

# Biomass Handling & Fuel Generation

## Biomass Production Plant

### Overview

To design and install a biomass production plant for processing wood pellets and briquettes.

### Activity

GAME were instructed to mechanically design and install a biomass production plant for processing virgin timber, which would produce 8mm wood pellets and briquettes for both domestic and industrial use.

The plant was required to produce 8 tonnes per hour of wood pellets and 3.2 tonnes per hour of domestic briquettes, which are all automatically packed, palletised and wrapped ready for putting into storage ready for distribution.

The design had to meet planning and building constraints and be completed to a preset budget which required innovative design to fit the equipment into an existing building.

The process started by taking cut logs from external stock piles, loading onto the in feed conveyor where the bark was removed in a rotary drum de-barker, then conveyed and gravity fed into a chipper which can reduce a 2.44 m long x 0.61 m diameter log into 50mm chips in approx 4 seconds, and conveys the chip to a ground store. The chip was then bucket loaded into walking floor bunkers to feed a wet grinder which reduces the chip into matchstick size pieces ready for drying. Once dried the products were pressed into industrial briquettes or fine ground and pressed into pellets for the domestic market.

