



Built for Danger  
Designed to protect

# Autonomous Demining System

Restoring Access. Reducing Risk.



- Enter the Threat.
- Stabilize the Ground.
- Restore Safe Access.

PeK DeMiner is a **lightweight, fully electric** and **autonomous** civil defence system for the safe mechanical neutralization of landmines. Designed around dynamic blast management, it enables rapid, remote or self-guided clearance with reduced personnel risk.

# Core Operational Requirements



## Remote & Safe Operation

- FPV remote control
- Secure stand-off operation
- Reduced personnel exposure
- Autonomous RTK base Field Navigation



## Lower Operating Costs

- Fully electric drivetrain — no fuel
- Reduced logistics footprint
- Lower maintenance
- Minimal spare-part demand

## Transport Simplicity

- Compact < 2.5 t platform
- B+E transport class
- No specialized transport required
- Rapid field deployment

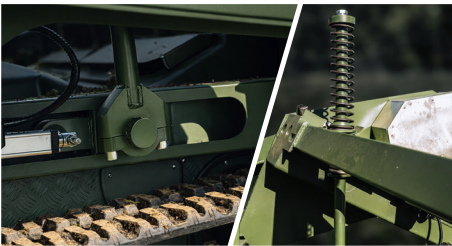


## Shockwave-Resilient Design

- No combustion engine
- No hydraulic-heavy systems
- Simplified electric architecture
- High resistance to repeated shockwaves

## All-Terrain Mobility

- Low ground pressure tracks
- High-torque electric drive
- Effective on mud, rubble, slopes, uneven terrain



## Blast-Mitigation Technology

- Angled blast-deflection shield
- Anti-blast suspension system
- Controlled force dispersion
- Reduced downtime after detonation

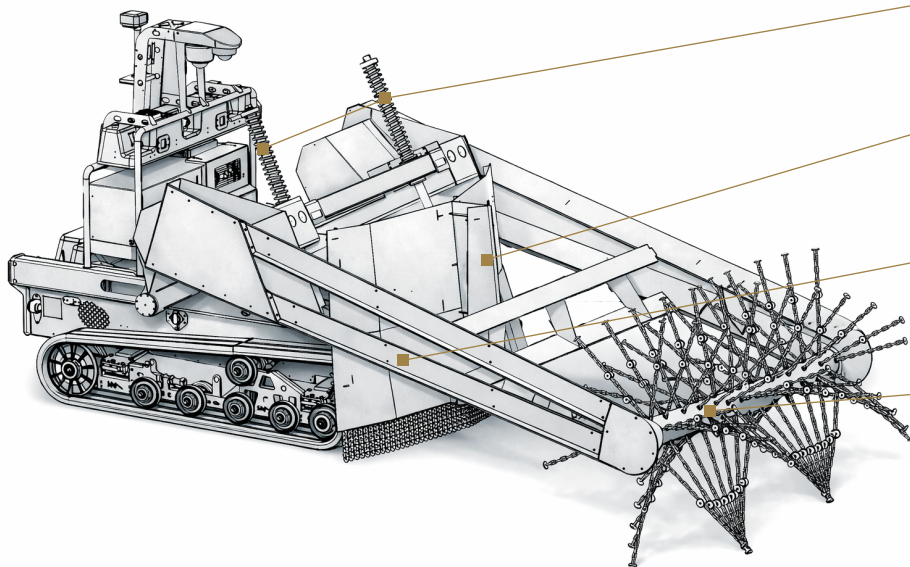
## Immediate Time-to-Action

- Plug-and-play design
- No complex setup
- Operational within minutes

# Architectural Superiority

PeK DeMiner is not an adaptation of agricultural or municipal machinery. It is a **purpose-built mechanical demining platform** engineered around **explosive interaction as a primary design condition**. Instead of absorbing blast energy through mass, the system manages shock-wave coupling through **dynamic suspension**, controlled force dispersion, and a **fully electric drivetrain architecture**.





■ **Two-Axis Drum Suspension**

- Adaptive terrain stabilization.

■ **Anti-Shock Wave Screen**

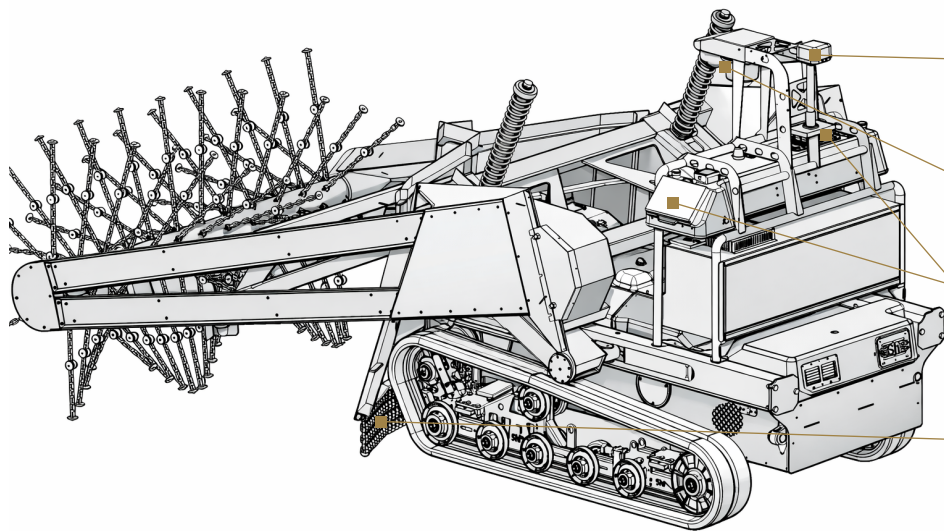
- Hypersonic shock wave supressor

■ **Drum Frame**

- 2° freedom suspension

■ **Flail Drum System**

- Chains and weights for mine initiation.



■ **GNSS**

- High accuracy receiver

■ **Aiming Camera**

- For FPV drive

■ **Display & Controller**

- Vehicle interface
- Remote control unit

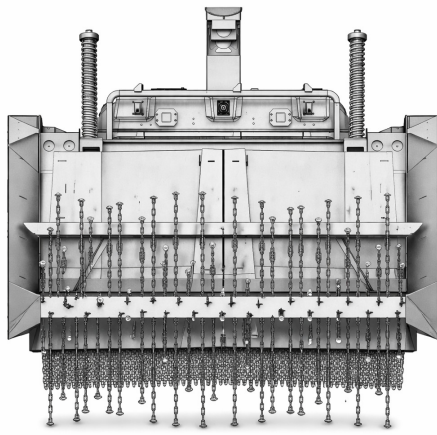
■ **Low soil pressure**

- Wide caterpillars

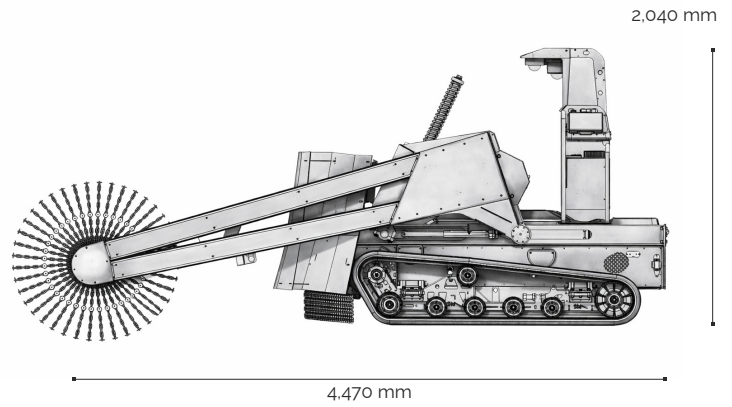
## Operational Mobility

Unlike super-heavy demining platforms, PeK DeMiner delivers **anti-tank capable performance** in a transport class compatible with **standard B+E trailer** deployment. No specialized heavy logistics are required, and the system achieves **operational readiness within minutes**. The result is rapid deployment capability and dramatically reduced logistical complexity.





2,360 mm



### General

Length	4,470 mm
Width	2,360 mm
Weight	2,800 kg
Armour protection	<ul style="list-style-type: none"> <li>• ArmoX 500T / Ramor 500</li> <li>• Hardox 500</li> </ul>
Movement	Catterpillars
Max declared mine	up to 10 kg TNT

### Remote and Camera Operations

Control Range	up to 1000 m (line-of-sight)
Remote control type	RF LoRa
Battery autonomy	up to 8 hours
Camera type	1 camera, FPV PAL CVBS
Resolution	720x576
Field of view (FOV)	360°
Frame rate	25fps

### Electrical System

Battery	43 kWh Lithium Iron Phosphate (LiFePO4)
System Voltage	48V DC
Mission Duration	up to 8 hours
Recharge Time	<ul style="list-style-type: none"> <li>• Standard: up to 8 hours</li> <li>• Fast charge: approx. 3 hours</li> </ul>

### Mobility

Maximum Transit Speed	4.0 km/h
Operational Speed	up to 2.0 km/h
Slope Capability	<ul style="list-style-type: none"> <li>• 30° (Longitudinal)</li> <li>• 30° (Transversal)</li> </ul>

## Sustainable Survivability



Explosive interaction is inevitable in mechanical demining. PeK DeMiner is designed to remain **operational after detonation events** through **energy-management architecture**, elimination of vulnerable combustion and hydraulic assemblies, and controlled drum displacement during blast impulse. The result is reduced **structural stress**, lower downtime, and long-term operational continuity at significantly lower lifecycle cost.



# The Revolutionary Design of PeK DeMiner



PeK DeMiner is a lightweight, fully electric mechanical demining system designed for rapid deployment and immediate operational readiness. With a total mass optimized for light car trailer transport, the system can be rapidly deployed via a standard B+E trailer and operated remotely or autonomously using RTK-precision navigation.



Its key advantage lies in its energy-management architecture. Instead of absorbing explosive force through brute mass, the system minimizes shock-wave coupling and allows pressure to dissipate without transferring critical loads to the core platform.



The fully electric EV48 drivetrain eliminates vulnerable mechanical and hydraulic assemblies, while the dynamically mounted flail system allows for suspended movement during detonation, reducing peak mechanical stress dramatically.



The result is a lightweight, mobile, and structurally resilient system for safe stabilization of contaminated terrain.



## Electric

Fully electric platform designed for resilient operation in explosive environments.



## Protective

Removes personnel from direct blast exposure while maintaining real operational capability.



## Autonomous

Remote and RTK-guided navigation for precise, repeatable clearance with minimal human risk.

■ **PeK Civil Defence company is focused on the development of advanced electric and autonomous systems for high-risk and mission critical environments.**

Building on deep expertise in electric drivetrains, dynamic structural engineering, and autonomous robotic control, PeK Civil Defence develops platforms engineered around explosive interaction — enabling safe terrain stabilization where human presence is restricted or unsafe.



# Pek DeMiner

The Architectural Shift  
in Mechanical Demining

NATO  
DIANA  
Defence | Innovation | Adapt



GOIS

esa

Gospodarska  
zbornica  
Slovenije



ZAG

sidac



SiEnE

t.tees



Built for Danger  
Designed to protect

✉ [info@pek-defence.com](mailto:info@pek-defence.com)

☎ +386 30 777 050

📍 Obrtniška ulica 17 | 1370 Logatec | Slovenia



[pek-defence.com](https://www.pek-defence.com)

