Wood gas power plant without compromise

The fuel makes the difference

SYNCRAFT

www.syncraft.at

The company

SYNCRAFT®
Das Holzkraftwerk.

Wood gas power plant

Process engineering

Automation

- Supplier of turn-key wood power plants
- Consultants for process engineering
- Company for automation and mechatronics
- Head quarter in Austria / Tyrol (Schwaz and Aschau)
- Foundation 2009

The product

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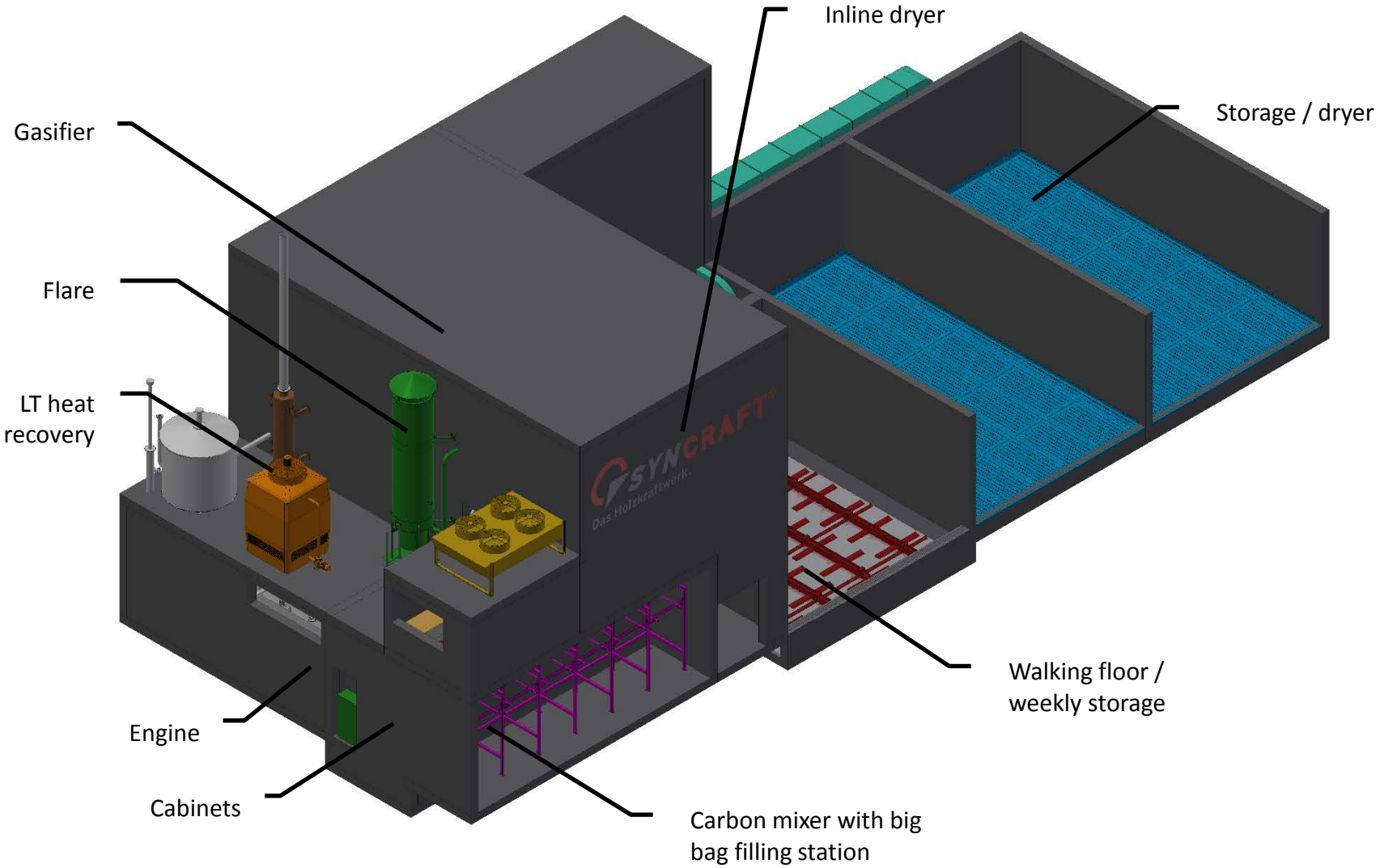
Wood power plants in the power range up to 400kW*

	CW 700-200	CW 1000-300	CW 1200-400
Electrical power	200 kW	300 kW	400 kW
Thermal power (basic variant)	326 kW	488 kW	615 kW
Thermal power up to	481 kW	719 kW	920 kW
Fuel heat capacity	721 kW	1.067 kW	1.368 kW
Fuel demand	140 kg/h	208 kg/h	267 kg/h
Specific fuel demand	0.70 kg/kWh_{el}	0.69 kg/kWh_{el}	0.67 kg/kWh_{el}
Charcoal by-product	1.95 m^3/d	2.9 m^3/d	3.7 m^3/d

* In combination of multiple plants in parallel higher power levels are achievable

The wood power plant



The wood power plant

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The process

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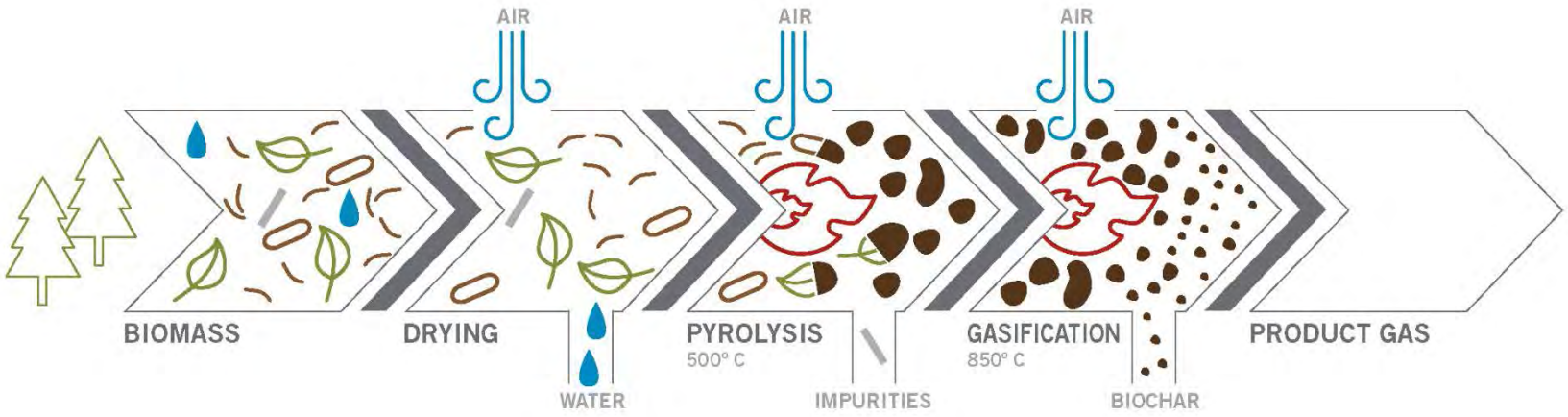
Process flow scheme



Multi-staged conversion process of wet, solid biomass into a clean producer gas.

The technology

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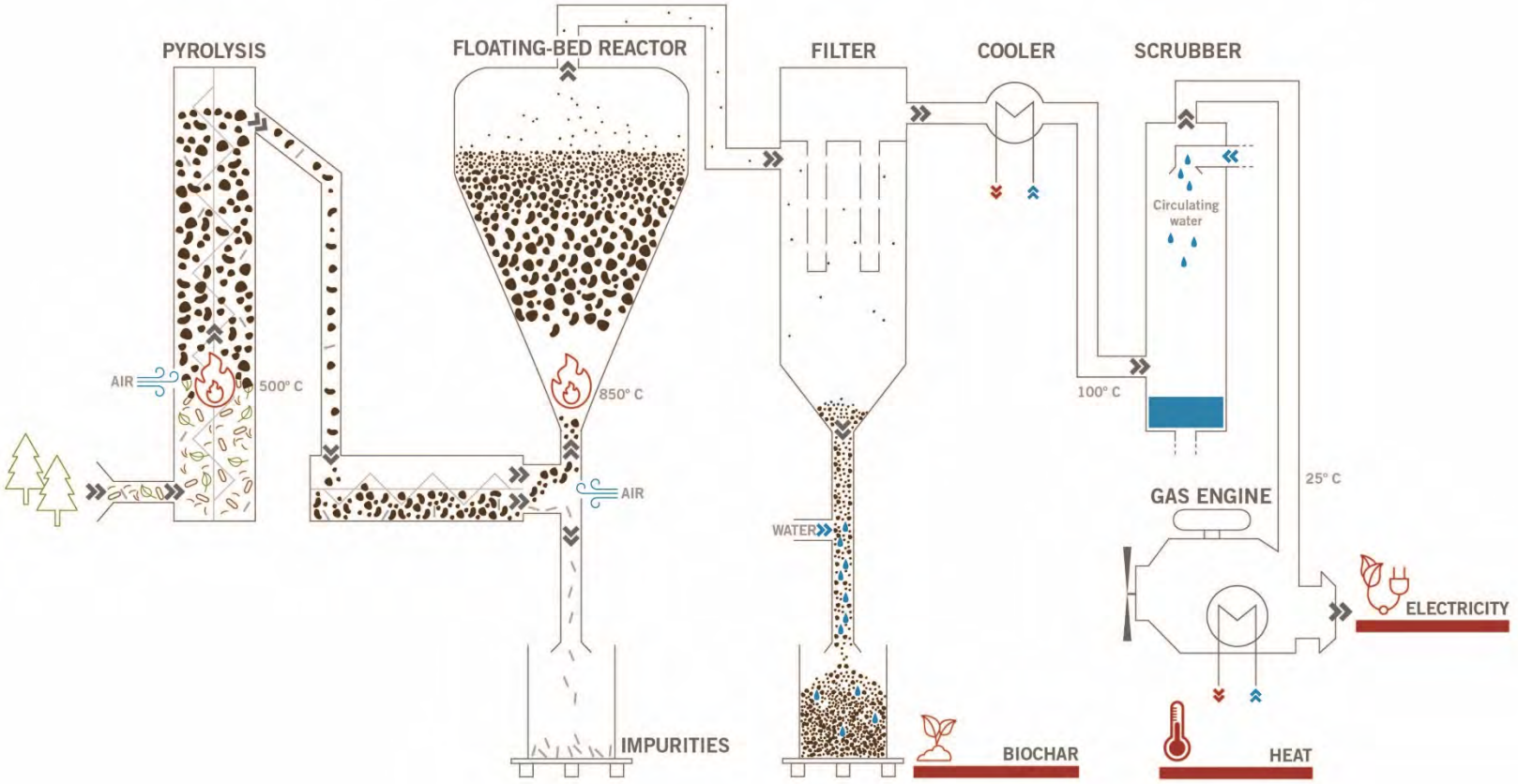
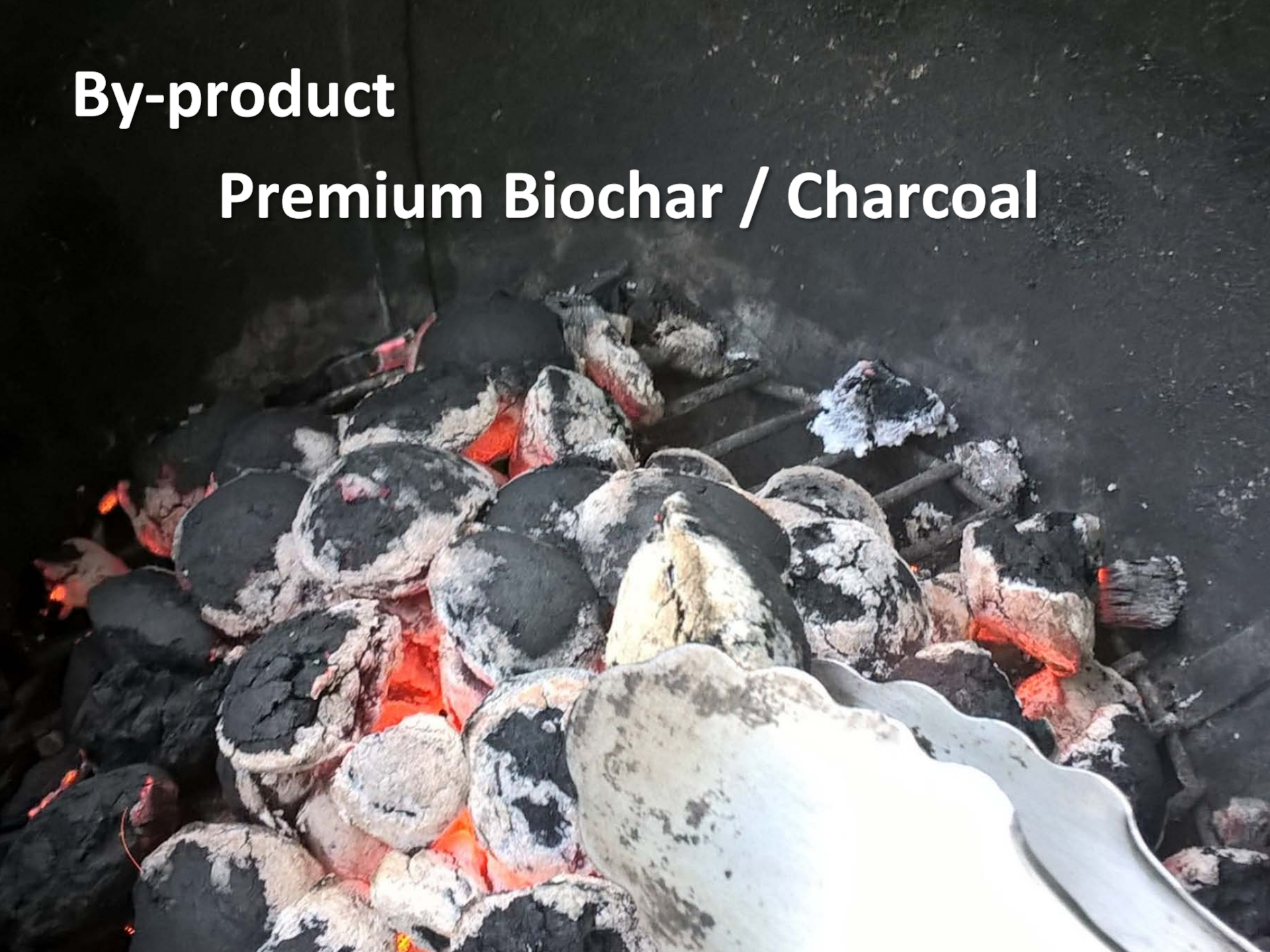


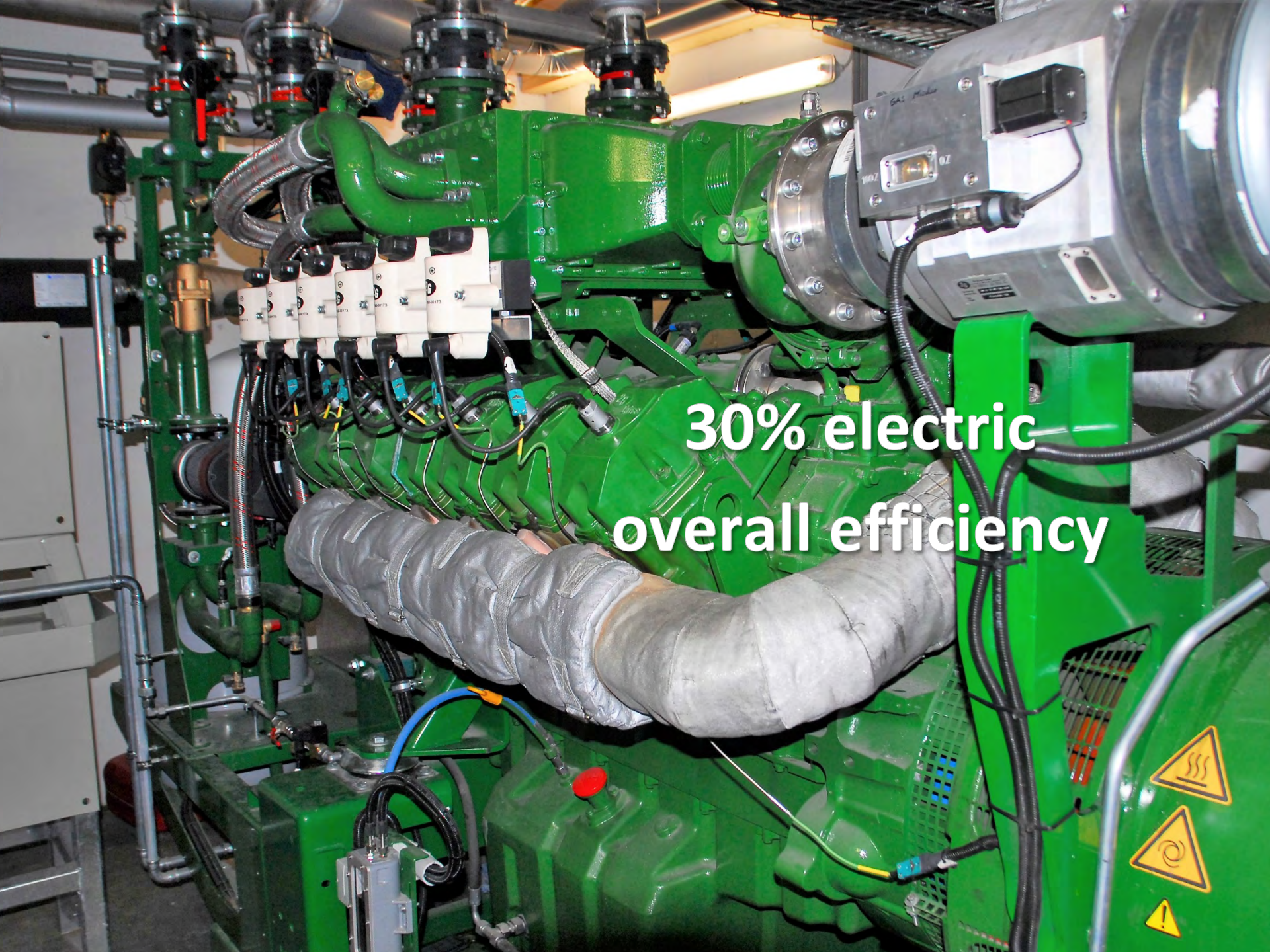

The fuel including
fines and bark

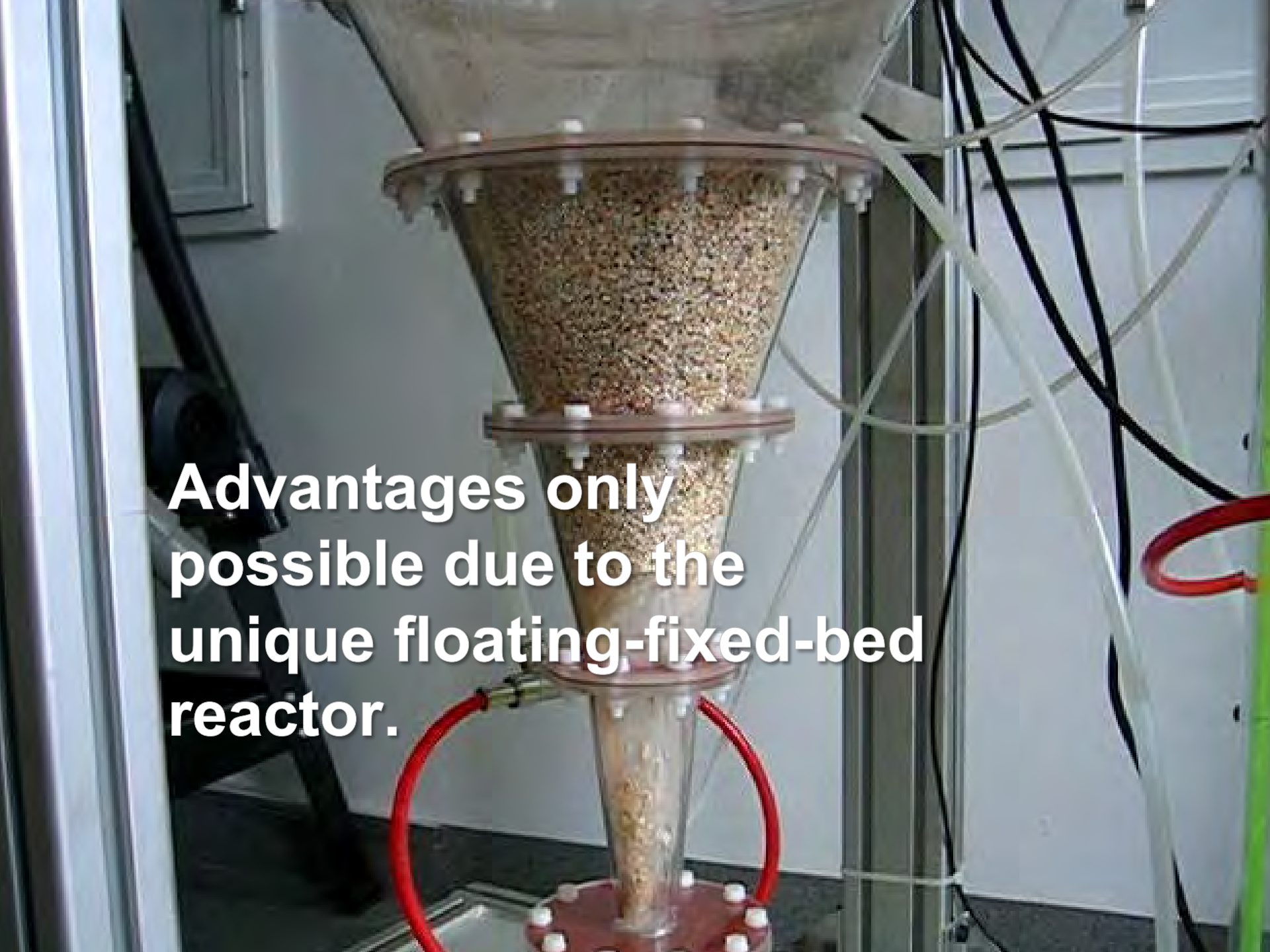

Kondensat
Wasser
Clear condensate
without any treatment

By-product

Premium Biochar / Charcoal




30% electric
overall efficiency


Advantages only
possible due to the
unique floating-fixed-bed
reactor.

The fuel makes the difference

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50% of operational costs are related to the fuel.

Wood chips

0* – 110 EUR / ton

185.000 EUR annual fuel costs**

High Quality wood chips

110 – 175 EUR / ton

303.000 EUR annual fuel costs**

Wood pellets

180 – 250 EUR / ton

421.000 EUR annual fuel costs**

* Utilization of demolition wood chips possible
** Based on a 1 MW fuel power plant

The fuel makes the difference

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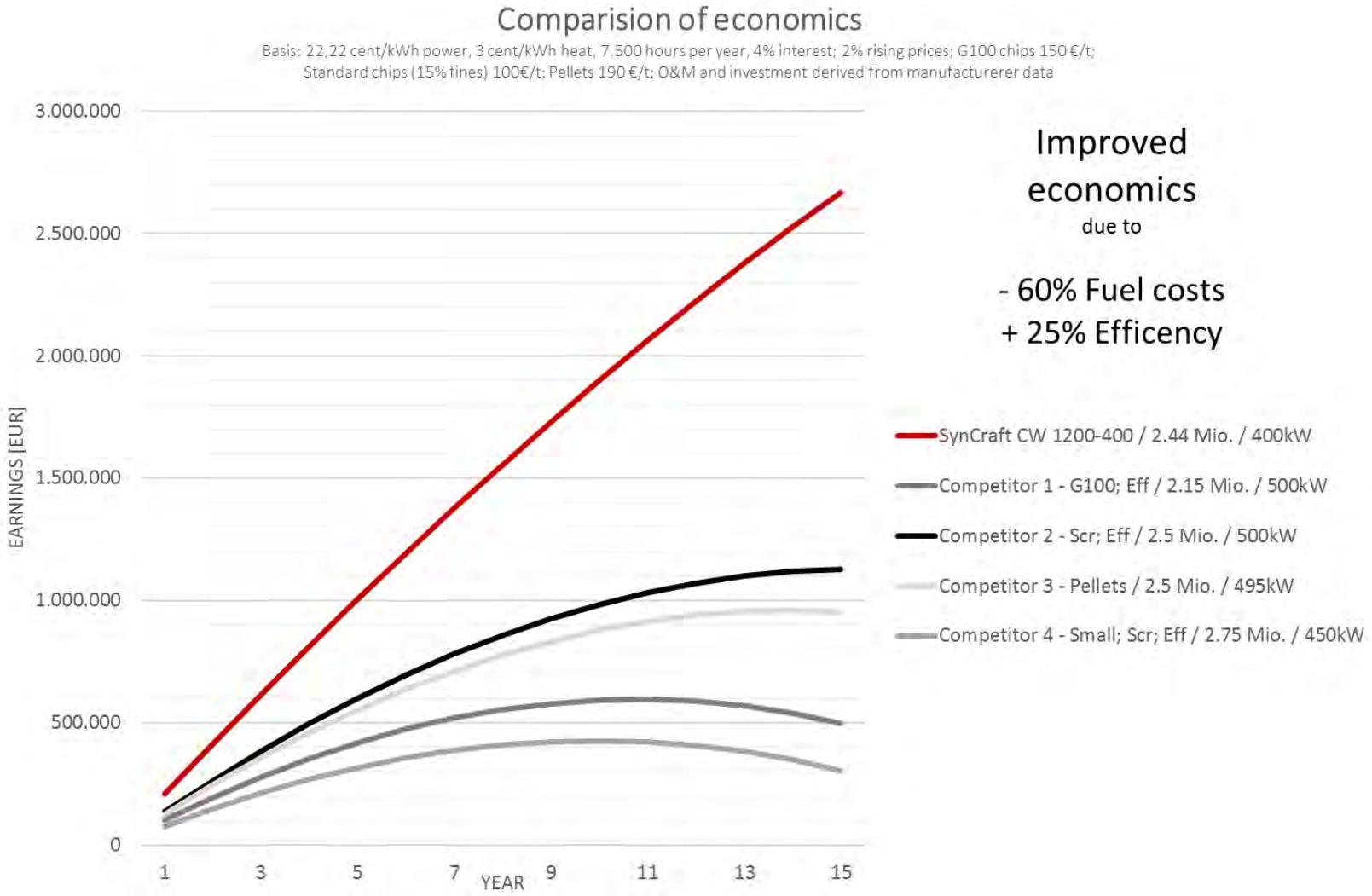

The References (selected)

***SYN*CRAFT®Werk CW 1000-300 / Innsbruck / AT**
Commissioned early **2017**; produces **261kW** power and **601kW** heat. Delivered including low-temperature heat utilisation and dryer.

SYNCRAFT®Werk CW 1200-400 / Stadl / AT
Commissioned end **2016**; produces **324kW** power and **784KW** heat. Delivered including low-temperature heat utilisation and dryer.

SYNCRAFT®Werk CW 700-200 / Dornbirn / AT
Commissioned end **2014**; produces **220kW** power and **500kW** heat. Delivered with 185kW power. Low-temperature heat utilisation retrofitted 2016.

***SYN*CRAFT®Werk CW 1000-300 / Vierschach / IT**
Commissioned mid **2014**; produces **300kW** power and **488kW** heat. Gas engine, dryer and feeding system supplied by customer.

Many thanks. Questions?

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