





Kerrin measures and prepares the first layer of bricks

CONSTRUCTING A KITSET BLOCK FIRE

THIS IS ONE OPTION TO CONSIDER WHEN CHOOSING TO BUILD YOUR OUTDOOR FIRE

By Lachie Jones

Photographs Tony Lowe

Around this time of year, you'll be heading to see friends and family at their homes. While you're catching up, it's quite likely that a fireplace will become a focal point. Be it standing around a good old gas barbecue burning some sizzlers or warming yourself poolside with a magnificent all-in-one fire, grill, and pizza oven, there will be fire. Most sheddies will quite likely say to themselves, "I want to build one of these!"

Now, there are options for that outdoor brick-fire build. You could design one yourself from scratch and build a bespoke fire suited to your own wood-burning desires. You could get a bloke in ... hmm ... that doesn't sound right. Or, what we reckon is the in between third, not-bad option is to build one from a kitset. It will need a good skill level to complete but all the hard design work and functionality will have been taken care of with your choice of product, so you can rest easy on that count.

The Shed opted for this third choice and we reckon it could be just the ticket for many sheddies.

We visited the Lowe household in rural South Auckland, who was about to install a kitset fire manufactured by Aztec Fires, and followed the build. No one in the family felt that they had the skills to put together the fire themselves, but Kerrin Thomson of Aztec encouraged them to at least build the concrete pad. He explained that a concrete pad build is not too difficult and after giving them a bit of a run down on the dos and don'ts, pointed the Lowe family to some useful online advice.

How hard is the build?

Kerrin tells us this is a great father-and-son project and encourages purchasers to do just that. To prove the point, he decided he would get his 14-year-old son Levi to help with the build.

Kerrin estimated it would take two

Tools



- A wheelbarrow or trolley is useful for moving pieces around the site
- Ladder(s) or platforms when lifting the chimney pieces in place
- Grinder with masonry or diamond disc
- Stanley knife and cartridge gun for applying glue
- Tape measure and long level
- Several sash clamps
- Six plus tubes of Gorilla Grip

Building the concrete pad



Build your boxing to the required size — for this particular fire, it was 1400x1200mm. As the weight of this fire would be 1.2 tonnes, the pad was made to a depth of 200mm complete with steel reinforcing. Mark out your pad then dig it out to the required depth



Secure the boxing with pegs, ensuring all is square and level prior to laying your base course. Ensure your boxing is also square with any fences, buildings, etc., nearby



After compacting the base course, put in a layer of sand



Put a layer of polythene over the sand and install the steel reinforcing mesh. Lift the mesh by placing stone or broken bricks underneath to raise it to sit into the middle of the eventual poured concrete



Pour in the concrete and level off flat with a concrete trowel



The completed concrete pad. This was poured six days prior to the fire build to ensure it was well and truly set for its upcoming heavy load



Bottom layer getting positioned on the pad



Young Levi does the first of his many glue applications



The first layer is critical to get accurately square and level

adults with some good sheddie clues four to six hours to build the kitset fire. Good call — it took Kerrin and Levi five hours to build the finished fire you see pictured here.

If your skills are not at that level, a whole day would see the job done. All up, with pad and fireplace, time taken for the Lowe's build was under two days.

The kitset

The Pavilion Fireplace kitset we used arrived as 30 separate pieces totalling around 1200kg — meaning access for this kitset fire is easier than the alternative of hiring a Hiab to drop in a pre-made fireplace, which often weigh up to four tonne.

Before you start lugging all of the

pieces to site, you'll need to figure out the best place to build your new fireplace. Wherever you are in New Zealand, it will pay to get in touch with your local

Safety warnings

- The two mantle pieces weigh around 90kg each — they are heavy. It's a minimum two-person lift and important to use correct lifting techniques.
- As the height of the fireplace increases, ensure any ladders or platforms used are suitable for the task and have a secure footing.
- Always wear gloves, eye and ear protection, and a dust mask when using a grinder.
- When applying Gorilla Grip, we suggest you wear disposable gloves as the adhesive is quite difficult to remove from your skin.



Kerrin grinds most of the bricks to get a really good fit



The rear hearth goes on



The side and bottom firebricks of the firebox



“Before you start lugging all of the pieces to site, you’ll need to figure out the best place to build”



Foreman Levi is happy — all is as it should be

council to establish what the rules are for outdoor fireplaces in regard to distance from boundary fences and significant trees. Keep in mind the finished height of the fireplace — based on the kitset-chimney provided, we knew that this one would stand 2.5m high.

Pad build

Once you’ve established the right spot for the build that meets your own and the council’s criteria, you’ll need to clear an area for a concrete base that the fire will sit on — 1400x1200mm and 200mm deep in this case. Once you’ve dug out to the required dimensions and ensured that the area is clear of any roots and loose debris, you’ll need to box up the area to prepare for the concrete pad. The pad itself will need to be reinforced given the weight of the fireplace — this one weighs 1200kg,

for example. Once you’ve boxed in the area, use stakes to hold it in place.

Make sure that the boxing is of equal measurement from corner to corner to ensure a true square and that it is level and square to any nearby fences, hedges, or buildings.

You’ll then lay a base course of stones to 100mm that will require compacting (which is always the fun bit!).

Then pour a layer of sand on top of the base course to 50mm below the framing level. This will fill in the gaps and make for a sturdy base for the concrete to be poured.

Pour the concrete

The next step is to place some polythene over the sand. Because of the weight of the fire, you’ll need to put some reinforcing steel through the concrete



Kerrin cuts a stress groove in the base firebrick



Assembly tips



- It is a good idea to 'dry fit' the various sections of this type of construction (wood box, outer firebox, chimney) before applying glue. Sometimes blocks fit better into one block than the next, but you will need to make a few adjustments with your grinder to get a snug and tidy fit on some blocks.
- Throughout the process, continue without fail to use your tape measure and level to check that what you are building is level and square as you go before you apply any glue.
- Kerrin recommends Gorilla Grip, which takes two hours to fully set and gives you a good 15 minutes to make any adjustments. Once set, this glue is as strong as concrete.



Above: Firebox completed

Below: The gap between the firebox and the outer bricks is filled with scoria to act as insulation



Above left: Fitting the rear firebricks and metal spine. The spine supports the firebricks, which are angled to push heat out the front of the fire
Above right: A real plus to this kitset is the interlocking bricks
Left: Firebox surround completed and sash clamps keep every layer tight and square until the glue hardens
Below: The stainless-steel visor slips easily into place



layer, so that the base will remain firmly in place for years to come. Elevate the steel mesh to about halfway between the polythene layer and the top of the boxing using bits of brick or stones.

Depending on access to the site, you'll now be ready to either pour your ready-mix or get a concrete mixer in to mix your concrete. Of course the concrete base will require trowelling and final smoothing off to get it looking its best — smooth and dead flat.

After waiting five or more days for the pad to properly dry, your base will be well set and you'll be ready to get underway with putting your kitset fireplace together.

Because the fireplace we used comes delivered as 30 separate pieces, getting the pieces together when the build is happening is as simple as a bit of grunt work. Once you've got all the pieces nearby, the instructions will step you through the process of assembling your fireplace.

Time to build

See the step-by-step photographs here to get you through the process of gluing and putting together your kitset fire.

This kit uses proprietary-designed firebricks for the sides and rear of the inside of the fireplace. The remainder of the kit is put together using strong glue, so you'll need to measure as you go to ensure that you're using the correct pieces.

The bottom section of the fireplace is designed for wood storage, with the fire standing at around hip height on an average bloke.

This kitset fire comes with a number of accessories, including steel visors, fire grates, and barbecue plates, all supplied by good old Kiwi manufacturers.

Plastering and painting


Once construction is completed, the fireplace must be plastered. You can use any exterior plaster system, as the plaster won't be exposed to heat.

Kerrin recommends the use of masonry mesh on all external joint lines and the centre join on the gathering blocks. The plaster should be sealed using a 'lime-lock' undercoat and then painted in the colour



of your choice. There is nothing stopping you from creating your own distinctive skin for the completed fireplace after plastering has been completed. You could wrap it in whatever takes your fancy — within reason, of course.

Next issue, we'll walk through the plastering and finishing of the fireplace and enjoy the finished product.

Many thanks to Kerrin Thomson of Aztec Fires (aztecfires.co.nz) for his help with the writing of this article. 

Above: The first part of the chimney goes on
Below: Father and son, Kerrin and Levi, happy with their morning's work

“ Good call — it took Kerrin and Levi five hours to build the finished fire you see pictured here ”

