

## Key points to care when purchasing a boiler

1. **Boiler type:** According to different application, there are steam boilers, hot water boilers and thermal oil boilers. According to different fuels, there are gas, oil, coal, biomass and electric boilers. Usually the choice of fuel is based on the cost of local fuel.

### 2. Requirements for basic boiler parameters:

1) Heating capacity: Whether it is a steam boiler or a hot water boiler, heating capacity is a key parameter, which indicates that the boiler can meet the actual heat source demand.

2) Working pressure: Working pressure refers to the maximum allowable pressure of the boiler, which is determined according to the design pressure. When purchasing a boiler, make sure that the working pressure of the selected boiler meets the use requirements to ensure safe operation.

3) Medium temperature: The production process or heating site has clear requirements for the medium temperature, and the temperature that the boiler medium can reach needs to meet the process requirements.

**3. Boiler thermal efficiency:** boiler efficiency includes three aspects: combustion, heat transfer and waste heat recovery, which directly affects the operating cost. Choosing a boiler with high thermal efficiency means that low fuel consumption, so saving long-term operating costs. In particular, condensing boilers usually have higher efficiency because they can recover part of the heat in the exhaust gas.

### 4. Boiler safety control:

1) Design and material selection: The design and material selection of the boiler must meet national or international pressure vessel standards to ensure that the material is not easily damaged or corroded under high temperature and high pressure.

2) Welding: Welding is a key step in boiler manufacturing. High-quality welding processes and non-destructive testing must be used to ensure that the welds are defect-free.

3) Safety protection devices: The boiler should have complete safety protection devices, such as overpressure protection, overheating protection, water level monitoring, extremely low water level interlocking, and combustion flameout protection, to prevent accidents.

4) Valve quality: Although the valve is a small component on the boiler, the quality of the valve is directly related to the safe operation, operating efficiency and maintenance cost of the boiler.

**5. Boiler emission standards:** When choosing a boiler, make sure that the boiler complies with local environmental emission regulations, especially the emission standards for harmful substances such as nitrogen oxides (NOx) and carbon dioxide (CO<sub>2</sub>). Ultra-low nitrogen boilers are a good choice for reducing emissions and reducing pollution. For areas with strict environmental protection requirements, low-nitrogen or ultra-low nitrogen boilers can help avoid unnecessary fines and compliance risks.

**6. Boiler size and floor space:** Evaluate the overall installation dimension and installation conditions of the boiler to ensure that it can be reasonably installed in the predetermined location.

In addition to the above main parameters, factors such as the boiler brand, quality, and after-sales service

also need to be considered. When purchasing, you should choose professional manufacturer with a good reputation and reliable service. At the same time, you should check the relevant quality certification documents of the product to ensure that the selected boiler is of reliable quality and stable performance.