



Massive mixers are used to create the concrete ingredients for the First National Panel Construction products.



Unusual forms of steel are conveyerized to locations beneath pouring troughs to receive the unique mixture of concrete, special ingredients plus encapsulated wood fibers.



Quick setting concrete is used to manufacture panels made with a series of round voids to greatly reduce panel's weight and enhance insulation and strength.



Great strength of the finished concrete panels is illustrated by piling one ton of cement bags on a single panel.

## New Concrete Panels Offer Superior Strength, Lower Cost

LINDSTROM, MN—After 25 years of product and manufacturing process development, First National Panel Co., Inc. (FNPC), is ready to enter the marketplace with an enhanced product that offers measurable savings while providing superior building advantages.

C.E.O., Ricci Null claims this new system creates a superior concrete mix that produces improved pre-cast concrete panels. The FNPC concrete mix utilizes a proprietary blend of aggregates and a 'trade secret' protected mixing and encapsulation process to produce a stronger, lighter weight concrete, he adds.

In keeping with their commitment of producing superior building products, FNPC recently acquired Engineered Panel Systems Inc. (EPS), a leading commercial pre-cast concrete manufacturer. A mainstay in the commercial building industry for more than two decades, EPS supplies pre-cast concrete architectural wall panels. The EPS Pre-Cast Panel is an industry proven building product. EPS also has developed an interlocking system for pre-cast wall construction.

The EPS Wall System is said to provide builders with lower labor costs and faster construction times. Job comple-

tion times can in fact be reduced by approximately 25-30%. And, the wide variety of colors and available finishes provide design flexibility and multiple style options that appeal to architects and end users.

FNPC will incorporate their unique concrete mix into the EPS product line. This is an ideal marriage that will create stronger, lower weight commercial pre-cast concrete panels that will be easier and safer to work with, lower product costs and help to speed construction times.

The new FNPC panels surpass the strength properties of many concrete mixes, yet provide weight reductions of up to 65%. The concrete panels can be cut using a standard skill saw and can be nailed like wood. FNPC will utilize their reusable steel forms and conveyer system manufacturing process, also developed by Null, to produce the pre-cast concrete wall panels faster and more cost effectively.

The Lindstrom, MN., manufacturing facility is located 45 miles northeast of Minneapolis. From this location FNPC is set to focus corporate expansion in the surrounding area. The neighboring states of Minnesota, Wisconsin, Illinois, Iowa, Indiana, South Dakota and North Dakota, can all be cost effectively served, according to Null.



Eight foot high panels are locked together solidly to form insulated, windproof, quake proof and fire proof walls in home under construction.



Posts and horizontal members for fencing for privacy and sound barriers also are manufactured by First National Panel.



Attractive ranch home model built with the First National Panel System.

Specialized finish treatments such as shown here, can be used to vary exterior appearances for both commercial and residential buildings.



Company Owner and Inventor, Ricci Null.

### Technology advancements

The mixing, encapsulation and bonding process, enables FNPC to use wood products in their aggregate blend. The encapsulation process enables the wood aggregates to adhere to the concrete and prohibits the wood from absorbing water used in the mix.

Standardizing the concrete mix to account for water, cement and aggregate amounts used, enables FNPC to produce consistent material properties for multiple production runs. Product consistency is a major competitive factor in the concrete industry. In addition, mix standardizing will enable producers to achieve state and national approval for the use of products in construction.

The manufacturing process utilizes a reusable steel pre-cast concrete panel form and base system. Research and development efforts have reduced the costs of these forms significantly, from \$10,000 down to \$600. The forms incorporate a unique quick release system that provides for considerably faster manufacturing times.

A conveyer processing system also has been developed to reduce manufacturing times. Normal production rates of one panel every two minutes are achieved by using the specialized forms and conveyer manufacturing system. Maximum production rates of one panel per minute are possible if necessary.

### Looking towards the future

FNPC plans to work with state and local government organizations to build new plants or convert vacant buildings into product manufacturing plants. Locating a plant in a selected

municipality will have the positive effect of producing jobs and economic development. A fully functioning plant will produce from 80 to 120 jobs (more depending on the plant size and location). In addition, home construction would stimulate that existing economy by providing work to the trades and local suppliers.

Another one of the company's commitments is to continually provide significant positive environmental benefits generated by the use of FNPC products. Using their concrete products reduces the amount of lumber needed in the construction of homes, buildings and fencing products. The unique steel form manufacturing process eliminates the need for wood traditionally used in concrete and the proprietary aggregate blend can utilize certain types of wood waste.

Overall, the entire process reduces landfill dumping and air pollution related burning. Furthermore, the solid construction, insulation and airtight properties of FNPC concrete panels provide energy efficiency that greatly reduces oil, gas and electric heating and cooling needs.

The enduring company mission is to provide quality, affordable homes and commercial buildings that offer functionality, comfort, dignity, safety, value and permanence with minimal effects on the environment. FNPC products can also be used for building fences and sound barriers, easily and quickly. These are all structures that will not rot or decay, will not burn, will not succumb to insects and will withstand the strongest winds – built to last for generations.

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