

High Calorific Cashew Pyrolyser (H2CP)

Designed to make energy from waste



Features:

- Same staff than a conventional system working with boiler fed with shells
- Decrease of 1/3 of cashew shell waste in an eco-friendly process
- Increased efficiency, using the same boiler: SMEs can install thermal shock chambers, without additional operating costs
- H2CP yields 10 to 15% charcoal, which can be consumed locally or

Technology and process:

- Local know-how, materials and maintenance: more than 6 factories installed H2CP in Burkina Faso
- Compatible with vertical and horizontal boilers, up to 1 Mt steam/h
- The system can work off-grid, no need of electricity
- Not only cashew factories: H2CP can be used in any other factory

Return on Investment (ROI) in the case of substituting firewood to feed boiler is only 5 months!

Cashew shell becomes a nuisance-free fuel, available to everybody

Charcoal retort

Carbonization of cashew shells

Features:

- Shells are pyrolysed, and carbonized shells are obtained
- The resulting charcoal is smokeless and lights up quickly
- Charcoal yield : 20% - yield from traditional wood charcoal kilns is <10%
- Competitive price with wood charcoal, depending on the local charcoal price
- Low investment costs and EBITDA of 30%, ROI 3 years

Technology and process:

- Built with 200 L barrels, 55 kg shells/batch
- Reaction time 10 hours → can perform 2 batches per day
- Several retorts can be managed by one operator
- Possibility to process briquettes from the carbonized shells, or use them directly to feed cookstove
- Cashew shell press cake after CNSL extraction can also be



What if we told you that...



...your shell waste is a source of clean energy and revenue?

Discover the best practices for shell management in small and medium-scale factories:



We offer:

- **Capacity building** in
 - o **Manufacturing** the devices (H2CP and charcoal reactor)
 - o **Operation** and best safety practices
 - o **Marketing** products & by-products
 - o Reactive **technical support** and maintenance
- Optimization of steam loops, **energy efficiency** measures
- **Automation** of existing equipment in the factory, for a better parameter control



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