

Revised specification after pre-bid meeting of

Torrefaction furnace of minimum 10kg/hr

1. Screw driven rotating reactor with cut and folded flight screw
2. Seamless pipe reactor of length 3 meters, diameter of the reactor (ID 30 cm) and wall thickness 6-8 mm.
3. Drying seamless reactor of length 1.5 meter and ID 30 cm of wall thickness 6-8 mm (Temperature about 100°C)
4. All reactor material SS304
5. Torrefaction reactor covered with insulating jacket made of Boiler Quality (BQ) steel
6. Torrefaction reactor will be heated by heat generated in combustion chamber via heat exchanges
7. Temperature up to 350-400°C,
8. Four number of temperature indicator at different location throughout the length of reactor
9. Conveyor belt for feeding the chopped biomass into the hopper of drying reactor which having screw rotator blade, drying reactor heated by rejected heat.
10. Combustion chamber
11. Torrefied material passes through water cooled condenser, seamless reactor of length approximate 1.5 meter and 30 cm ID of wall thickness 6-8 mm.
12. All reactors should be air locked by air tight rotating valves
13. Speed of screws adjustable from 2 rpm to 20 rpm.
14. Arrangement of inert gas introduction in continuous screw drive reactor.
15. Arrangement of exit of hot volatile products with suction pump
16. Gear motors of branded company.
17. Valve between hoppers, drying reactor, torrefaction reactor, cooling reactor of branded company, safety valve at each stage
18. Water circulating pump, pressure indicators