JAMES H. HEAL
& CO. LTD. HALIFAX ENGLAND

Flexiburn Chamber
Model 780/1

INSTALLATION INSTRUCTION

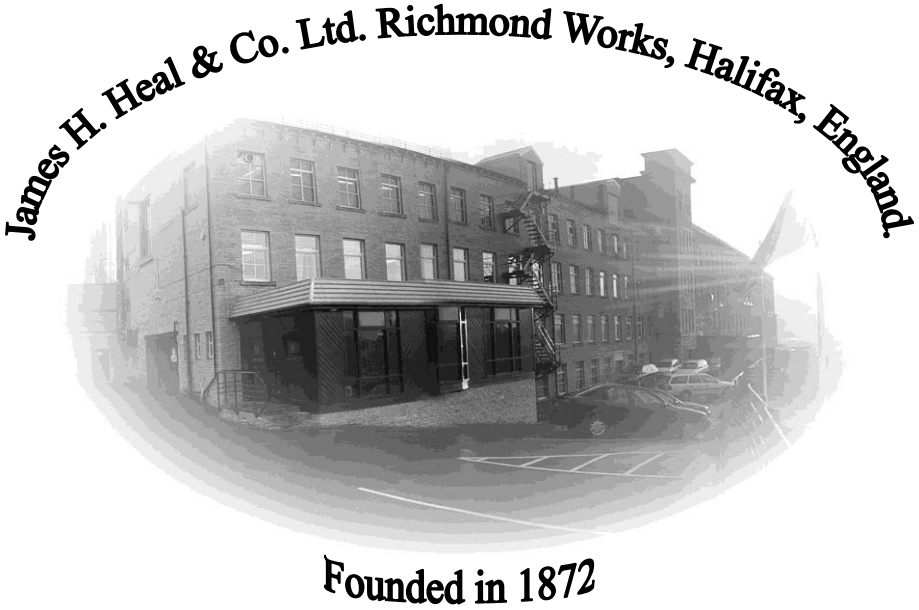
Covering Serial Numbers
780/1/1023
and upwards

James H. Heal & Co. Ltd.
Halifax, England

Publication 290-780-1$C Cabinet

HEALINK
WORLDWIDE SUPPORT

nqa. ISO 9001 Registered
UKAS QUALITY MANAGEMENT 015



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1 INTRODUCTION

1.1 GENERAL

This document covers, pre-installation, unpacking and installation of the chamber.
Please follow the build sequence as published.
Persons employed to build this cabinet should be suitably competent in the use of the tools listed in Sect. 4.1.
Be advised that this kit should be considered a 2 person build project.
Individual personal protection should include working gloves as some sharp edges may be apparent.

Approximate dimensions:

Height,with fan in preferred position.	2.36m
Width	2.16m
Depth not including external shelving	1.82m

1.2 SAFETY

Some of the pre assembled components within this kit are unsuitable for a single person to lift and as such we would classify these assemblies as bulky and heavy.
Some of the assemblies are also lifted above head height and will require suitable ladders or support devices.

!!! THIS CHAMBER IS NOT FIRE PROOF !!!

The Flexiburn Test Chamber is not a fully fire-proof cabinet.
The chamber may be used for testing specimens in accordance with the pre-programmed standards supplied with the Flexiburn machine.
It may be used for testing small toys or children's playthings.
It must not be used for larger toys or other materials that may result in a significant fire.

THE MANUFACTURER WILL ACCEPT NO RESPONSABILITY FOR ANY DAMAGE OR INJURY TO PROPERTY OR PERSONS, HOWEVER REMOTE, FROM THE RESULT OF THE EQUIPMENT BEING USED FOR OTHER PURPOSES OR IN AN IMPROPER MANNER.

IF IN DOUBT PLEASE CONSULT JAMES H. HEAL & CO. LTD.

2 PRE INSTALLATION

2.1 FLOOR PREPARATION

The floor at the final chamber position must be firm and level in both planes, and capable of supporting the chamber weight, without the internal machinery of 400kg.

2.2 EXTRACTION DUCT WORK

The maximum extraction duct run length should not exceed 15m including any bends fitted; the number of bends should be kept to a minimum wherever possible to aid extraction efficiency. The external flue must cause no restriction to the discharge and should be positioned in such a way as to ensure that the expelled gasses are not recycled into any buildings.

3 UNPACKING

3.1 CHECKING

Please unpack and check that the chamber kit is complete, use illustrations 4.2.1, 4.2.2 and 4.3.1 for this purpose, **prior to disposal of the packaging.** If you feel there are any discrepancies, please contact James H. Heal on the numbers provided before build commences.
Fasteners kit, silicone, ancillary duct work connector, duct work 90° bend, temporary build bracket, door interlock switch and connection cable should be in the taped up package which is the two shelves.

3.2 PACKAGING DISPOSAL

Please dispose of the packaging materials in an eco friendly manner.

4 INSTALLATION INSTRUCTION

4.1 TOOLS REQUIRED.

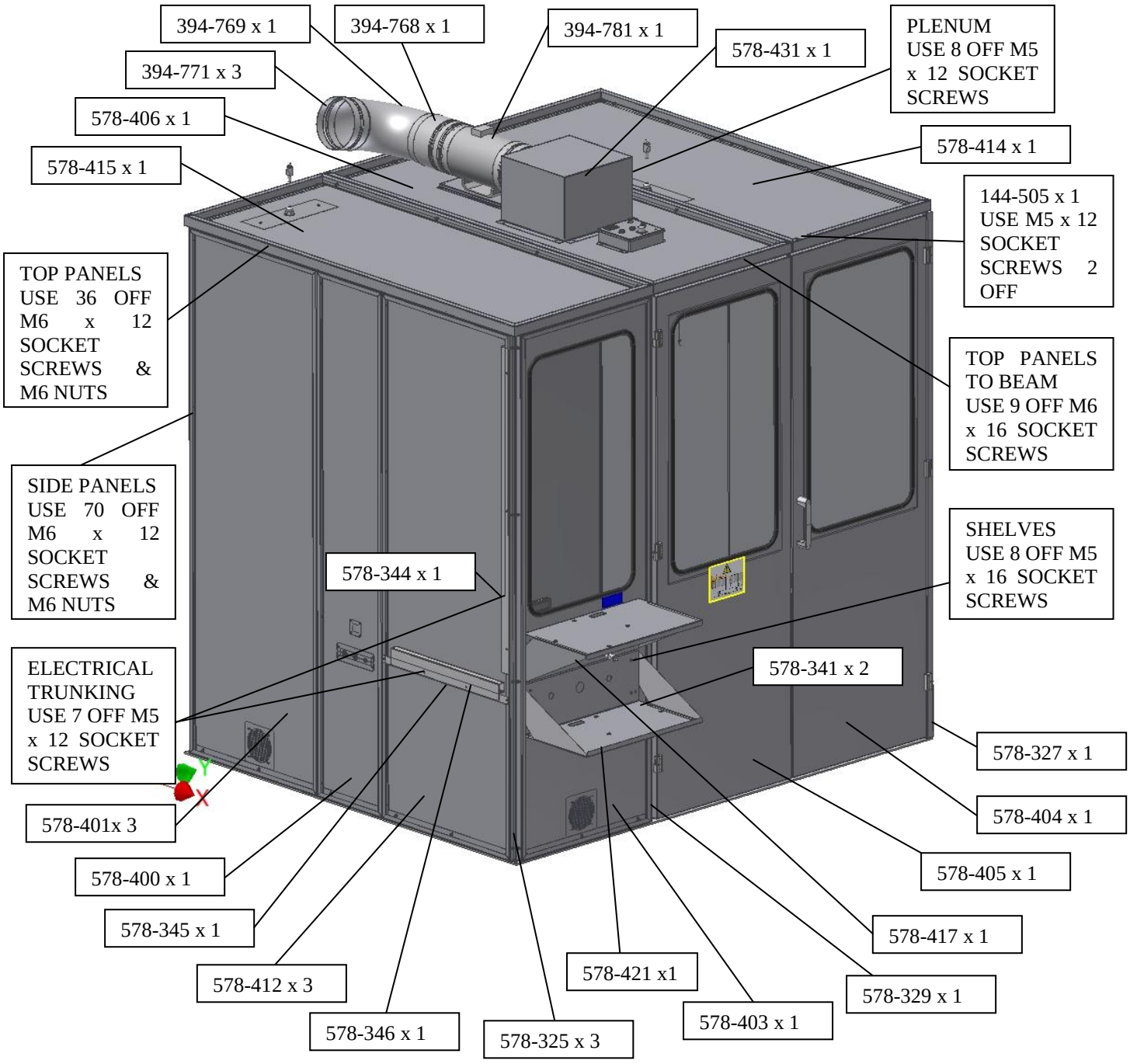
4mm Allan key
5mm Allan key
8mm Open jaw / ring spanner or Nut runner
10mm Open jaw / ring spanner or Nut runner
17mm Open jaw
Philips screwdriver
Flat blade screwdriver
Spirit Level

This list is not exhaustive and may be considered a minimum.
Tools listed are not supplied by James H. Heal.

4.2 OVER VIEW OF COMPLETED CHAMBER

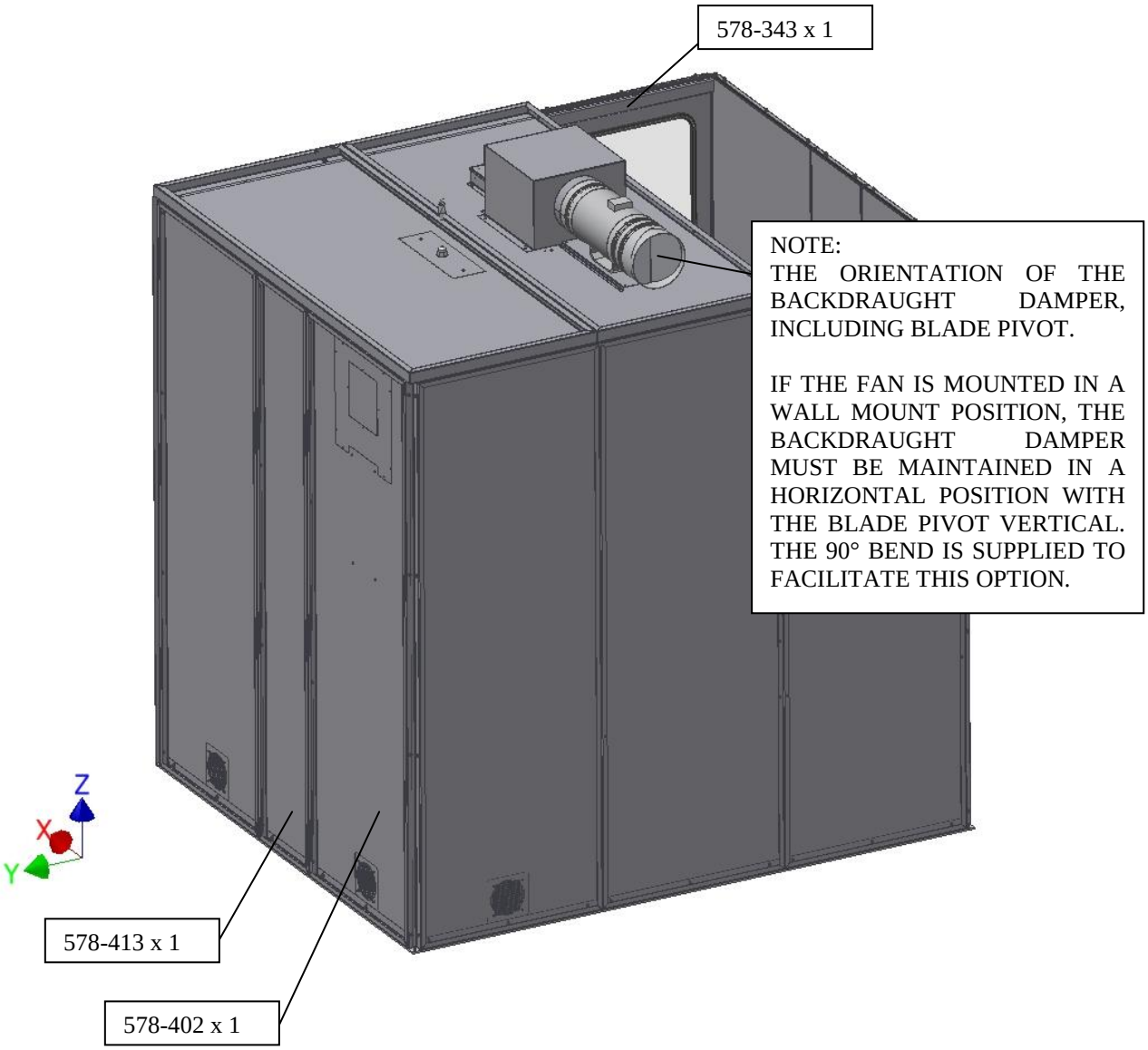
4.2.1 FRONT ILLUSTRATION

Stock codes and total quantities included in the kit are shown in the identification boxes.



Some of the above items are supplied loose and shown for identification purposes only.

4.2.2 REAR ILLUSTRATION



Item 578-402 the wall mounted fan panel, can be repositioned in any of the other 6 full panel positions.

Shown is the preferred position of the Fan (item 394-767) and Backdraught damper (item 394-768).

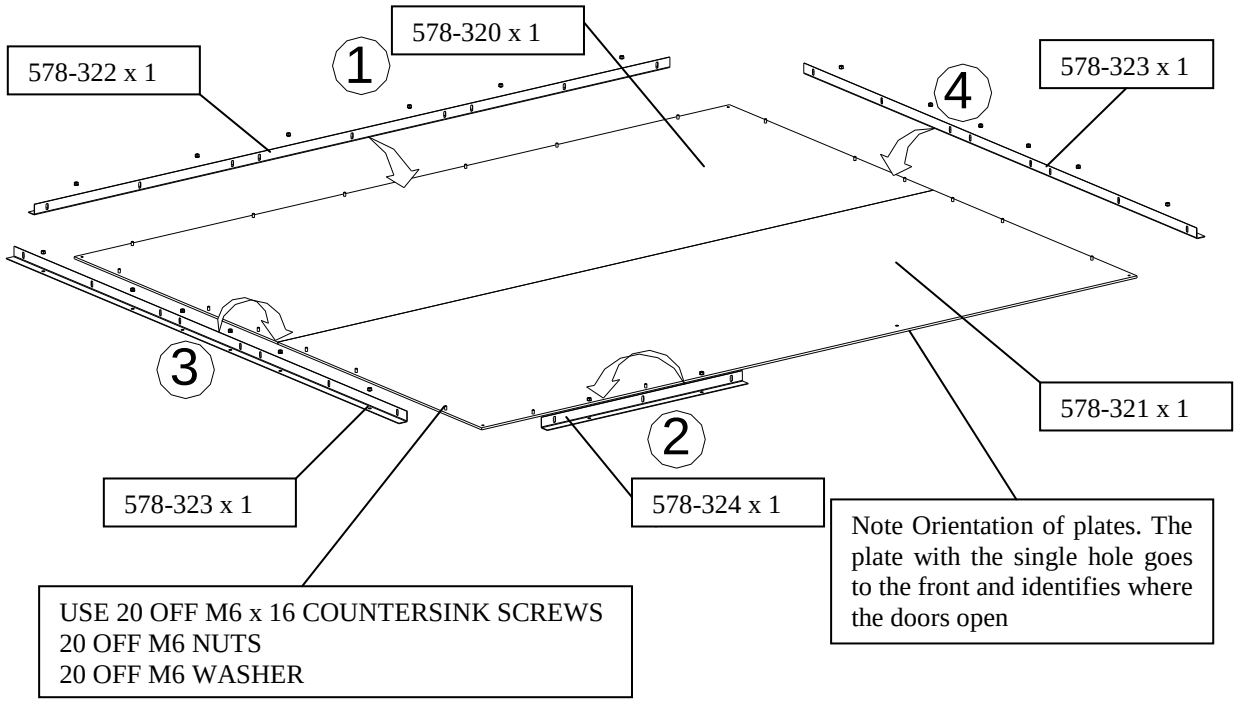
Notice each corner of the chamber has at least one air inlet panel (see Front and Rear illustrations). The wall mounting panel adds an extra air inlet grill as shown above.

4.3 BUILD PROCEDURE

FASTENERS KEY

A		M5 x 12 SOCKET HEAD CAP SCREW
B		M6 x 12 SOCKET HEAD CAP SCREW
C		M5 x 16 SOCKET HEAD CAP SCREW
D		M6 x 16 SOCKET HEAD CAP SCREW
E		M5 x 20 SOCKET HEAD CAP SCREW
F		M6 x 16 SOCKET HEAD COUNTERSINK
G		M6 HEXAGON NUT
H		M6 PLAIN WASHER
I		M6 EXTERNAL TEETH WASHER
J		M5 EXTERNAL TEETH WASHER

4.3.1 FLOOR



The positioning of items 578-323 will require some temporary packing up, and the alignment of the two plates 578-320 and 578-321.

Now decide on the fan position ref. section 4.2.1, before proceeding any further, the wall mounted fan panel 578-402 illustration 4.2.2 can replace any of the following panels 578-401 & 578-412.

The following procedure shows the fan positioned in our recommended, preferred roof mounted position.

4.3.2 START CORNER

Once this corner is completed the panels will be free standing for the remainder of the build.

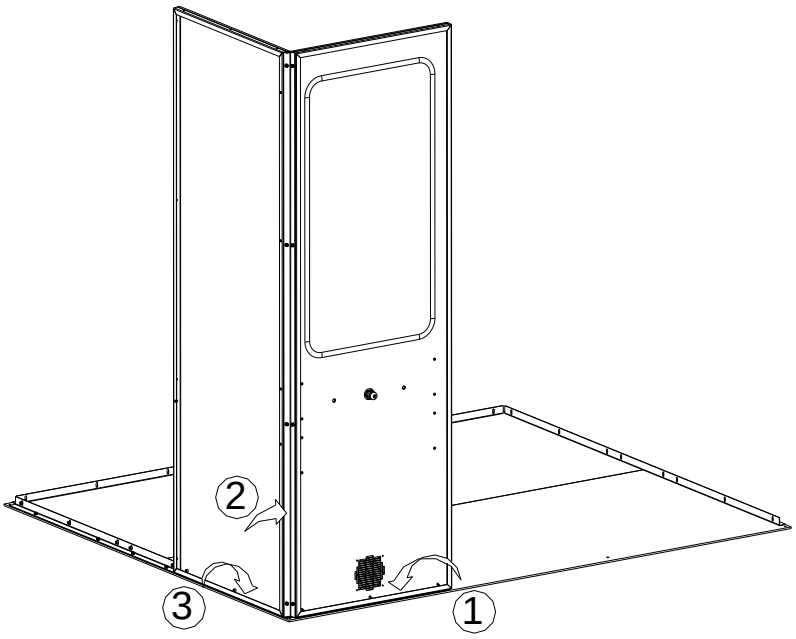
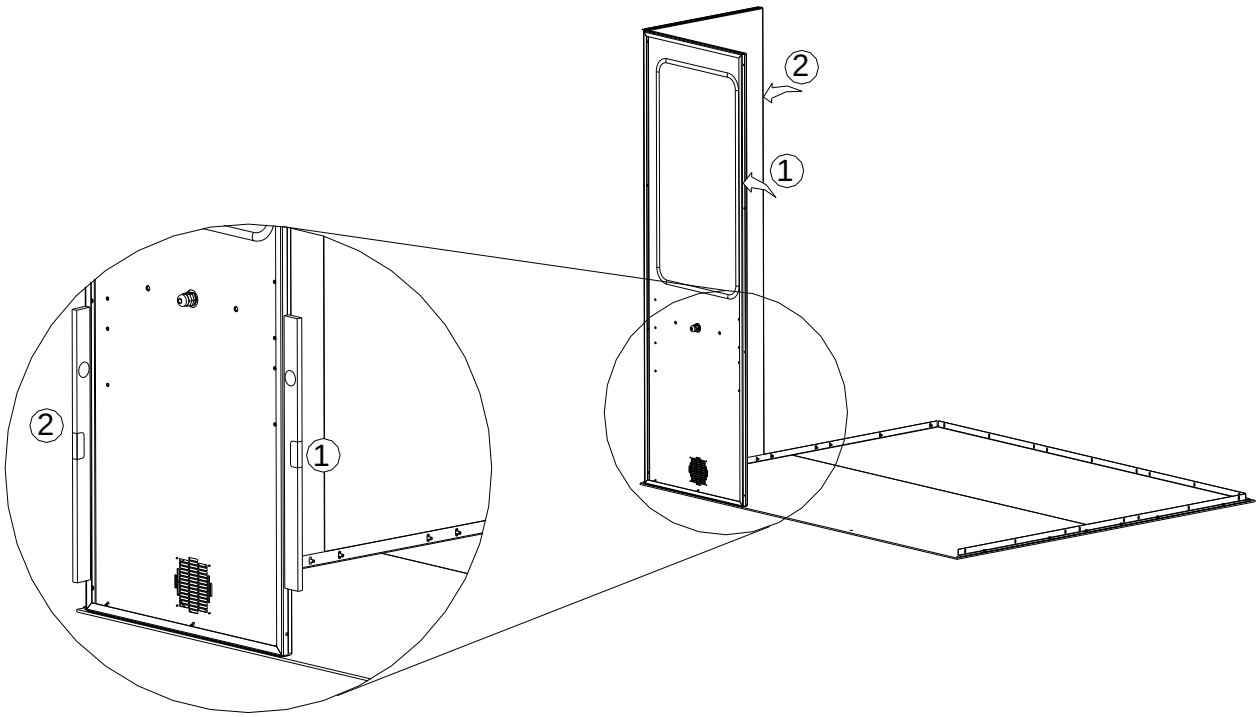


Illustration 4.3.2 gives the order of placement of parts, the corner angle 578-325 should be fully tightened to both adjoining panels giving a gap of approximately 1mm between panels and ensuring a good foam seal.

The lower fasteners should be hand tight at this stage to enable the following adjustment.

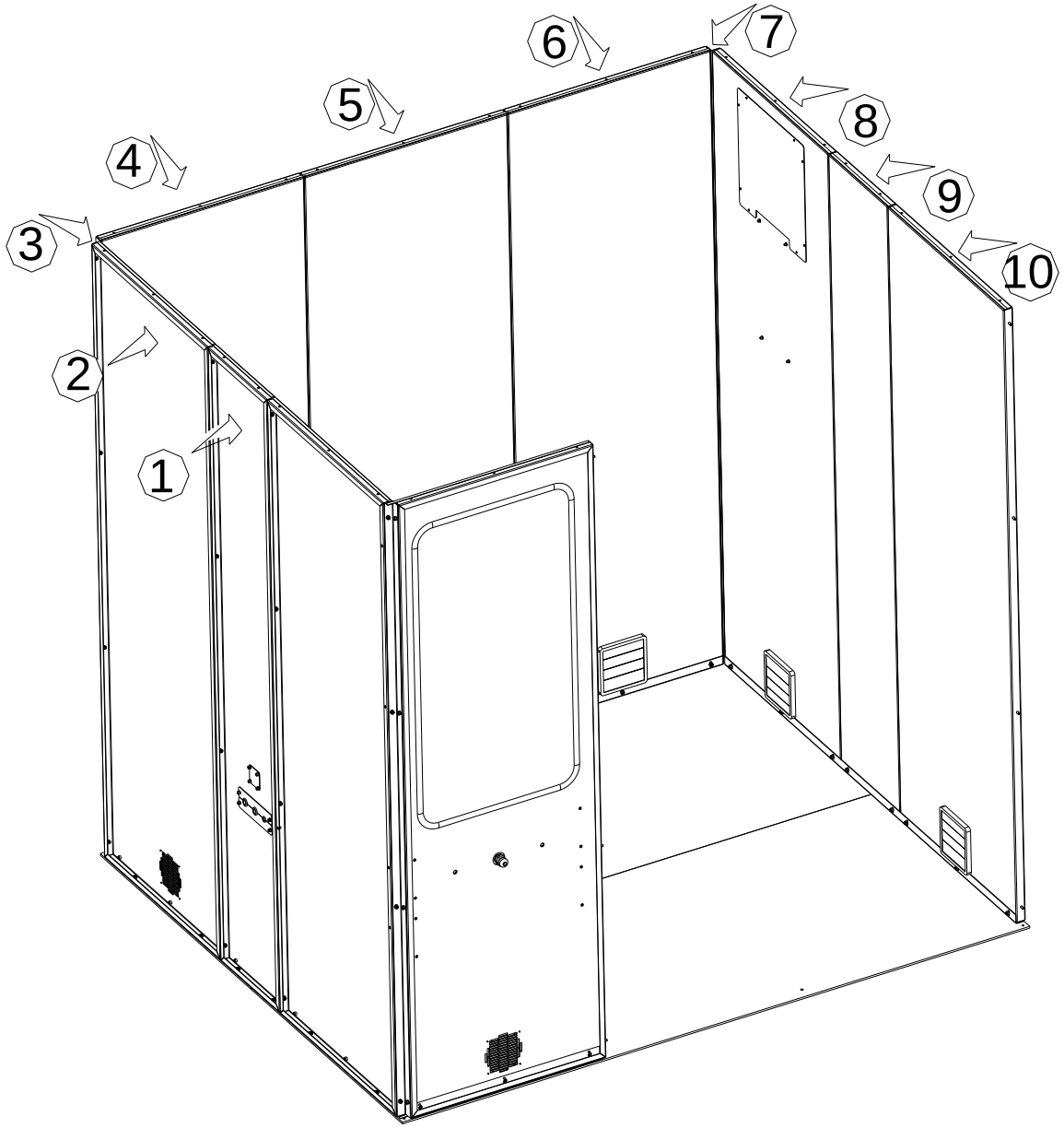
4.3.3 START CORNER ADJUSTMENT



1. Set level of window panel edge by adjusting as shown, tighten window panel to sealing plate fasteners. Re-check level.

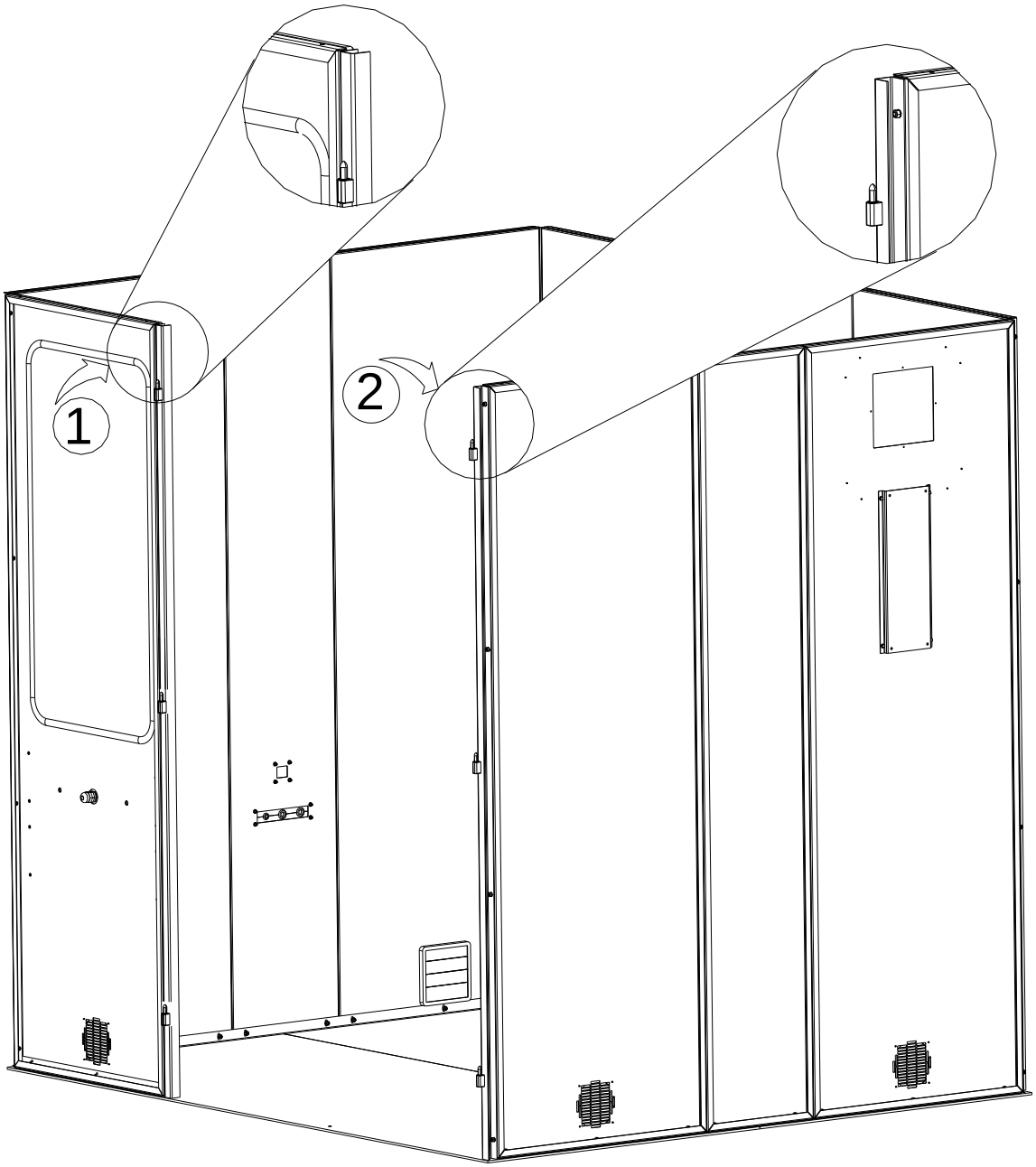
2. Set angle of window panel by adjusting as shown, tighten adjacent panel to sealing plate fasteners. Re-check levels.

4.3.4 WALL PANEL ORDER OF ASSEMBLY



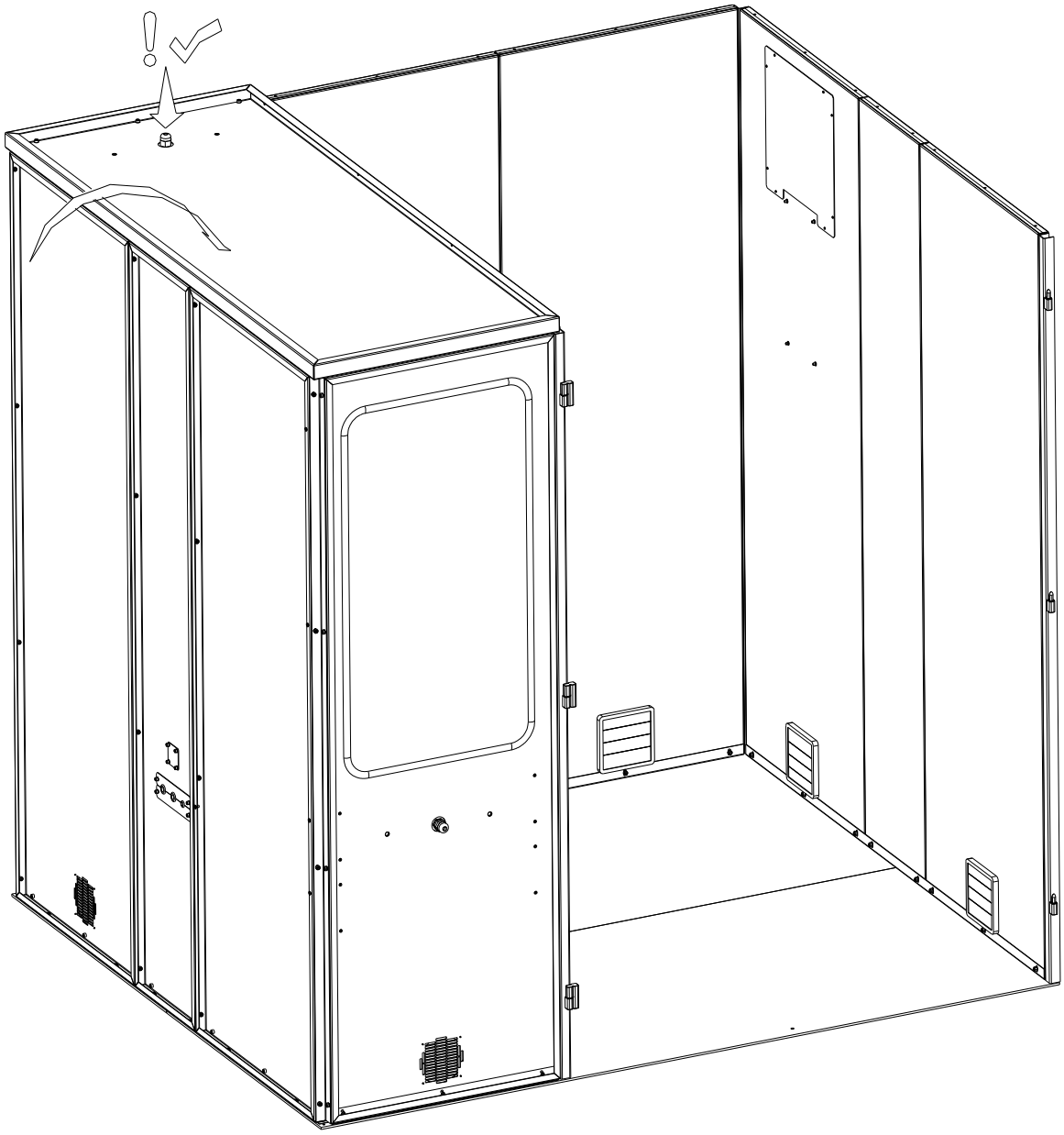
Remember that the gap between panels should be approximately 1mm, to ensure a good foam seal.

4.3.5 DOOR POSTS



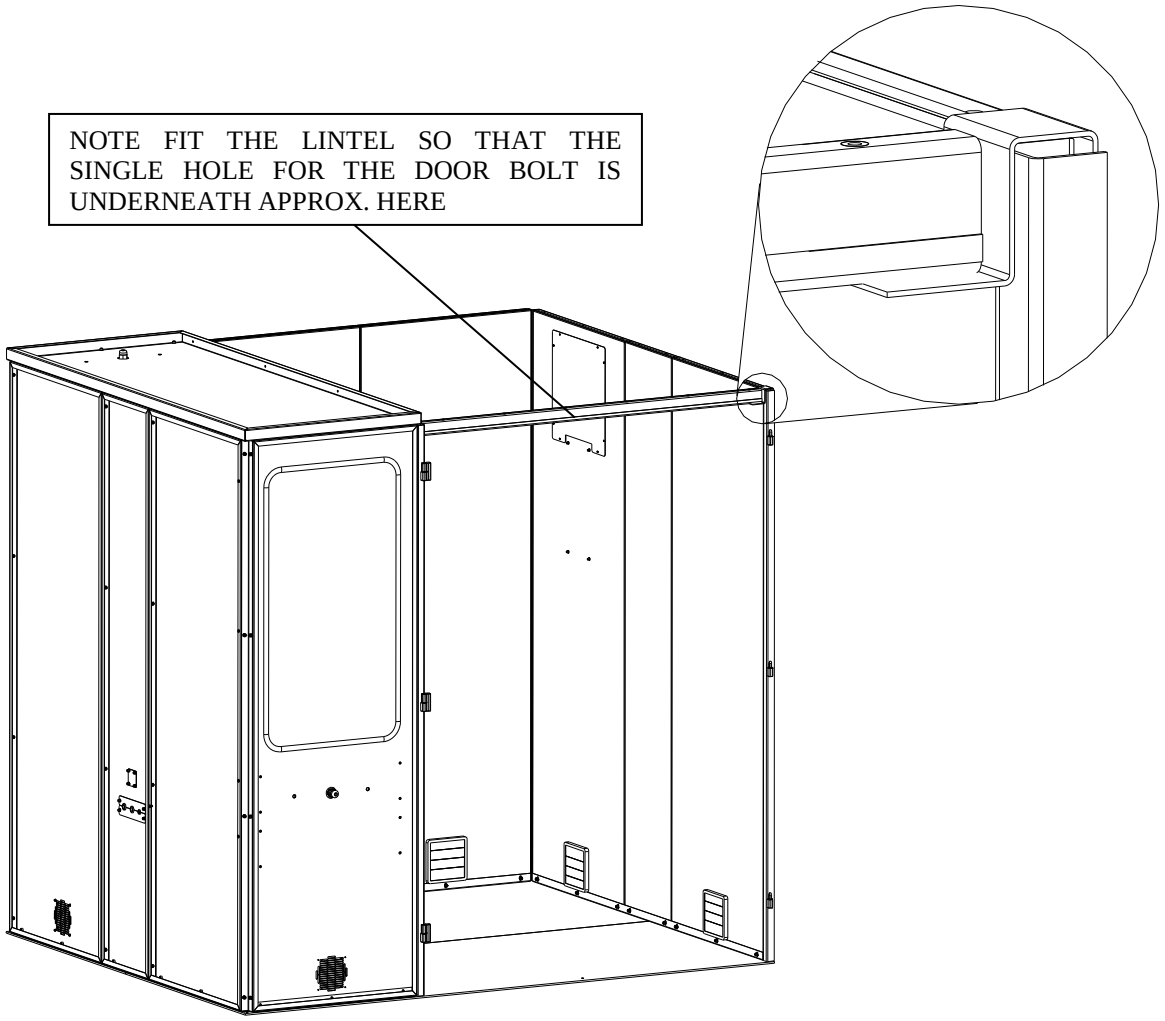
Position posts and leave fasteners hand tight.
Ensure both hinge posts are facing outwards with the pins up as shown.

4.3.6 LEFT HAND ROOF PANEL



Ensure that the roof light is in the position as shown.

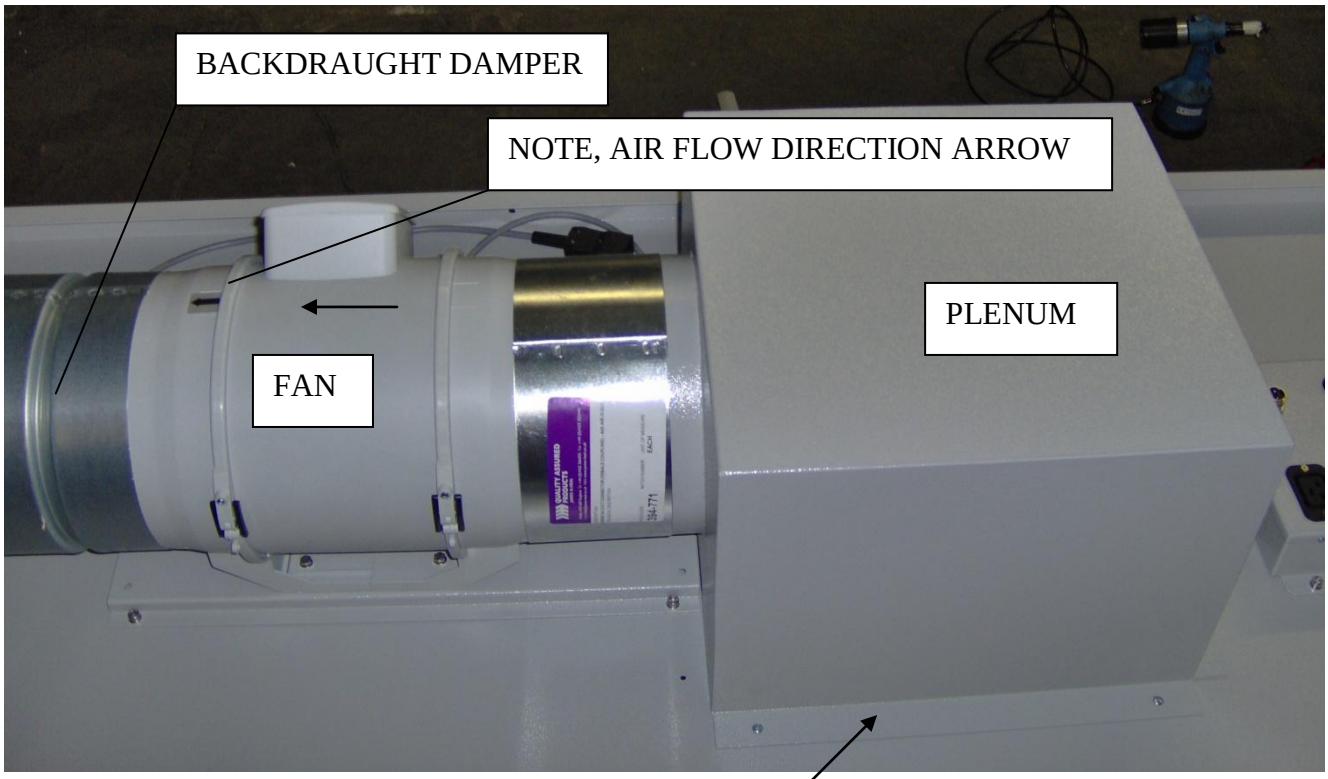
4.3.7 LINTEL FITTING WITH TEMPORARY SUPPORT BRACKET.



The temporary support bracket 578-348 can be found in the ancillary component box, for the support of the free end.

The other end should be fastened through the fitted roof panel

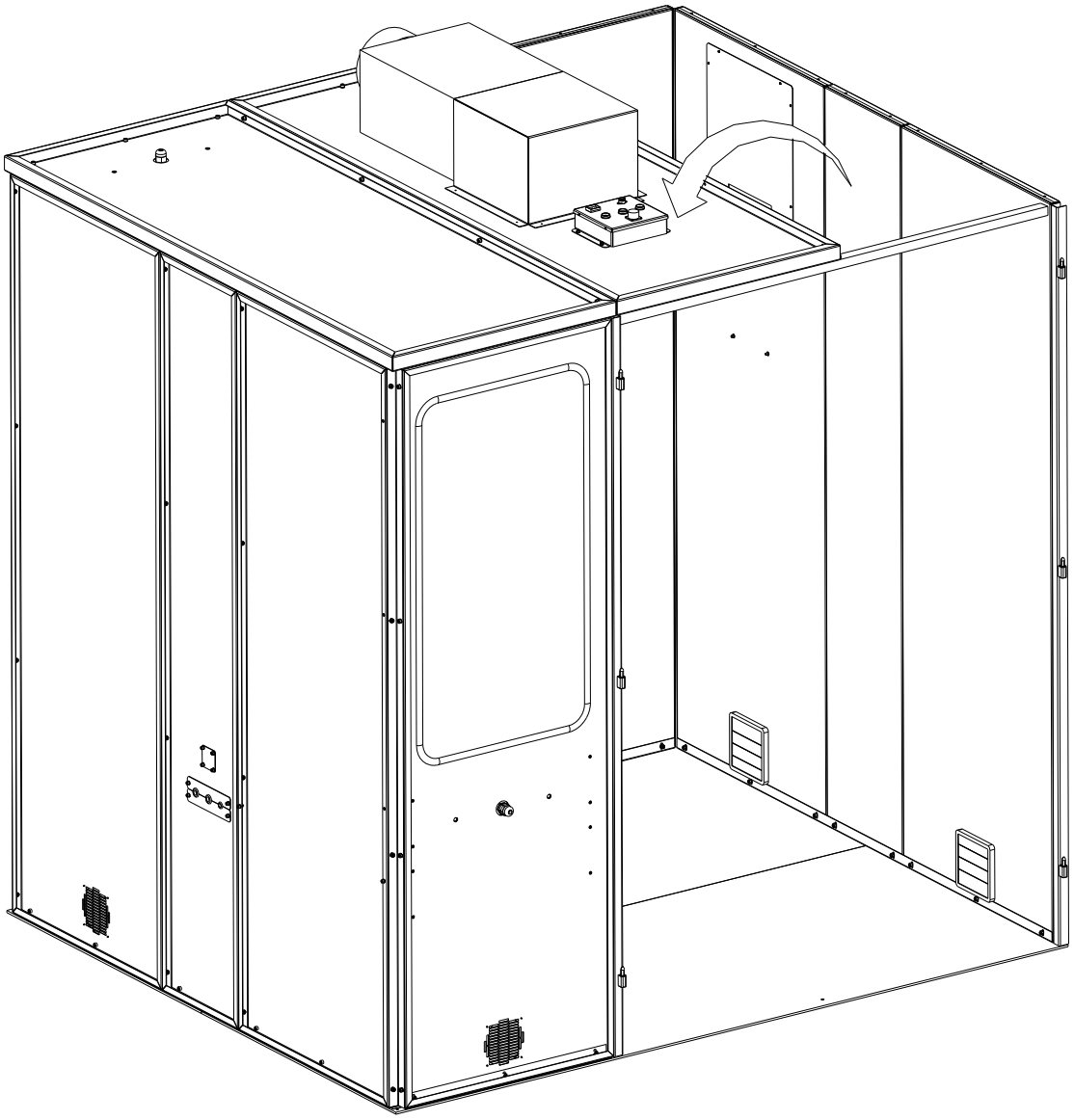
4.3.8 FAN ARRANGEMENT AND MIDDLE ROOF PANEL.



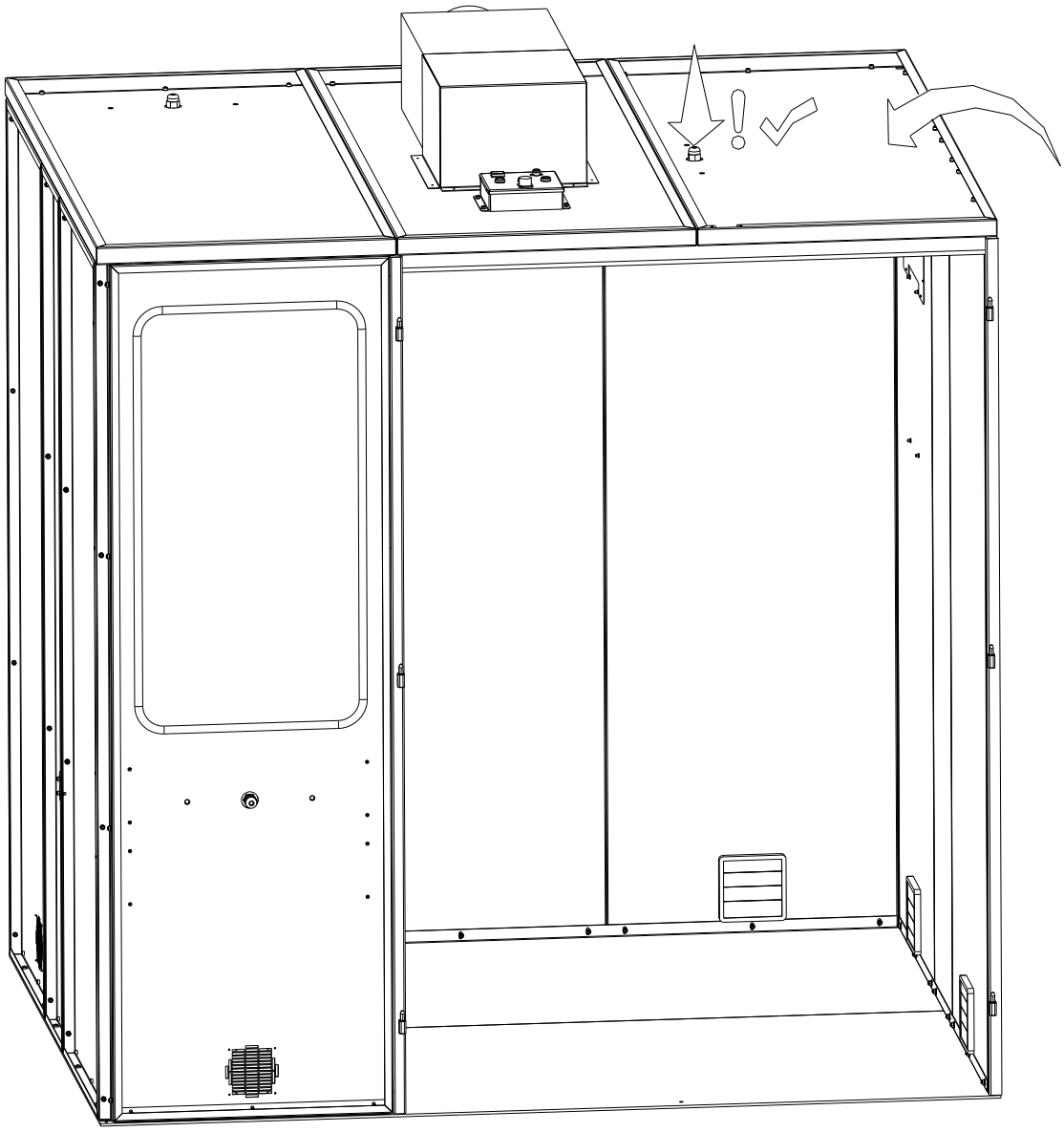
Note

The fan, plenum and backdraught damper are positioned and sealed using duct tape, prior to the combined fan and roof panel being raised into position.

4.3.9 MIDDLE / FAN PANEL POSITIONING

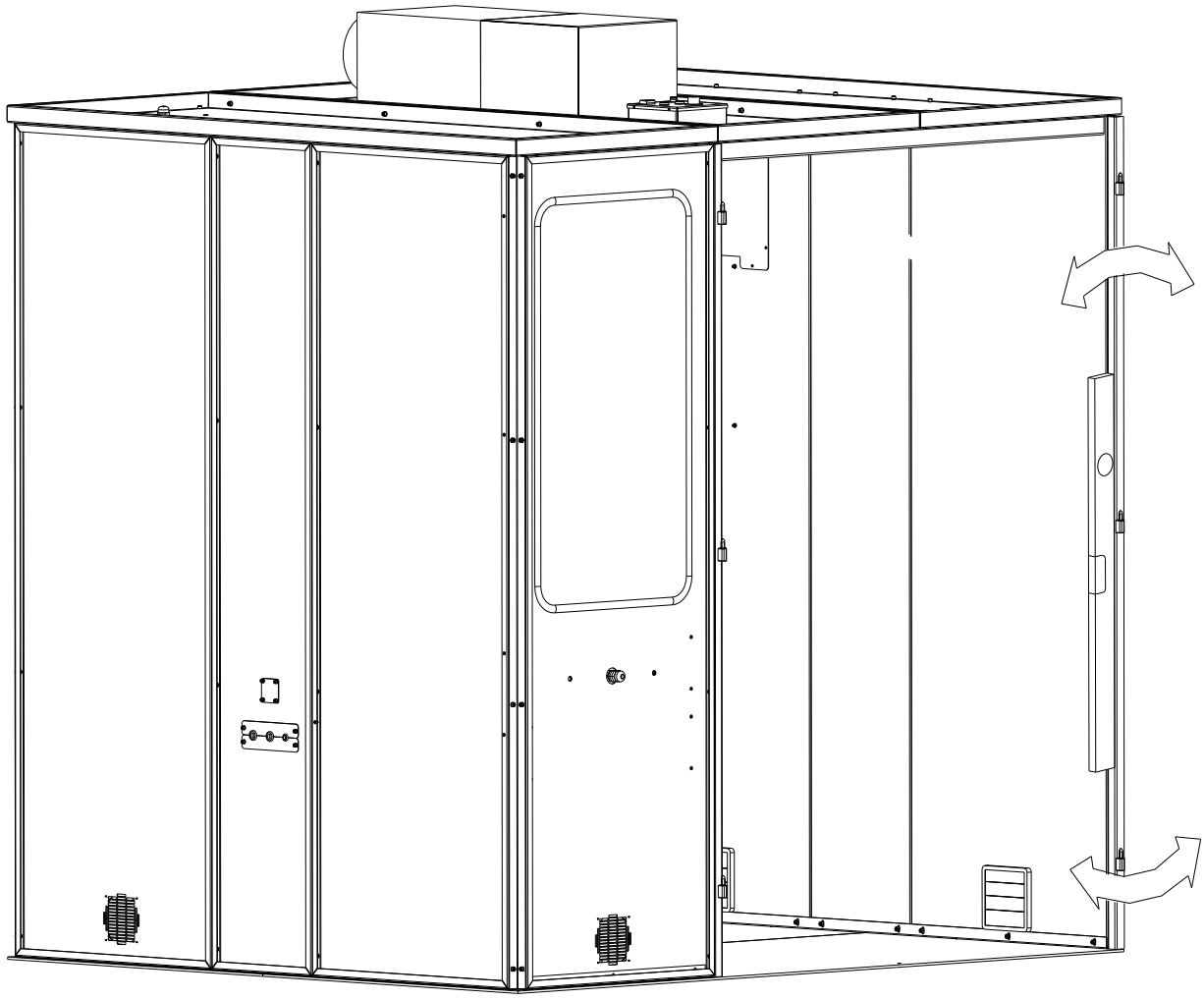


4.3.10 RIGHT HAND ROOF PANEL.



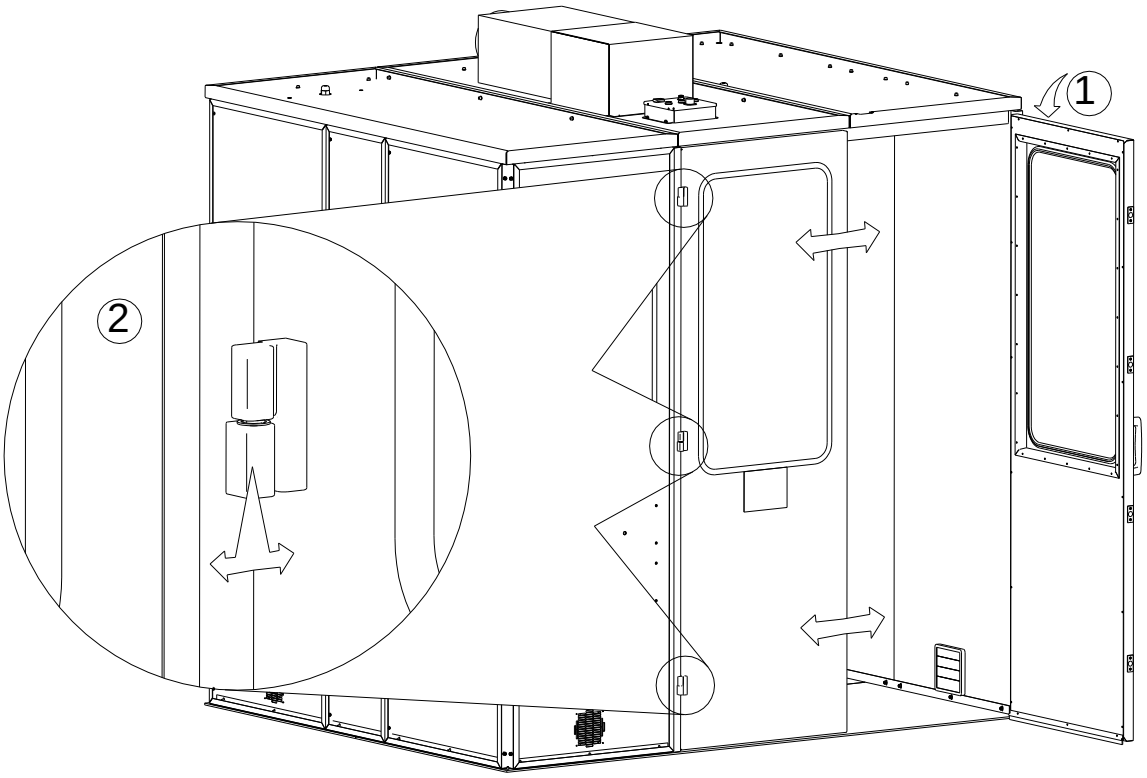
Check that the light is in the position as shown, and remove the temporary support bracket ref. 4.3.7 prior to fully tightening all the fasteners of the right hand roof panel.

4.3.11 DOOR POST LEVELING.



Adjust both door posts on the mounting slots of each post, and tighten when vertical in the relevant planes.

4.3.12 DOOR HANGING AND HINGE ADJUSTMENT.



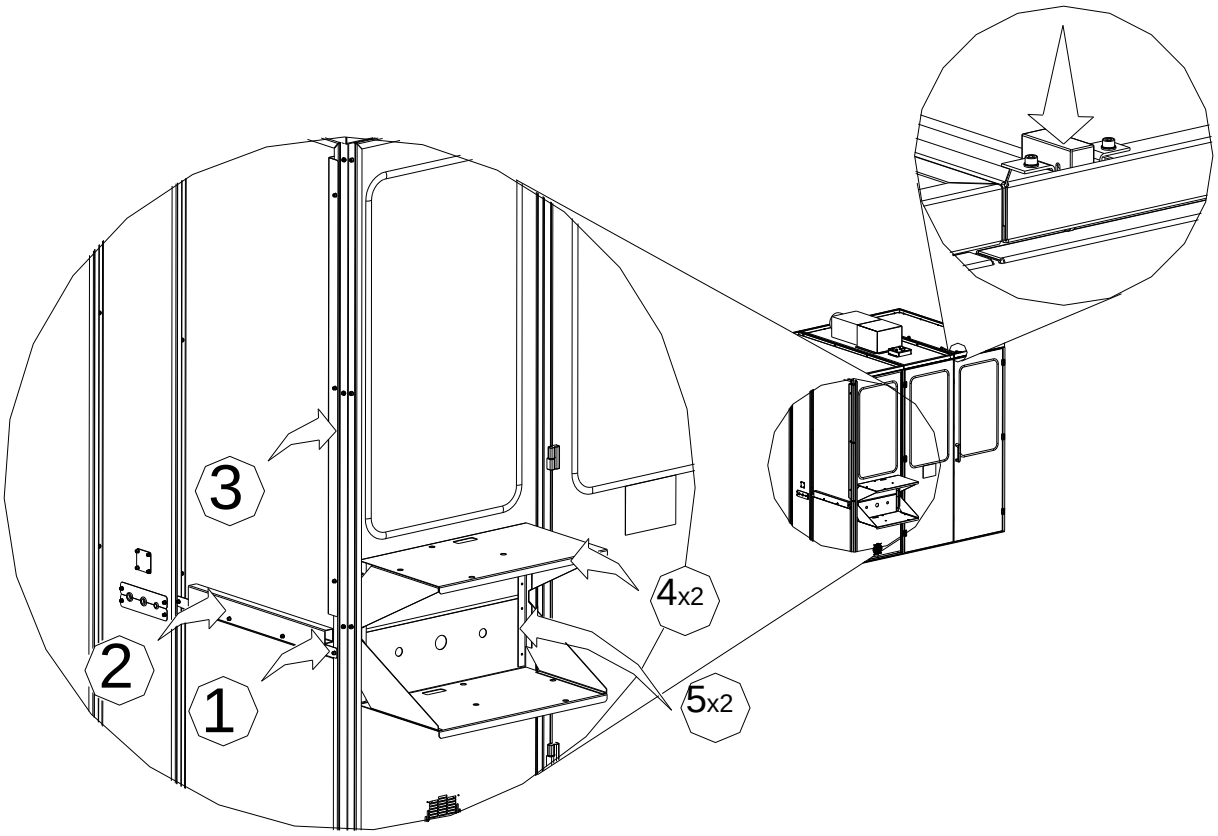
Doors must be offered up at a 90° angle as shown in “1” above

Adjust all three male hinges on both sides, as shown to achieve unhindered closure of the doors.

If necessary refer to 4.3.11 for additional adjustments.

5 FINAL FIT

5.1 ANCILLARY PARTS



Fit services tray and covers ((3)578-344, (2)578-345 & (1)578-346).

Fit upper and lower shelves including left and right hand support brackets ((4)578-417 & 421 + (5)578-341 & 342).

Fit door switch assembly in position shown, adjust thread until roller contacts door top and activates switch. See 5.2.1 for plug socket position.

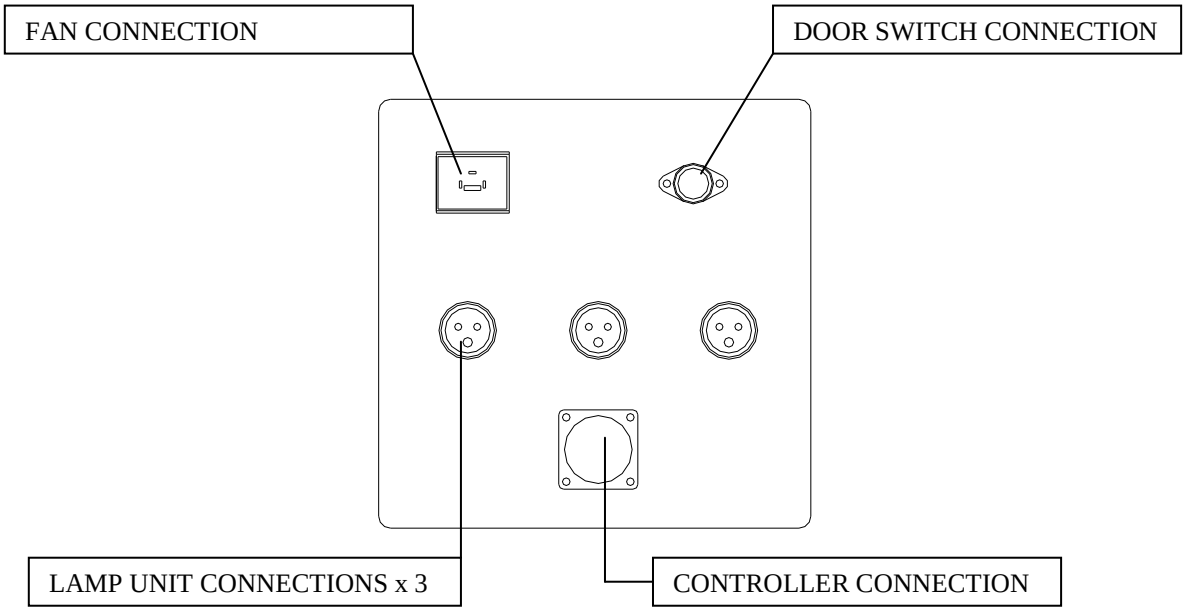
Using silicone sealant provided, inside chamber, check for gaps around the top and bottom. Especially check the following areas:

1. All corners, both upper and lower.

2. Gaps above the left hand door hinge post.

5.2 ELECTRICAL

5.2.1 PLUG SOCKET IDENTIFICATION



5.2.2 CABLE ROUTINGS

The FlexiBurn controller is required to facilitate the operation of the lights and fan and as such is shown on illustration 5.2.3
The controller requires an electrical supply of 230V ±15% (500W) 50/60Hz.

The printer, if used, is connected directly to the controller for power and data.

Any services requiring access to the FlexiBurn unit can be run in the horizontal trunking, as shown. Access to the inside of the chamber is through the service access as shown.

5.2.3 CABLE ROUTINGS ILLUSTRATION