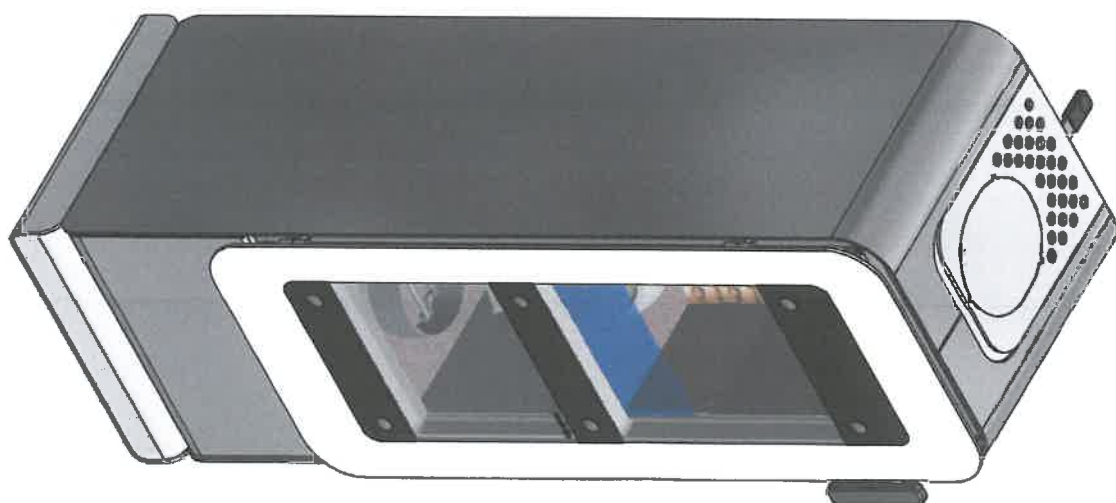
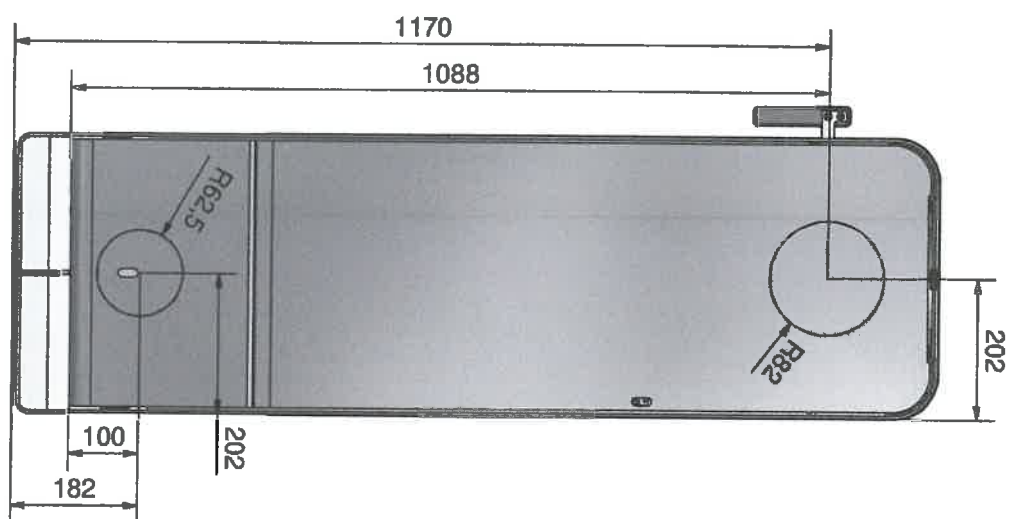
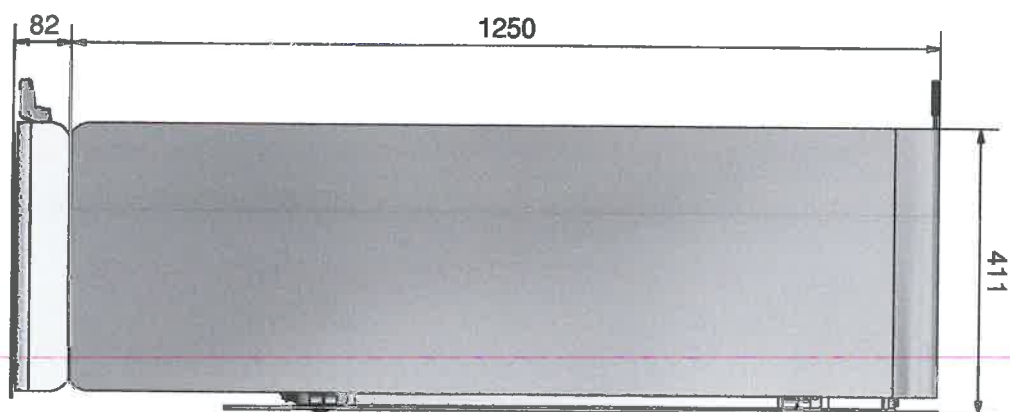
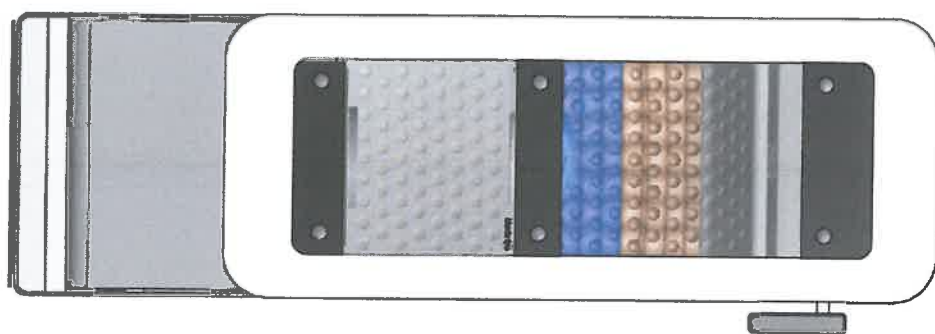
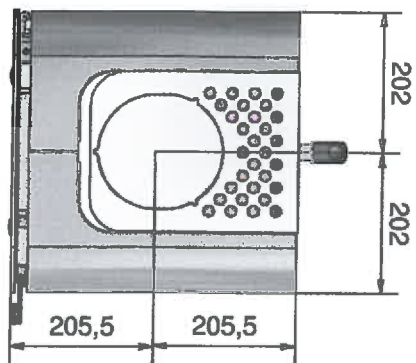


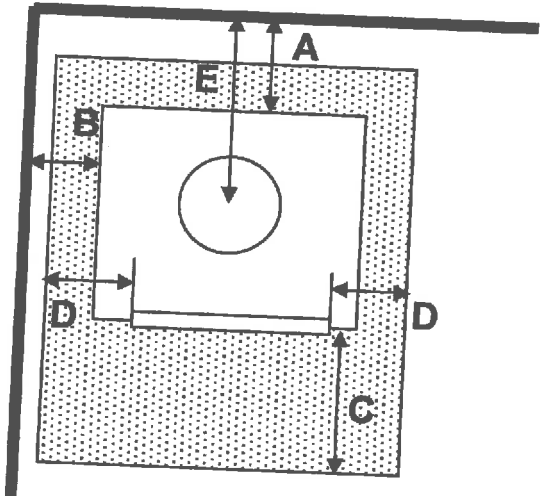
bionic fire™

Nominal Output (kW)	4.6
Min. / Max. Output (kW)	3.9 – 4.6
Heating area (m ²)	45 - 83
Stove's width/depth/height (mm) without socket	472-482-1064
Combustion chamber's width/depth/height (mm) Upper combustion chamber	280-200-300
Efficiency	76.%
Recommended amount of when fuelling (kg) Distributed p 1 -2 logs of wood approx. 25 cm	1.1
Weight socket included (kg)	approx. 180 kg
Intermittent operation	Refuelling should be undertaken within 1 1/2 hours

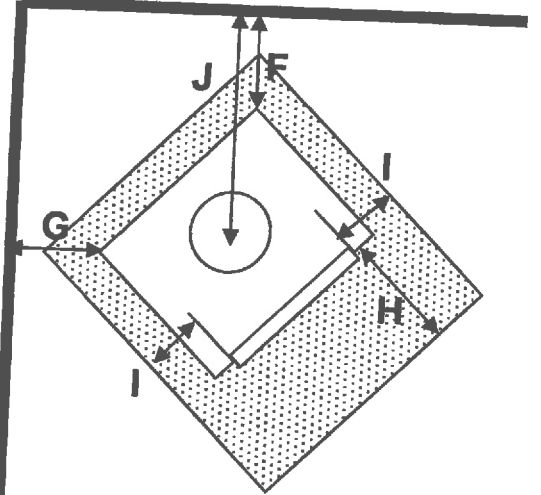
Accordingly to New Zealand Rules and Regulation the fire has to be bolted to the floor. If the bionic fire sits on a swivel, the bionic fire has to be bolted to the swivel through the pre-drilled holes with the provided screws and the swivel has to be bolted to the ground through the pre-drilled holes in the swivel.



1.1.1 Clearance Distance – Parallel Position

Parallel Position Clearance Distance	Position	Clearance (mm)
	(A) Rear	100
	(B) Side	250
	(C) Floor protector (front)	300
	(D) Floor protector (side)	200
	(E) Flue (rear)	

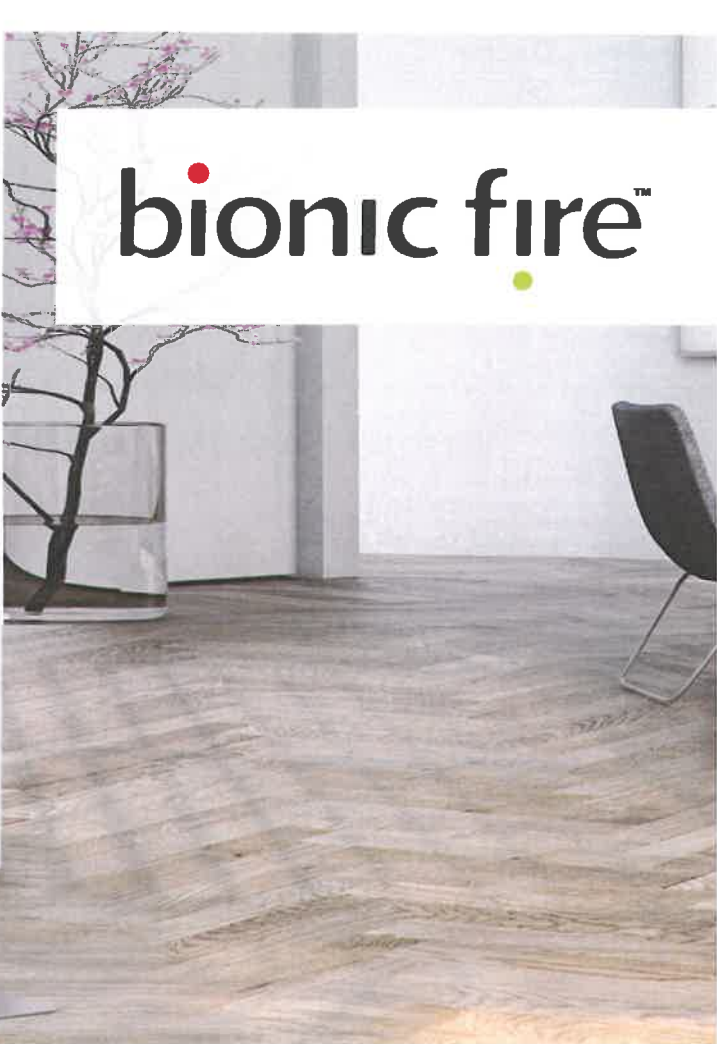
5.1.2. Clearance Distance – Corner Position

Corner Position Clearance Distance	Position	Clearance (mm)
	(F) Side	120
	(G) Side	120
	(H) Floor protector (front)	300
	(I) Floor protector (side)	200
	(J) Flue (rear)	

*Note that this temperature passed within the laboratories margin of uncertainty.

Technical Note: **!No flue shield is required!**

1. The clearance measurement A, B, F and J were taken from the distance between walls and closest point of the appliance, C and H was measured from the front of the fuel-loading opening to the edge of the floor protector, D and I was measured from each side of fuel-loading opening, E and J were calculated from the flue's centre to the rear wall.
2. The flue was installed onto the flue spigot, extended centrally and vertically without bend before and after penetration of the ceiling plane



bionic fire™

The fine art of green modern living

EnviroSolve Ltd. presents exclusive in New Zealand and Australia:

The first fully automatic ultra low emission down draught burner

- Very low emission
- Very environmentally friendly
- Very high efficiency
- No manual handling
- Double combustion
- Maximal use of the fuel
- Total burn off the flue gas
- Set new standards in New Zealand and Australia
- Stylish and modern design
- Innovative thinking

Your exclusive distributor:

EnviroSolve Ltd.

Dr. Rene Haerberli, Director

Ohakune Road, RD 3

Wanganui, New Zealand

Email: rene.haerberli@envirosolve.co.nz

Phone: +64 (0) 6 385 4871

Mobile: +64 (0) 21 24 24 211

Website: www.envirosolve.co.nz



P. & M. FIREPLACES



envirosolve



ENVIRONMENTALLY FRIENDLY FIRE

User Manual for New Zealand

Authorisation number: 152619 (AS/NZS 4012/4013)

Authorisation number: 154319 (ULEB)

Website for authorised burners:

<http://ecan.govt.nz/services/online-services/pages/authorised-solid-fuel-burners.aspx>



EnviroSolve Ltd

Exclusive Agent for New Zealand

Dr Rene Haeberli
Ohakune Road
RD 3
Raetihi

Phone: 06 485 4871

Mobile: 021 24 24 211

Email: rene.haeberli@envirosolve.co.nz

Web: www.envirosolve.co.nz

9. Interruption of operation21

9.1. Smoke spillage around the door 21

9.2 Soot on glass 21

9.3 Stove is burning too strong 21

9.4 Stove is burning too weakly 21

10. Secure the fire22

Appendix23

1. Drawings for the spare part 23

2. Legend for the spare parts 24

3. Technical drawing of the bionic fire..... 25

bionic fire

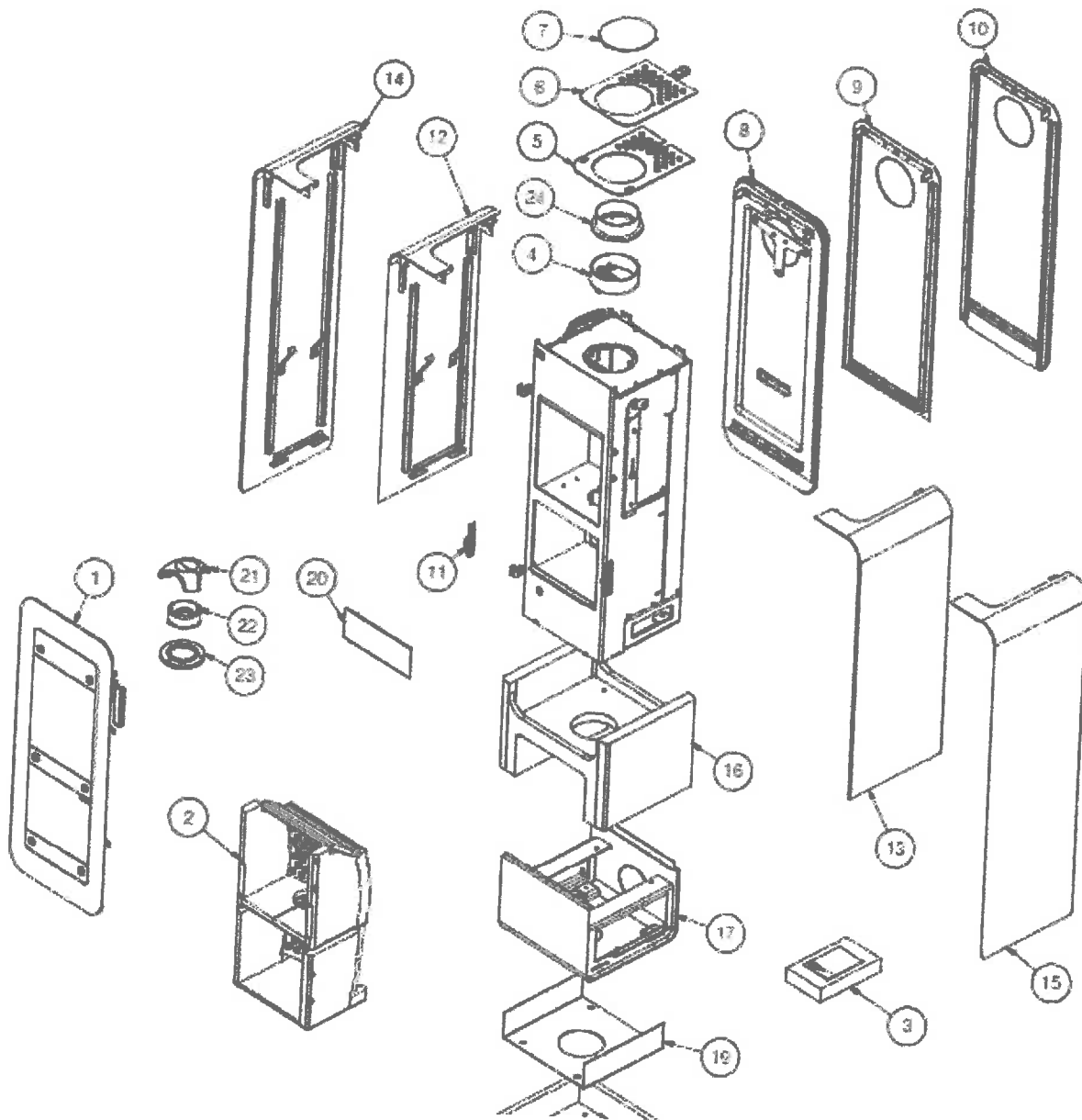
- Remove the adjustable feed from the stove.
- Use the M8 threads to bolt the fire to the floor.

Appendix

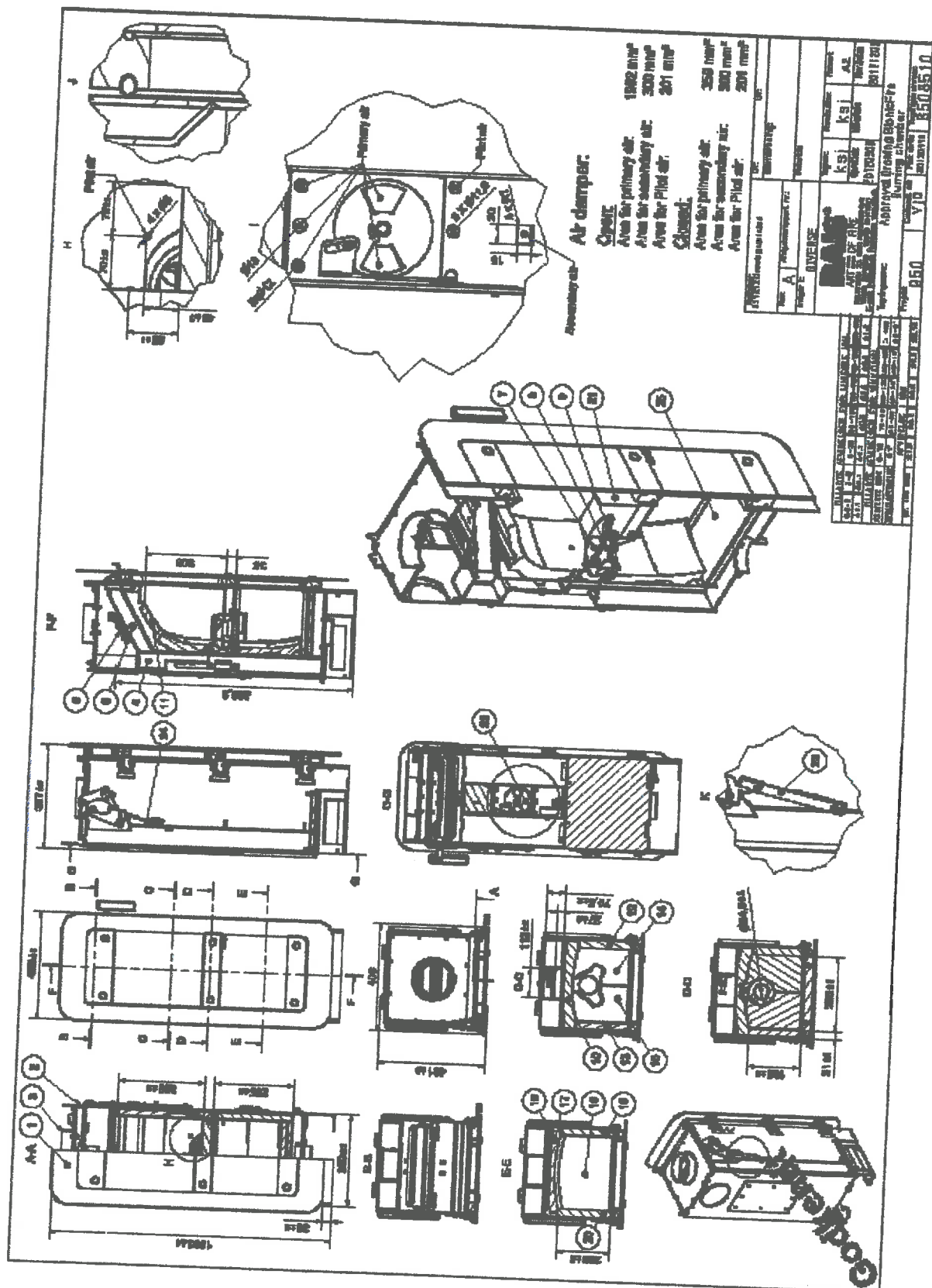
1. Drawings for the spare part

bionic fire

Reservedelstegning / Spare parts / Reservdelsritning / Varosapiitokset
Dessin des pièces de rechange / Tekeningen van reserveonderdelen



3. Technical drawing of the bionic fire





IANZ
ACCREDITED LABORATORY
Accreditation No. 962

All tests reported
herein have been
performed in accordance
with the laboratory's
scope of accreditation



Spectrum Laboratories Ltd is accredited by International Accreditation New Zealand (formerly Telarc). The tests reported herein have been performed in accordance with the terms of our accreditation. This accreditation does not extend to any opinions or any interpretations of test results contained in this report.

(This report is endorsed)

Test Report Number: 0366.

Item Under Test (IUT):

Make: RAIS.
Model: Bionic Fire.
Type: Freestanding.

Client Details:

Attention: Mr. Rene Haerberli
Company Name: EnviroSolve Ltd.
Company Address: Ohakune Road, R D 3, Wanganui
Phone: +64 (0)6 385 4871
Manufacturer: Rais A/S
Industrivej 20, 9900 Frederikshavn, Danmark

Standard Specification:

AS/NZS 2918-2001 Appendix B Thermal testing of installation clearances;
Appendix B sets out the method for determining the maximum temperature rise above ambient temperature of heat sensitive materials as specified installation clearances from a solid fuel burning appliance.

Client Instructions:

The client requested the item be tested to the above standard in both parallel and corner positions.

Sample Details:

The sample supplied was a production model representative of the mass produced version.

Technical Notes:

The appliance was tested at both conventional and down draught modes, it was observed the conventional mode operation yielded higher temperature rises; herein the reported results are with respect to conventional mode operation.

Report Record:

Test Record (Free Standing) CD-10230 revision 1.1.
Report Preformat CD-00264 revision 2.1.

Checked by
Mr. P. Sparrow
Authorized Signatory

Tested by
Mr. P. Chen
Compliance Engineer

Issue Date: 13/02/2015

Unit 1/25 Highbrook Drive, East Tamaki, Auckland.
PO Box 204-252 Highbrook, Manukau Auckland, 2161.
Telephone +64 9 271 1616, Fax +64 9 271 1615.



Test Report:- 0366



All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

Section 2: Air inlets and outlet

Primary air:

The primary air supply entered the heater from the rear of the base and channeled into upper combustion chamber from the metal just below the glass seal, and lower combustion chamber via the opening on the rim located on the ceiling of the lower combustion chamber.

The primary air was uncontrolled

Refer to design drawings for detailed dimensions.

Flue gas outlet:

The flue gas outlet spigot was positioned centrally when viewed from the front of the firebox and the spigot's axial centre was 106 mm from the rear edge of the appliance's top panel.

The flue spigot had an internal diameter of 132 mm.

Refer to design drawings for detailed dimensions.

Cross sectional area:

The flue spigot outlet aperture was calculated to be 13685 mm²

Refer to design drawings for detailed dimensions.

Section 3: Flue System

Flue pipe:

The flue system consisted of a single skin flue pipe setup.

A single 150 mm diameter unpainted stainless steel flue that met the requirements of AS/NZS 2918:2001

Refer to design drawings for detailed dimensions.

Flue shield:

The heater was not fitted with a flue shield.

The heater was not fitted with a deflector.

Ceiling plate

A ceiling plate was fitted during test.

A 0.5 mm thick unpainted stainless steel ceiling plate measuring 345 mm x 345 mm with a central 180 mm circular hole was installed and spaced 11 mm from the ceiling; this allowed for a 6 mm air-gap around the edge of the plate. A 15 mm gap was maintained around the circumference of the 150 mm flue pipe.

The ceiling plate and spacers were sourced from Sheet-metal Fabricated Products Limited.



Test Report:- 0366



IANZ
ACCREDITED LABORATORY
Accreditation No. 962

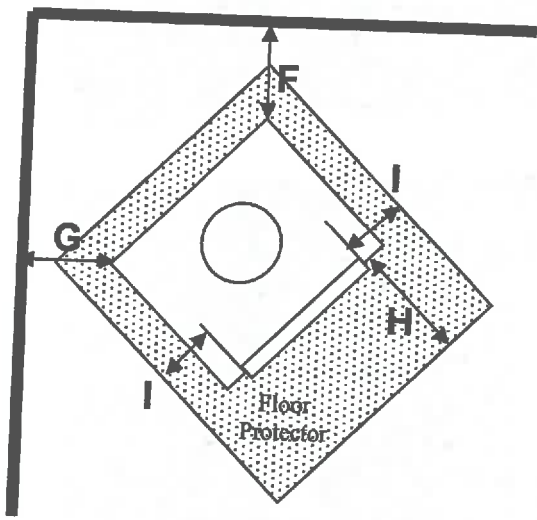
All tests reported
herein have been
performed in accordance
with the laboratory's
scope of accreditation

Test Results for high/Flash fire:

Test Results for high/Flash fire:

Parallel Position Clearance Distance

Position	Clearance (mm)	Max temp rise (°C)	
		High	Flash
(A) Rear	100	Rear Wall	
		53.04	59.64
(B) Side	250	Side Wall	
		61.49	62.77
(C) Floor protector (front)	300	Floor	
		15.78	17.74
(D) Floor protector (side)	200	Ceiling	
		23.63	26.01

Corner Position Clearance Distance	Position	Clearance (mm)	Max temp rise (°C)	
			High	Flash
	(F) Side	120	Rear Wall	
			43.12	38.89
	(G) Side	120	Side Wall	
			42.42	39.18
	(H) Floor protector (front)	300	Floor	
			19.08	20.00
	(I) Floor protector (side)	200	Ceiling	
			25.64	23.92

* Note that this temperature passed within the laboratory

* Note that this temperature passed within the laboratories margin of uncertainty.

Technical Note:

1. The clearance measurement A, B, F and J were taken from the distance between walls and closest point of the appliance, C and H was measured from the front of the fuel-loading opening to the edge of the floor protector, D and I was measured from each side of fuel-loading opening.
2. The flue was installed onto the flue spigot, extended centrally and vertically without bend before and after penetration of the ceiling plane.
3. Drawings shown above are not to scale.



Test Report:- 0366



IANZ
ACCREDITED LABORATORY
Accreditation No. 962

All tests reported
herein have been
performed in accordance
with the laboratory's
scope of accreditation



Photo 3: Flash fire fuel load.