



HOW TO SAVE DIESEL WITH WASTE

Spanner Re² GmbH



DO YOU OPERATE A BASELOAD DIESEL GENERATOR?

Save 176,000 liters of diesel per unit
per year with proven technology
made in Germany!



SAVE MONEY

01.

with Spanner Re² GmbH





TRANSFORM YOUR BUSINESS

■ ABOUT US 02.

We are the leading manufacturer of decentralised biomass and residue gasification systems. Our technology is a sustainable alternative to fossil fuels, makes a significant impact on CO₂ reduction and helps you save money. Use your waste to produce energy instead of expensive diesel!





BIOMASS POWER PLANTS FROM RE²

03.

- efficient
- scalable
- individual

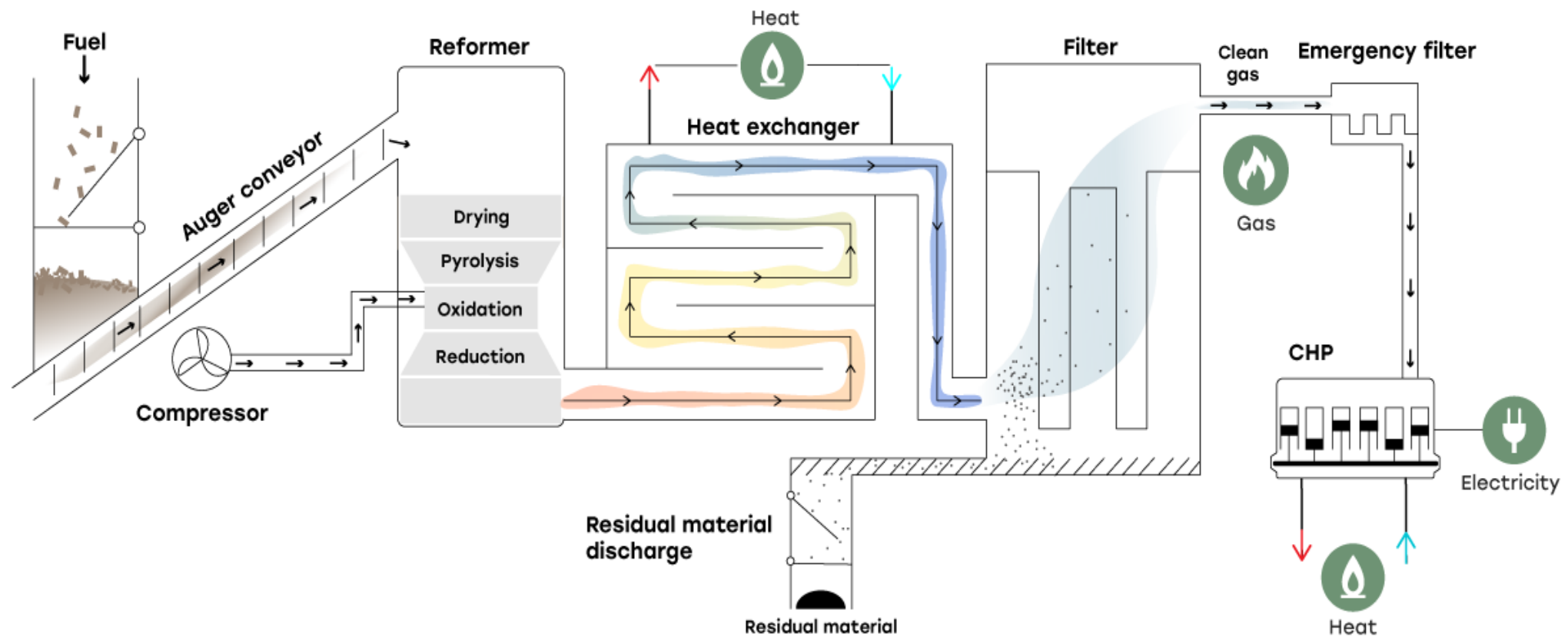
Wood chips





TECHNOLOGY

- Over 1000 times field-proven
- Worldwide in operation





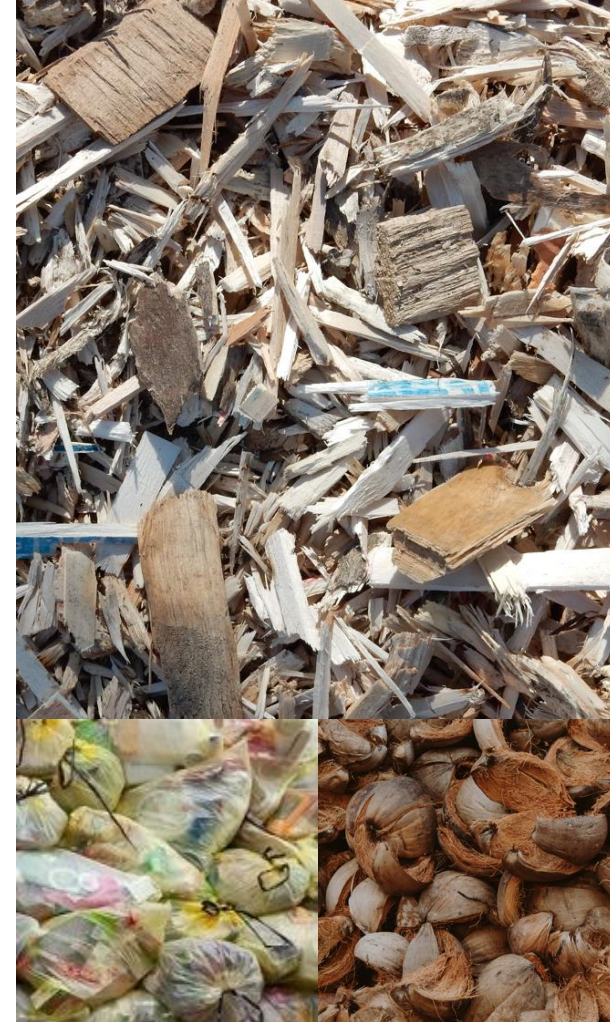
FUEL

WASTE TO ENERGY

We refine residues



Wood chips produced from residual materials such as nut shells, pallets, MDF, etc. Also possible: plastic waste mixed with wood chips up to 50% of energy content.





MODELS

BIOMASS POWER PLANTS

Series production & expandable

HKA 70

68 KW_{el}
144 KW_{th}

HKA 300

285 KW_{el}
567 KW_{th}

HKA 700

700 KW_{el}
833 KW_{th}

- efficient
- scalable
- individual
- part-load capable

* Stand: 02/2024. In the event of deviations, data applies technical data sheet. technical data sheet. We reserve the right to make changes and mistakes..

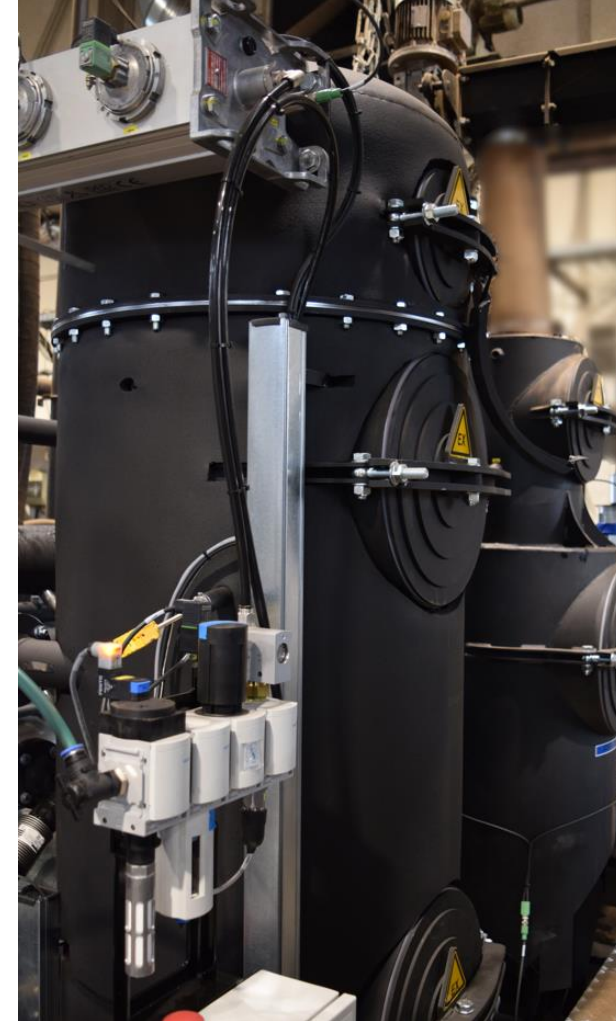


MODELS

WHICH MODEL SUITS YOU BEST?

For 2-5 small units you should have a base load between 250 - 600 kW at least for 4,000 hours per year

For a big unit (HKA 700) you should have a base load of 800 – 1,500 kW





HOW IT WORKS

Solutions that fit your needs

- A small Re² unit can save 22 liters of diesel per hour on our existing diesel generator. A large unit saves 220 liters per hour!
- The gasifier requires 50 kg of material with 10% moisture content per hour - large unit 500 kg
- Total investment for 2 small units with chipper and dryer is around \$339,000
- The investment for a HKA 700 with automatic dryer and chip logistics, chipper and adaptations to the diesel generator is approximately \$ 1,580,000.
- Units can follow power demand between 0-100 %
- Units can be shut down for example at weekend



SAVINGS

04.

PROJECT EXAMPLES

Choose the best savings potential for your requirements

- To save up to 50 % of your diesel consumption with simple steps and keep your full diesel generator advantage (see CASE 1)
- Only a minimal technical adjustment is required (see CASE 2)
- The function of the diesel generator is not restricted when the gasifiers are not running
- The system can be extended as required



SAVINGS

CASE 1

Baseload covering with 2 gasifier units

✓ **Your existing generator**

- + 2 gasifiers (HV 70)
- + dryer
- + chipper
- + accessories

Invest: \$339,000

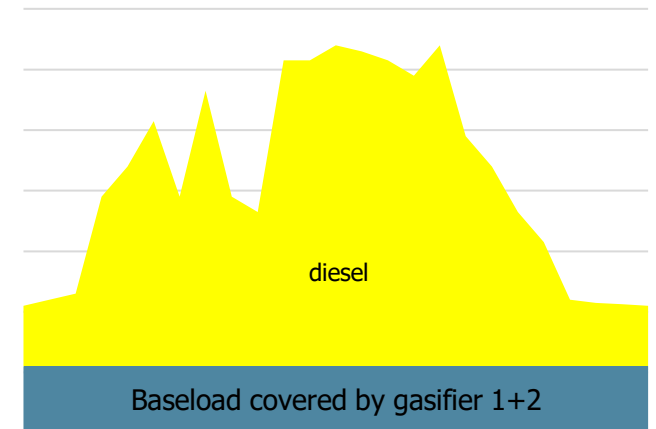
By 8,000 operation hours you save 352,000 liters of diesel per year

- Savings of \$422,400 per year (\$1.2 per liter diesel)
- Minus: Cost for wood chips \$88,000 (\$100 per ton)
- Minus: Cost for Operation & Maintenance \$12,000

Total savings: \$322,400 per year

- **save up to 50 %
of your diesel
consumption**

Energy load profile



One gasifier unit saves 22 liters
of diesel per hour



SAVINGS

CASE 2

5 gasifiers and minimal motor adjustment

✓ **Your existing generator**

- + 5 gasifiers (HV 70)
- + dryer
- + chipper
- + accessories

Invest: \$789,500

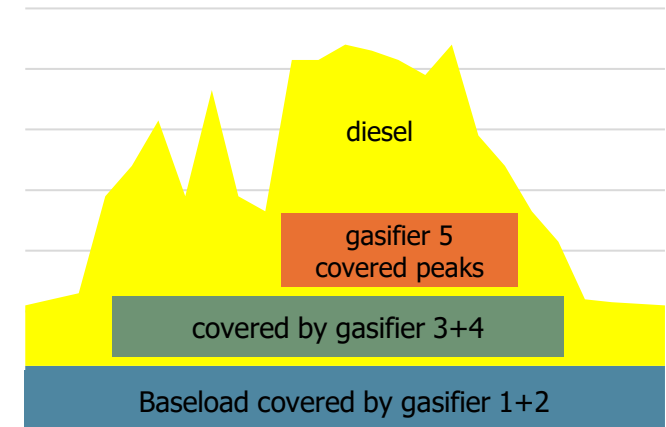
By 8,000 operation hours you save 624,000 liters of diesel per year

- Savings of \$748,800 per year (\$1.2 per liter diesel)
- Minus: Costs for wood chips \$142,000 (\$100 per ton)
- Minus: Costs for Operation & Maintenance \$24,000

Total savings: \$582,800 per year

- **save up to 90 %
of your diesel
consumption**

Energy load profile



- Energy demand is covered by gasifiers
- Reduces diesel consumption
- Saves money



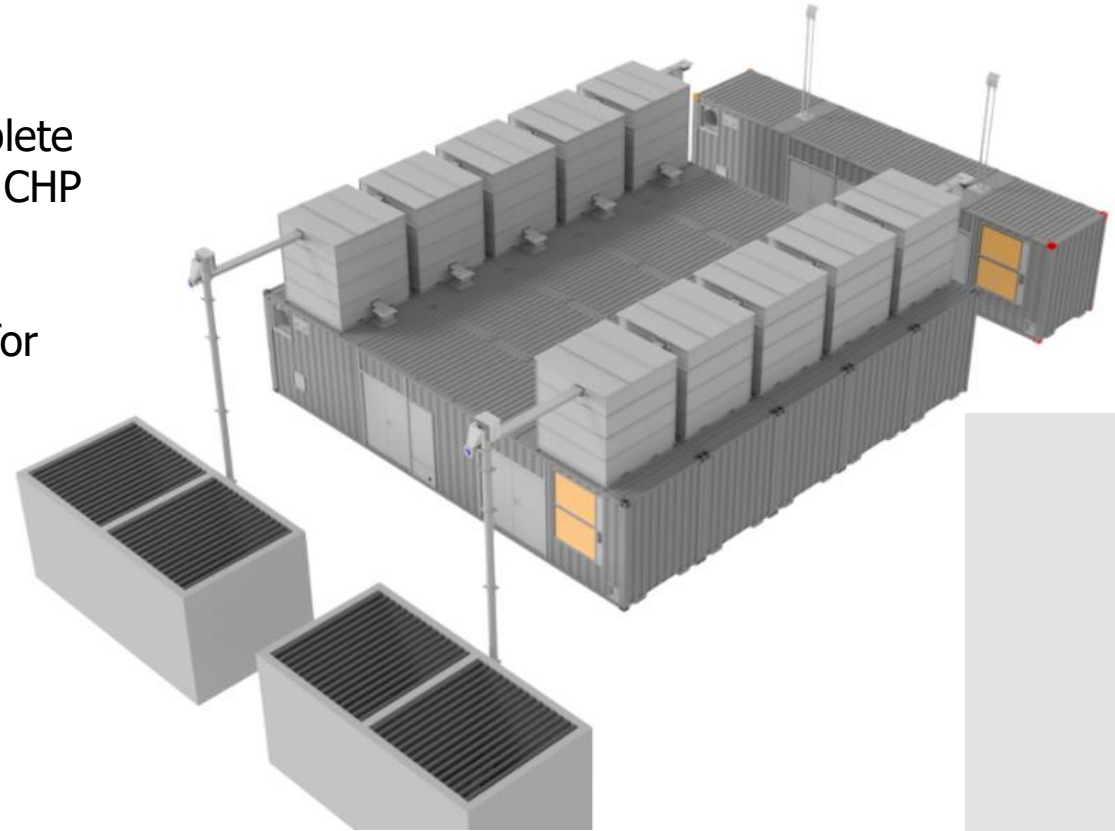
SAVINGS

CASE 3

Replace diesel generator with biomass power plant and generate electricity & heat from waste

- With the HKA 700 we deliver you a complete energy solution: including dryer, gasifier, CHP unit, conveyer and control
- High-performance biomass power plant for generating electricity & heat from waste materials
- Scalable

- 100 % energy generated from waste materials





BENEFITS

04.

- Quick amortisation
- German technology and support
- High CO₂ savings
- Proven technology: more than 1,000 machines in the field
- Local added value
- Own wasted can be utilised
- We are supporting the project with experts in the field of hybrid fuel engines





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Contact

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