



3 Garden Street, Morwell Vic 3840
ABN: 46 610 154 768

PREPARED FOR

PIVOT STOVES & HEATING



THERMAL TESTING OF THE ROOM SEALED FLUE 12 KIT IN A FLAT CEILING AND ROOF PENETRATION ACCORDING TO APPENDIX F OF AS/NZS2918:2018

Report Number: ASFT25036-PRELIMINARY REPORT
Issue date: 24 March 2025

By:
Garry W. Mooney

Report Distribution

Pivot Stoves & Heating

120 Victoria Street
Nth Geelong VIC

Mr Greg Parker-Hill

ASFT Report Archive

Revision Details

Revision	Date	Comments
0	24/03/2025	Preliminary report – awaiting payment and engineering drawings of Room Sealed Flue 12 Kit

Disclaimer

This Report is intended only for the use of the individual or entity named above (Intended Recipient). ASFT is not liable to the Intended Recipient in respect of any loss, damage, cost or expense suffered as a result of reliance on the information contained in this Report or any actions taken or not taken on the basis of this Report. In particular, results presented in this Report relate exclusively to the samples selected by the Intended Recipient and no responsibility is taken for the representativeness of these samples.

This report shall not be reproduced except in full, without written approval of ASFT.

QD-001R1

Copyright © 2025 ASFT

1. INTRODUCTION

Thermal Clearance testing of the Room Sealed Flue 12 Kit took place on 21 and 24 March 2025 at the Australian Solid Fuel Testing Laboratory located at 3 Garden Street, Morwell, Victoria. The testing was performed by Mr G.W. Mooney and Mr S. Marland.

2. PROCEDURE

Testing was conducted as per Appendix F of AS/NZS2918;2018, Hot sites were located with the aid of an infra-red thermometer. Thermocouple tips were stapled onto the test surfaces, with black tape over the first 100 mm to facilitate consistent and accurate recording of temperatures. Thermocouple positions are shown in the table below:

Thermocouple No.	Position	Thermocouple No.	Position
1	Flue gas temperature	17	RHS Wall, 250mm above Ceiling, 200mm from corner
2	Ceiling – Ring Inner Right	18	LHS Wall, 350mm above Ceiling, 200mm from corner
3	Ceiling – 50mm Right	19	RHS Wall, 350mm above Ceiling, 200mm from corner
4	Ceiling – 100mm Right	20	LHS Wall, 450mm above Ceiling, 200mm from corner
5	Ceiling – 150mm Right	21	RHS Wall, 450mm above Ceiling, 200mm from corner
6	Ceiling – 200mm Right	22	LHS Wall, 550mm above Ceiling, 200mm from corner
7	Ceiling – Ring Inner Left	23	RHS Wall, 550mm above Ceiling, 200mm from corner
8	Ceiling – 50mm Left	24	LHS Wall, 1000mm above Ceiling, 200mm from corner
9	Ceiling – 100mm Left	25	RHS Wall, 1000mm above Ceiling, 200mm from corner
10	Ceiling – 150mm Left	26	LHS Wall, 1950mm above Ceiling, 200mm from corner
11	Ceiling – 200mm Left	27	RHS Wall, 1950mm above Ceiling, 200mm from corner
12	LHS Wall, 50mm above Ceiling, 200mm from corner	28	Roof – Ring Inner Front
13	RHS Wall, 50mm above Ceiling, 200mm from corner	29	Roof – Ring Inner Rear
14	LHS Wall, 150mm above Ceiling, 200mm from corner	30	Roof – Ring Inner Left
15	RHS Wall, 150mm above Ceiling, 200mm from corner	31	Roof – Ring Inner Right
16	LHS Wall, 250mm above Ceiling, 200mm from corner	32	Ambient temperature

5. RESULTS

5.1 Ambient and Test Surface Temperatures

The Table below show the Ambient temperatures during testing of the flue kit.

Hot Fire	Flue Fire
19.4 – 34.8	30.0 – 35.3

5.2 Hot Flue Test

The flue kit was tested in accordance with Section F8.1 of AS/NZS2918;2018. The Flue gas temperature was maintained at $760 \pm 20^\circ\text{C}$ until the maximum temperatures on each surface had been reached.

Below is a table of the maximum temperatures reached above Ambient.

Position	Thermocouple Number	Hot Fire Test ($^\circ\text{C}$)
Ceiling	2	46.8
RHS Wall	27	33.0
LHS Wall	26	34.8
Roof	30	50.2

5.3 Flue Fire Test

The flue kit was tested in accordance with Section F8.2 of AS/NZS2918;2018. The Flue gas temperature was raised from $760 \pm 20^\circ\text{C}$ to $1125 \pm 20^\circ\text{C}$ within 10minutes, then held at $1125 \pm 20^\circ\text{C}$ for a period of 30minutes.

Below is a table of the maximum temperatures reached above Ambient.

Position	Thermocouple Number	Flue Fire Test ($^\circ\text{C}$)
Ceiling	2	97.8
RHS Wall	25	93.3
LHS Wall	24	97.9
Roof	28	98.9

5.4 Structural Integrity Test

The Room Sealed Flue 12 Kit was tested in accordance with Section F8.3 of AS/NZS2918;2018. The Flue gas temperature was raised kept at $760 \pm 20^{\circ}\text{C}$ then raised to $1125 \pm 20^{\circ}\text{C}$ within 10minutes, then held at $1125 \pm 20^{\circ}\text{C}$ for a period of 10minutes. This process was repeated three times.

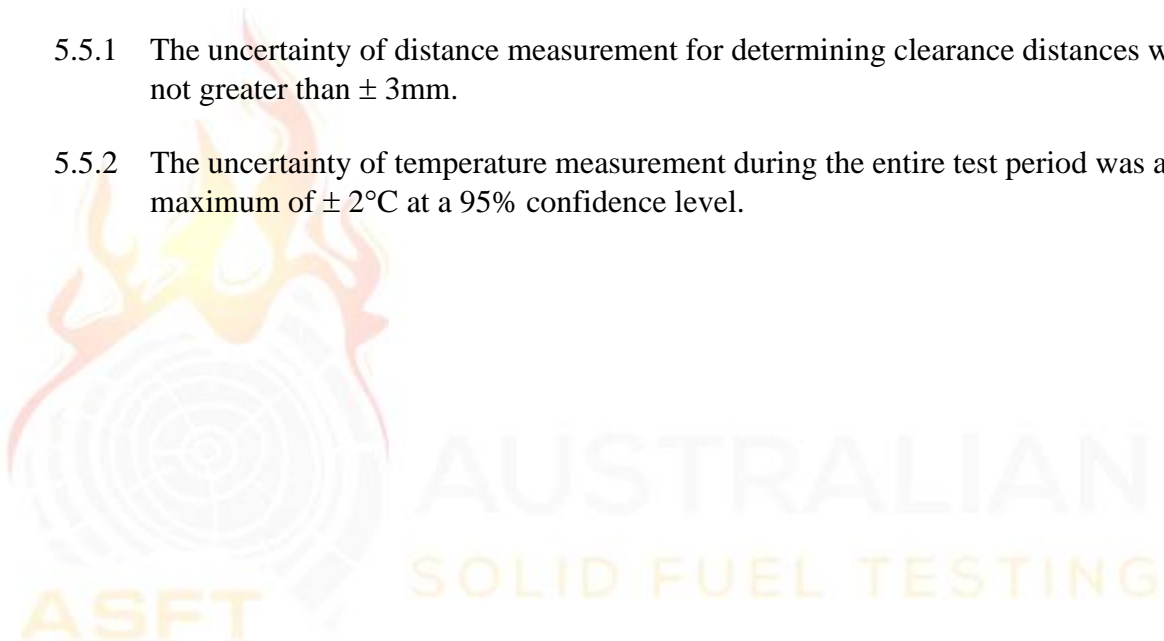
The flue kit was dismantled the following day and the components inspected for their Structural Integrity.

No Structural Integrity issues were found.

5.4 Uncertainty of Measurement Statement

5.5.1 The uncertainty of distance measurement for determining clearance distances was not greater than $\pm 3\text{mm}$.

5.5.2 The uncertainty of temperature measurement during the entire test period was a maximum of $\pm 2^{\circ}\text{C}$ at a 95% confidence level.



6. ROOM SEALED FLUE 12 KIT CONSTRUCTION DETAILS

The test results reported directly relate to the flue kit/flue system tested. The details of the flue kit given in this section include features which may affect safety clearances. Any change in the design/construction of this flue kit or flue may invalidate this report. Below are the constructions details of the flue kit:

Flue Model: Room Sealed Flue 12	Serial No: N/A
Manufacturer: Pivot Stoves & Heating	
Active Flue diameter: 300mm Material thickness: 0.50mm	Length: 1000mm
Ceiling ring diameter: 583mm, 95mm upstand with 25mm quartz insulation on outside of upstand for 55mm (screwed hard to ceiling) then 50mm wide air gap to outside of ring. Made of 0.8mm painted steel	
Outer Casing below Ceiling diameter: 300mm Outer casing fixed to active and packed with quartz insulation Material Type/Thickness: 0.50mm stainless steel	Length: 1000mm
1 st Outer Casing Above Ceiling diameter: 300mm Outer casing fixed to active and packed with quartz insulation Material Type/Thickness: 0.50mm stainless steel	Length: 1000mm
Cowl Height: 275mm Diameter: 445mm Material Type: Stainless Steel	
Area of Venting in Cowl: No venting	
NOTE: Accuracy of measurement is $\pm 5\%$ of the measured value	

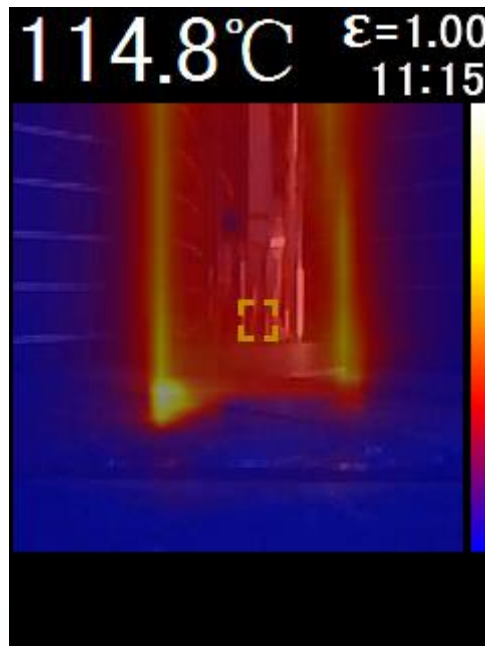
Appendix 1 is thermal images of the Room Sealed Flue 12 Kit during testing

Appendix 2 is the installation manual/Instructions for the Room Sealed Flue 12 Kit

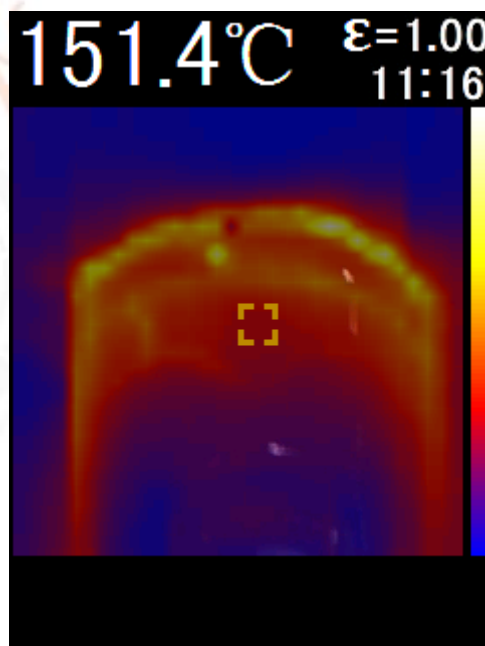
7. CONCLUSION

The Room Sealed Flue 12 Kit, conforms to the requirements of Australian/New Zealand Standard 2918:2018, when tested in accordance with Appendix F.

APPENDIX 1:



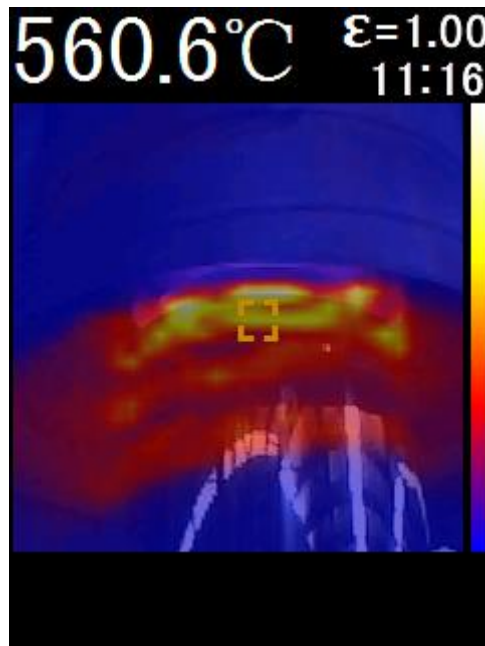
Above Ceiling



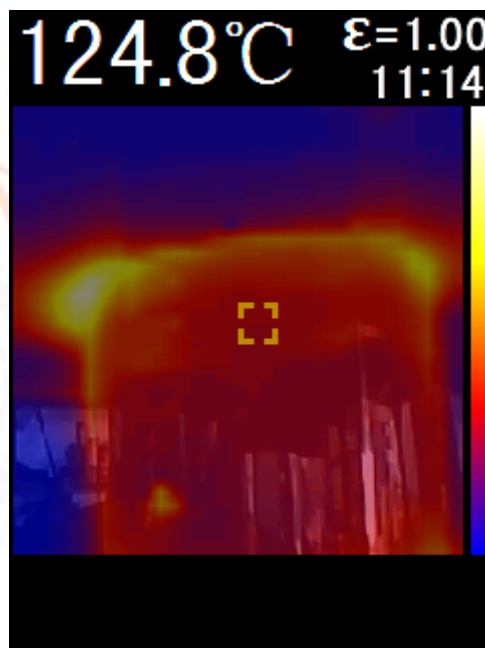
Below Roof



ALIAN
TESTING



Above Roof



Below Ceiling



ALIAN
TESTING

APPENDIX 2: instructions as supplied with Room Sealed Flue 12 Kit

To Be Supplied by Pivot Stoves & Heating

