

# Testing plant for CO<sub>2</sub> removal in absorption process

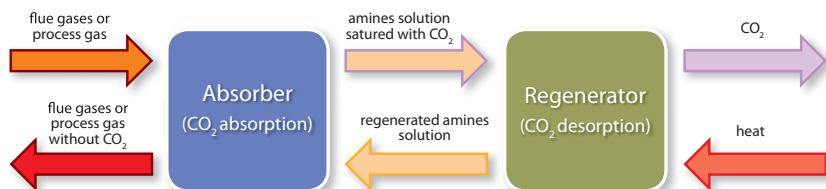
Plant is designated to investigate CO<sub>2</sub> removal from the flue and process gases through chemical absorption in amine solution.

Plant is equipped with the following items:

- absorption and desorption columns,
- set of heat exchangers,
- electric heater.

To the installation are delivered: technical, process and flue gases from the selected technological installations :

- testing plant for pressurized gasification and oxy-combustion of solid fuels in Circulating Fluidized Bed,
- testing plant with turbulent combustion chamber.



## Technical characteristics

Flowrate of gas supply	20 - 100 m <sup>3</sup> /h
Amount of absorbent in a loop	250 dm <sup>3</sup>
Working pressure	atmospheric installation
Efficiency of CO <sub>2</sub> removal	about 90%
Nominal regenerator working temperature	130°C
Columns dimensions	height 7 m, diameter 0,265 m
Control system	automatic

## RESEARCH AREA

Development of more efficient solvents for CO<sub>2</sub> absorption.  
Reducing energy intensity of the CO<sub>2</sub> removal from the flue gases and process gas.  
Testing of the new mixtures of absorbent solutions (including ionic liquid).

## POTENTIAL APPLICATION IN THE MARKET

Technologies of CO<sub>2</sub> removal from the flue gases by means of absorption for zero emission power production.  
Technologies of CO<sub>2</sub> removal from process gases for zero emission energy and fuel production.  
Support for industrial implementation in Poland of CO<sub>2</sub> removal from the flue gases through absorption.

## ADDRESSED TO (POTENTIAL CO-OPERATORS)

Enterprises and institutions operating in energy sector.  
Designers and suppliers of energy and environmental protection technologies



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