



**Resilience.**  
**Modularity.**  
**Cost-efficiency.**  
**This is where **REAKTIS** steps in.**

Modular System Solutions for Fire and Disaster Protection.



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# Content

This brochure provides a concise insight into REAKTIS GmbH, its self-image and the technological foundation of its system solutions.

Rather than rigid concepts, REAKTIS pursues a modular approach that adapts flexibly to different operational scenarios – from vegetation fires through to complex incident situations.

The foundation for this is more than 20 years of experience in military and municipal special vehicle construction and, above all, the direct feedback from the field. This is how solutions are created that are not conceived in theory but work under real conditions.

At the heart of it all is the operational tractor concept: a robust, all-terrain platform that can be deployed versatilely through modular attachments. A system that thinks ahead, adapts and supports emergency responders precisely where it really matters.

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# OVER 20 YEARS OF EXPERIENCE. BORN FROM REAL OPERATIONAL SCENARIOS.

The origins of REAKTIS GmbH lie in REBO Landmaschinen GmbH — spun off to enable a strict focus on specialised special vehicle solutions for emergency services (BOS). Every member of our engineering team is an active or former member of an emergency service organisation. No concept is created at the desk — every solution begins in the field.

**+20**

Years of special vehicle construction

**100%**

Engineering team experienced in emergency services

**40+**

Completed projects

## RANGE OF SERVICES:

- Vehicle concepts based on tractors
- Vehicle concepts based on UTVs
- Vehicle concepts based on construction machinery
- Development of special modules Prototype construction for specific requirements

# THE REAKTIS MISSION TRACTOR — AN OPEN, MODULAR SYSTEM PLATFORM.

The REAKTIS operational tractor represents a new approach to emergency vehicle design: moving away from the rigid vehicle concept toward a flexible, modular system platform. The focus lies not on the technology itself, but on its tangible utility in the field—specifically, the ability to address a wide variety of requirements in a manner that is economical, scalable, and precisely tailored to specific needs.

By combining a high-performance chassis with modular attachments and sophisticated system integration, the result is an operational asset that adapts precisely to the specific situation, mission and user. Thus, a single vehicle transforms into a versatile solution that anticipates needs, evolves alongside requirements, and performs exactly when it matters most.

## MANUFACTURER-INDEPENDENT:

Flexible choice of manufacturer.

## DRIVING SPEED:

Depending on the manufacturer, up to 80 km/h is achievable.

## OFF-ROAD CAPABILITY:

Supreme capability far removed from any infrastructure.

## MODULARITY:

A system platform instead of a rigid specialized vehicle.

## PROTECTION LEVEL:

From respiratory protection to ballistic armor capability.

## TELEOPERATION:

Remote control of the complete unit available.

## ECONOMIC EFFICIENCY:

A single drive for a wide variety of units.

## MULTIPLE USES:

A system for a wide variety of situations.

## REVERSIBILITY:

Enormous residual value and residual stability.

**EVERYTHING FROM DEVELOPMENT TO DELIVERY—FROM A SINGLE SOURCE.**



# FROM CAPABILITY DEFICIT TO SYSTEM PLATFORM.



The starting point was an analysis of real-world operational requirements and existing system limitations. Firefighting vehicles are powerful but limited in off-road capability; tractors possess excellent off-road mobility but are not designed to meet public safety requirements. REAKTIS bridged this gap.

## OFF-ROAD CAPABILITY & RESILIENCE

High ground clearance and traction · favorable weight distribution · large tires · optional track systems · fully operational · wading depth up to 1.20 m · even amidst destroyed infrastructure.

## POWER OUTPUT & CONTINUOUS LOAD CAPACITY

Mechanical power output via PTO · direct, low-loss operation of pumps and auxiliary units · high continuous load capacity without auxiliary drives.

## ROBUSTNESS & STABILITY

Engineered for dust, heat, humidity, and continuous-duty operation — Agricultural-grade robustness consistently applied to BOS requirements.

## ECONOMY & SERVICE

Fully reversible for everyday use · near-production base · worldwide service network · predictable lifecycle costs & exceptional residual value.

### SYSTEM COMPARISON: TRACTOR PLATFORM VS. CLASSIC TRUCK BASE

CRITERION	TRACTOR PLATFORM	CLASSIC TRUCK BASE
Off-road capability	<b>Very high</b>	Limited
Ground pressure	<b>Low</b>	High
Pump & Roll	<b>Systemimmanent</b>	Limited
Energy output	<b>Direct (PTO)</b>	Indirect (Auxiliary Drives)
Modularity	<b>High (Attachments)</b>	Limited
economy	<b>Suitable for multiple uses</b>	Specialized Vehicle
Infrastructure dependence	<b>Low</b>	High

# Not a vehicle. A system.

Thanks to standardized interfaces and setup times of under 10 minutes, a system emerges that adapts quickly, is easy to handle, and functions precisely where conventional technology reaches its limits.



THE MOST FLEXIBLE OPTIONS –  
ALSO IN LOGISTIC APPLICATIONS.



< 10-MINUTE MODULE CHANGE – NO TOOLS REQUIRED

+10 INTERCHANGEABLE MODULES AVAILABLE

## MODUL - OVERVIEW

### +10 INTERCHANGEABLE MODULES AVAILABLE

<p><b>01 FIREFIGHTING</b></p> <p><b>GTLF-MODUL</b> Water · Foaming Agent · Pump · Equipment Compartments</p>	<p><b>02 WILDFIRE</b></p> <p><b>WILDFIRE MODULE</b> Front Monitor · Winch · Self-Protection · Pump &amp; Roll</p>
<p><b>03 WATER SUPPLY</b></p> <p><b>HOSE REEL</b> Pressure Hose · Nozzle Hose · Exposure protection · Incident ground</p>	<p><b>04 FLOOD DISASTER</b></p> <p><b>EFFLUENT PUMP</b> 400 m³/h · 80 mm Grain passage</p>
<p><b>05 FLOOD CONTROL</b></p> <p><b>HEAVY DUTY PUMP</b> 3.000 m³/h · 100 mm Particle size</p>	<p><b>06 POWER SUPPLY</b></p> <p><b>EMERGENCY POWER SYSTEM</b> &gt; 110 kVA · save money in order of using already existing resources</p>
<p><b>07 EVERYDAY SITUATIONS</b></p> <p><b>SCRAPER BLADE</b> Storm Damage · Severe Weather Situations · Winter Operations</p>	<p><b>08 EVERYDAY SITUATIONS / LOGISTICS</b></p> <p><b>FRONTLOADER &amp; CRANE</b> Logistics · Fire Debris Management · Clearance C · Large animal rescue</p>
<p><b>09 OPERATIONS LOGISTICS</b></p> <p><b>HOOK LOADER</b> Roll-off Containers · Firefighting Water Transport · Drinking Water Transport · Hazardous Materials Containers</p>	<p><b>10 WILDFIRE</b></p> <p><b>FOREST MULCHER</b> Wildfire Prevention · Creation of Firebreaks</p>

# Enormous Quantities of Water.

**READY.** Even where others fail.

The tractor-based REAKTIS GTLF redefines large-capacity tank tenders: high water capacity combined with true off-road capability. Operational areas that remain inaccessible to conventional GTLFs become accessible.

## GTLF-MODUL

### VARIANTS & TECHNICAL DESIGN

CAPACITY	
<b>WATER TANK</b> 8.000 – 24.000 L	<b>FOAM AGENT TANK</b> 200 – 3.000 L
OPTION	PERFORMANCE
<b>RETARDANT</b> Integrable feeding and mixing technology	<b>PUMP</b> FPN 10-2000 to FPN 10-8000
SYSTEM	
<b>PUMPENSYSTEM</b>	Automatic Pump with Bypass & Automatic Drainage
EQUIPMENT	TECHNOLOGY
<b>EQUIPMENT ROOMS</b> Flexible and configurable	<b>SUSPENSION</b> Hydraulically suspended, optional slope compensation
TECHNOLOGY	OPTION
<b>STEERING</b> Hydraulic positive steering for turning circles starting from 18.5 m.	<b>DRIVE</b> Optional Drive Axle for Extreme Terrain

TRACTOR PLATFORM · GTLF-MODUL





## OPERATIONS IN VEGETATION

Vegetation fires demand equipment that does not have to choose between driving and extinguishing—but rather masters both simultaneously. This is precisely where the REAKTIS operational tractor demonstrates its strength: thanks to its nearly unrestricted "pump-and-roll" capability, water, wetting agents, or retardants can be applied in a targeted, controlled, and uninterrupted manner while the vehicle is in motion.

Combined with its exceptional off-road capability, this creates a distinct operational advantage: instead of standing on the sidelines, the vehicle can work directly at the scene of the incident. Extinguishing, containment, and the establishment of tactical lines are executed actively while on the move—precisely and effectively.

Speed is of the essence, particularly in dynamic, large-scale incidents. The operational tractor responds instantly, remains stable and controllable even on difficult terrain, and continues to operate precisely where other systems reach their limits.

## EQUIPMENT OPTIONS FOR THE UTILITY TRACTOR

- Nozzle frame for cabin and tire self-protection
- Scalable forward protection frame
- Thermal and mechanical underbody protection
- Pressurized cabin with particulate filtration and air quality monitoring
- Integrated, air-independent respiratory protection for driver and passenger

### Launcher System

Up to 2 operators · Water or flame retardant · 55 m throw range (precision-targeted).

### Self-Protection System

500 L Auxiliary Tank · 2 Engine-Independent Pumps · Cab and Tire Protection

### Front Spray Nozzles

Extinguishing and Cooling of the Travel Path for Self-Protection

### Winch

Hydraulic · 67 kN · 80 m Steel Cable · Self-recovery and tactical off-road support.

### Pump & Roll (Manned)

D-couplings for the use of nozzles within the driver's direct field of view

### Dozer Blade

Construction available with an optional integrated dozer blade.

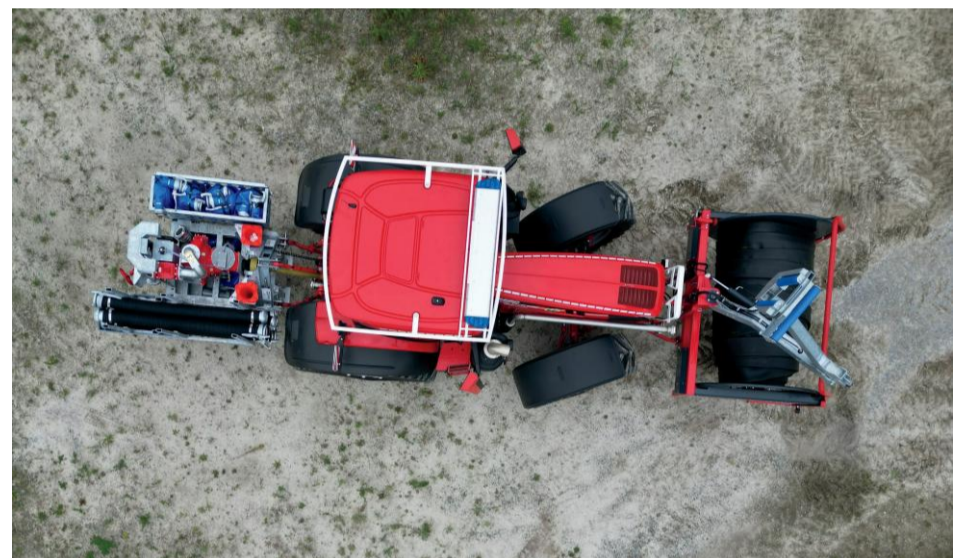




# OPERATIONS IN FLOOD- AND SEVERE WEATHER SITUATIONS

Flood and severe weather situations demand systems capable of handling large volumes of water and operating reliably, even when infrastructure is compromised. This is precisely where the REAKTIS operational tractor demonstrates its strength: thanks to the direct mechanical drive of high-performance pumps, power is available without any detours—efficiently, robustly, and independently of external power supplies. High pumping capacities are available on demand at any time, while the reduced system complexity significantly enhances operational safety.

Thanks to its modular platform, this specialized tractor can be flexibly configured—ranging from a mobile pump carrier to a high-performance flood management solution. At the same time, it remains fully mobile, continuing to operate reliably even on saturated ground, flooded areas, or damaged infrastructure. Furthermore, the use of proven series-production components results in a scalable system characterized by predictable costs and high availability.



## PUMP FOR SEVERE WEATHER EVENTS

**BBA BA110L D444, until 400 m<sup>3</sup>/h**

## PUMP FOR FLOOD EVENTS

**BBA BA400G D500, until 3,000 m<sup>3</sup>/h**



**OPERATION WITH SANDBAG FILLING SYSTEM**



# FULL OFF-ROAD CAPABILITY. EVEN FOR THE HOOKLIFT.

The REAKTIS operational tractor reinvents logistics in the field: it combines classic transport solutions with true off-road capability. When paired with a hooklift trailer, roll-off containers can be flexibly picked up, transported, and deployed directly where they are needed—even off paved roads.

This results in either a powerful complement to hook-lift vehicles in off-road terrain or a flexible alternative to the traditional hook-lift system. In the REAKTIS configuration, the system goes a step further: through the integration of a fire pump and corresponding piping, roll-off containers—particularly water tenders—are not merely transported, but actively integrated into the operational response.

**“A MODULAR ALTERNATIVE TO THE CLASSIC HOOKLIFT – WITH TRUE OFF-ROAD CLEARANCE.”**

## OFF-ROAD CAPABILITY

Collection and transport of waste directly in the field — no paved roads required.

## ACTIVE WASTEWATER

Integrating a fire pump enables not only the transport but also the active utilization of wastewater.

## DRINKING WATER & HAZARDOUS GOODS

Transport of Drinking Water Tanks or Hazardous Goods Containers — Flexible and Secure.

## SYSTEM COMPATIBILITY

Compatible with all standard roll-off containers  
· Standardized interfaces.



# OPERATION PROCEDURE

**01** GTLF-MODUL DISCONNECT AT THE WATER INTAKE POINT.

**02** PICKING UP THE FRONT HOSE REEL — VIA CAR TRAILER OR DIRECTLY

**03** LAYING THE HOSE TO THE TRANSFER POINT IN THE FIELD

**04** CONNECT MODULE → CONTINUOUS SUPPLY INITIATED

## PRACTICAL EXAMPLE: 1,000 METERS OF F-HOSE

One person. No shuttle traffic. Significantly reduced personnel requirements.

**1,000 M**  
Conveyor line

**5,800 L/MIN**  
Performance

**15–20 MIN**  
Setup time



# 1,000 Meter. 20 Minutes. One Person.

The hose reel connects the water source to the deployment site across any terrain—quickly, precisely, and with minimal personnel requirements. Up to 1,000 meters of pressure hose can be laid by a single person in under 20 minutes.

Establishment of defensive lines and supply of deployment sites directly from the vehicle.

# Deployment in Wildfire Prevention

Equipped with the forestry mulcher, the REAKTIS operational tractor transforms from a mere vehicle into an active tool for wildfire suppression and prevention. Firebreaks and fuel breaks can be established quickly and precisely; combustible material is reduced, and the spread of fire is effectively slowed.

At the same time, the system offers distinct advantages for real-world scenarios: operational areas can be prepared, structures maintained, and tactical barriers strategically established. When combined with the front unit, the level of protection remains fully intact—integrated self-protection systems reliably safeguard operational forces, even in dynamic situations.

## SWATHS & WOUND STRIPS

Rapid deployment of tactical barriers directly within the operational area—precise and with high area coverage.

## PREPARATION OF OPERATIONAL AREAS

Sustainable structural maintenance and tactically positioned barriers that provide decisive advantages in an emergency.

## INTEGRATED SELF-PROTECTION

Self-protection systems remain fully intact — protecting both the vehicle and the operational crew, even in the immediate vicinity of the fire.

***IN CONJUNCTION WITH THE FRONT-LINE UNIT:  
PREVENTION AND INCIDENT MANAGEMENT IN A  
SINGLE SYSTEM."***





**UNAMBIGUOUS RESULT —  
THE GTLF-V MEETS ITS  
REQUIREMENTS.**



# R&D PROJECT

## WIESMOOR

Write in the past tense; change nothing else: Since August 2025, the REAKTIS operational tractor has been undergoing trials in collaboration with the Wiesmoor Volunteer Fire Department as part of a research and development project. The goal is not only to technically evaluate the system but, above all, to further develop it under real-world operational conditions.

The primary focus is on integration into existing workflows and structures. Operational scenarios are systematically simulated, processes are analyzed, and the system is continuously optimized. Close collaboration with an active fire department ensures that every further development stems directly from practical experience — and is designed for practical application.

### FIREFIGHTING OPERATIONS

The GTLF has been deployed to nearly every fire incident involving the Wiesmoor Volunteer Fire Department since its commissioning.

### TACTICAL TESTING

Deployment scenarios are deliberately simulated, processes analyzed, and the system continuously optimized.

### INTEGRATION INTO STRUCTURES

The system integrates into existing fire service structures — without special tactics, with maximum added value.

**> 50 TRAINED PERSONNEL**

**> 25 TRAINED MACHINISTS**

**> 600 OPERATING HOURS TESTING**

# PROVEN IN PRACTICE – GTLF-V 12000.

THE RENOWNED PRE-SERIES MODEL BASED ON THE JOHN DEERE 6R 250.

The GTLF-V 12000 is arguably the most comprehensive, fully integrated tractor-based operational system—developed, tested, and deployed. All key components are systemically coordinated with one another: the drivetrain, pump, water management system, and interfaces form a single functional unit.



MODULAR TRACTOR SYSTEM · REAKTIS GMBH

## KEY TECHNICAL DATA – SYSTEM OVERVIEW

BASE CARRIER · JD 6R 250	GTLF-MODUL · EXTINGUISHING MODULE	WATER SUPPLY	SPECIAL MODULES · PROTECTION
<b>ENGINE POWER</b> <b>301 PS</b> 6-Cyl.-Diesel, 6.788 cm <sup>3</sup>	<b>WATER TANK</b> <b>12,000 Liter</b> Baffles, comprehensive monitoring	<b>HOSE REEL</b> <b>Up to 1,000 m</b> F/B/A/8"-hose, hydr. Arm	<b>EMERGENCY POWER SYSTEM</b> <b>&gt; 110 kVA</b> PTO-driven, no independent engine required
<b>TRANSMISSION</b> <b>0.03 – 50 km/h</b> CVT (Continuously Variable Transmission)	<b>FOAMING AGENT</b> <b>410 Liter</b> DZA 800, Admixture 0.1 – 3 %	<b>FLOW RATE</b> <b>348 m<sup>3</sup>/h bei 800 m</b> 12 bar, 5,800 l/min, 1 Person	<b>DOZER BLADE / CUTTER</b> <b>Front 3-point linkage</b> Snow plow, cutter, dozer blade
<b>PTO</b> <b>540E / 1000 / 1000E</b> Three speed settings	<b>PUMP</b> <b>FPN 10/6000</b> 6,000 l/min · 168 kW · PTO	<b>SETUP TIME</b> <b>approx. 20 Min.</b> 1,000 m, 1 Person, any terrain	<b>FORESTRY MULCHER</b> <b>Back 3-point linkage</b> Wildfire Prevention, Firebreaks
<b>HYDRAULICS</b> <b>Up to 195 l/min</b> Three-point linkage in front & back	<b>REAR WATER CANNON</b> <b>400 – 2,000 l/min</b> Throwing distance up to 70 m, oscillation	<b>PUMP HEAVY RAIN</b> <b>400 m<sup>3</sup>/h</b> 80 mm Free passage, PTO	<b>HOOGLIFT</b> <b>Towing hitch</b> Wastewater, Potable water, Hazardous materials, Off-road capable
<b>WADING DEPTH</b> <b>1.20 m</b> Puncture-resistant tires	<b>FRONT WATER CANNON (2x)</b> <b>100 – 1,150 l/min</b> Throwing distance up to 55 m, Pump & Roll	<b>PUMP FLOOD</b> <b>3,000 m<sup>3</sup>/h</b> 50,000 l/min, 100 mm Free passage	<b>FIRE SUPPRESSION MODULE SELF-PROTECTION</b> <b>Spray nozzles</b> Cabin + tires, vehicle-independent
<b>POWER SUPPLY</b> <b>14 V / 250 A</b> Module Interfaces up to 80 A	<b>SELF-DEFENSE WATER TANK</b> <b>500 Liter</b> 2 Pumps, Vehicle-independent	<b>SANDBAG FILLING SYSTEM</b> <b>&gt; 600 bags/h/Holding Socket</b> 800 L, 7 holding sockets, TÜV-tested	<b>CABIN PROTECTION</b> <b>Pressurized cabin</b> Particulate Filter, Gas Detector, Respiratory Protection
<b>DIESEL TANK</b> <b>410 Liter</b> Designed for continuous operation	<b>WINCH</b> <b>67 kN · 80 m</b> Hydraulic, steel cable	<b>MODUL CHANGE</b> <b>approx. 10 Min.</b> Tool-free, at the point of application	<b>FIELD TESTING</b> <b>&gt; 30 % gradient</b> Deep Sand, Pump & Roll Validated

# OTHER PLATFORMS: UTVs.

## Modular Superstructures for UTVs Based on Customer Specifications — Flexible Choice of Chassis Manufacturer

Modular bodywork for UTVs, built to customer specifications, with a flexible choice of chassis manufacturer. REAKTIS delivers the complete system solution — from concept to delivery — from a single source.

### RESCUE PLATFORMS

Modular Superstructures for Technical Rescue and Initial Medical Care in Difficult Terrain.

### HIGH-PRESSURE FIRE SUPPRESSION SYSTEMS

Compact high-pressure systems for rapid initial response at fire scenes with restricted access.

### POPULATION WARNING

Mobile Population Warning Systems — Operational even without infrastructure.

### SITUATION RECONNAISSANCE

Specialized vehicles for the reconnaissance of difficult-to-access operational areas and damage zones.

### HOSE LAYING

Modular Equipment Concepts for Off-Road Hose Logistics.

### CUSTOM SOLUTIONS

Custom Development Based on Client Specifications — Flexible and Vendor-Independent.



# OTHER PLATFORMS: CONSTRUCTION.

Modular superstructures for construction machinery, built to customer specifications, with flexible choice of chassis manufacturer. Maximum performance combined with the system flexibility of the REAKTIS concept.

## TELEHANDLERS

Modular Attachments for Telehandlers — Maximum Lifting Capacity combined with REAKTIS System Integration for Off-Road Use.

## WHEEL LOADERS

Flexible retrofitting and equipment for high-volume operations in heavy terrain and on unpaved paths.

## COMPACT LOADERS

Compact systems for use in confined spaces — agile, powerful, modularly upgradable.

## TRAILER SYSTEMS

Transport of accessories, tank and extinguishing systems, Respiratory protection device and other operational equipment.



**INTEGRATION OF CABIN RESPIRATORY PROTECTION, TANK AND FIRE SUPPRESSION SYSTEMS, AND BREATHING AIR QUALITY MONITORING — ALMOST POSSIBLE ON EVERY CONSTRUCTION EQUIPMENT BASE PLATFORMS.**

# REAKTIS AS YOUR PARTNER.



We guide you from the initial needs analysis to a fully operational system solution — direct, transparent, and consistently aligned with your requirements.

## OUR RANGE OF SERVICES

- VEHICLE CONCEPTS**  
Tractor Base · UTV Base · Construction Equipment Base

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- DEVELOPMENT**  
Prototype Construction and Custom Modules for Special Requirements

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- INTEGRATION**  
System Integration from Conception to Delivery

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- TESTING**  
Field Testing and Continuous Further Development

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- SERVICE**  
Training, Education, and Technical Support

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**INITIAL  
CONSULTATION**

**SYSTEM  
DEMONSTRATION**

**NEEDS  
ANALYSIS**



# CONTACT US NOW.

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