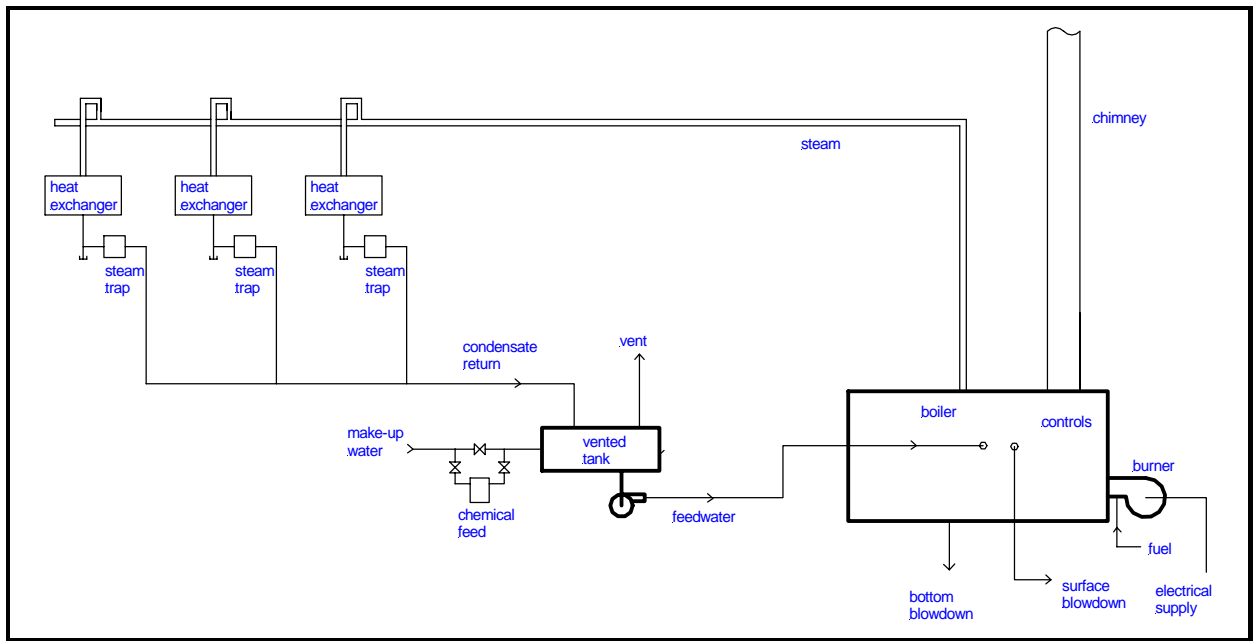


System Integration

Steam boiler systems can be quite simple and expensive to operate and maintain OR they can be more complex which much lower costs to operate and maintain.

Following is a simple boiler system:



Let's say that the system needs 10,000,000 BTU's per hour on average and 1.5 times that for brief times. By the time you add up the costs of fuel, electricity, chemicals, water and personnel, the cost of the operation is \$906,000.00 per year.

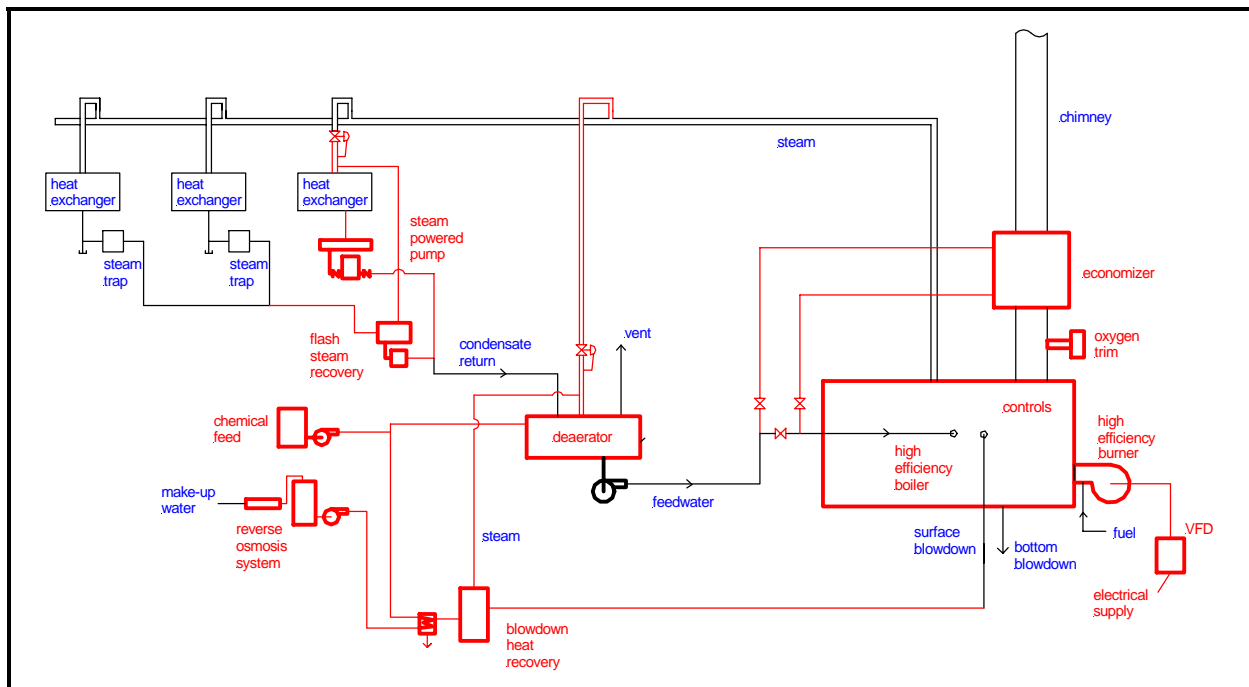
Since fuel prices are rising about 10% per year, the boiler plant cost is eating into profits at an alarming rate. A variety of salesmen enter the picture. Each one promises that savings can be realized if their "thing" would be purchased. Ideas include:

- Deaerator
- Stack economizer
- Condensate return modifications
- Flash steam recovery system
- Reverse osmosis
- Chemical treatment modernization
- Blowdown heat recovery

- Variable frequency drive on the burner's blower motor
- New high efficiency boiler
- New boiler controls
- Oxygen trim system on burner

One guy even suggested that you get a new boiler with higher efficiency rating.

If you bought it all, the system would look like this:



If all of the promised savings were realized you would HUGE! 10 percent from salesman "A," 15% from "B" and so on adds up quickly! If you did them all, could the boiler plant be over 100% efficient? Of course not.

Each of the components affects the savings that can be realized from the other. The means of evaluating which items are good ideas and how they affect the entire system can be quite a complex mess. But we can do that evaluation for you.

By integrating various items listed above, during the planning stages, smaller boilers can be used in many cases. Operating costs can be cut and by a realistic, predictable amount.

Contact us for a cost free evaluation by one of our engineers.