

Measurement of Oxygen Concentration in Package Boiler Flue Gases

Industry: Power
Product: Zirconia Oxygen Analyzer

Introduction

Package boilers require less fuel and electric power to operate and are widely used in the pharmaceutical, food, ceramic, and other industries. A package boiler operates more efficiently if the oxygen concentration in the flue gas is reduced. On the other hand, insufficient air intake causes incomplete combustion, resulting in increased smoke emission. Optimizing air intake for boiler operation requires continuous measurement of the oxygen concentration in the flue gas.

The typical package boiler is a water tube boiler or flue and smoke tube boiler with a capacity of 5 to 20 t/h (average steam generation capacity). The most widely used fuels are heavy oil, light oil, and gas.

The ZR22/ZR402 zirconia oxygen analyzer is ideally suited for package boilers thanks to its long service life and low maintenance, and is an effective tool for the reduction of fuel and electric power consumption.

Expected Benefits

- Increases combustion efficiency of package boilers
- Stable, continuous measurement
- Reduces operating cost
- Keeps the initial cost of equipment replacement to a minimum

Process Overview



