



Drying new value

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Drying new value

- SFTec Oy is a industrial solution provider that specializes in material drying system design and supply
- Founded in 2013, based in Oulu, Finland
- With our solutions we enable new circular economy based business that
 - Creates new value from underutilized resources
 - Develops new materials and products with sustainable raw materials and processes

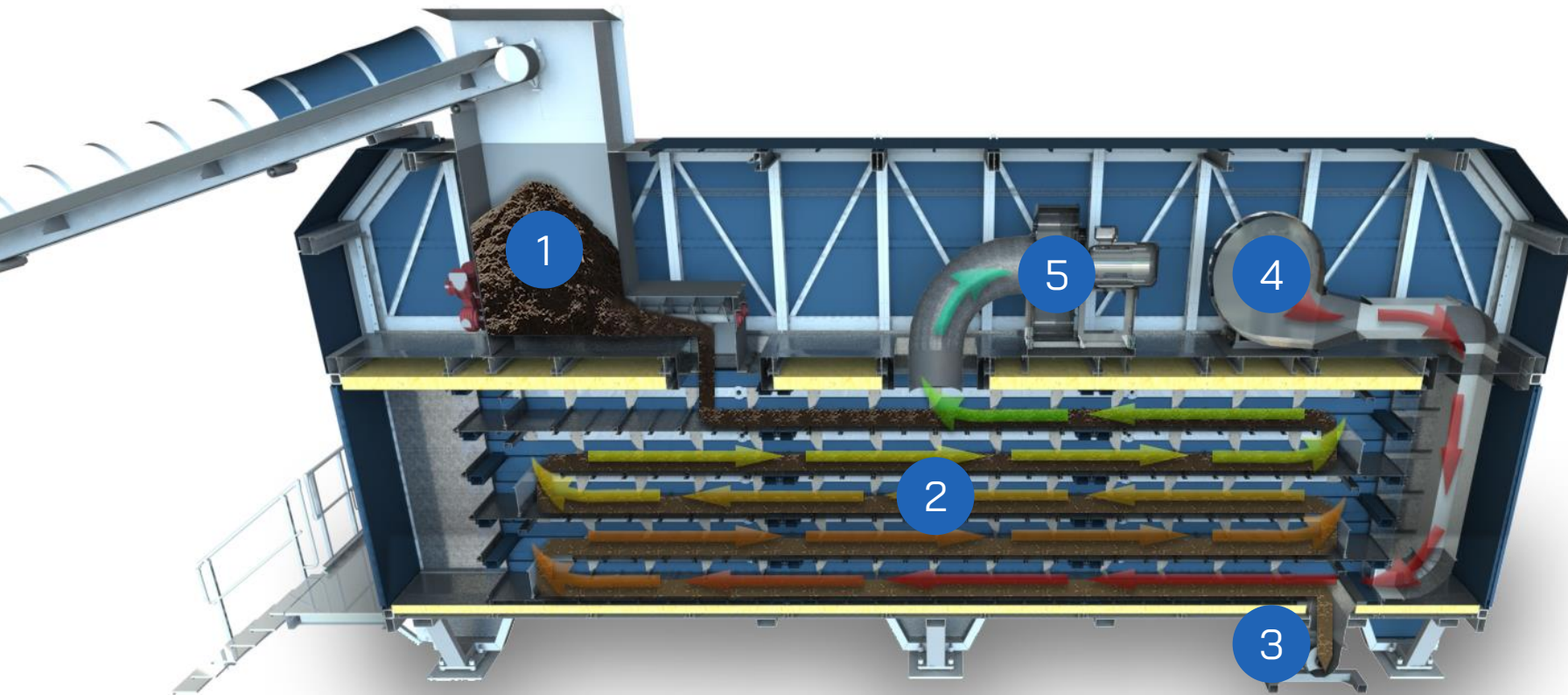


ModHeat® dryer

- Scalable and modular structure
- Usable for many materials
- Advanced automation and control
 - DCS integration
 - Automatic quality ensurance
- Waste heat utilization
 - Can use varying heat sources
 - Minimizing operating costs
- Small footprint – high capacity
 - Flexible placement near heat or material sources
 - Industrial capacity with reasonable investment costs



ModHeat® operating principle



- 1 Material feeder
- 2 Five drying levels
- 3 Material discharge
- 4 Air inlet
- 5 Air outlet

ModHeat® 12

Length: 11,8 m | Width: 2,2 m | Height: 5,0 m
Drying area: 70 m²

HEAT POWER
300 – 1200 kW

ELECTRICAL POWER
22 – 45 kW

DRYING TEMPERATURE
40 – 160 °C

EVAPORATION POWER
300 – 1200 kg/h

ModHeat® 06

Length: 6,2 m | Width: 1,5 m | Height: 3,3 m
Drying area: 15 m²

HEAT POWER
20 – 200 kW

ELECTRICAL POWER
12 – 24 kW

DRYING TEMPERATURE
40 – 160 °C

EVAPORATION POWER
20 – 200 kg/h



Scalability and integration

- Multiple drying unit can be integrated in to one system
 - Increasing capacity
 - Handling multiple material streams
- The system can be integrated into customers' existing energy production and material handling processes as well as automation systems



Material sectors

ModHeat® has been optimized for three material sectors that cover the needs of multiple industries.



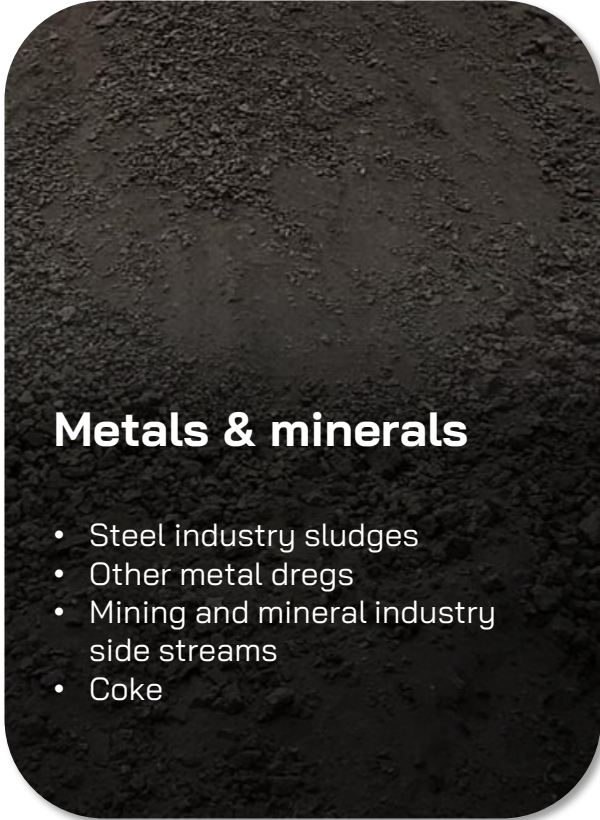
Biomaterials

- P&P industry sludges
- Waste water sludges
- Biogas residue
- Fertilizers
- Pulp



Wood biomass

- Wood chips
- Sawdust
- Shavings
- Bark
- Construction wood waste

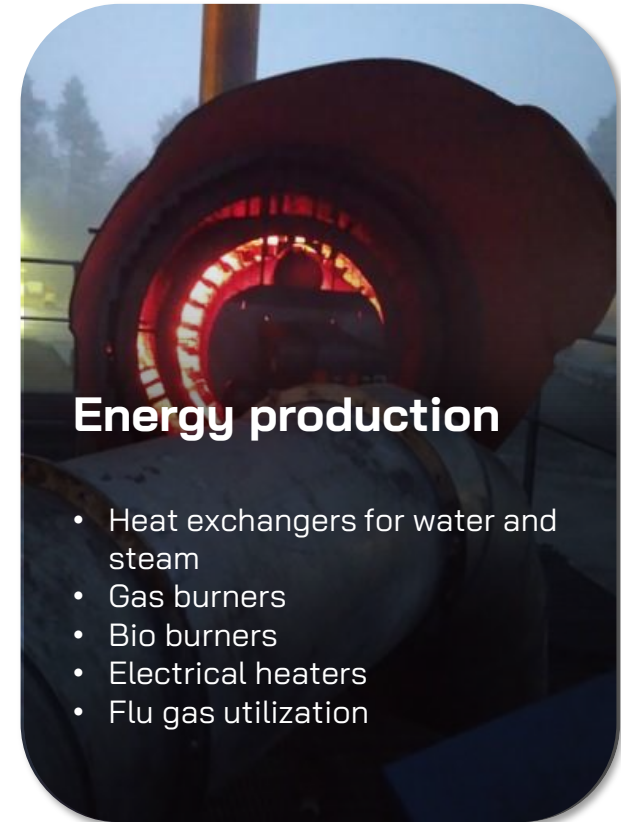
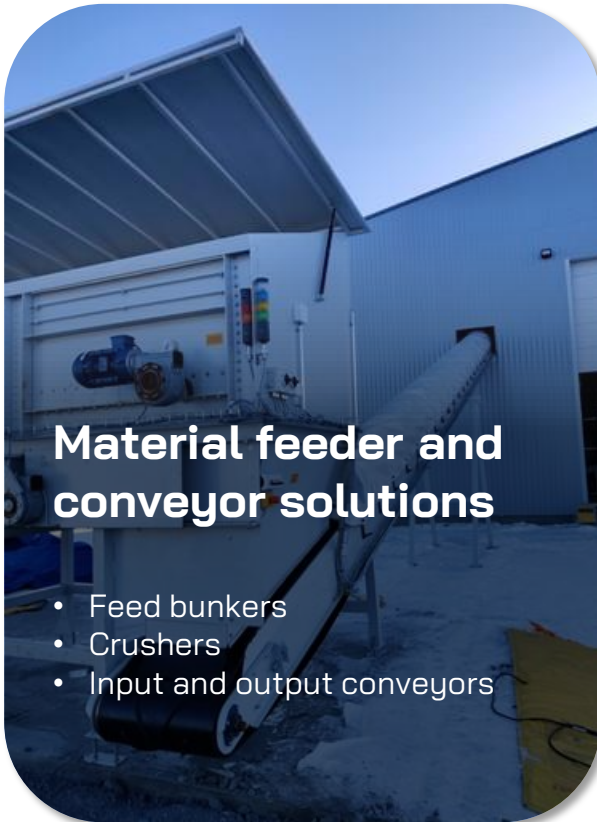


Metals & minerals

- Steel industry sludges
- Other metal dregs
- Mining and mineral industry side streams
- Coke

Full system design

ModHeat® drying system includes comprehensive end-to-end material and air handling systems designed around the core drying equipment.



Woodchips, density: 400 kg/m³, moisture content: 50 %

Model	Moisture %	Target moisture %	Thermal power kW	Temperature °C	Air flow m³/h	Evaporation kg/h	Capacity m³/h	Capacity kg/h
MH06	50 %	40 %	50	50	4000	50	0,75	300
MH06	50 %	25 %	200	100	8000	200	1,5	600
MH12	50 %	40 %	300	60	20000	300	4,5	1800
MH12	50 %	25 %	700	120	25000	700	5,25	2100



Biosludge, density: 700 kg/m³, moisture content: 75 %

Model	Moisture %	Target moisture %	Thermal power kW	Temperature °C	Air flow m³/h	Evaporation kg/h	Capacity m³/h	Capacity kg/h
MH06	75 %	50 %	50	50	4000	50	0,14	100
MH06	75 %	25 %	200	100	8000	200	0,43	300
MH12	75 %	50 %	1000	190	25000	1000	2,86	2000
MH12	75 %	25 %	1000	190	25000	1000	2,14	1500



Metallurcigal sludge, density: 2500 kg/m³, moisture content: 30 %

Model	Moisture %	Target moisture %	Thermal power kW	Temperature °C	Air flow m³/h	Evaporation kg/h	Capacity m³/h	Capacity kg/h
MH06	30 %	10 %	50	50	4000	50	0,09	220
MH06	30 %	10 %	200	100	8000	200	0,35	880
MH12	30 %	10 %	500	100	20000	500	0,88	2200
MH12	30 %	10 %	1000	190	25000	1000	1,32	4400





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