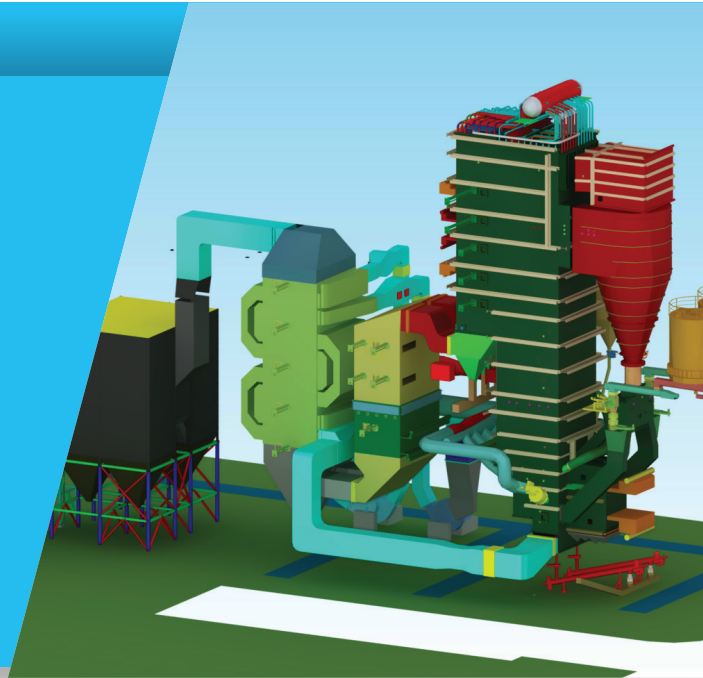


PROJECT PROFILE: CFB, Japan

Sodegaura

Circulating fluidised bed combustion



Doosan Lentjes deploys its circulating fluidised bed (CFB) boiler technology at a new 75 MW_e biomass-fired power plant located in Sodegaura, Chiba Prefecture, Japan.

DELIVERABLES

- Engineering and procurement of the boiler island including the key boiler and flue gas cleaning equipment
- Advisory services for erection and commissioning

CHALLENGES

- Strict local regulations during project design and execution phases
- Advanced steam conditions with reheat system for biomass

BENEFITS

- Full compliance with all governmental emissions requirements
- Highly efficient and CO₂ neutral power production
- Full EP solution delivered from Doosan Lentjes and its parent company
- Complete solution from fuel silo to stack provided by single OEM with strong competences in boiler design and flue gas cleaning

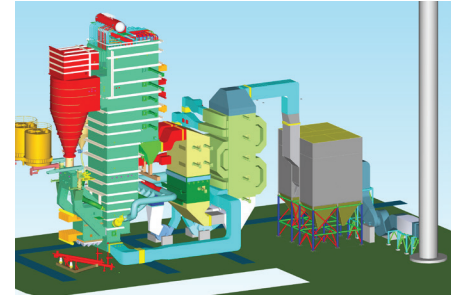
CFB-biomass role model for the Japanese market

In 2018, Doosan Lentjes was awarded the contract to provide key circulating fluidised bed (CFB) boiler technology for a new 75 MW_e fully biomass-fired power plant located in Sodegaura, Japan. The project is part of a larger EP contract awarded to Lentjes' parent company Doosan Heavy Industries & Construction (DHIC).

The Japanese company, Chiyoda Corporation acts as main contractor while Osaka Gas Group is the owner of the new plant.

The Doosan Lentjes' contract comprises engineering and procurement of the boiler island including the major boiler and key flue gas cleaning equipment along with advisory services for erection and commissioning.

Applying the flexible CFB boiler technology enables the customer to efficiently generate power from their biomass fuel used while fully complying with the strict local emissions regulations.



Key Project Data

Customer	Doosan Heavy Industries & Construction
Final customer	Sodegaura Biomass Power Co. Ltd. (Osaka Gas Group)
Location of power plant	Sodegaura, Chiba Prefecture, Japan
Main fuels	Biomass wood pellets
Award date	2018
Number of lines	1
Plant output	75 MW _e
Thermal capacity	180 MW _{th}
Live steam	224 t/h (BMCR)
Live steam pressure	170/40 bar
Live steam temperature	560/560 °C
Design fuel	
LHV	17,5 MJ/ kg
Ash	1.0 %
Moisture	6.6 %
Sulphur	0.1 %
Chlorine	0.05 %
Emissions (acc. to 6% O₂, dry, monthly av.)	
SO ₂	20 ppm
NO _x	30 ppm
Dust	20 ppm
Thermal efficiency	94.7 %



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Doosan Lentjes is a global provider of processes and technologies for energy production from both sustainable and conventional fuels. Our specific areas of expertise include circulating fluidised bed boilers, key technology for the generation of energy from waste and sewage sludge, as well as, flue gas cleaning systems. We have been pioneering energy solutions for 90 years and convert millions of tonnes of waste into valuable energy each year.

Doosan Lentjes is part of a powerful combination of companies united under the Doosan Group to deliver complementary technologies, skills and value to customers the world over.

Doosan Babcock

Doosan Lentjes

Doosan Škoda Power

NUCLEAR | BOILERS | TURBINES | WASTE TO ENERGY | AIR QUALITY CONTROL | SERVICE