

Solutions for Commercial Vehicles Products & Systems Overview



www.map-automotive.com

AIR SUSPENSION SYSTEMS





With over 25 years of experience in the automotive industry, close partnership with Firestone & AMK, Drive-Rite has developed into a leading supplier of air suspension. Drive-Rite provides tailor make suspension systems to suit a wide range of vehicle applications from passenger car to commercial vehicle. Drive-Rite serve all market segments from the world's largest automotive companies, OEM's, truck and bus manufacturers to specialised vehicels builders.

Drive-Rite's air suspension systems offer a smooth comfortable ride, lowering facility, multiple ride heights, are easy to install, user friendly and require little or no maintenance. Vehicles installed with air springs suffer much less wear and tear, increased vehicle life, suffer less down time, lower operating costs, increased productivity on vehicles. Substantially less cargo damage compared to steel springs. Increased life of tires and brake linings. Reduces driver fatigue.

BENEFITS OF AIR SUSPENSION

- Keeps vehicle level all time under varying loads
- Improved vehicle operational safety & driving comfort
- Protects & stabilize loads against impacts & vibrations
- More level loads, more comfortable ride
- Variable ride heights & horizon levelling

ADVANTAGES OF DRIVERITE SOLUTIONS

- Fully tested, approved and homologated systems
- Highest quality of components from world class suppliers
- Firestone air springs, AMK compressor, automotive ECU
- Simple operation & fully adjustable
- Easy installation, technical documentation & support



SUSPENSION SOLUTIONS





- System enables to keep vehicle at right level
- Easy to install works in parallel with the OE suspension
- Automatic or manual side to side height adjustment
- Content: air bag kit with dedicated vehicles brackets and mounting materials, compressor kit, gauges kit, air hoses



FULL-AIR SUSPENSION

- System enables to set multiple vehicle heights
- Air springs kit exchange the OE suspension
- Significant comfort improvement
- Load leveling, ride comfort, speed sensitive lowering, offroad height, crosslinking, automatic recovery, trailer towing modes, lowering for accessibility
- Content: air bag kit with suspension elements, ECU and mounting materials, compressor, air hoses, sensors



ECAS - INTELLIRIDE



- System enables to electronically control whole suspension
- Designed with maximum flexibility, easy installation, calibration on a wide variety of vehicle applications
- Configuration for rear level, 4 corners, multiple heights
- Content: ECU, compressor, harnesses, remote controller, valve block, height sensors, hoses, diagnostics



VEHICLE APPLICATIONS

Discover full range of air suspension systems at www.driveriteair.com

OVERLOAD DETECTION





Dunlop Systems and Components in Coventry UK, for over 50 years designs and manufactures advanced electronic control systems and air suspension components. As a component manufacturer and supplier, Dunlop is specialized in supply of top quality equipment to the automotive and ancillary industries with an emphasis on reliability and performance. Dunlop pioneered a diverse range of high quality equipment and currently manufacture air bellows, air springs, air spring sleeves, ECAS, motorhome air suspension equipment, LOADSAFE® systems and more.

Dunlop LOADSAFE® is a smart overload detection system designed for light commercial vehicles up to 7.5T GVW and will provide the driver of a vehicle with key information about the load being carried.

BENEFITS OF LOADSAFE® SYSTEM

- Warns against overloading
- Records overload occurences
- Improves driver safety
- Reduces fleet owner, employer risks
- Aids feet optimisation
- Indicated paylod remaining

LOADSAFE® SYSTEM FEATURES AND COMPONENTS

- Conventional suspension height measurement sensors are located between the axle and the chassis of the vehicle
- System accurately measures the amount of spring deflection
- Calibration procedure anables to use this measurement to give a direct indication of the load being carried by the vehicle
- Load can be displayed by set of LED's or wireless display with additional security features



AIR CONDITIONING SYSTEMS





AUTOCLIMA has been pioneer since 1960 in the European Air Conditioning production for automotive industry. Good knowledge, technology, quality and innovative ideas are the company winning weapons in very competitive markets, thinking every day for solutions that will win also in next years. AUTOCLIMA uses to stay at the Customer side during all phases of product definition, installation, usage and maintenance. Such careful assistance makes the Client confident in responding perfectly to the end-users needs, by installing the right product, responding to the service level requested because of after-sales assistance given as well.

AUTOCLIMA holds several crucial certificates: the Quality Management (according to UNI EN ISO 9001:2015) to ensure service delivery and supply of air conditioning and refrigeration products; The Environmental Management and Safety Management (according to UNI EN ISO 14001:2015 and with BS-OHSAS 18001:2007) in order to: comply with legislative requirements binding on the environment, safety and health protection.

PARKING COOLERS

- Air Conditioner working when the engine is switched off
- Keeps the cabin climate healthy working & dehumidifier
- Reduction of CO2 emissions, saving of fuel, security of a comfortable rest, much safety on the roads, vanishing any risk of contamination inside the cabin
- Easy & quick installation, can be painted

- Evaporator is positioned inside cabin, sleeping area
- Condenser is located outside, roof or back wall
- Controll: manual or remote
- Available in 12V and 24V ; Power 950 1800 Watt
- Air flow 250 450 m3/h ; Refrigerant 134a
- Weight 23 39 kg





REFRIGERATORS

FROSTY RTR

FROSTY 800



Electrically powered unit suits Refrigerating units suitable for insulated vans (max 5m3). Aerodynamic condenser installed on the roof: compact evaporator for ceiling and wall with engine driven compressor installation. Digital control panel fits in the cabin. ATP certificate.





FROSTY INTEGRA

insulated cars (max. 18 m3)

space ceiling. Systems works

and can be combined with

accessories. ATP certificate.

fully covered under cargo



Refrigerating units works with

engine driven compressor,

isothermal vehicles (max. 18

m3). Aerodvnamic condenser

installed on the roof. ATP

certificate.

FROSTY WALL



Refrigerating system works with engine driven compressor suits medium & large insulated, suits large isothermal vehicles (max. 25 m3). The condenser unit is specifically designed to be installed on the front wall. ATP cetificate.



BUS & COACHES

Clever solutions, high quality and durable A/C systems for people transportation from minibuses to large municipal buses.

- Roof Top A/C aerodynamic unit •
- Evaporators under-ceiling mounted
- Easy Air system with air ducts and integrated evaporators



Dedicated A/C systems for human transportation, equipment for medical & pharma transport.

- Evaporators with AC extension
- Sani-clima-filter
- Ambufridge / ambuheater

SPECIAL VEHICLES

Customized systems fits to special vehicles, machines, cranes. Autoclima is NATO approved supplier.

- Modula rooftop electricall unit •
- RTEH rooftop electric A/C
- Compact electric unit
- Evaporator for 2 compartments











Discover full range of air conditioning systems at www.autoclima.com

SOLUTIONS FOR MOBILE LIVING





Dometic is a global market leader in branded solutions for Mobile Living in the areas of Climate, Power & Control, Safety & Security and Hygiene & Sanitation, Food & Beverage, Dometic is providing smart & outstanding designed products, that enrich people's experiences away from home, improves drivers and passengers experience, upgrades vehicles functionalities. Products are dedicated to recreational vehicles, trucks, premium cars, machines and variety of other uses.

Dometic operates 27 manufacturing and assembly sites, ISO & IATF certified, in 12 countries with sales in approximately 100 countries. In 2001 separated from Electrolux and during 20 years company acquired several brands and incorporated its porfolio under Dometic Group: WAECO, KAMPA, OYSTER, ATWOOD, PROSTOR and many more.

COOLAIR RT (24V) - ideal for trucks on daily trips and inner-city distribution. self-contained rooftop mounted, settings conveniently managed by remote control Great air cooling & dehumidification, UV resistant cover, can be spray-painted.



FRESHJET (12/24V) - 3 models with different cooling capacities. Compact design and lightweight, cool, warm or dehumidify air at the touch of a button, ideal for vehicles up to 6-8m in length.



PARKING COOLERS

COOLAIR RTX (24V) - for trucks running in hot temperatures. Rooftop mounted powerful & efficient with very long running times, quite, 4 operating modes, ADR compliant, all what is required for installation inlcuded.



FRESHLIGHT (12/24V) - Roof A/C with roof window, for vehicles up to 7 m, temperature and blower speed set by remote control, control panel with integrated, dimmable LED lights, cooling, heating and ventilation.



COOLAIR SP (24V) - for trucks, mounted on back wall of cabin, rooftop is left free, 5 individually adjustable air flow nozzles with 3 blower speeds, quick and clean installation.



FRESHWELL (24V) - Conveniently housed in the under-bench storage area in motorhomes or caravans, provides an efficient space-saving air conditioning solution for vehicles up to 8 m in length.



VENTILATION

Unique combination of a roof light and a fan, powerful performance – quiet and energy-saving, effective air exchange for fresh and clean air inside, remote control, rain sensor, variable speed fan.

AWNINGS

Motorhome, campervan or caravan wall or roof mounted, tailor-made awning solutions, from 1,5 to 6 m lenght, with attractive fabric colours and housings to match desing of vehicle. Operated manually or electrically. Patented clousre systems, ergonomic setup, safe handling, easy setup with slide-out support legs, wide choice of adapters and accessories.





GENERATORS 230V BAT

Diesel/petrol fueled, compact design, continuous high output, remote control, auto start function, variable speed, economical fuel consumption, low-noise operation

BATTERIES CHARGERS

Optimised 6-stage IUOU charging technology, simultaneous up to 3 batteries compact, lightweight, easy to instal. INVERTERS 12/24 - 230V

Continous output up to 3500 Watts, energy saving standby mode, remote control, fan integrated smothly adjust load and temp. conditions, voltage synhronization.

BATTERIES

Powerful battery cells provide 512 Wh of energy, 40 Ah, 3way charging, lightweight, ergonomically designed, builtin LCD screen.









DRIVING SUPPORT & SAFETY

POWER & ENERGY

CAMERAS & DISPLAYS



Complete range of smart solutions for various vehicles from passenger car to haevy duty trucks, increasing safety and relaxed driving. Products are easy to fit and have automotive standards.

PARKING SENSORS



SEAT HEATERS





Pee Pee

GAS DETECTORS



CRUISE CONTROL







Discover more options at www.dometic.com

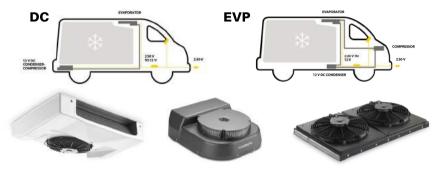


VANS / LIGHT TRUCKS / TRUCKS / BUSES



REFRIGERATORS

Certified refrigeration Dometic FRIGO for reliable cold chain management, fully integrated cooling - no roof-mount structure. ATP-approved and certified to DIN 8958. For cargo rooms up to 18m2. Refrigeration 0° to + 12°, with FRIGO DC independent inteligent compressor, fitted to most vehicles. Deep freeze -20° to 0° with FRIGO EVP modular, compressor belt driven.



COOLERS

COOL-ICE CI

Passive cooler, high effective insulation, combined with a smart labyrinth seal, easy to transport, clean, fitted with handy details for convenient handling. Sizes: 13 - 111 L.



COOLFUN CK

A multi-purpose compressor fridge and freezer, highly efficient, provides great performance, extra-strong insulation, 38L.



TROPICOOL TCX

Lightweight, low-priced, versatile thermoelectric refrigeration, prewired for 12/24V and 230V. Cooling up to 27°C ambient, heating up to 65°C Sizes: 14 - 33 L.



COMBICOOL ACX

Portable absorption cooler, powered by gas, 12 V DC and 230 V AC, absolutely silent operation, cooling up to 30 °C below ambient temp. 30-40L

COOLFREEZE CDF

Light, compact compressor coolers, deep-freezing down to -18 °C with minimal power consumption, regardless of the outside temperature. Available in 10 L & 18 L.



CONTAINERS TL & FO

A factory-set fixed temp +4°C or -18°C, front/top-loading, heavy-duty design. Powered by 12V or 230V. Capacity from 200 - 1000 L.

COOLFREEZE CFX

Energy class A++ and deepfreeze temp. down to-22 °C. Up to 35 % lower energy use with high-performance compressor and extra-strong insulation. Sizes: 32 - 88 L.



COOLMATIC MH / MR / CRD

Cooling or heating with ± 1°C accuracy, innovative warmer and refrigerator designed for medical or veterinary use. EMC Directive approved.





CAMPERS / MOTORHOMES / CARAVANS / VANS

MOBILE HOME EQUIPMENT



Millions of people around the world are using Dometic products. They all have one thing in common – the longing for freedom and independence on the move. Dometic's job is to meet their essential needs on the journey. Like cooking, keeping food fresh, taking care of personal hygiene and maintaining a pleasant temperature. All products meet automotive standards and comes in various configurations and versions. Dometic as supplier of many motorhomes manufacturers, ensures great functionality, ergonomy of it's products and most important customers satisfaction during daily use.

WINDOWS & BLINDS

Vesatile Dometic's solutions for roof and wall windows, high degree of insulation, double acrylic glazing, practical fly screens, polyurethan or alu frames, available if many sizes.

COOKING EQUIPMENT

Essential Dometic's products designed for mobile kitchen use, compact and spacesaving, available in various configuration to fit dedicated interiors.

REFRIGERATION

As well equipped as fridge at home, Dometic's products offers solutions of absorption or compressor refrigerators, available in various sizes and capacities.

HYGIENE & SANITATION

Dometic provides engineered sanitation solutions, practical, easy-to-use hygiene accessories for undiminished holiday enjoyment.



















UTILITY HARDTOPS STEEL BARS





Steeler biggest manufacturer of homologated stainless steel protection bars for passenger cars & utility vehicles and homologated steel & aluminium hardtops for pickups. With more than 25 years in European market Steeler provides proven and functional solutions, that meets highest requirements coming from vehicle manufacturers, aftersales divisions, special purpose cars builders. Modern plant and machinery park enables to produce high quality serial products and is flexible for customization.

Steeler is represented in 21 European countries, cooperates directly with vehicle manufacturers, wide network of authorized vehicle dealers, public organizations managing fleets, military vehicles builders and offers after-sales support services. Steeler hardtops and steel bars meet all automotive standards.

SPECIAL PURPOSE VEHICLES HARDTOPS

- Light, strong, durable and water proof construction
- Mounted on the vehicle frame
- Rust free throughout it's life time
- Customized with a range of different storage systems
- LED interior lighting controlled by wireless remote
- Possibile roof racks and external lights fittment
- Multifunctional design for the Police, Fire Brigades, Resque, Gas and Electricity suppliers,

PROTECTION STEEL BARS

- Stainless steel protection bars polished to full glance
- EU homologation, with certification for pedestrian safety
- Dsigned according to the highest safety standards
- Secure vehicle in minor parking collisionsl
- deal for off-road driving, protecting against damages
- Possibility of mounting additional lamps (halogens)





VEHICLES APPLICATION EXAMPLES

FRONT BAR WITH CROSS-BAR

FRONT BAR WITH AXLE-BAR

FRONT BAR WITH AXLE-PLATE













MULTIPURPOSES CANOPY















UNDER-RUN PROTECTORS





SHERIFF brand belongs to company Metalloproduktsia - a high-tech innovative, full cycle enterprise with more than 20 years on the market. Powerful facilities, equipped with the modern tools for metalworking, electrical and gas welding equipment, application of current technologies, experience, continuous research and development allows to enhance manufacturing processes and create best product quality. Under-run protectors, skid plates, have certificates of conformance. The quality management system implemented at the factory meets the requirements of ISO/TS 16949:2009; ISO 9001:2008.

Sheriff skid plate is a metal casing that protects most important elements and components, located in the engine bay and under carriage of vehicle. It is an essential accessory for every vehicle, no matter is it a passenger car, commercial VAN or SUV. Product range covers more than 1400 serial models. each skid plate was created especially for a certain vehicle. Mounted perfectly in the OEM factory connection points - no drilling.

BENEFITS OF UNDER-RUN PROTECTORS

- Crush protection engine undercover protects the engine section from damage when driving over sharp or hard objects
- Protection from dust, moist, dirt and from overheating, special technique of powder coating prevents corrosion
- Rubber springs are provided at connection points minimizing noise and vibration during driving
- Easy service with special holes for oil drain & filter replacement
- Aerodynamic design distributes the air flow making the vehicle more streamlined and enhancing road adherence
- Manufactured with stamping technique gives extra strenght, improves technical characteristics and structural strength





OFF-ROAD / HIGHWAYS / CONSTRUCTIONS

ALUMINIUM UNDER-RUN PROTECTORS



STAINLESS STEEL UNDER-RUN PROTECTORS



EXAMPLES OF VEHICLES APPLICATIONS















CARS / VANS / 4x4 / TRUCKS / MACHINES





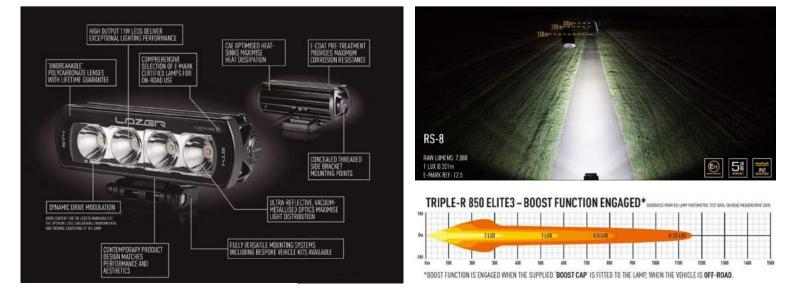


Lazer Lamps is recognised as a world class leader in the development and manufacture of LED lighting products for the automotive aftermarket industry. As a UK manufacturer is constantly striving to exceed customer's expectations for high quality and innovative lighting solutions. 100% Made in Britain. The highest performing headlights on the market using the best components available.

Automotive headlamps are approved to UNECE regulation 112 or 113, which is a comprehensive test of the product, including such tests as lens scratch resistance, on/off switching, thermal endurance etc. If the lamp passes the tests, the lamp becomes certified and the manufacturer is permitted to add an E-mark to the lens of the product. Buying an "approved headlight" as opposed to a "work light" gives piece of mind that the product has been engineered correctly and it can withstand a severe and harsh test program. It gives the driver the added benefit that he/she can also wire the units directly to the main beam headlights without the need for adding a separate switch on the dash, which often increases installation time and decreases ease of use.

ADVANTAGES OF LAZER LAMPS

- Highly efficient LED tecnology inbuilt
- 5 Year warranty on all our products
- Proven motorsport performance for the road
- E-marked and recognised by FIA
- ECE tested for robustness & performance
- IP67/IP69 waterproof to 1m+ submersion
- Road legal and fully tested by the UK Standards Institute (E9/11 Certified)
- Colour temperature of the LEDs carefully selected to maximise definition,
- Reducing strain that can come from higher (blue/white) light temperature
- RS range features integrated daytime running lights
- Bespoke grille kits and light-bar systems provide stylish vehicle integration
- Innovative flexible bracket systems provide universal compatibility





CITY / HIGH-WAY / OFF-ROAD / ON-SITE / FOREST

LINEAR



TRIPLE-R RANGE



ST EVOLUTION



RS RANGE



UTILITY SERIES



Most cost-effective lighting solutions through the adoption of 3W LEDs, the same as used in our 2018 WRC lighting solutions, meticulously engineered and tested to optimise lighting performance for everyday road use and specifically the passenger car market. On the other, a slimline, aerodynamic design, with a real emphasis on high-end styling, the lamps are simple to install, and act to minimise drag, while delivering astonishing levels of illumination.

The latest and most sophisticated component technology has been incorporated alongside patented systems for optimising light output for both road and off-road applications. The result is a range of lights that on the one-hand achieves incredible distance illumination, and which on the other provides for a spread of light in the mid to long-range which is optimised for everyday road use and the motorsport sector.

Re-engineered and re-designed for 2017/8, the ST Evolution range of ECE approved high performance driving lights utilises upgraded LEDs and the latest component technologies, combined with advanced electrical design and material solutions. The result is superior performance and reliability optimised for range and spread of light.A contemporary design ensures the lamps compliment and enhance the styling of any vehicle from motorbike to quad, 4x4 to heavy truck, and everything in between.

The RS-Range of Lazer LED light bars combine incredible illumination from the high beam LEDs, with the safety and styling benefits of DRL & position light functions. Fully certified to ECE regulations, these lamps deliver outstanding performance for on road driving. They use a fully aluminium enclosure, gore-tex breather membrane, thermal management & Quick-Fit electronics.For those customers seeking outstanding night time illumination, combined with Daytime Running & Position Light functionality, the Lazer "RS-Range" delivers outstanding performance.

Special range of high performance LED work lamps and accessories, which combine the latest and most advanced LED systems with patent-pending design features to maximise light output, functionality, and reliability. High density LEDs provide more light at a carefully selected colour temperature to maximise definition and reduce fatigue during prolonged use. A super-tough construction, unbreakable polycarbonate lens, and comprehensive certifications and testing, guarantee the longevity of the products whatever the application.

VEHICLES APPLICATIONS EXAMPLES









CARS / PICK-UP / COMMERCIAL VANS







Warn Industries has the led the way in durable, innovative, and trusted off-road products since 1948. Powerful winches, rocksolid bumpers and mounting systems, versatile rigging equipment, and proven 4WD hubs let truck, Jeep, SUV, and powersports owners GO PREPARED for whatever lies ahead, whether on the trail or on the job. In addition to off-road products, Warn Industries offers a complete line of hard-working electric and hydraulic winches and hoists for commercial, industrial, and severe-duty applications that help get the job done—whether on the back of a tow truck or on the front of a military vehicle.

When it's time to get to work, Warn is the name to trust. Warn also has an inventive lineup of utility winches and hoisting equipment that lets both the professional and the do-it-yourselfer accomplish a range of tasks efficiently. From trailer loading and fence stretching, to engine hoisting and construction projects WARN products provide new answers to old questions and lets users get more done in less time.

THE WARN DIFFERENCE

- 70 years of off-road experience and innovation
- High-class engineering 110 patents
- More than 600 products in range
- USA production line at 16 000 m2 corporate facility
- Proven durability, reliability and dependability









TRUCK & SUV











STANDARD DUTY - VR EVO / vehicles up to 3,5t

- Convertible control pack for upright or low-profile mounting
- Sealed, waterproof Albright[™] contactor
- One-piece tie plate added strength and rigidity
- Best-in-class cone brake holds the winch's full-rated load
- Available in 3.600 5.400 kg capacities

PREMIUM - ZEON / vehicles up to 3,5t

- Full IP68 waterproofing & high corrosion resistance 408h
- Automotive-grade busbars for greater electrical connection
- Large diameter drum for longer rope life
- Ergonomic clutch control handles is easy to turn
- Available in 3.600 5.400 kg capacities

PERFOMANCE - ZEON PLATINIUM / vehicles up to 3,5t

- Full IP68 waterproofing & high corrosion resistance 408h
- Automotive-grade busbars for greater electrical connection
- Large diameter drum for longer rope life
- Automatic operation via wireless remote
- Available in 4.500 5.400 kg capacities

HAEVYWEIGHT - 16.5Ti / vehicles up to 5t

- Full IP68 waterproofing & high corrosion resistance 408h
- High-performance motor exclusive to the Heavyweights
- 3-segment mechanical cone brake with a steel sleeve 3segment mechanical cone brake
- Available in 5.400 7.400 kg capacities



INDUSTRIAL











HYDRAULIC

- Heavy duty, high-flow hydraulic motor
- Standard roller tensioner & drum brake optimal rope winding
- Mechanically locked clutch with smooth action
- Efficient planetary gear design & large drum diameter
- Easy access and servicing
- SAE J706 compliment

DC ELECTRIC

- Heavy-duty 12V or 24V series wound motor
- Automatic, self-locking disc brake
- Complies fully with SAE J706 standard
- Pull capacity up to 8,100 kgf
- Hardened steel, 3-stage planetary geartrain
- Weather-proof Industrial quality remote

SEVERE DUTY

- 24V DC electric-powered
- Pull capacity 5,400 8,100 kg
- Waterproof silicone sealing at all motor and gear housing
- Superior corrosion & chemical resistance
- 3-stage planetary geartrain
- Includes thermal protection switch and overload interrupt

PLANETARY GEAR HOISTS

- Lifting capacity 454 1800 kg
- Powerful series wound DC motor with robust sealing
- Proven 3-stage planetary geartrain
- Permanent grease lubrication
- Controls and remote sold separately



OUTDOOR & INDOOR USE

UTILITY & COMMERCIAL











PULLZALL

- Portable lifting and pulling tool
- Lifts or pulls up to 454 kg
- Replaces old-fashioned come-a-longs and chainfalls
- AC version perfect for use where power is available
- Cordless 24V version for use in the field
- Move heavy machinery, lift a load precisely into place

DRILL

- Powered by standard portable drill (not included)
- Lightweight and portable; pulling capacity 227 kg
- Free-spool clutch makes rigging fast and easy
- Includes 9m of steel rope
- Moving nursery stock, pulling a rolling load up onto a trailer

TRAILER WINCH

- Pulling capacity 900 2100 kg
- Outstanding duty cycle, durability, and reliability
- Powerful 1.6-1.9 horsepower permanent magnet DC motor
- Reliable three-stage planetary geartrain & roller fairlead
- Dynamic and mechanical braking for excellent control

AC POWERED

- Pulling capacity 454 1360 kg
- Permanent magnet motor, industrial planetary gearing
- Vented motor end cap and externally serviceable brushes
- Perfect solution for indoor work sites & workshops

TRUCKS / TRAILERS / BUSES

ADVANCED DRIVER ASSISTANCE SYSTEMS





WABCO is the No.1 global supplier of technologies and services that improve the safety, efficiency and connectivity of commercial vehicles. From concepts to finished products and beyond, WABCO have been developing innovative systems to make vehicles safer and easier to control since 1869. Today, with an unbeatable list of industry firsts behind us, WABCO continues to pioneer breakthrough innovations for advanced driver assistance, braking, stability control, suspension, transmission automation and aerodynamics for the world's commercial truck, bus, trailer, car and off-highway manufacturers.

WABCO Retrofit Solutions are specifically designed to support companies to increase overall profitability by: upgrading and updating existing fleet of vehicles to the latest state-of-the-art technology. Increasing vehicles fleet efficiency, safety and connectivity. Advanced solutions are based on technologies developed with and for the world's leading Original Equipment Manufacturers and can be customized to individual fleet needs.

LANE DEPARTURE WARNING



OnLane[™] is a camera-based system that helps vehicles avoid unintentional lane drifting. The camera, which is mounted near the top center of the vehicle's windshield, constantly monitors and calculates the vehicle's position within the lane. When the system detects the vehicle crossing lane markings without the turn signal being activated, it sounds an audible warning.

downtime by up to 15%

BLIND SPOT DETECTION



COLLISION MITIGATION



OnSide[™] is a radar-based system that monitors the vehicle's passenger side blind spot, supporting drivers in passing and lane change maneuvers to help avoid side collisions. When a moving vehicle is detected in the monitored blind spot, the system provides a visual warning through a display mounted on the passenger side A-pillar.

Can help reduce accident-related • Can help prevent up to 50% of truck • driver vision-related crashes annually

OnGuard[™] is a radar-based active safety system that offers Collision Mitigation, Adaptive Cruise Control (ACC) and Forward Collision Warning. The system uses a 77GHz long range, high precision forward-looking radar to detect moving, stopped or stationary objects ahead, and warns the driver of a possible collision when needed, apply the brakes.

Reduces severity of rearend collisions by up to 87%



MUNICIPAL SERVICES / CARGO FLEETS









TAILGUARD[™] helps to reduce risks during reversing by detecting small, large, static and moving objects when in the blind spot behind the vehicle. It also automatically stops the vehicle at a safe distance. This system provides stress relief for drivers during reversing and helps them to avoid collision with pedestrians, gates, garbage bins, trees, cars or other objects behind the vehicle.

• More than 13% of all fatal accidents in town involving commercial vehicles occur during reversing or turning.

TRAILER IMMOBLIZER helps reduce the risk of trailer and cargo being stolen. As a function integrated into the WABCO EBS braking system, it blocks the trailer wheels. Easy-touse by truck driver; designed to protect against manipulation, secures the trailer when parked in non-protected areas.

OPTILOCK[™] range of highquality mechanical and electronic locking systems, tailored to most vehicles applications, all designed to ensure freight arrives at its destination intact, on-time and uncontaminated.

OPTIFLOW[™] SIDEWINGS significantly reduces fuel consumption. Developed in an aeronautical environment and proven on the road, this unique patented, durable and light flow conductor is specially contoured to minimize drag by better guiding airflow around and behind the truck. Help to reduce the risk of road accidents, lower vehicle spray and also cover the entire lower extension of the trailer.

• Reduces fuel consumption by 1.5L/100km at highway speed generating cost-savings

TRAXEE™ from TRANSICS™ is innovative, cost-efficient fleet management solution. Offers many functions essential for operating fleet on the road and in the office. Some of the features: fleet position and status, tacho times, activity management, historical routes, ECO driving style analysis, truck-friendly route calculation including toll costs, remote diagnostic. FMS helps to reduce fuel costs, minimize unnecessary kilometers, improve driver efficiency and productivity.

Starts from 20€ per vehicle per month

TYRE PRESSURE MONITORING SYSTEM





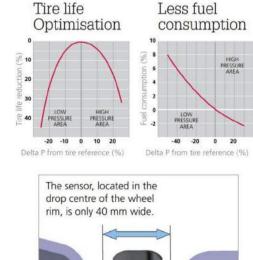
Haldex is a Sweden-based company, operating worldwide with offices in 19 countries. Haldex develops and provides reliable and innovative solutions that improve safety, vehicle dynamics and environmental sustainability in the global commercial vehicle industry. We are one of the world-leading suppliers of brake and suspension solutions, and are developing new technology for electrical and autonomous vehicles. Haldex has been developing technically advanced products for more than 100 years. Haldex develops and sells brake and air suspension products for heavy vehicles, supplying all of the major truck and trailer manufacturers: Daimler, Freightliner, Hendrikson, Krone, Paccar, SAF Holland, Schmitz Cargobull, Volvo and Yutong.

ADVANTAGES OF HALDEX TPMS

- Constant measuring of tire pressure and temperature
- Identify gradual, creeping pressure loss and issues a warning
- Individually programmable thresholds for warnining
- Prevented breakdowns and saved costs
- Less fuel consumption
- Extended tire lifetime
- Reduced CO2 emission
- Easy servicing







RAMP DISTANCE CONTROL SYSTEM





Aspöck is Europe's leading manufacturer of pre-fabricated lighting systems for towed vehicles of all types. Company has focussed on fulfilling the maximum demands on precision and perfection for over 40 years now. Aspöck was founded in 1977 as a manufacturer of lighting systems for agricultural vehicles. In 1996, the first rear lamps for automobile trailers were presented. In 2007, the Austrian company took over their longstanding main supplier - Fabrilcar from Portugal, which was subsequently renamed Aspöck Portugal. The Aspöck Group currently employs approximately 1,550 employees with headquarter in Peuerbach.

Individual and innovative lighting solutions for Truck & Trailes, Automotive, Motorcycles, Caravan, Agricultural Equipment and Special Vehicles are manufactured in Aspöck subsidiaries. From development right up to series production - the Aspöck Group advises, develops, designs, tests and produces according to the requirements of customers. Innovative LED lighting, but also wiring and plug systems of the highest quality are included in our standard range.

ADVANTAGES OF ASPÖCK RAMP DISTANCE CONTROL

- Autonomous system for the lorry trailer or semi-trailer
- Safe approach to the loading ramps
- Automatic decelerating process at 1 m distance
- Fewer cases of damage no expensive repair costs
- Use of only 2 adjustable ultrasonic sensors
- Acoustic and visual warning signals
- Night shutdown of the acoustic warning system
- Easy and quick fitting on the vehicle





CARS / VANS / TRUCKS / BUSES / MACHINES

COLISION REPAIR AUTO CARE & SAFETY





When 3M began in 1902, five founders had a simple goal: to mine for corundum, a mineral ideal for making sandpaper and grinding wheels. Turns out, what they thought was corundum was really another low-grade mineral called anorthosite. Discovering the poor-quality mineral could have caused an early end to our fledgling company, but founders persisted. Because something more important was born that first year: the spirit of innovation and collaboration that forms the foundation of 3M today.

More than 60,000 products from 3M are used in homes, businesses, schools, hospitals and other industries. One third of 3M sales come from products invented within the past 5 years, thanks to innovations from the thousands of researchers and scientists 3M employs around the world. With corporate operations in 70 countries and sales in 200, 3M is committed to creating the technology and products that advance every company, enhance every home and improve every life.

Get the work done right, the first time, every time. 3M reputation ensures repeat business and separates from competition. With almost 100 years of automotive industry experience, 3M knows the nooks and crannies of auto design, manufacture and repair - from helping OEMs improve fuel economy with lightweighting solutions, to helping auto body specialists revolutionize the painting process.

AHESIVES, TAPES, MASKING





BODY & PAINT WORKSHOPS / MANUFACTURING

ABRASIVES & TOOLS



PAINTING EQUIPMENT & DETAILING



PERSONAL PROTECTIVE EQUIPMENT



TOTAL AUTOMOTIVE SANDING SYSTEM



PROFITABILITY & EFFICIENCY

Improved dust extraction and workstation organization can help reduce rework and wasted time, boosting your bottom line.

HEALTH & SAFETY

Designed with the technician's safety in mind, including improved ergonomics. Something we can all feel good about.

SERVICE ALL-INCLUSIVE

Every tool system comes with an industry-leading package of service and support. For service at the same caliber as your tools.



BODY REPAIR & PAINT FINISH SYSTEMS

- Less dust: More efficiency.
- More organization. More mobility.
- You work smarter. Abrasives last longer.
- Cleaner workspace. Finer finish.

When it comes to the finishing touches, only the most pristine surface will do. System delivers an unparalleled polishing experience. The Total Automotive Sanding System is in a league of its own. And it's incredibly intuitive: if you see a green part, it has a function, plus storage for all pieces cuts down on time spent searching for tools. Needless to say, your job just got a whole lot easier. The system works seamlessly with 3M abrasives and enables the use of abrasives to the end of life. Combine that with premium Festool Automotive Systems power tools and surfaceprep workstations, and you've got the most comprehensive system the industry has ever seen.

AUTOMOTIVE WINDOW & PAINT FILMS

SECURITY SERIES



- Available in tint levels that block up to 95% of visible light to provide increased privacy
- Film helps to hold glass fragments in place when glass is shattered
- Provides protection from the sun's heat and ultraviolet
- Non-metallized window film lets you stay connected with mobile devices, GPS or satellite radio reception without interference.

OBSIDIAN SERIES



- Hot looks outside, cool and private inside
- Rejects up to 44% of the total solar energy coming through your windows to keep you cool and protect you from harmful UV rays
- Blocks up to 99% of ultraviolet (UV) light to provide a Total Sun Protection Factor (SPF) of up to 1000 for you and your passengers

COLOR STABLE SERIES

Smart style and comfort

Since the nano-carbon is

dispersed throughout the

chance of the film turning

Rejects up to 57% of the

total solar energy coming

through your windows to

protect you from harmful

keep you cool and

thickness of the film, it

performance with no

ensures years of

purple

UV rays

SECURITY SERIES



- Clearly Reliable
- Series delivers outstanding heat reduction and clarity
- Advanced ceramics in the film reject up to 59% of total solar energy and up to 80% of infrared rays - all while retaining great visibility
- Blocks up to 99% of ultraviolet (UV) light to provides a total Sun Protection Factor (SPF) of up to 810 for you and your passengers



PAINT PROTECTIONS FILMS

3M's clear paint protection films are designed to protect car against the elements and are professionally applied by a paint protection film installer. Scotchgard paint protection film pro series clear and matte films are backed by a 10 year warranty. Clear bra protects against rock chips and keeps your car looking newer longer.

SCOTCHGARD™ - CLEAR BRA

- Clear car paint protection
- Unrivaled scratch and stain resistance
- Custom designed clear bra patterns to fit your vehicle
- Self-healing technology, makes most scratches disappear
- Tough, durable and maintenance free
- Backed by a 10 year warranty



CARS / VANS / 4x4 / TRUCKS / BUSES



SCOTCHGARD[™] - PRO SERIES MATTE

- A beautiful satin matte finish, matching factory matte paints
- Turns a gloss paint to satin matte finish
- Available in full car wrap or in customized parts
- Unrivaled scratch and stain resistance
- Self-healing technology, makes most scratches disappear
- Tough, durable and maintenance free
- Backed by a 10 year warranty

3M[™] WRAP FILM SERIES 1080

- Unlimited possibilities
- Separate yourself from the pack
- Give clients the individuality they demand
- Stay miles ahead of the trends
- Use it right out of the box
- no need to print or apply an overlaminate
- Manufactured with 2 layers for dimensional stability
- 3.5 mil cast film for easier handling & good conformability

3M™ INNOVATIVE IJ180mC PRINT FILM SERIES

- From stunning graphics to eye-catching colors
- They're loaded with the features for fast & easy installations
- Printable to create one-of-a-kind graphics on vehicles
- Excellent liner release, slideability, initial tack and air release
- Technologically advanced products that provide design freedom and the highest quality of print
- Available in white, metalic and transparent











CARS / VANS / 4x4 / TRUCKS



PROTECTION

- Corrosion protection
- Surface protection
- Tapes, films, cavity wax, primers
- Hardner, trim coating

MILITARY VEHICLES



SEALING

- Autobody sealants, polyurethan,
- Thread & pipe sealants
- High temp. silcone



NOISE & VIBRATIONS

- Control tapes
- Vibration damping tapes
- Damping foams
- Sound deading pads



STRUCTURE & SURFACE

- Attaching, adhesives & tapes
- Clean & Strip Metal
- Electronics assembly materials liquids and tapes
- Painting complete product range
- Structural bonding structural adhesive chemistries



CLEAN, PROTECT, SECURE

- Solvent cleaning fluids
- Vapor degreasing
- Safety and Protection
- Helmets, hearing protection, eyeweare protection
- Personal body armor &



PROTECTIVE WINDOW FILMS

The 3M TM Ultra protective film is designed for use on the inside of a window pane. It has a special multilayer construction based on nanotechnology. 3M TM Ultra protective films are 40 times more tear resistant than other protective films of the same thickness. Therefore, the resistance of the glass with applied film to breaking and burglary is significantly increased. Effectively protect against injury from glass shards and damage caused by breaking the glass. The foil stops the glass pieces preventing the glass from splashing into small shards. Protects against damage caused by breaking the glass.



MAP Automotive provides sales and marketing services on behalf of original equipment manufacturers, through the partnership with aftermarket distributors, dealers, services, manufacturers, converters.

The people behind MAP Automotive are a team with more than 15 years of practical experience and with one thing in common: great insight into the automotive parts market. Our customers reap the benefits of this vast amount of experience – today, there is hardly any problem we cannot solve and hardly any part we cannot deliver. When it comes to supplying parts from our range to customers, the close collaboration with our logistic partners ensures fast, flexible and highly dependable delivery.

MAP Automotive prides itself in providing customers with all the products, systems, tools and resources that are needed, to have vehicles repaired, upgraded, converted to the highest standards.



HEADQUARTER REGION EMEA MAP Automotive Sp. z o.o. Warsaw, Poland

office@map-automotive.com +48 791 984 979



HEADQUARTER REGION CIS MAP-Automotive LLC Kiev, Ukraine

office@map-automotive.com +38 066 922 56 56



www.map-automotive.com