INSTALLATION & MAINTENANCE INSTRUCTIONS

GENERAL INSTRUCTIONS FOR
PAINT SPRAY BOOTHS
POWDER COAT BOOTHS
MIXING ROOMS

This manual should be read prior to initiating any installation tasks and used with the drawings and bill of materials to a specific booth or system. Refer to the specific drawings and bill of materials for exact parts and instructions.

This manual contains information about materials, permitting, installation instructions, maintenance requirements and the warranty on the booth or mixing room.

IMPORTANT NOTES:

The installation of this booth and all associated materials should comply with local codes and local interpretations of national codes.

Contacting your local building inspector or building engineer before installing the booth to verify requirements can save significant time and expenses.

Please read this entire manual before beginning to install your booth.

Keep this manual as a reference for proper operation and maintenance of your booth. The final page of this manual is Standard Tool and Equipment's warranty on these items.

For questions or problems related to your new spray booth, call our Customer Service Department at 1-800-451-2425. Please have your order number available when you call.

CONTENTS

This manual is not intended to replace or supersede any OSHA, NEC, NFPA or other associated codes and regulations.

For ease of reading this manual the term booth is used when instructions apply to paint spray booths, powder coat booths and mixing rooms. Specific booth types are referred to when the instructions are specific to the booth type.

SECTION 1

CODE COMPLIANCE

The booths manufactured by Standard Tools / Tools USA are designed for code approval. The booth is supplied in kit form and is assembled on site by the booth owner or a contractor hired by the booth owner.

The booths are designed to comply with the 2011 edition of the *National Fire Protection Association* NFPA-33 requirements. The booth is also compliant to OSHA 29CFR.1910 code and IFC International Fire Code. The materials, design, ventilation and documents supplied by Standard Tools and Equipment Co. are compliant to these codes, but other materials may be required by the codes, such as fire suppression systems and makeup air suppliers.

Optional ETL kits are available with our most popular paint spray booths and mixing rooms. These kits include an electrical control panel, an air solenoid valve and the ETL label that shows satisfactory acceptance by Intertek that the booth meets NFPA-33 requirements. This kit must be purchased and installed prior to the booth leaving our facility. Standard Tools and Equipment Co. is not certified by any firm to label a booth as compliant once it leaves the manufacturing facility.

Standard Tools and Equipment Co. is not responsible for third-party inspections or an engineer's stamp should local authorities require these approvals. Standard Tools is not responsible for requirements beyond what is supplied with the booth such as control panels, fire suppression or signage on the booth unless these items are purchased from Standard Tools.

INFORMATION ABOUT THE BOOTH KIT CONTENTS

GALVANIZED STEEL - Each booth is fabricated from 18 gage-galvanized steel. The steel meets ASTM A-653 requirements, and the galvanizing is G90 @ 1.25 ounces per square foot, and meets ASTM A527LFQ requirements.

EXHAUST FAN - The fan is equipped with a non-sparking blade that is driven by belts enclosed in a motor duct and is designed for paint booth service. The fan meets the AMCA testing requirements and bears the AMCA seal.

ELECTRIC MOTOR - The motor (supplied with the fan) conforms to National Electric Manufacturers Association ratings A and B and is UL Rated (reference E47479). The motor is also *CSA* rated (reference LR6153). Fan motors should not be controlled via a VFD (variable frequency drive). Safe ventilation is designed at 100% of operational rpms.

LIGHTS - The standard lights are 120V 2'x4' T8 fluorescent lay-in and are cULus and CSA approved. They are mounted and serviced from the outside of the booth. The lights are separated from the interior of the booth by 0.25" tempered glass, sealed with caulk to provide a vapor proof seal. Inside-access lights (explosion-proof, Class 1/ Div II, UL and CSA listed) are available at an extra charge (ref. LDPI 390-series, 4-bulb, T8 with interlock switch).

WINDOWS - Windows are fully tempered safety glass and meet the requirements of the following:

- ANSI Z97.1
- Federal Standard 16 CFR 1201
- ASTM C-1036-91
- ASTM C-1098-92

The windows are ¼" thick tempered glass, designed to be sealed with caulking to insure a vapor proof seal, and meet NFPA-33 requirements.

MANOMETER DRAFT GAUGE – Mark II Model 25, manufactured by Dwyer Instruments to meet NFPA 33.

INTAKE FILTERS - Manufactured by CHEMCO Mfg. Co. Inc., 92.4% efficiency. UL Class II [reference R13314 (N)], equal alternates may be used

EXHAUST FILTERS - Manufactured by CHEMCO Mfg. Co. Inc., Average Arrestance Efficiency 98.66%, Holding Capacity 0.41 Lbs/ft^2 ,UL Class 2 [reference R13314 (N)], equal alternates may be used

POWDER BAG FILTERS - Manufactured by Air Technologies Inc., 97% efficiency. UL Class 2 [reference R13314 (N)], equal alternates may be used, powder coat booths

POWDER PREFILTERS - Manufactured by Air Technologies Inc., 99.76% efficiency. UL Class 2 [reference R13314 (N)], equal alternates may be used, powder coat booths

FINAL FILTERS - MERV 14, 95% efficiency. UL Class II [ref R9118], powder coat booths

CAULK - Manufactured by DAP, Inc. Meets ASTM specification C-834. MSDS is available at www.dap.com or www.toolsusa.com.

CONTROL PANEL - an ETL-listed assembly for controlling lights and fans using all UL and CSA listed items, comes with instructions for installation. ETL-listed booths require this control panel, but it may also be purchased as an option.

AIR SOLENOIDS – Made by Redhat, sold separately or included in ETL kit. Optional except for ETL kit.

FIRE PROTECTION

NFPA-33 Section 9 requires an automatic fire suppression system for most spray booths and mixing rooms. Local authorities may elect to not require these protection systems in some cases. **It is the responsibility of the booth owner to determine this need.**

Standard Tools and Equipment Co. offers an optional dry-chem fire suppression system for many of its standard booths from one of the industry leaders in certified fire suppression systems. These systems have been designed to meet federal code and will be installed by qualified technicians.

Your local fire marshal or building inspector can provide local code requirements. If you do not purchase a suppression system from Standard Tools and Equipment Co., you may contact a licensed fire protection system provider in you area for this equipment. If you have any further questions or require additional assistance in procuring this equipment, please contact Standard Tools and Equipment Co..

NOTE REGARDING CERTIFIED LISTINGS – UL, CSA, ETL

All electrical components supplied with the booth are UL, CSA and/or ETL approved.

Everything supplied with the booth meets OSHA and NFPA 33 requirements. Third-party certification, fire suppression and other items described in the OSHA and NPA-33 codes are not included as standard components in the spray booths and mixing rooms but are available from Standard Tools for the most popular booths and mixing rooms.

NFPA-33, OSHA and IFC codes state that spray booths and mixing rooms must comply with the codes, but they do not state that the spray booth and mixing room MUST be certified. Standard Tools and Equipment Co. offers an ETL kit that includes the ETL label, electrical control panel and interlocking hardware, but this kit must be purchased prior to the spray booth leaving our facility.

ETL certification (including a label with the ETL symbol) is available as an option for many of our booth types. The booth type must be listed by ETL/Intertek, and the booth must fit into the size range and fan as listed by ETL. The ETL label must be fixed to the booth prior to shipping. Labels requested after the booth is shipped from the factory will require an ETL representative to visit the build site and to affix the label in person at a substantial extra cost to the booth owner.

UL certification is NOT available for pre-designed kitted spray booths. UL may be contracted by the booth owner to visit a facility once the spray booth or mixing room is complete and operational.

Please contact our engineering department if you have further questions about the technical aspects of this topic.

PERMITTING GUIDE

The permitting process is generally not difficult, but is the responsibility of the booth owner. There are various sequences possible, but the one detailed below is the process recommended to save time and money. The goal of the permit of occupancy is to show compliance to all applicable codes and laws to ensure the safety of you, your team, your building and your neighbors. These excerpts are from national codes and are not manufacturer's instructions.

Step 1 - Verify that your building and desired booth location are suitable

- Flat, nonflammable floors
- At least 36" clearance from one-hour rated walls on all sides of the booth
- Adequate air supply based on at least twenty minutes of booth operation
- Zoned for installation and use of a booth
- Exhaust outlet to the nearest property line is at least thirty feet

Step 2 – Obtain subcontractor information

- Contact licensed electrical contractor to provide a quote and concerns about the project
- Contact a local HVAC and fire suppression contractors to do the same [if needed]
- Obtain information about the contractors for completing the permit application: name, address, phone number, license number and type.

Step 3 – Complete and submit permit application

- Obtain local building permit application on local government websites
- Complete the forms as necessary. Refer to this manual and the specific drawings for the booth.
- Determine if third-party certification is required (like ETL or UL or an engineer). If yes, please read page five of this manual and contact our engineering department.
- Submit the permit application and required documents to your local permitting authority.
- Display the building permit in a visible location near the booth.
- Follow the instructions of your local authorities to obtain the permit

Other Information

- Some permitting authorities will require stamped engineering drawings. Standard Tools and Equipment Co. can provide a set of drawings stamped by an NC-licensed PE (professional engineer) that shows the documentation and design complies with NFPA-33 for a marginal fee. Contact our sales office if you need stamped drawings.
- Be prepared to answer questions about mixing/storage of paint and other flammable liquids, fire suppression and training of employees.
- If leasing the building, most local authorities require approval of the landowner for the booth prior to approving a permit. This approval includes wall and roof penetrations.
- The booth may require an EPA permit to show compliance with NESHAP 6X or 6H rules. Visit the NESHAP website or your regional EPA office for more information.
- If you elect to install the booth without a permit, be prepared for any inspector to be less lenient, even to the point of not allowing a booth in any circumstance.

SECTION 2

I. INTRODUCTION

- Paint spray booths manage overspray and fumes from the painting.
- Powder coating booths move dust-laden air to exhaust filters.
- Mixing rooms manage fumes and contain liquid spills.
- The performance of these greatly depends on the installers following the proceeding notes and drawings.

You have purchased one of the following:

- Wet spray booth with dry-arrestor exhaust
  It operates by drawing air through the booth and to replaceable filters (arrestor pads) that capture overspray droplets and exhausts the fume-laden air to the atmosphere. All booths with arrestor exhausts are supplied with a draft gage (manometer). A wet spray booth may be used for application of solvent or water-borne paint. This type of booth is also often used for spray application of wet materials such as gelcoat, glue, wood stain and polymers.
- Powder coat booth with two-stage filters (spray-to-waste)
  It operates by drawing air through the booth to pre-filters and ultra-filters. Powder coat booths are supplied with a draft gage (manometer) to measure the static pressure change across the filters due to overspray buildup. A final filter unit is available to provide a third-stage of filters that allows the air to be recirculated into the building. Powder coat booths are also often used for dust collection in sanding or prepping processes.
- Mixing Room
  It houses mixing operations, contains a limited amount of liquid paint and spray equipment cleaning processes, vents fumes to the outside of the building.

There is no overlapping of these three types of units. A paint spray booth cannot be used for powder coating; a powder coating booth cannot be used for spraying of wet materials, and a mixing room cannot be used for any type of coating. These units have different air flow requirements and filtration systems. Using one of these units for another process may result in a fire and will not provide an acceptable working condition.

Conversion of a booth from wet paint to powder coat (or visa versa) may be possible but will require review by our engineering staff and changes in at least the exhaust filter panels and fan motors.

II. PREPARATION

1. Consult your local fire marshal and/or building inspector before installing the booth. Obtaining pre-approval can eliminate costly rework to the installation.

2. Study this manual and the specific drawings to understand the process. Contact our internal experts if you have questions.

3. Standard Tools recommends that the installation site be:

- Indoors – The booth is not designed to be used outside.
- Flooring - Non-combustible (concrete preferred), flat and level within ¼" per 36”
- Spacing - 36" clearance recommended (required by some codes) but closer proximity may be obtained with inside-access lights or more than 1-hr rated walls
- Sparks - A minimum of 20' (based on OSHA) between the booth and any source of sparks (e.g. welding, grinding and laser-cutting)
- Air-makeup - The booths are designed to move air to meet OSHA and NFPA requirements. Placing the booth in an enclosed building that is too small to provide enough air may cause 'air starvation'. Venting from the outside or providing other sources of make-up air may be required.

4. Standard Tools recommends a minimum of two people to build the booth since the panels can weigh up to 100 pounds. A larger team is recommended for larger booths.

5. Recommended personal protective gear includes leather gloves, steel-toed shoes, hard hats, ANSI-approved safety glasses with side shields, long pants (not shorts) and long-sleeved shirts. The metal panels can be sharp; the installers should dress and work to prevent cuts. Jewelry and other similar items should not be worn.

6. Mark the outer booth location with chalk lines. Keeping the lines square will enhance the installation, fit and performance of the booth.

7. Take the following into consideration when identifying the booth location: exhaust ducting, access to power and compressed air, emergency egress, emergency exit door, path to load/unload the booth.

8. Inspect all of the received items to identify missing, damaged or defective items. The items should be compared to the parts list detailed in this manual. Performing the inspection of all parts prior to starting the installation is recommended.

9. Recommended tools: drill with 5/16” hex socket, extension cord, a dozen c-clamp vise grips, level, rubber hammer, ¼” masonry bit, 3/8” drill, two ladders, caulk gun, chalk line. Booths over ten feet tall require a forklift or scaffolding.

III. INSTALLATION

1. Most panels will be smooth to the inside of the booth. Filter panels will be oriented so that filters can be serviced from within the booth. Some panels, especially around the exhaust plenum, may be smooth to the outside to aid airtightness.
2. Begin at the rear of the booth, following the instructions detailed after the parts list. Lay out panels in groups (example: exhaust plenum, ceiling, walls).
3. Booths with drive-through doors can be built from either end. It is best to build it from the end closest to the wall.
4. Use the specific drawings to identify the correct panels and the proper overlaps.
5. Do not vary the panel locations from the drawings. This may affect the performance and the safety features of the booth. Locating outside-access lights within 36” of the booth opening is not permitted.
6. Personnel doors may be rotated so that the hinge side is changed. A personnel door can be moved but no light fixture should be within 36” of the door opening unless it is a light fixture rated for hazardous location.
7. Tri-fold doors can be hung so that the single door is on either side.
8. Use C-clamps or vise grips to hold the panels in place until the Teks screws are installed.
9. Install the Teks screws 2" from the end of any panel and on 10"-12" spacing. Locate the Teks screws at 6"-8" on the panel for mounting the fan. Insert the Teks screws until the head is flush to the metal.
10. The booth will be self-supporting when complete. Brace the ceiling and wall panels until the booth is complete with 2x4 pine boards and /or straps. Bracing the ceiling ½” over level will allow the booth to settle to a desired height once the booth is complete. For example: use 108-1/2” boards for a 108” high ceiling.
11. Compare the location of panels to the chalk lines during the entire assembly process. Make sure that the structure is square. If correct, attach the booth panels to the floor with the drive rivets provided. The included drive rivets should provide sufficient anchoring but powder-actuated nails or anchor bolts are also approved. Anchoring hardware should be spaced no more than 30”.
12. Add the ceiling panels as the length of the walls are built to ensure squareness.
13. Install the door jambs and verify the squareness of the booth before installing the front doors. Use the Teks screws provided and screw from the jamb side towards the adjacent panel. Refer to the general door drawings for more detail.
14. Prior to installing main doors, the frontal skins should be secured to the frontal panels, if provided. CF, SD and SDD booths have frontal skins. Booths with square fronts or front panels with tubular frame do not have frontal skins.
15. Main doors should be spaced as high as possible off the floor. The hinges should be rotated out from the booth. Install one door (the single door on the tri-fold design is first). Fold the hinge over the outer face of the door and use the Teks screws to secure. Repeat for the second door. Bi-fold doors should be installed with the hinges joining the two halves on the inside face of the doors (inside the booth). See the general drawing for door installation.
16. Install the door sweep and seals in the general drawings.
17. Install door latches per the general instruction drawings.

18. Mount the exhaust fan unit and motor, (see Section 4- General Assembly Details- Detail II) Ensure that there are no obstructions in the exhaust unit that would damage it. **All wiring should be done by a licensed electrician according to the local building code.** Make certain that electrical connections have been made properly and that direction of rotation is as indicated. Orient fan such that maintenance access is allowed. The belt guard is required by OSHA regulations.
19. Seal all panel joints with latex caulk from the inside of the booth after the booth has been completely erected. Inspect all bolts and joints as the booth is sealed. Use of silicone caulk may create finish quality issues.
20. Install the exhaust ducting system. A separate manual is provided if the ducting kit is provided by Standard Tools. Adding elbows and/or running lengths greater than 25' of ducting will increase the resistance within the ducting and will lower the air flow volume. Industrial or commercial HVAC contractors are recommended for providing difficult ducting solutions.
21. Installing lighting fixtures. The caulk line to seal the tempered glass must be continuous to provide a complete seal to separate flammable fumes from the electrical wiring. **All wiring should be installed by a licensed electrician according to the local building code.** Most codes allow use of flexible conduit to wire light fixtures so that changing of fluorescent bulbs is possible but all wiring within 36" of the booth openings should be hard conduit that is rated for hazardous location. Lights on the ceiling should have sufficient slack in the conduit to allow bulb changing from the side of the booth. Remember that standing on top of the booth is not recommended.
22. Filters

    A. Filter retention – Filter clips are riveted to the exhaust filter grid and used to secure the filters. The clips should be rotated so that they push the filter against the panel. Rotating the clip so that the clip filter is not backed by material will not secure the filter properly. Refer to the general drawing for proper filter installation.

    B. Types of filters

        1) Intake – ½" thick, wireframe, tacky on one side, tacky side seals flush against the metal panel

        2) Exhaust – 2" thick (no wireframe) but compressible, smooth side to the booth interior

        3) Exhaust (for powder coat) – pre-filter and bag filter, see general instructions for installation

        4) Final filter – third stage of filters used on some powder coat booths, installed with the arrows in line with the air flow.
23. The booth was provided with two 4"x12" warning decals. These OSHA-required decals should be applied at eye-level near the entry points of the booth. The QR code on the decal can be used to access booth maintenance notes with any smart phone.

IV. OPERATING PRECAUTIONS

The following precautions should always be observed during operation of paint spray booths:

1. On wet type paint spray booths with dry arrestor exhaust:
   A. Do not use this type of booth when applying spray materials known to be highly susceptible to spontaneous heating and ignition. Refer to your spray material suppliers and MSDS sheets for this information. Enamels mixed with linseed oil or alkyds are examples of materials that cannot be mixed.
   B. Do not use arrestor pads alternately for different types of coating materials where the combination of materials may be result in spontaneous combustion.
   C. Do not permit fluid to collect in the flexible plastic connecting loop in the back of the draft gauge as this could cause a serious reading error. If the draft gauge is subjected to an overpressure, check to ensure that fluid has not passed into the loop.

2. On all booths:
   A. Do not spray any materials near processes emitting sparks or other hazardous operations (such as welding and grinding).
   B. To protect the booth from rust or oxidation and to facilitate cleaning of overspray, one of the several commercial coatings available should be applied to areas where overspray will be deposited. Standard Tools offers a variety of these peel-off coatings. Paper should only be used in a booth that is equipped with a fire suppression system, and the paper should be discarded at the end of each shift..
   C. Keep the air velocity through the booth constant. Obstructing the filters or airflow within the booth can dramatically decrease the ventilation of the booth leading to a hazardous condition. Makeup air systems or plans should be adhered to.
   D. The exhaust fans should be in operation during all drying or curing processes.
   E. To keep specks of direct dust and lint off the surface being painted:
      1. Wear starched overalls during spraying operations
      2. Strain all spray material using a metal mesh filter, not a cheese-cloth or similar strainer
      3. Keep the area surrounding booth and the booth interior clean
      4. Keep all spray equipment clean

3. Mixing rooms
   A. The exhaust fan should be in operation while anyone is working in the mixing room. Some locales may require operation of a mixing room to be continuous.
   B. Do not exceed the maximum amount of flammable materials stored in the room as set by the NFPA-33 code.
   C. Clean up spills and remove excessive or old materials to reduce hazards of fire or falls.
   D. The bottom jamb of the door provides secondary spill containment; do not remove this barrier.

V. MAINTENANCE

The frequency of the following maintenance checks depends on the amount and kind of materials being sprayed. Under all circumstances, however, these checks should be made at regular intervals to reduce fire hazards, to maintain the efficiency of the booth, to prevent freshly painted objects from becoming blemished and to hinder oxidation of the booth.

Note: The paint booth is not designed to support personnel on the ceiling. Light and fan maintenance should be performed from a ladder or man-lift.

1. Daily or when overspray accumulates – remove the overspray and coating from the booth interior, booth floor, exhaust plenum, fan and exhaust piping. Use a non-ferrous, non-sparking scraper to eliminate any possibilities of igniting combustible material. Overspray that accumulates over time creates a fire hazard. Do not store flammable materials in the booth.

2. When overspray accumulates on the exhaust fan (especially the blades), remove buildup with a low VOC solvent.

3. Check belt tension on exhaust unit periodically. The bearings in the fan and motor may wear unnecessarily when belts are too tight. Follow the fan manufacturer's instructions.

4. Replace filters as needed. The exhaust filters will need to be replaced frequently. Change when the manometer draft gage differential is 0.5" above the starting point. Replace the intake filters when the surface of the filter appears dirty. Filters are available from Standard Tools as kits or as individual items.

5. Fire suppression systems are typically inspected semi-annually by a certified contractor. This contractor should install a label that shows the contractor company name, date inspected and date of required re-inspection.

6. Replace all door gasket materials as necessary. The foam gasket is available from major hardware stores.

VI. CHECKLIST

Verify that all of these items are correct and that these tasks have been completed.

YES	NO	
		1. Panels are located per the specific drawings.
		2. Panels are mounted flush to each other.
		3. Teks screws are located 2-4" from the end of each panel and are spaced no more than 12" apart.
		4. Entire booth is caulked, including fan/panel, floor/panels and all glass.
		5. Fan is oriented correctly per the instructions on the fan body.
		6. Fan motor screws and fan belts are tight.
		7. Fan belts are covered with the hardware supplied.
		8. Fan blades, belt and shaft are unobstructed.
		9. Filters are turned to the correct side (green or purple to the inside of booth).
		10. All wiring completed by a licensed electrical contractor.
		11. Spray interlocks and timers work correctly (required for ETL-listed booth).
		12. ID label is visible from the front of the booth and in plain view.
		13. 'No Smoking' decals are located near booth entry points.

Signature: _____ Date: _____

SECTION 3

NOTE: The following drawings are not specific to this booth.

The following drawings are intended to supplement the drawings and parts list specific to the booth to be installed. Use the drawings to plan the sequence of installation. Refer to the specific drawings to identify the items in the assembly.

General instructions (such as how to assemble a ceiling beam or install the door jambs) are included in this manual after the general drawings of the booths.

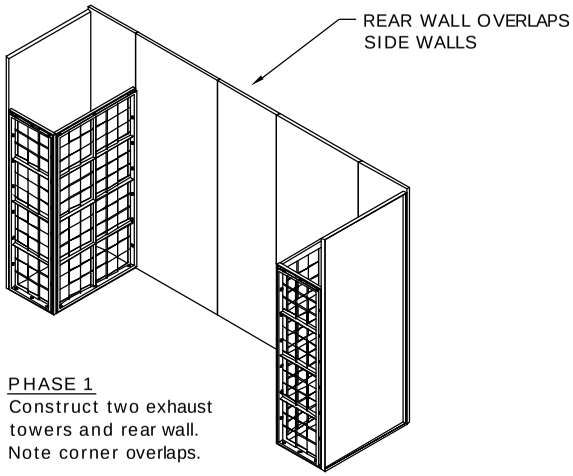
The last page in this section is the warranty. Please complete the blanks on that page and keep this manual as a record and instructions about your booth.

Our booths are designed so that our customers can install them with a minimum of resources and time. Please do not hesitate to call us at 800-451-2425 if you have questions or concerns. We are ready to supply answers to your questions about permitting, installation, operation and maintenance to promote the safe and long operation of your new booth.

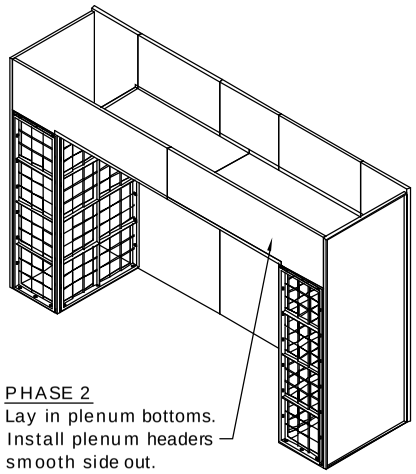
CONTENTS OF THE FOLLOWING DRAWINGS

DRAWING TITLE	DETAILS SHOWN	NOTES
CF-1000 and SD-1000	Four phases of assembly	1 page
SDD-1000	Three phases of assembly	1 page
MSCF-1000	Three phases of assembly	1 page
EFB-1000	Three phases of assembly	1 page
Joining Panels		1 page
Hip and Ceiling		1 page
Fan and Lights		1 page
Door Detail	Tri-fold door details	1 page, valid for doors filter of window doors
Filter Detail	Powder coat exhaust, paint exhaust and intake filters	1 page
Manometer	Manometer draft gage	1 page, see manufacturer's instructions
Beam	Beam assembly and installation	3 pages

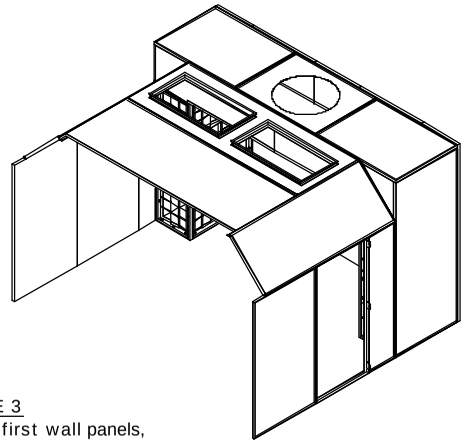
ASSEMBLY PHASES FOR CF-1000 AND SD-1000



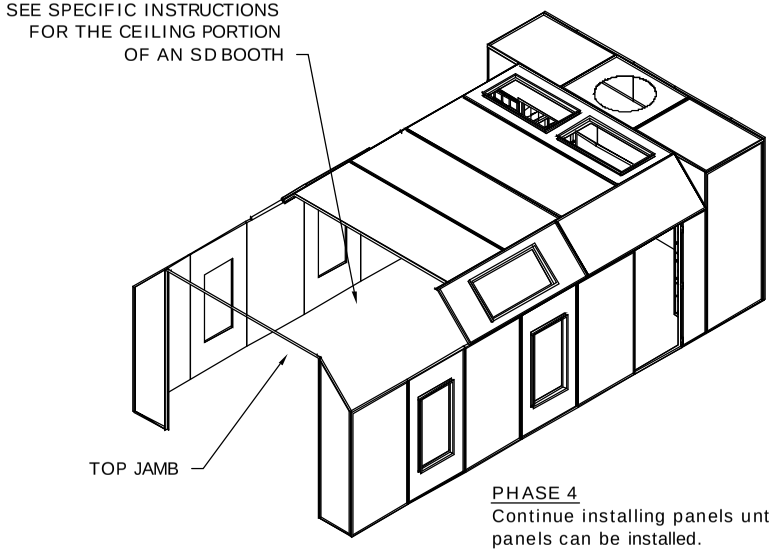
PHASE 1
Construct two exhaust towers and rear wall.
Note corner overlaps.



PHASE 2
Lay in plenum bottoms.
Install plenum headers smooth side out.



PHASE 3
Install first wall panels,
hip panels and ceiling panels, working forward in the booth.
Support with wooden boards until complete.

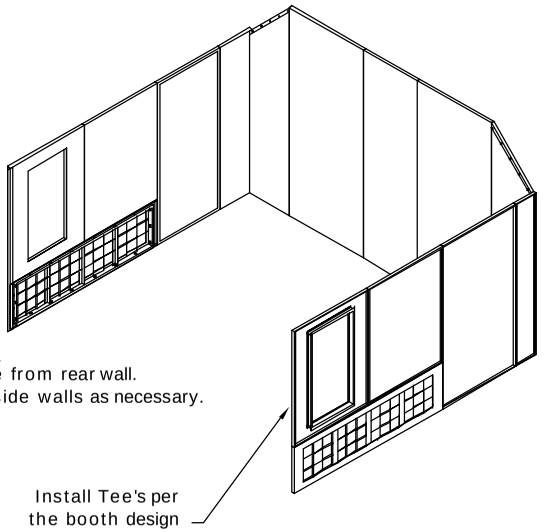


PHASE 4
Continue installing panels until the frontal panels can be installed.
Install the jambs prior to the final hip and ceiling panels.
See general door instructions.

NOTES:

1 - THESE ASSEMBLY PHASES REFER TO A STANDARD CF-1000 OR SD-1000 PAINT BOOTH.
IT IS INTENDED ONLY AS A GUIDE.
2 - SEE FURTHER GENERAL INSTRUCTIONS FOR DETAILS ON DOORS, FILTERS, FAN(S).
3 - SEE THE SPECIFIC BOOTH DRAWING FOR PANEL SIZES.

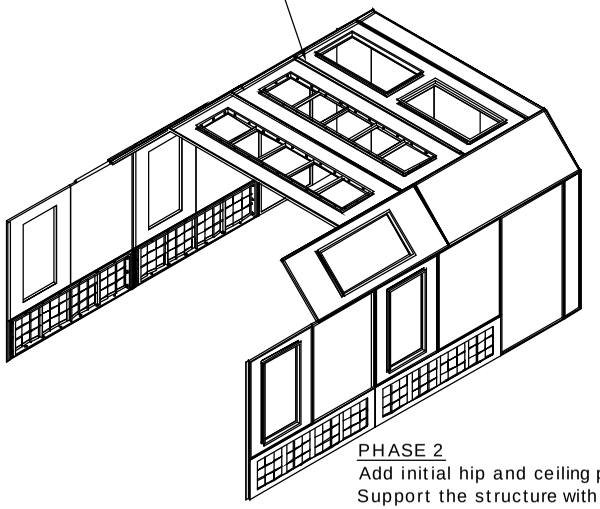
ASSEMBLY PHASES FOR SDD-1000 AND ESDD-1000



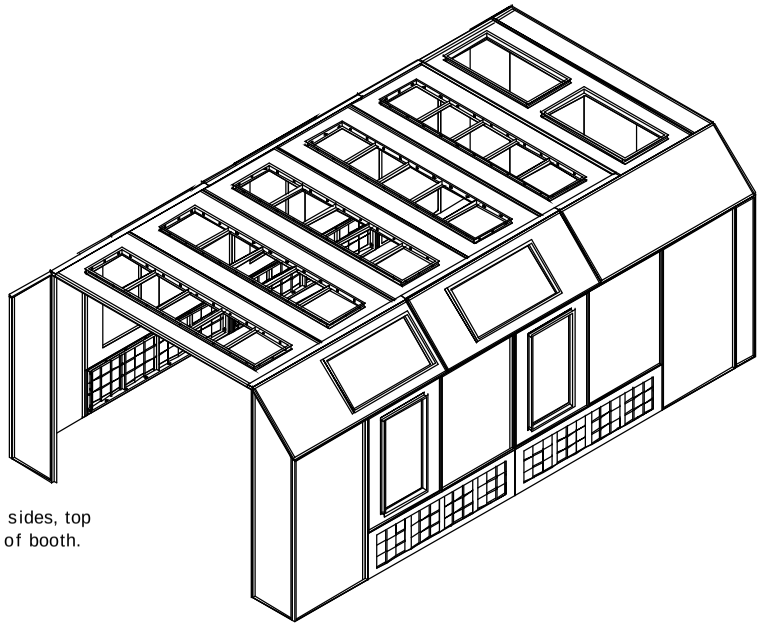
PHASE 1
Assemble from rear wall.
Support side walls as necessary.

Install Tee's per
the booth design

INSERT 1.5x1.5 ANGLE BETWEEN PANELS
TO SUPPORT INTAKE PLENUM



PHASE 2
Add initial hip and ceiling panels.
Support the structure with
wooden boards until complete.

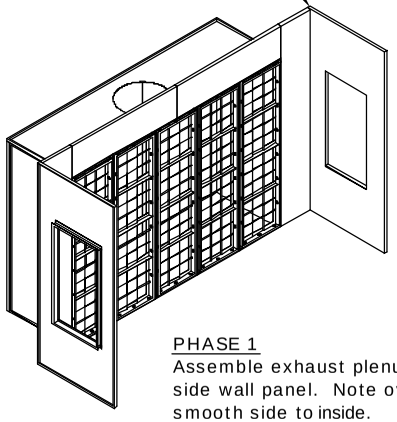


PHASE 3
Complete sides, top
and front of booth.

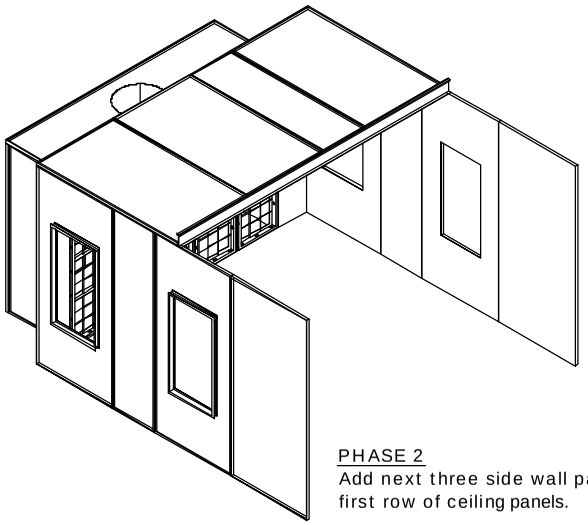
NOTES:

1 - THESE ASSEMBLY INSTRUCTIONS REFER TO A STANDARD SDD-1000 OR ESSD-1000 PAINT BOOTH.
IT IS ENTENDED ONLY AS A GUIDE FOR CUSTOM BOOTH ASSEMBLY.
2 - SEE FURTHER GENERAL INSTRUCTIONS FOR DETAILS ON DOORS, FILTERS, FAN(S).
3 - SEE THE SPECIFIC BOOTH DRAWING FOR PANEL SIZES.

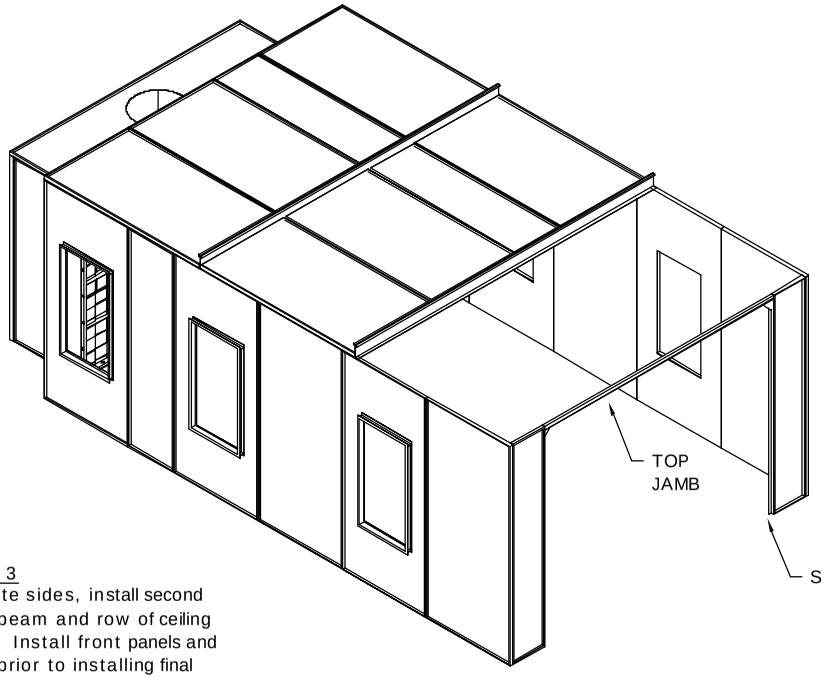
ASSEMBLY PHASES FOR MSCF-1000



PHASE 1
Assemble exhaust plenum, back wall and one side wall panel. Note overlap. All panels are smooth side to inside.
Use the 1.5x1.5 angles to secure the exhaust plenum to the back wall.



PHASE 2
Add next three side wall panels, first ceiling beam and first row of ceiling panels.

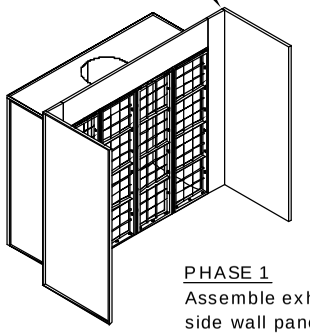


PHASE 3
Complete sides, install second ceiling beam and row of ceiling panels. Install front panels and jambs prior to installing final ceiling row. See door detail sheet.

NOTES:
1 - THESE ASSEMBLY INSTRUCTIONS REFER TO A STANDARD MSCF-1000, MSFB-1000 OR MSSD-1000 PAINT BOOTH.
IT IS INTENDED ONLY AS A GUIDE.
2 - SEE FURTHER GENERAL INSTRUCTIONS FOR DETAILS ON DOORS, FILTERS, FAN(S).
3 - SEE THE SPECIFIC BOOTH DRAWING FOR PANEL SIZES.

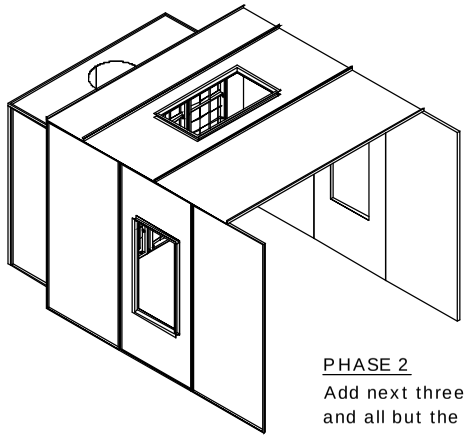
ASSEMBLY PHASES FOR EFB-1000

NOTE: SIDE PANELS OVERLAP REAR WALL PANELS



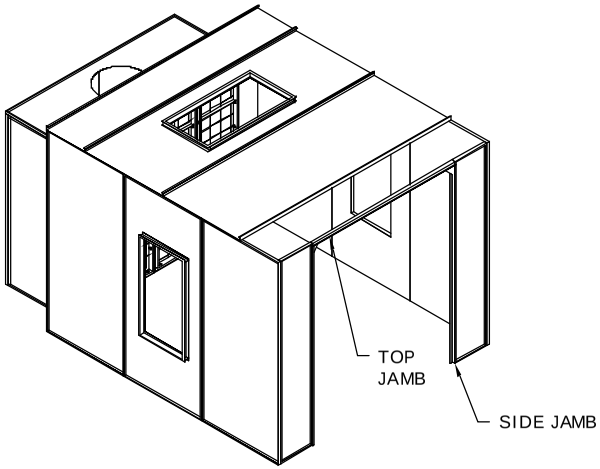
PHASE 1

Assemble exhaust plenum, back wall and one side wall panel. Note overlap. All panels are smooth side to inside.
Use 1.5x1.5 angles to secure the exhaust plenum to the back wall.



PHASE 2

Add next three side wall panels and all but the last ceiling panel.



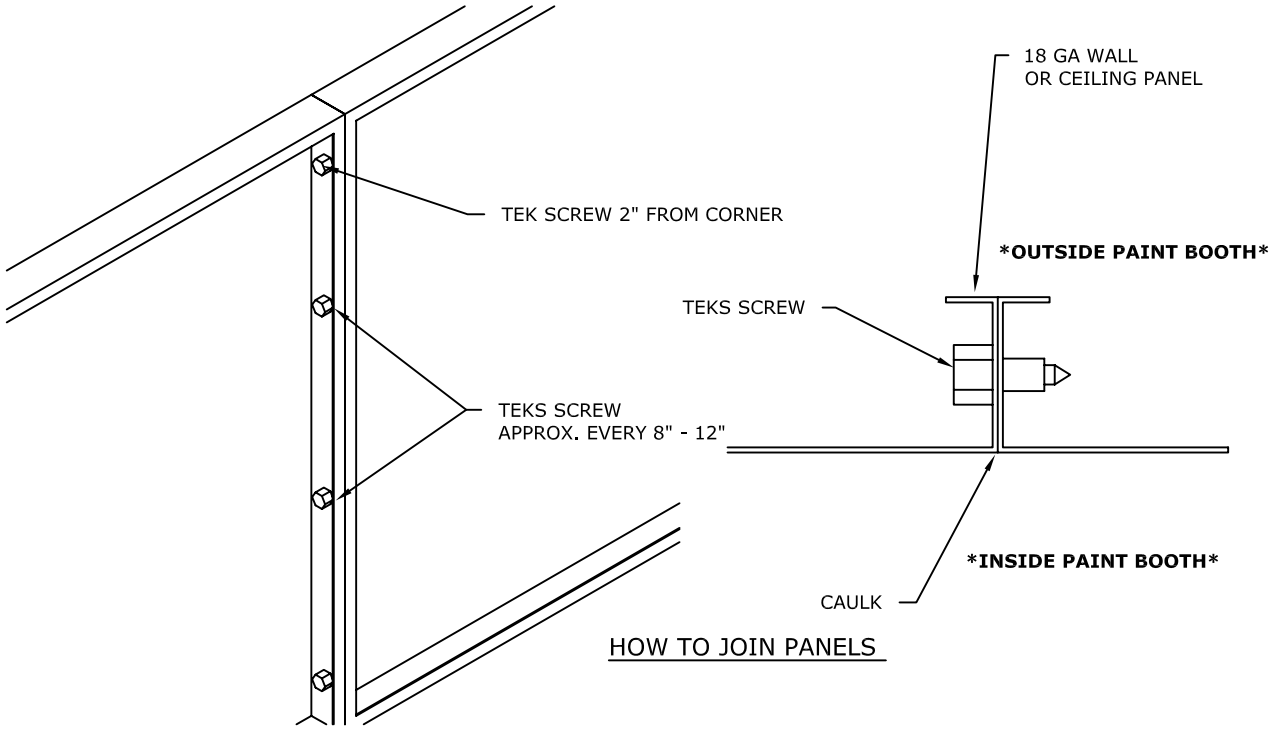
PHASE 3

Complete sides and install front panels and jambs prior to installing final ceiling panel.
See door detail sheet.

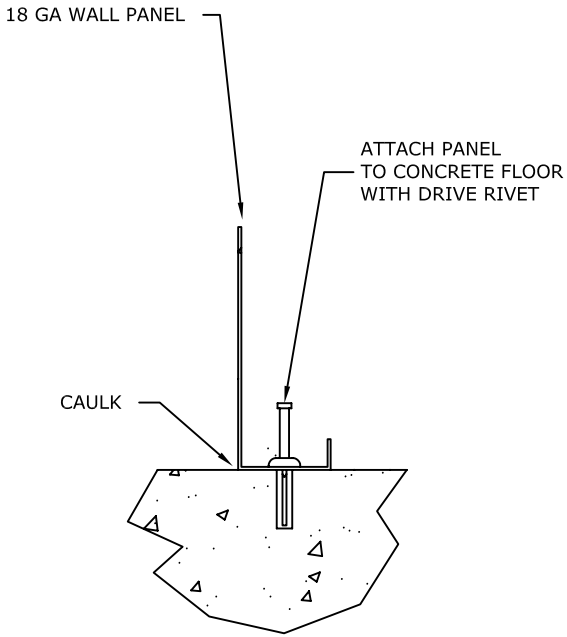
NOTES:

1 - THESE ASSEMBLY INSTRUCTIONS REFER TO A STANDARD EFB-1000 PAINT BOOTH.
IT IS ENTENDED ONLY AS A GUIDE FOR CUSTOM BOOTH ASSEMBLY.
2 - SEE FURTHER GENERAL INSTRUCTIONS FOR DETAILS ON DOORS, FILTERS, FAN(S).
3 - SEE THE SPECIFIC BOOTH DRAWING FOR PANEL SIZES.

DETAIL TEKS SCREW AND ANCHOR INSTRUCTIONS

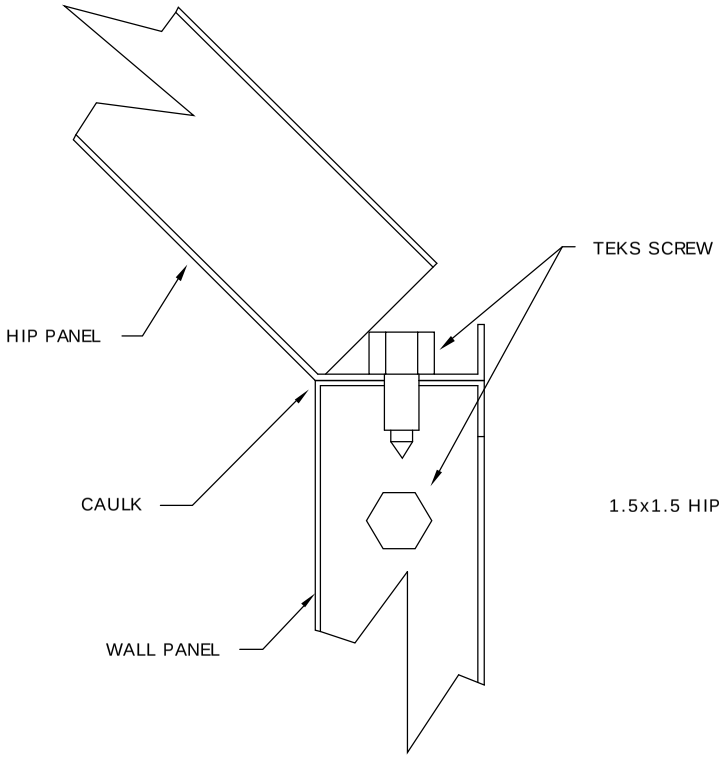


HOW TO JOIN PANELS

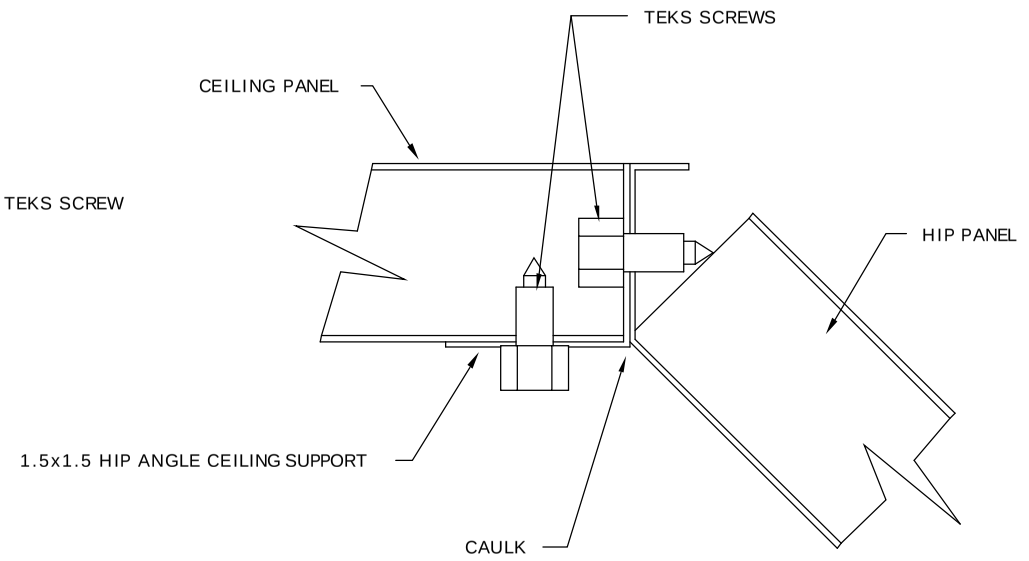


HOW TO ANCHOR PANELS

DETAIL HIP AND CEILING

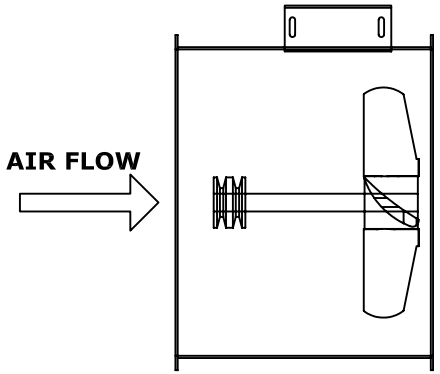


WALL PANEL TO HIP PANEL JOINT



HIP PANEL TO CEILING PANEL JOINT

DETAIL FAN AND LIGHTS

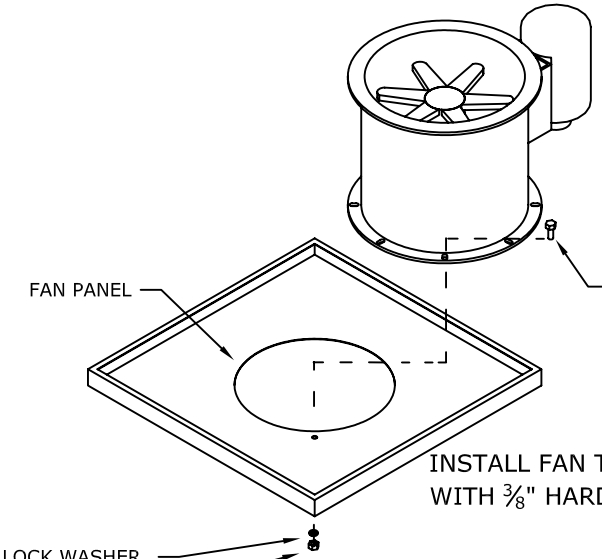


FAN DIRECTION

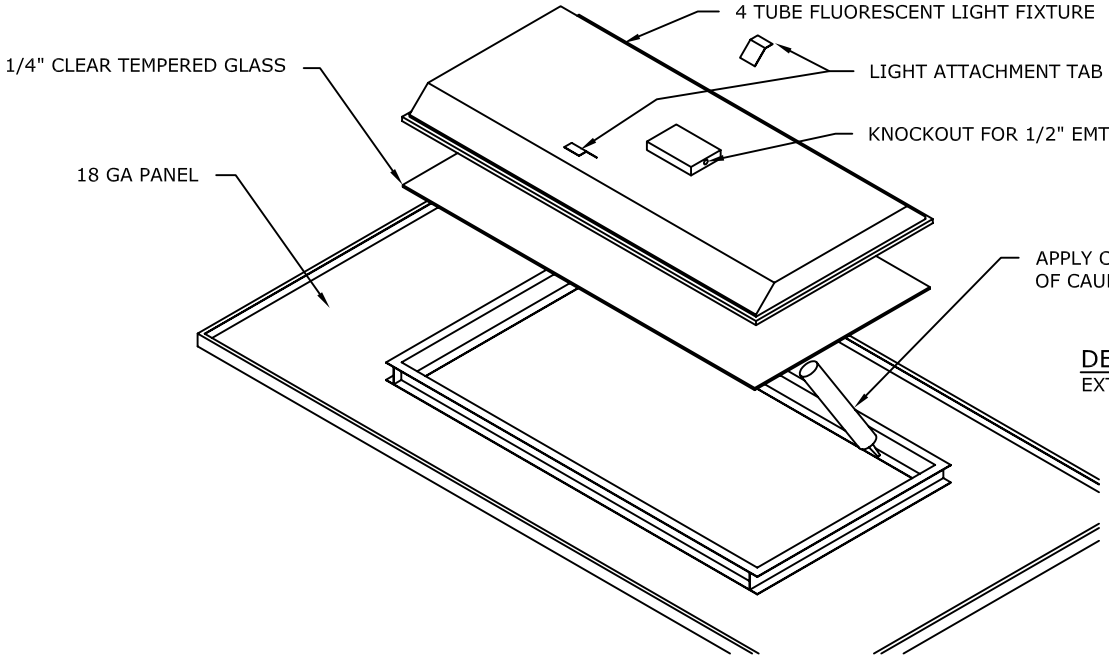
DETAIL II - FAN DETAILS

-REFER TO www.Grainger.com FOR MORE INFORMATION MOUNT AND WIRE MOTOR PER INSTRUCTIONS PROVIDED WITH FAN AND MOTOR

-ORIENT FAN SO THAT THE BELTS CAN BE SERVICED; THEN DRILL THE FAN PANEL FOR THE BOLTS

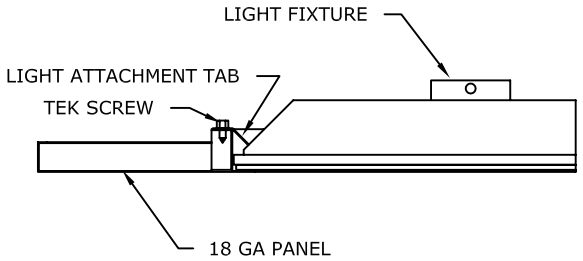


INSTALL FAN TO BOOTH PANEL WITH 3/8" HARDWARE SUPPLIED

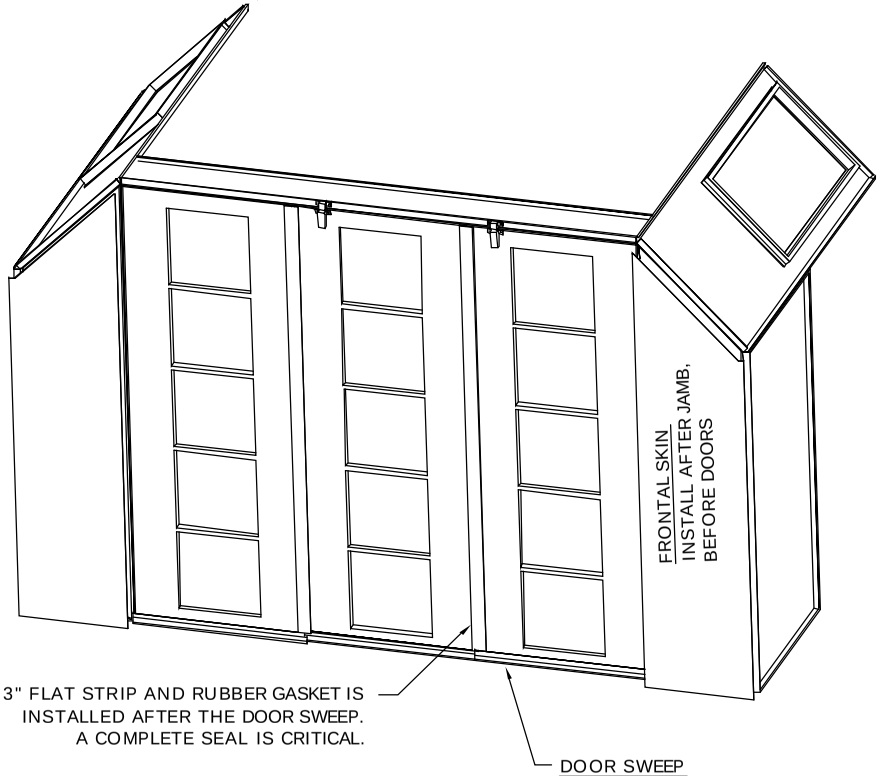


DETAIL VI

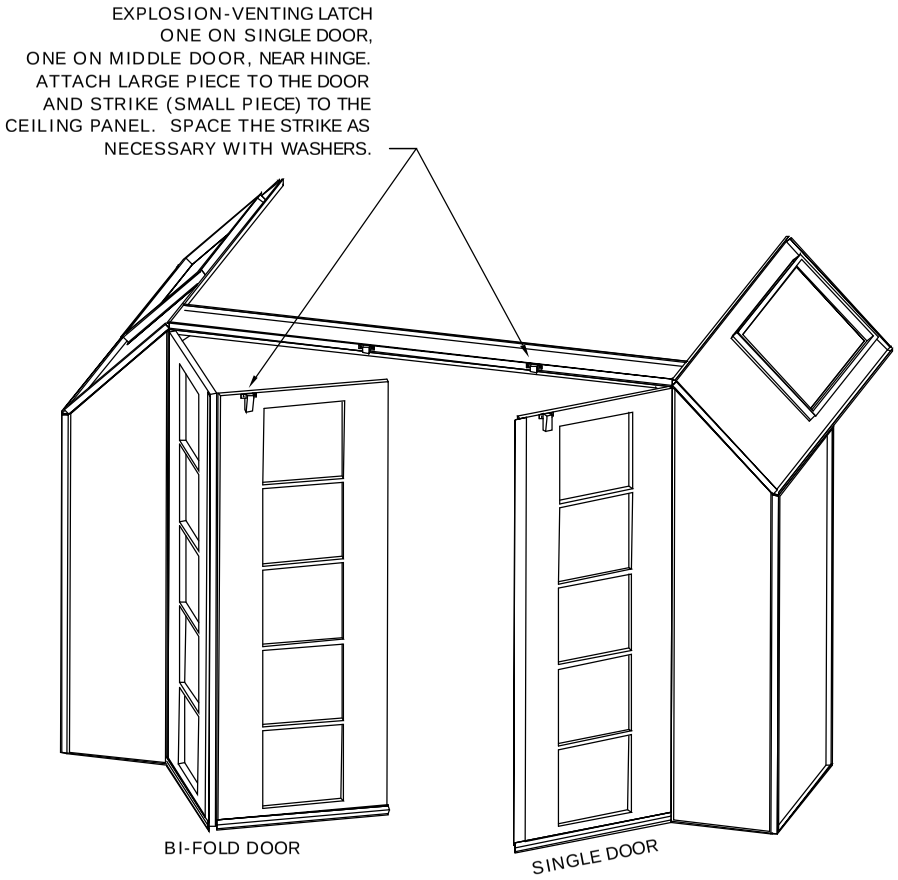
EXTERIOR ACCESS LIGHT



DOOR DETAILS



DOORS SHOWN CLOSED



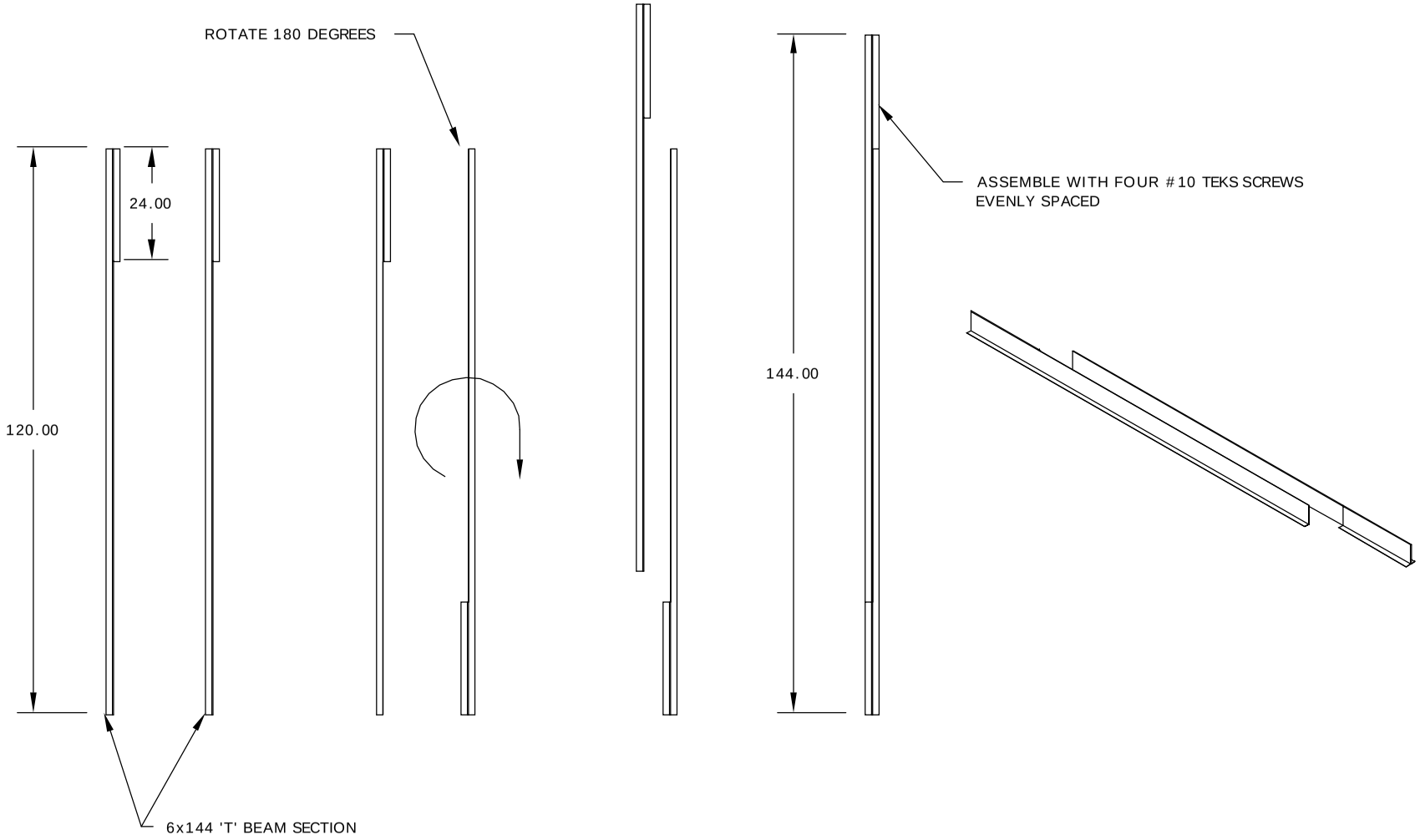
DOORS SHOWN OPEN

FILTER DOORS ARE SHOWN. WINDOW DOORS ARE THE SAME.

THE SMOOTH SIDE OF THE DOOR IS TO THE INTERIOR OF THE BOOTH.

NOTES:

1. INSTALL TOP AND SIDE JAMBS.
2. ANCHOR THE BOOTH AND INSTALL THE FRONTAL SKINS (IF PROVIDED).
2. HANG SINGLE DOOR ON DESIRED SIDE. SPACE THE DOOR AS HIGH AS POSSIBLE BEFORE SECURING WITH TEKS SCREWS.
3. REPEAT FOR BI-FOLD DOOR. THE HINGE JOINING THE TWO SIDES OF THE BI-FOLD DOOR FACES THE INSIDE OF THE BOOTH.
4. SEE ASSEMBLY SEQUENCE DRAWINGS AND BOOTH SPECIFIC DRAWINGS FOR MORE DETAILS.



DETAIL 1 - ASSEMBLY OF 'T' BEAM SECTIONS

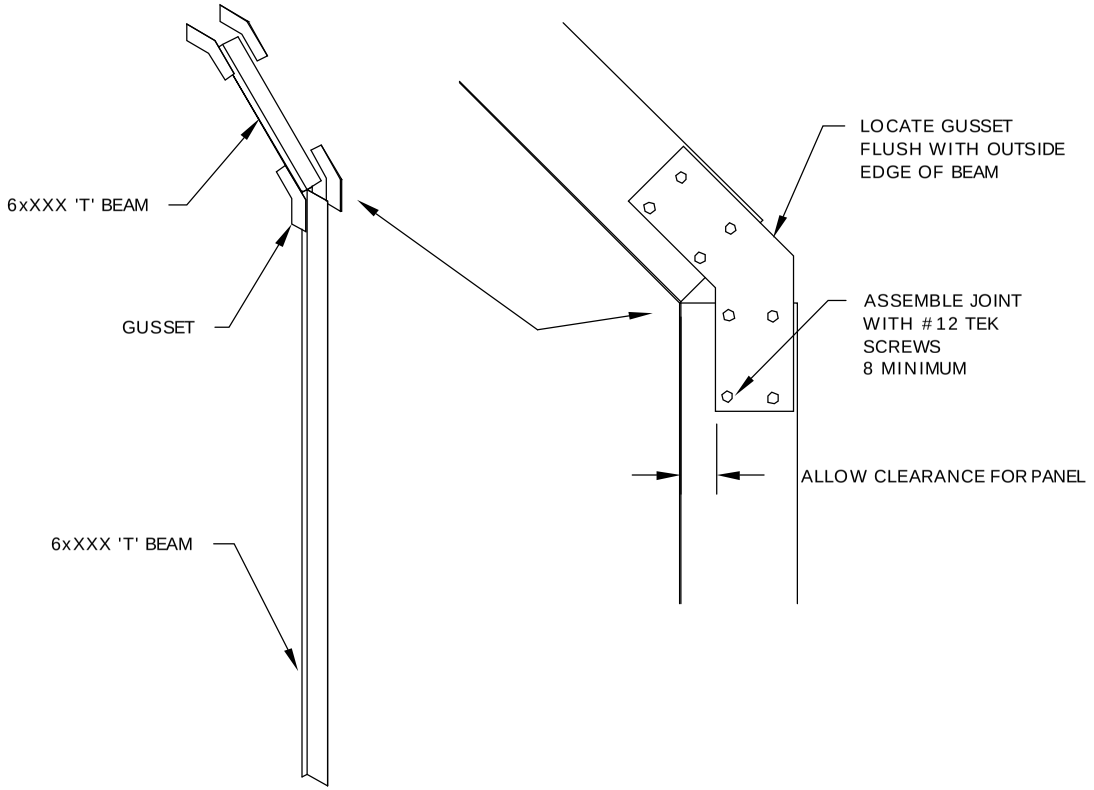
NOTES:

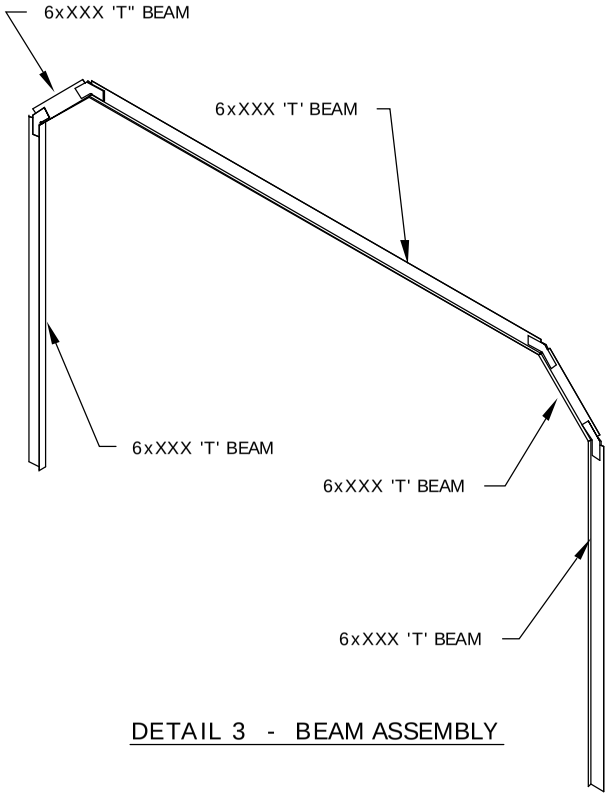
1 - DETAILS SHOWN FOR 144" 'T' BEAM. OTHER LENGTHS ARE SIMILAR. SOME LONGER BEAMS MAY BE IN 3 OR 4 SECTIONS

2- ASSEMBLE WITH #10 TEKS SCREWS, 2 NEAR TOP AND 2 NEAR BOTTOM OF BEAM WITH NO MORE THAN 12" SEPARATION BETWEEN SCREWS.

3- 'I' BEAMS ARE USED FOR SOME BOOTHS AND ARE ASSEMBLED IN THE SAME MANNER.

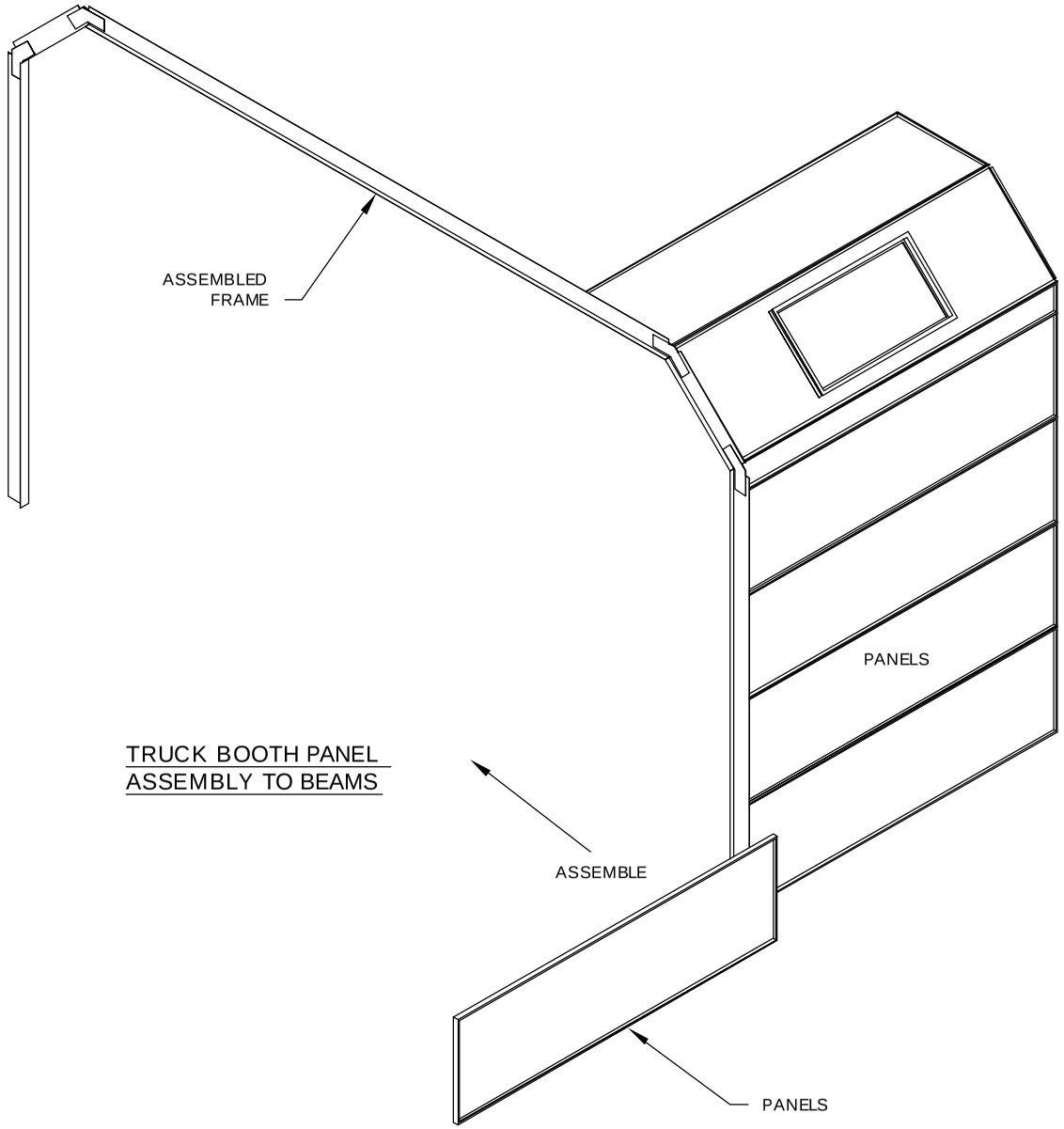
DETAIL - T-BEAMS (SHT 2 OF 3)



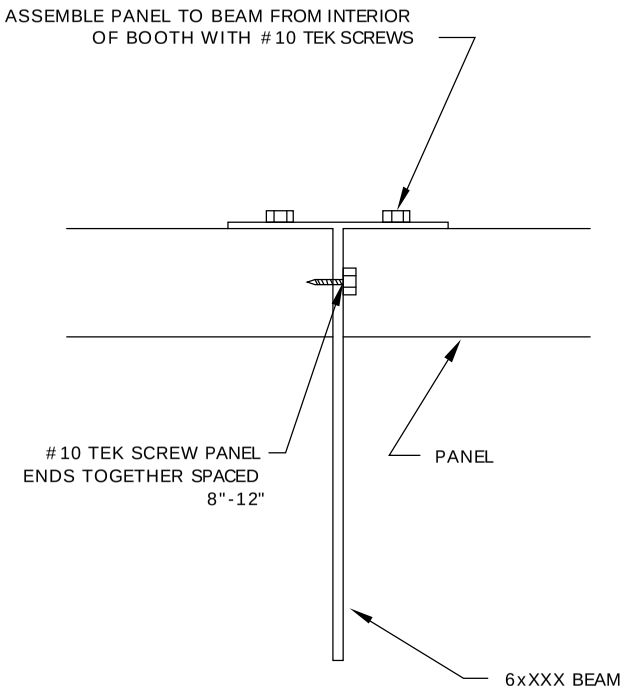


DETAIL 3 - BEAM ASSEMBLY

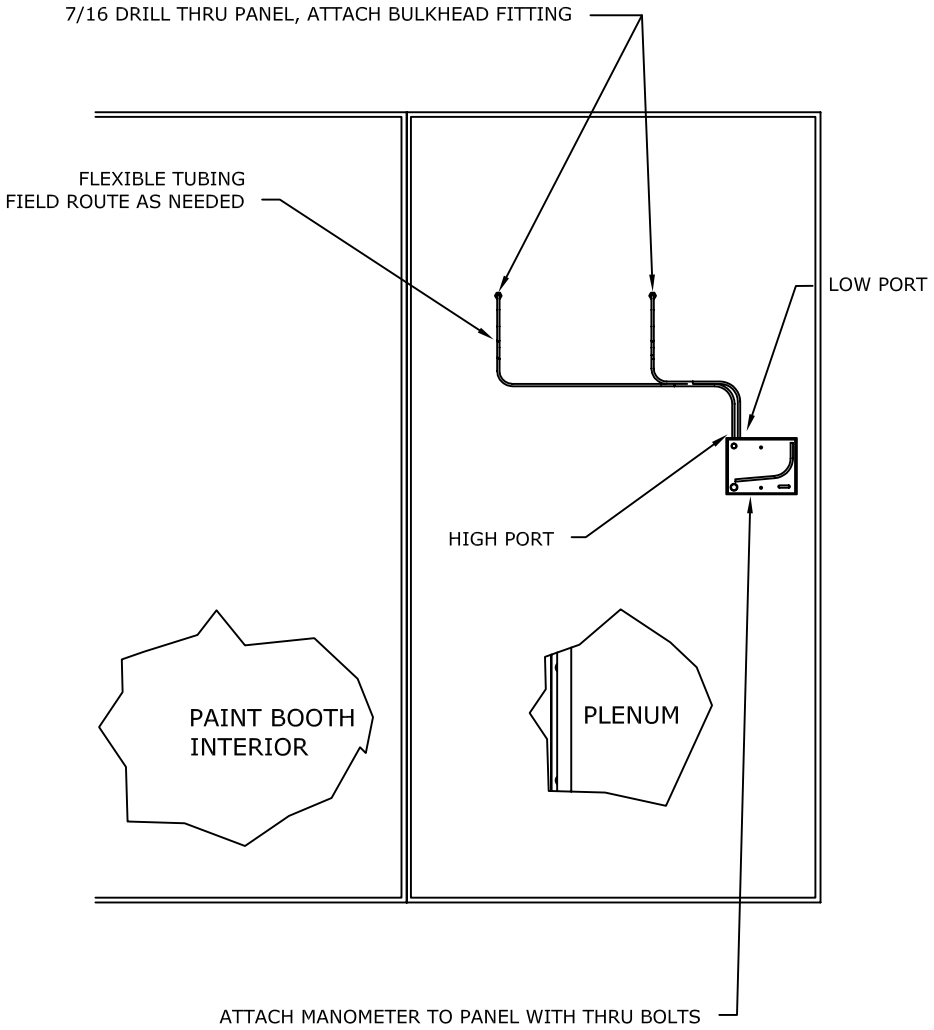
DETAIL - T-BEAMS (SHT 3 OF 3)

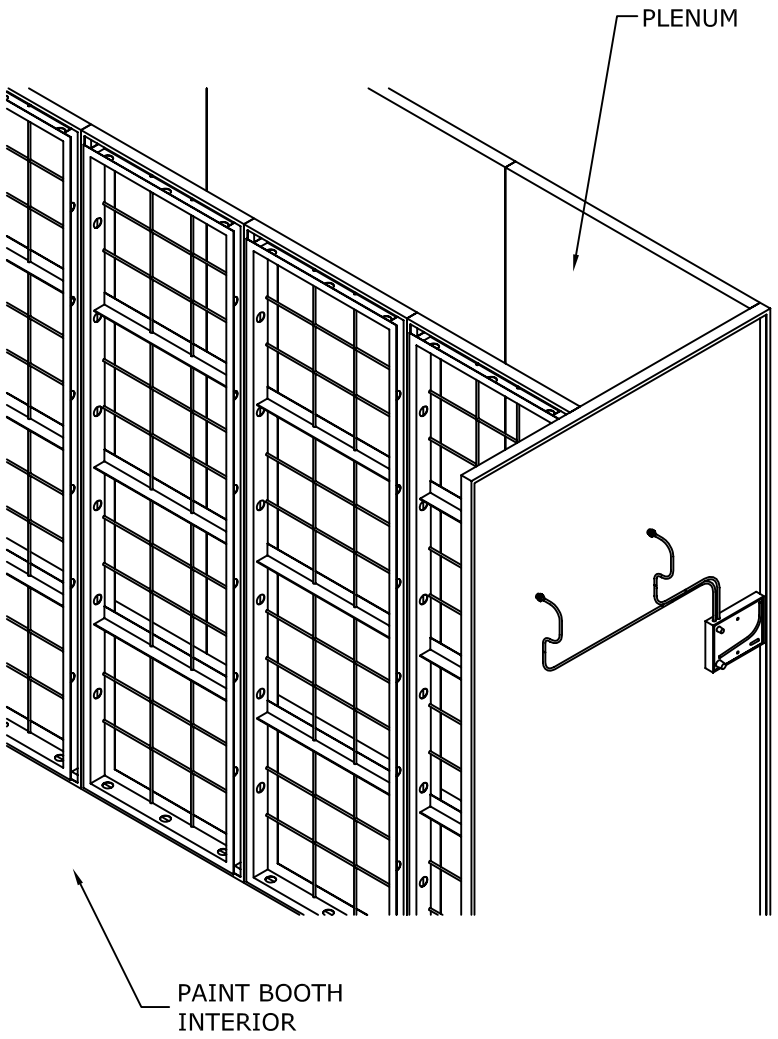


TRUCK BOOTH PANEL
ASSEMBLY TO BEAMS



DETAIL OF BEAM TO PANELS





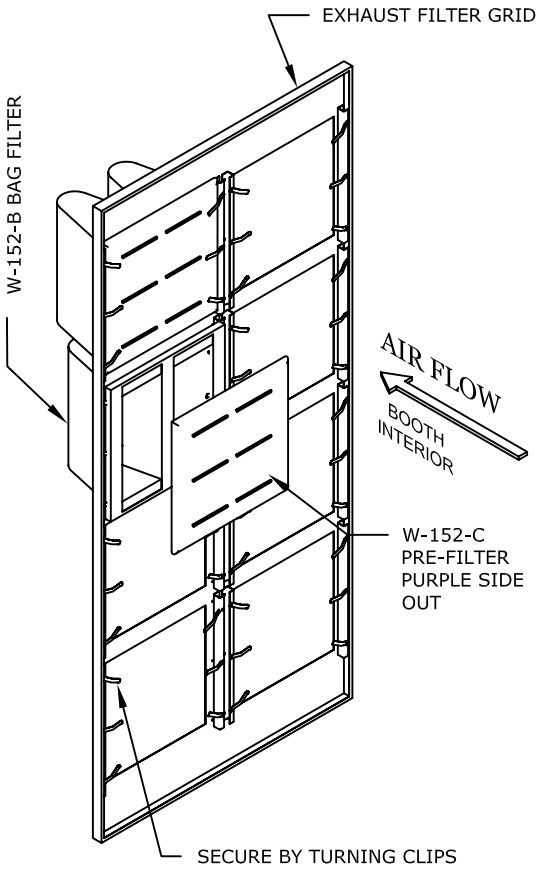
NOTES;
- INSTALL MANOMETER PER MANUFACTURER'S INSTRUCTIONS.
- INSTALL MANOMETER LEVEL (UNIT HAS BUILT IN LEVEL).

STANDARD TOOLS AND EQUIP. CO.
Greensboro, NC
Ph - 1-800-451-2425

title	GENERAL INSTRUCTIONS		
part no	MANOMETER		
order no	-		
drawn by	T.BEACH	date	8-6-12
file name	XXXX	rev	C

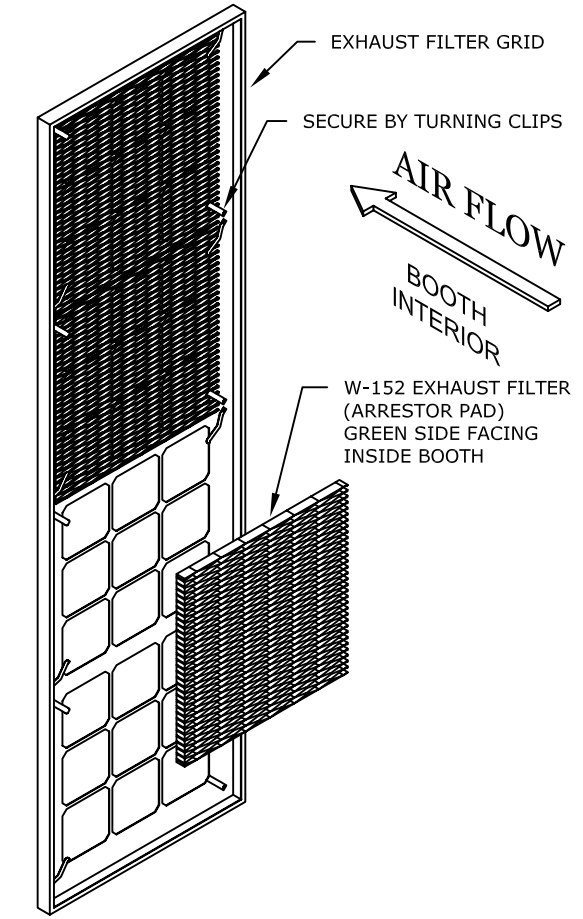
FILTER DETAILS

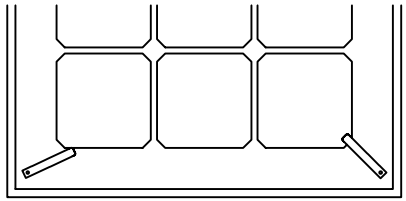
DETAIL 1 - EXHAUST FILTER FOR POWDERCOAT BOOTHS



NOTE:
- EXHAUST FILTER GRID STYLE MAY VARY
- FOLLOW DETAIL XV TO SECURE EXHAUST FILTERS

DETAIL 2 - EXHAUST FILTER W-152

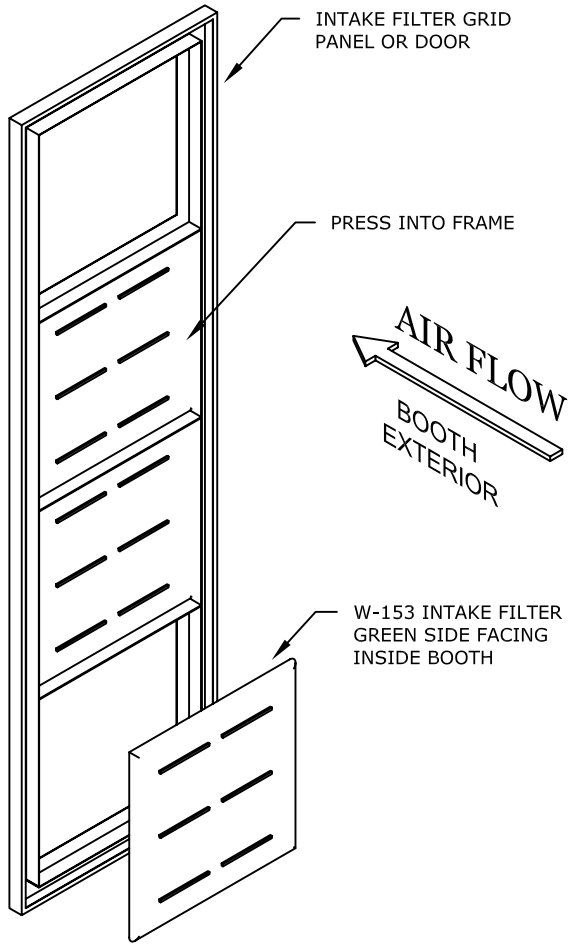




CORRECT-
TAB PUSHING
AGAINST METAL

INCORRECT-
TAB NOT PUSHING
AGAINST METAL

DETAIL 3 - INTAKE FILTER W-153



STANDARD TOOLS AND EQUIPMENT CO. Nov 2012

STANDARD PAINT BOOTHS

LIMITED WARRANTY

STANDARD TOOLS AND EQUIPMENT CO. will, within five (5) years of purchase date, replace F.O.B. the factory, any materials which are defective in materials and/or workmanship. This warranty is subject to the inspection of the seller and seller's judgement will be the deciding factor if booths and/or components have been altered, changed or modified in any way or have been subjected to abnormal use and abuse, inadequate maintenance and lubrication, or subjected to use beyond seller recommended capacities and specifications during time of use. This warranty does not apply and in no event shall seller be liable for labor costs expanded on such goods or consequential damages. At the seller's option, the buyer must return defective goods to seller freight and delivery prepaid, which shall be the buyers sole and exclusive remedy for defective goods. Fans, motors, light fixtures and gas air make up systems are subject to their respective manufacturers warranties. Seller will not be liable to purchaser for any personal injury or property damage arising from the use of the equipment or the installation of equipment. This warranty is limited to the original purchaser, and is not assignable or transferable to any other person. No officer, employee, or agent of seller is authorized to make any oral representations or warranty of fitness or to waiver any of the foregoing terms of sale and none shall be binding on seller.

PURCHASER: _____

ADDRESS: _____

CITY,STATE: _____ ZIP:_____

OWNER'S SIGNATURE: _____

DATE OF PURCHASE: _____

SERIAL #: _____

MODEL OF PAINT BOOTH: _____

Lights, fans and motors have a one (1) year Manufacturer's Warranty