

BIOCHAR & BIOMASS CONVERSION PLANTS

Turning Biomass Waste into High-Value Carbon and Energy Solutions

Grow Tech is a premier, Faridabad-based engineering company specializing in the design, manufacture, and commissioning of industrial biomass thermal conversion systems. We deliver complete, turnkey Engineering, Procurement, and Construction (EPC) solutions to help businesses extract significant economic and ecological value from agricultural and organic waste streams.

THE SOLUTION: BIOMASS VALORISATION

Our Biochar & Biomass Plants utilize controlled thermal processing to convert loose, low-density biomass into highly dense, market-ready chemical and energy products, solving regional waste burning and disposal challenges.

Eligible Feedstocks

- **Agricultural Residues:** Crop straws, husks, stalks, and regional farming by-products.
- **Wood Waste:** Sawdust, wood chips, bark, and forestry processing off-cuts.
- **Biomass Feedstocks:** Diverted organic solid streams and clean industrial wood waste.

High-Value Outputs

- **Biochar:** A stable, carbon-rich soil amendment engineered for regenerative agriculture and structural water retention.
- **Syngas:** A clean combustible gas recovered and recirculated into the system to minimize external utility costs.
- **Bio-Vinegar:** A valuable liquid co-product condensation option extracted for organic farming and pest management.

SUSTAINABLE & ECONOMIC IMPACT

***Circular Economy Excellence:** Combustible syngas recovered from the biomass pyrolysis process is dynamically routed back into the plant's own combustion chamber as a continuous process heat source. This self-sustaining energy loop dramatically lowers fuel overheads and maximizes operational profitability.*

- **Carbon Sequestration & Credits:** Our biochar technology effectively locks atmospheric carbon into stable soil deposits for centuries, fully qualifying projects for lucrative global carbon credit certification.
- **Regenerative Agriculture:** The finished biochar acts as a high-grade porous soil amendment, enhancing moisture retention, increasing microbial activity, and reducing fertilizer leaching.
- **Waste Valorisation:** Converts costly agricultural residue disposal problems and environmental field-burning practices into continuous industrial revenue streams.

WHY PARTNER WITH GROW TECH?

- **Turnkey EPC Accountability:** We handle the full project cycle under a single contract—spanning mass balance calculations, customized P&ID designs, manufacturing, site installation, and final safety commissioning.
- **In-House Fabrication Control:** Our dedicated manufacturing facility at Pali, Faridabad handles precision engineering for reactors, pressure vessels, and structural heat exchangers, ensuring rigid quality inspection and faster delivery.
- **Certified Quality & Support:** Operating under an ISO 9001:2015 quality management system, every installation is backed by a 12-month comprehensive warranty, robust spare parts pipelines, and dedicated on-site or remote engineering support.

OUR END-TO-END DELIVERY PROCESS

Phase 01	Feasibility & Scope	Analyzing raw feedstock moisture levels, sizing constraints, and evaluating layout requirements.
Phase 02	Detailed Engineering	Drafting rigorous equipment layouts, specialized thermal mass balances, and customized system P&IDs.
Phase 03	Fabrication	In-house manufacturing of the biochar reactor cores, condensers, and piping systems at our Faridabad plant.
Installation		

Phase 04

Precision structural steel alignment, equipment positioning, and robust mechanical interconnection on-site.

Phase 05

Commissioning

Rigorous system pressure testing, thermal insulation evaluation, and validation of automated syngas recovery loops.

Phase 06

Training & Handover

Providing detailed operating manuals, comprehensive safety drill instructions, and full technical team handovers.

REGISTERED OFFICE

Grow Tech
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MANUFACTURING FACILITY

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Capabilities: Pressure vessels, reactors, heat exchangers, structural steel & process piping.