LARGE-SCALE ORC PRESENT AND FUTURE: THE MARKET LEADERS’ VISION

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AGENDA

1. ORC SIZES
2. DIRECT HEAT EXCHANGE
3. WASTE HEAT RECOVERY FOR LARGE INDUSTRIAL USERS
4. HIGH TEMPERATURE ORC SYSTEMS
ORC SIZES: MARKET INSIGHT AND RECENT TURBODEN DEVELOPMENT

ORC sizes are increasing more and more.

Turboden recent projects:

- 8 MW biomass ORC plant in USA, in operation since October 2016
- 10 MW waste heat recovery plant in Italy for a steel industry
- Numerous business proposals for ORC plants with sizes ranging from 10 up to 20 MW
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DIRECT HEAT EXCHANGE

Recently Turboden put into commercial operation its first Direct Exchange ORC plant for biomass application (700 kW unit).

- Commissioning operations provide have provided a positive feedback, now the unit must work properly for months/years to prove its reliability.
- Complexity of the system is greater than expected.
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Large industrial users are more and more interested in ORC technology, with a consequent increasing of ORC sizes (up to 20 MW).

ORC plants are becoming a competitive solution compared to tradition steam solutions, especially in dry environments where water is not available.
HIGH TEMPERATURE ORC SYSTEMS

New ORC solutions with new working fluids, such as the Turboden Steam&Power one, allow to work at temperature up to 400°C and to achieve higher efficiency and new CHP schemes.
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