



# STUART MODELS

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## Instructions for Assembly and use of your Stuart Boiler

Thank you for choosing a Stuart Models Boiler. By following the guide lines set out below, you should get many years of safe and trouble free use from your boiler.

When you receive your boiler carefully unpack it and identify each part. Before the boiler can be run you must attach the fittings using the aluminium washers supplied to prevent any leaks. The washers are supplied in a variety of thicknesses to help "line up" the parts. Sometimes a fitting will not "line up" because a washer is slightly too thick, should this be the problem, choose the washer that is closest and then simply rub it on a flat file to reduce its thickness. Should you find your washers are too thin, use two washers, and if necessary file one to size.

Assemble the pressure gauge and syphon using a pair of small spanners, one on the square block at the bottom of the pressure gauge and the other on the nut of the syphon. Nip these together but take care not to over tighten them as it is easy to damage the delicate threads. You should then attach this assembly to the boiler making sure that there is a washer each side of the syphon bolt.

Next mount the wheel valve. Decide which direction you want the steam valve to face, you will need to fit a washer under the valve to form a steam tight seal, if you experience problems lining up you may find filing the washers as described above will help. Fit the safety valve next however only screw it on finger tight as you will be removing it to fill the boiler with water, assuming you are not using a feed pump. This hole is used for filling as it is the largest.

The water gauge is the only fitting that may cause any problems. The top and bottom fittings need to be perfectly in line when they are screwed down so that the glass is a loose fit and not "pinched" by either fitting. The best way to achieve this is by packing both fittings with multiple washers. The glass tube is then sealed in place with rubber "O" rings and then the union nuts are screwed on firstly finger tight and then by carefully using a spanner to stop any leaks that may appear.

For Horizontal boilers the burner and jet should be assembled and then positioned in the burner holder ring. For Vertical boilers the jet should be slipped into the burner holder tube. There is a 1/4"Ø air hole through the jet holder tube and the jet should be inserted until the front is approximately one third of the way across the air hole and then locked in place with the screw.

Your boiler should now be connected to a supply of bottled gas, a mixture of propane and butane is recommended, Propane can be used however extra care should be taken to avoid over heating however pure butane will not generate enough heat.

Fill your boiler with water by removing the safety valve and pouring water through the hole. When the glass in the gauge is three quarters full re fit the safety valve and washer and make sure the wheel valve is closed.

To light the vertical boilers, open the gas valve a fraction, strike a long safety match and insert it through one of the holes in the base of the firebox. Once lit adjust the gas valve until the flame of the ceramic burn bright orange.

To light the horizontal boilers the principle is slightly different as you remove the burner to light it. With the burner and jet assembled, but not in the burner holder ring, turn the gas on very low and light the flame with a safety match. Open the gas valve and then re insert the burner into the burner holder ring.

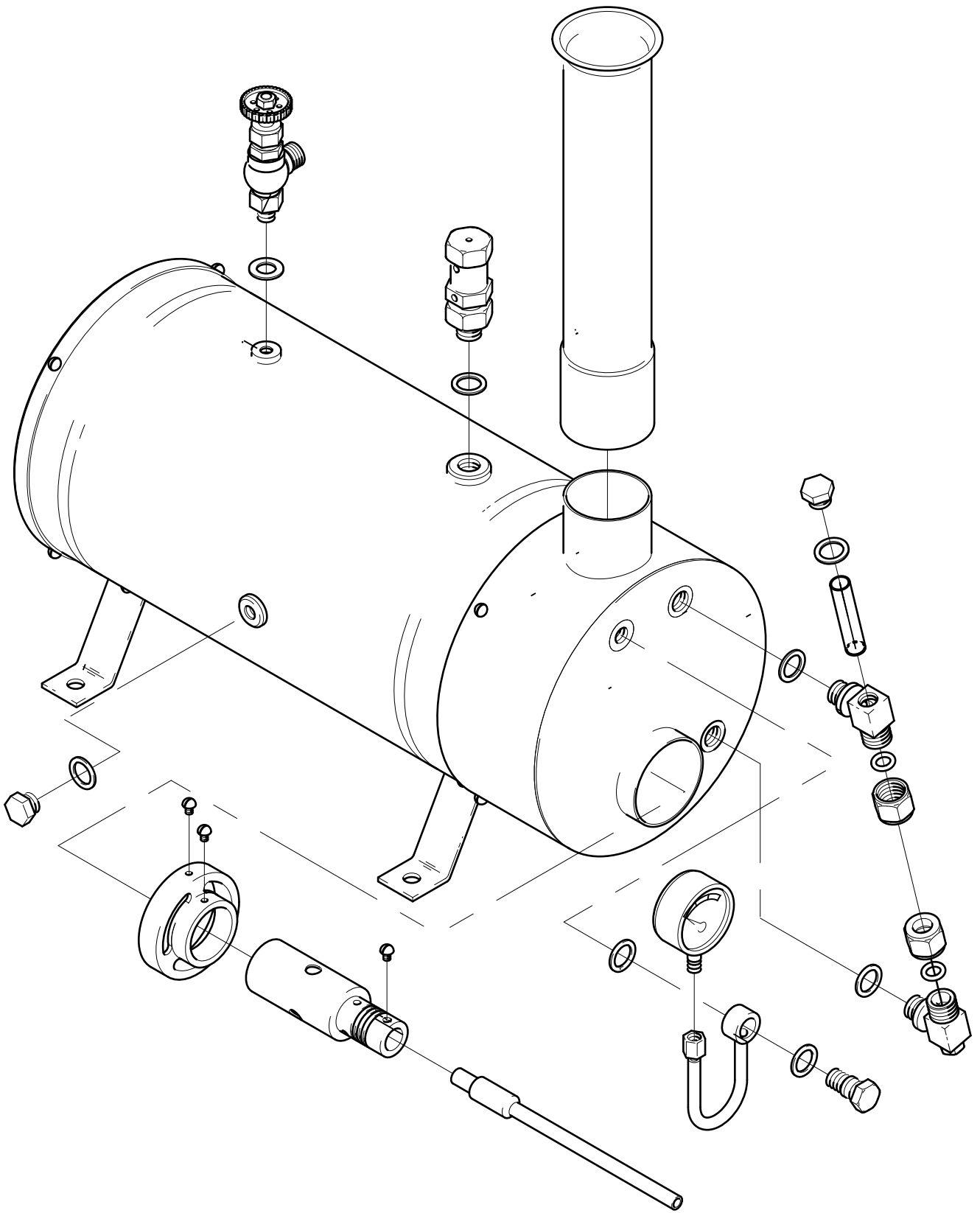
Steam will raise fairly quickly (approximately 5 minutes), so keep a watch for leaks and constantly check the water level. As the pressure rises the water will expand and the level will seem to rise in the water gauge, however it will drop when you open the steam valve, so be prepared to top up the boiler with your water pump (if fitted). Always ensure water is visible in the gauge glass Never let the water level drop too low that it cannot be seen as this can seriously damage your boiler if this situation looks likely, turn off the gas immediately.

### **Some Final points to remember.**

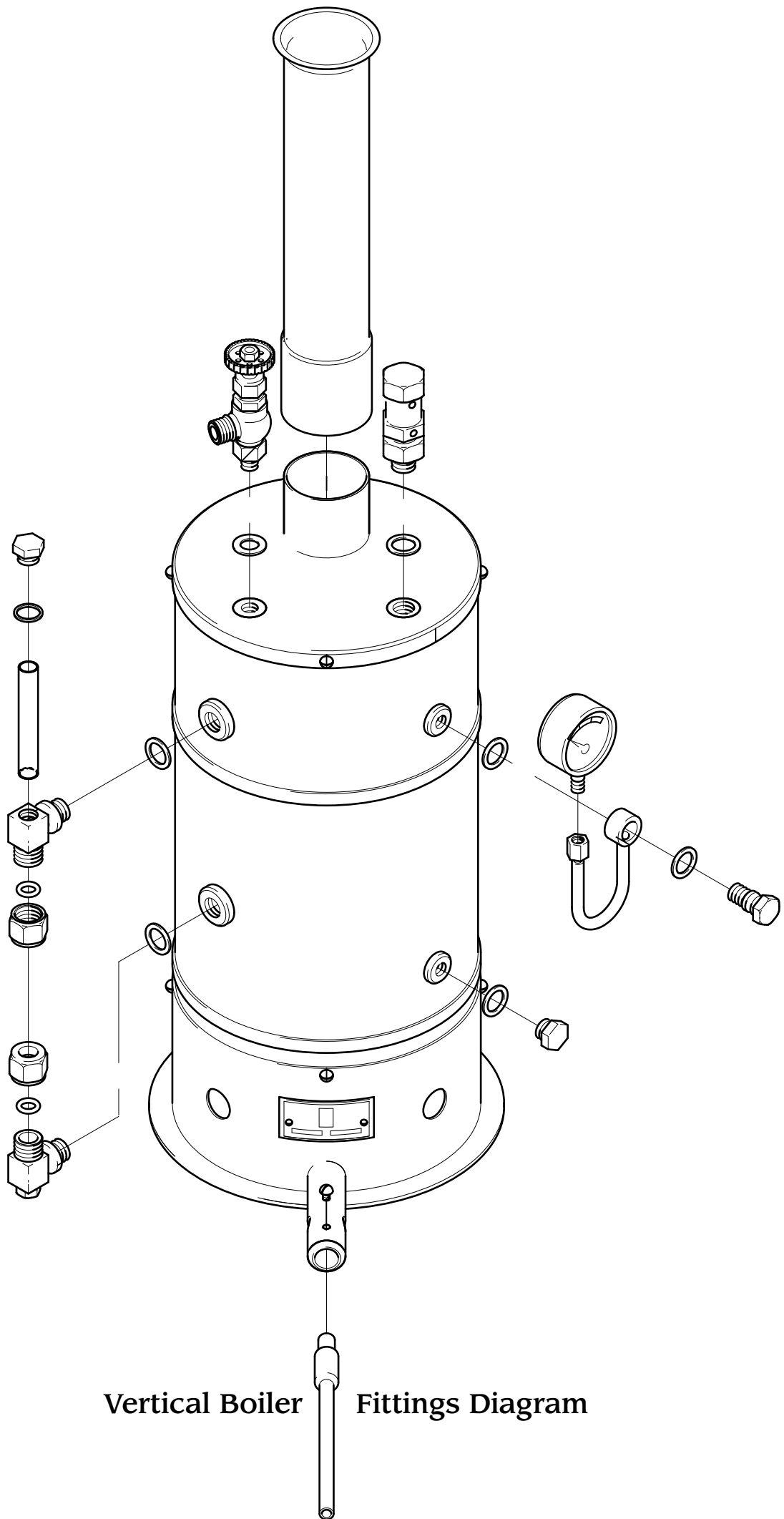
Always ensure water is visible in the water gauge, never allow the boiler to "run dry" i.e. run out of water.

Never remove the safety valve or any of the plugs whilst the boiler is under pressure.

Please note that the Boiler certificate verifies that it has successfully passed a hydraulic test and is not a certificate of or for insurance cover.

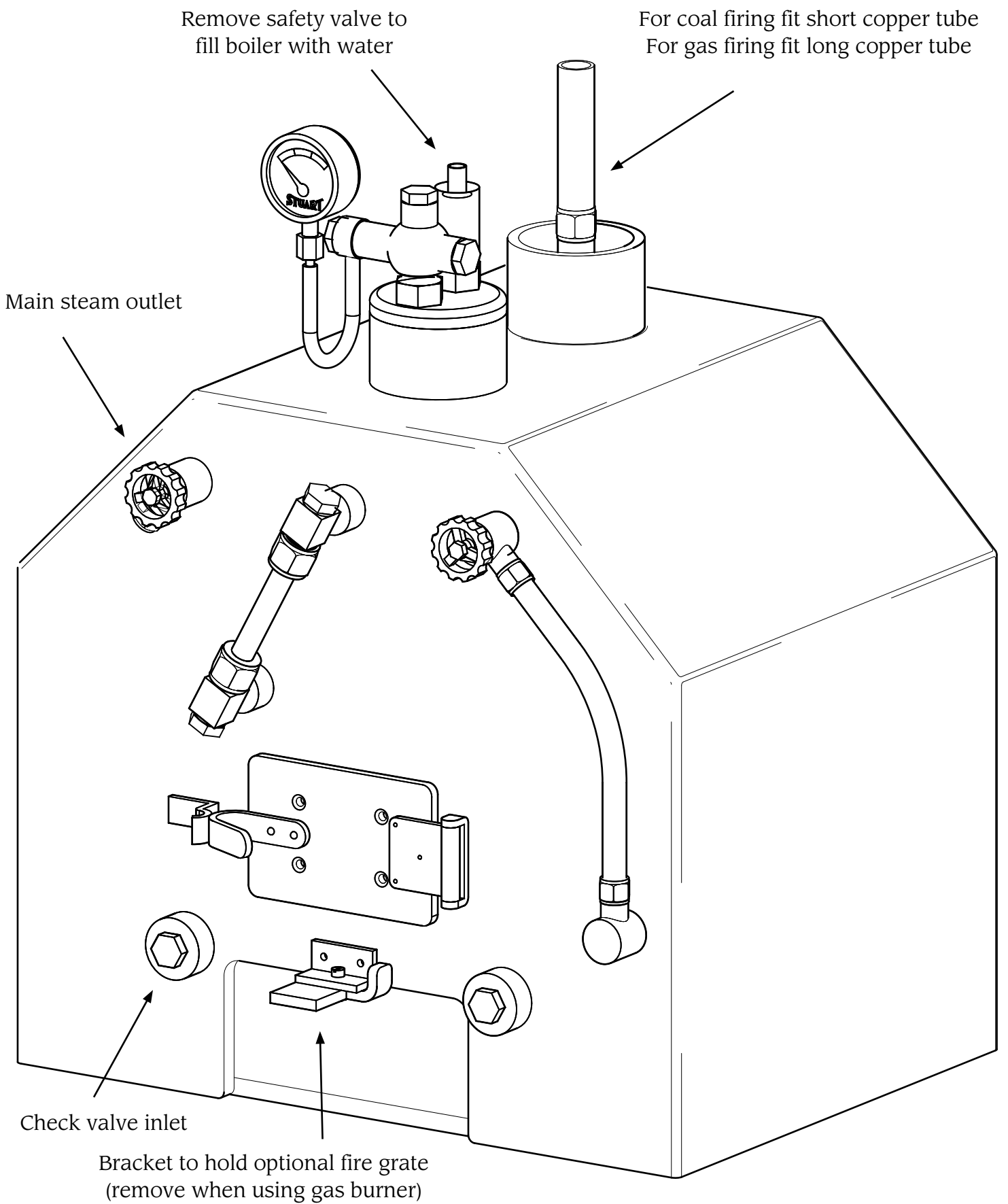


Horizontal Boiler Fittings Diagram

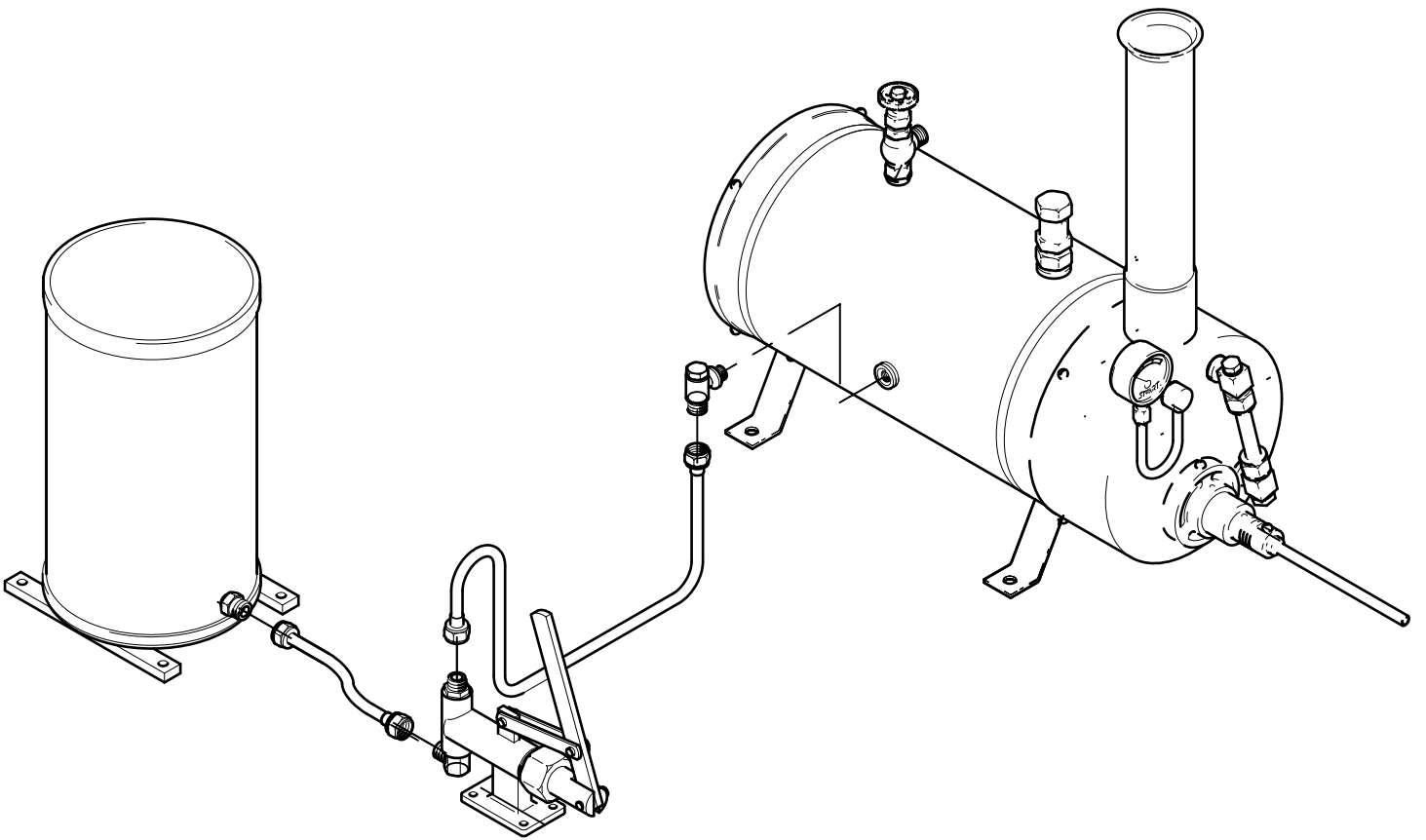


Vertical Boiler

Fittings Diagram



**Mendip Boiler Fittings Diagram**



Feed Pump & Reservoir Diagram



Pictures