

# Biomass Steam Boilers

Decades of experience  
transferring fibrous  
fuels into steam

- > High Pressure Denard Boilers
- > Low pressure Boilers
- > Hot Water Boilers
- Steam capacity up to 400,000 lb/hr
- Steam pressure up to 2,100 psig
- Steam temperatures up to 1,000°F
- Natural circulation
- Water cooled membrane sidewalls
- ASME and/or International codes





## Main Strengths

- Proven technology
- Turnkey projects
- Specific solutions
- Operational flexibility
- High availability
- High steam purity
- Multiple fibrous fuels
- Site specialists

## Wide range of applications on various biomass fuels

- Coffee grounds
- Fruit peels/pulp
- Bagasse

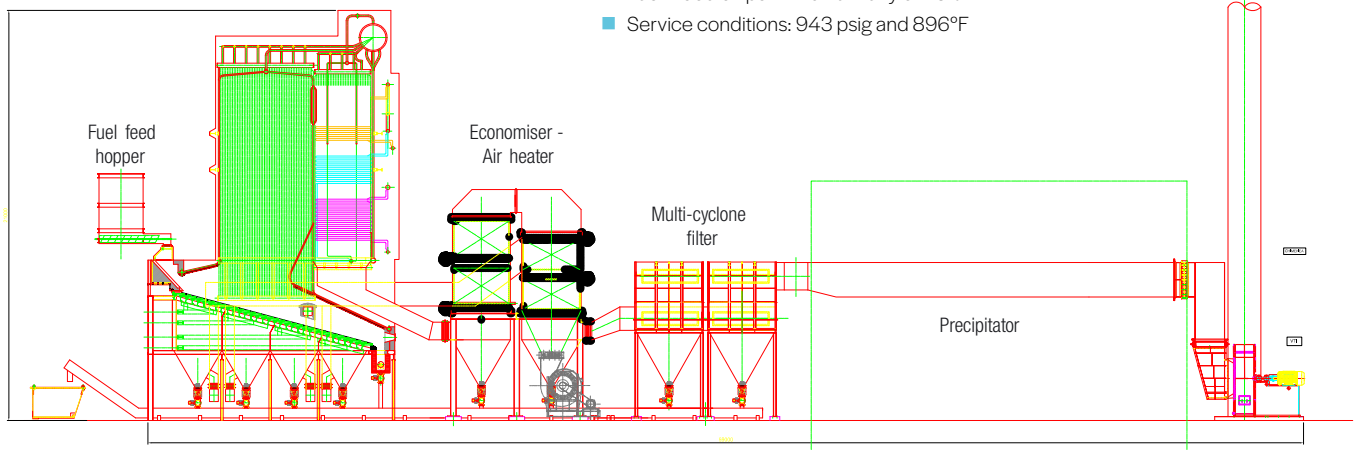
- Fruit pits
- Rice husk
- Saw dust

- Sunflower
- Wood bark
- Wood chips

- Wood logs
- Wood pellets
- Palm Trunks

### Denard steam boiler

- ▼ Power generation: 30 MWe from renewable energy
- Fuel wood chips with a humidity of 45%
- Service conditions: 943 psig and 896°F



### Cogeneration biomass boiler

- ▶ Power generation: 14 MWe from renewable energy
- Fuel: rice husk with a humidity of 12%
- Service conditions: 972 psig - 968°F

### John Cockerill Energy Worldwide:

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