



No. 514-32-06 HEX COMMODE
 L 25" W 29" H 20"
 Two Doors

No. 514-11-06 COCKTAIL TABLE
 L 60" W 22" H 15"
 Two Doors

No. 514-12-06 SQUARE COMMODE
 L 26½" W 26½" H 20"
 Two Doors

Spanish Oak Finish, Deep Molded Fronts, High Pressure Slate Tops



No. 514-32-07 HEX COMMODE
L 25" W 29" H 20"
Two Doors

No. 514-113-07 COCKTAIL TABLE
L 60" W 22" H 15"
Two Doors
Oak Finish, Marble Tops, Deep Molded Fronts

No. 514-12-07 SQUARE COMMODE
L 26½" W 26½" H 20"
Two Doors



**GROOVFOLD INC.
NEWCOMERSTOWN, OHIO**

RICHARD R. CORNELL STARTED A WOODWORKING BUSINESS IN NEWCOMERSTOWN IN 1963 WHEN HE FOUNDED GROOVFOLD FABRICATORS.

HE WAS BORN IN COLUMBUS, WHERE HE GRADUATED FROM OHIO STATE UNIVERSITY. HE WORKED FOR NATIONAL RUBBER IN AKRON, OHIO, THEN FOR DEXON IN MASSILLON. HE HAD AN IDEA OF MAKING BOX SHAPED WOOD PRODUCTS IN ONE OR TWO PIECE ASSEMBLIES THAT WOULD REDUCE COSTS AND LEAVE VIRTUALLY NO SEAMS OR CORNERS.

THE IDEA OF GROOVING AND FOLDING WOOD WAS NOT NEW BUT HOW TO MAKE THE V CUT TO JUST THE RIGHT DEPTH WITH ACCURACY AND AT A HIGH SPEED WAS A CHALLENGE. THE IDEA WAS PRESENTED TO HIS EMPLOYER, WHO SHOWED NO INTEREST, SO CORNELL WENT OUT ON HIS OWN, DEVELOPED THE PROCESS, AND DESIGNED AND BUILT A MACHINE TO HIS OWN SPECIFICATIONS.

INTEREST IN THE PROCESS WAS SHOWN BY CECIL HAVER AND THE NEWCOMERSTOWN CHAMBER OF COMMERCE, WHO HELPED SELL FIVE (5) ONE THOUSAND (\$ 1,000) DOLLAR BONDS AND PROVIDE THE USE OF A BUILDING (THE OLD FORD GARAGE, LATER HERCO, AND NOW THE ANNEX TO THE TEMPERANCE TAVERN MUSEUM).

STARTING WITH ONE EMPLOYEE, THE NEW MACHINE, AND A LOT OF DREAMS OF WHAT PRODUCTS COULD BE MADE USING THE PROCESS, GROOVFOLD WAS FOUNDED. THE FIRST PRODUCTS WERE CEILING BEAMS AND SMALL NOVELTY BOXES. THE BEAMS WERE HOLLOW AND MADE TO WRAP AROUND EXISTING CEILING BEAMS OR NAILED TO A STANDARD FURRING STRIP.

THE PROCESS INVOLVED USING WOOD THAT IS COATED WITH PLASTIC FILM AND CUTTING A V SHAPED GROOVE IN THE BACK TO WITHIN A FEW THOUSANDTHS OF AN INCH OF THE COMPOSITES TOP SURFACE.

THE ORIGINAL SHOP WAS SOON REPLACED WITH A NEW 10,000 SQUARE FOOT BUILDING. LATER AN ADDITIONAL BAY OF 10,000 SQUARE FEET WAS ADDED DOUBLING THE SIZE AS PRODUCTION INCREASED. EMPLOYMENT INCREASED TO 30 WHEN MORE PRACTICAL PRODUCTS OF DESK TOPS, RADIO, TELEVISION, AND SPEAKER CABINETS, LAMP BASES, SHELVING, TROPHY BASES, FURNITURE PARTS AND COMPONENTS FOR SPECIAL DISPLAYS WERE MANUFACTURED.

WHILE MOST PRODUCTS INVOLVE A 90 DEGREE CUT TO MAKE A RIGHT ANGLE FOLD, THE ANGLE OF THE CUT CAN BE VARIED TO MAKE VIRTUALLY ANY SHAPE FROM TRIANGLE TO CIRCLE BY MAKING WIDER OR MORE SHALLOW VEE CUTS. WHEN THE FOLD IS MADE, A STRIP OF GLUE IS FIRST SPREAD INSIDE THE GROOVE. WHEN THIS DRIES, THE CORNER IS AS SOLID AS A SINGLE PIECE OF WOOD. BUT THE WOOD GRAIN FOLLOWS ALL THE WAY AROUND THE BOX BECAUSE IT HAS NOT BEEN CUT OR SEPARATED EXCEPT AT ONE CORNER. IT HAS MERELY BEEN FOLDED OVER THE OTHERS. THE BIG LABOR SAVING IS TO PUT THE FINISH ON A FLAT SURFACE, THEN MACHINE AND ASSEMBLE WITHOUT HAVING TO NAIL OR CLAMP WHILE THE GLUE IS DRYING.

THE GROOVFOLD MACHINE USES VINYL LAMINATE ON A WOOD COMPOSITION SUCH AS FIBERBOARD OR PARTICLE BOARD, AND PARTS ARE MACHINE WORKED TO ALLOW CONSTRUCTION OF THE CABINET OR FRAME OUT OF ONE PIECE OF MATERIAL.

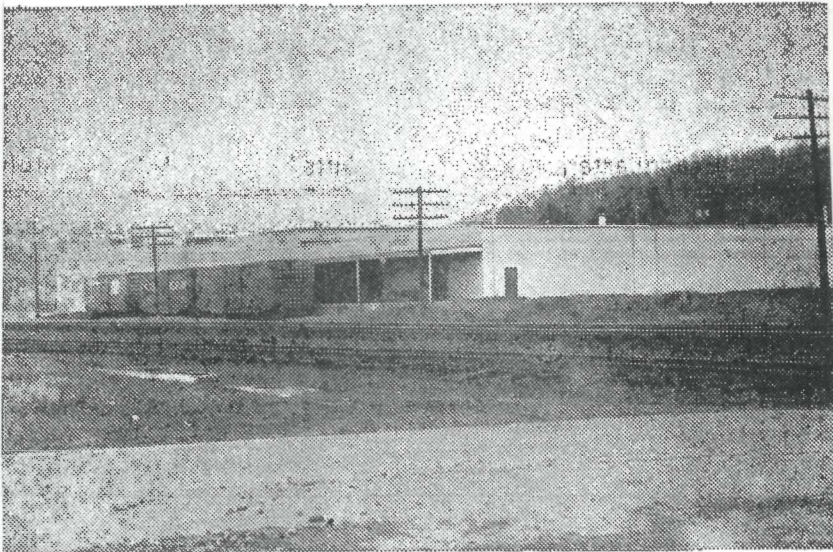
GROOVFOLD CONTINUED TO GROW THROUGH THE YEARS REACHING A HIGH OF 140 EMPLOYEES AND BUILDING AN ADDITIONAL 12,000 SQUARE FEET BUILDING.

SPEAKER CABINETS COMPRISED THE LARGEST VOLUME OF PRODUCTS MANUFACTURED. THEY ARE SOLD TO MANY OF THE MAJOR TV AND SOUND MANUFACTURERS. HIGH GLOSS SOLID COLOR MOLDING FOR CLOCK FRAMES AND PICTURE FRAMES ARE ALSO MANUFACTURED USING AN ULTRAVIOLET CURING PROCESS, PUTTING FILLER ON THE EDGES OF A WOOD COMPOSITE MOLDING AND WRAPPING WITH A HIGH GLOSS VINYL WHICH COMPETES WITH EXTRUDED PLASTIC AND PAINTED WOOD MOLDINGS.

IN 1988, CORNELL, WHO WAS VERY INFLUENTIAL IN BRINGING BOTH HERCO AND 31 INDUSTRY (HIS BROTHER, ROBERT CORNELL) TO NEWCOMERSTOWN, RETIRED AND HIS SON, CRIS, WAS MADE PRESIDENT.

IN 1996, THE MAJOR PRODUCTS ARE SPEAKER CABINETS, CLOCK FRAMES, AND DISPLAY PARTS. EMPLOYEES NUMBER 90 AND HOURLY WORKERS ARE MEMBERS OF THE INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS.

CRIS CORNELL, PRESIDENT, ANTICIPATES CONTINUED GROWTH. "OUR PEOPLE ARE OUR GREATEST ASSET. WE ARE AN UNIONIZED SHOP AND THE OVERWHELMING MAJORITY OF THE PEOPLE IN THE PLANT TAKE PRIDE IN THEIR WORK."



GROOVFOLD — L & B WAREHOUSE

Completed Fall, 1972

Booth Const

GROOVFOLD GROWING

Groovfold Fabricators Inc. was the fifth new firm to locate in Newcomerstown, in a building erected with a \$4139 donation from the CIC.

Beginning with a hardboard plastic film, Dick Cornell has developed a process of grooving the board to, but not through, the film then folding along the groove to make various products.

With this process, instead of using 2 separate boards to form an edge for a corner, one board can be used and folded to form its own edge.

Potential uses are furniture, picture frames and desk tops, but the 2 most successful uses so far are ceiling beams and radio and TV cabinets.

Using a ceiling system of the folded beams, which are exceptionally lightweight, and fiberglass panels, 2 skilled workers can install a suspended ceiling in 3 or 4 hours per room.

28 Feb

Booth Const 1967

GROOVFOLD FACTORY, NEWCOMERSTOWN,
OHIO



Progress

Groovfold Inc. plans expansion, seeks patent for speaker design

By BETTY HUFF
Times-Reporter

NEWCOMERSTOWN — Excavation has begun for an addition to Groovfold Inc. located at 1050 W. State St. The firm began operations here in 1984. Products include speaker cabinets, clock frames and picture frames.

Using vinyl laminate on a wood composite such as fiberboard or particle board, parts are machine worked to allow construction of a cabinet or frame out of one piece of material.

Cris Cornell, owner and president of the present 44,000 square foot plant, expects the shell of the new structure to be up by the end of March.

With the 12,000 square foot addition, the firm is going to put in an assembly operation to offer our customers the option of buying completely assembled products. We will even load and test the electronic components of the speakers.

Customers who buy speaker cabinet parts from Groovfold include Polk Audio, AR (Acoustic Research), Boston Acoustics and Audio Technica.

New products include round speaker cabinets that use special tooling designed to make the cabinet wrap in one piece.

This allows for 90° corners in the design of speakers, not possible before on a production basis,

according to Cornell. Application has been made for a patent.

High gloss solid color molding for the clock frame and picture frame industries is a new product. Using an ultraviolet curing process, filler is put on the edges of a wood composite molding and wrapped with a high gloss vinyl.

The colors are attractive and are compatible with any decor. "We have been working on this project for the last five years and are now putting the final machinery in place to make it happen. This product will compete with extruded plastic and painted wood moldings," said Cornell.

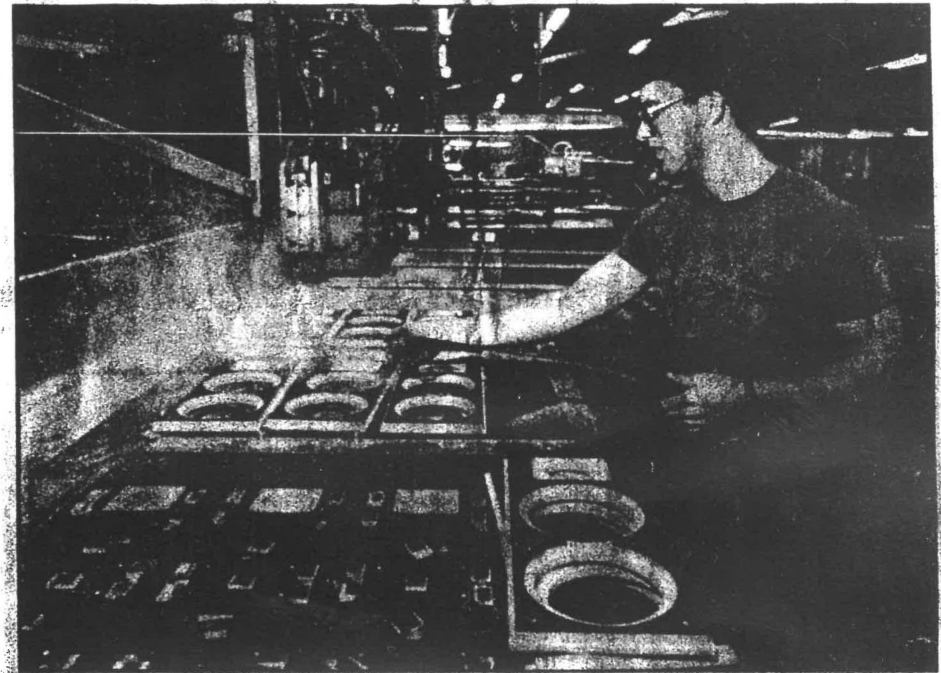
Sales and employment were up 30 per cent in 1989 and Cornell said he expects continued growth in 1990. "Our people are our greatest asset. We are a union shop and the overwhelming majority of the people in the plant take pride in the work they put out."

"It shows when we go to a customer and compare our parts to our competitors," he said.

Hourly workers are members of the International Assn. of Machinists and Aerospace Workers. Although their contract was due to expire March 18, 1990, a three-year contract was ratified in November.

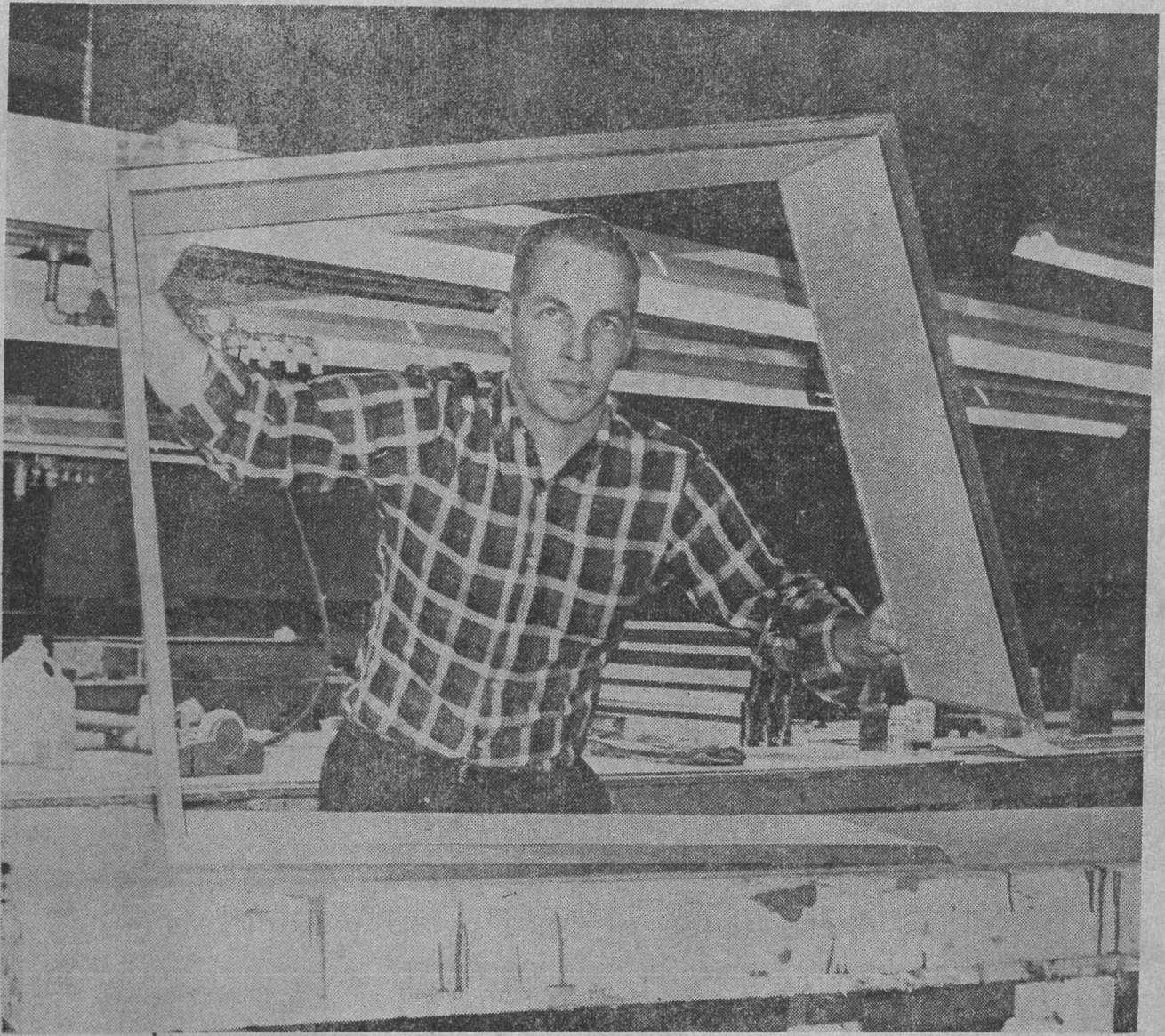
Employment stands at 70 including hourly and salaried personnel. Cornell expects to add about 30 more employees within the next two years.

The Times-Reporter
Tuesday, Jan. 30, 1990 K-2
DOVER-NEW PHILADELPHIA, O.



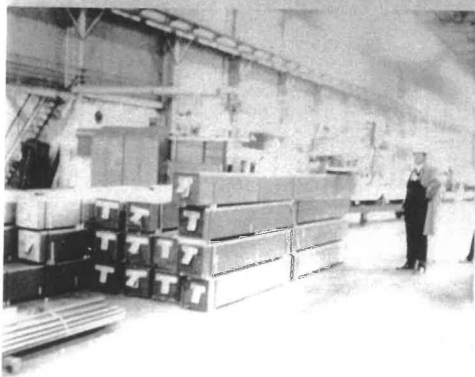
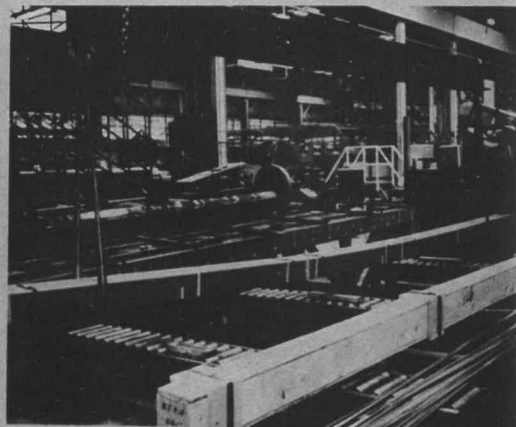
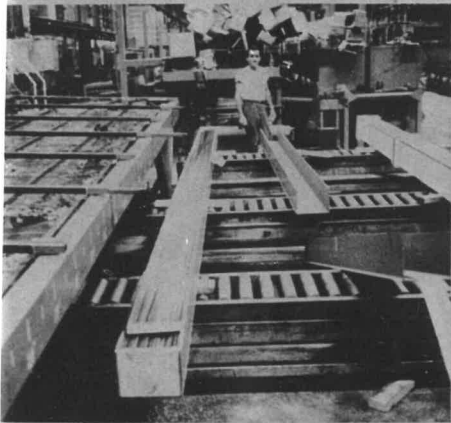
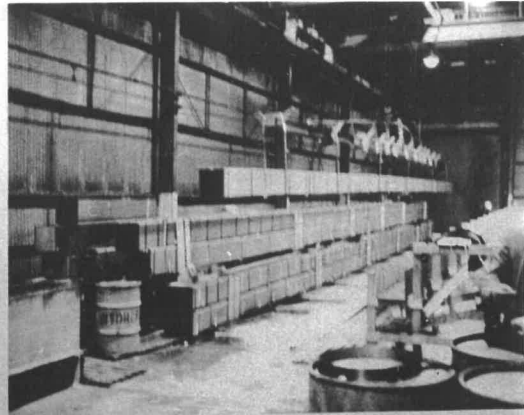
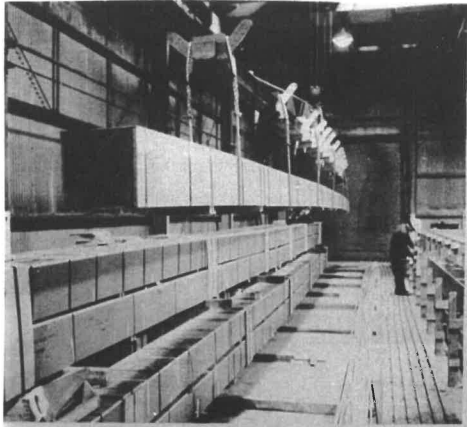
T-R/Tom Dunfee

Denis Miller, a router operator at Groovfold at Newcomerstown, cleans sawdust off of some speaker baffles just routed out on the computer-controlled nine headed router while the machine starts on nine more baffles in the background.



FOLDED LIKE THIS, a single sheet of grooved wood becomes a cabinet, Richard R. Cornell, president of Groovfold Fabricators, Inc., demonstrates.

GROOVFOLD FACTORY OPERATIONS



PATENT NOS. 3456701, 3322171 - OTHER PATS. PEND.

Feb. 28, 2001

Newcomerstown Chamber of Commerce Featured Business of the Month *Groovfold Inc.*

MITCH WISE
NEWCOMERSTOWN NEWS

Richard Cornell perfected a "miterfold process" and is described as a pioneer in that industry. In 1963 Cornell founded Groovfold Inc. The plant and corporate headquarters are located at 1050 West State Street in Newcomerstown. Groovfold quickly developed a reputation for quality products based on linear miterfolding and cross grooving. The company expanded over the years to include vinyl laminating and additional machining capabilities.

Cornell retired in 1987 and his son Chris purchased the company. Today, Groovfold continues to be a recognized leader in the vinyl laminated particleboard industry.

Currently, the Newcomerstown plant is under the direction of company President Scott Welch.

Welch is a 1987 graduate of Newcomerstown and oversees the day-to-day operation of the plant.

Groovfold employs 80 persons including eight full-time management positions. Welch describes the plant workforce as mature and experienced. Some of the employees have over 30 years seniority dating back to the early years of the company.

Groovfold products are used by many well-known names in the electronics field such as Techwood, Boston Acoustics and MTX. These companies use Groovfold products for stereo and speaker cabinets. Groovfold also manufactures store display modules used by Corning Glass in Wal-Mart Stores around the country.

Products are designed according to the customer's specification. Groovfold utilizes the Internet to send drawings and photographs to customers and potential customers.

Miterfolding is a process of miter cutting vinyl-laminated particleboards and components. Raw materials are received as particleboards 6-10 feet in length and 4-5 feet in width. The boards are coated with a 6-mill vinyl before being cut, grooved, and mitered. The vinyl lamination process allows customers to choose from a variety of colors, patterns, and textures.

The product is then cut and mitered using Computer Numerical Controlled (CNC) cross groovers and routers.

The Newcomerstown plant utilizes AutoCad technology to design the products. The AutoCad information is fed directly into a CNC machining program and results in extremely close tolerances for cuts and grooves. Five cross grooves are cut to make a complete box, or any number of cuts can be programmed to produce just about any shape imaginable.

Routing provides limitless detailing options. Parts with rounded and finished edges, holes of any size and shape, screw starter holes, and more can be programmed into the computer. Routers at the plant work three continuous shifts.

Products are shipped flat, partially, or fully assembled, boxed and ready for final delivery.

More information about Groovfold can be obtained from the company website at [-http://web.tusco.net/groovfold](http://web.tusco.net/groovfold)

Because of Groovfold's long standing membership in the Newcomerstown Chamber of Commerce and its commitment to the Newcomerstown area, the company has been selected as the Chamber's Featured Business of the Month.

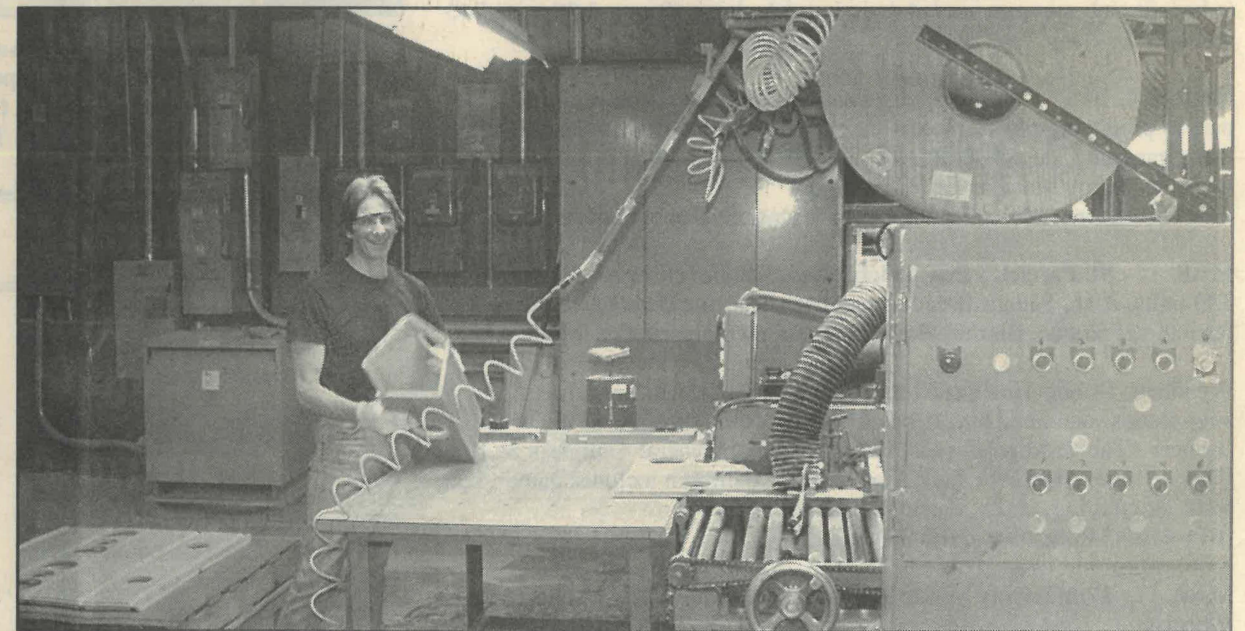
Chris Cornell said Groovfold has been a member of the Newcomerstown Chamber of Commerce since the company began in 1963. Chris also served on the Chamber of Commerce Board for many years during the 1980's.

The Newcomerstown Chamber of Commerce represents over 100 businesses and individuals in the Newcomerstown area. Information about the Chamber of Commerce can also be found on their website at www.Newcomerstown.com/Chamber or by calling (740) 498-4337.



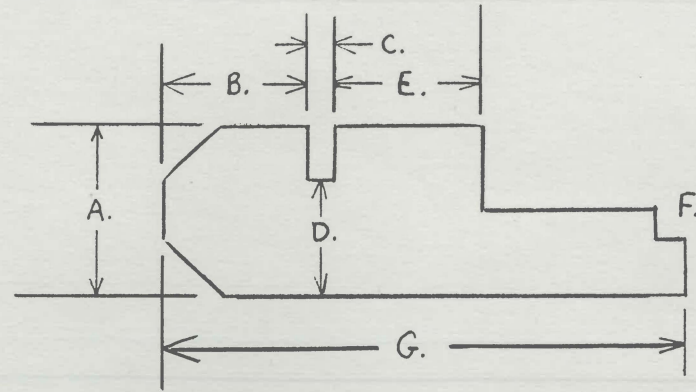
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Miterfold Terminology

Shown below is a cross-section of a typical miterfold profiles. The purpose of this page is to familiarize you with the terminology we use to describe various features of our product. These terms are common to any of the profiles shown in this brochure.



- A. Face.
- B. Return. Minimum dimensions are noted in our list of profiles.
- C. Kerf. A continuous slot on inside of the frame. Usually to hold glass.
- D. Board remaining. Rather than showing the depth of the kerf, our drawings express this dimension by the amount of material that remains after machining. Due to slight variations in board and vinyl thickness, it's easier to hold tolerances based on board remaining instead of the depth of the kerf.
- E. Continuation of the return. In clock construction, this area normally functions to separate the glass from the dial board.
- F. Rabbet. This is a continuous notch in the rear of the profile to accomodate a back panel.
- G. Depth. The overall front to back dimension of the frame.

NOTES

groovfold, inc.

Telephone 614-498-8364 P.O. Box 317 Newcomerstown, Ohio 43832

Groovfold was founded in 1963 by Richard Cornell, who developed the miterfold process. Over the years, we have manufactured a variety of products including furniture, display pedestals, ceiling light fixtures and cabinets. As the business grew and matured, we settled into four main product categories: clock cases, speaker cabinets, display fixtures and picture frames.

This brochure was designed to be a tool for both designers and product engineers. Please don't feel that Groovfold products need to be limited to the product categories listed above or the profiles shown on the following pages. Most of the profiles and techniques that we employ on a routine basis were the result of someone's "rough" idea that was developed into a workable product.

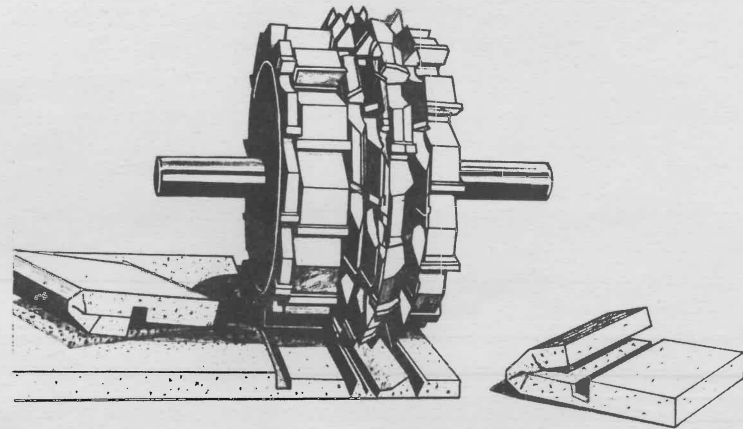
This brochure is presented in a ring-binder format to allow the addition of new materials and information as they become available. Please keep it handy as a reference guide and feel free to call anytime with any questions you might have.

GROOVFOLD CAPABILITIES

Sheet lamination • Lineal grooving • Cross grooving • Edge-banding
T-molding • CNC Routing • Molding • Assembly • Vacuum forming • Wrapping

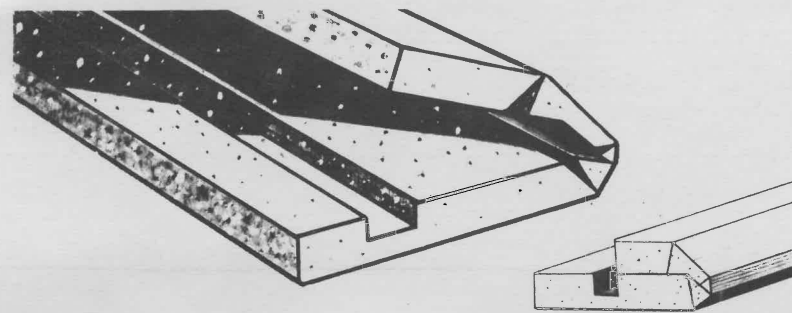


WHAT IS V-FOLDING?



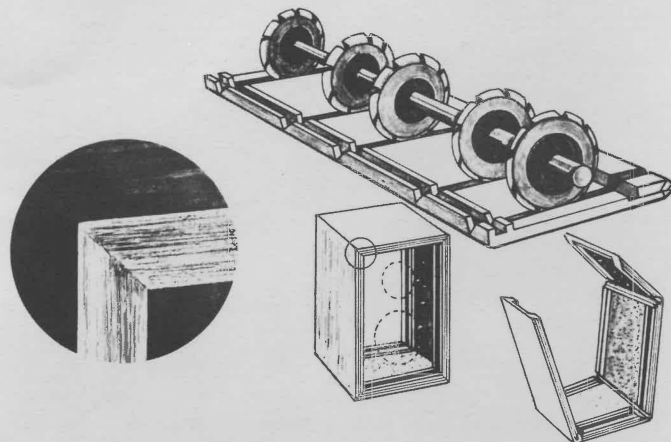
STEP 1 LINEAR GROOVING

The linear groove determines the front and back "mold" design of a table, bookshelf, cabinet, etc. The illustration at left depicts V-Grooving Cutters making a cut through the backside of a composition board laminated (front side only) with simulated woodgrain vinyl. The cutters go through the substrate to, but not through the vinyl. As you can see at the far right corner of the illustration this allows the board to be folded and glued into the shape desired.



STEP 2 FOLD AND GLUE

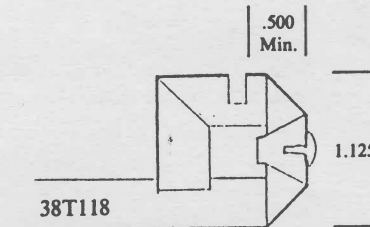
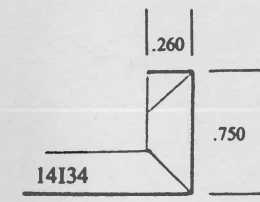
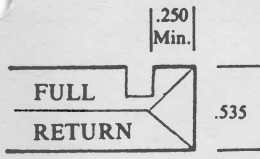
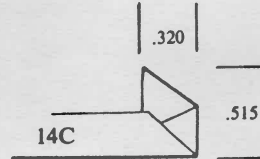
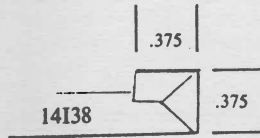
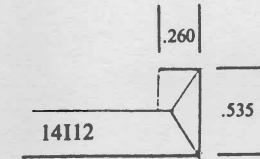
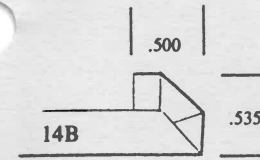
The flexible vinyl then acts as a hinge for the joint, which is then simply folded and glued for assembly. The sides of the "v's" come together, setting the angle of the fold with 100% accuracy and positively locating the two surfaces. The continuous veneer stops glue leakage and gives a continuity to the grain of the wood. Cutter sets must be engineered and manufactured to a high degree of accuracy to insure proper folding without "play" between the matching faces of the folds.



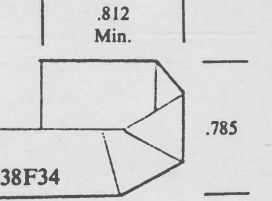
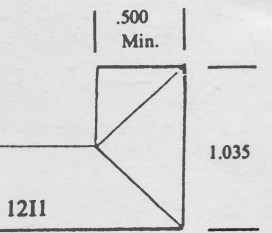
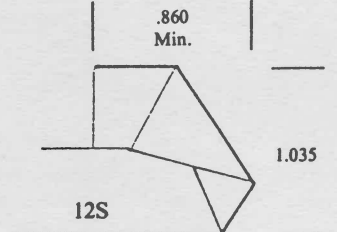
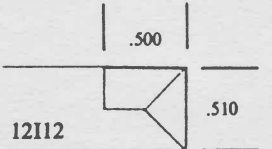
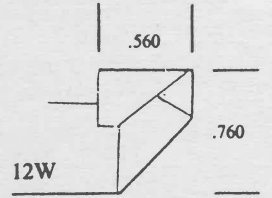
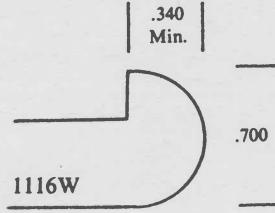
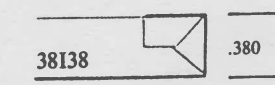
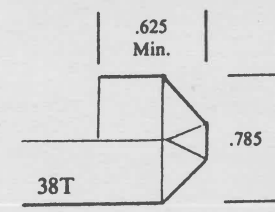
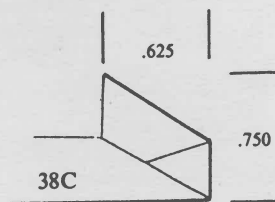
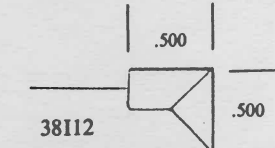
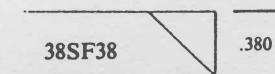
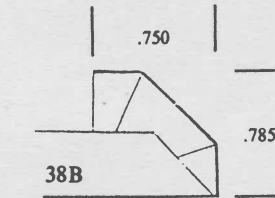
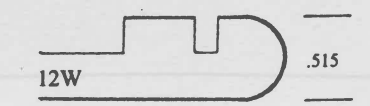
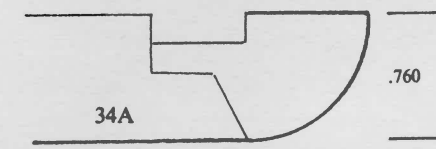
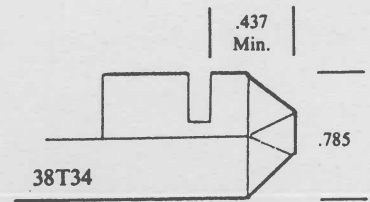
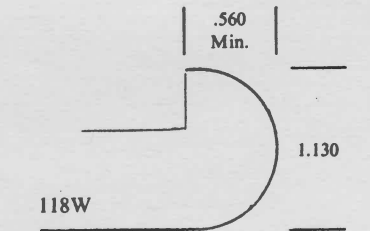
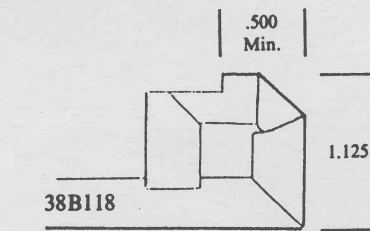
STEP 3 CROSS GROOVING

Cross grooving can be accomplished with a single pass with multiple cutters or with multiple passes with a single cutter. Proper angle cutters must be used for precise mitering to avoid "corner gap" or stretching of "vinyl hinge." Five complete grooves must be cut to make up a four corner box. The extreme left and right hand half of each outside groove is removed in order to mate the joined corner.

Non-laminated materials, such as natural woods, arborite and plexiglass, can be jointed by first putting tape on the front face to act as the hinge in place of the vinyl. The tape is stripped off after assembly.

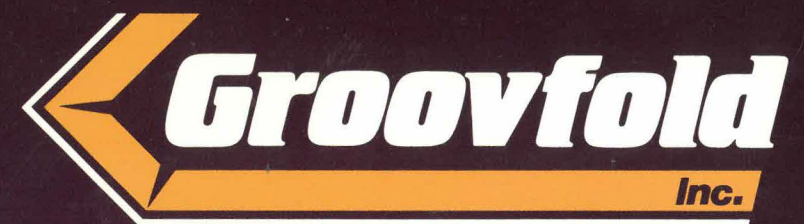


(Shown with Decorative T-Mold)

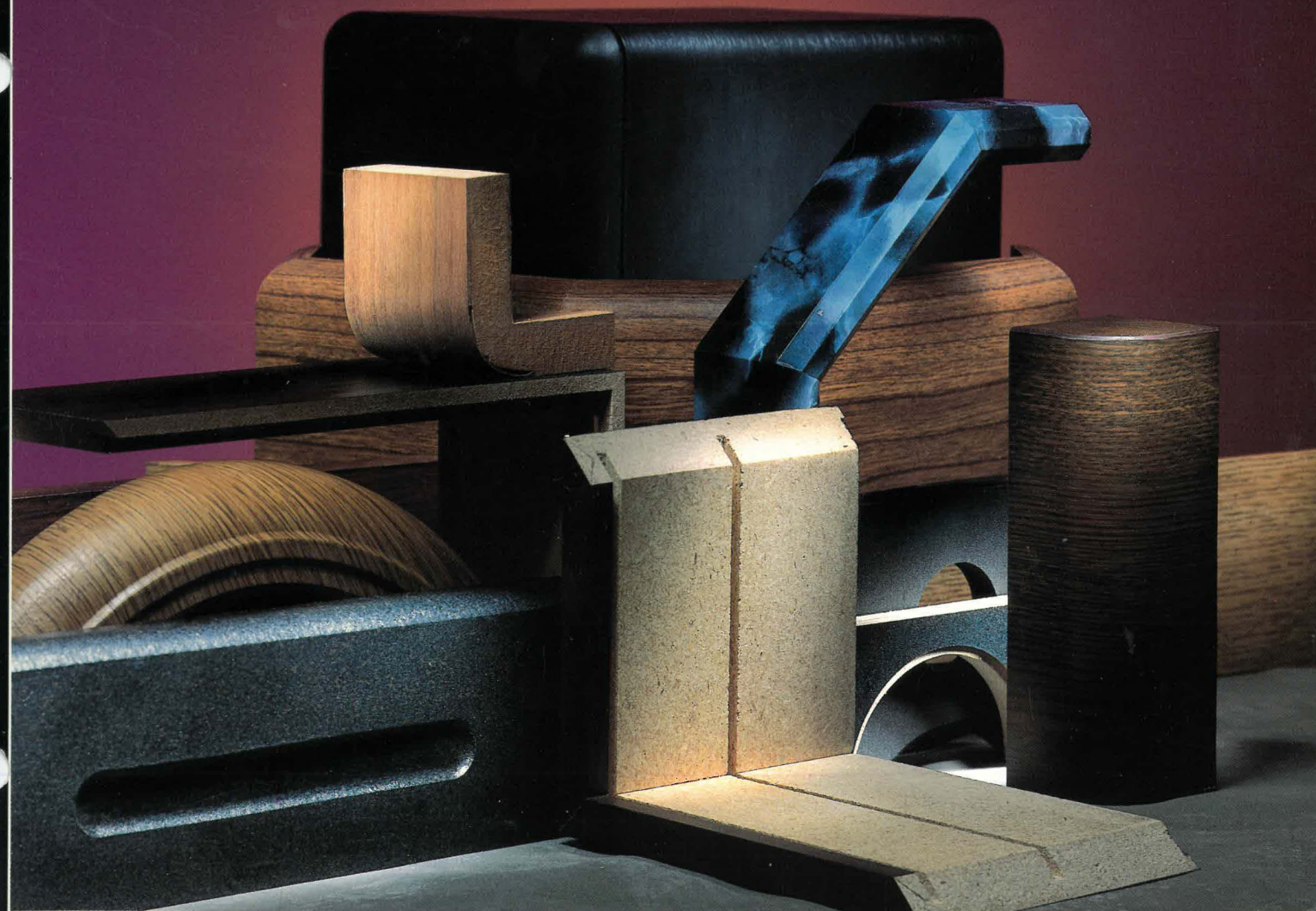


The Groovfold Philosophy

We at Groovfold are committed to supplying our customers with enthusiastic service, quality parts, timely delivery, and competitive pricing. Using SPC techniques, we are continually striving for improvement of quality, processes, and productivity. We believe in employee involvement in the decision-making process, and the reinvestment of earnings to improve both facility and equipment. Our continuing goal is to maintain our reputation as the quality fabricator of vinyl laminated particle board products and components, and to be the ideal place to work.



**Fabricators of
Vinyl Laminated
Particle Board
Products and
Components**



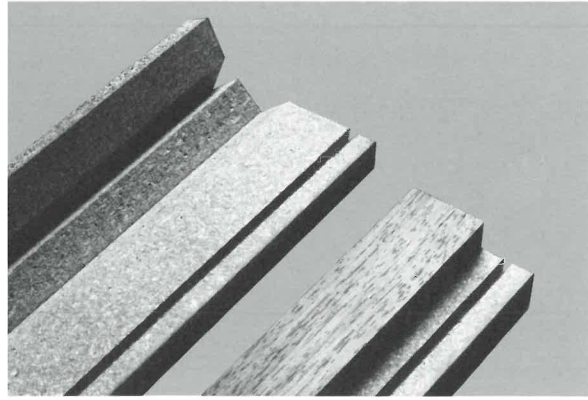
The Groovfold Story

As one of the pioneers of the miterfold process, Richard Cornell founded Groovfold in Newcomerstown, Ohio in 1963. The company quickly developed a local reputation for fabricating quality ceiling beams, and components for television sets and furniture—all based on linear miterfolding and cross grooving.

Over the years, as the company grew, it expanded its operations to include vinyl laminating, wrapping and additional machining capabilities. In 1990, Groovfold expanded again, adding both space and a fully equipped assembly area—giving it the ability to meet customers'

needs from concept to finished product. Now Groovfold has the capability to vacuum form vinyl onto Medium Density Fiberboard (MDF), affording customers even greater creative design opportunities.

Today, nearly thirty years later, there is still a Cornell at Groovfold's helm. Richard's son Cris is president of a company whose total capabilities as fabricators of vinyl laminated particle board products and components are second to none. Groovfold enjoys a national reputation for delivering a wide range of quality products to manufacturers of clocks, toys, plaques, stereo speaker cabinets, picture frames, office furniture, drawer fronts, display units, and enclosure cabinets of all kinds.

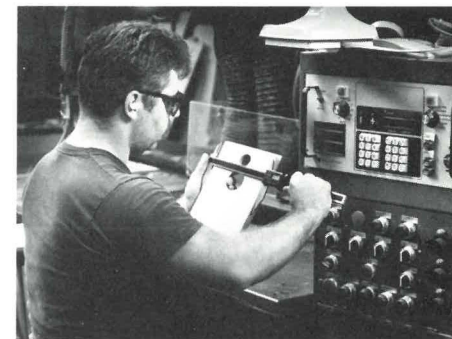


The miterfolding process.

The Future of Vinyl Laminated Particle Board Products and Components

To understand the future of the industry, one need only look at Groovfold's past. Richard Cornell founded and built the company by providing top quality products and services. The attitude at Groovfold is the same today.

It's the reason Cris Cornell instituted Statistical Process Control (SPC) into Groovfold's daily routine in 1988. It's your guarantee products are monitored each step of the way to ensure the highest quality. Our supervisors have taken classes from the American Society for Quality Control, and are fully versed in making SPC work for our customers. We have performed capability studies on all of our machines and processes. We know exactly what our processes can deliver, and we maintain strict quality checks throughout production.



An SPC quality check.

Groovfold will work with you to avoid production pitfalls before they happen. Using a sophisticated AutoCad system, we can interchange disks with you, so you'll know the exact specifications we'll meet for your job. We do all of our own blueprints. In fact, every part we make, even our samples, is the result of a careful design process. No guesswork. Top quality. On-time service. It's the future of Groovfold.

Miterfolding

Vacuum Forming

Wrapping & Edge Banding

Machining

Assembly

Laminating

Applications

We may have started out by... types of stereo speaker

Groovfold...a growing commitment to service

After nearly three decades in the same small Ohio city, we're proud of our track record for delivering solid service. Today, the Groovfold plant is over 56,000 square feet—under one roof. We consistently run two shifts and employ over 70 people. We still enjoy delivering quality products at a reasonable price.

We're fully capable of handling as large a production run as you need. We can help you explore ways to make existing products more economically, and we can help you design, develop and test brand-new concepts. Put us to the test on your next project. We think you'll like what you see.



Applications

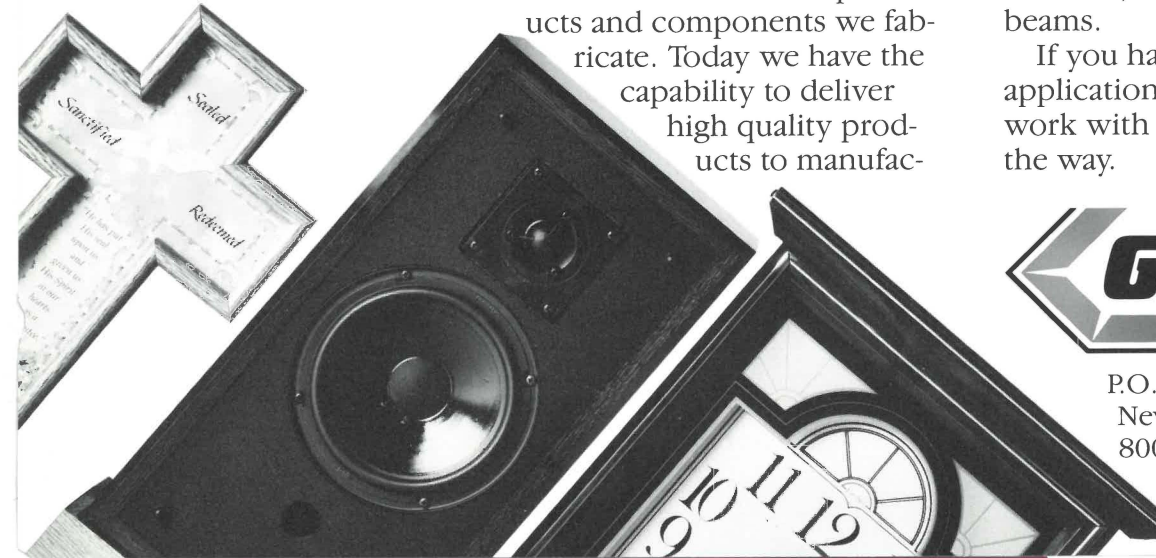
We may have started out by making ceiling beams and parts for television cabinets, but the industries we now serve are almost as diverse as the products and components we fabricate. Today we have the capability to deliver high quality products to manufac-

turers of stereo speaker cabinets, picture frames, clocks, toys, plaques, office furniture, drawer fronts, display units of all kinds, molding...and ceiling beams.

If you have an idea for an application, give us a call. We'll work with you every step of the way.

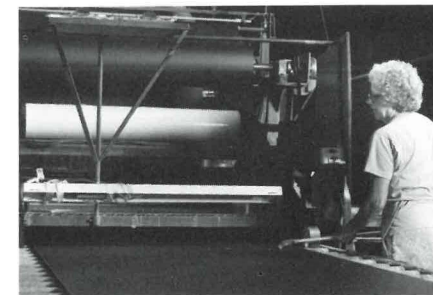


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Laminating

Create your design, pick your vinyl. And using our proven production processes backed by SPC monitoring techniques, we'll deliver smooth, quality, error-free surfaces. At Groovfold, your vinyl laminating options are literally limitless. We can show

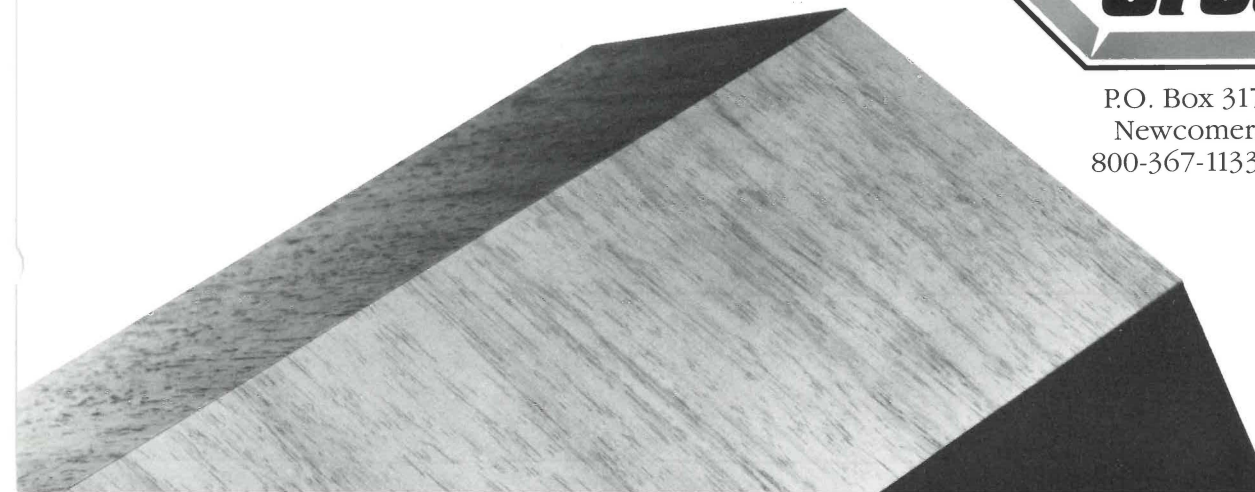


you a wide array of colors, patterns, textures, marbles, woodgrains, pebble finishes, and the list goes on and on.

For a more complete (and colorful) look at the vinyls available today, give us a call and we'll open your eyes to some very interesting possibilities.



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Assembly

Our modern, fully-equipped assembly area provides you with many options as to how you want your products or



components shipped—flat, partially assembled, or fully finished, boxed and ready for final delivery. With fourteen individual assembly stations,

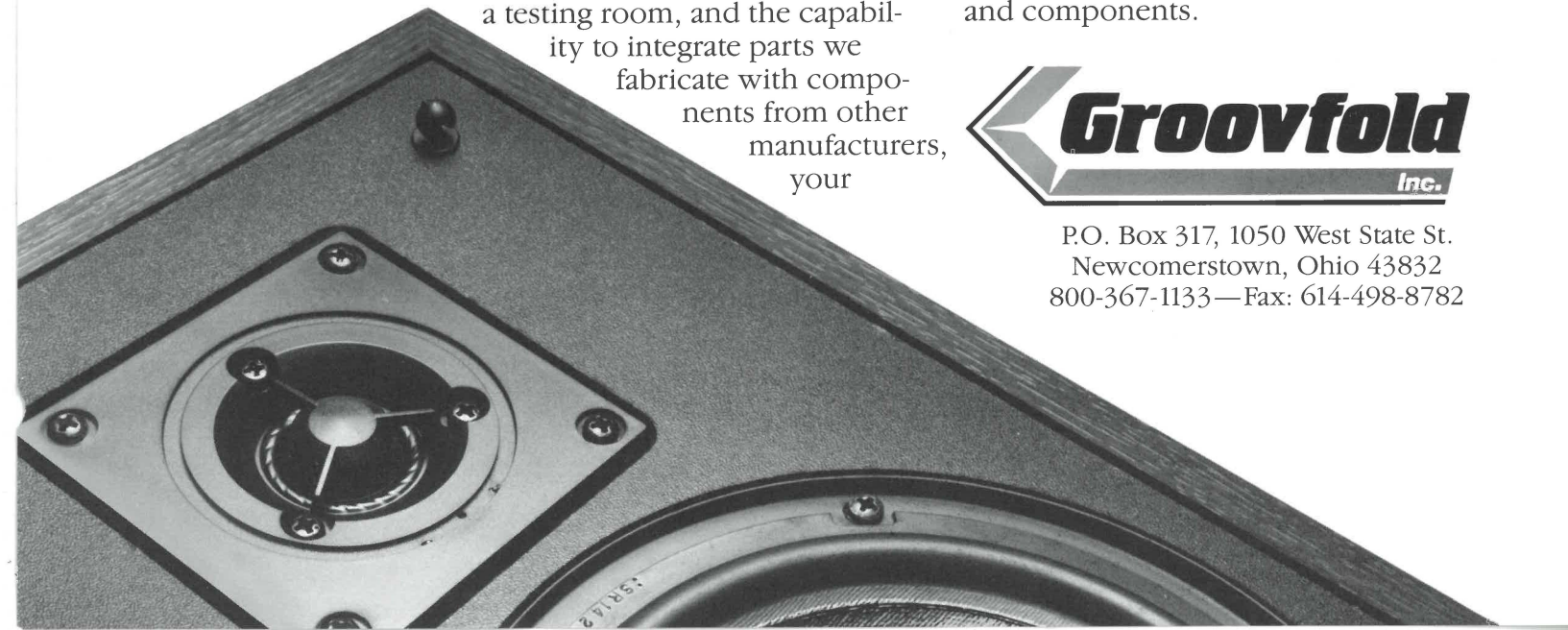
a testing room, and the capability to integrate parts we fabricate with components from other manufacturers, your

project leaves our plant in the exact stage of completion you need.

Our SPC techniques apply to our assembly facilities every bit as much as other areas. Whether we are making one simple fold or preparing a finished product, we monitor the process every step of the way. It's why we consider ourselves the complete quality fabricators of vinyl laminated particle board products and components.



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Machining

Our machining capabilities really open up your design opportunities. Using Computer



Numerically Controlled (CNC) cross groovers and routers and the latest in SPC production techniques, we can hold your design ideas to extremely tight tolerances. It gives you the "look" you're after and the quality you expect.

Cross Grooving

Cross grooving can be accomplished with a single pass or multiple pass cutter. Our equipment and production processes maintain the cutters at the proper angle and depth for precise

mitering to avoid "corner gap" or stretching of the "vinyl hinge." Five cross grooves are cut to make a complete box, or any number of cuts can be programmed in to produce just about any shape you can imagine.

Routing

Using our routing capabilities, you can design components with virtually limitless detail options. Parts with rounded and finished edges, holes of any shape and size, screw starter holes, and much more can be programmed into the computer, and parts can be fabricated to extremely accurate tolerances. Again, our equipment and people are backed by SPC techniques which help monitor each step of the process to ensure quality finished parts. We can help bring your ideas into reality.

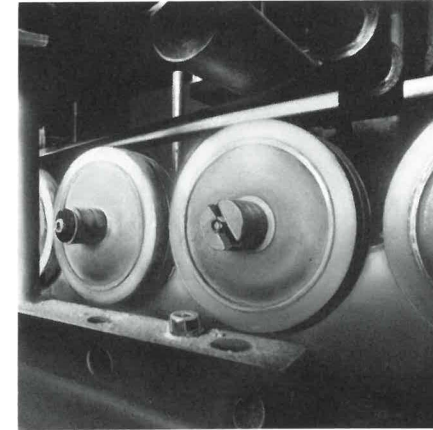


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Wrapping & Edge Banding

Wrapping

For parts up to 11 inches wide, wrapping is an economical alternative to laminating. This labor-saving process can also result in softer edges to the



wood, and produces stand-alone products such as molding or fabricated components which can then be routed or cross grooved for use in other end products.

Our wrapping line is highly automated. We use an automatic magazine loaded Weinig molder, UV applicator and curing tunnel, sanding heads with 15-foot belts, and a Barberan wrapper with a knife coat glue applicator. Unlike the competition, we use epoxy on our wrapper, and can guarantee the smoothest finishes with destructive bonds.

Operating in-line ensures a quality part as well as low cost. Add in our commitment to SPC, and you can be assured of consistent parts and components.

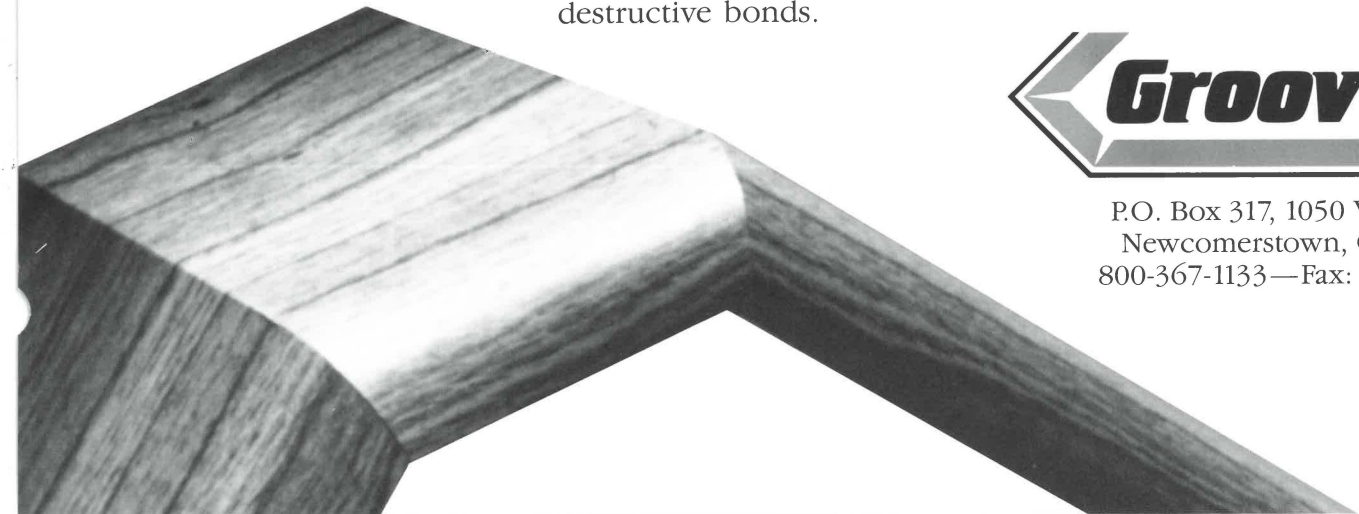
Edge Banding

As an alternative edge treatment, edge banding can be matched with a particular vinyl or used as a contrasting accent. At Groovfold, we use a heavy PVC banding material which can be as narrow as 3/8" or as wide as 1-1/4". It's available in both woodgrains and solids, and comes in a wide variety of colors and textures.

Edge banding can also be combined with wrapping to create a distinctive look. On a shelf, for example, the long edges could be wrapped and the short edges could be banded to match the curve of the wrapped edges. The combinations available are nearly limitless.

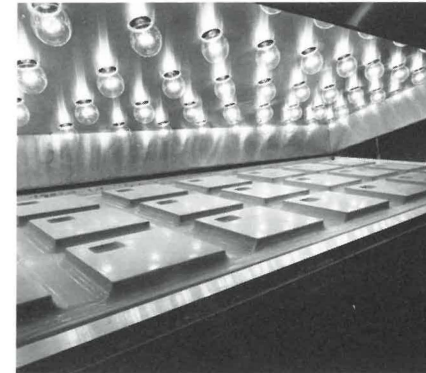


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Vacuum Forming

It's one of the most exciting new additions to the Groovfold capabilities line-up to come along in many years. Vacuum



forming literally opens up a whole new world of design possibilities. Your engineers and designers now have the opportunity to develop products and components with vinyl laminated on such areas as inside edges, rounded corners, and multiple surfaces.



The process is really quite simple. The pre-machined Medium Density Fiberboard (MDF) components are sprayed with a

special glue and placed inside the vacuum forming unit. Vinyl is placed over the parts and covered with a unique air-tight "bladder." The vinyl is then

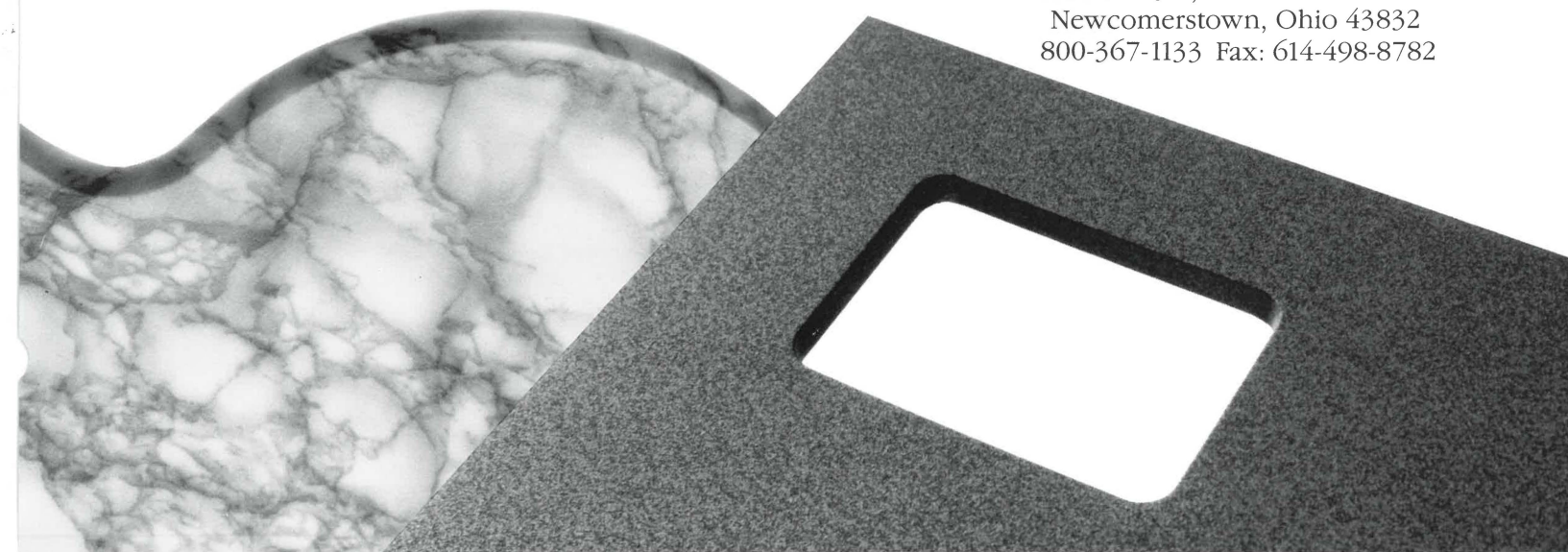
heated to ensure its pliability. When the vacuum is created, the bladder is "sucked" tight down around the vinyl covered parts. The end result is a remarkably uniform adhesion of the vinyl to the pre-cut shape of the MDF.

The Groovfold vacuum process is somewhat different from others in the industry in that we designed, developed and manufactured our own equipment. Add to that our record for ensuring quality production runs through effective use of SPC techniques, and we believe our equipment and processes are among the best in the industry.

If you're interested in hearing more about this exciting new technique, give us a call. We'll be happy to show you what it can do for you.

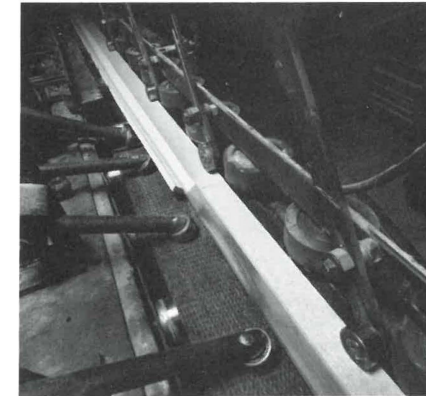


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Miterfolding

Using the miterfolding process, Groovfold can add a clean, quality front and back "mold" design to tables, bookshelves, frames, cabinets, and more. We give you the opportunity to



design and develop a wide variety of square or rounded edges—the options are limited only by your imagination.

The linear grooving process uses a series of V-groove cutters which cut through

the backside of particle board or other material that has been laminated on the front side with vinyl. The cutters go through the substrate but not through the vinyl. As a result, the board can then be glued and folded into the desired final shape.

The flexible vinyl acts as a hinge for the joint. The sides of the "V's" come together, setting the angle of the fold and positively locating the two surfaces.

The continuous laminate stops the glue from leaking and gives a continuity to the surface of the fold. All of our cutter sets are engineered and manufactured to ensure proper folding without "play" between the matching faces of the folds.

As with all of our processes, SPC plays an important part in every product or component. Working with your design and our knowledge of both miterfolding and SPC techniques, we can virtually guarantee consistent, high-quality products. Groovfold began back in 1963 as a true pioneer in the miterfolding industry. We're proud of our track record, and we're committed to being the industry's quality miterfolder.



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