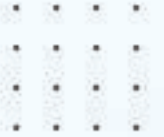




FIRE FIGHTING & RESCUE TRUCKS



FIRE FIGHTING & RESCUE VEHICLE DIVISION





Emergency and First Responders most reliable and technologically advance solutions for Municipal / Urban Areas, Airports, HeliPorts, Forrests, Industrial Area and various solutions for Rescue Vehicles.

MERAJ Fire Fighting & Rescue Vehicles are EN-1846 Certified.

- Aluminum Weld-Free Body Construction, Stainless Steel Body and our standard Hot Dip Galvanized Body
- EASE racking system that provide vertical and horizontal racks with maximum weight bearing capacity of 800 kgs
- All MERAJ Fire & Rescue vehicle bodies are made using our “Modular Body Concept [MBC]”
- Robust, lightweight construction owing to 3D aided design.
- International chassis compatibility Firefighting pumps raging from 500 GPM to 1500 GPM (NFPA 1901 and EN-1028 compliant)
- Stainless Steel Tanks or Advance fully recyclable polypropylene tanks

INTRODUCTION

Over the course of 45 years, MERAJ's primary division Fire Fighting and Rescue Vehicles and Equipment has expanded its expertise to meet international standards. Today, there's no technology or features beyond our capability. Thanks to years of continuous R&D, our firefighting product range is robust, elegantly simple, and user-friendly.

With the advent of MERAJ's Modular Body Concept (MBC), we can now cater to our customers' unique design preferences using 3D computer-aided design. This allows us to present a realistic design to our customers prior to manufacturing. Our EASE shelving system seamlessly integrates into any design, both vertically and horizontally, and can accommodate up to 800 kgs of equipment.

Our extensive range of Fire Fighting Pumps complies with NFPA 1901, and we also offer EN-1028 compliant pumps with a combined Normal and High-Pressure system. Our pumps range from 500 GPM to 1500 GPM and can be either single or double stage centrifugal type.



WHY CHOOSE US

QUALITY

As part of the critical safety infrastructure, our firefighting and municipal vehicles undergo stringent quality assurance testing. MERAJ ensures all our products and vehicles comply with ISO 9001, ISO 45001, and ISO 14001 standards. This adherence to the ISO 9001 framework guarantees an in-depth understanding of the Quality Management System (QMS), enabling our products to carry a quality warranty.

CUSTOMIZED SOLUTIONS

The game-changing influence of 3D design has transformed the automotive industry. Our team of designers harnesses this technology to generate, organize, and customize vehicle bodies according to client specifications. This results in a comprehensive, easier-to-understand 3D digital model, offering significant competitive advantage in product development and manufacturing operations.

FUNCTIONALITY & RELIABILITY

The advanced design revolution leads to reliable manufacturing through sophisticated product design. The utilization of cutting-edge CNC automotive technology allows for swift production of precise and highly efficient parts. The precision and intricacy of the process result in enhanced performance, durability, and reliability.

AFTER-SALE SERVICE

In the safety business, our service teams are always on standby for our clients. Our network of service partners ensures that, in the event of an unforeseen issue, after-sale service is always within reach. The practicality of 3D designing and computing enables us to provide precise and accurate parts even years after the product's delivery.



FIRE FIGHTING VEHICLES

Urban Fire Trucks / Municipal Fire & Rescue Trucks [EN-1846 Certified]

MFT Series – Fire Trucks are our most customizable and with range options available to go with it. Telescopic Light Masts, external generator, EASE racking system, Crew Cab with customizable seating arrangements, Aluminum weld free body, EN 1028 approved pump or NFPA 1901 compliant pump.

- Polypropylene Tanks, SS Tanks, GRP
- Welded, Weld Free and Structureless Bodies
- Pneumatic/ME+ control system
- Fully modular kit concept
- 5-ton to 21-ton GVW [weight classification]

Industrial Fire & Pumper Trucks

MIFT Series – Product line offers a high degree of specialization and extinguishing capacity for fire protection in the industrial sector. The demands of industrial fire departments are enormous: To protect people, the environment and property in challenging environments such as the petroleum processing and pharmaceutical industries, firefighting vehicles that meet the special requirements of complex chemical processes and achieve the necessary high extinguishing performance are needed.

- Highly developed extinguishing systems
- Flexible design for the individual needs of industrial fire departments
- Special high reach extendable turret (HRET)
- Pump systems with outputs of up to 14,000 l/min in feed-in mode, industrial proportioning systems,



Rapid Intervention Vehicle [Small Airports & Helipad]

MRIV Series – Rapid Intervention Vehicles are built on dual-axle vehicle chassis of American manufacturers where available and European / Japanese chassis with permanent all-wheel drive and dual tires particularly suitable for rapid and safe operation in small airports and heliports. Tank contents are selectable with contents of up to 3,000 L. Additional systems, such as an optionally available dry powder units as well as CO2 systems, complete this series. Innovative product solutions make it the perfect all-rounder for any airport fire department.

- 2-door single cab for two persons
- 4-door double cab for five persons



Airport Rescue Fire Fighting (ARFF) [ICAO & NFPA 414]

FRIGATE Series – Commercial Chassis ARFF.

Airport firefighting vehicles play an important role to ensure the airport property security. For such areas of application, we can offer a variety of proven vehicle variations.

These vehicles are built on 2, 3 or 4 axles standard chassis and carry up to 11,000 liters of extinguishing agent, usually water and foam, occasionally dry powder or CO2. The powerful roof turret and front turret make sure that a targeted and efficient firefighting attack is possible even while driving. We take the individual configuration of these fire vehicles as one of our strengths, with our various superstructure options we offer maximum flexibility.

- 2-door single cab for two persons (4x4, 6x6 & 8x8)
- 4-door double cab for five persons (only 6x6)
- Firefighting pump with output of up to 6,000 l/min at 10 bar
- Pump and roll PTO for simultaneous driving and firefighting
- Automatic foam systems water/foam roof turret or bumper turret
- Under truck nozzles on all wheels and on the front of the vehicle
- Truck Options: Volvo, MAN, Astra





Rescue Vehicle [Specialty Category]

MFRV Series – Sometimes it takes more than just water.

MERAJ Rescuer, the technical assistance is assured. Whether in traffic accidents or for the environment protection – together with equipment or the firefighting gear this Rescuer giant are well developed and ready to handle any task. Manufactured according to state-of-the-art methods. The corrosion-resistant aluminum frame structure with aluminum flashing is a proven adhesive design that is extremely stable and durable. The continuous full height compartments provided by the professional EASE stowage system. Dust and spray water-proof roll-up-type doors close the equipment compartments ergonomically. The equipment is removed with the help of stable hinged steps.

Our Fire & Rescue Vehicles are EN-1846 Certified. Depending on individual requirements, a multitude of additional equipment may be selected, for example:

- Hydraulic cable winch
- Rescue crane
- Built-in generator
- Light mast equipped with camera system
- Pumping System
- Ultra-High Pressure Pump System



Roll on / Roll off Containers [Speciality Vehicle]

MROC Series – Hook. Lift. Go!

Fire brigades use the advantages of removable loaders strategy and the related possibility to individually configure the roll-off containers. The diversity of the roll-off containers assembly has been increasing in the past few years. Special usage scenario means that in close cooperation with our customers more and more specific concepts have been developed and implemented for roll-off containers. All experiences of these often very exclusive solutions are incorporated into the construction of new roll-off containers and thus benefit ultimately all fire brigades. For each operation there are special items of equipment that must be brought to the scene as quickly as possible. Thanks to the variously equipped roll-off container, the required equipment can quickly be brought to the scene of operations with just one vehicle.

Fire & Rescue Aerials [Specialty Category]

MHAP Series – When serving fire fighters, time is of the essence. The MERAJ aerial platforms are designed for easy maneuvering, quick set-up, and efficient operation to save the precious minutes.

Our products feature spacious rescue cages with various additional equipment, a large water capacity, efficient foam systems and a reach to meet even the most demanding challenges. Our products are equipped with the easy and precise ME+ control system, appreciated by those who work at heights.

- Spacious rescue cage with high safe working load
- Breathing air, electricity, and hydraulics in the cage
- Remote control for boom movements and water monitor
- Emergency back-up system
- Detachable winches
- Stretcher carrier
- High voltage detector
- Ultrasonic collision guard
- Various working lights and camera options



Firefighting Support Tankers

MWB-F Series – Big on storage. Big on flexibility. Big on performance.

Water shortage can happen anywhere – whether in rural areas, on motorways or remote roads, in large industrial plants or old town area. Before such a case becomes a problem MERAJ pumper tanker is here to support all your extinguishing needs

- Water tank capacities up to 20,000 Liters
- Wide array of compartmentation available to store equipment
- Heavy duty construction
- Full line of commercial chassis availability





Forrest Firefighting Trucks [Specialty Category]

MFFV Series – Light. Efficient. Robust.

Wild-land Fire Vehicles are robust vehicles, equipped with all-wheel drive (minimum 4×4), with models in double or single cab, suitable to face adverse working conditions: narrow roads (short axis of rotation and great maneuverability necessary), unstable terrain, strong slopes, rocks, and mud, etc.

MERAJ forest fire fighting truck thus not only meets the high requirements of Category 3 of European Standard 1846-2 for all-terrain fire fighting vehicles, which makes the adoption of vehicle self-protection measures very indicated: water curtains, anti-roll bars integrated into the chassis, etc. It must be considered that in certain types of forest fires the energy and radiant heat that reaches the vehicles participating in the extinction can be very high.

- Light, Medium and Heavy Range
- 500 L to 2500 L pumps available with high pressure pump of 40 bar
- Self-protection measures that allow you to work near fire
- Single or double cabin, adapted to the ergonomic needs of the crew
- Tank vehicles with up to 14,000 liters capacity
- Rollover protection system



FIRE FIGHTING PUMPS

Firefighting Pumps [EN 1028 Certified]

GORNER Series – The right pump for every application.

MERAJ truck-mounted fire pump systems are being used by thousands of customers since 1986 and around the clock. whether in airport, industrial or municipal firefighting vehicles or in stationary units. The design of the Meraj normal and high-pressure pumps as centrifugal pumps offers the best efficiency and lowest pressure surges thanks to flat pump characteristic curves. This particularly puts less strain on the nozzle operator. The output range of the normal pressure fire truck pumps reach from 500 l/min up to 6,000 l/min, the high-pressure fire pump system delivers up to 400 l/min at 40 bar.

MERAJ offers firefighting pumps in corrosion-resistant light alloy. This provides the best weight savings. For special applications (e.g., seawater), the pumps can also be made from gunmetal. The pump shaft is manufactured from stainless steel.

- Overheat protection, opens between 55 and 60 °C, automatically closes again after the temperature has dropped, no maintenance necessary.
- Hydraulic drive system or coupled with gear box for the drive.
- Pump pressure governor
- Automatic priming (optionally electric vacuum assisted priming available)
- Skid mountable
- Trailer mountable
- 2-stage model also available & NPFA 1901 compliant pumps available.
- Meraj offers pumps of various manufacturers fitted into our vehicles i.e. Johstadt, Darley, Godiva



MERAJ BODY CONCEPTS

Fire Truck Bodies – The right body for every application.

When specifying equipment bodies, MERAJ offers number of materials. Stainless steel, Aluminum, polypropylene and even structure free options, each has its own set of benefits depending on application.

We believe that paying close attention to the tiniest details is crucial, because the details that go into our trucks are just as vital as the outcomes that come out of them.

As standard, all body concepts come with standard and optional features.

Body Concepts

- HDized – AP
- ALX - AP
- PLP - 9003/07
- STRUCTURELESS-SL



PROCESS OF MAKING MERAJ BODY CONCEPTS

The vehicle bodies are made using the latest innovative technology.

- First, we create an accurate and detailed 3D design of the final product in CAD program selecting from a virtually limitless variety of vehicle bodies of any size or shape. The result is a 3D visualization of the expected product where the customer can see and check all the details that will make the finalized vehicle body
- The individual components transferred from the 3D model are cut out from sheets using 3 axis CNC machines
- The individual components are bent into various shapes and subsequently fabricated by a welding process into one final vehicle body
- Painting of the superstructure comes in two stages. The first phase includes the activate paint. In the second stage the superstructure is painted in the shade and color according to the customer's specifications





SECTORS

Fire Fighting Bodies Police & Military Bodies Pickup Truck Bodies Waste Management Bodies and others.

Raw Superstructures

From the model to the final realization of the raw vehicle body including the transport to the customer. The only thing we need from you is a proposal in any format, then we can create a complete 3D design of the body concept and subsequently deliver the final product according to your wishes directly to you.



Finished Body

We offer a complete solution and implementation of the special vehicle bodies on any chassis. We provide complete bodies including mounted equipment such as: pumps, signal lights, roller shutters, light masts, special EASE shelves, boxes and holders and other special equipment of locker space.



Flexible Modular System

Construction possibilities of bodies are virtually limitless varying from integrated water and foam tanks to flexible capacities of locker space for equipment. We can design any locker space system which will suit your requirements as well as the purpose and function of the vehicle.

CUSTOMIZED TO YOUR NEEDS

Construction possibilities are virtually limitless varying from integrated water and foam tanks to flexible capacities of locker space for equipment.





TELESCOPIC MAST

Pneumatic and electromechanical telescopic masts through our partner is available for daily use at different applications in our life such as lighting towers, telecommunication antennas, with various configurations of headlights with lighting movement systems, with different internal cables for data transmission for cameras, other surveillance tools and much more.

The range of masts and accessories is very wide and is continuously implemented thanks to great flexibility, innovation and customization of different solutions.



COMMUNICATION

The telescopic masts are ideal for the use in the telecommunication field, as they can carry antennas for mobile phones, transmitters and cameras of different dimensions and weights. By the years, the product range has been increased, to offer higher masts and bigger performances. As per the other mast models, there are many available accessories mounting brackets, compressors, guying ropes etc. Furthermore, a large experience in the design and development of customized solutions that fully satisfy the most specific requirements, with detailed and precise calculations of mechanical strength generated by the most modern software available in the industrial field.

LIGHTING

The telescopic masts have traditionally been created for the fire & rescue sector, and can be equipped with multiple combinations of headlights and different movement systems, such as:

- Tilt & Turn unit for 365° turning and °335 tilting of the floodlights
- Tilt & turn unit for 365° turning and °335 independently tilting of the floodlights
- Heavy Tilt & turn unit for top loads up to 150kg
- Inside Focus lighting system, for the concentration or enlargement of the lighting beam from 4-° to +46°
- Illuminator lighting system for infinite combinations of light beams such as The Lumicone lighting balloon
- Portable emergency lighting system

The range of the floodlights is very wide, although, however, lately taken over by the LED technology. We offer a wide range of LED headlights, in which the various products stand out for their power and design. Solutions with halogen headlights, Xenon, High-pressure sodium and Metal halide are still available.

SURVEILLANCE

The telescopic masts are suitable for the surveillance, as they can mount different types of cameras and systems for the protection of civil, industrial and institutional areas in general. The supply of internal electric cables also allows the control of these systems. The masts are equipped with locking system for long extensions time without the need of compressed air inside the mast.





ULTRA HIGH-PRESSURE SYSTEM

Ultra-high pressure suppression systems have been successfully transitioned from years of intense research on hydrocarbon fuel to real world applications, including wild-land fires and structural operations.

Ultra-high pressure is the creation of minuscule water droplets delivered at an extremely high velocity. Use of this method to extinguish fire quickly separates the fire from the fuel source and leaves a thin foam blanket in the wake to prevent the fire from reigniting.

- Optimal extinguishing effect
- High throw range and large active radius
- Perfect hot spot extinguishing
- Integrated foam system and foam attachment
- The UHPS system is effective above all if it is deployed during the incipient phase of a fire. Typical applications are therefore vehicle fires.
- An advantage of the UHPS ultra-high-pressure systems is their small dimensions and low weight.

The systems are distinguished by the use of diaphragm or piston pumps, petrol, or diesel engines. Particularly suitable for this use are Polypropylene tanks, for their strength, lightness, and corrosion free properties at the same time. Available in different shapes, sizes as per customer requirement. A foam mixing system is also available with a mixing percentage of 0.1 to %6.

The system can also be housed in compact advance vehicles. Thus, the scene of the fire can be reached faster, even on narrow or impassable roads.



Contact us

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