



SENATOR (Boston / Tuscany)

MANUFACTURER SPECIFICATIONS



Boston or Tuscany Senator

Manufacturers Specifications

A MESSAGE TO OUR CUSTOMERS

Thank you for choosing a Flare Fire. Because of the unique qualities of our fires, we have developed these manufacturer specifications so you know what to expect and how to install your Flare Fire. Also included are the component weights, dimensions and so on.

Any questions, please just drop us a line.

The Flare Fires Team

Finish & Cure Guide

Important Please Read Carefully

Finish – How It Arrives

- Due to the nature of casting Masonry expect some irregularities with your Fireplace. Surfaces will not be completely flat and not 100% level. Also during transit often other minor defects may occur.

Concrete is brittle and easily chipped, if this occurs the defects can be easily repaired. Defects deeper than 5mm should be filled with chemset (included in the kitset), apply it just below the surface. Then use the Rockcote or Plaster supplied to fill in the remaining area. Defects less than 5mm deep use the Rockcote or Plaster to fill.

All our fires are supplied as a Natural Precast fire. Unless asked not to, we skim coat the fire with a plaster to touch up some defects however the fireplace is still considered a raw concrete product with surface air holes and other minor defects. We supply a bag of Rockcote which you can use to fill the joins or any defects once the fireplace is together.

If you have ordered a polished finish, the fire will come with a polish to the front of the firebox and chimney and wood box tops, or just the woodbox tops on their own, depending on your order. In both these cases the rest of the fire will be the Natural Precast finish as above.

If you would like to have your fireplace plastered, there are a number of options. In this case, follow the cure guide below and then let us know and we will put you in contact with a plasterer in your area.

Note: We do not finish the back of the Fireplace, if this is requested extra charges will apply.

We suggest that you cure the Fireplace first before applying Rockcote, silicone or paint to joins and surfaces. That also includes any other finish that you apply to the Fireplace.

Cure – First Fires

- Allow at least 8 hrs for the Ramset Glues to dry before commissioning the fireplace. Allow 40 hours **Minimum** of small fires when you first begin to use the Fireplace. These do not have to be continuous, in fact, during this period the Fireplace should not be run for longer than 5 hours at one time. This enables the Firebricks and the Masonry Modules to cure. If at any stage the Masonry Modules begin to sweat while the fire is running, the fire needs to be relocated in the Firebox away from where it is sweating and no more wood should be added for 30 minutes. This is because you don't want the moisture to turn to steam in the Masonry, as this impacts the size of cracks that form at this time. Large cracks are an indication that the fire has been cured too fast. Following this procedure, allowing your Fireplace to cure properly will minimise the size of cracks in your fireplace.

However Concrete has a mind of its own and in our experience often you can do the right thing to minimise cracking but unfortunately cracks still appear. The cracks are of no concern structurally. The Fireplace has a lot of steel through it and will not fall apart.

Now gather round and enjoy your Flare outdoor Fireplace!

LIFETIME LIMITED WARRANTY

Each Flare Fire comes with a limited lifetime warranty and our commitment to resolve any issues.

Structural Integrity – Each Flare Fire is guaranteed to be structurally sound. This excludes damage from natural disasters and is subject to the customer following the finish and cure guide and the fire being installed as per Flare’s PS1 current at the time of the install.

Cracking – As Flare Fires are a natural concrete product, cracks and small chipping around those cracks are almost unavoidable. As such they are not covered by our warranty. Please follow the finish and cure guide to minimise cracking and note that you can choose to get your fire plastered after such cracks have occurred.

Staining – Due to cracking, some lime and rust stain may appear over time. This is normal and to be expected.

Fire Bricks – Flare Fires will replace fire bricks, no questions asked, during the lifetime of the fire.

Chipping – We guarantee that your Flare Fire will leave our factory without any chips. Any chipping that occurs during transit will be the responsibility of the transport company. If chipping happens during install, this will be the liability of the installer. If chipping occurs after install, this will be the responsibility of the owner. Flare Fires will not accept any liability for any chipping however we will help with the process to ensure the product is repaired or replaced and charged to those responsible.

Finish – All Flare Fires are supplied as a raw concrete fire which we call ‘Natural Precast’. We do apply a plaster skim coat, as necessary, to cover some larger naturally occurring air holes. However many natural concrete imperfections will remain and Flare does not accept any liability for these, including but not limited to; air bubble holes, imperfect edges, some colour variation, and surfaces that may not be completely flat.

Plaster Finish - Whilst we accept no liability for a plaster finish you can choose to get a third party to undertake this work.

Schist or brick cladding - Schist or brick cladding adds significantly to the weight of your Flare Fire and will put your fire outside of its PS1 engineering design. Because of this, Flare Fires does not warranty the structural integrity of a Flare Fire with a schist or brick finish. We can however put you in touch with our engineers to get a specific PS1 design for your finish.

Accessories – All Flare Fire Stainless Steel Accessories come with a 5 year full replacement warranty for failure to perform. Other accessories come with a 12 month warranty.

WEIGHTS AND DIMENSIONS

	Deluxe	Premier	Senator	Executive
Woodbox (950kg)	✓	✓	✓	✓
Woodbox (950kg)		✓	✓	✓
Woodbox (950kg)			✓	
*Riser Block (660kg)				✓
Firebox (1,100kg)	✓	✓	✓	✓
Chimney (550kg)	✓	✓	✓	✓
Firebricks (190kg)	✓	✓	✓	✓
	2830kg	3800kg	4770kg	4480kg

*Based on a standard 300mm riser block

If your fire includes additional components, please see the weights below:

Hearth	245kg
Extension	550kg
Bevel	60kg

CLEARANCE ALLOWANCES

Maximum Allowable Temperature Rises (as per AS/NZS 2918:2018)

To comply with the temperature limits of this standard the temperature rise above ambient temperature of monitored surfaces shall not exceed 65°C for the high fire test and 85°C for the flash fire test.

Floor Protector

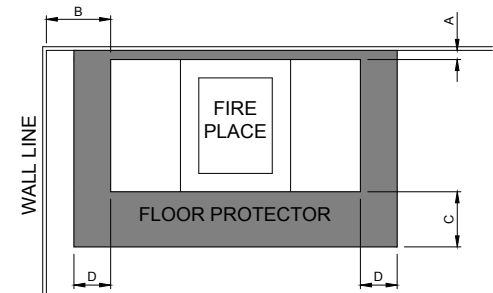
AS/NZS 2918 standard section 3.3.2 places minimum requirements for the floor protector.

For an appliance other than a fireplace insert appliance, the floor protector shall extend under the appliance and not less than 380 mm beyond the front of the fuel-loading and ash-removal openings. The width of the floor protector shall be not less than the width of the appliance and shall extend not less than 230 mm from each side of any ash-removal or fuel-loading openings unless the floor forms an abutment with a wall or heat shield at a lesser distance.

Minimum Access Clearance

AS/NZS 2918 standard section 3.2.1 places minimum requirements for the access clearance.

To provide the user with access to the appliance, the clearance between any part of the appliance which only hand access, occasional user access, or maintenance access is necessary and any adjacent fixed surface or object shall be not less than 100 mm.

PARALLEL POSITION CLEARANCE DISTANCE			
			
POSITION	MINIMUM CLEARANCE (MM)	MAX TEMP RISE (°C)	
		HIGH	OVERLOAD
(A) REAR	50	REAR WALL	
		61	75
(B) SIDE	350	SIDE WALL	
		60	77
(C) FLOOR PROTECTOR	380	FLOOR	
		53	65
(D) FLOOR PROTECTOR	230	CEILING	
		-	-

FOUNDATIONS – The two options

Choose an option that best suits your situation

Option 1: Concrete Slab

1. Mark out the pad 4080mm wide by 1300mm by 250mm deep (note good ground needs to be confirmed according to NZS 3604:2011).
2. Dig out the ground according to the dimensions and place boxing around the perimeter as necessary.
3. Place 6-HD12 across the full width. Then tie HD12 @ 400 CRS.
4. Pour 25mpa concrete. Screed off level.

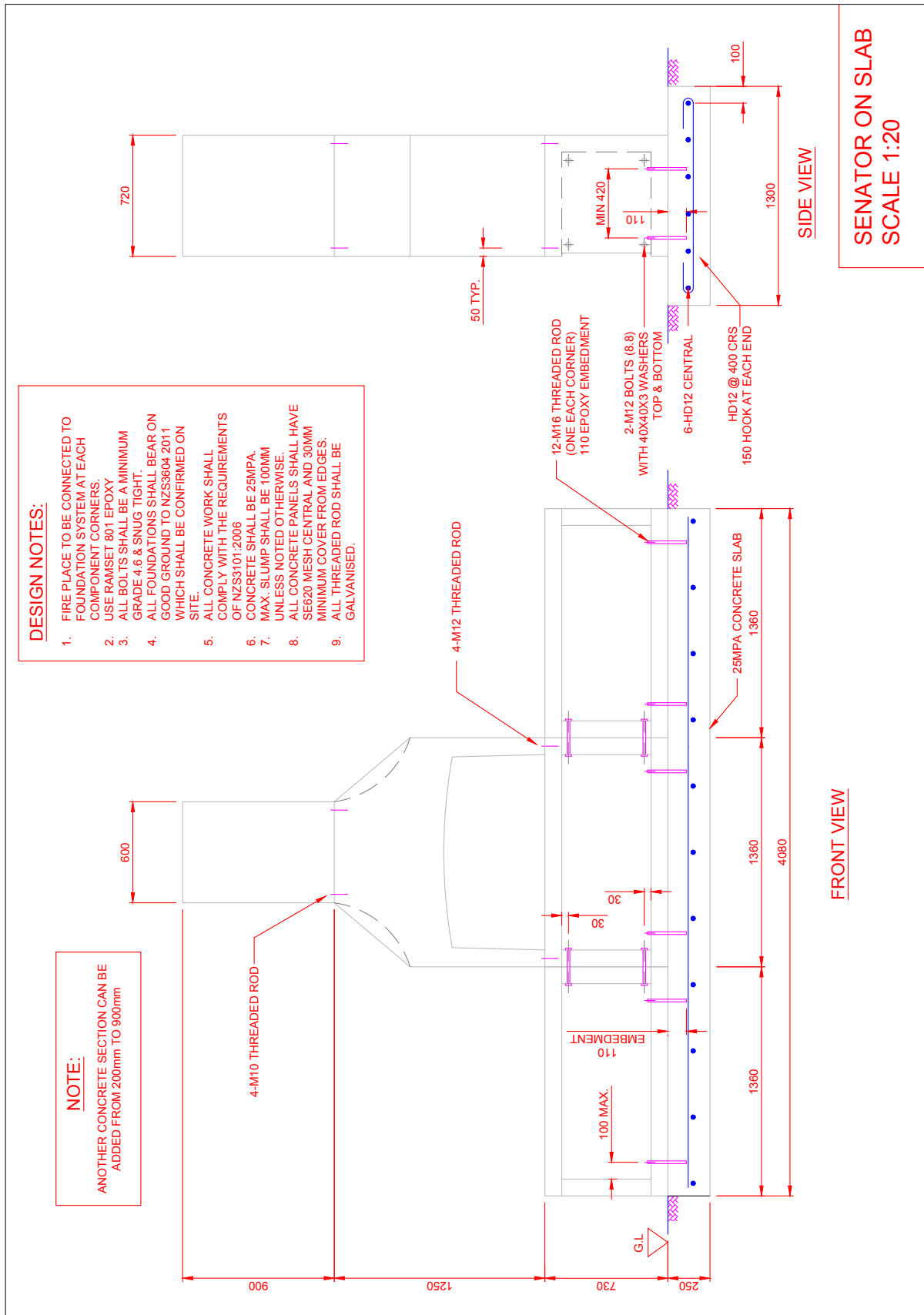
Please see the slab drawing for full details.

Option 2: Concrete Plinth up to 1m High

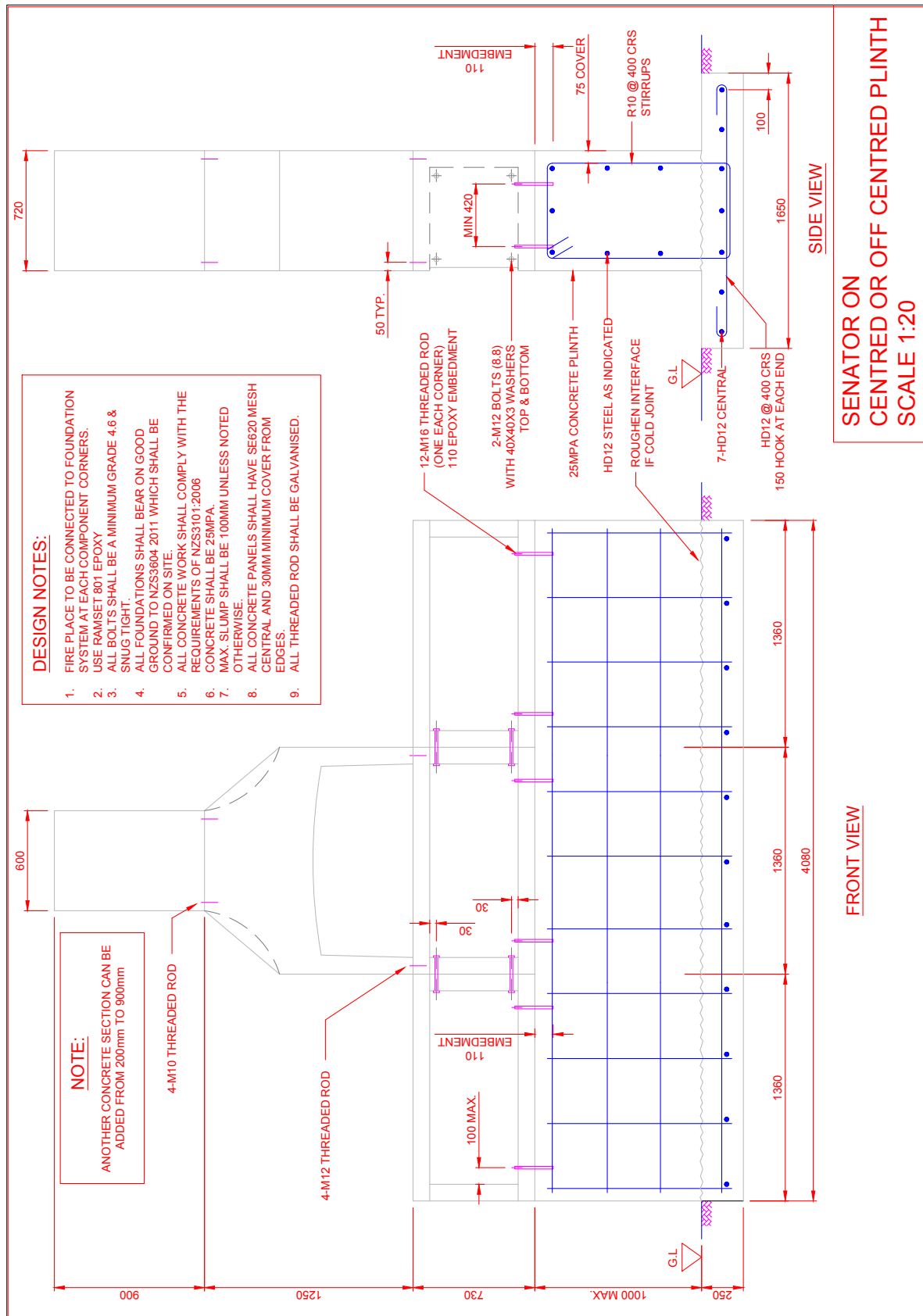
1. Mark out the footing pad 4080mm wide by 1650mm by 250mm deep (note good ground needs to be confirmed according to NZS 3604:2011).
2. Dig out the ground according to the dimensions and place boxing around the perimeter as necessary.
3. Place 7-HD12 across the full width. Then tie HD12 @ 400 CRS
4. Then tie R10 stirrups @ 400 CRS (location of the HD12-400) leave sticking out of the footing pad the height needed for your plinth. No higher than 1m. The plinth only needs to be as wide as the fireplace.
5. Place the HD12 in the R10 stirrups as needed.
6. Place boxing as required for the Plinth.
7. The footing and plinth can be poured as one or at separate times. Use 25mpa concrete minimum and screed off level.

Please see the plinth drawing for full details.

Slab Drawing



Plinth Drawing



INSTALLING YOUR FLARE FIRE

Manufacturers' Notes

- Ramset 801 Xtrem Chemset is used in the assembly of this fireplace. Please read the manufacturers' instructions carefully.
- 801 Xtrem sets rapidly so be ready to go with everything needed before the Chemset is applied.
- Allow 801 Xtrem 8 hrs to cure before running the fireplace.
- Use OSH approved lifting equipment and avoid at all times working under suspended modules.
- It is important that this fireplace is not run as an open fire until the fire bricks have been installed.
- Both the firebricks and Masonry modules will have moisture in them as a result of the manufacturing process. The moisture needs to dissipate slowly, cracks could occur as the moisture expands and turns to steam. PLEASE SEE OUR FINISH & CURE GUIDE for more information on this point.
- Every care has been taken to ensure that this product has been constructed to the Engineers specifications. Prior to the fireplace leaving our yard it has been assembled and disassembled and a comprehensive check of the kit set was completed to ensure that all parts were present.

Tools and Product Required for installation

- Ramset 801 Applicator (supplied by Flare)
- Xtrem 801 chemset (supplied by Flare)
- Ramset Ultrafix (supplied by Flare)
- Threaded rod 10, 12 and 16mm. (supplied by Flare)
- Caulking Gun
- Ladder
- Two swiftlift devices 1.3 tonne rated and chains
- Timber, string line, square etc for boxing footing system
- Reo bar for footing system (see drawing)
- Power lead
- Grinder
- Cutting disc for Grinder
- Dyna drill
- Spade or Shovel
- Level
- Tape Measure
- Vice grips
- Rubber Mallet
- 2 x Spanners

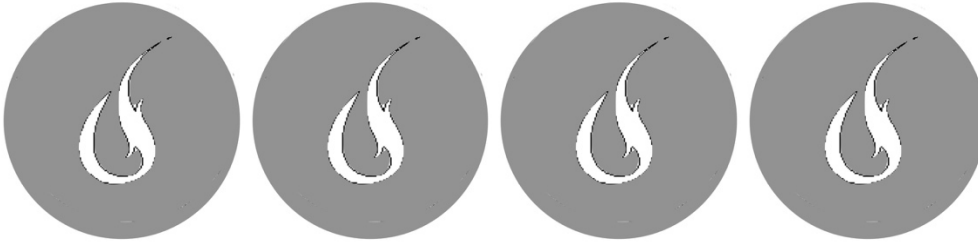
Installation of Fireplace

1. First get a level base for your fire to sit on. Pads are seldom completely level and even our concrete boxes can have some small variations. We use packers on all our installations to ensure we get level.
2. Work out where on the pad you want your fire and place packers accordingly. Find level across the full width and front and back.
3. Now lift the first Centre Wood box into position, check that the top of the wood box is level both ways, and if needed lift the wood box back up and adjust the packers. It's really worth taking the time to get this right.
4. Repeat the procedure for the second Wood box. Be careful when bringing the Wood boxes together as chips can easily happen at this point if care is not taken.
5. Now repeat the process with the third wood box. It doesn't matter which of the right or left hand wood boxes you do first.
6. Once the Wood boxes are sitting snug together, check that all Boxes are level and aligned. If the Boxes are not completely tight you can use the bolts to bring the Boxes together.
7. Now bolt the Wood boxes together using the M12 bolts supplied. Ensure you have one washer either side and tighten firmly. The longer bolts go in the back holes.
8. Next lift the Firebox to a height that allows you to screw the 4-12mm x 90mm threaded rods into the underside corner sockets. Tighten firmly.
9. Tap the rods with a hammer as needed, to get them straight.
10. Dry fit without any glue, just to make sure everything is correct before gluing.
11. The firebox should line up flush with the front of the wood boxes and the pins should all fit in their holes. If it doesn't you may need to tap the pins, clear the holes or re-drill the holes. However all fireplaces are fitted at our factory so there should be no reason for modules to be out of line or not flush with the other. Now that the Firebox is lining up lift it 200mm to allow for getting the glue in the holes.
12. Make sure that the holes on top of the Wood boxes are clean and dry, we recommend a commercial vacuum as the safest and most effective way to remove dust and moisture.
13. Once the holes are clean and free of water, fill them with the Ramset 801 Xtrem product. Please note dust and moisture will interfere with the adhesion and reduce anchor load capacity so it's really important to get this right. The holes can be damp, but not full of water. All the dust needs to be removed.
14. At this time you can also run a bead of the Ramset Ultrafix product around where the bottom of the Firebox will sit. This is not required to meet our PS1 but is good practice as it prevents water entering the firebox which keeps things dryer and cleaner in the long run.
15. It's a good time to note that the Ramset 801 product is the larger tube and comes its own special corking gun. We can provide you a credit for the value of the gun if it's returned. The 801 product is used for gluing all the pins.

16. The smaller tube, which is the Ramset Ultrafix, is only used as needed, as per this video. Do not use this product to glue the pins.
17. Now lower the Firebox into place and align. You can use a rubber mallet if needed to get things perfect. The glue goes hard pretty quick...so you don't want to take too much time getting it all looking right.
18. Next lift the Chimney to a height that allows you to screw the 4-10mm x 90mm threaded rods into the underside corner sockets. Tighten firmly.
19. Tap the rods with a hammer as needed, to get them straight.
20. Dry fit without any glue, just to make sure everything is correct before gluing.
21. Again, make sure that the holes on top of the Firebox are clean and dry, use the vacuum here again as needed.
22. Once the holes are clean and free of water, fill them with the Ramset 801 Xtrem. You may need to replace the nozzle on your tube at this point as the glue may have gone hard in the previous one.
23. This is another good time to run a bead of the Ramset Ultrafix product around where the bottom of the chimney will sit.
24. Be aware of the time you take between gluing and lifting components into place, the glue can set within a minute or so.
25. Now you can lay the bricks. There is a brick plan supplied in the manufacturing specifications supplied with each fire.
26. Note: We encourage tight stacking and not to use mortar to hold the bricks in place. We actually provide a lifetime warranty on the bricks. Because they are not glued in, you can replace them as needed.
 - a) Before you start placing the bricks, make sure the bottom of the firebox is clean and free of debris. Then start laying the bricks on their flat along the back wall then along the sides. Only put one row of bricks in.
 - b) Lay both layers of the slab bricks.
 - c) Place the ash guard in now, sitting back flush against the bricks. Now you can finish laying the remainder of the bricks, as per the brick plan.
27. Now that the Fireplace is complete drill 20mm holes through the Wood box bases no more than 100mm in from each corner. Drill 4 in each Wood box, 110mm into the chosen footing. On newer fire models these holes are pre drilled in our wood boxes.
28. Using the 801 Xtrem, fill the holes with glue, and tap in the 180mm M16 threaded rods until they are flush or just below flush.

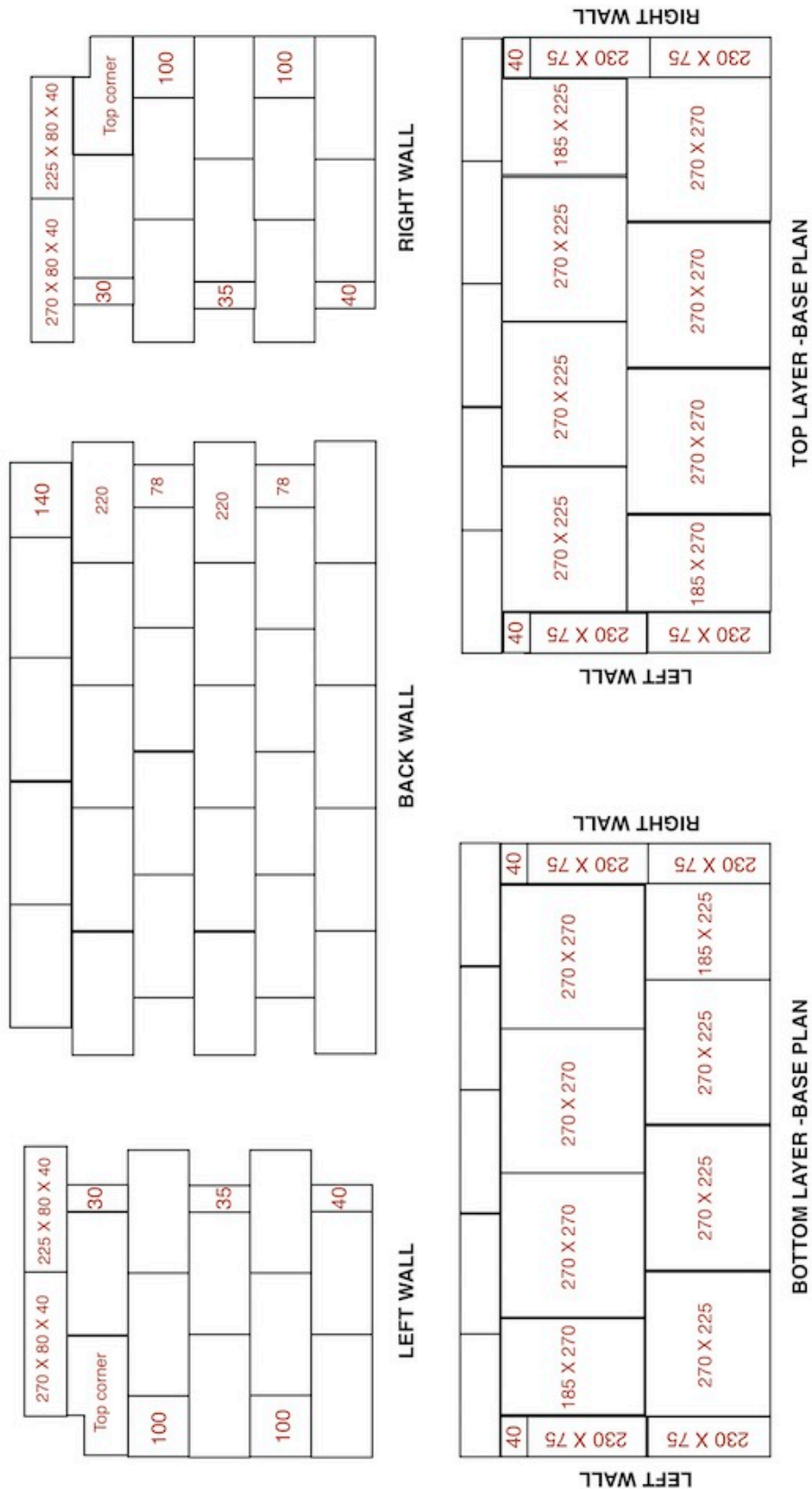
Woohoo, you are pretty much done. All that's left now is place the supplied lifting eye caps over the lifting eye holes. They can just sit into place, or partly fill the hole with Ultrafix to glue them into place. Just be careful not to put too much in as once dry, it's there forever.

The Senator model will include four caps.



Now, allow at least 8 hrs for the Ramset Glues to dry before commissioning the fireplace and see the finish and cure guide in this document before lighting your fire.

BRICK INSTALLATION PLAN



BRICK INSTALLATION INSTRUCTIONS

BRICK INSTALLATION MANUAL



Step 1

Get the tools you will need

1. A rubber mallet
2. A tape measure (to check dimensions if needed)

Step 2

Set aside base layer bricks

- 9 bricks - 230 X 75
- 2 bricks - 40 X 75
- 6 pavers - 270 X 270
- 6 pavers - 270 X 225
- 2 pavers - 185 X 270
- 2 pavers - 185 X 225
- 1 X Stainless Steel Ash Guard

Install the base layer and ash guard

1. Place the back layer of 230mm bricks
2. Place the bricks on each side of the fire
3. Place the bottom layer of pavers
4. Place the top layer of pavers
5. Make sure front edge of pavers & bricks align
6. Insert the ash guard, tap with mallet as needed to fit under the pavers

Step 3

Check for the remaining bricks

- 34 bricks - 230 X 75
- 2 bricks - 220 X 75 (labelled 220)
- 4 bricks - 100 X 75 (labelled 100)
- 2 bricks - 35 X 75 (labelled 35)
- 2 bricks - 30 X 75 (labelled 30)
- 2 bricks - 78 X 75 (labelled as 78)
- 2 pavers - 270 X 80 X 40
- 2 pavers - 225 X 80 X 40
- 2 top corner bricks (cut on angle)
- 1 brick - 140 X 75 (labelled as 140)

Install the remaining side layers

1. Build one layer at a time
2. Tap tight bricks with a mallet
3. If any gaps, space so not visible
4. No sealer or glue to be used to fix bricks into place



WARNING

Allow at least 8 hrs for the Ramset Glues to dry before commissioning the fireplace. The first 40 hours should have small fires. This allows for the firebricks and the masonry modules to cure. Failure to do this could result in firebricks or the masonry cracking. Please see the Finish and Cure Guide for more information.

Congratulations on your successful installation of the Flare Outdoor Fireplace