

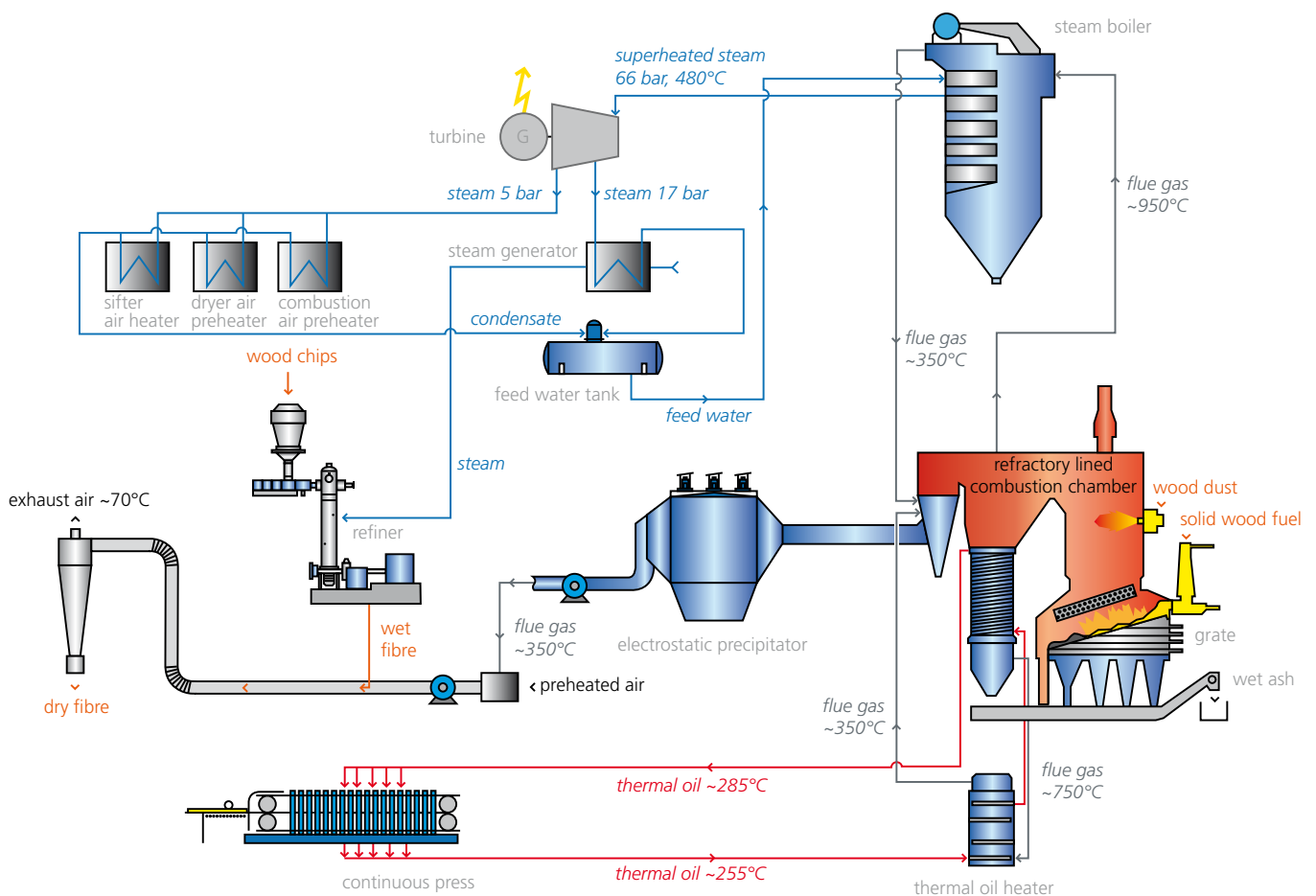
Energy systems

Efficient and Reliable

Dieffenbacher key features:

- Complete plant from one source → less interfaces
- Long flue gas retention time and NO_x reducing systems → clean exhaust
- Exhaust air as combustion air → heat savings

Example: Co-generation plant integrated in a MDF-plant





All type of consumers

MDF, OSB-, and PB production requires large amounts of process heat. All plants need to dry the material before pressing and the most common and economical way to dry is by using flue gas from combustion rather than with heat exchangers. The press needs high temperature in order to cure the resin, and normally thermal oil is used as heat carrier due to the low pressure required. Saturated steam

is required in the case of MDF for the refining process. Each heat type needs to be accurately controlled in order to avoid energy losses and to ensure stable panel production.

Combustion chamber design

Some important design criteria are large combustion and retention chamber to minimize build-up and to enable complete burnout with low CO emissions. Efficient

use of SNCR systems to reduce NO_x is possible due to the unique design.

Dust burning

Excellent emission data due to the burner design. The dust self-ignites when entering the combustion chamber due to the support heat from the grate. Each burner has its own metering screw, high pressure transport blower and combustion air supply.

Dieffenbacher main References for Energy plants:

Company	Country	Combustion Total	Combustion Grate		Energy generation Flue gas	Energy generation Thermal Oil	Energy generation Steam	Power generation	Start up
		[MW]	[MW]	[m ²]	[MW]	[MW]	[MW]	[MW _e]	
Kastamonu	Turkey	75	45	62	40	35	23		2011
Mostovdrev	Belarus	56	41	62	21	35	14		2012
Nelson Pine	New Zealand					10			2011
Sumitomo Veco	Vietnam	30	21	30	25	4			2011
Swedspan	Poland	60	49	62	16	5	36	5,3	2011
Undisclosed		44	30	42	26	16	11		2012
Rauch	Germany	22	22	35	22				2009
Pfleiderer	Russia	103	50	73	45	27	31		2012

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