Specific material feed and processing for biomass power plant

In its capacity as solution provider, Vecoplan designed a waste wood and wood chippings reception and processing solution for EBL (Genossenschaft Elektra Baselland), Switzerland.
Logistical Masterstroke

The Swiss energy supplier EBL (Genossenschaft Elektra Baselland) develops, constructs and operates biomass power plants at various locations around the world. For the biomass-powered furnace of the Pratteln large-scale heating network, Vecoplan developed a custom solution for fuel feeding and processing. To ensure the safe and reliable transportation of waste and green wood, a bespoke solution was required, comprising a diverse range of perfectly arranged, minutely planned conveyor elements.

Vecoplan’s remit

- Supply of the complete machine technology from reception and storage through to the furnace
- Mechanical assembly of the plant, the electrical control system and cable routing up to completed commissioning

Challenges

- Minimal space availability
- Large fuel storage volume
Key benefits in a nutshell

- Optimal use of space
- Large storage volume
- Short construction period and commissioning

„From our perspective as plant operator, it is important that the plant runs ... and keeps on running.“

Markus Vögele, Thermal Energy Project Manager at EBL (Genossenschaft Elektra Baselland)
Efficient project management – Just-in-time

The bespoke combination of quality components guarantees optimum performance and maximum security of plant operation.

An individual arrangement
- Tender as per specifications
- Original crane concept changed to the Vecoplan variant with loading and unloading conveyors
- Planning permission documents changed by the investor to permit construction of the Vecoplan solution
- Project schedule:

Project schedule
- Plan released October 2014
- Assembly March to August 2015
- First material on 18.11.2015
- Controlled furnace operation since 10.12.2015
Equipment used

- 1 Push rod discharger
- 5 Drag Chain conveyors
- 1 Belt Conveyor with overbelt magnet
  (designed to AT EX requirements – a world first for this combination)
- 1 Disc screen
- 3 Loading and unloading conveyors
- 3 Dosing screw conveyors
- 1 Receiving tank with discharge screw
- Complete control system