HARDWOOD DIMENSION STOCK AND FURNITURE PARTS INCLUDING EXPORT OPPORTUNITIES

Description of Products and Uses

Hardwood dimension stock is kiln-dried material that has been processed to a size and quality that permits maximum utility by users in assembling their products. The users of this material are typically companies that produce furniture, cabinets, millwork, toys, novelties, and other similar woodworking operations. The material is produced in specified thicknesses, widths, and lengths; it may be solid or glued up, including panels. Furniture dimension stock may be classified as rough, semi-finished, or finished. Manufacturing operations can be designed to produce rough and semi-finished dimension stock.

Rough dimension' stock consists of rectangular pieces of wood cut and ripped to specific sizes and normally rough surfaced on two faces. Edge-glued panels would be included in this category.

Semi-finished dimension stock is rough stock that is machined one or more steps further in the manufacturing process. It may include such steps as re-ripping, finish surfacing, moulding, trimming, shaping, and mitering.

Market Potential

The market potential for dimension stock and furniture parts is growing in the domestic and international marketplaces. Locally, North Carolina and Virginia are the two largest wood household furniture manufacturing states. The regional production of cabinets is also substantial. While furniture and cabinet imports have increased in the past ten years, the long term outlook is for U.S. manufacturers to increase their competitiveness and reverse these trends. These factors, along with increased interest by furniture and cabinet manufacturers to expand their purchases of dimension stock and furniture parts, translate into opportunities for areas rich in timber resources to develop and expand dimension stock manufacturing facilities.

Hardwood exports have increased throughout the past fifteen years as the United States has become a major supplier of hardwood products in the international marketplace. Most of these exports have been in lumber, veneer, and unprocessed log form. Exports of further manufactured products such as rough and finished dimension materials have been limited, while the potential to supply such products seems to be excellent. Virginia has abundant resources and the potential to add more kiln-drying and dimension production capacity.

The potential demand for U.S. dimension stock, especially in Europe and Japan, appears to be excellent based on the demand for U.S. lumber and inquiries for rough dimension, strip stock, squares, and finished dimension. A set of potential standard sizes of rough dimension for the export market has also been developed.

Description of the production Process

Hardwood lumber is delivered by truck and unloaded with a forklift. The lumber is graded and then stacked and stickered by hand and moved to an air-dry yard. As soon as possible, the lumber would be placed in dehumidification dryers for kiln drying. After drying, the lumber is transported to a dry lumber storage area in the plant. A drying system for larger operations would be a predryer followed by standard kiln drying.

As needed, dry lumber is moved from the dry storage area to an unstacker that feeds the cut and rip line. A cut-off saw equipped with a back gauge is used to cut the lumber into pieces. A conveyer carries the pieces through a rough planer. The material then moves to a sorting table and individual lengths are packed off onto carts. The carts are moved to straight line rip saws for ripping the pieces into fixed and random widths. This material is also packed off onto carts. A salvage saw will recover parts from the waste material.

The random width material goes to the edge-glued panel operation. Here, the material moves by conveyor over the glue rolls and the pieces are placed into panels and clamped in a clamp carrier. After gluing, the material is stored for final curing and then surfaced on two faces and end trimmed square.

The fixed width stock, if going into semi-finished dimension stock, will be further processed through a moulder and end trimmed or mitered. Also, panels can be ripped to the fixed width pieces for moulding or further processing.

All of the material will then move to a dry storage area to await packaging and shipping.

Investment

The capital costs can range from $200,000 to over $3,000,000 depending on facility size and production capacity. In the smallest facility, lumber would be purchased kiln dried and processing would be limited to the production of rough dimension stock for domestic or export customers. Six workers, plus two administrative people would be needed. Internal rates of return could average from 20 to 40 percent depending on output product prices and species processed.

A larger facility that has dry kilns and the equipment to process 32,000 board feet per day into rough dimension stock in a two-shift operation would cost about $3,000,000. This facility could employ seventy people and could generate internal rates of return of 40 percent after the initial start-up years of operation. As with the smaller facility, species processed, product prices, and sales would affect actual internal rates of return.

The addition of moulders, trim saws, and other equipment needed to produce semi-finished dimension could cost an additional $100,000 to $1,000,000. The additional employees required to operate this equipment would need increased training.

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Figure 8. An example of various types of hardwood dimension stock and furniture parts.

Industrial Development Opportunities For Wood Products In Virginia

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