TECHNICAL DATASHEET

www.adsorb.co.za

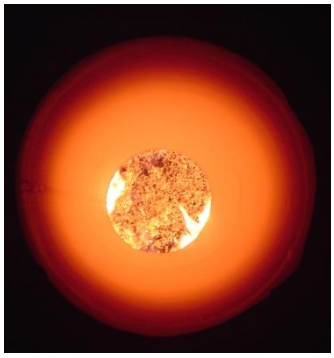
Adsorb APF100

Adsorb Pyrolysis Furnace 100 kg/hr

The APF100 is a pyrolysis-combustion hybrid that employs pyrolysis to generate a low-ash fuel-gas whilst in-situ combustion of this fuel-gas is used to both energise the endothermic pyrolysis reactions and deliver the required "clean" thermal energy. The majority of the ash entering in the feed is locked into the matrix of the high quality char produced.

Features & Benefits

- CleanTech as complies with stringent air emission regulations
- GreenTech as fired with renewable source
- Produces a clean flue ideally suited for energy recovery
- Produces a quality char ideally suited for biochar
- Lower sensitivity to moisture
- Lower sensitivity to feed particle size



Adsorb APF100 is a pyrolysis-combustion hybrid designed to process primarily biomass residues

Typical Applications

- Biomass residues
- Sawmill residues
- Nut shell residues
- Fruit residues
- Waste cardboard & paper
- Industrial wood waste
- Sewage sludge (under development)

Specification

Model	APF100
Char Capacity	100 kg/hr
Maximum Temperature	1200 ^{o}C
Skin material	3Cr12
Lining material	Refractory
Basic dimensions	1700w x 2700L x 4900h
Mass	23MT

Typical Performance*

Biomass processing rate	600 kg/hr
Biomass Energy Value	15 MJ/kg
Biomass Energy Input	2.5 MW_t
Flue Temperature	1000^{o}C
Flue Thermal Energy	1.7 MW_t
Flue particulate emission	< 50 mg/Nm^3
Flue NOx emission	< 760 mg/Nm^3
Flue SOx emission	< 560 mg/Nm^3
Flue PAH emission	< 0.1 mg/Nm^3
Char rate	100 kg/hr
Char Energy Value	30 MJ/kg
Char Thermal Energy Equivalent	0.8 MW_t

Other Furnace Sizes Available

- APF200 (200 kg/hr)
- APF300 (300 kg/hr)
- APF400 (400 kg/hr)

* Typical performance is theoretical and based on a generic woody biomass. It is listed for informational purposes only and not to be used as purchase specifications. Sales specifications can be obtained from your Adsorb Technical Sales Representative