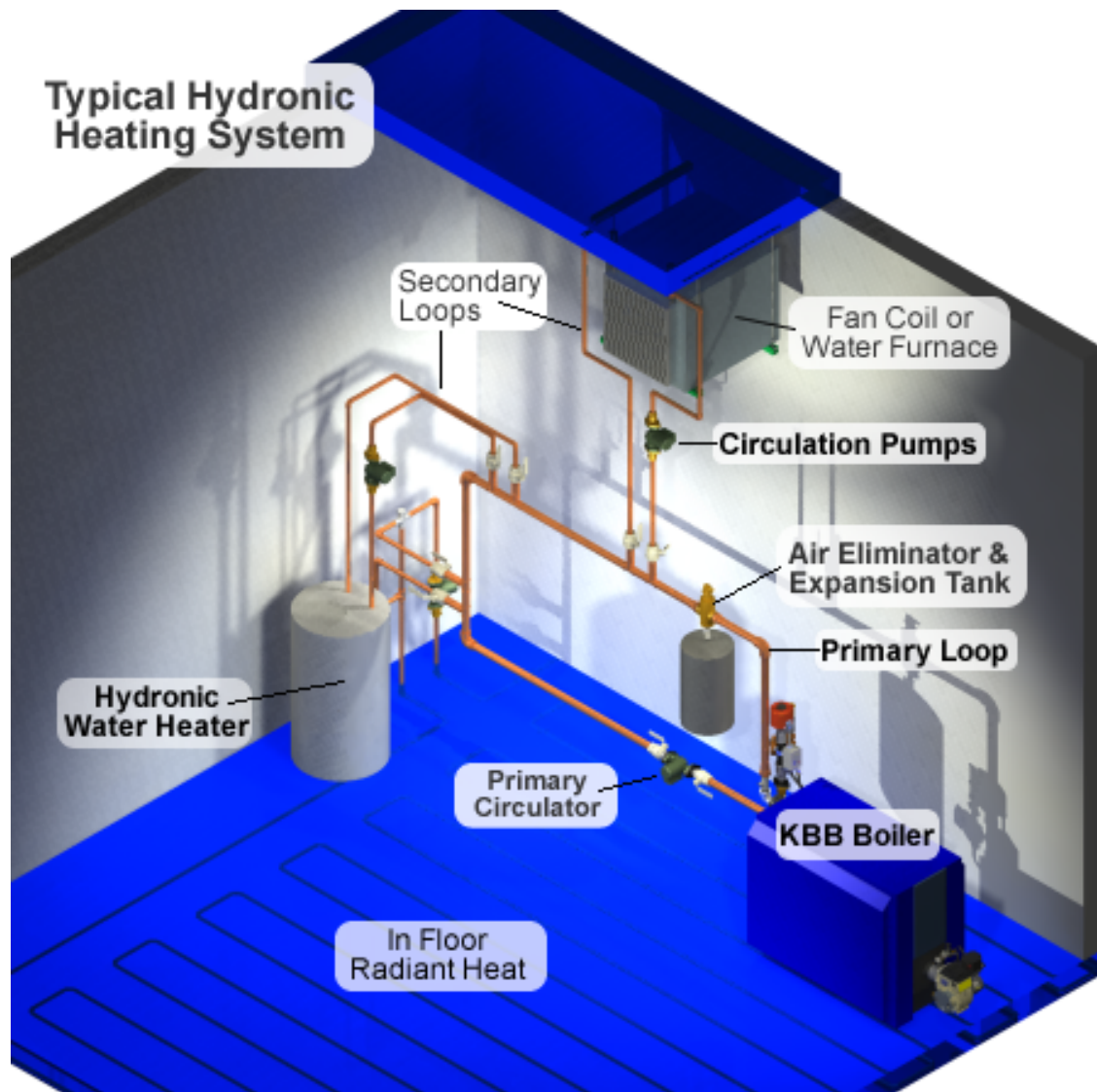


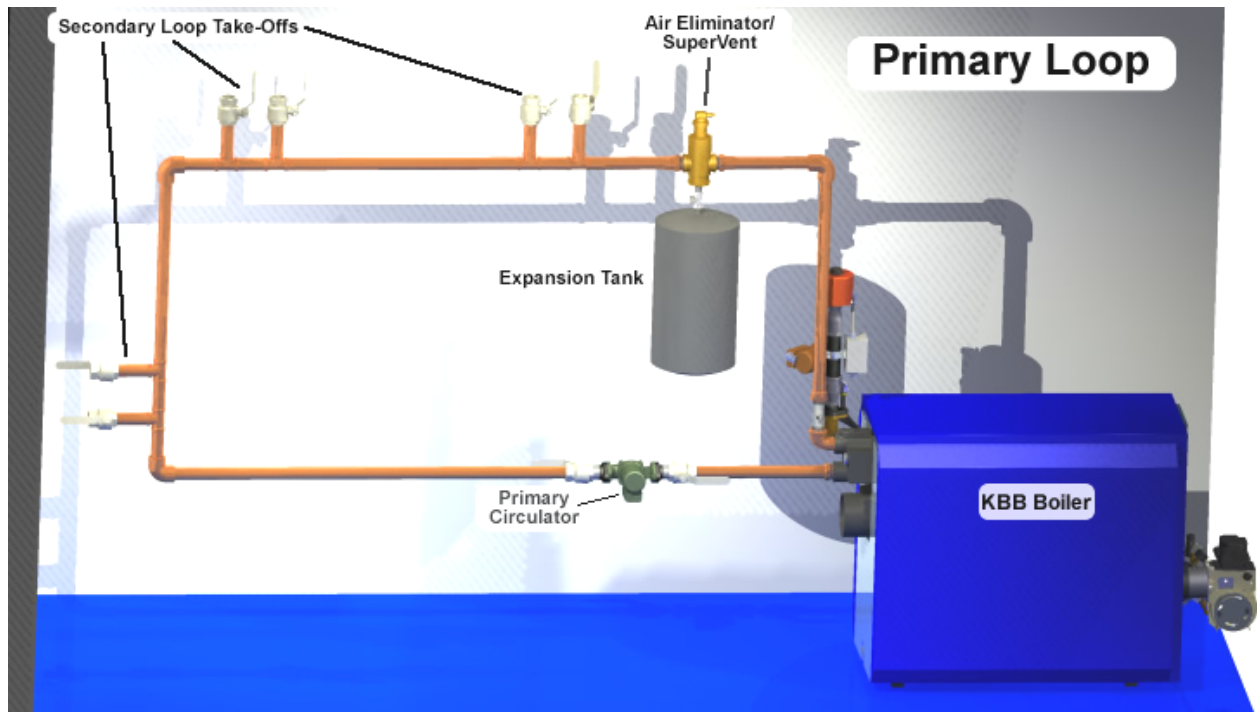
Hydronic Heating with KingBuilt.com, Inc. Multi-Oil Fired Boilers



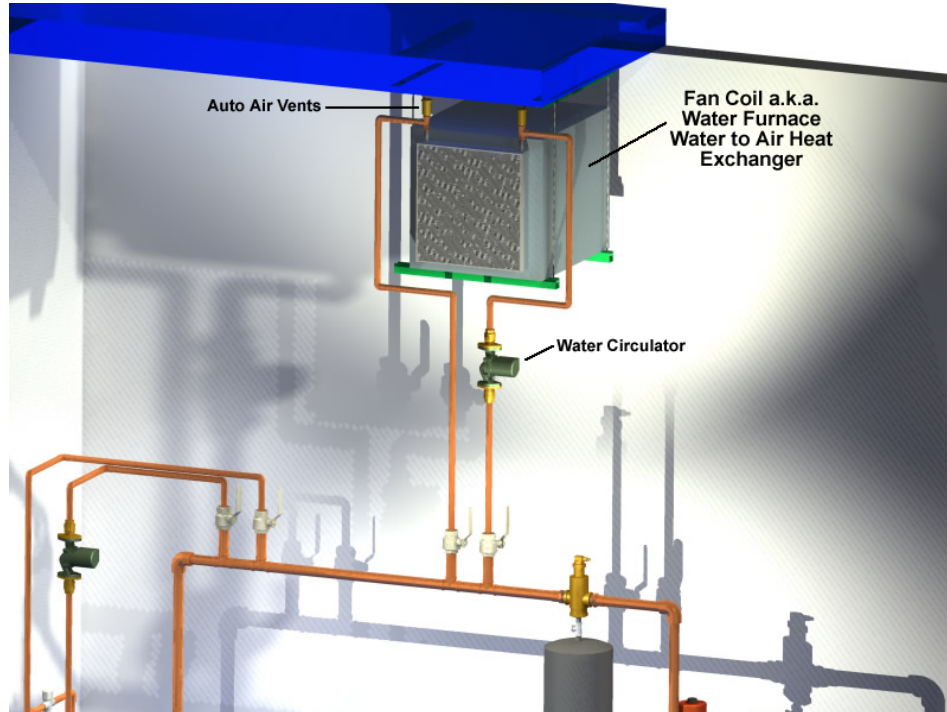
As shown above, the “KBB Boiler” is the power plant of the hydronic heating system. Heat energy produced by the HPC-1 Combustion System is transferred to water through the boiler’s heat exchanger. The heated water is circulated through the various heat exchangers to transfer the heat energy to your building or objects. A “Fan Coil” or “Water Furnace” has a water coil and squirrel cage type blower mounted inside a sheet metal enclosure. The blower pushes air across the water coil pulling heat energy out of the water circulating through it and heats the air.

The heated water can also be circulated through “In Floor Radiant Heating” tubing for building heating. This is the most comfortable way to heat a building.

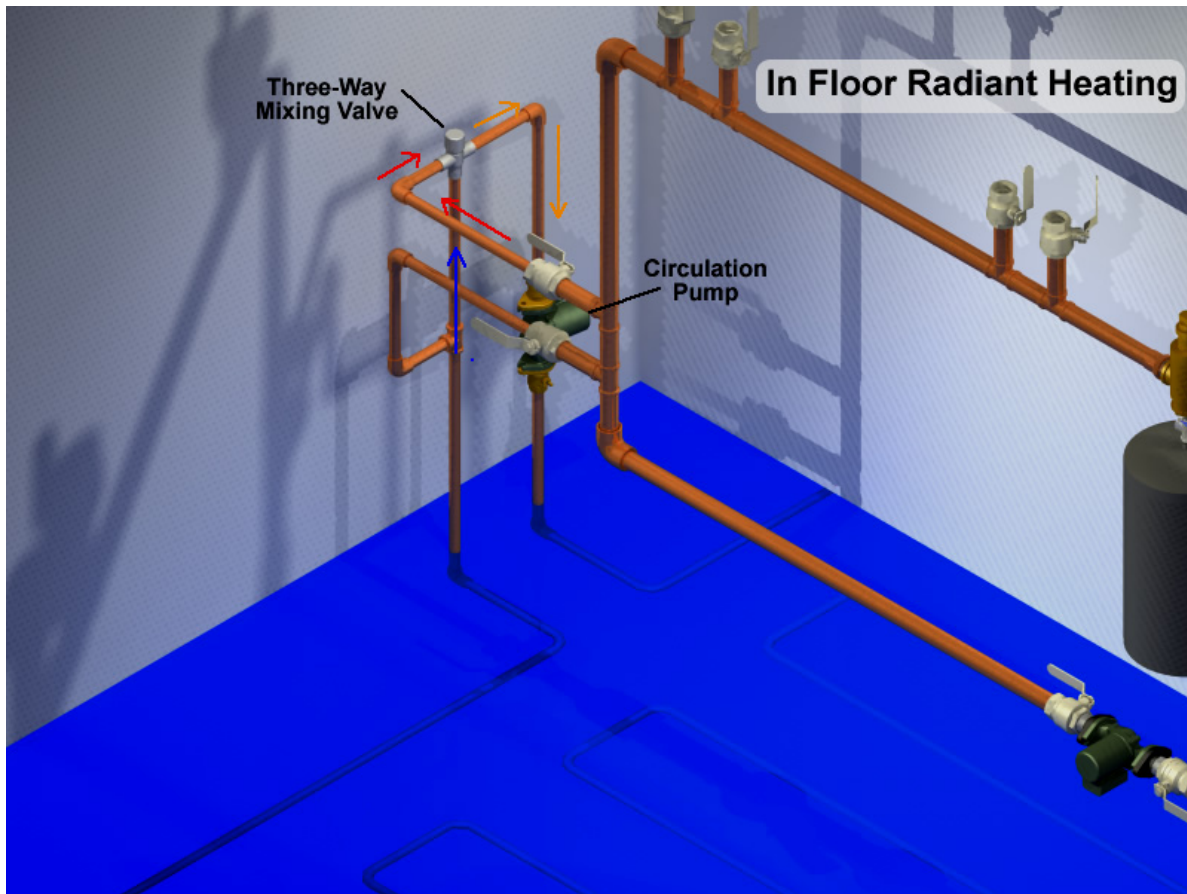
Heating domestic and process water is also possible using the heated water by using a “Hydronic Water Heater”. These are often called “Indirect Fired Water Heaters”. Other various liquid to liquid heat exchangers can be used for heating pools, hot tubes and liquid processes such as biodiesel processors. The most common are “stainless steel brazed plate” and “shell and tube” heat exchangers. Ask us for spec sheets/brochures on these heat exchangers.



The water inside the boiler, heated by the HPC-1, is circulated through the boiler and the “Primary Loop” by the “Primary Circulator” pump. A “Thermal Expansion Tank” absorbs water expansion from the heating of water to maintain a set operating water pressure. The “Air Eliminator” collects and automatically removes entrapped air from the system. The “Primary Circulator” continuously circulates the water through the boiler and primary loop. The “Secondary Loop Take Offs” is where the heat exchangers are plumbed to the primary loop.



“Fan Coils” also known as “Water Furnaces” and often “Air Handlers” heat air using the heated water from your hydronic heating system. A copper water coil and squirrel cage blower is mounted inside a sheet metal enclosure. The blower pulls air into the enclosure and pushes it through the water coil heating the air as it passes through. The “Fan Coil” and pump are usually thermostatically controlled by a simple wall thermostat. “Auto Air Vents” provide a means of removing entrapped air from the high spots of your heating system.



“In Floor Radiant Heating” is without question the most comfortable way to heat a building providing it has been installed properly. A “Circulation Pump” thermostatically controlled moves heated water through the floor tubing and back to the “Primary Loop”. A “Three-Way Mixing Valve” tempers the high temperature water from the “Primary Loop” with water returning from the floor to derive at a comfortable temperature, 80°F-130°F, going into the floor.

The KingBuilt.com, Inc. KBB Boilers provide a wonderful way to heat your buildings using nearly every form of oil under the sun. The versatility and longevity of the KBB boiler and hydronic heating make it clearly the best option. Yes, there are many cheap waste oil furnaces on the market that will cost you less up front. But when you factor in the longevity of the KBB Boiler, your long term investment is substantially less when you consider how many furnaces you will go through at a 3-5 year lifespan.