Enabling lighter, stronger, quieter commercial vehicles
L&L Commercial Vehicles is a global business dedicated to making commercial vehicles lighter, stronger, quieter, safer and more fuel efficient. We supply optimized solutions for light and heavy trucks, buses and coaches, construction / agricultural machinery, recreational vehicles (RVs), caravans, special purpose vehicles and rail transportation.

Our Commercial Vehicles teams are based in all key design and production customer locations providing expertise, support and customized technology to meet the diverse needs of commercial vehicle applications on a cost-effective basis.

L&L Commercial Vehicles’ technologies include innovative acoustic enhancement systems, anti-corrosion sealing, damping systems and structural reinforcement solutions to reduce weight and improve crash performance. Our novel adhesive systems allow the structural bonding of metals, composites and engineering plastics. In addition our DECI-TEX product line provides both acoustic and thermal damping benefits.

All of our solutions are customized to meet the exact requirements of our customers, wherever they are located and whatever the type of commercial vehicle. We don’t subscribe to the mantra that ‘one size fits all’. Our systems are compatible with all types of vehicle construction processes - from high temperature body in white bake processes through to room temperature vehicle assembly.

Continuous investment in Research & Development reinforces our position as a technology focused company. Our ability to combine advanced material science, innovative engineering design, numerical analysis, computer-aided engineering and new processing methodologies make us unique among our competitors. Products such as high expanding heat activated sealing and acoustic materials, dry-to-the-touch Composite Body Solutions (CBS) reinforcements and Extrude-in-Place (XP) heat activated material systems are among the many innovations we have developed in recent years.
We partner with our customers throughout the development journey in order to provide fully-optimized, customer-specific solutions. At L&L we place particularly strong emphasis on developing products that can be seamlessly introduced into a customer’s existing manufacturing processes.

With our highly specialized design engineers, chemists, production engineers and fabrication personnel, we are able to deliver cost-effective, high quality solutions.

We start the process by clearly understanding what the customer is seeking - whether it is reducing weight, enhancing structural performance, improving safety, better noise insulation, reducing corrosion or, as is often the case, a specific combination of these parameters. Also, as we are aware of the diverse production processes used across the CV industry, we work with our customers to fully appreciate any specific production requirements - faster cycle times, simpler processing, enhanced worker safety etc.

Armed with this knowledge our multi-disciplined team will be able to develop the most appropriate and practical solution that will fully meet any certification requirements. We support multiple CAD and CAE platforms to ensure that we speak the same ‘language’ as our customers. This ensures that our simulations and designs can be easily plugged into the macro vehicle simulations run by our customers and that simulation accuracy and correlation is retained at all times.

At L&L a truly successful solution is one that not only meets the original performance and cost parameters but is also capable of being smoothly introduced into an existing production scenario.

Our ability to produce innovative solutions is clearly demonstrated by the fact that in the last 15 years we have been awarded over 200 patents related to material formulations, engineering designs and manufacturing processes.

We operate extensive R&D laboratories on four continents.

We have production facilities in the USA, Europe, China, India, Australia, Turkey and Brazil.

Robotic application of XP Extrude-in-Place sealants and adhesives.
Customized solutions for commercial vehicles

**L&L Bond**

Structural Adhesives

L&L’s structural adhesives can replace more traditional joining techniques across a range of substrates - steel, aluminum, composites, etc. - to improve both structural integrity and corrosion performance. In particular they can be readily used in areas that are difficult to access using traditional techniques such as riveting and welding. L&L Bond systems are available in tape, film and paste forms in order to better fit customer specific manufacturing processes. Both expanding and non-expanding variants are also available. Our adhesive technologies also offer class leading tensile properties, flexibility, accelerated cycle times and the elimination of complex surface pre-treatment processes.

**L&L Seal**

Cavity / Acoustic Sealing

L&L’s cavity sealing and acoustic technologies minimize noise entering and exiting a vehicle interior by managing noise propagation while at the same time providing significant added benefits such as the reduction of metal body corrosion. As our solutions are customized to meet the specific needs of an OEM we can produce seal solutions in tape, paste, die cut, clip, metal and injected carrier formats. We also offer our unique extrude-in-place (XiP) technology. As our technology range is much broader than other suppliers, we are able to offer materials with an extremely wide range of expansion characteristics, and we are compatible with the most demanding low to high bake temperature body shop processes.

**L&L DECI-TEX**

Engineered Sound Absorption

L&L’s DECI-TEX fiber-based, acoustic technology solutions are precisely tuned and engineered for customer-specific applications. They are available in both sheet and part form and deliver high acoustic / thermal performance while being lighter and lower in cost than the competition. The current DECI-TEX range includes: V series - vertically-lapped, lofted sound absorption materials; T series - thermoformable acoustic sheet materials and M series - molded vertically lapped lofted sound absorption materials. As well as their high acoustic and thermal performance, DECI-TEX systems are an environmentally sound solution as they contain high amounts of recycled material and can be readily reprocessed.

**L&L Reinforce**

Structural Reinforcements

L&L’s structural reinforcement technologies are used to enhance the performance of a vehicle’s body structure. Weight is reduced while the durability, stiffness, impact resistance and safety of the vehicle are maintained or improved. L&L Reinforce solutions can also allow steel to be down gauged without reducing structural integrity.

L&L Reinforce systems are available in a wide variety of configurations to suit the requirements of a specific application - injection molded parts, metal carriers, simple flat shimmed parts, etc. and even hybrid body systems that feature sheet metal and composite substrates.
L&L Products is a technology driven business to business company that has operated for more than half a century on the basis of building long term relationships with its customers and supply partners.

We have unique expertise in static sealing, acoustic insulation, vibration reduction, structural reinforcement, corrosion management and thermal damping for aerospace, automotive, commercial vehicle and industrial applications.

Our current portfolio of products for commercial vehicles is aimed at reducing vibration, improving acoustic performance and providing local reinforcement. The solutions we offer are exactly tailored to meet the vehicle design, regulatory approval and manufacturing needs of commercial vehicle customers.

We are ideally placed to provide customer specific solutions. To this end, we have a continuous program of heavy investment in R&D facilities that span material science, computer aided design, finite element analysis, prototyping, testing, process technology and manufacturing.

With 16 strategically-located operating subsidiaries and production facilities in the USA, Brazil, Europe, Turkey, India, China and Australia, we are extremely well positioned to provide ‘local’ support to our global customer base. L&L plants comply with TS16949, ISO 9001 and ISO 14001 quality and sustainability standards.

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