Door Controls CM-331/41N.

Specifier Note: Delete for "Secure Access" applications; retain for all other applications.

B. Assisted Manual Operation: ICU/CCU entrances shall incorporate an assisted manual operation function that activates by manual sliding action of the door. When activated the force to manually open or close the door is reduced. The manual force is adjustable. If the manual force on the door is released, the sliding door shall come to a stop and remain stopped.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain "Combined Activation and Safety Sensors" and "Presence Sensor Monitoring".**

- **Delete for "Low Energy", slow moving door solutions.**

C. [Combined Activation and Safety Sensors: Combined activation and safety sensors shall, in a single housing, detect motion and presence in accordance with ANSI/BHMA A156.10. Motion shall be detected using K-band microwave technology, presence by active infrared reflection technology.

1. Mounting Height: Up to 11.5 feet (3.5 m) above finish floor
2. Temperature Range: Between -31°F and 131°F (-35°C to 55°C) in all environmental conditions
3. Relays: Form C, 50V at 0.3A for both activation and safety. Hold time of less than 0.5 seconds.
4. Detection Pattern: When detection is made in the activation zone, and the entrance opens, the safety zone shall extend through the threshold on each side; creating an X-pattern. When activation and safety zones are cleared and the entrance closes the sensor will ignore the X-pattern safety zones.
5. Sensor activation shall be secondary to all knowing act activation.
6. Combined motion and presence sensors shall be equal to or better than X-Zone Sensor by Optex.

D. Presence Sensor Monitoring: Sliding automatic entrances control system shall include a means to verify the functionality of all active presence sensors in accordance with ANSI/BHMA A156.10. A detected fault shall cause automatic operation to cease until the fault is corrected.]

2.8 HARDWARE

A. General: Provide units in sizes and types recommended by ICU/CCU entrance and hardware manufacturers for entrances and uses indicated.

B. Breakaway Feature: Provide release hardware that allows sliding panel and sidelight to swing out in direction of egress to full 90 degrees, only from the fully open position.
1. Latching system shall allow both panels to swing out after disengaging semi-automatic flush bolt from a single release point.
2. When returning panels from breakaway position, panels shall self-latch.

C. Positive Latch: Manufacturer's standard non-keyed, spring loaded, latch and strike that can secure sliding door panels to adjacent panels or jambs. Strike shall mount flush to surface of framing. Latch shall engage by closing action of door.
1. Dead latch hook bolt shall be concealed to prevent snagging.
2. Handle shall be circumferential design without exposed edges or open ends.
3. Handle action shall be linear, unlatching in the direction of slide.

D. Automatic Latching System: Provide automatic latching hardware on sliding automatic entrances as follows:
1. System shall include a fail-secure electric strike mounted in the jamb specifically designed for use with the specified positive latch.
2. The automatic sliding entrance(s) shall electrically latch in the closed position preventing door panels from sliding manually.
3. During a power interruption the positive latch can be disengaged allowing doors to slide manually.

E. Control Switch: Provide manufacturer's standard jamb mounted two-position rocker switch to allow for full control of the automatic entrance door.
   1. Automatic
   2. Manual

F. Power Switch: Sliding automatic entrances shall be equipped with a two position On/Off rocker switch to control power to the door.

G. Smoke Seal Components: Provide manufactures standard smoke and draft control components as required to meet performance specifications. Components included but are not limited to:
   1. High temperature seals.
   2. Stiles shall be slotted for seal mounting.

2.9 FABRICATION

A. General: Factory fabricate ICU/CCU entrance components to designs, sizes, and thickness indicated and to comply with indicated standards.
   1. Form aluminum shapes before finishing.
   2. Use concealed fasteners to greatest extent possible.
      a. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
      b. Reinforce members as required to receive fastener threads.

B. Framing: Provide ICU/CCU entrances as prefabricated assemblies.
   1. Fabricate tubular and channel frame assemblies with manufacturer's standard mechanical or welded joints. Provide sub-frames and reinforcement as required for a complete system to support required loads.
   2. Perform fabrication operations in manner that prevents damage to exposed finish surfaces.
   3. Form profiles that are sharp, straight, and free of defects or deformations.
   4. Prepare components to receive concealed fasteners and anchor and connection devices.
   5. Fabricate components with accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.

C. Doors: Factory fabricated and assembled in profiles indicated. Reinforce as required to support imposed loads and for installing hardware.

D. Glazing: Fabricate framing with minimum glazing edge clearances for thickness and type of glazing indicated.

E. Hardware: Factory install hardware to the greatest extent possible; remove only as required for final finishing operation and for delivery to and installation at Project site.

2.10 ALUMINUM FINISHES

A. General: Comply with NAAMM Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designing finishes. Finish designations prefixed by AA comply with system established by Aluminum Association for designing finishes.

B. Class II, Clear Anodic Finish: AA-M12C22A31 Mechanical Finish: as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.40 mils minimum complying with AAMA 611-98, and the following:

1. AAMA 607.1
2. Applicator must be fully compliant with all applicable environmental regulations and permits, including wastewater and heavy metal discharge.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine conditions for compliance with requirements for installation tolerances, header support, and other conditions affecting performance of ICU/CCU entrances. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Do not install damaged components. Fit frame joints to produce joints free of burrs and distortion. Rigidly secure non-movement joints.

B. Entrances: Install ICU/CCU entrances plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place.
1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
2. Set headers, carrier assemblies, tracks, operating brackets, and guides level and true to location with anchorage for permanent support.

C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 26 Sections.

D. Glazing: Performed under Division 8 Section "Glazing" in accordance with ICU/CCU entrance manufacturer’s instructions.

E. Sealants: Comply with requirements specified in Division7 Section "Joint Sealants".

3.3 FIELD QUALITY CONTROL

A. Testing Services: Factory Trained Installer shall test and inspect each ICU/CCU entrance to determine compliance of installed systems with applicable standards.

3.4 ADJUSTING

A. Adjust door operators, controls, and hardware for smooth and safe operation, for tight closure, and complying with requirements in the specified ANSI/BHMA standard.

3.5 CLEANING AND PROTECTION

A. Clean glass and aluminum surfaces promptly after installation. Remove excess glazing and sealant compounds, dirt, and other substances. Repair damaged finish to match original finish. Comply with requirements in Division 8 Section “Glazing”, for cleaning and maintaining glass.

END OF SECTION 08 42 43

Available options not specified in this document are summarized as follows:

1. Activation Options (Touchless activation specified): Any standard knowing act activation switch, including but not limited to, push plates, card readers, etc.
2. Finish (Class 2, Clear Anodized specified) options include:
    a. Standard color anodizing options.
    b. Multi-coat Fluoropolymer painted finishes.
3. Rail and muntin options for sliding and fixed door panels.
4. Glazing options (1/4" tempered specified) include:
    a. Support for installation of privacy glazing with integral blinds up to 1" thick.
    b. 1 ¼" thick privacy glazing solutions are supported with universal glass stops by privacy glazing manufacturer.
    c. Electric privacy glass.
5. Locking options (Positive Latch with Electric Strike specified);
    a. 1-Point lock.
        i. Standard: Keyed cylinder by Thumb Turn
        ii. Dummy cylinders optional
        iii. Lock positon indicator optional
6. Anti-Microbial coating on "Touch Points" or full package.
7. Package Types Available:
    a. Smoke & Draft Package, specified.
    b. Isolation Package (Pressure Control System).
    c. STC-Rated Package

Contact your local Stanley Access Technologies representative for more information on specifying the right sliding automatic entrance for your project.

These specifications represent a "sample" door configuration and depict design features that are commonly used. These specifications do not reflect "standard" features and are provided for informational purposes only. Please note that there is no standard "off the shelf" product. Stanley custom manufactures each product to its customers' specifications. It is the customer's responsibility to validate that a particular configuration of Stanley's products is suitable for a specific application. All specifications and designs contained herein are subject to change without notice or obligation.

SECTION 08 42 43
INTENSIVE CARE UNIT/CRITICAL CARE UNIT ENTRANCES

Specifier Note: This specification document shall serve as a guide specification for typical projects where the Stanley Access Technologies ProCare 8300A Clean Room Series automatic ICU/CCU entrance will be the basis of design. Specification must be reviewed for applicability on a per project basis. The specifier is directed to select appropriate options included herein. Consult with the local Access Technologies Territory Manager, when options, not specified, are required. See last page of this document for a summary of unspecified options.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following types of intensive care unit/critical care unit (ICU/CCU) entrances:
   1. Interior, single slide, automatic sliding ICU/CCU entrances; trackless.
   2. Entrances shall be rated as an effective barrier limiting the passage of smoke.
   3. Entrances shall be leakage rated, designed and tested for use in airborne infection isolation rooms.
   4. Entrances shall be certified for use in clean rooms.

B. Related Sections:
   1. Division 7 Sections for caulking to the extent not specified in this section.
   2. Division 8 Section "Door Hardware" for hardware to the extent not specified in this Section.
   3. Division 8 Section Glazing for materials and installation requirements of glazing for ICU/CCU entrances.
   4. Division 26 Sections for electrical connections provided separately, including conduit and wiring, for power to automatic sliding ICU/CCU entrances.

1.3 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections throughout.
- **For “Full Energy”, fast moving door solutions, retain reference to ANSI/BHMA A156.10 below and retain “Combined Activation and Safety Sensors” in Part 2.**
- **For “Low Energy”, slow moving door solutions, retain reference to ANSI/BHMA A156.38 below and delete “Combined Activation and Safety Sensors” in Part 2.**

B. American National Standards Institute (ANSI) / Builders' Hardware Manufacturers Association (BHMA):
   1. ANSI A117.1: Accessible and Usable Buildings and Facilities
   2. [ANSI/BHMA A156.10: Standard for Power Operated Pedestrian Doors.]
   3. [ANSI/BHMA A156.38: Standard for Low Energy Power Operated Sliding and Folding Doors.]

C. American Society for Testing and Materials (ASTM):
   1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
   2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

D. American Association of Automatic Door Manufacturers (AAADM):

E. International Organization for Standardization (ISO):
   1. ISO 9001 - Quality Management Systems
   2. ISO 14644-1 – Cleanrooms and Associated Controlled Environments — Part 1: Classification Of Air Cleanliness By Particle Concentration

F. National Fire Protection Association (NFPA):
   1. NFPA 70 – National Electric Code.
   2. NFPA 105 – Standard for the Installation of Smoke Door Assemblies

G. National Association of Architectural Metal Manufacturers (NAAMM):
   1. Metal Finishes Manual for Architectural and Metal Products.

H. American Architectural Manufacturers Association (AAMA):
   1. AAMA 607.1 - Clear Anodic Finishes for Architectural Aluminum.
   2. AAMA 701 Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.

I. Underwriters Laboratories UL:
   1. UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.
   2. UL 1784 – Air Leakage Tests for Door Assemblies

1.4 DEFINITIONS

A. Activation Device: Device that, when actuated, sends an electrical signal to the door operator to open the door.

B. Knowing act: Consciously initiating the opening of a power operated door using acceptable methods including wall mounted switches such as push plates and controlled access devices such as keypads, card readers and key switches.

C. Safety Device: Device that prevents a door from opening or closing, as appropriate.

1.5 PERFORMANCE REQUIREMENTS

A. General: Provide ICU/CCU entrances capable of withstanding structural loads and thermal movements based on testing manufacturer's standard units in assemblies similar to those

indicated for this Project.

B. Operating Range: Minus 30 deg F (Minus 34 deg C) to 130 deg F (54 deg C).

C. Smoke and Draft Control: Provide smoke and draft control system on ICU/CCU entrances. Smoke and draft control system shall provide an effective barrier for limiting the passage of smoke. Smoke and draft control system shall comply with the following:
   1. Air Leakage Rates: The maximum air leakage rate for ICU/CCU entrances shall be as follows:
      a. Tested without artificial bottom seal, at 0.10 in water column (25 Pa), leakage shall be less than 2.5 $ft^3/min/ft^2$ (0.8 $m^3/min/m^2$) of framed opening at ambient temperature; and, less than 1.0 $ft^3/min/ft^2$ (0.3 $m^3/min/m^2$) of framed opening at elevated temperature.
      b. Tested with artificial bottom seal, at 0.30 in water column (75 Pa), leakage shall be less than 2.0 $ft^3/min/ft^2$ (0.6 $m^3/min/m^2$) of framed opening at ambient temperature; and, less than 1.0 $ft^3/min/ft^2$ (0.3 $m^3/min/m^2$) of framed opening at elevated temperature.
   2. Door shall be tested in accordance UL 1784.
   3. Installation shall be in accordance with NFPA 105.

D. Sliding automatic entrances shall be certified for installation and operation in Class 4.5 clean rooms under ISO 14644-1.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain 30 lbf (133 N).**
- **For "Low Energy", slow moving door solutions, retain 15 lbf (67 N).**

E. Closing-Force Requirements: Not more than **[30 lbf (133 N)] [15 lbf (67 N)]** required to prevent door from closing.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain.**
- **For "Low Energy", slow moving door solutions, delete.**

F. [Sliding automatic entrances specified with automatic latching shall be designed to function as follows when set for automatic operation:
   1. Entrances shall be normally closed and latched by automatic latching system with motion activation system disabled.
   2. Upon signal from knowing act activation device, sliding automatic entrances will unlatch and open enabling motion activation system. Entrance will be held open as long as a pedestrian remains in the activation or safety zones.
   3. Once all activation and safety zones have cleared the entrance will close and re-latch, returning to normal state.]

1.6 SUBMITTALS

A. General: Submit the following in accordance with Conditions of the Contract and Division 1 Specification Sections.

B. Shop Drawings: Include plans, elevations, sections, details, hardware mounting heights, and attachments to other work.

C. Color Samples for selection of factory-applied color finishes.

D. Closeout Submittals:
1. Owner's Manual.
2. Warranties.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative, with certificate issued by AAADM, who is trained for installation and maintenance of units required for this Project.

B. Manufacturer Qualifications: A qualified manufacturer with a manufacturing facility compliant with ISO 9001.

C. Manufacturer shall have in place a national service dispatch center providing 24 hours a day, 7 days a week, emergency call back service.

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D. Certifications: Automatic ICU/CCU sliding door systems shall be certified by the manufacturer to meet performance design criteria in accordance with:
1. **[ANSI/BHMA A156.10] [ANSI/BHMA A156.38]**.
2. UL 325
3. UL 1784
4. NFPA 105
5. ISO 14644-1, Class 4.5.

E. Source Limitations: Obtain ICU/CCU entrances through one source from a single manufacturer.

F. Product Options: Drawings indicate sizes, profiles, and dimensional requirements of ICU/CCU entrances and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

G. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.8 PROJECT CONDITIONS

A. Field Measurements: General Contractor shall verify openings to receive ICU/CCU entrances by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Mounting Surfaces: General Contractor shall verify all surfaces to be plumb, straight and secure; substrates to be of proper dimension and material.

C. Other trades: General Contract shall advise of any inadequate conditions or equipment.

1.9 COORDINATION

A. Templates: Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing ICU/CCU entrances to comply with indicated requirements.

B. Electrical System Roughing-in: Coordinate layout and installation of automatic entrance door assemblies with connections to power supplies.

1.10 WARRANTY

A. ICU/CCU entrances shall be free of defects in material and workmanship for a period of one (1) year from the date of substantial completion.

B. During the warranty period the Owner shall engage a factory-trained technician to perform service and affect repairs. A safety inspection shall be performed after each adjustment or repair and a completed inspection form shall be submitted to the Owner.

C. During the warranty period all warranty work, including but not limited to emergency service, shall be performed during normal working hours.

PART 2 - PRODUCTS

2.1 ICU/CCU ENTRANCES

A. Manufacturer: Stanley Access Technologies; ProCare™ 8300A Series automatic sliding ICU/CCU entrances.

2.2 MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
1. Headers, stiles, rails, and frames 6063-T6
2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
3. Sheet and Plate: ASTM B 209.

B. Sealants and Joint Fillers: Performed under Division 7 Section "Joint Sealants".

2.3 ICU/CCU ENTRANCE ASSEMBLIES

A. General: Provide manufacturer's standard ICU/CCU entrance assemblies including doors, sidelights, framing, headers, carrier assemblies, roller tracks, pivots, and accessories required

for a complete installation.

B. ICU/CCU Entrances:
1. Configuration: One sliding panel and one full sidelight; single slide.
2. Traffic Pattern: Two-way providing 43 1/4 inch (1099 mm) clear sliding opening with an overall frame width of 96 inch (2438 mm).
3. Breakaway Capability: Sliding panels and sidelights, from fully open position.
4. Mounting: Between jambs.
5. Track: None, trackless.

2.4 COMPONENTS

A. Framing Members: Manufacturer's standard extruded aluminum reinforced as required to support imposed loads. Nominal size shall be 1 3/4 inch by 4 1/2 inch (44 mm by 115 mm).

Specifier Note: Modify paragraph below to suit project requirements.
- **Select "Bottom Rail Design"; 4 inch is standard.**
- **Select "Muntin Bars"; 2 inch is standard.**

B. Stile and Rail Doors and Sidelights: Manufacturer's standard 1 ¾ inch (45 mm) thick glazed doors with extruded-aluminum tubular stile and rail members. Incorporate concealed tie-rods that span full length of top and bottom rails.
1. Glazing Stops and Gaskets: Snap-on, extruded-security aluminum stops and preformed gaskets.
2. Stile Design: Narrow stile; up to 2 1/8 inch (54 mm) nominal width.
3. Bottom Rail Design: Minimum **[4 inch (102 mm)] [6 inch (152 mm)] [8 inch (203 mm)] [10 inch (254 mm)] [12 inch (305 mm)]** nominal height.
4. Muntin Bars: **[None.] [Horizontal tubular rail member for each door; [2 inch (51 mm)] [4 1/4 inch (108 mm)] nominal height.]**

Specifier Note: Modify paragraph below to suit project requirements. 1/4 inch Tempered glass is standard; privacy glazing with integral blinds is optional. Confirm total thickness of privacy glazing from supplier prior to specifying.

C. Glazing: Furnished under Division 8 Section Glazing. All Glazing furnished under separate section shall be **[1/4 inch (6 mm) tempered] [privacy glazing, [1 inch (25 mm)] [1 ¼ inch (32 mm)] insulated with integral blinds]**.

D. Headers: Fabricated from extruded aluminum and extending full width of automatic entrance door units to conceal door operators, carrier assemblies, and roller tracks. Provide hinged or removable access panels for service and adjustment of door operators and controls. Secure panels to prevent unauthorized access.
1. Mounting: Concealed, with one side of header flush with framing.
2. Capacity: Capable of supporting up to 220 lb (100 kg) per panel, up to four panels, over spans up to 14 feet (4.3 m) without intermediate supports.

E. Carrier Assemblies and Overhead Roller Tracks: Manufacturer's standard carrier assembly that allows vertical adjustment of at least 1/8 inch (3 mm); consisting of urethane with precision steel lubricated ball-bearing wheels, operating on a continuous roller track. Support panels from carrier assembly by load wheels and anti-rise mechanism with factory adjusted cantilever and

pivot assembly. Minimum two ball-bearing load wheels for each active leaf. Minimum load wheel diameter shall be 2 1/2 inch (64 mm).

F. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

2.5 DOOR OPERATORS

A. General: Provide door operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, operation under normal traffic load for type of occupancy indicated.

B. Electromechanical Operators: Self-contained overhead unit powered by a minimum of 1/4 horsepower, permanent-magnet DC motor with gear reduction drive, microprocessor controller; and encoder.
1. Operation: Power opening and power closing.
2. Features:
   a. Adjustable opening and closing speeds.
   b. Adjustable open check and close check speeds.
   c. Adjustable hold-open time between 0 and 30 seconds.
   d. Obstruction recycle.
   e. On/Off switch to control electric power to operator.
   f. Energy conservation switch that reduces door-opening width.
   g. Closed loop speed control with active braking and acceleration.
   h. Adjustable obstruction recycle time delay.
   i. Self-adjusting stop position.
   j. Self-adjusting closing compression force.
   k. Onboard sensor power supply.
   l. Onboard sensor monitoring.
   m. Optional Switch to open/Switch to close operation.
   n. Fire alarm interface, configurable to safely open or close the entrance on signal from fire alarm system.
   o. Adjustable assisted manual operation function, reducing the force required to manually open the entrance.
3. Mounting: Concealed.
4. Drive System: Synchronous belt type.

C. Electrical service to door operators shall be provided under Division 26 Electrical. Minimum service to be 120 VAC, 5 amps.

2.6 ELECTRICAL CONTROLS

A. Electrical Control System: Electrical control system shall include a microprocessor controller and a high-resolution position encoder. The encoder shall monitor revolutions of the operator shaft and send signals to microprocessor controller to define door position and speed.
1. The high-resolution encoder shall have a resolution of not less than 1024 counts per revolution. Systems utilizing external magnets and magnetic switches are not acceptable.
2. Electrical control system shall include a 24 VDC auxiliary output rated at 1 amp.

B. Performance Data: The microprocessor shall collect, and store performance data as follows:
1. Counter: A non-resettable counter to track operating cycles.

2. Event Reporting: Unit shall include non-volatile event and error recording including number of occurrences of events and errors, and cycle count of most recent events and errors.
3. LED Display: Display presenting the current operating state of the controller.

C. Controller Protection: The microprocessor controller shall incorporate the following features to ensure trouble free operation:
1. Automatic Reset Upon Power Up.
2. Main Fuse Protection.
3. Electronic Surge Protection.
4. Internal Power Supply Protection.
5. Resetable sensor supply fuse protection.
6. Motor Protection, over-current protection.

D. Soft Start/Stop: A “soft-start” “soft-stop” motor driving circuit shall be provided for smooth normal opening and recycling.

E. Obstruction Recycle: Provide system to recycle the sliding panels when an obstruction is encountered during the closing cycle. If an obstruction is detected, the system shall search for that object on the next closing cycle by reducing door closing speed prior to the previously encountered obstruction location, and will continue to close in check speed until doors are fully closed, at which time the doors will reset to normal speed. If obstruction is encountered again, the door will come to a full stop. The doors shall remain stopped until obstruction is removed and operate signal is given, resetting the door to normal operation.

F. Programmable Controller: Microprocessor controller shall be field programmable.
1. The following parameters may be adjusted:
   a. Operating speeds and forces as required to meet specified ANSI/BHMA standard.
   b. Adjustable and variable features specified.
   c. Reduced opening position.
2. Manual programming shall be available through local interface which has a two-digit display with a selection control including three push buttons.

2.7 ACTIVATION AND SAFETY DEVICES

A. Touchless Activation Switch: Where scheduled, provide touchless activation switches for primary activation of automatic sliding ICU/CCU entrances. Face plates shall be high impact polycarbonate, engraved with waving hand logo and “Wave To Open” text.
1. Switches shall be jamb style, 1 3/4 inch by 4 ½ inch (44 mm x 114 mm), frame mounted hardwired to door operator controls.
2. Units shall incorporate active infra-red to detect all motion in the detection zone. Detection zone shall be adjustable from 1 inch to 28 inch (25 mm to 711 mm).
3. Relay shall be rated at 3 A at 30 VAC/VDC.
4. Relay hold time adjustable from 3 to 30 sec.
5. Touchless activation switches shall be equal to or better than Camden Door Controls CM-331/41N.

Specifier Note: Delete for “Secure Access” applications; retain for all other applications.

B. **Assisted Manual Operation: ICU/CCU entrances shall incorporate an assisted manual operation function that activates by manual sliding action of the door. When activated the force to manually open or close the door is reduced. The manual force is adjustable.**

If the manual force on the door is released, the sliding door shall come to a stop and remain stopped.

Specifier Note: Select appropriate option to suit project requirements. Coordinate with other sections.
- **For "Full Energy", fast moving door solutions, retain "Combined Activation and Safety Sensors" and "Presence Sensor Monitoring".**
- **Delete for "Low Energy", slow moving door solutions.**

C. [Combined Activation and Safety Sensors: Combined activation and safety sensors shall, in a single housing, detect motion and presence in accordance with ANSI/BHMA A156.10. Motion shall be detected using K-band microwave technology, presence by active infrared reflection technology.
1. **Mounting Height: Up to 11.5 feet (3.5 m) above finish floor**
2. **Temperature Range: Between -31°F and 131°F (-35°C to 55°C) in all environmental conditions**
3. **Relays: Form C, 50V at 0.3A for both activation and safety. Hold time of less than 0.5 seconds.**
4. **Detection Pattern: When detection is made in the activation zone, and the entrance opens, the safety zone shall extend through the threshold on each side; creating an X-pattern. When activation and safety zones are cleared and the entrance closes the sensor will ignore the X-pattern safety zones.**
5. **Sensor activation shall be secondary to all knowing act activation.**
6. **Combined motion and presence sensors shall be equal to or better than X-Zone Sensor by Optex.**

D. Presence Sensor Monitoring: Sliding automatic entrances control system shall include a means to verify the functionality of all active presence sensors in accordance with ANSI/BHMA A156.10. A detected fault shall cause automatic operation to cease until the fault is corrected.]

2.8 HARDWARE

A. General: Provide units in sizes and types recommended by ICU/CCU entrance and hardware manufacturers for entrances and uses indicated.

B. Breakaway Feature: Provide release hardware that allows sliding panel and sidelight to swing out in direction of egress to full 90 degrees, only from the fully open position.
1. Latching system shall allow both panels to swing out after disengaging semi-automatic flush bolt from a single release point.
2. When returning panels from breakaway position, panels shall self-latch.

C. Positive Latch: Manufacturer's standard non-keyed, spring loaded, latch and strike that can secure sliding door panels to adjacent panels or jambs. Strike shall mount flush to surface of framing. Latch shall engage by closing action of door.
1. Dead latch hook bolt shall be concealed to prevent snagging.
2. Handle shall be circumferential design without exposed edges or open ends.
3. Handle action shall be linear, unlatching in the direction of slide.

D. Automatic Latching System: Provide automatic latching hardware on sliding automatic entrances as follows:

1. System shall include a fail-secure electric strike mounted in the jamb specifically designed for use with the specified positive latch.
2. The automatic sliding entrance(s) shall electrically latch in the closed position preventing door panels from sliding manually.
3. During a power interruption the positive latch can be disengaged allowing doors to slide manually.

E. Control Switch: Provide manufacturer's standard jamb mounted two-position rocker switch to allow for full control of the automatic entrance door.
1. Automatic
2. Manual

F. Power Switch: Sliding automatic entrances shall be equipped with a two position On/Off rocker switch to control power to the door.

G. Smoke Seal Components: Provide manufactures standard smoke and draft control components as required to meet performance specifications. Components included but are not limited to:
1. High temperature seals.
2. Stiles shall be slotted for seal mounting.

H. Sweeps: Provide manufacturer's standard sweeps for leakage rated entrances providing airborne infection isolation service.

2.9 FABRICATION

A. General: Factory fabricate ICU/CCU entrance components to designs, sizes, and thickness indicated and to comply with indicated standards.
1. Form aluminum shapes before finishing.
2. Use concealed fasteners to greatest extent possible.
   a. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
   b. Reinforce members as required to receive fastener threads.

B. Framing: Provide ICU/CCU entrances as prefabricated assemblies.
1. Fabricate tubular and channel frame assemblies with manufacturer's standard mechanical or welded joints. Provide sub-frames and reinforcement as required for a complete system to support required loads.
2. Perform fabrication operations in manner that prevents damage to exposed finish surfaces.
3. Form profiles that are sharp, straight, and free of defects or deformations.
4. Prepare components to receive concealed fasteners and anchor and connection devices.
5. Fabricate components with accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.

C. Doors: Factory fabricated and assembled in profiles indicated. Reinforce as required to support imposed loads and for installing hardware.

D. Glazing: Fabricate framing with minimum glazing edge clearances for thickness and type of glazing indicated.

E. Hardware: Factory install hardware to the greatest extent possible; remove only as required for final finishing operation and for delivery to and installation at Project site.

2.10 ALUMINUM FINISHES

A. General: Comply with NAAMM Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designing finishes. Finish designations prefixed by AA comply with system established by Aluminum Association for designing finishes.

B. Class II, Clear Anodic Finish: AA-M12C22A31 Mechanical Finish: as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.40 mils minimum complying with AAMA 611-98, and the following:
1. AAMA 607.1
2. Applicator must be fully compliant with all applicable environmental regulations and permits, including wastewater and heavy metal discharge.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine conditions for compliance with requirements for installation tolerances, header support, and other conditions affecting performance of ICU/CCU entrances. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Do not install damaged components. Fit frame joints to produce joints free of burrs and distortion. Rigidly secure non-movement joints.

B. Entrances: Install ICU/CCU entrances plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place.
1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
2. Set headers, carrier assemblies, tracks, operating brackets, and guides level and true to location with anchorage for permanent support.

C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 26 Sections.

D. Glazing: Performed under Division 8 Section "Glazing" in accordance with ICU/CCU entrance manufacturer’s instructions.

E. Sealants: Comply with requirements specified in Division7 Section "Joint Sealants".

3.3 FIELD QUALITY CONTROL

A. Testing Services: Factory Trained Installer shall test and inspect each ICU/CCU entrance to determine compliance of installed systems with applicable standards.

3.4 ADJUSTING

A. Adjust door operators, controls, and hardware for smooth and safe operation, for tight closure, and complying with requirements in the specified ANSI/BHMA standard.

3.5 CLEANING AND PROTECTION

A. Clean glass and aluminum surfaces promptly after installation. Remove excess glazing and sealant compounds, dirt, and other substances. Repair damaged finish to match original finish. Comply with requirements in Division 8 Section “Glazing”, for cleaning and maintaining glass.

END OF SECTION 08 42 43

Available options not specified in this document are summarized as follows:

1. Activation Options (Touchless activation specified): Any standard knowing act activation switch, including but not limited to, push plates, card readers, etc.
2. Finish (Class 2, Clear Anodized specified) options include:
    a. Standard color anodizing options.
    b. Multi-coat Fluoropolymer painted finishes.
3. Rail and muntin options for sliding and fixed door panels.
4. Glazing options (1/4" tempered specified) include:
    a. Support for installation of privacy glazing with integral blinds up to 1" thick.
    b. 1 ¼" thick privacy glazing solutions are supported with universal glass stops by privacy glazing manufacturer.
    c. Electric privacy glass.
5. Locking options (Positive Latch with Electric Strike specified);
    a. 1-Point lock.
        i. Standard: Keyed cylinder by Thumb Turn
        ii. Dummy cylinders optional
        iii. Lock positon indicator optional
    b. Electric Solenoid Lock (Fail Safe) for secure or interlocked applications.
6. Anti-Microbial coating on "Touch Points" or full package.
7. Package Types Available:
    a. Smoke & Draft Package, specified.
    b. Isolation Package (Pressure Control System).
    c. STC-Rated Package

Contact your local Stanley Access Technologies representative for more information on specifying the right sliding automatic entrance for your project.

These specifications represent a "sample" door configuration and depict design features that are commonly used. These specifications do not reflect "standard" features and are provided for informational purposes only. Please note that there is no standard "off the shelf" product. Stanley custom manufactures each product to its customers' specifications. It is the customer's responsibility to validate that a particular configuration of Stanley's products is suitable for a specific application. All specifications and designs contained herein are subject to change without notice or obligation.

STANLEY®

Pro-Care™ 8300A Automatic ICU Sliding Door System

Owner's Operation and Maintenance Manual

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To Our Customers:

We've provided you with an owner's manual to familiarize you with your Pro-Care™ 8300A Automatic Sliding Door System. It is essential that you "know your system", how it operates and how to maintain it to be compliant with the industry standards for safety. It is your responsibility, as owner or caretaker of the equipment, to inspect the operation of your door system on a daily basis to ensure that it is safe for all door users.

Within this manual you will find a description of the operation and maintenance requirements of your door system, as well as the instructions for the "Daily Safety Check" procedure. It is suggested that the "Daily Safety Check" be performed at least once a day and after any power outages. Occasional observance of the doors as they are in use is also recommended.

General Information

Service Availability

STANLEY Access Technologies LLC products are distributed through a nationwide network of STANLEY-owned branch locations and authorized distributors that specialize in Sales, Installation and Service of automatic door systems. Our Service programs offer ongoing support such as regularly scheduled preventive maintenance, or if required, emergency service 24 hours a day, 365 days a year. No matter where you are located, our technicians are only a phone call away. Should you need service on your door system **our customer support hotline is available 24/7 at 888-DOOR-444.**

Limited Warranty

STANLEY Access Technologies LLC, a Division of Stanley Black & Decker, Inc., warrants the installed door system against failure due to manufacture of substandard material or workmanship for one year beginning on the completed date of installation. Please review your Certificate of Warranty Agreement for your full Warranty.

Compliance with Industry Standards

Your door system was designed to comply with the latest revision of the operating and safety standards as prescribed by ANSI/BHMA A156.10, ANSI/BHMA A156.38, and UL325 requirements as well as NFPA 101, NFPA 105 and UL 1784. It is important that:

- Your door system be maintained in compliance with the standards and codes of the industry.
- Proper decals and labels be applied and maintained on your doors as applicable. If decals have been removed or cannot be read, request that the labels be replaced when calling for service.
- Safety devices are checked by a trained technician annually and each time a door is serviced.

Contact Information

STANLEY Access Technologies

65 Scott Swamp Road

Farmington, CT

www.stanleyaccess.com

Customer Support: 800-7-ACCESS

Telephone: (860) 677-2861

Fax: (877) 339-7923

Service: 888-DOOR-444

Caution

An improperly adjusted door can cause injury and equipment damage.

- Inspect door operation daily using safety checklist in Owner's Manual and at door.
- Safety devices should be in place and operational.
- Have door adjusted as recommended in Owner's Manual if necessary.
- Have door inspected at least annually by a STANLEY certified technician.

Should the door fail to operate as prescribed in the "Daily Safety Check", or at any other time for any reason, do not attempt to repair or adjust the door. Discontinue operation of the door and call for service by a STANLEY certified service technician. Our technicians are trained to service your door in accordance with applicable industry safety standards.

*In this manual, the word "Caution" means that injury or property damage can result from failure to follow instructions.

**The word "note" is used to indicate important steps to be followed or important differences in equipment.

Functional Description

This Stanley Access Technologies Pro-Care™ 8300A Automatic Sliding Door System is designed specifically for this highly important hospital environment with many functions developed to meet the requests of hospital professionals and end-users. SAT Engineers work tirelessly to ensure that the functions and features of our Pro-Care™ 8300A Automatic Door Systems provide wide clear door opening, easy access to patients and equipment, and functional ease of use.

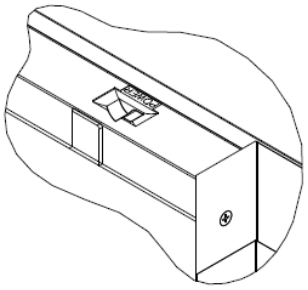
The Pro-Care™ 8300A Automatic Sliding Door System is a sliding door system designed for, but not limited to, intensive care unit (ICU) applications with two methods of operation (automatic or manual use). The Pro-Care™ 8300A Automatic Sliding Door System can be configured to be provided with touchless wave sensors for automatic use. The door system is available for Low-Energy applications where the door operates at reduced speeds and stays in the full open position for longer. If the door system is configured for Full-Energy applications, the door is equipped with an overhead sensor for safety protection. In addition to the overhead sensor, the microprocessor controller contributes to safety with its built-in logic function that reverses the door operation in the unlikely event an obstacle prevents the door from closing.

The Pro-Care™ 8300A is designed to be intuitive to the end user for sliding open and swinging out. For the utmost privacy in the hospital environment, the Pro-Care™ 8300A Automatic Sliding Door System is available with privacy glass blinds or electrified privacy glass.

The door system consists of complex mechanical and electrical components and sub-assemblies. Lack of maintenance on your door equipment can have significant implications on the cost of ownership.

Stanley's total service and properly scheduled maintenance will extend the life of your equipment and keep it performing to its full potential.

Operation

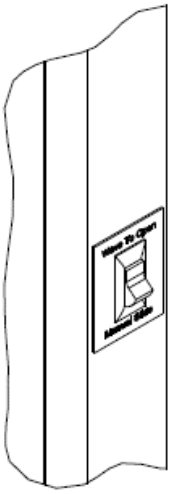


Power:

The main power switch for the Pro-Care™ 8300A Automatic Sliding Door System is located on the underside of the door header (see image). The switch is illuminated a red color when the power is on. This switch should not be turned off unless the door is being serviced.

Automatic:

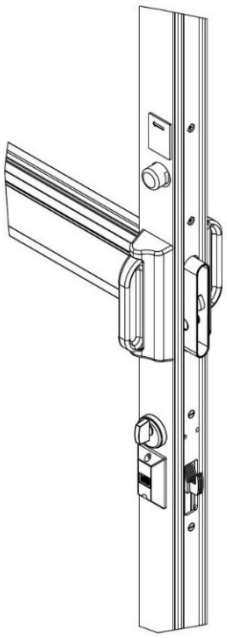
Operation of the Pro-Care™ 8300A Automatic Sliding Door System is based upon the mode switch which is located on the jamb tube (see image).



- Wave to Open
  - In this mode, the touchless wave sensors will send a signal to the microprocessor controller to automatically slide open the door panel
- Manual Slide
  - In this mode, the door panel must be manually slid open or closed. The moving panel should move freely and easily by hand without binding

Swing Out

One important feature is the ability to “swing out” the door panels to aid the egress of patients and equipment. To enable the swing out feature, use the following procedure:



- Move the sliding panel to the fully open position or activate using the touchless wave sensor in the “Wave To Open” mode
- Push the round swing out button located on the sliding panel. Both panels will swing out together
- Swing out panels to 90° to obtain the greatest opening
- To re-engage the door panels, simply push the swung doors closed to original position. Do not hold the swing button upon return as the swing mechanism is spring-loaded and will automatically reset
    - In some situations, momentarily pressing the swing button may drive the door panel to the full open slide position
- Slide the door panels as desired or allow the door panel to automatically close if in the “Wave To Open” mode

Note:

- If the swing out button is pressed or the sliding doro panel is partially swung out, the Power Assist feature will be disabled and the door will safely shut off the motor. In this event, simply push/pull the panels towards the original slide position to reset the panel from swung out

Power Loss

In the unlikely event of a power loss, the microprocessor controller of the Pro-Care™ 8300A Automatic Sliding Door System will need to be re-initialized. Perform the following steps as needed:

1. Turn the “POWER” switch to the “OFF” position (non-illuminated)
2. Ensure the doors are in the normal sliding position (not swung out)
3. Turn the “POWER” switch to the “ON” position (illuminated)
4. If the door was not fully closed on power up, the door panel will begin to open slowly. Allow the door to open completely without any interruptions
5. Upon reaching the full open position, the door panel will begin to close. Allow the door to close completely without any interruptions
    a. If the power was turned “ON” when the door was in any position other than full open, the door will not close slowly for the entire door length but instead close at normal speed for the door travel that has already been “learned”. Stay clear of the door path during power initialization
6. The door is now ready for normal operation

Daily Safety Check

Housekeeping

General housekeeping maintenance should be provided by the owner or responsible person in charge. Check the door area for tripping or slipping hazards. There should be no bulletin boards, literature racks, merchandize displays, or other attractions in the door area where people could be hit by the door. It is recommended that any debris in the door's path be vacuumed out or swept away.

Daily Maintenance

Stanley Access Technologies recommends that the doors are inspected daily to ensure performance and safety. Please perform the following before the beginning of each day:

1. Check the door area for slipping or tripping hazards.
2. Check all door panels for broken or cracked glass. If broken or cracked glass is detected, contact our call center at 888-DOOR-444 immediately.
3. Ensure the swing out mechanism is properly re-engaged to allow normal slide operation.

Sensors

For Pro-Care™ 8300A Automatic door system packages configured for Full-Energy application, overhead safety sensors are provided to detect the presence of objects in the door path. The sensors that are used have detection zones that are invisible to the eye. A walk test of the zones will give an indication of proper sensor operation. With the mode switch in the "Wave to Open" position, the following should be done for all automatic door packages:

1. Walk towards the door from several different angles. When you are approximately two feet away, the red light on the overhead sensor should turn on. Repeat this step for both sides of the door.
2. Activate the door via the touchless wave sensor or manually. Walk through the doorway and into the "sensor zone" (the area the door slides through while opening). While standing in the sensor zone, the door should remain open.
3. Exit the "sensor zone". After a brief time-delay, the door should close to the fully closed position and stop without impact. Repeat Steps 2 & 3 for both sides of the door.

***If a problem exists that cannot be reset, turn off the door operating equipment and call a service representative**

Cleaning

Stanley Access Technologies recommends that you clean the Pro-Care™ 8300A Automatic door system using the following procedure:

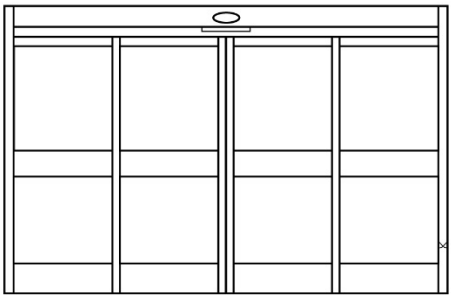
- Glass – Clean with water and a cotton cloth or use Windex™ or other like-product with a detergent and alcohol-based cleaner.
- Aluminum – Clean with a mixture of equal parts Windex or other like-product and Simple Green™ All Purpose Cleaner and a cotton cloth.
- DO NOT USE any product with Alkalide or other sodium-based product as it could deteriorate the aluminum finish.

Service and Preventive Maintenance

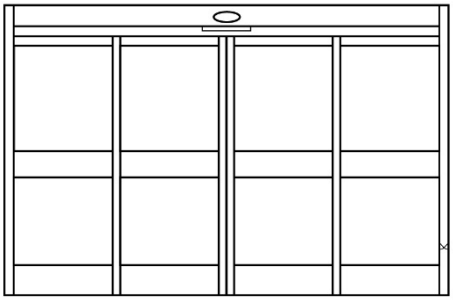
Stanley Access Technologies recommends routine and scheduled preventive maintenance for all manual and automatic door products. Contact your local, authorized Stanley Access Technologies product provider to arrange a regular maintenance schedule.

***If the door is not functional or is in need of repair contact Stanley Access Technologies at 888-DOOR-444 to schedule a service call**

Typical Stanley Slide Door Decal Application (Automatic)



Decals for Two-Way Traffic



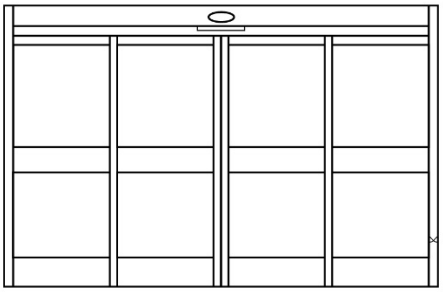
Door Slides on Interior **Door Slides on Exterior**

"CAUTION: AUTOMATIC SLIDING DOOR, DOOR MAY CLOSE WITHOUT WARNING" decals must be visible from both sides of the door. Locate and affix the (Decals are applied in factory on typical doors)

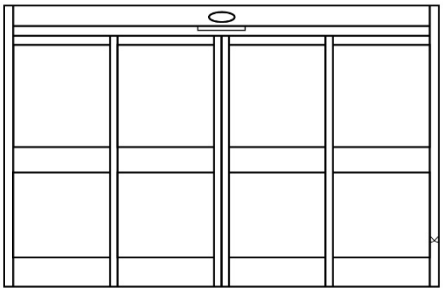
Sliding door packages must be marked with "IN EMERGENCY PUSH TO OPEN" decals. Locate and affix the decals to the muntin bar or glass (36" to 60" above the floor) on the interior side of the sliding door panel. *Notes: "On access control packages, do not affix the emergency break-out decals to the panic hardware. Locate and affix the decals to the glass on the interior side of the sliding door panel, 36" to 60" from the floor. Doors that do not provide emergency egress do not require breakout decals.*

Sliding door packages must be marked with "CAUTION STAND BACK" decals visible from the side that the door slides on. The recommended mounting locations are:

a) For units with swing sidelights, affix the caution decals to the muntin bar or glass on the interior side of the swing sidelight panel.
b) For units with fixed sidelights, affix the caution decals to the muntin bar or glass on the exterior side of fixed sidelight panel
c) For units without sidelights, affix the caution decals to the exterior wall or panel that the door slides in front of.



Decals for One-Way Traffic



Approach Side **Non-Approach Side**

Sliding doors servicing ingress or egress must be marked with directional decals. The arrow sign must be visible from the approach side and an international "DO NOT ENTER" must be visible from the other side. Locate and affix the decals on the door 50" +/-12" from the finished floor.

KNOWING ACT DOORS – The door shall have signage which says "AUTOMATIC DOOR – ACTIVATE SWITCH TO OPERATE" along with other required signage visible from each side of the door.

Decals included:

Decals Ordered Separately:

P/N 413743

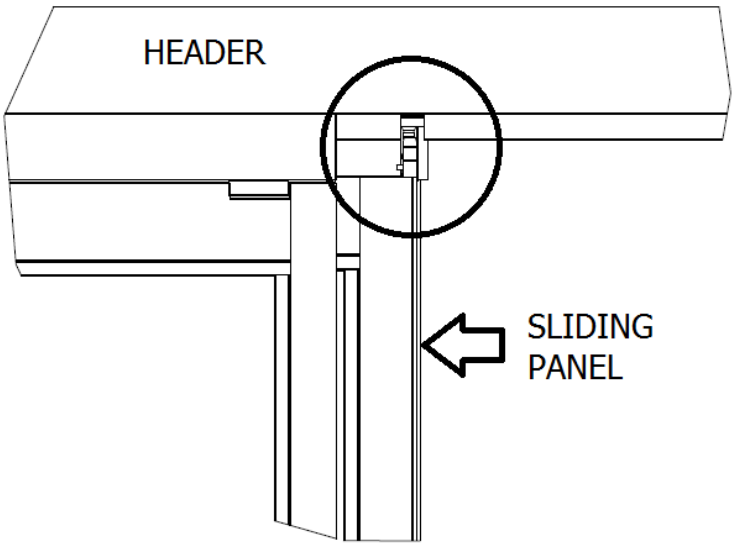
P/N 511164

P/N 511165

A "Daily Safety Check" decal has also been provided as a reminder that your automatic slide door equipment must be checked daily for safe operation. Affix this decal to the inside of the jamb tube.

For jurisdictions that the IBC code compliance requires "This Door Must Remain Unlocked During Business Hours" affix the decal on all exit doors. This decal is not supplied as part of the decal kit.

Troubleshooting and Hints

	Possible Cause	Solution
Door Will Not Slide in Automatic or Manual Mode		
	Object in the slide path	Remove obstruction in slide path and move the door panel manually
	Door damaged (load wheel or self-closer malfunction	**Call for service - 1-888-DOOR-444**
Door Will Not Unlatch		
	1-Point lock engaged	Use a key or the thumb-turn to unlock the door panel from the jamb
	Positive latch engaged	Manually push the handle assembly in the direction of slide to disengage the positive latch from the jamb
	Door damaged	**Call for service - 1-888-DOOR-444**
Door Will Not Latch		
	Panel misaligned with electric strike hook	Contact service technician to adjust panel height or adjust electric strike vertical position
	Panel hook does not contact electric strike	Adjust latch hook for engagement
Noise During Slide		
	Swing out mechanism partially engaged or not properly reset	Push the sliding panel towards the rotating panel to fully return and engage the swing mechanism
	Debris in door path	Clear out door path or floor area
	Door damaged or self-closer malfunction	**Call for service - 1-888-DOOR-444**
Door Panels Do Not Swing Out		
	Sliding panel not fully open	Move the sliding panel to the full open position to align the swing interlock with the header notch 
	Swing out mechanism still engaged	With the sliding panel fully open, push the round swing out button
	Door damaged	**Call for service - 1-888-DOOR-444**
In Automatic Mode, Door Does Not Open		

	Incorrect wiring of wave sensors	Call service technician to verify wiring of wave sensors. Check N/O & N/C labels on wave sensor
	Positive latch electric strike still engaged	Verify connection between electric strike and wiring harness in jamb tube
	Microprocessor control box received obstruction signal	Contact service technician to adjust stationary floor pivot height for proper engagement
	Power not on	Turn power switch to “ON” position
	Door damaged or self-closer malfunction	**Call for service - 1-888-DOOR-444**
In Automatic Mode, Door Does Not Close		
	Object in sensor zone	Remove object from sensor path and allow sensor to retune
	Incorrect overhead sensor wiring	Contact service technician to verify overhead sensor wiring
	Inadvertent activation signal from touchless wave sensor	Remove object causing activation of touchless wave sensor. Adjust touchless wave sensor sensitivity if needed
	Sliding panel partially swung out	Fully reset door panels from swing out position
	Door damaged or self-closer malfunction	**Call for service - 1-888-DOOR-444**

Environmental Product Declaration	STANLEY® Access Technologies ICU/CCU Sliding Doors

STANLEY Access Technologies

VERIFIED by SCS Global Services
ENVIRONMENTAL PRODUCT DECLARATION
BASED ON LCA

Declaration Owner
Allegion Access Technologies LLC
65 Scott Swamp Rd. Farmington, CT 06032
www.stanleyaccess.com | 860.677.2861

Products
Dura-Care 7000 ICU Sliding Doors
Pro-Care 8300 ICU Sliding Doors
Pro-Care 8500 ICU Sliding Doors
Pro-Care 8500 ICU Automatic Sliding Doors

(UNSPSC 30171510 – Automatic doors)

Functional Unit
1 square meter of door opening maintained and operated for 20 years.

Scope
The scope of this EPD is Cradle-to-Gate with scenarios

EPD Number and Period of Validity
SCS-EPD-09229
EPD Valid July 18, 2013 through July 17, 2028

Product Category Rule
Product Category Rule for Preparing an Environmental Product Declaration for Power-Operated Pedestrian and Revolving Doors. UNCPC 4212. ASTM International. PCRExt 2022-114, valid through August 31, 2023

Program Operator
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608
+1.510.452.8000 | www.SCSglobalServices.com

SCSglobal SERVICES

Declaration Owner:	Allegion Access Technologies LLC
Address:	65 Scott Swamp Rd. Farmington, CT 06032
Products:	Dura-Care 7000 ICU Sliding Doors Pro-Care 8300 ICU Sliding Doors Pro-Care 8500 ICU Sliding Doors Pro-Care 8500 ICU Automatic Sliding Doors
Declaration Number:	SCS-EPD-09229
Declaration Validity Period:	July 18 2023 through July 17, 2028
Program Operator:	SCS Global Services
Declaration URL Link:	https://www.scsglobalservices.com/certified-green-products-guide
LCA Practitioner:	Gerard Mansell, Ph.D., SCS Global Services
LCA Software and LCI database:	OpenLCA v1.11 software and the Ecoinvent v3.9 database
Independent critical review of the LCA and data, according to ISO 14044 and ISO 14071	☐ internal ☒ external
LCA Reviewer:	Lindita Bushi, Ph.D., Athena Sustainable Materials Institute
Product Category Rule:	Product Category Rule for Preparing an Environmental Product Declaration for Power-Operated Pedestrian and Revolving Doors. UNCPC 4212. ASTM International. PCRExt 2022-114, valid through August 31, 2023
PCR Review conducted by:	
Independent verification of the declaration and data, according to ISO 14025, ISO 21930 and the PCR	☐ internal ☒ external
EPD Verifier:	Lindita Bushi, Ph.D., Athena Sustainable Materials Institute
Declaration Contents:	ABOUT STANLEY® Access Technologies....2 PRODUCT DESCRIPTION....2 PRODUCT SPECIFICATION....3 MATERIAL RESOURCES....5 PROCESS FLOW DIAGRAM....7 LIFE CYCLE ASSESSMENT OVERVIEW....7 LIFE CYCLE IMPACT ASSESSMENT....9 ADDITIONAL ENVIRONMENTAL PARAMETERS....13 ADDITIONAL ENVIRONMENTAL INFORMATION....17 SUPPORTING TECHNICAL INFORMATION....18 REFERENCES....20

Disclaimers: *This Environmental Product Declaration (EPD) conforms to ISO 14025, 14040, 14044, and ISO 21930:2017.*

Scope of Results Reported: *The PCR requirements limit the scope of the LCA metrics such that the results exclude environmental and social performance benchmarks and thresholds, and exclude impacts from the depletion of natural resources, land use ecological impacts, ocean impacts related to greenhouse gas emissions, risks from hazardous wastes and impacts linked to hazardous chemical emissions.*

Accuracy of Results: *Due to PCR constraints, this EPD provides estimations of potential impacts that are inherently limited in terms of accuracy.*

Comparability: *The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled.*

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ABOUT STANLEY® Access Technologies

STANLEY® Access Technologies is committed to being an industry leader in door automation through exceptional service, high quality product innovation, and lowest total cost of ownership. For over 80 years, we have been designing, building, installing and servicing manual and automatic sliding, swinging, revolving and folding doors as well as sensors and controls.

Everywhere you go, you can find our trusted products throughout a wide variety of commercial, institutional, industrial and transportation applications.

Headquartered in Farmington, CT, STANLEY® Access Technologies is the largest manufacturer, installer and service provider of automatic doors in North America.

PRODUCT DESCRIPTION

The STANLEY Access Dura-Care 7000, Pro-Care 8300 and Pro-Care 8500 ICU/CCU Sliding Doors are manufactured in ISO 9001 certified facilities in Farmington, Connecticut and Greenfield, Indiana.

The Dura-Care 7000 is an aluminum and glass two panel manual sliding door intended for use in ICU/CCU rooms in a Healthcare facility. The 7000 includes positive latching, a swingout feature for patient movement and includes an option for privacy glass.

The Pro-Care 8300 is an aluminum and glass two panel manual sliding door system intended for use in ICU/CCU rooms in a healthcare facility. The 8300 is designed to meet the requirements for smoke and draft doors by limiting air infiltration and including positive latching. The 8300 has an abundance of user friendly features and functions geared to the healthcare environment including an intuitive swingout feature for moving patients and equipment and includes an option for privacy glass.

The latest ICU door in the ProCare™ Series, the three panel 8500 offers the widest opening to allow for seamless patient and equipment movement without using the included swingout feature. Available in fully automatic, automatic with power assist, or manual configurations. The 8500A easily switches between power assist and automatic mode. With the same size header utilized for both manual and automatic applications, site lines through the facility are maintained for an improved aesthetic.

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PRODUCT SPECIFICATION

Table 1. *Product specifications for the STANLEY Dura-Care 7000 ICU/CCU Doors.*

Parameter	Value
Configurations	2, 3, & 4-Panel, 2-Panel S&D, Trackless
Break Out	Full Breakout, from Fully Open Position
Typical Height	88" (2,235 mm) (Std); taller available.
Typical Width	2-Panel (Std); 84" (2,134 mm) to 108" (2,743 mm)
Header Size	4" (102 mm) Nominal Height
Jamb Dimension	4 1/2" x 1 3/4" (114 mm x 44 mm)
Clear Door Opening Width	2-Panel (Std); 33 1/4" to 45 1/4" (845 mm to 1,149 mm)
Breakout Out Opening Width	2-Panel (Std); 75 1/8" to 99 1/8" (1,908 mm to 2,518 mm)
Supported Glazing	1/4" (6.35 mm) (Std); 1/2" (12.7 mm), 5/8" (15.9 mm), 1" (25.4 mm) Insulated, Electric Privacy Glass
Stiles	Narrow (Std), and Medium
Bottom Rails	4" (102 mm) (Std), 6" (152 mm), 8" (203 mm), 10" (254 mm), 12" (305 mm), other custom
Finishes	Anodized, PVDF Paint, Anti-Microbial (Touch Points or All)
Hardware Options	Positive Latch, Single/Multi-Point Locking
Listings	UL1784, NFPA 105
Ratings	2-Panel Only: UL 1784 Leakage (Smoke & Draft)
Codes and Standards	Smoke Provisions: UL 1784 Leakage (Smoke & Draft); NFPA 105

Table 2. *Product specifications for the STANLEY Pro-Care 8300 ICU/CCU Doors.*

Parameter	Value	Options
Configurations	2-Panel Trackless Threshold: S&D, Isolation, STC Rated	
Swing Out	2 panels swing out from fully open position	
Typical Height	88" (2,235 mm) (Std); taller available.	
Typical Width	Range 84" (2,134 mm) to 108" (2,743 mm); 96" (2,438 mm) (Typical)	
Header Size	4" (102 mm) Nominal Height	
Jamb Dimension	4 1/2" x 7/8" (114 mm x 22 mm)	
Clear Door Opening Width	38 1/4" (972 mm) to 50 1/4" 1,276 mm); 44 3/16" (1,122 mm) at 96" (2,438 mm) (Typical) Width	
Swing Out Opening Width	78" (1,981 mm) to 102" (1,276 mm); 90" (2,286 mm) at 96" (2,438 mm) (Typical) Width	
Supported Glazing	1/4" (6.35 mm) (Std); 1/2" (12.7 mm), 5/8" (15.9 mm), 1" (25.4 mm) Integral Blinds, STC Rated Glass	
Stiles	Narrow	
Bottom Rails	4" (103 mm) (Std), 6" (152 mm), 8" (203 mm), 10" (254 mm), 12" (305 mm), other custom	
Muntins	0, 1 (Std) or 2	
Finishes	Anodized, PVDF Paint, Anti-Microbial (Touch Points or All)	
Hardware Options	Catch-free Handle available in clear or black (Std)	Positive Latch With Catch-Free Hook Shield, single-point locking, concealed self-closing
Listings	UL1784, NFPA 105	
Ratings	Leakage (Smoke & Draft), Positive/Negative Pressure (Isolation), STC (Sound Transmittance)	
Codes and Standards	Smoke Provisions: NFPA 101, NFPA 105, IBC	

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Table 3. *Product specifications for the STANLEY Pro-Care 8500 ICU/CCU Doors.*

Parameter	Value	
Configurations	Automatic or Manual 3-Panel Trackless, Smoke & Draft (optional), Isolation (optional)	
Utility Breakout	3 Panels swing out from full open position	
Typical Height	87.5" - 100.5"	
Typical Width	84" to 120"	
Header Size	4 1/8" Nominal Height	
Jamb Dimension	Manual: 6"x7/8" standard 6"x 1 ¾" optional.	Auto: 6"x 1 ¾" only
Clear Door Opening Width *Refer to architectural drawing for CDO at other package widths*	Manual: 56.8" at 96" package width (7/8" jambs);	Auto: 55.7" at 96" package width (1 ¾" jambs)
Utility Breakout Nominal Width *Refer to architectural drawing for CDO at other package widths*	Manual: 87.8" at 96" package width (7/8" jambs);	Auto: 86" at 96" package width (1 ¾" jambs)
Supported Glazing	1/4" (Std); 1/2", 5/8", 1" Insulated, Electronic Privacy Glass (EPG), Privacy Blinds	
Stiles	Narrow	
Bottom Rails	4" (Std), 6", 8", 10", 12", other custom	
Muntins	0, 1 (Std) or 2 | 2" (Std) and 4 1/4"	
Finishes	Anodized, PVDF Paint, Anti-Microbial (Touch Points or All)	
Hardware Options	Positive Latch, Single-Point Locking Manual: Concealed Self Closing, Electronic Hold Open	
Ratings/Listings	Leakage (Smoke & Draft), Positive/Negative Pressure (ASTM E283), Clean Room (ISO 14644-1, Class 3), STC (Sound Transmittance), UL1784	
Codes And Standards	NFPA 101, NFPA 105, IBC, FGI	
Activation/Safety	Not required for Manual 8500	Full Energy ANSI/BHMA A156.10 (Std), Low Energy ANSI/BHMA A156.38 (Full Energy / Low Energy); Jamb Mounted Touchless Activation + Combined Activation/Safety Sensors

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MATERIAL RESOURCES

The material composition and availability of raw material resources for the sliding doors are summarized in Table 4 through Table 6. Packaging information for the Dura-Care 7000 and Pro-Care 8300 is presented in Table 7 while Table 8 presents packaging data for the Pro-Care 8500 Series products.

Table 4. *Material composition of the STANLEY Access Dura-Care 7000 Series ICU/CCU Sliding Doors.*

Component	Material	Availability				Dura-Care 7000 Series	
		Renewable	Non-Renewable	Recycled (% pre-/post-consumer)	Origin of Materials	kg/m²	%
Recycled Aluminum	Aluminum		Mineral, Abundant	30%/40%	North America	6.05	42%
Aluminum	Aluminum		Mineral, Abundant	0%	Global	6.21	43%
Steel	Steel		Mineral, Abundant	0%	Global	1.80	13%
Plastic	Plastic		Fossil, Limited	0%	Global	0.259	1.8%
Total						**14**	**100%**

Table 5. *Material composition of the STANLEY Access Pro-Care 8300 Series ICU/CCU Sliding Doors*

Component	Material	Availability				Pro-Care 8300 Series	
		Renewable	Non-Renewable	Recycled (% pre-/post-consumer)	Origin of Materials	kg/m²	%
Recycled Aluminum	Aluminum		Mineral, Abundant	30%/40%	North America	4.58	43%
Aluminum	Aluminum		Mineral, Abundant	0%	Global	4.73	44%
Steel	Steel		Mineral, Abundant	0%	Global	1.19	11%
Plastic	Plastic		Fossil, Limited	0%	Global	0.154	1.4%
Other	Electronics		Mineral, Abundant	0%	Global	7.16×10^{-3}	0.1%
Total						**11**	**100%**

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Table 6. *Material composition of the STANLEY Access Pro-Care 8500 Series ICU/CCU Sliding Doors*

Component	Material	Availability				Pro-Care 8500 Series		Pro-Care 8500 Series (Automatic)	
		Renewable	Non-Renewable	Recycled (% pre-/post-consumer)	Origin of Materials	kg/m²	%	kg/m²	%
Recycled Aluminum	Aluminum		Mineral, Abundant	30%/40%	North America	8.42	48%	8.47	46%
Aluminum	Aluminum		Mineral, Abundant	0%	Global	5.79	33%	5.99	32%
Steel	Steel		Mineral, Abundant	0%	Global	2.70	16%	2.76	15%
Plastic	Plastic		Fossil, Limited	0%	Global	0.458	2.6%	0.458	2.5%
Other	Electronics		Mineral, Abundant	0%	Global	1.90×10^{-2}	0.1%	0.852	4.6%
Total						**17**	**100%**	**19**	**100%**

Table 7. *Material composition of packaging for the STANLEY Access Pro-Care 8300 Series ICU/CCU Sliding Doors.*

Component	Material	Availability				7000/8300 Series Doors	
		Renewable	Non-Renewable	Recycled (% pre-/post-consumer)	Origin of Materials	kg/m²	%
Cardboard	Corrugated	Abundant		0%	Global	0.389	13%
Plastic Wrap	Plastic		Fossil, Limited	0%	Global	2.28	79%
Paper	Paper	Abundant		0%	Global	0.231	8.0%
Total						**2.90**	**100%**

Table 8. *Material composition of packaging for the STANLEY Access Pro-Care 8500 Series ICU/CCU Sliding Doors.*

Component	Material	Availability				8500 Series Doors	
		Renewable	Non-Renewable	Recycled (% pre-/post-consumer)	Origin of Materials	kg/m²	%
Cardboard	Corrugated	Abundant		0%	Global	0.210	13%
Plastic Wrap	Plastic		Fossil, Limited	0%	Global	1.23	79%
Paper	Paper	Abundant		0%	Global	0.125	8%
Total						**1.57**	**100%**

In conformance with the PCR, product materials were reviewed for the presence of any toxic or hazardous chemicals with respect to US regulations[1]. Based on a review of the product components provided by the manufacturer, no regulated chemicals were identified in the product or product components.

[1] Resource Conservation and Recovery Act (RCRA), Subtitle 3. https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview

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PROCESS FLOW DIAGRAM

The diagrams below present a representation of the most significant contributions to the life cycle of the STANLEY Access *Dura-Care 7000, Pro-Care 8300 and Pro-Care 8500 Sliding Doors*. The following life cycle stages are included: production (Modules A1-A3); construction & installation (Module A4-A5); product use (Modules B1-B7); and end-of-life (Modules C1-C4).

LIFE CYCLE ASSESSMENT OVERVIEW

The system boundary is cradle-to-gate with scenarios and includes resource extraction and processing, product manufacture and assembly, distribution/transport, use and maintenance, and end-of-life. The diagram below illustrates the life cycle stages included in this EPD.

Product			Construction Process		Use							End-of-life				Benefits and loads beyond the system boundary
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material extraction and processing	Transport to manufacturer	Manufacturing	Transport	Construction - installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, recovery and/or recycling potential
X	X	X	X	X	X	MND	MND	MND	MND	X	X	X	X	X	X	MND

X = Included | MND = Module Not Declared

The following provides a brief overview of the Modules included in the product system for the STANLEY Access *Dura-Care 7000, Pro Care 8300 and Pro Care 8500 Sliding Doors.*

Module A1: Raw material extraction and processing

This module includes the potential environmental impacts associated with the extraction and processing of raw materials for various component parts in the door products. The primary components are fabricated of aluminum and steel. The impacts from fabrication processes were based on representative datasets for metal product manufacturing.

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Module A2: Transportation

This module includes transportation of processed raw materials and product components to the STANLEY manufacturing facilities in Connecticut and Indiana.

Module A3: Manufacture of the Door Products

Module A4: Transportation & Delivery to the Installation Site

This module includes the impacts associated with delivery of door product to the installation site. Transport by diesel truck an estimated distance of 3,250 km is assumed.

Module A5: Construction & Installation

This module includes installation of the products. This module includes delivery of the door products to the point of installation (downstream transportation), and installation of the products, including glazing. Impacts associated with the extraction, processing and transport of the glass are included in the installation phase. This stage also includes the disposal (including transport) of the product packaging materials. The doors are fabricated for specific door openings and applications with no installation waste.

Module B1: Normal use of the product

This module accounts for environmental impacts arising through normal anticipated use of the product. No impacts are associated with the use of the products and the results for this phase are reported as zero.

Module B2: Maintenance

Module not declared.

Module B3: Repair

Module not declared.

Module B4: Replacement

Module not declared.

Module B5: Refurbishment

Module not declared.

Module B6: Operational Energy Use

This module includes the primary energy consumption (electricity) associated with the operational use of these products. For manual doors, there are no operational energy requirements and the impact contributions from this phase are zero. For the Pro-Care 8500 automatic sliding doors, the impact contributions from electricity are based on data provided by the manufacturer.

Module B7: Operational Water Use

No water use occurs during the operation of the product and impacts are zero.

Module C1-C4: End-of-Life

The end-of-life stage of the product starts when it is replaced, dismantled or deconstructed from the building. There are no impacts associated with the deconstruction and dismantling processes as these are manual processes completed with hand tools and does not require any energy input for removal of the product. The impacts associated with transportation of waste materials to processing facilities, waste processing of material components and waste disposal of the product are included in these modules.

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LIFE CYCLE IMPACT ASSESSMENT

Impact category indicators are calculated using the TRACI 2.1 and CML-IA characterization methods. TRACI 2.1 impact category indicators include global warming potential (100 years), acidification potential, smog potential, ozone depletion potential, and eutrophication potential. CML-IA impact category indicators include global warming potential (100 years), acidification potential, eutrophication potential, Photochemical Ozone Creation potential, ozone depletion potential, and abiotic resource depletion, in accordance with the PCR. The LCIA results are calculated using OpenLCA software. The results for these indicators are shown in Table 9 through Table 12.

Table 9. *Life Cycle Impact Assessment results for the STANLEY Access Dura-Care 7000 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Impact Category	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
TRACI							
Global warming	kg CO_2 eq	160	4.19	14.0	23.8	0.00	0.798
	%	79%	2.1%	6.9%	12%	0.00%	0.39%
Acidification	kg N eq	1.03	$4.59x10^{-2}$	$4.18x10^{-2}$	0.138	0.00	$3.51x10^{-3}$
	%	82%	3.6%	3.3%	11%	0.00%	0.28%
Eutrophication	kg N eq	0.518	$4.36x10^{-3}$	$3.74x10^{-2}$	$4.82x10^{-2}$	0.00	$2.03x10^{-3}$
	%	85%	0.71%	6.1%	7.9%	0.00%	0.33%
Smog formation	kg O_3 eq	9.98	0.931	0.607	2.26	0.00	0.102
	%	72%	6.7%	4.4%	16%	0.00%	0.74%
Ozone depletion	kg CFC-11 eq	$3.05x10^{-6}$	$7.22x10^{-8}$	$2.01x10^{-7}$	$3.42x10^{-7}$	0.00	$1.32x10^{-8}$
	%	83%	2.0%	5.5%	9.3%	0.00%	0.36%
Fossil fuel depletion	MJ surplus	120	8.17	38.0	38.0	0.00	1.38
	%	58%	4.0%	18%	18%	0.00%	0.67%
CML							
Global warming	kg CO_2 eq	161	4.22	14.3	24.1	0.00	0.807
	%	79%	2.1%	7.0%	12%	0.00%	0.39%
Acidification	kg SO_2 eq	1.05	$4.20x10^{-2}$	$3.99x10^{-2}$	0.131	0.00	$2.76x10^{-3}$
	%	83%	3.3%	3.1%	10%	0.00%	0.22%
Eutrophication	kg $(PO_4)^{3-}$ eq	0.261	$6.03x10^{-3}$	$1.79x10^{-2}$	$2.94x10^{-2}$	0.00	$1.22x10^{-3}$
	%	83%	1.9%	5.7%	9.3%	0.00%	0.39%
Photochemical oxidation	kg C_2H_4 eq	$7.16x10^{-2}$	$1.34x10^{-3}$	$4.49x10^{-3}$	$5.12x10^{-3}$	0.00	$1.31x10^{-4}$
	%	87%	1.6%	5.4%	6.2%	0.00%	0.16%
Ozone layer depletion	kg CFC-11 eq	$2.40x10^{-6}$	$5.48x10^{-8}$	$1.46x10^{-7}$	$2.58x10^{-7}$	0.00	$1.02x10^{-8}$
	%	84%	1.9%	5.1%	9.0%	0.00%	0.36%
Abiotic depletion, fossil fuels	MJ	1,540	56.8	272	270	0.00	9.24
	%	72%	2.6%	13%	13%	0.00%	0.43%

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Table 10. *Life Cycle Impact Assessment results for the STANLEY Access Pro-Care 8300 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Impact Category	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
TRACI							
Global warming	kg CO_2 eq	122	3.20	13.8	22.3	0.00	0.565
	%	75%	2.0%	8.5%	14%	0.00%	0.35%
Acidification	kg N eq	0.786	$3.57x10^{-2}$	$4.17x10^{-2}$	0.135	0.00	$2.59x10^{-3}$
	%	78%	3.6%	4.2%	14%	0.00%	0.26%
Eutrophication	kg N eq	0.396	$3.34x10^{-3}$	$3.49x10^{-2}$	$4.70x10^{-2}$	0.00	$1.02x10^{-3}$
	%	82%	0.69%	7.2%	9.7%	0.00%	0.21%
Smog formation	kg O_3 eq	7.59	0.721	0.603	2.11	0.00	$7.58x10^{-2}$
	%	68%	6.5%	5.4%	19%	0.00%	0.68%
Ozone depletion	kg CFC-11 eq	$2.27x10^{-6}$	$5.52x10^{-8}$	$2.01x10^{-7}$	$3.12x10^{-7}$	0.00	$9.44x10^{-9}$
	%	80%	1.9%	7.0%	11%	0.00%	0.33%
Fossil fuel depletion	MJ surplus	91.7	6.24	38.0	34.5	0.00	1.02
	%	53%	3.6%	22%	20%	0.00%	0.60%
CML							
Global warming	kg CO_2 eq	122	3.23	14.1	22.5	0.00	0.572
	%	75%	2.0%	8.6%	14%	0.00%	0.35%
Acidification	kg SO_2 eq	0.803	$3.27x10^{-2}$	$3.98x10^{-2}$	0.129	0.00	$2.04x10^{-3}$
	%	80%	3.2%	4.0%	13%	0.00%	0.20%
Eutrophication	kg $(PO_4)^{3-}$ eq	0.199	$4.66x10^{-3}$	$1.69x10^{-2}$	$2.83x10^{-2}$	0.00	$7.27x10^{-4}$
	%	80%	1.9%	6.8%	11%	0.00%	0.29%
Photochemical oxidation	kg C_2H_4 eq	$5.43x10^{-2}$	$1.04x10^{-3}$	$4.43x10^{-3}$	$4.96x10^{-3}$	0.00	$9.71x10^{-5}$
	%	84%	1.6%	6.8%	7.7%	0.00%	0.15%
Ozone layer depletion	kg CFC-11 eq	$1.78x10^{-6}$	$4.19x10^{-8}$	$1.46x10^{-7}$	$2.35x10^{-7}$	0.00	$7.27x10^{-9}$
	%	81%	1.9%	6.6%	11%	0.00%	0.33%
Abiotic depletion, fossil fuels	MJ	1,170	43.3	271	245	0.00	6.83
	%	67%	2.5%	16%	14%	0.00%	0.39%

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Table 11. *Life Cycle Impact Assessment results for the STANLEY Access Pro-Care 8500 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Impact Category	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
TRACI							
Global warming	kg CO_2 eq	179	5.39	19.4	24.7	0.00	1.07
	%	78%	2.4%	8.5%	11%	0.00%	0.47%
Acidification	kg N eq	1.13	$3.68x10^{-2}$	$4.65x10^{-2}$	0.146	0.00	$4.28x10^{-3}$
	%	83%	2.7%	3.4%	11%	0.00%	0.31%
Eutrophication	kg N eq	0.596	$5.30x10^{-3}$	$3.62x10^{-2}$	$3.90x10^{-2}$	0.00	$5.13x10^{-3}$
	%	87%	0.78%	5.3%	5.7%	0.00%	0.75%
Smog formation	kg O_3 eq	11.1	0.809	0.655	2.41	0.00	0.126
	%	73%	5.4%	4.3%	16%	0.00%	0.83%
Ozone depletion	kg CFC-11 eq	$3.47x10^{-6}$	$9.40x10^{-8}$	$3.67x10^{-7}$	$3.66x10^{-7}$	0.00	$1.52x10^{-8}$
	%	80%	2.2%	8.5%	8.5%	0.00%	0.35%
Fossil fuel depletion	MJ surplus	135	10.7	44.4	40.7	0.00	1.68
	%	58%	4.6%	19%	17%	0.00%	0.72%
CML							
Global warming	kg CO_2 eq	180	5.43	19.8	24.9	0.00	1.10
	%	78%	2.3%	8.5%	11%	0.00%	0.47%
Acidification	kg SO_2 eq	1.15	$3.27x10^{-2}$	$4.50x10^{-2}$	0.138	0.00	$3.38x10^{-3}$
	%	84%	2.4%	3.3%	10%	0.00%	0.25%
Eutrophication	kg $(PO_4)^{3-}$ eq	0.299	$5.85x10^{-3}$	$1.77x10^{-2}$	$2.69x10^{-2}$	0.00	$2.56x10^{-3}$
	%	85%	1.7%	5.0%	7.6%	0.00%	0.73%
Photochemical oxidation	kg C_2H_4 eq	$7.85x10^{-2}$	$1.22x10^{-3}$	$3.81x10^{-3}$	$5.39x10^{-3}$	0.00	$1.73x10^{-4}$
	%	88%	1.4%	4.3%	6.0%	0.00%	0.19%
Ozone layer depletion	kg CFC-11 eq	$2.74x10^{-6}$	$7.14x10^{-8}$	$2.71x10^{-7}$	$2.76x10^{-7}$	0.00	$1.16x10^{-8}$
	%	81%	2.1%	8.0%	8.2%	0.00%	0.34%
Abiotic depletion, fossil fuels	MJ	1,730	74.9	308	289	0.00	11.2
	%	72%	3.1%	13%	12%	0.00%	0.47%

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Table 12. *Life Cycle Impact Assessment results for the STANLEY Access Pro-Care 8500 Series Automatic Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Impact Category	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
TRACI							
Global warming	kg CO_2 eq	220	5.52	23.2	25.4	207	1.55
	%	46%	1.1%	4.8%	5.3%	43%	0.32%
Acidification	kg N eq	1.38	$3.85x10^{-2}$	$5.44x10^{-2}$	0.149	1.16	$4.70x10^{-3}$
	%	50%	1.4%	2.0%	5.4%	42%	0.17%
Eutrophication	kg N eq	1.02	$5.45x10^{-3}$	$3.97x10^{-2}$	$3.96x10^{-2}$	0.585	$9.80x10^{-3}$
	%	60%	0.32%	2.3%	2.3%	34%	0.58%
Smog formation	kg O_3 eq	14.3	0.842	0.762	2.48	11.1	0.137
	%	48%	2.8%	2.6%	8.4%	37%	0.46%
Ozone depletion	kg CFC-11 eq	$6.20x10^{-6}$	$9.64x10^{-8}$	$4.54x10^{-7}$	$3.79x10^{-7}$	$4.82x10^{-6}$	$1.65x10^{-8}$
	%	52%	0.81%	3.8%	3.2%	40%	0.14%
Fossil fuel depletion	MJ surplus	172	11.0	52.4	42.1	320	1.82
	%	29%	1.8%	8.7%	7.0%	53%	0.30%
CML							
Global warming	kg CO_2 eq	222	5.57	23.6	25.6	209	1.65
	%	45%	1.1%	4.8%	5.3%	43%	0.34%
Acidification	kg SO_2 eq	1.39	$3.42x10^{-2}$	$5.28x10^{-2}$	0.140	1.20	$3.71x10^{-3}$
	%	49%	1.2%	1.9%	5.0%	42%	0.13%
Eutrophication	kg $(PO_4)^{3-}$ eq	0.494	$6.06x10^{-3}$	$1.97x10^{-2}$	$2.75x10^{-2}$	0.300	$4.36x10^{-3}$
	%	58%	0.71%	2.3%	3.2%	35%	0.51%
Photochemical oxidation	kg C_2H_4 eq	$8.93x10^{-2}$	$1.26x10^{-3}$	$4.24x10^{-3}$	$5.50x10^{-3}$	$4.97x10^{-2}$	$2.74x10^{-4}$
	%	59%	0.84%	2.8%	3.7%	33%	0.18%
Ozone layer depletion	kg CFC-11 eq	$5.26x10^{-6}$	$7.31x10^{-8}$	$3.36x10^{-7}$	$2.85x10^{-7}$	$3.32x10^{-6}$	$1.26x10^{-8}$
	%	57%	0.79%	3.6%	3.1%	36%	0.14%
Abiotic depletion, fossil fuels	MJ	2,180	76.7	362	299	2,730	12.2
	%	39%	1.4%	6.4%	5.3%	48%	0.22%

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ADDITIONAL ENVIRONMENTAL PARAMETERS

ISO 21930 requires that several parameters be reported in the EPD, including resource use, waste categories and output flows, and other environmental information. The results for these parameters are shown in Table 13 through Table 16. As the products do not contain significant amounts of bio-based materials, biogenic carbon emissions and removals are not declared.

Table 13. *Resource use and waste flows for the STANLEY Access Dura-Care 7000 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Parameter	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
Energy Resource Use							
Use of renewable primary energy excluding resources used as raw materials	MJ	479	0.636	32.0	7.63	0.00	$5.43x10^{-2}$
	%	92%	0.12%	6.2%	1.5%	0.00%	0.01%
Use of renewable primary energy resources used as raw materials	MJ	0.00	0.00	0.00	0.00	0.00	0.00
	%	0%	0%	0%	0%	0%	0%
Use of non-renewable primary energy excluding resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of non-renewable primary energy resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of secondary materials	kg	4.24	0.00	0.00	0.00	0.00	0.00
	%	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Use of secondary fuels	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Recovered energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Use of net fresh water	m^3	5.97	$3.79x10^{-2}$	0.770	0.359	0.00	$7.07x10^{-3}$
	%	84%	0.53%	11%	5.0%	0.00%	0.10%
Wastes							
Hazardous waste disposed	kg	$8.71x10^{-3}$	$3.46x10^{-4}$	$5.11x10^{-4}$	$1.53x10^{-3}$	0.00	$6.14x10^{-5}$
	%	78%	3.1%	4.6%	14%	0.00%	0.55%
Non-hazardous waste disposed	kg	38.4	2.02	2.29	9.98	0.00	4.47
	%	67%	3.5%	4.0%	17%	0.00%	7.8%
High-level radioactive wastes disposed	kg	$3.81x10^{-4}$	$2.97x10^{-6}$	$8.56x10^{-5}$	$2.27x10^{-5}$	0.00	$2.66x10^{-7}$
	%	77%	0.60%	17%	4.6%	0.00%	0.05%
Low-level radioactive wastes disposed	kg	$9.60x10^{-4}$	$7.08x10^{-6}$	$3.55x10^{-4}$	$5.28x10^{-5}$	0.00	$6.44x10^{-7}$
	%	70%	0.52%	26%	3.8%	0.00%	0.05%
Components for Re-use	kg	0.00	0.00	0.00	0.00	0.00	0.00
Materials for Recycling	kg	0.00	0.00	0.00	0.807	0.00	8.82
	%	0.00%	0.00%	0.00%	8.4%	0.00%	92%
Materials for energy recovery	kg	N/A	N/A	N/A	N/A	N/A	N/A
Exported energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A

INA = Indicator not assessed. No classification scheme is available in OpenLCA to estimate these indicators.

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Table 14. *Resource use and waste flows for the STANLEY Access Pro-Care 8300 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Parameter	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
Energy Resource Use							
Use of renewable primary energy excluding resources used as raw materials	MJ	364	0.484	32.0	7.57	0.00	$3.77x10^{-2}$
	%	90%	0.12%	7.9%	1.9%	0.00%	0.01%
Use of renewable primary energy resources used as raw materials	MJ	0.00	0.00	0.00	0.00	0.00	0.00
	%	0%	0%	0%	0%	0%	0%
Use of non-renewable primary energy excluding resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of non-renewable primary energy resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of secondary materials	kg	3.20	0.00	0.00	0.00	0.00	0.00
	%	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Use of secondary fuels	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Recovered energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Use of net fresh water	m^3	4.54	$2.88x10^{-2}$	0.769	0.349	0.00	$4.41x10^{-3}$
	%	80%	0.51%	14%	6.1%	0.00%	0.08%
Wastes							
Hazardous waste disposed	kg	$6.61x10^{-3}$	$2.64x10^{-4}$	$5.09x10^{-4}$	$1.35x10^{-3}$	0.00	$4.55x10^{-5}$
	%	75%	3.0%	5.8%	15%	0.00%	0.52%
Non-hazardous waste disposed	kg	29.0	1.52	1.92	8.48	0.00	3.24
	%	66%	3.5%	4.3%	19%	0.00%	7.3%
High-level radioactive wastes disposed	kg	$2.89x10^{-4}$	$2.26x10^{-6}$	$8.56x10^{-5}$	$2.17x10^{-5}$	0.00	$1.89x10^{-7}$
	%	73%	0.57%	21%	5.4%	0.00%	0.05%
Low-level radioactive wastes disposed	kg	$8.29x10^{-4}$	$5.39x10^{-6}$	$3.55x10^{-4}$	$5.02x10^{-5}$	0.00	$4.55x10^{-7}$
	%	67%	0.43%	29%	4.0%	0.00%	0.04%
Components for Re-use	kg	0.00	0.00	0.00	0.00	0.00	0.00
Materials for Recycling	kg	0.00	0.00	0.00	0.807	0.00	6.67
	%	0.00%	0.00%	0.00%	11%	0.00%	89%
Materials for energy recovery	kg	N/A	N/A	N/A	N/A	N/A	N/A
Exported energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A

INA = Indicator not assessed. No classification scheme is available in OpenLCA to estimate these indicators.

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Table 15. *Resource use and waste flows for the STANLEY Access Pro-Care 8500 Series Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Parameter	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
Energy Resource Use							
Use of renewable primary energy excluding resources used as raw materials	MJ	510	0.916	25.6	8.07	0.00	$6.18x10^{-2}$
	%	94%	0.17%	4.7%	1.5%	0.00%	0.01%
Use of renewable primary energy resources used as raw materials	MJ	0.00	0.00	0.00	0.00	0.00	0.00
	%	0%	0%	0%	0%	0%	0%
Use of non-renewable primary energy excluding resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of non-renewable primary energy resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of secondary materials	kg	5.89	0.00	0.00	0.00	0.00	0.00
	%	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Use of secondary fuels	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Recovered energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Use of net fresh water	m^3	6.79	$5.48x10^{-2}$	0.904	0.380	0.00	$6.38x10^{-3}$
	%	83%	0.67%	11%	4.7%	0.00%	0.08%
Wastes							
Hazardous waste disposed	kg	$1.02x10^{-2}$	$4.77x10^{-4}$	$9.56x10^{-4}$	$1.64x10^{-3}$	0.00	$7.48x10^{-5}$
	%	76%	3.6%	7.2%	12%	0.00%	0.56%
Non-hazardous waste disposed	kg	42.2	3.28	2.59	9.98	0.00	5.67
	%	66%	5.1%	4.1%	16%	0.00%	8.9%
High-level radioactive wastes disposed	kg	$4.32x10^{-4}$	$4.29x10^{-6}$	$1.48x10^{-4}$	$2.42x10^{-5}$	0.00	$3.15x10^{-7}$
	%	71%	0.70%	24%	4.0%	0.00%	0.05%
Low-level radioactive wastes disposed	kg	$1.55x10^{-3}$	$1.02x10^{-5}$	$7.10x10^{-4}$	$5.63x10^{-5}$	0.00	$7.58x10^{-7}$
	%	67%	0.44%	30%	2.4%	0.00%	0.03%
Components for Re-use	kg	0.00	0.00	0.00	0.00	0.00	0.00
Materials for Recycling	kg	0.00	0.00	0.00	0.436	0.00	10.4
	%	0.00%	0.00%	0.00%	4.0%	0.00%	96%
Materials for energy recovery	kg	N/A	N/A	N/A	N/A	N/A	N/A
Exported energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A

INA = Indicator not assessed. No classification scheme is available in OpenLCA to estimate these indicators.

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Table 16. *Resource use and waste flows for the STANLEY Access Pro-Care 8500 Series Automatic Sliding Doors per functional unit. Results reported in MJ are calculated using lower heating values. All values are rounded to three significant digits.*

Parameter	Unit	Raw Materials	Transport	Manufacturing	Construction	Use	Disposal
Energy Resource Use							
Use of renewable primary energy excluding resources used as raw materials	MJ	575	0.936	28.3	8.20	385	$7.71x10^{-2}$
	%	58%	0.09%	2.8%	0.82%	39%	0.01%
Use of renewable primary energy resources used as raw materials	MJ	0.00	0.00	0.00	0.00	0.00	0.00
	%	0%	0%	0%	0%	0%	0%
Use of non-renewable primary energy excluding resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of non-renewable primary energy resources used as raw materials	MJ	INA	INA	INA	INA	INA	INA
Use of secondary materials	kg	5.93	0.00	0.00	0.00	0.00	0.00
	%	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Use of secondary fuels	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Recovered energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A
Use of net fresh water	m^3	9.77	$5.60x10^{-2}$	1.07	0.388	20.3	$7.54x10^{-3}$
	%	31%	0.18%	3.4%	1.2%	64%	0.02%
Wastes							
Hazardous waste disposed	kg	$1.26x10^{-2}$	$4.88x10^{-4}$	$1.18x10^{-3}$	$1.71x10^{-3}$	$9.46x10^{-3}$	$8.11x10^{-5}$
	%	49%	1.9%	4.6%	6.7%	37%	0.32%
Non-hazardous waste disposed	kg	46.1	3.34	2.76	10.5	27.0	6.45
	%	48%	3.5%	2.9%	11%	28%	6.7%
High-level radioactive wastes disposed	kg	$7.54x10^{-4}$	$4.38x10^{-6}$	$1.82x10^{-4}$	$2.48x10^{-5}$	$3.26x10^{-3}$	$3.94x10^{-7}$
	%	18%	0.10%	4.3%	0.59%	77%	0.01%
Low-level radioactive wastes disposed	kg	$2.37x10^{-3}$	$1.04x10^{-5}$	$8.84x10^{-4}$	$5.77x10^{-5}$	$1.66x10^{-2}$	$9.58x10^{-7}$
	%	12%	0.05%	4.4%	0.29%	83%	0.00%
Components for Re-use	kg	0.00	0.00	0.00	0.00	0.00	0.00
Materials for Recycling	kg	0.00	0.00	0.00	0.436	0.00	10.6
	%	0.00%	0.00%	0.00%	4.0%	0.00%	96%
Materials for energy recovery	kg	N/A	N/A	N/A	N/A	N/A	N/A
Exported energy	MJ	N/A	N/A	N/A	N/A	N/A	N/A

INA = Indicator not assessed. No classification scheme is available in OpenLCA to estimate these indicators.

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ADDITIONAL ENVIRONMENTAL INFORMATION

STANLEY® Access Technologies is the only automatic door manufacturer with two US manufacturing facilities; Greenfield, IN and Farmington, CT.

Stanley's Refurbish Equipment Program means no dumpsters required and no landfills used; oil and grease is recycled.

Our Plant Recycling Program recycles oil and grease, cardboard, white paper and scrap aluminum and steel.

In 2017, STANLEY® Access Technologies' Farmington factory installed a combustion-free Bloom Energy Server for clean energy. This server will deliver enhanced sustainability benefits including high efficiency greenhouse gas emissions, avoid air pollutants and significantly reduce water use.

Our aluminum vendors are ISO14001 and ISO50001 certified to control their energy usage and environmental impacts.

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SUPPORTING TECHNICAL INFORMATION

Data Sources

Component	Material Dataset	Processing Dataset	Data Source	Publication Date
PRODUCT COMPONENT				
Recycled Aluminum	market for aluminium, primary, ingot | aluminium, primary, ingot | Cutoff, S/IAI Area, NA	metal working, average for aluminium product manufacturing | metal working, average for aluminium product manufacturing | Cutoff, S/RoW	EI v3.9	2022
	market for aluminium scrap, new | aluminium scrap, new | Cutoff, S/RoW		EI v3.9	2022
	market for aluminium scrap, post-consumer | aluminium scrap, post-consumer | Cutoff, S/GLO		EI v3.9	2022
Aluminum	market for aluminium, primary, ingot | aluminium, primary, ingot | Cutoff, S/IAI Area, North America	metal working, average for aluminium product manufacturing | metal working, average for aluminium product manufacturing | Cutoff, S/RoW	EI v3.9	2022
Steel	steel production, converter, low-alloyed | steel, low-alloyed | Cutoff, S/RoW	metal working, average for steel product manufacturing | metal working, average for steel product manufacturing | Cutoff, S/RoW	EI v3.9	2022
Plastic	polyethylene production, high density, granulate | polyethylene, high density, granulate | Cutoff, S/Ro	injection moulding | injection moulding | Cutoff, S/RoW	EI v3.9	2022
	polyvinylchloride production, bulk polymerisation | polyvinylchloride, bulk polymerised | Cutoff, S/RER		EI v3.9	2022
	acrylonitrile-butadiene-styrene copolymer production | acrylonitrile-butadiene-styrene copolymer | Cutoff, S/RER		EI v3.9	2022
	Polyoxymethylene (POM) PlasticsEurope/EU-27		EI v3.9	2022
	polyurethane production, rigid foam | polyurethane, rigid foam | Cutoff, S/RoW		EI v3.9	2022
	polyvinylchloride production, bulk polymerisation | polyvinylchloride, bulk polymerised | Cutoff, S/RoW		EI v3.9	2022
	synthetic rubber production | synthetic rubber | Cutoff, S/RoW		EI v3.9	2022
	nylon 6-6 production | nylon 6-6 | Cutoff, S/RoW		EI v3.9	2022
Electronics/ Motor Assembly	Electronics, for control units {GLO}| market for | Alloc Rec (46% steel (housing), 32% plastics, 14% printed wiring boards and 8% cables)	Included with material dataset	EI v3.9	2022
Glass	flat glass production, uncoated | flat glass, uncoated | Cutoff, S/RoW	tempering, flat glass | tempering, flat glass | Cutoff, S/RoW	EI v3.9	2022
PACKAGING				
Cardboard	containerboard production, linerboard, kraftliner | containerboard, linerboard | Cutoff, S/RoW	Included with material dataset	EI v3.9	2022
Plastic Wrap	packaging film production, low density polyethylene | packaging film, low density polyethylene | Cutoff, S/RoW	Included with material dataset	EI v3.9	2022
Paper	kraft paper production | kraft paper | Cutoff, S/RoW	Included with material dataset	EI v3.9	2022
TRANSPORTATION				
Road transport	Diesel Truck	transport, freight, lorry 16-32 metric ton, EURO4 | transport, freight, lorry 16-32 metric ton, EURO4 | Cutoff, S/RoW	EI v3.9	2022
Ship transport	Transoceanic Ship	transport, freight, sea, container ship | transport, freight, sea, container ship | Cutoff, S/GLO	EI v3.9	2022
RESOURCES				
Electricity	RFCW eGRID sub-region electricity grid	Electricity, medium voltage, at grid/RFCW	EI v3.9;eGRID	2022; 2020
Electricity	NEWE eGRID sub-region electricity grid	Electricity, medium voltage, at grid/NEWE	EI v3.9;eGRID	2022; 2020
Electricity	US average electricity grid	Electricity, medium voltage, {US} | market for | Alloc	EI v3.9	2022
Natural gas combustion	Natural gas	heat production, natural gas, at boiler modulating >100kW | heat, district or industrial, natural gas | Cutoff, S/RoW	EI v3.9	2022

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Data Quality

Data Quality Parameter	Data Quality Discussion
Time-Related Coverage Age of data and the minimum length of time over which data should be collected	The most recent available data are used, based on other considerations such as data quality and similarity to the actual operations. Typically, these data are less than 10 years old. All of the data used represented an average of at least one year's worth of data collection, and up to three years in some cases. Manufacturer-supplied data (primary data) are based on annual production for 2021.
Geographical Coverage Geographical area from which data for unit processes should be collected to satisfy the goal of the study	The data used in the analysis provide the best possible representation available with current data. Electricity use for product manufacture is modeled using representative data for the appropriate eGRID electricity grid mixes. Surrogate data used in the assessment are representative of North American or global operations. Data representative of global operations are considered sufficiently similar to actual processes. Data representing product disposal are based on US statistics.
Technology Coverage Specific technology or technology mix	For the most part, data are representative of the actual technologies used for processing, transportation, and manufacturing operations. Representative datasets are used to represent the actual processes, as appropriate.
Precision Measure of the variability of the data values for each data expressed (e.g. variance)	Precision of results are not quantified due to a lack of data. Data collected for operations were typically averaged for one or more years and over multiple operations, which is expected to reduce the variability of results.
Completeness Percentage of flow that is measured or estimated	The LCA model included all known mass and energy flows for production of the door products. In some instances, surrogate data used to represent upstream and downstream operations may be missing some data which is propagated in the model. No known processes or activities contributing to more than 1% of the total environmental impact for each indicator are excluded. In total, these missing data represent less than 5% of the mass or energy flows.
Representativeness Qualitative assessment of the degree to which the data set reflects the true population of interest (i.e. geographical coverage, time period, and technology coverage)	Data used in the assessment represent typical or average processes as currently reported from multiple data sources and are therefore generally representative of the range of actual processes and technologies for production of these materials. Considerable deviation may exist among actual processes on a site-specific basis; however, such a determination would require detailed data collection throughout the supply chain back to resource extraction.
Consistency Qualitative assessment of whether the study methodology is applied uniformly to the various components of the analysis	The consistency of the assessment is considered to be high. Data sources of similar quality and age are used; with a bias towards Ecoinvent v3.9 data where available. Different portions of the product life cycle are equally considered; however, it must be noted that final disposition of the product is based on assumptions of current average practices in the United States.
Reproducibility Qualitative assessment of the extent to which information about the methodology and data values would allow an independent practitioner to reproduce the results reported in the study	Based on the description of data and assumptions used, this assessment would be reproducible by other practitioners. All assumptions, models, and data sources are documented.
Sources of the Data Description of all primary and secondary data sources	Data representing energy use at the STANLEY manufacturing facilities represent an annual average and are considered of high quality due to the length of time over which these data are collected, as compared to a snapshot that may not accurately reflect fluctuations in production. For secondary LCI datasets, Ecoinvent v3.9 LCI data are used.

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Allocation

Annual energy resource use and emissions at the STANLEY manufacturing facilities were reported separately for electricity and fuel consumption (natural gas) and allocated to the product based on the cost of production of the product as a fraction of the total facility production costs (i.e., economic allocation).
The product system includes some recycled materials, which were allocated using the recycled content allocation method (also known as the 100-0 cut off method). Using the recycled content allocation approach, system inputs with recycled content do not receive any burden from the previous life cycle other than reprocessing of the waste material. At end of life, materials which are recycled leave the system boundaries with no additional burden.

Impacts from transportation were allocated based on the mass of material and distance transported.

Cut-off criteria

According to the PCR, cumulative omitted mass or energy flows within the product boundary shall not exceed 1%. In the present study, except as noted, all known materials and processes were included in the life cycle inventory.

REFERENCES

1. Product Category Rule for Preparing an Environmental Product Declaration for Power-Operated Pedestrian and Revolving Doors. UNCPC 4212. ASTM International. September 2016.
2. CML-IA Characterization Factors. Institute of Environmental Sciences. Leiden University. Netherlands.
3. Ecoinvent Centre (2022) Ecoinvent data from v3.9. Swiss Center for Life Cycle Inventories, Dubendorf, 2022, http://www.ecoinvent.org
4. ISO 14040:2006/AMD 1:2020 Environmental Management – Life cycle assessment – Principles and framework.
5. ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and Procedures.
6. ISO 14044:2006/AMD 1:2017/AMD 2:2020 Environmental Management – Life cycle assessment – Requirements and Guidelines.
7. SCS Type III Environmental Declaration Program: Program Operator Manual. V11.0 November 2021. SCS Global Services.
8. Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI). Dr. Bare, J., https://www.epa.gov/chemical-research/tool-reduction-and-assessment-chemicals-and-other-environmental-impacts-trac.i
9. SCS Global Services. Life Cycle Assessment of Power-Operated Doors. July 2023. Draft Report. Prepared for STANLEY Access Technologies.
10. US EPA. Advancing Sustainable Materials Management:2018 Fact Sheet Assessing Trends in Materials Generation and Management in the United States. November 2020. https://www.epa.gov/sites/production/files/2020-11/documents/2018_ff_fact_sheet.pdf..
11. US EPA. WARM Model Transportation Research - Draft. Memorandum from ICF Consulting to United States Environmental Protection Agency. September 7, 2004. http://epa.gov/epawaste/conserve/tools/warm/SWMGHGreport.html#background
12. ANSI/BHMA A156.10-2017 Power Operated Pedestrian Doors
13. ACLCA 2019, Guidance to Calculating Non-LCIA Inventory Metrics in Accordance with ISO 21930:2017. The American Centre for Life Cycle Assessment. May 2019

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