PERFECTED DOWN TO THE LAST DETAIL FOR PREMIUM SURFACES.
UNIQUE DESIGN DETAILS MAKE SURFACES STAND OUT.

Unique design and quality, combined with material savings and productivity, are today’s requirements for producing decorative surfaces for automotive interiors. We are passionately dedicated to incorporating these requirements, which can prove to be challenging. It’s one of our distinctive capabilities, and part of why we’re one of the leading specialists in the market.

Utilizing our highly productive tooling and equipment technology allows substrates to be finished with premium surfaces. The bond between the substrate and the decor results from a gluing/joining process with specific pressures and temperatures. There are almost no limitations to the design of the parts; all geometries can be processed with our tooling. The result is high-quality parts that can be produced in a repeatable, reliable, and efficient way in series production volumes. These parts are favored in modern automotive interiors.

Decorative materials come in many variations, from exact contour-cut blanks of leather or artificial leather, to a wide variety of textile materials. Processing delicate materials, like leather, efficiently and with repeatable quality requires special know-how. The individual processes – surface treatment, adhesive application, and the actual leather lamination – must be precisely coordinated.

Interior components can also be upgraded with unique colors or with decorative and functional stitching. IMG formed skins with stitching are another premium option.

The designs of our press lamination solutions are just as unique as the materials and requirements in your project. We are continuously improving them, down to the last detail.

AND OUR PRESS LAMINATING SOLUTIONS, TOO!

Why FRIMO? Your advantages:
- Precise, fast machine technology
- Short cycle times with high speed opening and closing
- Compact, modular design saves space
- Integration of lamination with punching, edge folding, or trimming is possible
- Unique product designs and 3D geometries are feasible
- Special solutions for maximum material savings
- Flexible machine usage through quick tool change systems

Superior precision you can see and feel

Over the past few years, we’ve produced over

100 MACHINES
200 TOOLS
WHICH SOLUTION FOR WHICH PROJECT?
FRIMO TOOLING AND EQUIPMENT FOR EVERY SITUATION.

The highest level of machine technology with a variety of design configurations

Quality should never be dependent on production volume, but your investment is - and it must fit. That’s why at FRIMO, you’ll find solutions tailored directly to your needs that offer high machine availability and optimal utilization. Let us help you make the right choice, regardless of your production volumes.

Optimal for small to medium production volumes:
- Single-station press laminating machines with electrically-driven upper platen
- Double press laminating machines with independent operating stations
- Membrane press laminating
- Pre-fixing stations

Ideal for medium to high production volumes:
- Single-station press laminating machines with turn tables
- Linear press laminating machines with multiple operating stations
- Robot cells
- Groove laminating machines
- Tool change systems

Specialized systems:
- Multipurpose Machines (MPMs)
- Automated press laminating systems

Precise FRIMO tooling technology for perfect lamination results

Premium surfaces are the result of top-notch processing, and at FRIMO, you get the perfect tools for it: technically mature and field-proven. We think it is extremely important to make sure our tooling is as safe in handling and as flexible as possible, which is why we offer options such as quick tool change systems and tool change carts. Our portfolio ranges from simple to complex, encompassing all process variations, and offers diverse combination possibilities.

- Pre-fixing stations
- Press laminating tools
- Press laminating/edge folding tools
- Groove laminating tools
- Duotherm tooling
- Membrane laminating tools
- FRIMO Accurate Blank Laminating (FABL®) equipment

FRIMO Augmented Reality App allows you to gain exciting 3D insights into our technologies. Simply download the app and scan the images labeled with the app icon!

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HOW CAN YOU EFFICIENTLY COMBINE PROCESSES?
WITH FRIMO ROBOT CELLS - ALL IN ONE.

The success of our robot cells stems from creating clever combinations for fast production. These combinations are a more efficient alternative to having multiple machines for medium to high volume armrest, door upper, bolster insert, and instrument panel production.

“All in One” means combining pre-fixing, hotmelt adhesive application, and the subsequent press laminating/edge folding process in a single production unit. By combining these individual steps, and handling parts for adhesive application with robotic support, resources are reduced in multiple areas. Less space and fewer operators are required.

The result: attractive soft-touch surfaces made of leather, artificial leather, textiles, or films and polyurethane foam or spacer materials. Plus, all production parameters are permanently recorded, making the process incredibly reliable.

You shouldn’t have to make any sacrifices when it comes to flexibility. Multiple applications can all be covered in one machine through quick tool changes. Additional functions, such as punching or expanded quality assurance procedures, can be integrated when necessary.

Why FRIMO? Your advantages:
- Highly automated production process
- Lower personnel and space requirements
- High process reliability
- Flexible use with multiple tools
- Capable of processing the most diverse decorative materials
- Additional features can be integrated

Over the past few years, we’ve produced over 50 MACHINES 75 TOOLS

APPLICATIONS | PRESS LAMINATING
HOW CAN YOU MAXIMIZE MATERIAL SAVINGS?
With FABL® - FRIMO ACCURATE BLANK LAMINATING.

It is simply not possible to save more material during press laminating than with FABL®. Our advanced FABL® press laminating technology can process exact contour-cut blanks made of TPO/PVC sheets, textiles, or artificial leather. These are then positioned, laminated to the substrate, and edge folded all in one step.

The decorative material is pulled tight by electric positioning grippers, which eliminate any possibility of wrinkles. Other advantages include minimized grain stretch and higher remaining wall thickness, which ensure a high-quality, premium appearance. This is achieved through exact positioning and controlled decorative material slippage.

FABL® reduces material waste and increases production efficiency for premium surfaces in a flexible, sustainable process.

Why FRIMO? Your advantages:
- One-step process for laminating and edge folding
- Lowest use of materials possible
- Improved surface quality
- Automatic feeding system for decor and substrate available
- Production of partially laminated parts possible

IS THERE A WAY TO GIVE LIGHTWEIGHT COMPONENTS A PREMIUM LOOK?
WITH FRIMO GROOVE LAMINATING THERE IS.

Groove laminating allows you to use different decor variations on a single substrate. It is most commonly utilized on doors in automotive interiors. There is only one condition: the substrate must have a groove to tuck the edges of the decor into.

During the process, a blade tucks the edges of the decor into the substrate’s groove, where it is secured with adhesive. Both 2D and 3D contours are feasible and edge folding can also be integrated when necessary.

This makes it possible to highlight a certain area of a door panel using a textile, leather, or foil, without needing to produce a separate substrate.

Why FRIMO? Your advantages:
- Economic product improvement
- Fast, material-saving, combined process
- Joining processes not required
- High structural stability, yet lightweight
- Excellent crash behavior

Over the past few years, we’ve produced over 40 MACHINES 60 TOOLS
Perfectly processing premium materials, such as leather, requires exceptional know-how and precision, down to the smallest detail. For very precise quality requirements, we offer a combination of hard tools and soft membranes, adapted exactly to the part.

**PRODUCT-SPECIFIC SOLUTIONS FOR INDIVIDUAL APPLICATIONS**

LAMINATE HARD AND SOFT AREAS AT THE SAME TIME? WITH **SELECTIVE MEMBRANE/PRESS LAMINATING** FROM FRIMO.

Perfectly processing premium materials, such as leather, requires exceptional know-how and precision, down to the smallest detail. For very precise quality requirements, we offer a combination of hard tools and soft membranes, adapted exactly to the part.

With selective laminating, both membrane and hard laminating can be performed in a single tool. The transitions between hard and soft areas can therefore be formed perfectly and tolerances will compensate for each other. This is a particularly attractive option for applications such as instrument or door panels.

**Why FRIMO? Your advantages:**
- Perfect transitions between hard and soft areas
- Adhesive activated through IR heat and re-cooled in the tool
- Contour tool with membrane covering compensates for variations in part geometries
- High process reliability through minimized manual operation
- Flexible production of left and right hand drive parts
- Integrated edge folding
- Energy efficient process
With short life cycles and an increasing number of variations, more flexible and economic options are needed. Here’s our answer: a universal genius for four technologies, optimal for low to medium production volumes. Our Multipurpose Machine (MPM) is a single, compact, modular machine that combines:

- Press laminating (heating and activation through separate heat emitter)
- Groove laminating
- Vacuum laminating/IMG laminating
- Edge folding (hot air and emitter activated)

The installed tools each have their own PLC and therefore the process know-how remains with the tool. By utilizing the central robot, a complete product and process change takes place at the push of a button. Your operators only need to load the machine and unload the finished parts.

Press laminating leather and artificial leather requires hot-melt adhesives, which need to be heated and then re-cooled in the process. With FRIMO, this is possible in a single tool, instead of requiring the standard additional cooling die. With precise temperature control, both the hotmelt adhesive activation and the re-cooling take place in the closed tool. Both are necessary to prevent the decor from delaminating. The pre-fixed covers and seams are continuously held in place during the entire adhesive activation and re-cooling process. This also makes it possible to process leather coverings with complex geometries directly in a press laminating tool. Heating and cooling in a single tool - an unbeatable duo in processes with hotmelts!

**WHICH TECHNOLOGY ARE YOU LOOKING FOR?**
**THE FRIMO MULTIPURPOSE MACHINE COMBINES ALL OF THEM FOR YOU.**

**WHAT DO HEATING AND COOLING BRING TO A TOOL?**
**MASTER HOTMELTS PERFECTLY WITH FRIMO DUOTHERM TECHNOLOGY.**

**Why FRIMO? Your advantages:**

- One investment for four technologies
- Flexible small series production
- Fully-automated tool change
- Quick and easy technology switch

**Why FRIMO? Your advantages:**

- Secure adhesion to concave substrate areas
- Decor and seam are held in exact position in the tool
- Energy-efficient tool design and tempering concept
- Segmented application possible in press laminating tools

**PRODUCT-SPECIFIC SOLUTIONS | PRESS LAMINATING**
LOCAL COMPETENCE WITH THE GLOBAL FRIMO NETWORK

Since FRIMO was founded in 1962, our corporate group has grown to become one of the leading technology suppliers for production solutions. Today, the FRIMO network consists of international locations in Europe, America, and Asia with a total of 1,500 employees and numerous international representatives.

Locations
- FRIMO Group
- FRIMO Lotte
- FRIMO Sontra
- FRIMO Freilassing
- FRIMO Hamburg
- FRIMO Control Systems
- FRIMO China
- FRIMO Hungary
- FRIMO USA
- FRIMO Mexico
- FRIMO Poland
- bo parts Germany
- bo parts USA
- B+R Elektro-Steueringstechnik

Representatives
- Brazil
- Czech Republic
- France
- Great Britain
- India
- Italy
- Korea
- Portugal
- Russia
- Scandinavia
- Slovakia
- Spain
- Turkey

ONE STOP. ALL SERVICES.
An unparalleled range of technologies

We provide technology-neutral advice:
- PU PROCESSING
- FLEXIBLE TRIMMING
- PUNCHING
- PRESSING/FORMING
- THERMOFORMING
- PRESS LAMINATING
- EDGE FOLDING
- JOINING/GLUING

We support in every step of the process:
- ENGINEERING
- PROJECT MANAGEMENT
- PROTOTYPING
- TOOLING
- MACHINERY
- AUTOMATION
- SERVICE
- PART PRODUCTION

FULL DEDICATION FOR YOUR SUCCESS.