

# **VECTOR**

4.0-ready multi-ply fabric-cutting excellence



# **L<sub>E</sub>CTRA**

We pioneer. You lead.

# Achieve profitability in a contracting market

## Unforeseen downturns and disruptions

Despite current economic uncertainty, new business opportunities continue to emerge for automotive seating and interior suppliers. Consumer perception of privately owned cars as safer than public transport is bolstering sales of new vehicles on some markets. **Significant sales growth in Europe and stable sales volume in China have buoyed the worldwide EV market.** Intensified interest in virus-resistant interiors is leading to new seating designs incorporating physical distancing and self-sterilizing materials. Specially designed steering wheels, door handles and high-grade air filters are just a few of the automotive components in demand.



### EMBRACING CORPORATE SOCIAL RESPONSIBILITY

Environmental sustainability and occupational safety are now non-negotiables in the business. Interior manufacturers have to improve their *savoir-faire* in handling complex and innovative textiles and energy efficient equipment. At the same time, creating a safe environment for their operators is also a major priority.



### KEEPING UP WITH TECHNOLOGY

To meet new mobility requirements and consumer expectations, especially in the area of health and well-being, vehicle seating and interior companies will have to invest in new technology applications. To offset the cost of new technology deployments, achieving operational excellence will be critical.



### OVERCOMING COST PRESSURES

Although vehicle interiors influence consumer buying decisions most, seating and components hold limited margin for suppliers. Development cycles are becoming increasingly shorter and the pressure on cost will continue to increase. To compete, suppliers must produce quality goods at the lowest cost, within the shortest turnaround time.



### ACHIEVING COST EFFICIENCY

To be ready for any business challenge or emerging opportunity, companies will have to develop and implement mid- and long-term operations and engineering strategies. For suppliers in a contracting market, cost efficiency is the strategic choice to ensure profitability.



Stay competitive with  
greater agility and control  
in the cutting room

ACCELERATE



**VectorAutomotive delivers high-quality cutting precision to improve manufacturing efficiency while lowering costs and reducing waste.**

What can you do to minimize production costs and improve your profitability? How can you gain greater agility in a continually changing business environment?

With Lectra's advanced fabric-cutting solutions, you can cut more fabric faster, at a lower cost. The VectorAutomotive range enables you to manage fluctuating production batches with fast, flexible changeovers. **Enhance your performance by optimizing material usage while improving cut part quality.**

Benefit from our field services footprint with engineers and experts located worldwide, ready to help you achieve operational excellence.

# What is VectorAutomotive?

The VectorAutomotive cutting room is an integrated digital fabric-cutting solution that enables vehicle seating and interior suppliers to achieve the lowest cost per cut part on the market today. The solution combines a **full range of industry-specific software and equipment for high-accuracy pattern-making, marker-making, spreading and upholstery cutting.**

With the capacity to cut up to 9 cm of fabric height at the highest speed, with little or no buffer between parts, VectorAutomotive empowers suppliers to cut more fabric faster, at a substantially lower cost (from prototyping, small and large series production). To meet the requirements of automotive manufacturers in the Industry 4.0 era, VectorAutomotive is embedded with hundreds of sensors that communicate in real-time with Lectra's call centers and take preemptive action for an unmatched level of reliability.

In addition to delivering the highest level of precision for perfectly cut parts, VectorAutomotive supports lean manufacturing by streamlining fabric loading, cutting, offloading and maintenance.



DEVELOP

**DESIGNCONCEPT**

Virtual prototyping



INDUSTRIALIZE

**FORMARIS** **DIAMINO**  
**GERBER ACCUMARK** **GERBER ACCUNEST**

Pattern development



PRODUCE

**GERBER 250S**

**VECTOR**

Fabric spreading

Fabric cutting



# Services 4.0

## Your success is our priority

We provide all the support and guidance our customers need to make the most of their Lectra solutions and equipment. Our training and technical support programs were developed based on more than 50 years of experience working with renowned automotive suppliers around the world.

Our advanced services, expertise, data analysis and comprehensive technical support ensure that our customers fully adopt our solutions and achieve their objectives.



### IN-DEPTH KNOWLEDGE

Digital resources and face-to-face sessions enable you to set and accomplish your training goals at every stage of implementation and adoption. Our training methodology was designed to guide you through quick wins and practical application, which helps you gain independence quickly.



### CONTINUOUS INNOVATION

We give our customers immediate access to the latest functionalities incorporated into our solutions, as well as helpful information aimed at familiarizing them with new features. Continuously create value by working hand-in-hand with us to improve operations based on current best practices.



### EQUIPMENT AVAILABILITY AND QUALITY

Sensors in our equipment help us anticipate technical issues and take preemptive measures remotely to minimize machine downtime. Preventive maintenance and regular audits ensure consistent cutting quality, which helps you reduce waste and lower costs.



### EQUIPMENT PERFORMANCE ANALYSIS

Benefit from easy access to centralized data. Define and track your production key performance indicators (KPIs) to quickly identify areas for improvement.

# Improve bottom-line performance with flexibility and cost control

## Maximize material savings

Meet cost challenges with technically advanced fabric-cutting equipment.

### ▪ Near-zero-buffer cutting

Cut multiple layers of upholstery fabric types with no buffer between cut parts thanks to advanced hardware components, software and a new blade design.

### ▪ Optimized nesting

Get the most parts out of upholstery materials with powerful marker-making software Diamino, which also enables digital transfer to the cutting room.

## Prevent failures and downtime

Gain the peace of mind of preventive and predictive maintenance.

### ▪ High machine availability

Achieve up to 98% availability thanks to built-in sensors for reporting, analysis and predictive maintenance.

### ▪ Anti-error systems

Integrated anti-error systems detect blade breakage and verify bar code references and drill sizes.

### ▪ Predictive maintenance

Vector's sensors communicate in real-time with our call centers to resolve issues before a breakdown occurs.

## Enhance cut quality

Cut a wide range of upholstery materials with accuracy approaching zero defects.

### ▪ Precision cutting

Produce perfectly cut parts for vehicle seating and interior components using high-performance blades.

### ▪ Low scrap rate

VectorAutomotive's high degree of accuracy ensures the highest possible level of cutting quality while also reducing buffer between cut parts.

## Embrace corporate social responsibility

Fulfill CSR requirements to align your values to those of your customers.

### ▪ A safe and productive workplace environment

Improve operator safety and efficiency with the ergonomic, streamlined design.

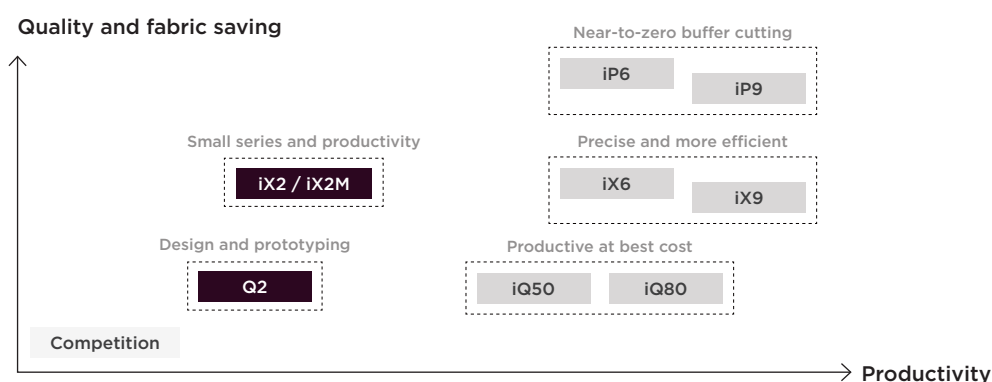
### ▪ Reduced carbon emissions

Minimize carbon emissions at the production and transportation stages with a lighter, more compact configuration (Production and supply chain).

Use an energy-efficient turbine to decrease idling time and power consumption.

# A complete range of equipment suited to every fabric-cutting requirement

A pioneering solution in the Internet of Things, Vector was the first fabric cutting technology on the market to feature Internet connectivity and a predictive maintenance system. Today, the Vector family of fabric-cutting solutions is **comprehensive, meeting the most stringent manufacturing requirements for all upholstery types and complex shapes (plain and patterned fabrics).**



Q2

iX2

iX2M



iQ50

iQ80



iX6

iX9



iP6

iP9

LOW-PLY

HIGH-PLY

# Vector, an Industry 4.0-compliant cutting solution

Vector is a key component of the Automotive Cutting Room 4.0 offer. This industry-first solution allows you to connect and digitalize your cutting room operations and harness the power of data for greater outcomes across your entire manufacturing process.

With Automotive Cutting Room 4.0, you can watch as the **efficiencies add up in real-time, leading to quicker results, more control and continuous transformation.**



## VALIA

### Preparation and Planning Manager

Valia Preparation and Planning Manager simplifies every stage of fabric cutting, from preparation to planning and execution. This integrated, digitalized workflow connects all your fabric-cutting assets, so you can:

- visualize production processes;
- make informed decisions in real-time;
- standardize cutting processes across plant locations.

## ALGOPEX

### Continuous Improvement Enabler

Algopec is a real-time cutting room monitoring solution that provides a unified view of production. It gives you greater control over performance to achieve manufacturing excellence by:

- monitoring in real-time across all manufacturing facilities;
- tracking key indicators to benchmark your production performance.



## EMPOWER

### Next-Generation Services

Built on the reliability and support of Lectra Power contracts, EmPower leverages Vector cutting room data to provide a comprehensive view of operations enabling you to take preventive actions and improve productivity:

- onboard users and continuously develop their proficiency;
- maximize machine uptime and availability;
- reduce maintenance costs;
- monitor production performance of each installed Vector thanks to Dashboard.



# CAD & cutting room software

## **DIAMINO**

### Marker-making software

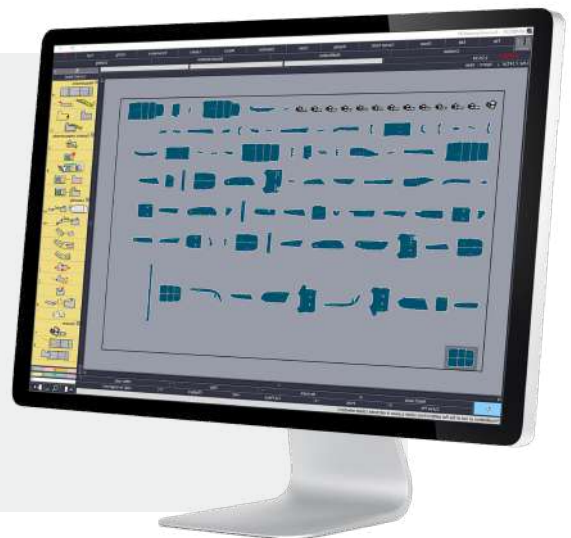
- **Waste reduction.** Shorten the design-to-production cycle with intelligent pattern design that minimizes waste and error.
- **Cost control.** Accurately calculate fabric costs up-front, guaranteeing your margin and gaining leverage with suppliers.
- **Increased productivity.** Keep up with complex orders and tight deadlines by generating complex markers quickly.
- **Time savings.** Process markers quickly and make efficient use of time with automated off-time processing.
- **Shortened lead time.** Streamline processes and go to market faster with Diamino's integrated workflows.



## **FORMARIS**

### Product development software

- **Time savings:**
  - Up to 30% faster industrialization lead time
  - Meets growing demand for product personalization
- **Process improvement**
- **Reduced scrap rate**



# Call center, consumables and parts

## Cutting room care services

Sensors and counters embedded in cutting room equipment allow Lectra to remotely monitor proper functioning, minimizing the risk of production downtime at all times.

## Genuine Lectra consumables and parts

Improve the performance of your cutting room with consumables and maintenance kits developed by Lectra's R&D department to ensure uninterrupted long-term operation of your Vector equipment.

### MAINTENANCE KIT

- Based on the feedback of more than 20,000 customers using Lectra equipment, maintenance kits contain only genuine Lectra parts and feature the latest technologies.



### ROLL GOODS

- Lectra offers paper and plastic roll goods that allow you to achieve excellent productivity by maintaining a perfectly uniform vacuum over the entire upholstery surface area.



### SHARPENING BANDS

- Lectra sharpening bands adhere to strict internal quality controls and are designed to lengthen blade lifespan with an efficient abrasive sharpening surface.



### BLADES

- To enable you to achieve superior cutting quality, Lectra blades are made of high-grade steel with excellent resistance to bending, shocks and vibrations. For our new VectorAutomotive iP range, we have developed a specially designed sintered-steel blade blade to achieve zero-buffer cutting.



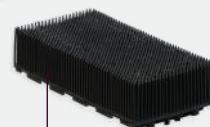
### DRILLS

- Lectra offers a wide range of drills to satisfy the needs of your various applications.



### BRISTLE BLOCKS

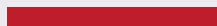
- Lectra bristle blocks are specially designed to hold the spread firmly in place. Their self-cleaning system extends the service life of your equipment.





**We pioneer. You lead.**

Lectra offers the expertise, technology and industry knowledge to support you, starting with the definition of a solution suited to your needs and throughout the life of your cutting room, from implementation to support and process optimization.



#### **About Lectra**

As a major player in the fashion, automotive and furniture markets, Lectra contributes to the Industry 4.0 revolution with boldness and passion by providing best-in-class technologies.

The group offers industrial intelligence solutions - software, equipment, data and services - that facilitate the digital transformation of the companies it serves. In doing so, Lectra helps its customers push boundaries and unlock their potential. The group is proud to state that its 2,500 employees are driven by three core values: being open-minded thinkers, trusted partners and passionate innovators across the globe.

For more information, please visit [lectra.com](https://www.lectra.com)

