

### TUBESHEETS

**THICKNESS:** Superior's Tubesheets are an average of 40% thicker for added strength and corrosion protection. The chance of cracking one of ours is much lower than a boiler with a thin tubesheet.

### INSULATION

**MATERIAL:** Superior does not use fiberglass insulation. Fiberglass has a lower 'R' factor and density than mineral wool, which is what we use. Mineral wool is firmer and more efficient, and because of this, fewer BTU's go into the room and more stay in the boiler. We also do not partially insulate our boilers. We insulate the whole thing, not just the upper two thirds or so, as some manufacturers do.

### TUBES

**THICKNESS:** The .105" thick wall tubes are almost 10% thicker than those used by other manufacturers. That's 10% more corrosion allowance and strength.

**NUMBER:** Because of the larger shell and using fewer tubes, this means better heat transfer, less and easier maintenance.

**DE-GREASED:** All tubes are delivered in J.I.T. format which aides in installation giving a better seal with less contaminants in the boiler when you get it.

### SHELL

**THICKNESS:** Our shell averages 8% thicker than other boiler shells. That means longer life and added strength.

**DIAMETER:** Our shell is 12% larger diameter than other manufacturers' boilers. We have more water to 'flash' into steam, so steam pressure is better maintained during off cycles.



### BOILER TYPES OFFERED

A Four Pass Wetback is pictured, but we also offer these other types of boilers:

- Three Pass Dryback
- Three Pass Wetback
- Two Pass Dryback
- Three Pass Firebox
- Waste Heat Gas Recovery  
(With and Without Auxiliary Burner)

Boilers are built for water and steam in a variety of pressures and temperatures.

### BURNERS

**CHOICES:** There are a number of manufacturers that make quality burners. We won't tell you which brand you must buy from us. You can choose Webster, ST Johnson, Industrial Combustion, Iron Fireman, Powerflame, or others if you have a preference.

**FIRETEST:** Every packaged boiler/burner that leaves our plant can be completely fire tested. All components are tested and the proper air-to-fuel ratios are checked. This costs Superior time and money, but both you, our customer, and Superior save time and money in the long run after the boiler is installed, because of the factory fire test.

### FURNACE

**DIAMETER AND LENGTH:** The average size of our furnace is 21% greater than other boilers. And because our shell is usually longer, the furnace is too. Since the flame must be contained in the furnace, our larger dimensions make proper burner performance easier to obtain. This is especially critical for applications where Low NOx emissions are mandated.

**HEAT RELEASE:** Our published heat release data is for the furnace only. Other boiler manufacturers include the rear turnaround volume to get numbers close to Superior. Our lower BTU per cubic foot means less stress and scaling on the furnace. Longer life and efficiency result.

### HANDHOLES

No matter how well a boiler is built, at some point you may need to re-tube it. Superior includes hand holes in the front tubesheet, and yes, it costs a few dollars to include them, but, without these hand holes, you can't get the tubes out unless you cut the tubesheet. The repair isn't as good then, and the cost can be huge because the boiler needs to be ASME Certified once the repair is complete. We build boilers you can take care of easily.

**"Demand  Superior Performance"**