DÜRR

Dürr is a mechanical and plant engineering group that holds leading positions in the world market in its areas of operation. The Dürr Group operates in the market with five divisions.

The Clean Technology Systems division is focused on processes to improve energy efficiency and exhaust air purification.

In the area of waste air purification, Dürr offers the latest system technology for efficient disposal of exhaust gases and residues.

With technologies such as micro gas turbines, Organic Rankine Cycle (ORC), and high temperature heat pumps, Dürr uses excess process heat, waste heat as well as conventional and alternative fuels to convert, generate or transform energy into electricity. For example, wood-like residual materials can be used with the ORC to produce electricity.

As a system partner, Dürr combines technological know-how with global availability to support their customers worldwide. From planning to implementation and service, Dürr provides complete solutions that impress.

DÜRR

LEADING IN PRODUCTION EFFICIENCY

Dürr Cyplan Ltd.
Clean Technology Systems

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YOUR ADVANTAGES

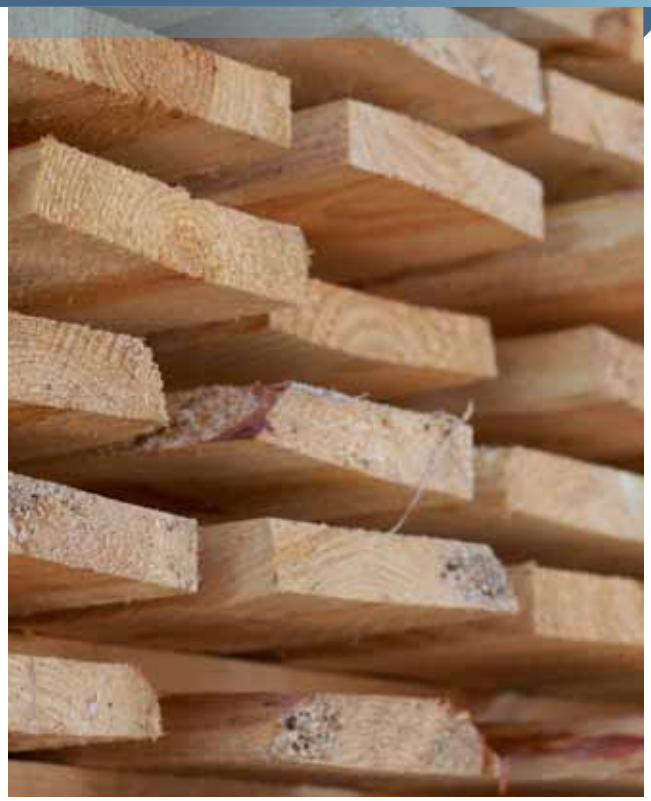
- Energetic utilization of existing residues
- Generation of own electricity and useful heat supply
- Easy system integration
- Fully automatic operation
- Reduction of operational costs
- Minimal maintenance costs
- Excellent partial-load operation
- Outdoor installation possible

DÜRR

LEADING IN PRODUCTION EFFICIENCY

ELECTRICITY & HEAT FROM TIMBER RESIDUES

Eco⊕Energy ORC



» Eco⊕Energy ORC

YOUR POTENTIAL

Better use of resources
Increase your benefits of existing timber resources by using them energetically.

Higher efficiency
Through the installation of ORC plants you generate your own electricity and therefore strengthen your competitiveness.

Flexible solution
The huge variation of fuels and the broad temperature spectrum make ORC an ultraflexible technology with a wide range of possible applications.

Eco⊕Energy ORC TECHNOLOGY

The Organic Rankine Cycle (ORC) is a thermal process that uses heat, for example of a residue furnace, to generate electricity. Hereby, residues containing energy can be utilized to generate heat and power in a combined process. Furthermore, there is the possibility to optimize existing heat concepts and to increase the efficiency of your processes significantly.

With the high-temperature ORC technology you can generate electricity from thermal energy of your residue furnace with an efficiency of up to 21 %. The condensation heat of the ORC process can be supplied at a temperature of up to 90 °C which enables further use. In addition, the air flow, cooled down to 210 °C, can also be used for other purposes e.g. wood drying processes.

WIN THROUGH FLEXIBILITY

Thermal oil loop
An option for transferring thermal energy into the ORC process is the use of a thermal oil loop. Here, the thermal oil is heated and thereafter led into the evaporator of the ORC module. For this technology, Dürr Cyplan offers ORC plants from 300 kW electrical output.

Hot air loop
Dürr ORC technology offers a state-of-the art solution for the construction of energy plants using a hot air loop to connect the ORC module. The advantages of this technology are the simple and cost-effective construction and higher efficiency at the same time. Thus, the usage of residues becomes attractive even in small production companies.