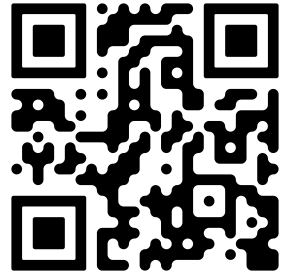




FLARE
OUTDOOR FIRES



INSTALL VIDEO



BRICK PLAN

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.

Curing your Flare Fire before use is very important. See how to do that here:

<https://flarefires.com/curing-your-flare-fire/>

Please also see our structural warranty here:

<https://flarefires.com/warranty/>

Any questions, please just drop us a line.

The Flare Fires Team



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, this can include polish on the tops and front of the wood boxes, 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 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.

WEIGHTS AND DIMENSIONS

	Deluxe	Premier	Senator	Executive	Prestige
Wood Box (950kg)	✓	✓	✓	✓	430kg
Wood Box (950kg)		✓	✓	✓	430kg
Wood Box (950kg)			✓		
*Riser Block (660kg)				✓	✓
Firebox (1,100kg)	✓	✓	✓	✓	✓
Chimney (550kg)	✓	✓	✓	✓	✓
Firebricks (190kg)	✓	✓	✓	✓	✓
	2830kg	3800kg	4770kg	4480kg	3330kg

*Based on a standard 300mm Riser Block

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

Hearth	245kg
Chimney Extension	550kg
Bevel	60kg

CLEARANCE ALLOWANCES

Flare Fires have been tested by a laboratory to the AS/NZS2918 standard. This report is available on request.

Whilst testing deviations to the AS/NZS2918 standard were required and Ianz accreditation has not been supplied, below are Flare Fires specified clearances:

Back of Fire & Chimney

50mm is the specified clearance to combustible material. This applies to the back of the fire and on all four sides of the chimney. See (A)

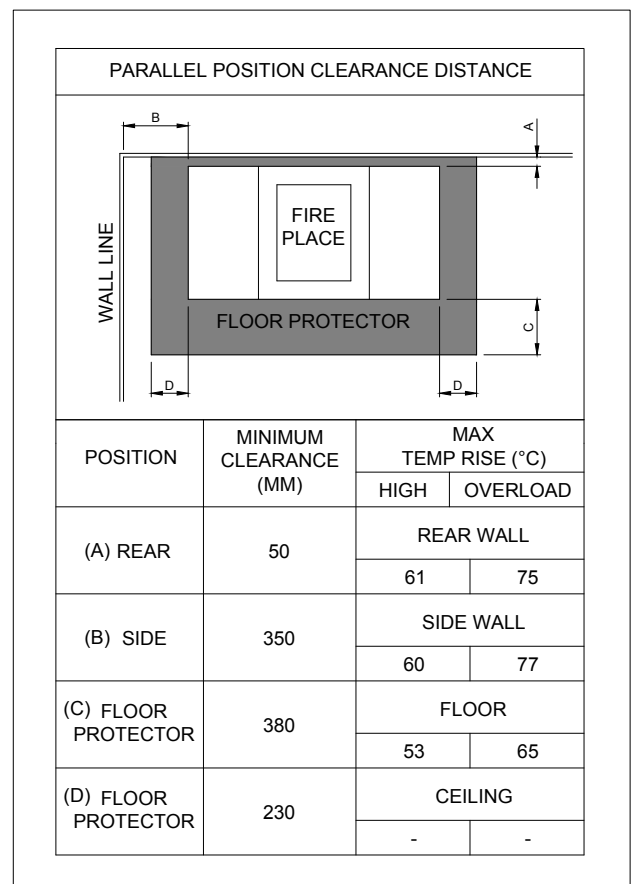
Please note that AS/NZS 2918 standard section 3.2.1, requires a 100mm clearance for access. This is to allow for users to access the back of their appliance, and is a building code specification, not that of Flare Fires.

Sides of Firebox

Where a Deluxe or Standard model Flare Fire is being installed, the clearance to the side of the firebox is 350mm, see (B). This will not apply to other models as the wood boxes extend out beyond 350mm anyway.

Floor Protector

As per the AS/NZS 2918 standard, floor protection is required 380 mm (C) beyond the front of the firebox and 230mm (D) out each side. Once again, this applies to combustible material, and is typically needed where there is a deck in front of the fire.





FOUNDATIONS

If you're installing a Flare Fire with only chimney, the requirements for the pad are smaller than what is needed for a fire with two chimneys.

The Options:

1. If you're installing a fireplace with two chimneys or more, be sure to use the two chimney foundation specs.
2. If you're thinking you might one day install a second chimney, it's a good idea to use the second chimney specs.
3. If you're only wanting one chimney, use the single chimney specs.

Choose an option that best suits your situation.

SINGLE CHIMNEY FOUNDATIONS

There are two foundation options you can choose, a slab, which is perfect for ground level installation, or a plinth which enables you to sit the fireplace up to 1m off the ground.

If you require to install the fireplace higher, or in a more unusual setting, contact the team for help.

SLAB OPTION

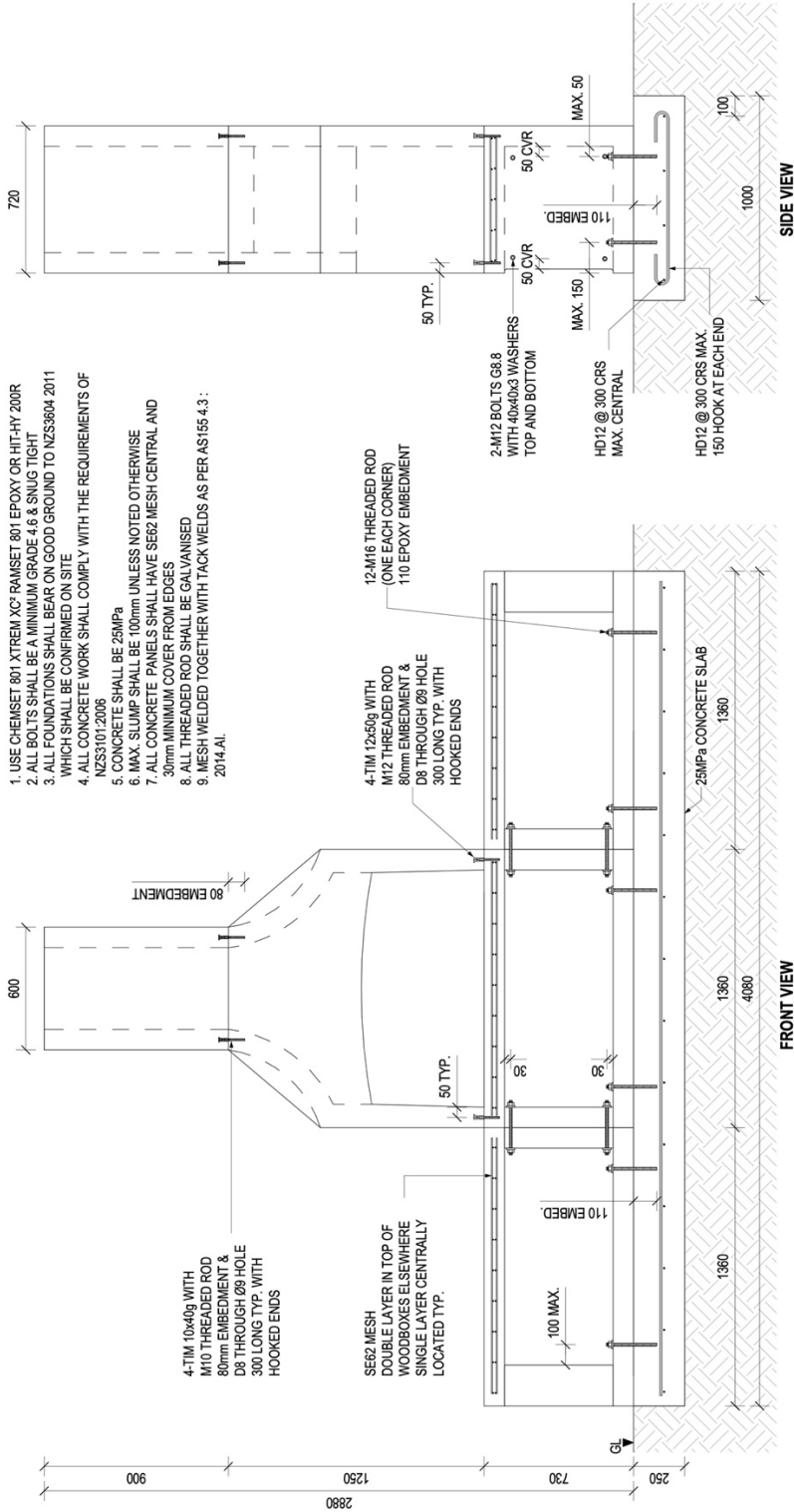
1. Mark out the pad 4080mm wide by 1000mm by 250mm deep (note good ground needs to be confirmed according to NZS 3604:2011).
2. Dig out the ground according to the dimensions and place boxing around the perimeter as necessary.
3. Place HD12 @ 300 CRS across the full width. Then tie HD12 @ 300 CRS hooked at each end.
4. Pour 25mpa concrete. Screed off level.

Please see the drawing on the following page.

SLAB DRAWING

DESIGN NOTES:

1. USE CHEMSET 801 XTREM XC3 RAINSET 801 EPOXY OR HIT-HY 200R
2. ALL BOLTS SHALL BE A MINIMUM GRADE 4.6 & SNUG TIGHT
3. ALL FOUNDATIONS SHALL BEAR ON GOOD GROUND TO NZS3604 2011 WHICH SHALL BE CONFIRMED ON SITE
4. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS3101:2006
5. CONCRETE SHALL BE 25MPa
6. MAX. SLUMP SHALL BE 100mm UNLESS NOTED OTHERWISE
7. ALL CONCRETE PANELS SHALL HAVE SE62 MESH CENTRAL AND 30mm MINIMUM COVER FROM EDGES
8. ALL THREADED ROD SHALL BE GALVANISED
9. MESH WELDED TOGETHER WITH TACK WELDS AS PER AS165 4.3 : 2014 AL.



SENATOR ON SLAB W SINGLE CHIMNEY

SCALE 1 : 20

NOTES:
 KIRK ROBERTS DRAWINGS ARE NOT TO BE USED AS SHOP DRAWINGS
 SHOP DRAWINGS ARE TO BE PROVIDED FOR ALL PRECAST PANELS AND
 KIRK ROBERTS MAKES NO RESPONSIBILITY FOR THE BEYOND AND DIMENSIONS
 ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH
 DISCREPANCIES SHALL BE NOTED PRIOR TO ANY CONSTRUCTION OR
 FABRICATION
 ALL STRUCTURAL DRAWINGS ARE THE LATEST CONSTRUCTION ISSUE
 ALL DIMENSIONS ARE TO BE CHECKED BEFORE CONSTRUCTION
 ALL DIMENSIONS TO BE CHECKED BEFORE CONSTRUCTION

KIRK ROBERTS
 CONSULTING
 Engineering | Projects | Capital | Software
 Auckland • Hamilton • Tauranga • Christchurch

PROJECT
 FLARE FIRES
 SENATOR SINGLE CHIMNEY

CLIENT
 FLARE FIRES

TITLE
 SENATOR ON SLAB W
 SINGLE CHIMNEY

SCALE 1 : 20@A3 JOB NO. 1820246

DRAWING NO.	REV.	
S1.01	3	

No.	Date	Revision	By
3	03.11.2023	FOR CONSENT/ CONSTRUCTION	JOF
2	12.10.2023	FOR CONSENT/ CONSTRUCTION	JOF
1	03.10.2023	FOR CONSENT/ CONSTRUCTION	JOF

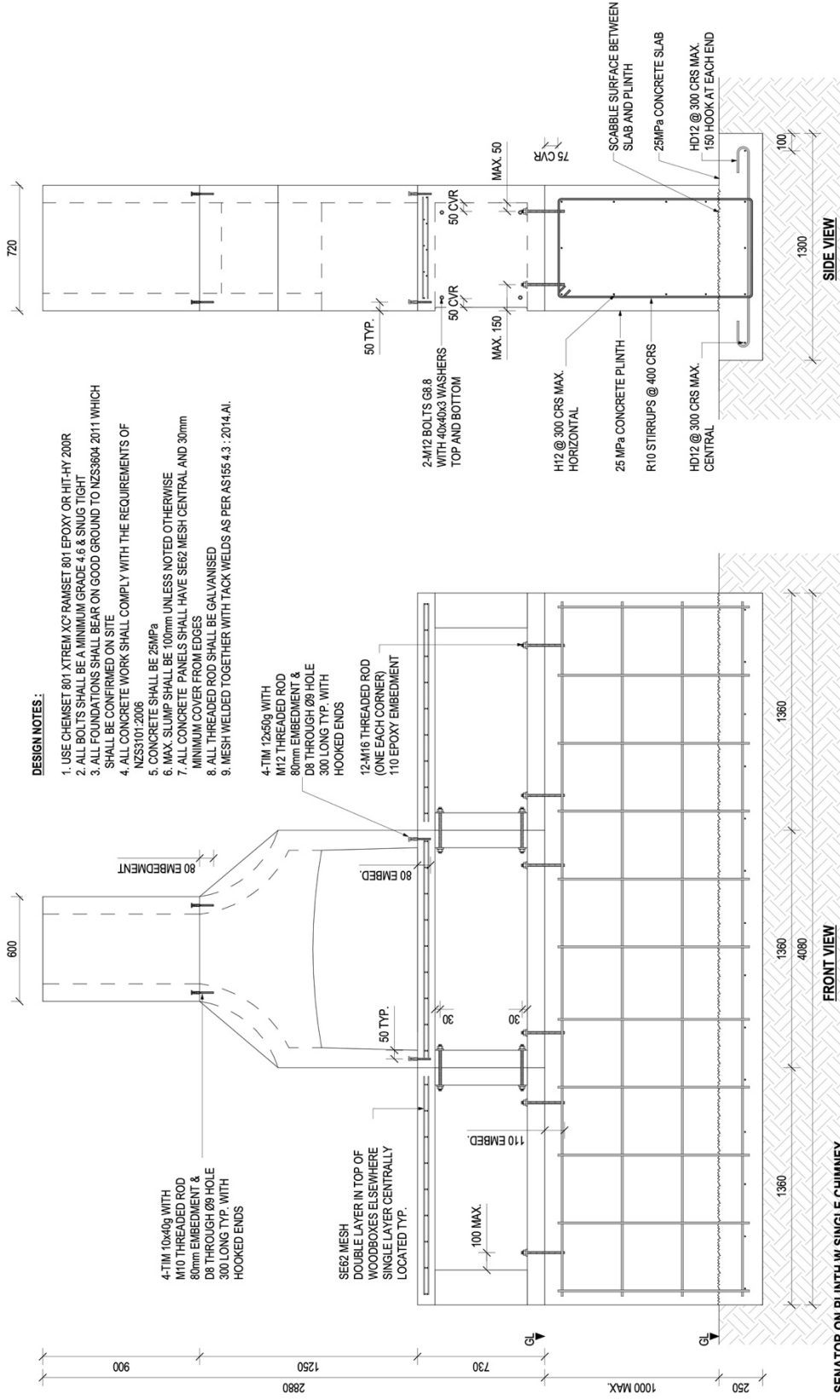
Original sheet size A3 (420x297)

PLINTH OPTION

1. Mark out the footing 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 HD12 @ 300 CRS across the full width. Then tie HD12 @ 300 CRS hooked at each end.
4. Then tie R10 stirrups @ 400 CRS, 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 on the following page.

PLINTH DRAWING



SCALE 1:20

NOTES:

KIRK ROBERTS DRAWINGS ARE NOT TO BE USED AS SHOP DRAWINGS WITHOUT THE SIGNATURE OF THE DESIGNER. ALL DIMENSIONS AND STRUCTURAL STEELWORK FOR EVERY PART TO FABRICATION SHALL BE CONFIRMED ON SITE. ALL SHOP DRAWINGS MUST BE CHECKED BY THE DESIGNER AND APPROVED. ALL STRUCTURAL WORK SHALL BE TO THE SATISFACTION OF THE DESIGNER. PRIOR TO CONSTRUCTION, ALL DIMENSIONS AND LOCATIONS SHALL BE CHECKED AND CONFIRMED BY THE CONTRACTOR. PRIOR TO ANY CONSTRUCTION OR COMMENCEMENT OF WORK, THE CONTRACTOR SHALL BE NOTIFIED BY THE DESIGNER. ALL STRUCTURAL DRAWINGS ARE THE PROPERTY OF KIRK ROBERTS CONSULTING AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF KIRK ROBERTS CONSULTING.

PROJECT
FLARE FIRES
SENATOR SINGLE CHIMNEY

CLIENT
FLARE FIRES

TITLE
SENATOR ON PLINTH W SINGLE CHIMNEY

SCALE 1:20@A3 JOB NO. 182246

DRAWING NO. S1.02

No.	Date	Revision	By
3	03.11.2023	FOR CONSENT/ CONSTRUCTION	JOF
2	12.10.2023	FOR CONSENT/ CONSTRUCTION	JOF
1	03.10.2023	FOR CONSENT/ CONSTRUCTION	JOF

Original sheet size A3 (420x297)

DOUBLE CHIMNEY FOUNDATIONS

There are two foundation options you can choose, a slab, which is perfect for ground level installation, or a plinth which enables you to sit the fireplace up to 1m off the ground.

If you require to install the fireplace higher, or in a more unusual setting, contact the team for help.

SLAB OPTION

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 HD12 @ 300 CRS across the full width. Then tie HD12 @ 300 CRS hooked at each end.
4. Pour 25mpa concrete. Screed off level.

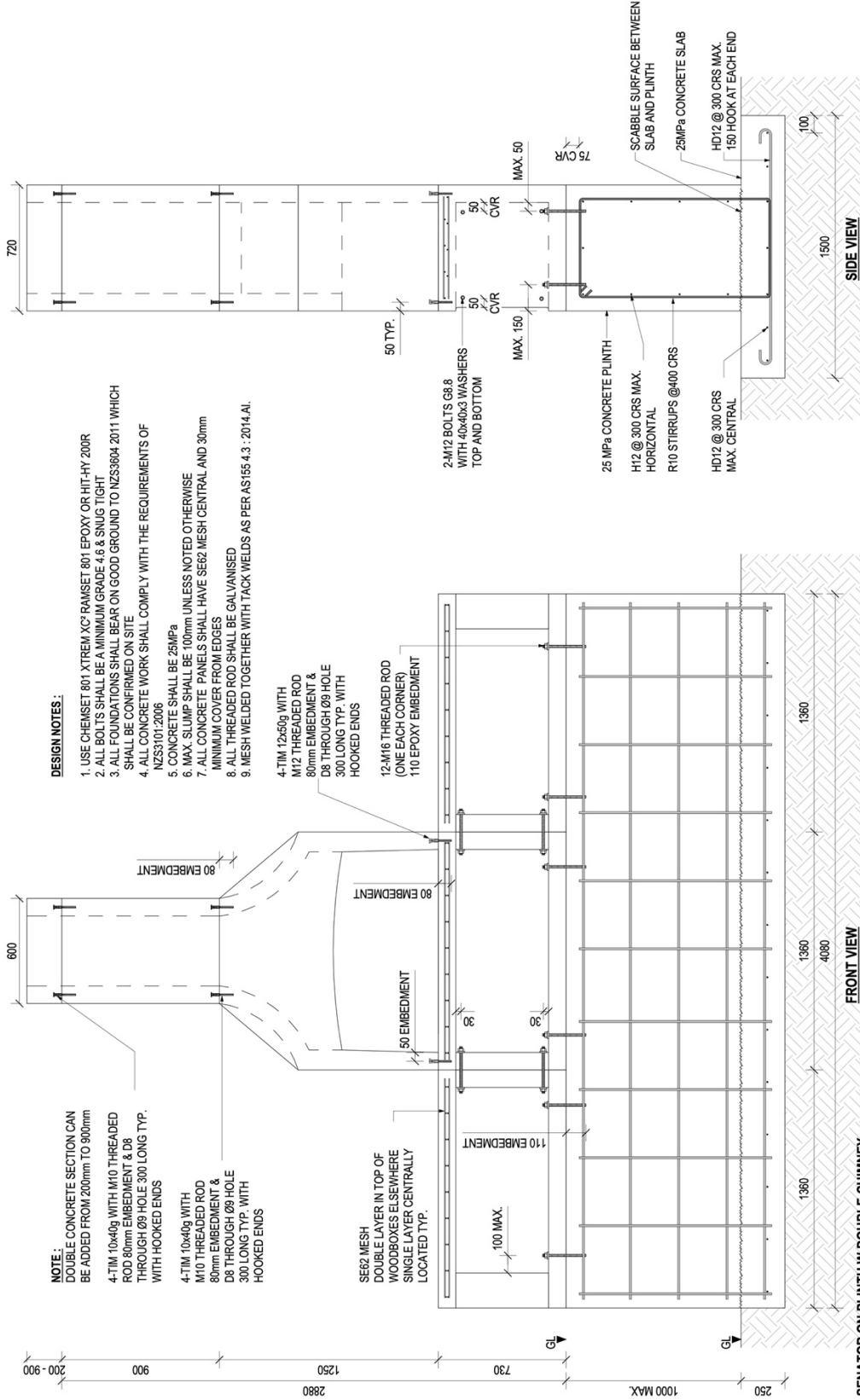
Please see the drawing on the following page.

PLINTH OPTION

1. Mark out the footing pad 4080mm wide by 1500mm 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 HD12 @ 300 CRS across the full width. Then tie HD12 @ 300 CRS hooked at each end.
4. Then tie R10 stirrups @ 400 CRS, 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 on the following page.

Plinth Drawing



DESIGN NOTES:

1. USE CHEMSET 801 XTREM XCP RAWSET 801 EPOXY OR HIT-HY 200R
2. ALL BOLTS SHALL BE A MINIMUM GRADE 4.8 & SNUG TIGHT
3. ALL FOUNDATIONS SHALL BEAR ON GOOD GROUND TO NZS3604:2011 WHICH SHALL BE CONFIRMED ON SITE
4. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS3101:2006
5. CONCRETE SHALL BE 25MPa
6. MAX. SLUMP SHALL BE 100mm UNLESS NOTED OTHERWISE
7. ALL CONCRETE PANELS SHALL HAVE SE62 MESH CENTRAL AND 30mm MINIMUM COVER FROM EDGES
8. ALL THREADED ROD SHALL BE GALVANISED
9. MESH WELDED TOGETHER WITH TACK WELDS AS PER AS 155.4.3 : 2014.A1.

NOTE:

- DOUBLE CONCRETE SECTION CAN BE ADDED FROM 200mm TO 900mm
- 4-TIM 10x40g WITH M10 THREADED ROD 80mm EMBEDMENT & D8 THROUGH Ø9 HOLE 300 LONG TYP. WITH HOOKED ENDS
- 4-TIM 10x40g WITH M10 THREADED ROD 80mm EMBEDMENT & D8 THROUGH Ø9 HOLE 300 LONG TYP. WITH HOOKED ENDS
- SE62 MESH DOUBLE LAYER IN TOP OF WOODBOXES ELSEWHERE SINGLE LAYER CENTRALLY LOCATED TYP.

NOTES:

- KIRK ROBERTS DRAWINGS ARE NOT TO BE USED AS SHOP DRAWINGS
- SHOP DRAWINGS ARE TO BE PROVIDED FOR ALL PRECAST PANELS AND
- KIRK ROBERTS TAKES NO RESPONSIBILITY FOR THE SETOUT AND DIMENSIONS
- ALL STRUCTURAL DRAWINGS ARE TO BE MADE IN CONJUNCTION WITH
- EXPERIENCED STRUCTURAL ENGINEERS AND SHALL BE CHECKED BY A THIRD PARTY WITHOUT WRITTEN CONSENT OF KIRK ROBERTS
- ALL STRUCTURAL DRAWINGS ARE THE LATEST CONSTRUCTION ISSUE
- KIRK ROBERTS SHALL BE ADVISED OF ANY CHANGES TO THE DRAWING
- ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME
- ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME

INSTALLING YOUR FLARE FIRE

Please watch the install video, find the Senator install video on this page:

<https://flarefires.com/install-videos/>

Full instructions are included below.

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 hours 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 firebricks 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 kitset 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
- Spanners x2
- Packers

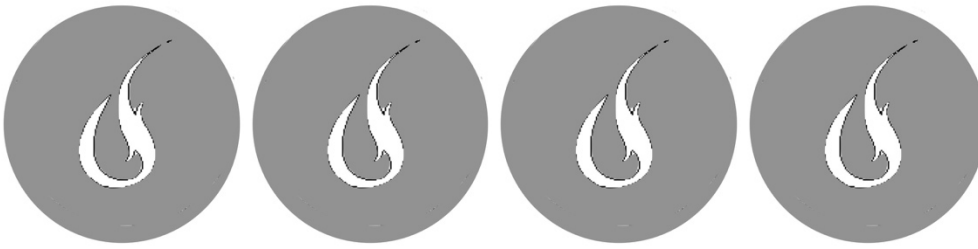
Installation of Fireplace

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 your install kit or follow this link: www.flarefires.com/brick-plan-instructions/
26. Now that the fireplace is complete, locate the holes in the base of each wood box and drill down through the holes using a 20mm drill piece. Drill 100mm into your concrete pad.
27. 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 hours for the Ramset Glues to dry before commissioning the fireplace and see the finish and cure guide link below.

Curing your Flare Fire, see how to do that here: <https://flarefires.com/curing-your-flare-fire/>

Please remember to see our structural warranty here: www.flarefires.com/warranty/

Congratulations on your successful installation of the Flare Outdoor Fireplace. Please contact us if you have any questions.