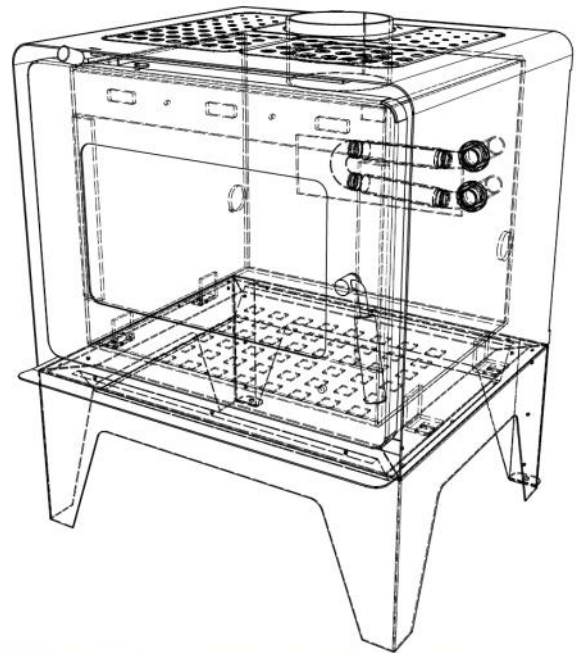
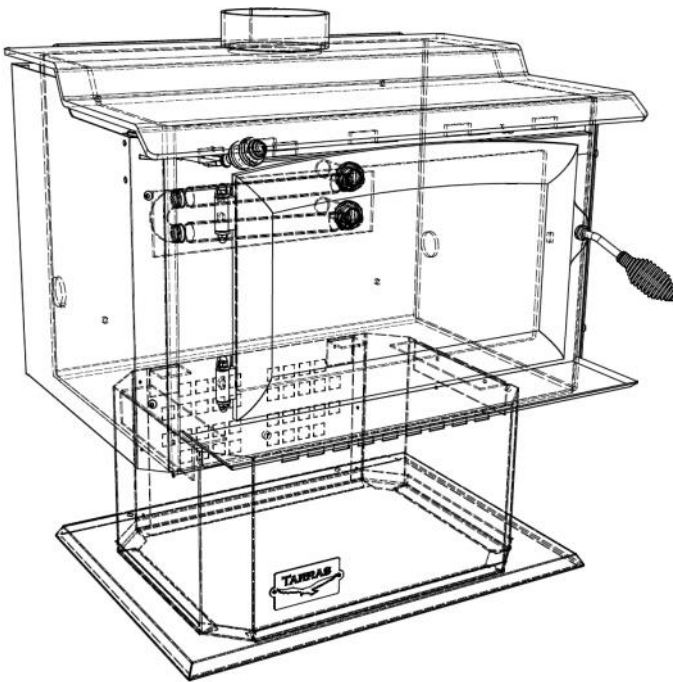




WOODSMAN

Warming kiwi homes since 1887.

Specifications and Installation Instructions for Woodsman Solid Fuel Burners



The installation of any Woodsman solid fuel burner requires a Building Consent prior to installation commencing. We recommend the installation of a Woodsman solid fuel burner or flue system be undertaken by the holder of a current SFAIT (Solid Fuel Appliance Installation Technician) qualification issued by the NZHHA (NZ Home Heating Association Inc.).

www.nzhha.co.nz

Proudly Manufactured By:



Harris Home Fires
41 Braddon St
Addington
Christchurch 8024
New Zealand
Email sales@hhf.co.nz

P O Box 4043
Christchurch 8140
New Zealand

Phone 03 366 1796
Freephone 0800 3661796
Fax 03 366 1795

Contents

	PAGE
Testing and Certification	3
Clearances	4 & 5
Totara Insert Installation	6
Flue Shields	7
Ceiling Heights	7
Flue Shield Deflector	7
Floor Protector/Hearth Graph (Graph 1)	8
Rear Deflector	8
Dimensions	9
Reducing Clearances	10
Installation Instructions	11
Floor Protector Materials	11
Minimum Flue Height	12
Flue Installation Details	12
Sealing Flue Joints	13
Fitting The Wetback To The Firebox	14

Testing and Certification

MODEL	AS/NZS 2918:2001, APP B	AS/NZ 2918:2001, APP E	AS/NZS 4012:1999	AS/NZS 4013:1999	ECan Cert Number
ECR NoVo	Complies	N/A	67%	0.9g/kg	153733
ECR NoVo Wet	Complies	N/A	65%	0.9g/kg	155148
Totara	Complies	Complies	67%	0.9g/kg	110220
Matai ECR MkIII	Complies	N/A	71%	0.7g/kg	102148
Matai ECR MkV	Complies	N/A	65%	0.7g/kg	102454
IMF	Complies	Complies	N/A	3.9g/kg	N/A
Flare - Wood	Complies	N/A	68%	0.97g/kg	134775
Flare - Wood WB	Complies	N/A	65%	0.89g/kg	135021
Flare - Multi	Complies	N/A	N/A	N/A	N/A
RMF	Complies	N/A	83%	3.9g/kg	N/A
Strongman	Complies	N/A	N/A	N/A	N/A
Aspen	Complies	N/A	71%	0.5g/kg	111306
Aspen WB	Complies	N/A	65%	0.5g/kg	111307
Brunner MKII	Complies	N/A	71%	0.5g/kg	142896
Brunner MKII WB	Complies	N/A	65%	0.5g/kg	142897
Tasman MKII	Complies	N/A	71%	0.5g/kg	142898
Tasman MKII WB	Complies	N/A	65%	0.5g/kg	142899
Tarras MKIII	Complies	N/A	69%	0.37g/kg	143492
Tarras MKIII WB	Complies	N/A	65%	0.5g/kg	143494

Minimum Safe Installation Clearances to COMBUSTIBLE Materials

	BRUNNER MKII & TASMAN MKII	BRUNNER MKII & TASMAN MKII With Rear Deflector Fitted (see Page 7)	FLARE-WOOD	TARRAS MKIII	TARRAS MKIII With Rear Deflector Fitted (see Page 7)
A	200	120	100	230	160
B	450	450	320	480	460
C	300	300	300	300	300
D	118	118	110	67	67
E	230	240	120	250	220
F	345	265	281	372	302
G	758	758	635	863	843
H	535	545	449	611	581
J	850	850	850	898	898
K	1025	945	933	1052	982
L	1437	1451	1287	1544	1500
M	1220	1230	1122	1304	1274
N	680	680	652	680	680
O	615	615	600	600	600
Flue Shield Requirements (See Page 6)	1200 With flue shield deflector fitted	1200 With flue shield deflector fitted	1200 With flue shield deflector fitted	1200 With flue shield deflector fitted	1200 With flue shield deflector fitted

Notes:

Dimensions **A, B & E** are taken from the combustible wall to the closest point of the appliance including panels.

Dimension **C** is measured from the edge of the hearth to the closest point of the firebox door frame as in AS/NZS 2918:2001 3.3.2

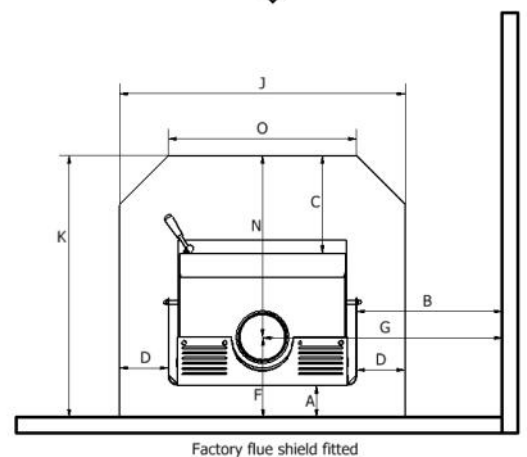
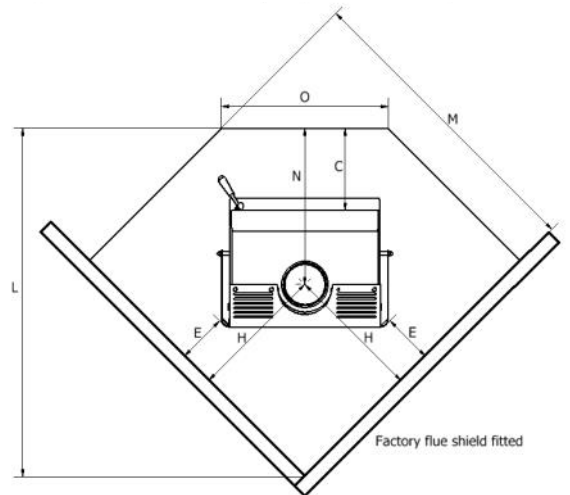
Dimensions **F, G & H** are not clearances that need to be adhered to. They are measurements for the purpose of locating the flue centre when the appliance is installed with the minimum safe clearances.

*610mm with firebox side panels fitted.

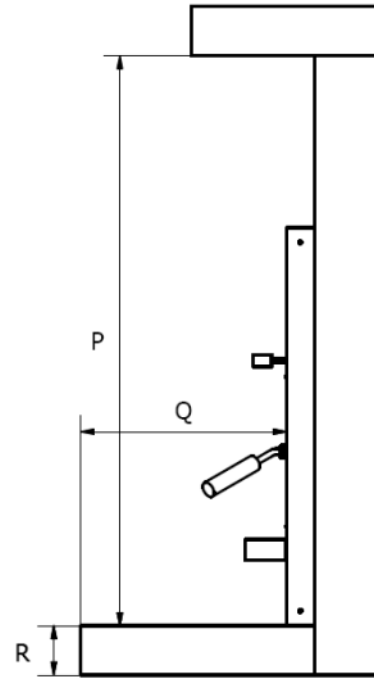
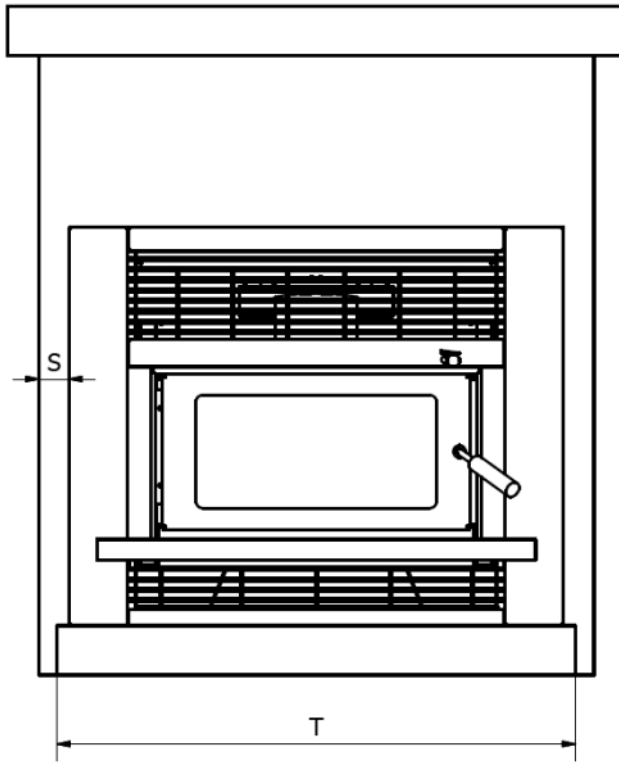
**968mm with firebox side panels fitted.

All dimensions are given in millimetres (mm).

	ECR MkIII, MkIV, MkV	ECR NoVo With Rear Deflector Fitted (see Page 7)	ASPEN	RMF	FLARE-MULTI	STRONGMAN
A	100	110	255	125	100	300
B	400	490	435	500	350	875*
C	300	300	300	300	300	GRAPH 1
D	150	115	118	150	110	150
E	200	200	230	180	150	380
F	251	265	404	276	281	441
G	690	800	743	790	665	1233**
H	512	517	521	492	479	711
J	880	850	850	880	850	1015
K	807	792	1084	832	933	1364
L	1280	1259	1417	1252	1329	1928
M	1110	1049	1219	1060	1152	1616
N	556	527	680	556	652	923
O	580	450	615	580	600	715
Flue Shield Requirements (See Page 6)	900	1200	1200	900	1200 With flue shield deflector fitted	1200



Minimum Safe Installation Clearances to COMBUSTIBLE Materials



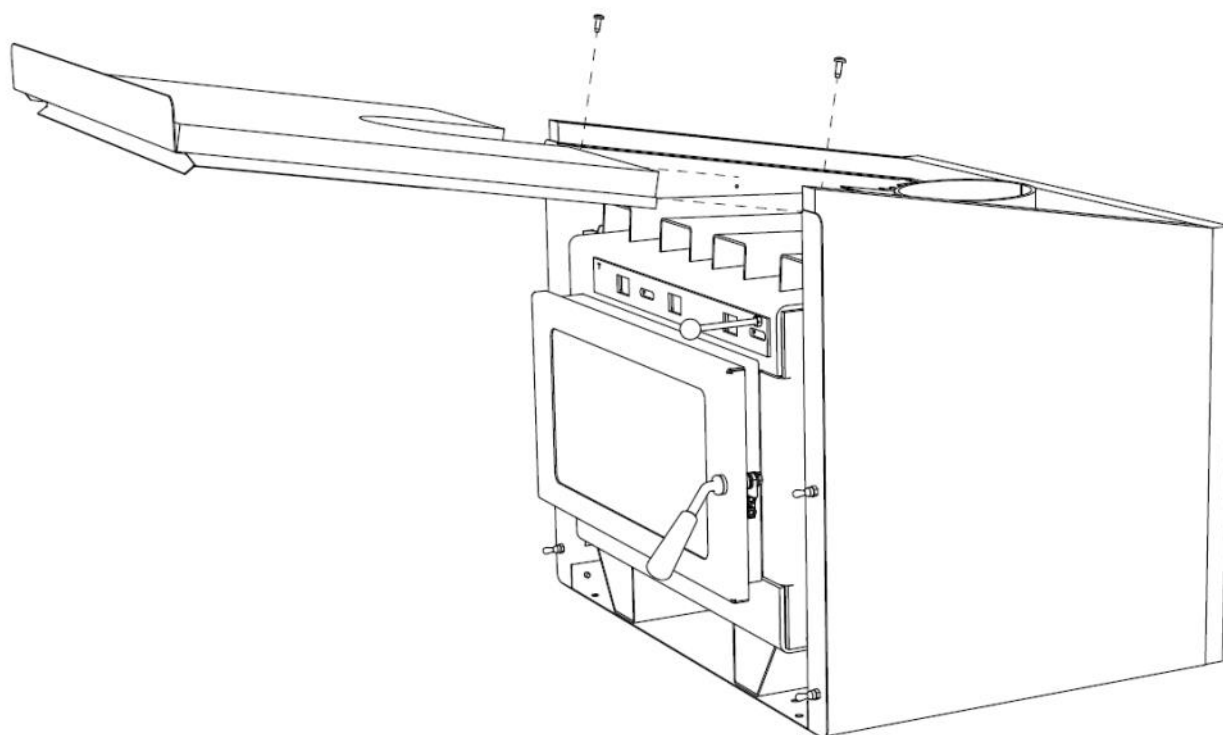
	IMF	Totara
P	980	1060*
Q	Graph 1	Graph 1
R	Graph 1	Graph 1
S	50	50
T	840	840

* Dimension P can be 920mm with a factory supplied heat deflector fitted

Totara Insert Installation

When installing the Totara into a masonry situation, it is important to ensure that the flue is sealed and secured into the flue spigot.

In some tight situations, it may be very difficult to get access. In those cases, the top section of the cabinet is able to be removed by removing 2 screws and sliding it forward (as shown below). You then have access to the flue spigot to perform the task. Once completed, ensure that the top section of the cabinet is properly put back in its correct position, otherwise heat will escape into the cavity.



Additional Insulation in Cavity

In some installations, the cavity size leaves large open spaces around the insert cabinet. Even though the fascia may cover the opening, it is not air tight and there can be significant heat loss up the chimney.

This can reduce the effectiveness of the appliance and is likely to cause problems for the owner.

It is recommended that additional **non-combustible** insulation be used to pack around the cavity between the fire and the masonry to reduce (but not completely eliminate) air flow up the chimney and heat loss.

Ceiling Heights

All Woodsman free standing fires have been tested and approved to ASNZ 2918:2001 App B with a ceiling height of 2.4m and with the factory flue shield fitted in the below configurations. In some cases, the top of the flue shield terminates within 600mm of the ceiling height (refer to ASNZ 2918:2001 **4.5.2**) but all ceiling temperatures did not exceed the allowable limit in these cases and are therefore able to be installed. Reports are available on request for Councils.

If the ceiling height is less than 2.4m, then heat shielding is required as per AS/NZ 2918:2001 Table 3.2

Factory Flue Shields

Standard 900mm high flue shield:

ECR MKIII, ECR MKV & RMF

Standard 1200mm high flue shield:

Brunner, Tasman, Aspen, ECR NoVo & Strongman, Serene

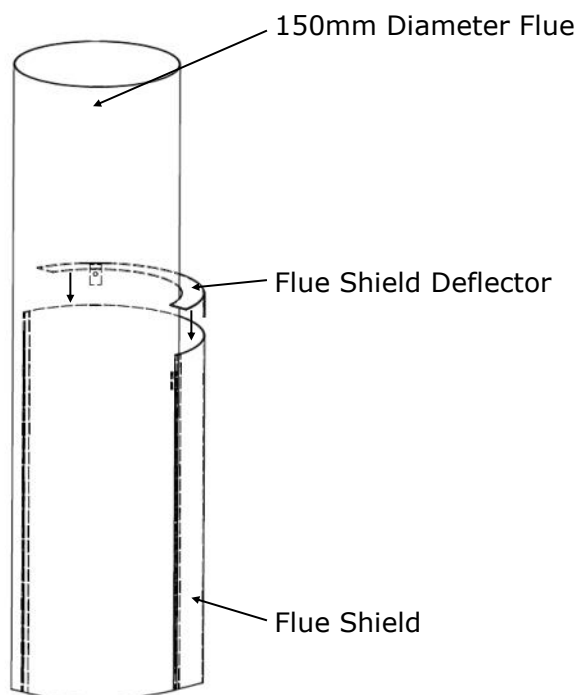
1200mm high flue shield with flue shield deflector (REQUIRED)

Tarras MKII, Tarras MKIII, Brunner/Tasman MKII & Flare (All Variants) - See Below

IMPORTANT - Flue shields should be no further than 10mm off the top of the fire box

Fitting the Flue Shield Deflector

for Tarras MKII, Tarras MKIII, Brunner/Tasman MKII and Flare (All Variants)



To fit the heat shield deflector:

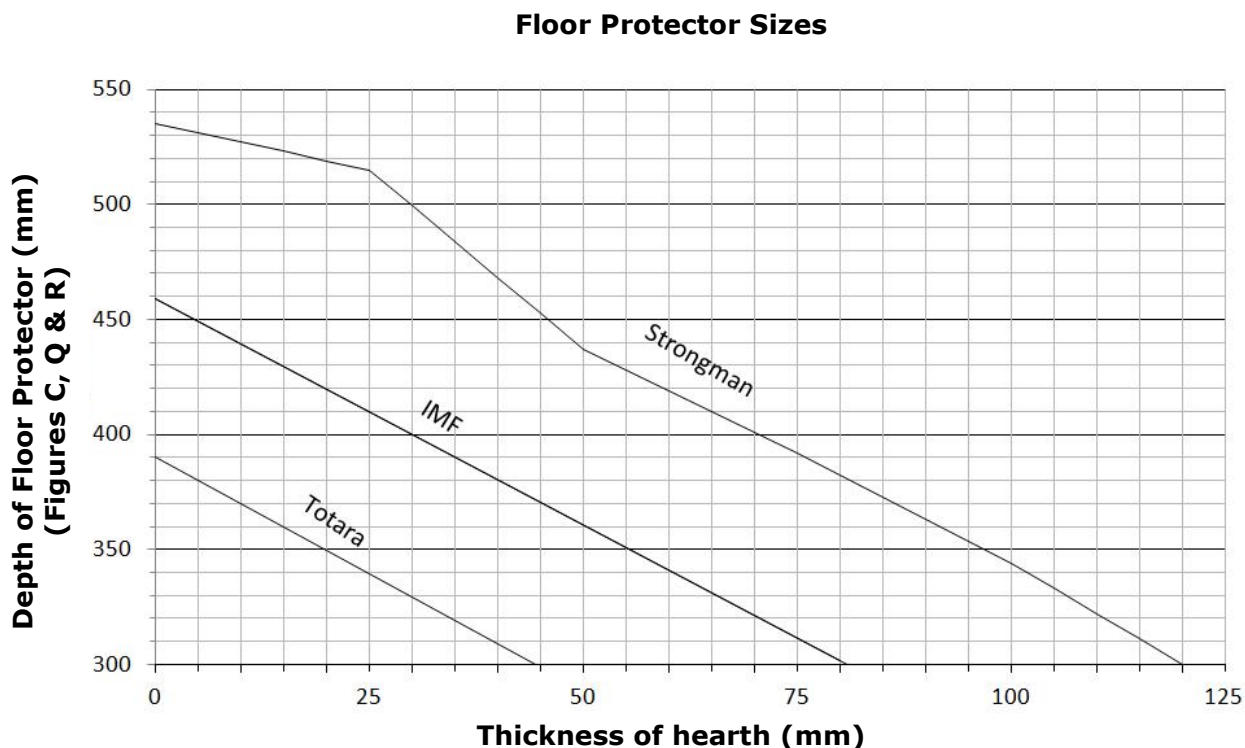
- Place the deflector on top of the heat shield and ensure no large gaps
- Fix in place by securing the tabs with rivets to the heat shield

WARNING

This part is required to be installed on the listed models with ALL types of flue kits. Failure to do so, may cause the ceiling to over heat. The part is located in the fire itself and not the flue kit packaging.

Floor Protector Graph

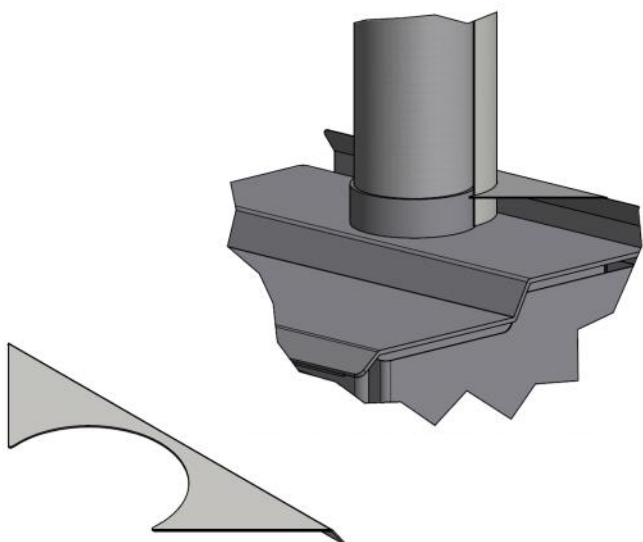
Graph 1



This graph refers to Page 4 dimension C and Page 5 dimension Q & R.

The floor protector distance out in front of the fire (taken from the door), is dependent on the thickness of the floor protector. The thicker the floor protector is above the surrounding combustible floor, the less this distance is out in front of the fire.

Rear Deflector



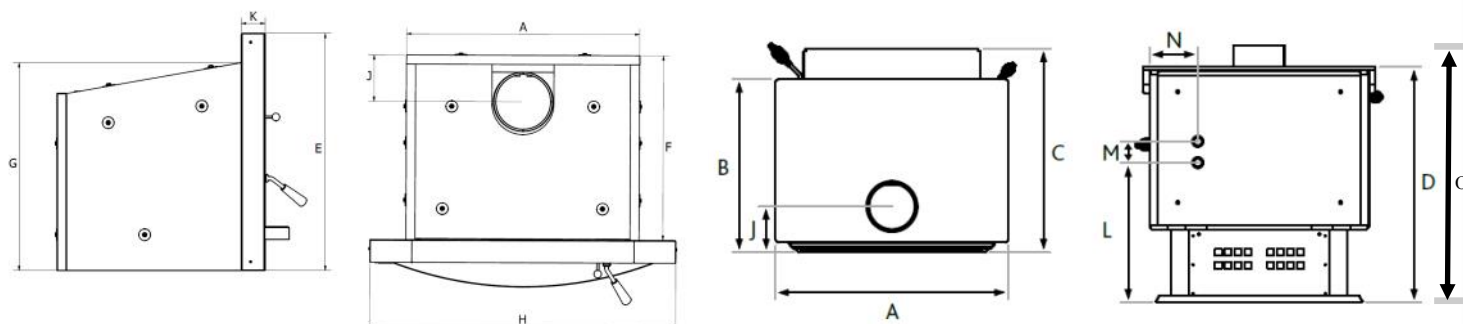
The rear deflector is used for reducing rear clearances for applicable fires (see page 4 for details). It is located loose in the firebox.

To fit the rear deflector, simply attach it to the rear shield of the fire using 2 rivets in the predrilled holes.

The rear deflector should be positioned tight up against the flue shield as shown.

Available for:
Brunner MKII, Tasman MKII, ECR NoVo
& Tarras MKIII

Dimensions



All Dimensions In MM

	TOTARA	ECR MKIII, V	ECR NoVo	BRUNNER MKII & TASMAN MKII	ASPEN	TARRAS MKIII	FLARE WOOD	RMF	STRONG- MAN	IMF Deluxe
A Overall Stove Width	642	580	620	615	615	765	630	580	715	590
B Stove Depth Door Frame to Rear		390	382	525	520	522	540	390	521	
C Overall Stove Depth Ledge to rear		450	466	630	633	640	602	450	590	
D Floor to Stove Top Plate		620	651	758	725	774	768 ^(Ped) 764 (Box & Leg)	593	697	
E Insert Fascia Height	650									740
F Insert Depth	506									480
G Insert Maximum Height	570									590
H Insert Fascia Width	840									850
J Flue Centre to Back of Unit	136	150	155	145	149	142	181	150	141	115
K Insert Fascia Depth	62									120/65
L Wetback Height		283	414	478	450	479	502			
M Wetback Centres		130	65	65	65	65	65			
N Wetback Position		290	108	107	106	180	133			
O Overall Stove Height		640	701	808	775	824	780	643	747	

Disclaimer;

While every attempt is made to ensure this information is as accurate as possible, a tolerance of +/- 5mm should be allowed for in these dimensions

Reducing Clearances

The clearances that are provided on page 4 are to combustible materials. You can safely reduce those clearances by following the instructions located in AS/NZS 2918:2001 table 3.1 and 3.2

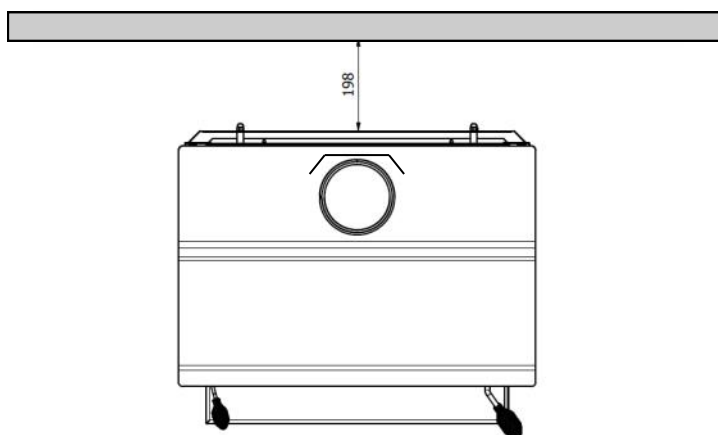
You can reduce the clearances by placing a non-combustible heat shield, with an air gap behind it and vented top and bottom, between the fire and the combustible wall. Masonry may be used as a heat shield material. The heat shield must extend a minimum of **450mm** beyond the top of the appliance and must be of appropriate width to ensure that the unshielded rear clearance is adhered to beyond the sides of the heat shield. See example below.

Clearance factors for heat shields which are within 45 degrees of the vertical

Heat Shield Construction	Minimum Air Gap Dimension	Clearance Factor
Single layer of continuous material	12mm	0.4
Single layer of continuous material	25mm	0.3
Two spaced layers of continuous material	12mm + 12mm	0.2

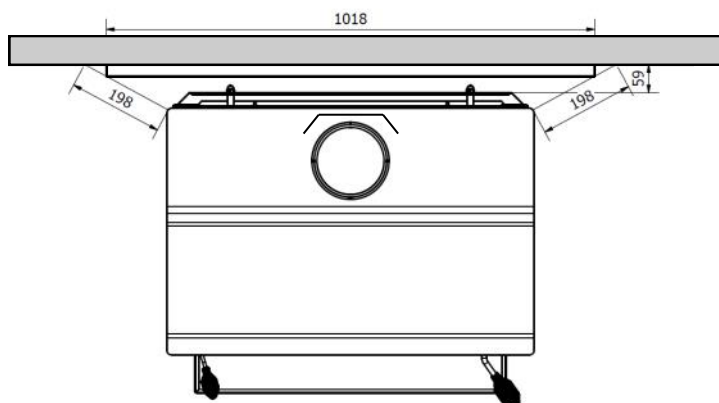
A non-combustible material in direct contact with a combustible material, with no air gap, is **NOT** considered a heat shield (unless the material has been tested in accordance with AS/NZS 2918:2001 Appendix A).

All clearance dimensions are taken from the combustible material to the appliance, ignoring the non-combustible in-between.



Unshielded Dimension for Woodsman Tarras MKII

Rear Clearance - 198mm (combustible to stove)



Heat shield with 25mm air gap with Woodsman Tarras MKII

Heat Shield - Single layer of continuous material with 25mm air gap.
Size 1018mm wide x 1222mm high

Reduced Rear Clearance - 59mm (combustible to stove)

Calculation: $198\text{mm} \times 0.3 = 59\text{mm}$

WARNING - This is only an example, you must refer to the full AS/NZS 2918:2001 document for more details and consult your local building inspector. Where heat shields are used to reduce appliance dimensions, additional flue shielding may be required (refer 4.5.2).

Installation Instructions

It is recommended this appliance should be installed by a trained and NZHHA qualified installer.

Warning: the appliance and flue system shall be installed in accordance with AS/NZS 2918 and the appropriate requirements of relevant building code/codes.

Warning: appliances installed in accordance with this standard shall comply with the requirements of AS/NZS 4013 where required by the regulatory authority, i.e. the appliance shall be identifiable by a compliance plate with the marking "Tested to AS/NZS 4013".

Any modification of the appliance that has not been approved in writing by the testing authority is considered to be in breach of the approval granted for compliance with AS/NZS 4013.

Caution: mixing of appliance or flue system components from different sources or modifying the dimensional specification of components may result in hazardous conditions. Where such action is considered, the manufacturer should be consulted in the first instance.

Caution: cracked and broken components e.g. glass panels or ceramic tiles, may render the installation unsafe.

- Maintain a clearance of at least 1 metre between front of the appliance and building structure or any other substantial immovable object.
- If the appliance is installed on a heat sensitive floor, the floor should be protected with a floor protector, which shall extend entirely beneath the heater. For the correct floor protector sizes, refer to dimensions on page 4. For the minimum required material, see table below.
- Your appliance shall be seismically restrained, including the floor protector using the provided holes or brackets. The restraints should be sufficient enough to resist a seismic loading equal to 0.4 times the mass of the appliance. We recommend a minimum of 8mm dynabolts on concrete floors and 8mm coach screws for wooden floors of appropriate length.
- **Ventilation** - Where an appliance is installed in an enclosed location the area shall be ventilated to permit unrestricted operation of the flue. NOTE: For installations in well sealed buildings, the minimum recommended ventilation area is one-half the cross-sectional area of the flue. Where exhaust fans or additional combustion appliances are installed in the sealed enclosure, additional ventilation may be required.

Minimum Material Specifications For Floor Protectors on a Floor of Combustible Material

MODEL	SPECIFICATION
ASPEN	9mm Eterpan LD + 8mm ceramic tiles (or equivalent)
ECR (MkIII, IV, V) RMF TOTARA*	8mm ceramic tiles only (or equivalent)
STRONGMAN	24mm Eterpan LD (or equivalent)
BRUNNER MKII TASMAN MKII TARRAS MKIII FLARE (All Variants) ECR NoVo SERENE	Ash Floor Protector. Any non-combustible material of any thickness

*The Totara is also approved with 1mm sheet steel with a 10mm spacing above combustible material. For use when extending hearths.

Minimum Flue Height

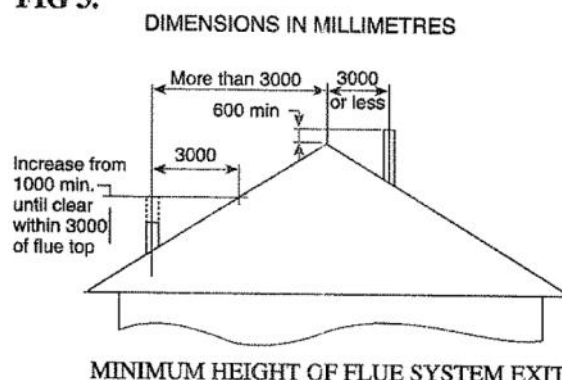
The top of the flue system should be at least 600mm above the highest point of the roof ridgeline, if the point of intersection of the flue system and the roofline is less than 3 metres from the ridgeline horizontally.

If the point of intersection of the flue system and the roofline is greater than 3 metres horizontally, the top of the flue system shall be at least 1 metre above the point of intersection with the roofline. (refer FIG 3)

The total flue height should be no less than 4.6m from the level of the hearth.

These are considered to be **minimum dimensions**, and depending on local conditions, **taller flue system heights may be required for satisfactory performance.**

FIG 3.



Flue Installation Detail

Your Woodsman appliance should be installed with a HeatSaver Flue System.

A HeatSaver Flue System is available from all authorised Woodsman dealers throughout New Zealand.

The HeatSaver Flue System contains a complete installation drawing and correct clearances from the ceiling level up. Minimum clearances from the appliance to nearby combustible surfaces are given in FIGS 1 & 2.

Use of a flue system other than a genuine HeatSaver Flue System may affect the safety of the installation, and may affect your Woodsman warranty.

Insist on a genuine HeatSaver Flue System.

Installation requirements for Woodsman fireplace inserts and flue system where timber framing is less than 50mm from the chimney structure.

Installation should be carried out by a qualified installer who will ensure:

- That the minimum clearances determined by tests in accordance with AS/NZS 2918:2001 are complied with to prevent overheating of nearby combustibles.
- That the minimum opening size of **600mm wide x 600mm high x 500mm deep** is available when firebricks are removed, and that extra provision also be made for plumbing where a hot water booster is fitted (where permitted).
- That any flue requirements specific to the model being installed are met in full - refer HeatSaver Flue System Instructions.
- Where the fireplace opening is in a heat sensitive wall, a non-metallic heat resistant material shall extend not less than 50mm beyond each side of the appliance and 150mm beyond the top of the appliance.
- Clearance of at least 1 metre between the front of the appliance and building structure, or any other substantial material object.
- That the insulating floor protector of non-combustible material is provided, extending not less than the dimensions shown in the chart. (Refer Table 2)
- A fireplace appliance shall not be connected to a flue common with an open fireplace.

Sealing Flue Joints

IMPORTANT

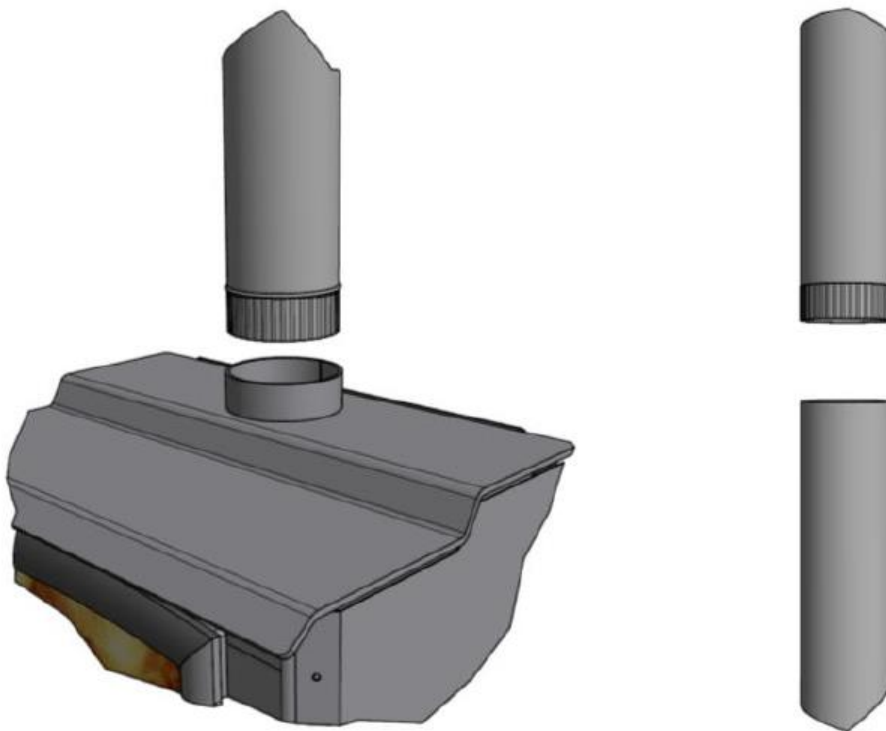
All Flue Joints Are Required To Be Sealed Using Flue Cement

It is extremely important that ALL flue joints are sealed at the time of installation using flue cement or a suitable exhaust cement.

If flue joints are not sealed properly, it can lead to performance issues with the fire such as;

- Lower heat output of the fire, due to decreased performance
- Blocked flue
- Smoke coming out the door when open, due to decreased suction
- Hard to light

The formation of soot and creosote will not seal the flues, especially on the lower lengths, as the high temperatures inhibit its formation.



Any issues that arise as a result of the flues not being sealed, are not covered by the warranty and are not the responsibility of the manufacturer.

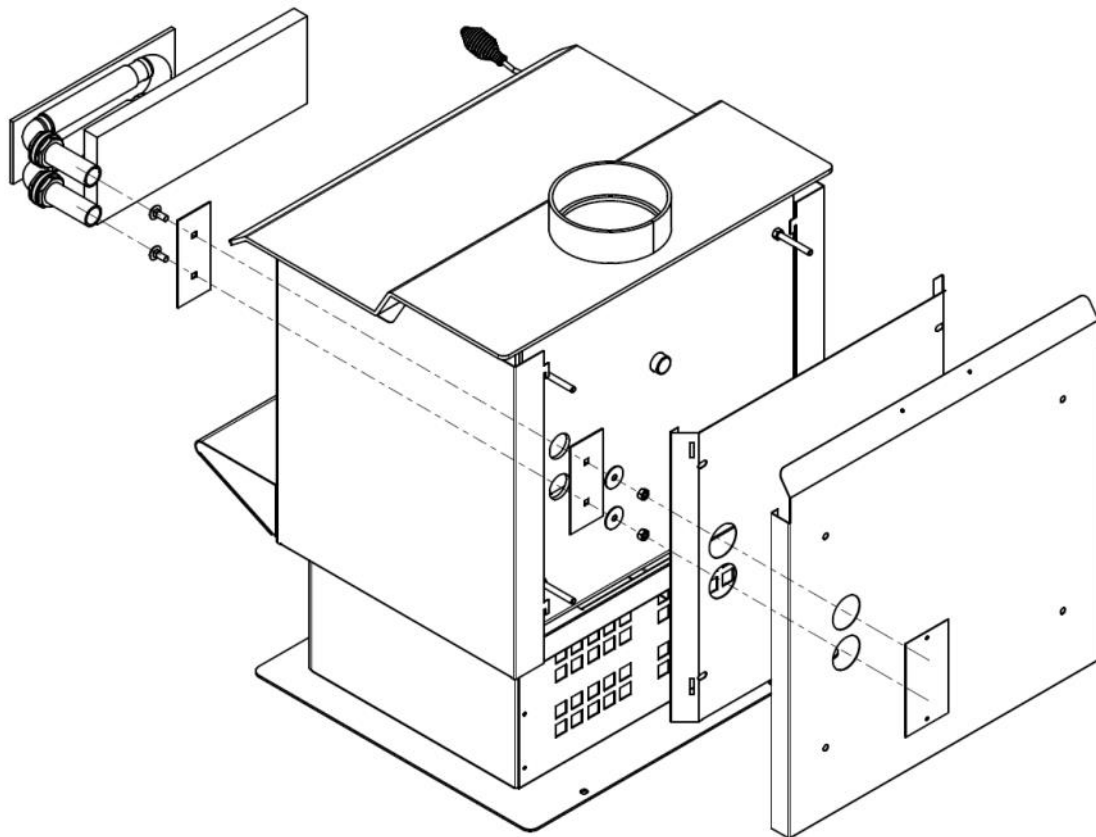
It is the installers responsibility to ensure that this is done at the time of installation.

Fitting the Wetback To The Firebox

Instructions for fitting a loose wetback to the firebox where the fire has been pre-punched with wetback holes.

- Remove knock-outs and cover plates in the rear panels
- Remove top rear firebrick
- Undo coach bolts on firebox plug to expose wetback holes
- Cut rear firebrick with a saw only enough to expose the wetback holes on the inside and to allow for the placement of the wetback in front of the brick
- Remove 1 nut off each wetback tube
- Place wetback into fire with firebrick behind it
- Replace nuts onto the rear of the wetback. Ensure the wetback is level before tightening using a 40mm tube socket

This task should be completed before the fire is positioned in place.



Note: Rear panels do not need to be removed if a tube socket is used for tightening

WETBACK WARNINGS:

- Do not connect to an unvented hot water system.
- **NEVER** burn the appliance without the wetback connected to the water system. This will immediately damage the wetback and void the warranty.
- AS/NZS 2918:2001 states; "all water connections to an appliance shall be in accordance with the appropriate requirements of AS 3500.4.1 or NZS 4603 and the regulatory authority, as appropriate".