

Biomass Handling & Fuel Generation

Wood Chip Intake & Transfer System

Overview

GAME were approached to design and install a woodchip intake, transfer and distribution system to handle 100cu.m/hr of woodchip.

Problem

The system was required to handle 100cu.m/hr of G50W50, delivered in 30cu.m tipper trailers. The main issues of the project were the confined space in which to fit the equipment into and protection against oversized material entering the system.

Solution

Selection of the materials handling equipment was crucial, shaftless screw conveyors were chosen due to vast running experience on various woodchip grades and their built-in design features allowing oversized material to go through the system without causing equipment damage and the ability to convey material vertically, keeping the system footprint to an absolute minimum.

The delivery vehicle reverses up to the external below ground intake pit. From the intake pit, protected using a hinged weather cover, the woodchip is withdrawn using a double shafted screw discharger, and transferred to the pre-cast storage bunker using a series of horizontal and a vertical shaftless screw conveyors. The woodchip is dropped into the bunker from two distribution conveyors with multiple intermediate outlets; ensuring maximum storage capacity is reached.

The contract was carried out as a sub-contract project complete with controls, site electrics and maintenance access platforms as required.

Result

The project was delivered on time ready for full commissioning and within budget.

