

Large-Scale Semi-Continuous Batch Pyrolyser

Datasheet: SCB-S

1,750 to 2,500 Tons Biochar p.a.

up to 6,000 Carbon Credits p.a.

Reliable Low-Emission Biochar Production Systems designed and built for the Global South.

The PyroCCS SCB-S is a large-scale, closed loop, low-emission, semi-continuous batch pyrolyser with syngas recovery and recycling. Operations with 4 burning chambers allow continuous 24/7 operations.

Optional integrated syngas reforming module allow for extraction of highest quality biooil valued at 600 USD+/m³ (also in the Global South).

The SCB-S is for sites with massive scaling potential and its modular approach can easily serve biomass processing requirements of 50,000 tons/p.a. and more.

The system has been designed for projects in the Global South considering the requirement to produce highest quality biochar

The pyrolysis system is supplied in a bundle with PyroCCS Sarva Carbon dMRV system and Carbon Credit Certifications adhering to the specifications and requirements of the largest carbon standards.

DEFINITION	SPECIFICATION (HIGH DEPENDENCY ON BIOMASS TYPE)
SUITABLE BIOMASSES	Economically feasible pyrolysis is possible with high-density coarse biomasses like logs, branches, bamboo, briquettes, invasive and encroaching species. Spectrum of other biomasses workable (talk to us!).
BIOMASS CAPACITY PER REACTOR	Reactor Capacity @ 6.5m ³ , at exemplary Biomass Bulk Density of 330kg/m ³ = approx. 2,145 kg/reactor
TOTAL PLANT UPTIME	350 days/year, 24/7 (4 shifts)
TOTAL BATCHES	2 to 3 batches per day per reactor (8 to 12 hours per batch per reactor depending on biomass)
TOTAL BIOMASS PROCESSING CAPACITY	350 days, 24 hours/day operational, 2.5 batches/day, 4 chambers, 2,145 kg biomass/reactor example = ~7,500 tons feedstock input/year.
BIOCHAR YIELD	~ 32 - 38%, above example produces 2,500 tons biochar/year, higher biomass bulk density produces more biochar
PYROLYSIS TEMP.	600°C (fueled by recovered syngas & cofiring)
MOISTURE REQ.	10 to 15%, more biomass moisture requires more cofiring
STARTUP/COFIRING REQUIREMENTS	Same as feedstock, 15-30% of biomass input (additional to feedstock) depending on biomass
ELECTRICITY	8kW continuous, 10kW peak - decentralised "offgrid" operations with solar possible
BIOCHAR SPECS	~82% C(org), H/C(org): ~0.2 (WBC Premium) - exemplary
BIOOIL	Optional module for highest quality integrated syngas reforming and biooil extraction available from PyroCCS
LIFESPAN	10 years +
MANPOWER	1 shift leader & 3 workers per shift (+ 1 plant manager)
CARBON STANDARD COMPATIBILITY	Carbon Standards International Global Biochar C-Sink, Puro Earth, Isometric (with Sarva Carbon dMRV)

Supply Terms

Lead Time: 12 to 14 weeks after receipt of payment

INCOTERMS: EXW Pune, India or Johannesburg, South Africa

Warranty: 12 months

Get in Touch

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