

COLDCHAIN MANAGEMENT

GOOD NEWS FROM THE GREEN COLD CHAIN

 **K LAMBERET...**

NEW ENERGIES

**ELECTRIC,
HYDROGEN,
SOLAR...**

**AUTOMATIC
DROP IMMOBILIZER
SAVES LIVES**

**KERSTNER
KEEP COOL
INSIDE**



**TRAILER
INNOVATION
CCC 2023**

**WINNER
CATEGORY
SMART_TRAILER**

TRAILER INNOVATION AWARD SR2-e WITH VOICE COMMAND



Cyril Abegg, CEO, Lamberet Group

EUROPEAN COLD CHAIN REFERENCE!

Lamberet and Kerstner benefit from strong commercial positions in Europe on the refrigerated vehicles market. All segments combined, our yearly production represents 10% of temperature-controlled bodies distributed in Europe. Our network, established in 40 countries in total, offers a professional local service in each region. This success is built on the confidence of the cold chain stakeholders in the superior quality and durability of our products.

In the past, our leadership in insulation - with a 100% ATP compliant range - could even seem like over-quality. To be frank and direct, we were opposed to weak insulation and powerful cooling unit combinations, which, if not ecological, also worked in some cases. Lamberet and Kerstner have always favored the opposite, frugal approach: a high level of insulation and tightness, making it possible to reduce both energy losses and the power of the cooling unit.

Nowadays, we are fully aware, along with the entire profession, of the urgency of the energy transition. And our model based on the quality of insulation becomes the one to follow. Frugality and efficiency are the new rules, because the best energy

saving is first the one that we do not consume...

Thanks to our lead and our experience in this field, we can add that energy performance should not be achieved at the expense of optimizing operating costs, particularly in the current scarcity and inflationary context.

Indeed, Lamberet and Kerstner innovate for the benefit of the competitiveness of users of refrigerated vehicles, according to a complete program synchronizing new energy sources, energy frugality and optimization of configurations for each activity:

- First, use alternative energies (electric, solar, biogas, etc.) to replace fossil sources to generate cold.
- Second, minimize energy consumption by offering a better level of insulation, weight reduction and state-of-the-art use automation.
- Third, optimize vehicle configurations to customize them to each business to the benefit of energy frugality in day by day operations, which is made possible by the width of our range.

Our conversion voice control, winner of an IAA Trailer Innovation Award 2023, is part of this dynamic of innovation benefiting both our Customers and the environment, and marks our confidence in the future.

COOL NEWS!

The Fanshop Winter Collection



The Lamberet range of textiles and objects selected for Refrigeration Pros is offered for sale and delivered directly at home. Spend a warm weather thanks to our Lamberet Fanshop!

Opel e-Combo Kerstner: plugged in!



The new Opel e-Combo is featuring a Kerstner eCoolJet 106 cooling unit to ensure fresh product distribution in 100% electric, zero emission, modus.

Refrigerated Trailer Services test drives.



RTS celebrates one year of successful marketing of Lamberet semi-trailers in Great Britain with an SR2 "Back in the UK", on demonstration and test drives by the largest local transport companies.

Hochstaffl is official SR2 dealer in Austria.



Lamberet joins forces with Hochstaffl Nutzfahrzeuge to distribute the latest generation of SR2 refrigerated semi-trailers in Austria. Welcome!

> FIRST

OK LAMBERET: DELIVER!

Lamberet, the SIRI for Bodywork: with the “hands free” truck the daily life of drivers is finally seeing a revolution.

Lamberet's ambition is to honour the daily life of drivers and deliverymen by introducing a world first in voice control of bodywork on its straight trucks and semi-trailers.

The “OK Lamberet” voice control is based on the Multiplex Lamberet connected application. It makes it possible to control the raising of the taillift, the opening and closing of the rear roller shutter door, switch on the lights, etc. In this way delivery operations are safer, faster and more comfortable for the operator. Deliveries are fluid, risks reduced, and the cold chain and energy losses are optimised!

The voice control developed by Lamberet is a breakthrough innovation which benefits drivers, whose daily life has not basically changed for the last 50 years. ■

OK LAMBERET ...



...LIGHTS ON

OK LAMBERET ...



...UP

...open



OK LAMBERET ...



...DOWN



DISCOVER
THE VIDEO

TRAILER
INNOVATION
2023

WINNER
CATEGORY: SMART TRAILER

NEW ENERGIES: ENVIRONMENTAL TRANSITION FROM 1 TO 100 M³

Lamberet presents the most advanced solutions for all the “zero emission” technologies applicable to refrigerated vehicles: hydrogen, electrification, solar energy, etc.



SR2-e is a first outcome, labelled “France Relance”, in the Live2Pure project: Ecological and Economic Delivery of Fresh Products in Urban and Residential Areas.

SR2-E

SR2-e is a “rechargeable electric” multi-temperature distribution reefer whose energy requirements are met by a battery pack. This pack can be recharged either while driving through energy recovery or production, or from the standby with the option of a static precharge (as for a rechargeable hybrid vehicle). The **TRAK'r** electric generator axle, supplied by **SAF**, is integrated into the chassis of the semi-trailer made by Lamberet.

SR2-e is an initial development, labelled “France Relance”, in the Live2Pure project: Ecological and Economic Delivery of Fresh Products in Urban and Residential Areas. This project aims to develop, industrialise and mass-market distribution solutions in the short-term which are suitable to meet the challenges of ecological transition and CSR, in order to have a real impact. ■

SR2 FRESH2

SR2 FRESH2 is a multi-temperature reefer whose electric cooling unit is powered directly by the hydrogen fuel cell without the need for a buffer battery pack that adds to cost, weight and power consumption. A world first, this development is the result of a partnership between top-tier suppliers: the world-class parts maker **Bosch**, specialized in the fuel cell, the manufacturer of cooling units **Carrier Transicold**, **Lamberet** and the leading logistician **STEF**.

The FRESH2 collaborative project is supported with the framework of the Investments for the Future programme (PIA) operated by ADEME (French Environment and Energy Management Agency). Gwenaël Tuet, Chief Technical Officer of Lamberet, gives details of the project’s ambitions: “Our development aims to meet all future operating constraints to make it an SR2 semi-trailer like the others, with the same equipment capabilities, same speed in operation, and so on. Together with Bosch, we are also planning to design a “fuel cell pack” that will be retrofitable to SR2s already on the road.” ■



Tests in real conditions with the carrier, STEF, are conclusive: the BOSCH direct PAC H2 technology has made it possible to provide multi-temperature distribution rounds in the long-term.

ELECTRIC KLEUSTER FREEGONE FRIGOLINE

The new KLEUSTER Freegone Frigoline with its 1.5 m³ of refrigeration acts as a electrically power assisted bicycle.

Zero emissions, Zero noise and Zero congestion as it can use bike lanes. Its cooling unit and body are ATP-approved. Its new Frigoline cell offers an innovative full-width rear opening, 'OT1'. Its electric drive propels it up to 18 km/h effortlessly and includes a hillstart assist and cruise control. The battery recharges in 5 hours from a single 230V 16 amp socket. THE electric tricycle that is ideal for urban deliveries.



KLEUSTER Freegone is fitted with the new Frigoline body cell with coefficient K 0.31 and positive cold plug & play cooling unit.



Lamberet has fitted the body roof with 6 solar panels giving a surface area of 10 m² providing peak power of 2400 W.

ELECTRIC RIGID TRUCK WITH PHOTOVOLTAIC TECHNOLOGY



VIDEO OF
TRANSPORTS
PERRENOT'S
EXPERIENCE

The first 100% electric refrigerated standard rigids, **RENAULT TRUCKS D-Wide ZE 26t**, have had their bodies made by Lamberet. They offer a range of 150 km, a Frigoline HD reinforced insulated body, a silent cooling unit and here the addition of solar panels to supply the electric cooling unit, the taillift, pallet truck recharging and the lighting, minimising the effect on powertrain autonomy. This solution is THE answer to responsible urban delivery: Zero gas emissions, Zero noise emissions. ■

REFRIGERATED MERCEDES E-VITO FEATURING THE KERSTNER E-COOLJET 106

It now benefits from a conversion that is as accessible as the classical thermal versions. The new range of electric units from Kerstner, Lamberet's subsidiary in charge of road freight cooling systems, marks a break-through in terms of energy consumption. The eCoolJet 106, the market leader since its launch at Solutrans 2019 where it was the winner of the Innovation Award, benefits from such efficiency that it can be powered indirectly by the traction battery. It thus limits the use of an independent battery pack, which in vans is heavy, cumbersome, has an uncertain lifespan, and is impractical to use, as it requires a double connection when recharging. ■



SEE IT
ON VIDEO



The e-CoolJet 106 cooling unit is housed in the space for the spare wheel to retain overall height and aerodynamics.

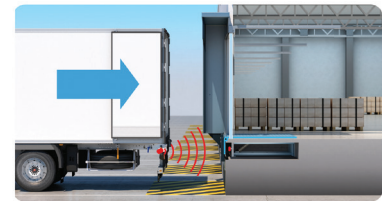
> INNOVATIONS

ADI SAVES LIVES

Lamberet is introducing the first automatic drop immobilizer (ADI) system taking care of avoiding unexpected departures, a breakthrough innovation for the safety of logistic centers staff.

The major risk when loading vehicles at the dock is departure while a handling machine is still in operation. The untimely departure prevention system developed by Lamberet innovates with its automation based on a new implementation of RFID technology between the vehicle and the loading docks.

Lamberet's automatic ADI is reliable, affordable, and retrofittable to all semi-trailers and straight trucks. The docks can use the system without adding heavy new structures or a power supply. Automatic and maintenance-free, and therefore without risk of human error, the Lamberet ADI is a universal, accessible innovation that can prevent accidents and save lives. ■



1. Free docking manoeuvres



2. Dock ramp unarming by RFID radar, unloading



4. Brakes locked, loading operations are fully safe



5. Safety active as long as the ramp is armed

FRIGOLIGHT: UNITED WE STAND

Frigolight is the demonstrator for tomorrow's delivery utility vehicle with an innovative, lighter, aerodynamic multicomposite body which is all-in-one, i.e. incorporating the cooling system.

This new, completely redesigned refrigerated body is based on a platform-cab base, which is ideal for accessibility thanks to its ultra-low loading sill. The Frigolight's design is compatible with all types of chassis-cabs and platform-cabs on the market, and all traction systems (thermal, hybrid, electric, etc.).

The bodywork uses a novel combination of new materials that save significant weight, without compromising strength or insulation. The entire body has been digitally reworked and optimised to leave no weak points, but also no points that are too heavy for the expected performance. The weightiest traditional components (inserts, crosspieces, plywood floor, metal



At the centre of this "all-in-one" body and unit concept, the new very low consumption Kerstner e-Cooljet 206 electric unit is unveiled as a preview. It is 100% new and could maintain 12 m³ in positive cold.



DISCOVER IT ON VIDEO

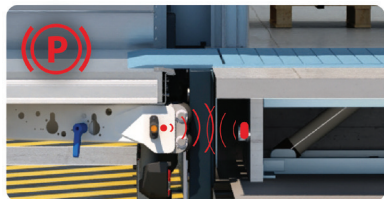
frames, etc.) have been replaced by composites. The cooling unit is no longer an add-on part, with all the disadvantages that this entails. The unit is now integrated into the roof, directly into the bodywork. The weight of incorporating it into the vehicle is thereby minimised. Its ventilation is maximised for improved performance. Its aerodynamic shape has been

engineered to exceed the benefit of a cab deflector, which becomes unnecessary, saving on cost and weight.

Frigolight offers a level of robustness, durability and insulation equivalent to Lamberet's current Frigoline range. Its innovative design saves 25% by weight and 20% by Scx. ■



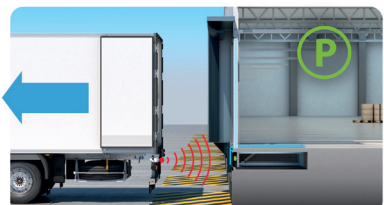
3. No signal picked up, vehicle brakes locked



3. Dock ramp armed, TAG RFI6 visible and detectable, locked vehicle brakes



4. Docking



4. Dock ramp folded, TAG hidden, vehicle brake released. Authorized departure. Safety of departure controlled automatically by the ADI system

> BEST SELLER

NEW REFRIGERATED MERCEDES CITAN VAN EASYFIT INTEGRATED INSULATION



The totally new Citan van is the ideal base for having a refrigerated minivan capable of transporting nearly 2 m³ in the best conditions. The refrigerated cell offers as standard the sliding side door while benefiting from ATP approval for reinforced-class insulation to preserve the cold chain and optimise energy consumption. Available in lengths, L1 and L2. ■



> ALL-IN-ONE REFRIGERATED SOLUTION

KERSTNER FOCUSES ON GROWTH...

The brand is engaged in the developing urban delivery market.

Kerstner is recognized for its integrated insulations for vans and its innovative cooling units, either electric or direct driven. It is not an accident that the biggest manufacturers have referenced it, including Volkswagen, Renault, Iveco, Ford and Mercedes-Benz. "We are among the Mercedes-Benz partners which have the advantage of the prestigious "Mercedes-Benz Van Solution" label. Our conversions are therefore distributed as a "factory option" in the Stuttgart manufacturer's network".

The company was founded in 1983 and now has nearly 100 members of staff. It plans to extend its historic site close to Frankfurt, due to the growth in the demand for home and Pharma deliveries. Groß-Rohrheim factory successfully exports 40% of its production of kits in Europe. "We deliver the elements for assembly and are responsible for the global solution delivered to customers", insists Daniela Schindler, who is also proud to be able to rely on a network of some 306 highly skilled service partners in Germany. ■

R&D

Innovation is at the heart of Kerstner's strategy, which was illustrated with the 100% electric CoolJet 103 group, selected to equip the first hydrogen fuel cell refrigerated vehicle, winner of the innovation prize at Solutrans 2017. More recently, the very high efficiency e-CoolJet 106, ideal for electric vehicles, distinguished itself by winning an Innovation Award at Solutrans 2019. The IAA 2022 marks the launch of the e-CoolJet 206, for a similar application up to 12 M³.



1. Last KM, Pharma, Rental, unit order or fleets: Kerstner adapts to this paradigm. 2. Kerstner will soon celebrate 40 years of innovations.



« R&D, PRODUCTION AND INSTALLATION: KERSTNER IS THE ONLY MANUFACTURER OF ISOTHERMAL BODY CELLS AND COOLING UNITS TO OFFER THE COMPLETE SOLUTION. »

DANIELA SCHINDLER,
PRODUCTION MANAGER, KERSTNER GMBH.

SR2 SAFETY. AERODYNAMICS. TCO.



Lamberet has taken advantage of the enactment of the new R58-03 regulation that increases the safety of road users against the risk of rear underrun, to redesign the SR2 chassis. SR2 are now equipped with an aerodynamic flap, air ducting and extraction. This feature is combined with light brackets designed to reduce drag and air resistance. This

new back can incorporate the Lamberet Safelight antibreakage lights, able to absorb shocks with either forward or backward rotation kinematics. The separation of the different functions of the lights allows for an economical one-off replacement.

Optimised safety, design, aerodynamics and TCO.