

# Wood Pellet Plant Equipment & Design

Equipment Dynamics, Inc.

Wood Pellet Plant Equipment  
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## Introduction

Equipment Dynamics, Inc. (**EDI**) has been designing and installing Wood Pellet Equipment and Systems since our inception in 1996. Our focus in this industry is nearly exclusive due to our experience and demand for our proactive approach to new technology and state of the art design. Not only in our design capability but commitment to supplying the best equipment for each process within each manufacturing facility.

The President of **EDI**, Stephen F. Ross was born in Detroit, MI, along with an older brother and two younger sisters. His father is a Metallurgical Engineer and relocated to Bay City, MI, to begin a long and lasting career in the automotive industry.

After graduating from John

Glenn High School, Stephen spent two years at Delta College in Saginaw, MI. While building government homes in Houghton, MI, he pursued Mechanical Engineering at Michigan Tech University. Michigan's Upper Peninsula extreme winters proved too much and he headed south for warmer climate. Relocating to Decatur, AL, a 19 year position as Engineering & Maintenance Manager with Nestle PetCare (Formerly ALPO and Jim Dandy Petfoods), allowed Stephen to help transform an antiquated process to a "State of the Art" facility. The last two years were served with Engineering & Maintenance responsibilities for all Dry Plant facilities.

In 1997 Stephen and wife Lisa relocated to Pennsylvania establishing **EDI** to serve industries

requiring size reduction and classification processes. Many of the equipment manufacturers used in his career are now represented by **EDI** which also provides turn key systems.

Stephen and Lisa currently reside in Schnecksville, PA, raising their youngest daughter Kaitlin. His two older daughters continue their college education in Memphis and Los Angeles. Life passions include golf, hunting, fishing, and restoring a 1959 Triumph TR3 (which is a never ending project).

### Inside this issue:

<i>Equipment Selection</i>	2
<i>Process Design</i>	2
<i>Turn Key Design and Installation</i>	2
<i>Sample Process Flow</i>	3
<i>Controls</i>	3
<i>Typical Process Equipment</i>	4
<i>Contact Information</i>	4

## INTERNATIONAL PROJECTS

**EDI** is currently involved in projects in all parts of the world. Bidding aspirations reach out to plants in Alaska, Russia, and Australia, but not limited to these regions. The pellets shown to the right are for a project involving Eucalyptus as

the main raw material. This product includes complete tree process with bark, leaves, deriving from whole tree chipping.

Wood flour installations include Greece and Australia.



**EDI** Truck Unloading Station



**EDI** Green Chip Storage Bin

## EQUIPMENT SELECTION



Refurbished equipment by **EDI** for size reduction in a particleboard facility. Most equipment is sold with a limited warranty.

Inside the **EDI** organization we pride ourselves in providing the best equipment available for each process within your Wood Pellet Manufacturing Facility. This is extremely important to assure your facility operates with minimal labor, energy, and overhead costs.

In some cases where appropriate equipment is not available, **EDI** designs and builds specific equipment for the job.



## PROCESS DESIGN

*"The bitterness of poor quality lingers long after the sweet taste of low price has been forgotten."*

Process design begins with initial meeting to develop the scope of the customer's project. It is vitally important to understand all aspects of raw materials including species, moisture content, size, etc., before any design work can begin. This includes raw material transportation and demographics to assure raw ma-

terial costs are kept to a minimum.

Generally a single pellet mill plant can produce up to 30,000 tons per year of finish pellets. This may require as much as 75,000 tons of green raw material by the time it is processed and dried down to pre-pelleting moisture.

Typically good quality pellets are easy to market. Three markets are available including residential which are normally bagged, commercial which is delivered in bulk, and industrial which has typically been sold to international markets.



Raw Material Storage Silos

## TURN KEY DESIGN AND INSTALLATION

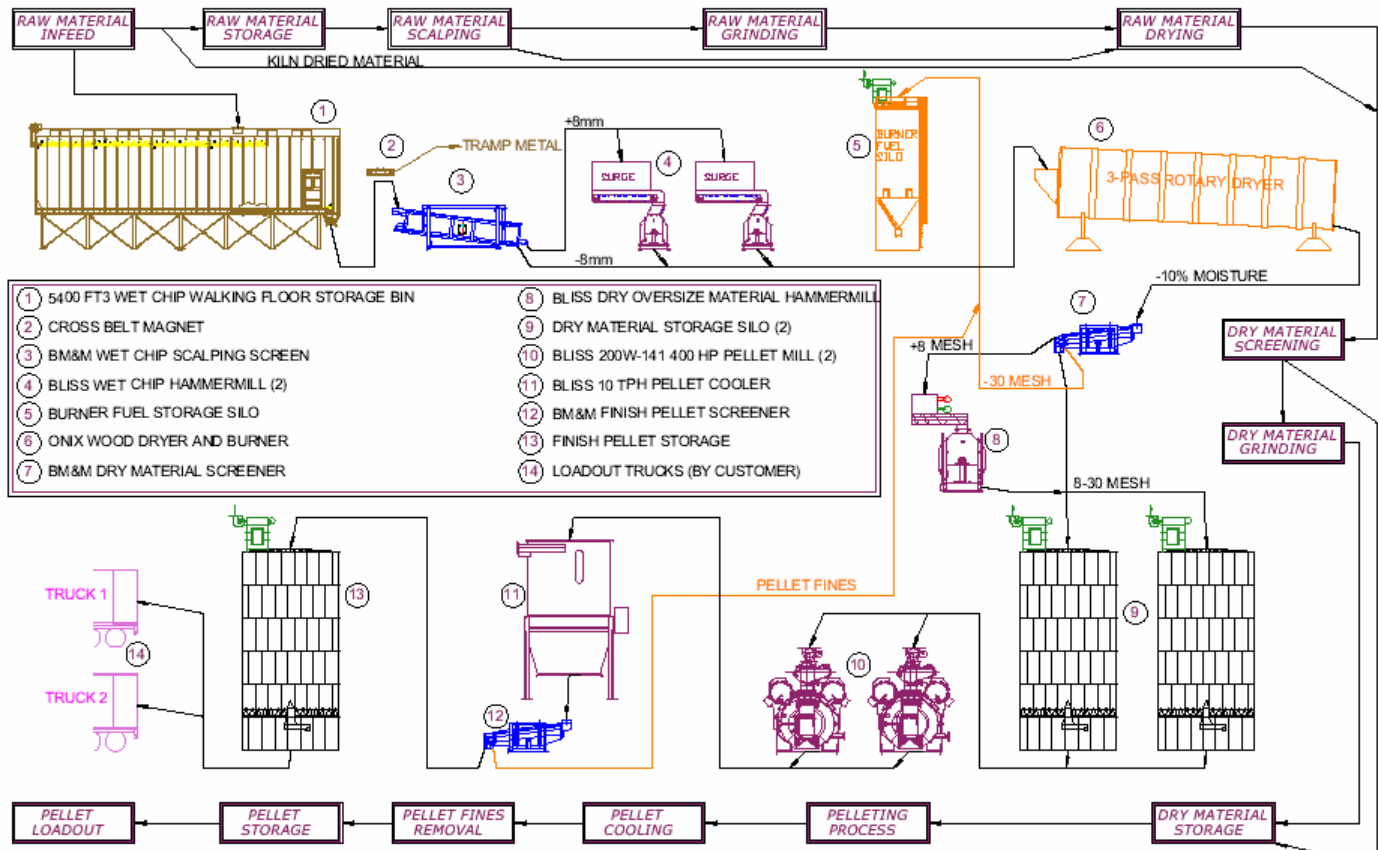
Turn key design is available with **EDI** designed installations. This includes the following services provided by **EDI**:

- Scope Development
- Initial Process Specs
- Engineering & Process Design
- Drafting Plans & Elevations
- Equipment Selection
- Mechanical Installation
- Controls and Electrical Installation
- Commissioning of Equipment and Process
- Employee Training
- Preventative and Predictive Maintenance Scheduling
- Spare Parts Stores and Set Up

We look forward to meeting with you to discuss your venture and develop a process suited to fit your specific needs.

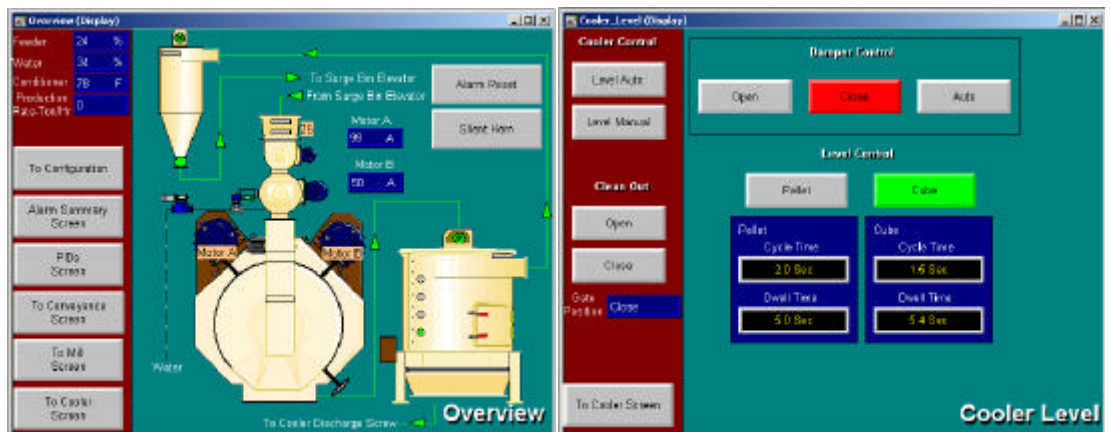
# SAMPLE PROCESS FLOW

## PROCESS DIAGRAM FOR 50K TPY WOOD PELLET PLANT



# CONTROLS

Controls are probably the most important part of the entire process to assure quality pellets and seamless process control. Preventive maintenance procedures are also integrated into each system. Open architecture allows customer to trouble shoot and/or make future changes as desired.



## TYPICAL PROCESS EQUIPMENT



**CRESSWOOD** - Primary Reduction Grinders.



**BM&M** - Screeners for Primary & Secondary Classification of Raw Materials & Finish Pellets.



**BLISS** - Hammermills for Reduction of Green and Dry Raw Materials.



**BLISS** - Pellet Mills.



**BLISS** - Pellet Coolers.



**Dryers** - Rotary Drum with Biomass Burners



**Storage** - Silos & Unloaders. Finish Product Storage.



**Kice** - Pneumatic Conveying & Dust Collection



**Bagging** - Auto Roll Feed and Manual Pre-Made Baggers.



**Stacking** - Robot Stackers.



**Stretch Wrappers** - Auto, Semi Auto, and Manual

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