

Coal Gasification Facility for Advanced Basic Research (FRONTIA)

(FRONTIA : Forefront Research Gasifier for Development of Novel Technology and Innovative Application)

Purpose: Using this facility, the research gasifier that has a lot of functions and special measuring equipments, we aim to develop the technologies required to commercialize IGCC. These are: ensuring stable plant operation, evaluation and diversification of usable coal, and cost reduction.

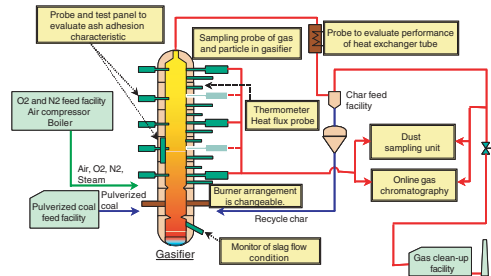
Main Specifications:

This facility is a dry feed pressurized entrained flow type coal gasifier. The following are basic specifications of this facility.

- (1) Capacity: 3ton/day
- (2) Pressure: 2MPa
- (3) Gasifying agent: air/oxygen/steam
- (4) Special measuring equipments
 - a) Thermometer
 - b) Heat flux probe
 - c) Probe and test panel to evaluate ash adhesion characteristic
 - d) Sampling probe of gas and particle in gasifier
 - e) Online gas chromatography
 - f) Dust sampling unit
 - g) Monitor of slag flow condition

Location and Date of Installation

Energy Engineering Research Laboratory, February 2004



Schematic Diagram of FRONTIA



Appearance of the equipment building



Combustor Part