



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

The PyroCCS SCB-K is a mid-scale, closed loop, low-emission, semi-continuous batch pyrolyser with syngas recovery and recycling.

Cascading operations with 4 burning chambers and 20 reactor pots allow continuous 24/7 operations.

Integrated bio-oil extraction allows for additional revenue streams and enable solid returns apart from carbon.

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

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.



Get in Touch

 info@pyroccs.com

Mid-Scale Semi-Continuous Batch Pyrolyser

Datasheet: SCB-K

750 to 1,100 Tons Biochar p.a.

up to 2,500 Carbon Credits p.a.

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 @ 2.4m ³ , at exemplary Biomass Bulk Density of 300kg/m ³ = approx. 720 kg/reactor
TOTAL PLANT UPTIME	350 days/year, 24/7 (4 shifts)
TOTAL BATCHES	3 to 4 batches per day per reactor (6 to 8 hours per batch per reactor depending on biomass)
TOTAL BIOMASS PROCESSING CAPACITY	350 days, 24 hours/day operational, 3 batches/day, 4 chambers, 720kg biomass/reactor example = ~3,000 tons feedstock input/year.
BIOCHAR YIELD	~ 32 - 38%, above example produces 1,050 tons biochar/year, higher biomass bulk density produces more biochar
PYROLYSIS TEMP.	550°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	6kW continuous, 8kW peak - decentralised "offgrid" operations with solar possible
BIOCHAR SPECS	~78% C(org), H/C(org): ~0.2 (WBC Premium) - exemplary
BIOOIL	15% to 30% extraction of coarse wood tar/wood vinegars
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: 10 to 12 weeks after receipt of payment

INCOTERMS: EXW Pune, India or Johannesburg, South Africa

Warranty: 12 months