**How Safe Are Water Tube Boilers**

afety is always a top priority when working with industrial boilers, at least it should be. Fortunately, safety has become less of an issue with more modern water tube boilers. Compared to traditional fire tube boilers, water tube boilers are far safer, almost to the point where you don’t have to worry about a catastrophic explosion taking place.

The biggest reason water tube boilers are safer than fire tube boilers is that they have less water inside them. Most fire tube boilers contain hundreds if not thousands of gallons of water. A significant amount of that water is there to serve as a heat shield for the burner so that the metal inside the boiler doesn’t melt. This combination of hundreds of gallons of water and a high amount of pressure inside the boiler can be dangerous if the boiler isn’t functioning properly.

Water tube boilers, on the other hand, only require roughly 10% of the water in fire tube boilers. This helps to limit the risk of too much water turning into steam instantly and blowing the doors off the boiler, which is possible with conventional boilers. More importantly, all of the water is confined inside the tubes. If one of those tubes were to break from the pressure, only that tube will be affected and not the entire boiler. This makes a serious explosion in a water tube boiler next to impossible.

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