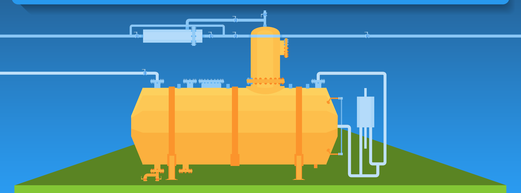
Risky Business

What You Need To Know About...



Boilers

What is a Boiler?

A boiler is defined as a closed vessel in which water is heated or circulated, either as hot water or as steam, for heating or power. It can be categorized as either high pressure or low pressure.

High Pressure	Steam: Over 15 psi	Water: Over 160 psi
Low Pressure	Steam: 15 PSI or less	Water: 160 PSI or less

High pressure boilers are required to be built to a different construction code than low pressure, due to their higher energy potential

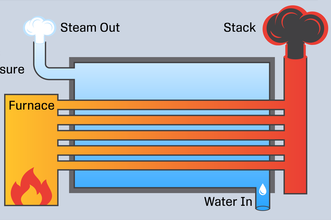
The Primary Uses for Commercial Boilers

- Building Heat
- Process and Manufacturing
- Power Generation

Three Main Types of Boilers:

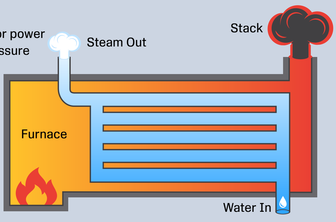
Fire tube:

- Heat or process
- High or low pressure



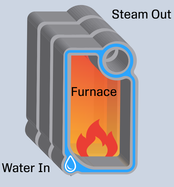
Water tube:

- Heat, process or power
- High or low pressure



Cast iron sectional:

- Heat only
- Low pressure only



Top Causes of Boiler Breakdown:

- Scale and sediment buildup causes overheating
- Automatic control or safety device failure
- Thermal shock

Contributing Causes of Boiler Losses:

- Lack of Maintenance
- Improper Testing
- Operator Error

Preventive Maintenance:

How to protect your boiler from loss

- Check boiler conditions every time you visit the boiler room
- Arrange for a qualified boiler technician to service the boiler annually
- Blowdown bottom drain valves and water columns regularly to remove sediment
- Use qualified and trained operators
- Ensure that boiler water chemistry is optimal to hinder corrosion and/or scale formation
- Test boiler automatic controls and safety devices regularly—low water fuel cut-offs, safety relief valves, temperature and pressure switches, fuel combustion safety controls