

# INSTALLATION INSTRUCTIONS FOR PLASCORE F5050 FRAMED WALL

The following information is provided by Plascore, Inc., as a general guideline for the installation of the F5050 Frame Wall System. This information should be reviewed prior to commencing installation. The information is intended to be a general guideline, and may not address specific, custom situations which may appear on any particular project. Please consult Plascore, Inc., for any specific details or design applications.

This guideline assumes that the jobsite is clear and ready for the construction of cleanroom walls. The ceiling grid and the access floor, if applicable, are to be in place prior to beginning work on the wall system.

Installation instructions for Plascore doors are not included in this document. Please reference "Installation Instructions for Plascore Wide Stile Door" or "Installation Instructions for Plascore Narrow Stile Door".

## 1. UNCRATING, INSPECTION, AND INVENTORY

- A. All components of the wall system are clean room packaged for protection during shipping. All parts have been cleaned in the factory.
- B. Panels are shipped with a protective plastic film, which should be left intact until the panels have been installed, and ready for final wipedown.
- C. Contractor should visually inspect crates as they unload off trucks. Crates may be unloaded with standard forklift equipment. Note any crate damage, and inspect crates with obvious damage. Compare label on crate with packing slip, which is attached to Bill of Lading. Notify Plascore of any discrepancies between part number and quantities on crate label and packing list.
- D. Crates should be stored where they are protected from moisture, humidity, and temperature extremes.
- E. Parts may be left in crates until required for installation. Note any damage on parts at this time, prior to installation.

## 2. INSTALLATION OF HEADTRACK

- A. Consult the project spreadsheet for the part number for the headtrack assembly. The headtrack has factory-installed gasket.
- B. Special attachment details are used at corners and wall ends. Please see Sections 2A and 2B for these details.
- C. The headtrack has pre-drilled holes for attachment into ceiling grid. Attachment hardware is to be furnished by contractor. Plascore does not provide the attachment hardware for the headtrack to the ceiling grid, due to installer preferences, local codes, and varying ceiling grid designs. When determining the hardware needs, know that the T-groove at the top of the head track has an opening of 0.40", which a

bolt head must pass through, or for which a washer must span.

- D. Attach the headtrack to the ceiling grid per the project wall system layout. Attachment of approximately 24" on center is generally sufficient for most projects. Consult the project architect or engineer for any specific design loads or attachment requirements.
- E. The headtrack is to butt against additional lengths of headtrack for long runs of Plascore walls. The headtrack is to butt against the existing wall at a wall start. The headtrack is to butt against existing headtrack for a 90° T-intersection.

## **2A. INSTALLATION OF HEADTRACK CORNERS**

- A. There are two different headtrack corners available from Plascore. Consult the project spreadsheet for part numbers
  - a) If the headtrack has a T-groove integrated into the design, then a miter connector (part no. 830720) and set screws (part no. 840820) will be supplied. Cut two pieces of headtrack (with a miter on one end) from a length of headtrack. Install the miter connector by sliding the connector into the T-grooves in the headtrack and tightening down the fasteners.
  - b) If the headtrack does not have a T-groove, Plascore provides welded corners.
- B. Attach the headtrack corners to the ceiling grid per the project wall system layout. The headtrack corner is installed in a similar fashion to a length of headtrack. See Section 2 for details.
- C. Butt the square end of headtrack welded corner to an additional length of headtrack to continue Plascore wall assembly. It may be necessary to trim the square ends of the corner if paint build-up on the ends prevents a tight joint with the adjacent length of headtrack.

## **2B. INSTALLATION OF HEADTRACK WALL ENDS**

- A. There are two different headtrack wall ends available from Plascore. Consult the project spreadsheet for part numbers
  - a) If the headtrack has a T-groove integrated into the design, then a Head Track Wall End Cover will be supplied that can be screwed into the length of headtrack at the appropriate location. The length of headtrack should extend past the post at the end of the wall by approximately 1/8".
  - b) If the headtrack does not have a T-groove, Plascore will provide a welded wall end assembly that is 12" long.
- B. Install a headtrack wall end to the ceiling grid in the typical fashion (if applicable).

## **3. INSTALLATION OF FLOORTRACK**

- A. Consult the project spreadsheet for the part number for the floortrack.
- B. Special attachment details are used at corners, door openings and wall ends. Please see Sections 3A, 3B, and 3C for these details.
- C. The floortrack has pre-drilled holes. Attachment hardware is to be furnished by contractor. Plascore does not provide the attachment hardware for the ceiling grid,

due to installer preferences, local codes, and varying ceiling grid designs. When determining the hardware needs, know that the T-groove in the floortrack has an opening of 0.40", which a bolt head must pass through, or for which a washer must span. Typical hardware is screws or j-hooks into access floor, or concrete anchors for concrete slab.

- D. Attachment of 24" or 36" on center spacing is usually adequate for attaching floortrack. Use a fastener within 3" of end of the floortrack if possible. Consult the project architect or engineer for specific fastening requirements.
- E. Install the floortrack after the headtrack is installed. The floortrack is usually installed everywhere below the headtrack except at corners and door openings. The centerline of floortrack should be directly below centerline of headtrack. A plumb bob is usually used for this alignment.
- F. Carefully align (2) lengths of floortrack before attaching to the floor.

### **3A. FLOORTRACK AT CORNERS**

- A. Unlike the headtrack corners, the floortrack is to stop short of the corner post assembly. The corner post extends to the floor, so the floortrack must be cut short of the outside corner by 2 5/8".
- B. Before mounting floortrack to the floor, install a threaded insert (part no. 831974) into the T-groove of the floortrack, using the Threaded Insert Installation Tool (part no. 831973). This is done by tightening the Installation Tool into the drill chuck and placing the threaded insert onto the end of the tool. Then, while applying pressure, use the drill to thread the insert into the T-groove of the floortrack, stopping when the tool has bottomed out against the floortrack.
- C. Insert a T-bolt (part number 868012) through the threaded insert in the floortrack. Loosely attach a 1/4-20 T-nut (part number 840803) onto the bolt. Push the T-nut into the cavity in the end of the floortrack.
- D. See Section 4 below, for detailed instructions for corner post installation.

### **3B. FLOORTRACK AT DOOR OPENINGS**

- A. An opening must be left in the floortrack layout for door openings. Please reference the appropriate Door Installation Instructions for either the Wide Stile Door or Narrow Stile Door.

### **3C. FLOOR TRACK AT WALL ENDS AND FRAMED OPENINGS**

- A. Wall ends and framed openings require openings in the floor track.
- B. Framed posts at wall ends extend to the floor. The wall end post includes a 2" Batten, so the floortrack should end 2" short of the wall end location.
- C. Clear openings for slider doors should be verified with the slider door manufacturer.
- D. For all wall ends and framed openings, install a threaded insert (part no. 831974) into the T-groove of the floortrack, using the Threaded Insert Installation Tool (part no. 831973) prior to mounting the floortrack to the floor. (See Section 3A for details.)

#### **4. CORNER POST INSTALLATION**

- A. Consult the project spreadsheet for the part number for the corner post assembly. Install the corner post assembly as floortrack is being installed. See Section 3A above.
- B. Pull back a short piece of the enclosure cap (part no. 830606) from the 2.5" batten (part no. 830593). This will allow the enclosure cap to be easily removed later for installing the panels. Note that the 2.5" battens are held in place by only one or two batten screws (part no. 840808). The additional screws are packaged separately, and shall be installed during the panel installation.
- C. The corner post assembly is pre-cut for length in the factory, ready for installation. Slip one end of the corner post into the headtrack and push to the top of the headtrack.
- D. Position the lower end of the corner post so that the flanges of the batten align with the surrounding floortracks. Pull the corner post down tight to the floor. The top of the corner post should still sit within the headtrack corner.
- E. Push the T-bolt in the floortrack out, sliding the T-nut into the T-groove of the corner post. Tighten with a 3/16" allen head T-handle (yellow-handled, part no. 840323), ensuring that the T-nut has engaged the T-groove in the corner post.

#### **5. INSTALLATION OF WALL STARTS AND T-INTERSECTIONS**

- A. Wall starts are defined as an abutment of the Plascore wall to another surface, such as an existing wall by others. T-intersections are defined as an abutment of the Plascore wall to another Plascore wall.
- B. Measure the distance between the top of the floortrack already installed onto the floor system, to the bottom edge of the headtrack above.
- C. Cut a floortrack to be utilized as a wall start 2" greater than the distance measured above. The wall start will extend into the headtrack by 2" and sit on top of the floortrack at the floor.
- D. A threaded insert (part no. 831974) may be installed into the bottom end of the floortrack/wallstart using the Threaded Insert Installation Tool (part no. 831973). (See Section 3A for details.) Insert a T-bolt (part no. 868012) through the threaded insert and attach a T-nut (part no. 840803) to it.
- E. Insert the top end of floortrack/wallstart into headtrack, then position bottom end over the existing floortrack.
- F. If a threaded insert was used to aid in this alignment, insert the T-nut into the T-groove of the floortrack mounted to the floor surface. Use a 3/16" allen head T-handle (yellow-handled, part 840323) to tighten the t-bolt.
- G. Attach the floortrack/wallstart to the vertical surface. Use appropriate fasteners for this attachment. Plascore does not supply these fasteners, because of the varied requirements for this attachment.

#### **6. INSTALLATION OF WALL ENDS**

- A. A wall end is the termination of a Plascore wall in an open area, such as a wing wall.

- B. Cut the floortrack back 2" from termination point. Install a threaded insert (part no. 831974) into the T-groove of the floortrack, using the Threaded Insert Installation Tool (part no. 831973) prior to mounting the floortrack to the floor. (See Section 3A for details.) Insert a T-bolt (part number 868012) through the threaded insert in the floortrack. Loosely attach a ¼-20 T-nut (part number 840803) onto the bolt.
- C. NOTE: Plascore has provided a post assembly that is 1" longer than the typical post assemblies for this application. Consult the project spreadsheet for part number. This post assembly is pre-cut at the factory, to fit within the headtrack and rest on the finished floor surface. First, pull back the enclosure cap slightly from the bottom end of the assembly for easy removal later. Push the top of the post into the headtrack, against the headtrack wall end cover. Pull the post down and align the post on the floor with the floortrack. Tighten the bolt (through the threaded insert) into the vertical wall end post, ensuring that the T-nut has engaged in the T-groove in the vertical post.
- D. To finish the exposed edge of the post assembly, remove the enclosure cap and batten. To install the supplied spacer bar (part no. 1216), apply double-faced tape to the backside of spacer bar, peel off the paper, and press into place. Be careful to align the spacer bar so that the edge of the bar is flush with the edge of the vertical post. Reinstall the batten to cover the spacer bar and reinstall the enclosure cap.

## 7. INSTALLATION OF VERTICAL POSTS

- A. Vertical post assemblies are typically installed 48" or 1200mm on center. See the project wall system layout for clarity. These posts are factory cut to length to fit into the headtrack, and rest on the continuous floortrack. The bottom of the post assembly has two threaded inserts (part no. 831974) installed at the factory, which serves as the attachment into the floortrack. (Posts are also available in long lengths to be cut in the field. Threaded inserts are also available separately to be installed in the field.) Posts are typically installed on the same gridline as the cleanroom ceiling system overhead, which can act as a guideline during installation.
- E. Pull back the enclosure caps slightly from the bottom of the post assembly for easy removal later (Enclosure caps must be removed for panel installation, and proper spacing of batten screws). Insert a T-bolt (part number 868012) through each threaded insert in the floortrack. Loosely attach a ¼-20 T-nut (part number 840803) onto the bolt.
- B. Push the top of the post into the headtrack, and then pull the post down onto the floortrack at the proper location.
- F. Align each T-nut so that it drops into the T-groove in the floortrack and tighten with the 3/16" allen head T-handle (yellow-handled, part no. 840323), ensuring that the T-nuts have engaged in the T-groove in the floortrack.
- C. The spacing of posts may be interrupted at door modules or other openings. The floortrack should be previously cut for these openings (refer to Section 3B & 3C). The post spacing should continue on with the same center-to-center dimension through and past all openings.

## 8. INSTALLATION OF HORIZONTAL POSTS

- A. Horizontal post assemblies are factory-cut to fit between vertical posts that are typically installed 48" or 1200mm on center. See the project wall system layout for clarity. Each end of the post assembly has two threaded inserts installed at the factory, which serves as the attachments into the vertical post.
- B. Pull back the enclosure caps slightly from the end of the post assembly for easy removal later. (Enclosure caps must be removed for panel installation, and proper spacing of batten screws) Insert T-bolts (part number 868012) through the threaded inserts in the post assembly. Loosely attach ¼-20 T-nuts (part number 840803) onto the bolts. Push the T-nuts into the cavities in the end of the post assembly.
- C. Carefully slide the horizontal post between the vertical posts, taking care not to scratch the vertical posts.
- D. Once the horizontal post is in the proper location, tighten the bolts with the 3/16" Allen head T-handle (yellow-handled, part no. 840323), ensuring that the T-nut is engaged in the T-groove in the vertical post.

## 9. INSTALLATION OF PANELS

*“Plascore materials must be protected from exposure to water or other contaminants. Plascore materials must not be stored where they are exposed to the elements. A panel with protective film must not get wet at any time.*

*Plascore materials should be stored at a temperature between 20° and 110° F. Storage at temperatures outside these limits may cause the protective film to be difficult to remove and/or it may leave residue on the panel. Plascore recommends that the protective film be removed within 6 months of purchase.*

*It is Plascore’s recommendation that the protective film be removed only 36 hours after the panel and film have reached 68-78 °F with relative humidity not to exceed 50%. Not following these guidelines may cause the protective film to be difficult to remove and/or it may leave residue on the panel.*

***If the protective film leaves residue behind, notify Plascore immediately before proceeding.*** - taken from the “Plascore Cleaning/Maintenance Guidelines”. Please refer to the complete document for more information.

- A. Before installing a panel, peel back the protective film on both surfaces of the panel around all four edges approximately 1". Leave protective film intact on face of panel for protection until final wipedown occurs.
- B. Remove the enclosure caps and battens from adjacent posts. Note that there are only one or two batten screws installed at the factory to hold the batten to the vertical post. Batten screws (shipped loose) are to be installed approximately 12" on center after the panels have been installed.
- C. To install a panel, push one end into headtrack until it clears the floortrack. Position

the panel over the floortrack and pull panel down until it sits all the way in the floortrack. The panels have been sized in the factory to overlap each side of the post by 3/8" for the typical wall system layout. The batten will cover the panels by 3/8" per side.

- D. The recommended option for cutting panels in the field is to use a circular saw with a fine-toothed carbide blade.
- E. Panels will typically need to be field cut for width at the end of a straight run. To determine the cut width of the last panel, measure between the batten and the vertical surface where the panel will end (typically a wall start or corner post assembly). The panel should be cut 3/4" more than this opening measurement, which will allow the panel to be grabbed by the vertical batten wing by 3/8", which is sufficient for holding the panel rigid.
- F. After panels are installed, re-install the battens to the vertical post. Fasten the battens to the posts with the supplied batten screws (part no. 868008). Typical spacing for the screws is 12" on center. (Consult the project architect or engineer for screw spacing for specific requirements.) Reinstall enclosure caps.

## **10. FINAL INSPECTION AND WIPE-DOWN**

- A. Remove protective film from panels only after all installation steps have been completed.
- B. Wipe down panels and extrusions and door leafs with an approved alcohol wipe. If any chemicals are to be utilized in the cleaning process, spot check with extra materials prior to use to insure that the finish of the wall system is not affected.
- C. Consult Plascore's Maintenance and Cleaning Guide or a Plascore representative for specific cleaning issues.

## **11. RECOMMENDED TOOLS**

Following is a list of tools recommended by Plascore to install its F5050 Frame Wall System. This may not be a comprehensive list. Experience with the system and general construction techniques may help to personalize the tool choice for each contracting crew.

- a) Allen Head Wrenches: M8", 1/8", 5/32", 3/16" (yellow T-handle, available through Plascore.)
- b) #12 Phillips Screwdriver
- c) 5/16" Socket Drive and Ratchet
- d) 5/8" Open-Ended Wrench
- e) Soft Rubber Mallet
- f) Claw Hammer (to open Plascore crates)
- g) Circular Saw with Fine Toothed Carbide Blade
- h) Chop Saw or Miter Saw with Fine Tooth Carbide Blade
- i) Plunge Router with Double Fluted Carbide Tip Bit (Optional)

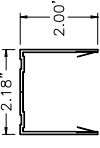
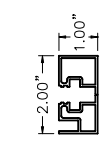
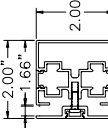
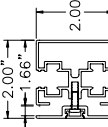
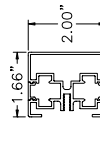
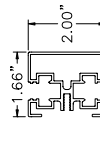
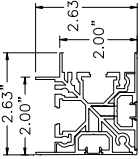
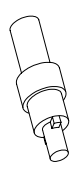




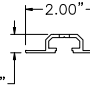
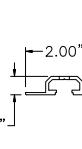
j) Suction Cup Panel Holders

(End of Section)

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# F5050

PROJECT NAME: \_\_\_\_\_  
 SUBMITTAL REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

 <p>55mmx2" Head Track Assy w/gasket Welded Corner 871001 871011</p> <p>831932 Head Track 55mm x 2" HT Gasket 33774</p> <p>Other styles also available</p>	 <p>5050 Floor Track Assy 831937 w/ 0 inserts 871022 w/ 1 insert 871021 w/ 2 inserts</p> <p>831937 F5050 Floor Track Threaded Insert 831974</p>	 <p>0.25" PANEL</p> <p>F5050 Post w/Batten Assy 871025 w/ 0 inserts 871004 w/ 2 inserts 871005 w/ 4 inserts</p> <p>831936 F5050 Post 831085 2" Shallow Batten Enclosure Cap 830606 Enclosure Cap 868008 Batten Screw 831974 Threaded Insert</p>	 <p>0.25" PANEL</p> <p>F5050 Post w/Batten Assy 871026 w/ 0 inserts 871015 w/ 2 inserts 871014 w/ 4 inserts</p> <p>831936 F5050 Post 831085 2" Shallow Batten Enclosure Cap 830606 Enclosure Cap 868008 Batten Screw 831974 Threaded Insert</p>	 <p>F5050 Post only Assy 871028 w/ 0 inserts 871017 w/ 2 inserts 871012 w/ 4 inserts</p> <p>831936 F5050 Post Enclosure Cap 830606 Threaded Insert 831974</p>	 <p>F5050 Post only Assy 831936 w/ 0 inserts 871016 w/ 2 inserts 871013 w/ 4 inserts</p> <p>831936 F5050 Post Threaded Insert 831974</p>	 <p>F5075 Corner Post Assy 850534 w/ 0 blocks</p> <p>831111 Corner Post 830593 2.5" T-Batten Enclosure Cap 830606</p>	 <p><b>831973</b> Installation Tool for Threaded Insert 831974</p>	 <p><b>868008</b> PPH 10-24 x 7/16 Batten Screw</p>	 <p><b>868012</b> SHCS 1/4-20 x 2 Bolt @ Threaded Insert</p>	 <p><b>868011</b> PH Torx Tapping 10x1-1/2 Screw @ FT and Corner</p>	 <p><b>840681</b> Flat Washer 1/4" Flat Washer @ FT and Corner</p>	 <p><b>830647</b> 2" T-Batten</p>	 <p><b>831974</b> Threaded Insert</p>	<p>615 N. FAIRVIEW STREET        ZEELAND, MICHIGAN 49464        (616) 772-1220</p> <p><b>PLASCORE</b>        COMPONENTS FOR        F5050 WALL SYSTEM</p> <p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TOLERANCES ON:        XXXXX = CRITICAL DIM LEVEL 2        XXXXX<sup>3</sup> = CRITICAL DIM LEVEL 3        FRACTIONS: = ± 1/16        DECIMALS: X=±0.1        .XX=±0.06        .XXX=±0.01        ANGLES: = ± 2°</p> <p>SIZE FSCM DWG NUMBER REV        A 39212 MATRIX F5050 -</p> <p>DRAWN BY: A. SCHOUIMAN DATE: 11/22/02        ENGRG: QC APP.</p> <p>CAD# MATRIX F5050 SCALE: NTS SHEET: 1 OF 1</p> <p>REV. DATE DESCRIPTION SIGNATURE</p>
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