



Outdoor DIY fire pits are becoming an extremely popular feature when designing outdoor living spaces. We all like to save money when possible and this is why the DIY industry is booming. The greatest advantage of a [DIY gas fire pit](#) is that you can completely customize it so that it reflects your home or outdoor décor. The traditional “hole in the ground” fire pit is now a rarity with all of the DIY gas fire pit options.

There are many benefits to building a gas fire pit. A gas fire pit offers the illusion of flames that dance beautifully. There are no logs to gather each time you want to have a fire and no stoking required. Simply just flip a switch and you are ready to go! With a DIY gas fire pit you can have the outdoor oasis that you have always envisioned but it can be a little trickier that incorporating a wood burning fire pit. Learn the ins and outs of building your very own DIY gas fire pit, along with great tips for each step.

### DIY Gas Fire Pit Complete Kits

The easiest way to build a gas [fire pit](#) is to purchase a manufactured gas fire pit kit. These kits will come with either a preassembled fire bowl or every component you need to put your fire bowl together. Most companies will even have them set up to where they include the proper burner and valves so all that you have to do is make sure that you have the proper lines ran for hook up. Last thing is to decide what type of materials you will be covering the outside of the fire bowl with (refer below to Covering Materials).



### Creating a Fire Bowl from Scratch

Not wanting to use a kit? No problem, you can completely design your own fire bowl. However, there are a few things to keep in mind when choosing the right fire bowl for your design and getting it prepped for installation.

- Purchase only a fire bowl that is intended for that specific use.
- Be sure that the fire bowl that you choose is able to withstand high temperatures.
- It will need to be able to hold different types of filler materials like sand, glass, lava rocks, or manufactured gas logs.
- It should always be constructed of stainless steel, preferably .304 stainless



steel.

- Avoid materials like painted steel, aluminum, and galvanized steel as these could give off fumes or melt.
- Ensure that the fire bowl has proper drainage holes in the bottom. If not water could pool in the bottom covering the burner and then causing a very dangerous situation the next time it is lit.
- Should have side ventilation holes as well. Allows gas to flow through properly without pooling.
- Drop in trays should not be flush with the top of the structure. This is to retain the fire glass and protect the base of the flame from draughts.
- Make sure that drop in/flat pans are level when installed this is to help with drainage and also the even flow of gases.

### Choosing a Burner and Valves

Making sure that you have the proper size and style burner for the DIY gas fire pit that you are creating is not always as simple as just picking one out. There are many things that you want to consider and if at all you are not confident in this installation be safe and call a gas professional!

- Make sure all burners and fittings are specifically designed to be used with the type of gas that is installed.
- If you are using propane you will need an air mixer.
- Ensure that your burner is the proper size for the size of fire pit being built. If it is too small it will not achieve the desired effect.
- Always install an easily accessible safety valve and do not bury your spark ignition probe. Allow a little air space around the spark ignition to allow it to light properly. If necessary build a small cage around it with a small piece of stainless steel mesh.
- Minimum size pipe to be used is  $\frac{3}{4}$ " diameter. If the fire pit is a long distance from the gas supply it may require 1" – 1  $\frac{1}{2}$ " diameter gas pipe.
- Do not put a screen between the burner and filler. If you do it will create a pocket and possibly build up gases that could explode.
- Always install the burner beneath the filler materials.



### What type of Filler to use?

The filler that you use is just as important to the overall appearance of the DIY Gas Fire pit as the other components. Each type of filler will give the fire pit a different feel; fire glass will give a more modern feel while lava rock or sand will give the fire pit a rustic feel. Just remember these few tips when choosing and installing your filler material.

- Choose a filler material that is heat- tolerant like fire glass, lava rock, sand, or manufactured gas logs.
- Fire glass will absorb and release heat effectively to produce more heat than lava rock.



- Do not use river rocks or regular stones inside the gas fire pit. If they contain any amount of water the heat can cause them to explode.
- Do not use broken tempered glass in place of actual fire glass. It will not diffuse properly causing concentrated heat areas. Do not pack fire glass tightly, just lay it down gently in the tray or fire bowl. Install per manufacturer's recommendations.
- Do not use porous rocks or stones on any fire as they may explode.

### Outside Coverings

Use your imagination when planning out how you will be covering the outside of your DIY Gas Fire Pit. The possibilities are endless. Create unique designs with unique materials. Follow these tips to ensure that your fire pit will be completely safe.

- Use fire safe materials such as slate stones, bricks, smooth cement, tile or other non-combustible materials.
- Do not use combustible materials near the heat source.
- Ensure that the cap or top fitting around the fire pit is not too close to the heat source to prevent cracking.
- Make sure that there is adequate ventilation on all sides at the bottom to provide proper air flow and prevent gas pooling. Each vent should be directly across from another vent to get a cross flow.
- There should be a pocket for air flow between the outer covering and the metal fire bowl.



Keeping all of these great tips in mind when planning out your DIY Gas Fire Pit build will ensure that you will have a fire pit that is safe and will stand up to the tests of time. Again if at any time you are uncertain about any aspect of this project consult a gas professional. Gas is nothing to mess around with if you are not 100% certain of what you are doing, better to be safe than to be sorry!