



# HUNGARY

**DEFENCE PRODUCTS AND SERVICES** 



#### **PROLOGUE**

After many years of regarding defence industry as the sole business of NATO's most powerful countries, the Government of Hungary has decided to grow the Hungarian Defence Industry back to the level of its peak point in history, when Hungary manufactured armoured fighting vehicles, handguns, heavy firearms, mortar ammunition etc.

These defence products are not only for protecting our Homeland and our allies from any threats but also for providing defence material for international buyers.



The Hungarian Government aims to possess one of the most sophisticated defence industry in the Central European region by 2030.

Hungarian Defence Export Agency as a 100% state-owned company, is one of the main actors in retrieving Hungary's position as a regional in arms and other defence equipment.

The partner companies of VEX, supported by state provided background, have been checked and selected by army and public administration experts to represent Hungary's top defence industry designers and manufacturers. The products of these companies have been developed by using the testing and advisory capabilities by members of the Hungarian Armed Forces.

VEX recommends the items and devices of this catalogue for any defence related organizations, armies or personal users as well. We can arrange G2G businesses, can provide support for applicants to public tenders and we can offer partnership with a lot of OEM companies' supply chains.

Thank you for choosing Hungarian Defence Export Agency as your partner for procuring defence equipment!

**RÓBERT PACHNER** 



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C4ISR

The ability to obtain, gather and distribute information effectively is key to maintaining operational superiority. Hungary's comprehensive range of C4ISR products give military forces and security services information superiority.

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Smallsats support many different military capabilities operating mainly in low-Earth (LEO) and medium-Earth (MEO) orbits. These satellites are significantly cheaper than larger platforms, allowing greater risk-taking.

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A wide range of military products and services that available in Hungary .

## DESIGN, DEVELOP, TEST AND CERTIFY



This company is one of few companies over the world that can design, develop, test and certify whole jet A/C. They also have capability to modernize, support and keep airworthy their A/C during its whole life cycle. These mentioned capabilities are based in development and requires specific know how in variation of unique specialization.

They develop, produce, and deliver the best-in-class jet trainer aircraft and associated services to customers worldwide. The company stands on 3 pillars – Proprietary Platforms, MRO & Customer Services, Aerostructures.

For all its proprietary platforms, they provides dedicated after-sales services (availability services, support services, services-life extension, repairs, maintenance, and overhauls) as well as continuously develop and implement aircraft and technology upgrades, in accordance with the latest trends and/or based on customers' requirements.





## **AERO L-39NG**

#### **NEXT GENERATION JET TRAINER**





AERO's primary focus is ondesign, development, production, certification, testing, logistic support, and upgrading military jet aircrafts.

- Excellent manoeuverability and handling characteristics.
- Increased lifespan up to 15,000 flight hours.
- Low maintenance demands on both manpower and equipment.
- Proven design concept with more than 5,000,000 flight hours accumulated by the fleet.
- State-of-the-art design features.
- · Lower fuel consumption.
- The armed version of the L-39NG multi-role aircraft can be equipped with four blocks of unguided rockets and bombs up to 370kg under the wings.

#### **SPECIFICATIONS**

Wingspan	9.38 m		
Lenght/Overall	11.70 m		
Empty weight	3.200 kg		
Max take off weight	5.600 - 5.800 kg		
Max fuel internal	1.250 kg		
Max speed	780 km/h /420 KTAS		
Range, internal fuel	1,150 NM		
Max thrust	16.87 kN/3.790 lest		
Max structural limit	+8 /- 4g		

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#### CONTACTS

## AVIATION / UAS UAV/UGV/USV



#### DEVELOPMENT AND MANUFACTURING



Their lead pilot has unique international professional UAV qualifications and extended knowledge. The company guarantees that their team members meet the highest expectations. They have multiple years of professional experience photography and video recording and they possess extended knowledge of aviation, technical competence and legal knowledge.

They have experience in popular hobby drones, unmanned aerial vehicle systems for industrial use from multi-rotor craft to fixed-wing aircrafts. This is complemented by their highly creative 'ground' staff, with years of filmmaking and directorial experience, who creates and edits their footage meeting contemporary high standards. Members of their service team are responsible for the daily maintenance tasks and manage to keep their drones in perfect and safe technical and operational condition 24/7.

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#### CONTACTS

## INTELLIGENT FLYING LAB





SPECIFICATIONS			
Multicopter UAS	Fixed wing UAS		
Flight time: 35 min	Flight time: 1.5 hour		
Distance: 5 km	Distance: 160 km		

#### **BENEFITS**

- The Flying Lab measures gasses with multiple sensors, selected by application from a list of more than 40 possible sensors.
- These sensors can detect contaminants such as H2S, NO2, SO2, VOC, CL2, PM1-10 and many other compounds, like uncontrolled radioactive sources.
- The Flying Lab continuously analyzes the data and sends them back to the ground station during flight.



## **PROTAR**

## HIGH-SPEED MULTI ROLE AERIAL TARGET - EXCELLENT TRAINING SOLUTION FOR MODERN ANTI-AIRCRAFT MISSILE SYSTEMS.





#### BENEFITS

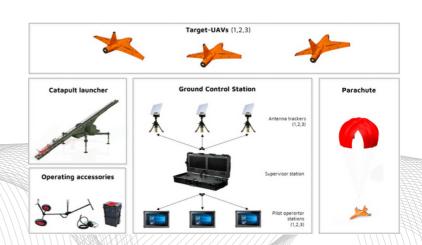
- Simple design and rugged construction ensure reliable operation in the world's harshest environments.
- Formation flight, up to 3 Target UAVs
- Realistic threat simulation, many payload options
- NATO band communication
- · Reliable parachute recovery
- Electric catapult
- Low system cost
- · Safe and easy operation;
- Flight termination and reuseablity



Augmentation

Luneburg Lens, ADSB,

Smoke, IR, Acoustic MDI



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# SECOP X4, FLYANGER 5, PROTAR ELECTRIC LAUNCHER



#### SECOP X4

The SECOP X4 is a versatile small-sized multirotor system, combining the advantages of fixed-wing unmanned aerial vehicles with the precision and manageability of rotary-wing systems. It offers the longest flight time and exceptional range in its category and is capable of day and night operations without compromise, resistant to wind, strong gusts, low temperatures, and precipitation.



#### **FLYRANGER 5**

VTOL (Vertical Take-Off and Landing) systems encompass modern drones and aircraft capable of vertical takeoffs and landings. This innovative solution combines the best attributes of traditional airplanes and helicopters, providing exceptional mobility and versatility in aerial operations.



#### PROTAR ELECTRIC LAUNCHER

The ProTAR electric catapult can launch UAVs with exceptional speed and efficiency, while offering users impressive adaptability and energy independence. It is able to withstand a variety of climatic challenges and offers advantages over conventional systems with the latest electric motor technology.



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#### CONTACTS

## HC<sub>0</sub>2

#### LIGHT WEIGHT HELICOPTER





#### BENEFITS

HC02 is the most versatile two seated light weight helicopter with cutting-edge engineering features, like electronic rescue system and highly efficient rotor system. Its unique mechanical design provides a cost effective solution for several applications:

- Entry level/Basic flight training
- · Surveillance applications
- Patrolling

Due to the lack of compromises not just the in its design, but in its handing is every pilot dream. Excellent stability and reliability describes the HungaroCopter. Utilizing its class best features within a single aircraft.

#### **SPECIFICATION**

- Rotor diameter: 7 m
- Empty weight: 349 kg with **ERS**
- Max takeoff weight: 600 kg
- Endurance: 3 hours
- Cruise Speed: 94 KTAS
- Vne: 110 KTAS
- Rate of Climb: 1600 f/m
- Power: 141 HP
- Hower IGA/OGA: 2750/2250

feet

## HC02.UAV - HC02.SIM



#### **HELICOPTER DRONE**



#### HC02.UAV

Based on the HC02 the HC02.UAV eliminates human risk and extends flight endurance in mission critical tasks, like:

- Surveillance
- Attack
- Behind the border logistics and rescue

Due to in-house design and production including mechanical, electrical and software, any customer specific modification and customisation is possible if needed. Multiple communication channels are available, like LOS (Low Orbit Satellite), encrypted, mesh capable direct RF link with a backup 4G/LTE connection.

#### **HC02.SIM - REMOTE**

One of the most crucial part of an UAV operation is the training. The HC02.SIM is based on a realistic physical engine with almost indistinguishable real life detailed VR graphics, moreover a 6 dimension of freedom motion platform to feel every movement like an onboard pilot.

#### **SPECIFICATION**

• Rotor diameter: 7 m

• Empty weight: 349 kg with ERS

• Max takeoff weight: 600 kg

 Endurance: 3 hours, 9 hours with auxiliary tank

• Cruise Speed: 94 KTAS

Vne: 110 KTAS

• Rate of Climb: 1600 f/m

• Power: 141 HP (optional 160 HP)

• Hower IGA/OGA: 2750/2250 feet

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#### CONTACTS

## **G9HSP**

#### **HANDGUN**



#### **BENEFITS**

- The main feature of the G9HSP is the firing mechanism which modular is interchangeable: it can be either hammerfired or striker-fired. Due to the modular design of the weapon, the transition from one type of firing mechanism to another takes approximately thirty seconds. component groups need to be replaced during this transition: the firing pin housing, the recoil spring, and the firing block. The latter, containing the firing mechanism is mounted in a removable module and it can be easily lifted out with a single motion. This interchangeable firing mechanism has been patented by Gestamen Ltd.
- Its system features a short recoil, barrel-block locking mechanism.
- The firing mechanism allows double-action firing, enabling consecutive shots without manual cocking.
- Decocker and triplex safety system.
- The controls are ambidextrous, designed to facilitate both right- and left-handed use.
- The rear, interchangeable panel of the handgrip is available in three sizes (S, M, L) for customization.

#### **SPECIFICATIONS**

• Empty Weight: 815 g

• Full Length: 207 mm

• Full Height: 135 mm

• Full Width: 38 mm

• Length of barrel: 114.3 mm (4.5

inch)

• Caliber: 9x19 mm

• Shooting range: 50 m

• Magazine: 17 rounds (Glock

type)



## **G224LMG**

#### LIGHT MACHINE GUN

**BENEFITS** 

- An LMG developed by the specifications of Hungarian Defense Forces.
- This weapon fires 5.56x45 mm NATO ammunition.
- Its barrel is easily interchangeable and equipped with a flash hider.
- The controls ensure both right- and left-handed usage.
- The buttstock uses a telescopic mechanism and allows for side-folding.
- Its system is gas-operated, rotating bolt (with six locking lugs), gas piston longstroke, and equipped with a gas regulator.
- Suitable for both semi-automatic and fully automatic fire.
- The firearm is equipped with four Picatinny rails.
- Its primary sight is an iron sight, and thanks to the Picatinny rails, it can be fitted with an optical sight.
- The light machine gun can be fed from either a magazine or a belt. In the case
  of a drum magazine, the weapon can hold60 rounds. It is compatible with
  STANAG M4 magazines.





• Empty Weight: 7.5 kg

• Full Length: 1125 mm

• Full Height: 238 mm

• Full Width: 128 mm

• Length of barrel: 500 mm (20")

• Caliber: 5.56x45 mm (NATO)

• Shooting range: 600 m

• Muzzle Velocity.: 930 m/s

• Rate of fire: 650 rounds/min

Magazine: 60 rounds (M4 compatible)

• Belt: cal. 5.56, disintegrating

• Operation: fully automatic, semi-automatic

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## **G762MG**

#### **MACHINE GUN**





#### **BENEFITS**

- A machine gun developed according to the specifications set by the Hungarian Defense Forces.
- This weapon fires 7.62x51 mm NATO ammunition.
- The barrel is easily interchangeable and is equipped with a flash suppressor.
- The controls ensure both right- and lefthanded usage.
- The buttstock offers a telescopic mechanism that allows for side-folding.
- Its system is gas-operated, rotating bolt (with six locking lugs), gas piston long-stroke, and equipped with a gas regulator.
- Suitable for fully automatic fire.
- The firearm is equipped with four Picatinny rails.
- Its primary sight is an iron sight, and thanks to the Picatinny rails, it can be fitted with an optical sight.

• The machine gun can be fed from belt.

#### **SPECIFICATIONS**

• Empty Weight: 9.2 kg

• Full Length: 1.225 mm

• Full Height: 238 mm

• Full Width: 128 mm

Length of barrel: 550 mm (22")

• Caliber: 7.62x51 mm (NATO)

• Shooting range: 800 m

• Muzzle Velocity.: 860 m/s

• Rate of fire: 600 rounds/min

• Belt: cal. 7.62, disintegrating

• Operation: fully automatic



### **G9SMG**

#### **SUBMACHINE GUN**



#### BENEFITS

- There are both standard and short versions of the submachine gun.
- It fires the same ammunition as the pistol belonging to the handgun family (G9HSP), namely the 9x19 mm Parabellum cartridge and the magazine type also the same (Glock).
- It uses a lockless, freely recoiling blowback system.

#### **SPECIFICATIONS**

• Empty Weight: 3.1 kg/2.9 kg\*

• Full Length: 750 mm/700 mm\*

• Full Height: 190 mm

• Full Width: 52 mm

 Length of barrel: 254 mm (10")/203.2 mm (8")\*

• Caliber: 9x19 mm Parabelum

• Shooting range: 100 m/80 m\*

• Rate of fire: 800 rounds/min

• Magazine: 19-33-50 rounds (Glock type)

• Operation: fully automatic, single-shot

\*for the short version

- · The firing mechanism allows both single-shot and fully automatic fire.
- It is suitable for both right- and left-handed use.
- The telescopic buttstock is adjustable, and for increased comfort, the folding direction can be changed by refitting some components.
- It is equipped with a flash suppressor at the muzzle.

• The firearm features four Picatinny rails, allowing for the attachment of various accessories and sights.



### **G224AR**

#### **ASSAULT RIFLE**





#### **BENEFITS**

- The assault rifle is also available in two versions – standard and short.
- Its caliber is in accordance with the 5.56x45 mm NATO standard.
- It utilizes a gas-operated, rotating bolt (with seven locking lugs), short-stroke gas piston system.
- The firing mechanism allows both singleshot and fully automatic firing.
- It comes with a magazine capable of holding 30 rounds. It is compatible with STANAG M4 magazines.
- The telescopic buttstock is adjustable, and for increased comfort, the folding direction can be changed by refitting some components.

#### **SPECIFICATIONS**

- Empty Weight: 3.1 kg/2.9 kg\*
- Full Length: 850 mm/725 mm\*
- Full Height: 190 mm
- Full Width: 52 mm
- Length of barrel: 355.6 mm (14")/228.6 mm (9")\*
- Caliber: 5.56x45 mm NATO
- Shooting range: 600 m/500 m\*
- Rate of fire: 700 rounds/min
- Magazine: 30 rounds (M4 compatible)
- Operation: fully automatic and single-shot

\*short version specification

- The assault rifle is equipped with ambidextrous controls.
- Another characteristic is that the quantity of gas flowing into the gas cylinder can be regulated.
- The firearm features four Picatinny rails, allowing for the attachment of various accessories and sights.

CONTACTS

## **G308BR**

#### **BATTLE RIFLE**



#### **BENEFITS**

- This battle rifle fires 7.62x51 mm NATO rifle ammunition.
- It uses a gas-operated, rotating bolt (with seven locking lugs), short-stroke gas piston system, equipped with a gas regulator.
- It is suitable for both right- and lefthanded use.
- The telescopic buttstock is adjustable, and for increased comfort, the folding direction can be changed by refitting some components.
- The magazine is capable of holding 10 rounds, with the option for a larger magazine capacity.
- Its firing mechanism allows both singleshot and fully automatic fire.

 The firearm features four Picatinny rails, allowing for the attachment of various accessories and sights.

#### **SPECIFICATIONS**

- Empty Weight: 3.6 kg/3.3 kg\*
- Full Length: 1030 mm/930 mm\*
- Full Height: 190 mm
- Full Width: 52 mm
- Length of barrel: 508 mm
   (20")/406.3 mm (16")\*
- Caliber: 7.62x51 mm NATO
- Shooting range: 800 m/500 m\*
- Rate of fire: 700 rounds/min
- Magazine: 10-20 rounds
- Operation: fully automatic and single-shot

\*short version specification



## G40GL

#### **GRENADE LAUNCHER**



#### **BENEFITS**

- The grenade launcher can be used independently; in this case, a buttstock can be attached to it, but it can also be connected under the barrel of a firearm, such as the assault rifle of the firearms family.
- Its caliber is 40x46 mm
- It has double-action firing mechanism.
- It is suitable for launching explosive, smoke, signaling and illuminating grenades.

#### **SPECIFICATIONS**

• Empty weight: 1.9 kg

• Full Length: 700 mm

• Full Height: 150 mm

• Full Width: 65 mm

• Length of barrel: 304.8 mm

(12")

• Caliber: 40x46 grenades

• Shooting range:350 m



## THEY ARE THE MORTAR COMPANY



SMOOTH-BORE MORTAR SYSTEMS

#### **BENEFITS**

A world leader in the development and delivery of complete, seamlessly integrated 60, 81 and 120mm smooth-bore mortar systems.

Established in 1860, this company has a long and distinguished history of supplying the world's leading defence forces with state-of-the-art ammunition and explosives. Leveraging cutting-edge technology and years of experience in the field, this company has been manufacturing 60, 81 and 120mm calibre smooth-bore mortar systems for more than 50 years. The mortar bombs are of the highest combat effectiveness and provide maximum safety in hostile environments all over the world – without diminished levels of performance or durability.





The product range includes all types of mortar ammunition, weapon systems,

auxiliary field equipment, and aiming and sighting systems – tried, tested

and in service by modern militaries the world over.

From hand-picking the highest quality raw materials, through to meticulous

manufacturing, weapons integration and training, this company offers a full 360° service to ensure today's militaries are best-equipped for tomorrow's warfare.

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#### CONTACTS

## **SCORPION EVO 3**

#### **SUB-MACHINE GUN**

## HUNGARIAN DEFENCE EXPORT AGENCY LTD.

#### BENEFITS

This weapon is the result of the 10-year-long development of the legendary vz. 61 Škorpion submachine gun. It remains reliable even under extreme weather conditions. It can be dismantled without any tools for maintenance. It has an ergonomic design, it is two-handed, its main operation elements are located on both sides and its cocking controls can be refitted. This small automatic firearm can be used as a single-shot, triple-burst and as a burst gun.





#### **SPECIFICATIONS**

Model	CZ-HU SCORPION EVO3 A1
Calibre	9x19 NATO
Magazine capacity	30 rounds
Frame	Polimer
Barrel length (mm)	196
Overall length with folded/unfolded stock (mm)	420/625-675±10
Height without magazine (mm)	215±5
Width with folded/unfolded stock (mm)	60/82±5
Weight without magazine(g)	2607±50

## HUNGARIAN DEFENCE EXPORT AGENCY

### P-07

#### **HANDGUN**





BENEFITS

It is the smaller and move compact version of the P-09 pistol. Its reduced size makes it fit for conceal-carry situations. Its emptymagazine weight is less than 800 grams. Its high-strength polymer frame makes it durably resistant to heat and mechanical damage. Its steel parts are protected with special surface treatment from corrosion and wear and tear. Both right- and lefthanded persons can use it without changing grip, and its interchangeable backstraps make it a particularly handy firearm. It is a reliable, accurate and heavy-duty service pistol.

#### **SPECIFICATIONS**

Model	CZ-HU P-07		
Wodel	GZ-1101-07		
Calibre	9x19 NATO		
Magazine capacity	15 rounds		
Frame	High-strength polymer		
Triggering mechanism	SA/DA		
Sight	Luminescent,open sight		
Barrel length (mm)	95		
Length/height/ width (mm)	185 × 137 × 37		
Weight with empty magazine (g)	max. 800		
Security characteristics	Decocking/manual safety, safety notch, automatic trigger release/blocking to prevent uncontrolled firing		

## P-09

#### **HANDGUN**



#### **BENEFITS**

This full-size service pistol can outperform military norms even under extreme conditions. It has a high-strength polymer frame that is highly resistant to heat and mechanical damage but is also light at the same time. Its steel parts are protected from corrosion and wear and tear by special surface treatment. Its controls are fit for both right- and left-handed persons without changing grip. It has interchangeable backstraps for different hand sizes. It is an accurate, reliable and ergonomic weapon.



#### **SPECIFICATIONS**

Model	CZ-HU P-09		
Calibre	9x19 NATO		
Magazine capacity	19 rounds		
Frame	High-strength polymer		
Triggering mechanism	SA/DA		
Sight	Luminescent,open sight		
Barrel length (mm)	115		
Length/height/ width (mm)	208× 148 × 37		
Weight with empty magazine (g)	max. 890		
Security characteristics	Decocking/manual safety, safety notch, automatic trigger release/ blocking to prevent uncontrolled firing		

## **BREN 2**

#### **ASSAULT RIFLE**





Automatic weapon that can be used both as a single-shot and as a burst weapon. It has a high-strength, aircraft-grade aluminium alloy frame. Its main parts are both thermally and mechanically ressistant. This assault rifle is available in two versions, with 5,56x45mm, 7,62x39mm calibre. Its effective range is 300-500 metres.

#### **SPECIFICATIONS**

Model	CZ-HU	CZ-HU	CZ-HU	CZ-HU	CZ-HU	CZ-HU
	BREN 2 –8"	BREN 2 –11"	BREN 2 –14"	BREN 2 –9"	BREN 2 –11"	BREN 2 –14"
Calibre	5.56x45mm	5.56x45mm	5.56x45mm	7.62x39mm	7.62x39mm	7.62x39mm
	NATO	NATO	NATO	43 M	43 M	43 M
Magazine capacity	30 rounds	30 rounds	30 rounds	30 rounds	30 rounds	30 rounds
Frame	Aliminium	Aliminium	Aliminium	Aliminium	Aliminium	Aliminium
	alloy	alloy	alloy	alloy	alloy	alloy
	7075 T6	7075 T6	7075 T6	7075 T6	7075 T6	7075 T6
Barrel length (mm)	207	280	357	227	280	357
Overall length with folded/unfolded stock (mm)	505/684-	577/762-	657/840-	525/706-	577/762-	657/840-
	733	807	884	753	807	884
	± 10	± 10	± 10	± 10	± 10	± 10
Height with folded sight,without magazine (mm)	202	202	202	202	202	202
	± 5	± 5	± 5	± 5	± 5	± 5
Width with folded/unfolded stock (mm)	80/104	80/104	80/104	80/104	80/104	80/104
	± 5	± 5	± 5	± 5	± 5	± 5
Weight without magazine (g)	2891	2986	3103	2847	2896	3009
	± 50	± 50	± 50	± 50	± 50	± 50

### **BREN 2 BR**

#### **BATTLE RIFLE**





#### BENEFITS

The longer-barrel, automatic version of the BREN 2 assault rifle, developed for designated marksman. The weapon combines the advantages of rifles with the smashing and destructive power of the 7,62x51 mm calibre. Thanks to the longer. It provides enhanced protection for special units during combat in an urban environment. Its effective range is 800 metres.

#### **SPECIFICATIONS**

Model	CZ-HU BREN 2 BR
Calibre	7.62×51 mm
Magazine capacity	25 rounds
Frame	Aliminium alloy 7075 T6
Barrel length (mm)	407
Overall length with folded/unfolded stock (mm)	735/925-995 ± 10
Height with folded sight,without magazine (mm)	210 ± 5
Width with folded/unfolded stock (mm)	80/110 ±5
Weight without magazine (g)	3778 ± 50



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#### **GROUND VEHICLES**

### **RDO-XXXX KOMONDOR**



#### LIGHT ARMOURED VEHICLE FAMILY







The Komondor vehicle family is designed and manufactured to meet various customer demands. Based on our experiences, we believe, that most of the costumers would like their vehicle to be at least partly manufactured, assembled or maintained in their countries, so we are ready for the technology transfer.

#### **FEATURES**

- Combining proven, reliable former, present and future technical solutions.
- Monocoque "V" shaped welded armour steel body under the entire vehicle in general up to 3a/3b blast protection, up to lvl3 ballistic protection with ballistic glasses, spall-liner inner cover.
- Uniquely designed permanent 4x4 or 6x6 driveline with independent suspension system.
- Different simple/double cab, APC, special purpose versions according to customer demands.
- Integration preparation (turret, communications, special equipment, modular interior design.
- Extended off-road capacity with high manoeuvrability.
- · High load capacity in all categories.





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#### **GROUND VEHICLES**

### **RDO-4336 MPV**



## ARMOURED MULTIPURPOSE FIREFIGHTER / TECHNICAL RECOVERY VEHICLE

Special member of the Komondor light armour vehicle family with interchangeable superstructure system





#### **FEATURES**

- Integrated hydraulic system with 130 kW power capacities to drive the superstructure or front mounted equipment (water pump, decontamination system, crane, winch, snow blower, mulcher, plow).
- Extended electrical power capacity with external charge possibility.
- Load capacity: >10 t.
- Towing capacity: >25t.
- Integrated Ultra High Pressure self- and wheel arch extinguisher systems.
- Special superstructures (fire-fighter with 7000-8000l water tank, decontamination, vehicle recovery, mobile HQ, medical evacuation) can be changed by crew without special equipment.
- · Compliance with both military and fire-fighter standards

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#### **GROUND VEHICLES**

## KML, IFR, IFD



## FIRST RESPONDER DETECTION, IDENTIFICATION, MONITORING, DECONTAMINATION AND LABORATORY VEHICLES

Special purpose first response vehicles dedicated to perform specific tasks during CBRN/HazMat related incidents.

The crew of the Detection-Identification-Monitoring vehicle gathers the first accurate information on a HazMat related incident by entering the hot zone with the appropriate equipment.

The Laboratory Vehicle takes position outside the hot zone fully prepared and equipped for the on-site analyzation and evaluation of the samples gathered either by the DIM teams or its own crew.

The CBRN-E Reconnaissance Vehicle is to provide intervening law enforcement personnel, dealing with CBRN-E related tasks, with the appropriate equipment and working conditions.

The main purpose of the CBRN-E Decontamination Vehicle is the on-site decontamination of intervening personnel and their equipment after the execution of CBRN-E related tasks.



## HUNGARIAN DEFENCE EXPORT AGENCY

## HOLOKIT

## SITUATION SIMULATIONS WITH MIXED REALITY TECHNOLOGY





#### **BENEFITS**

- Full-metal replica handgun with custom sensors Implemented for XR solutions.
- Instant switching between Mixed Reality and Virtual Reality.
- Cordless, using high-end PC performance, photorealistic rendering, comfortable usage.

The essence of the application is that during usage the user is able to see the real environment, which is further augmented and overlaid with virtual content, in operation.

To enhance the level of reality, we integrated the closest possible copy of a firearm into the system.

The physical firearm can reproduce the feeling of a real firearm by giving recoil and a firing sound when the trigger is pulled.

The advantage of the application is that it is portable, it may be used anytime and anywhere. Possibilities are endless, any tool or weapon can be integrated later on.

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## **BLADE VR SST**



#### VIRTUAL TRAINING FOR KNIFE COMBAT

Experience the future of close combat training with Blade VR, a state-of-the-art virtual reality simulator designed to hone the essential skills of knife fighting without any risk of injury.



#### **BENEFITS**

- Zero Injury Risk: Train intensively without physical harm.
- All-in-One VR System: No additional equipment needed.
- Scalable Training Solution: Easily deployable to any number of soldiers.
- Automatic Skill Integration: Develops motor reflexes for instinctive action.
- Fully Self-Sufficient: No need for trainers, opponents, or large spaces.
- Immersive Realism: Life-sized, accurate virtual environments enhance training effectiveness.
- Simple Smart Tech (SST) Solution: Using commercially available, easy to operate and distribute standalone devices.

#### **KEY FEATURES**

- AR and VR view: Maximizing benefits of both technologies
- Instant Feedback: Immediate correction on precision and technique.
- Comprehensive Performance Tracking: Detailed analysis of each session.
- Dynamic Targets: Realistic, moving torso enhances reaction and accuracy.
- Developed by Professionals: Developed in collaboration with military combat experts to ensure authenticity and effectiveness.

## **SNIPER VR SST**

#### PRECISION RIFLE SETUP SIMULATOR



Elevate sniper training with Sniper VR, our advanced virtual reality simulator designed for mastering the art of rifle setup across diverse environmental conditions.

#### **BENEFITS**

- Rapid Skill Acquisition: Facilitates the development of fast, near-automatic rifle adjustments.
- All-in-One VR Solution: No additional equipment is necessary.
- Scalable Deployment: Easily accessible for training large numbers of soldiers.
- Motor Reflex Integration: Embeds essential skills deep into muscle memory.
- Immersive Training Environment: Life-sized, realistic settings enhance learning and engagement.
- Simple Smart Tech (SST) Solution: Using commercially available, easy to operate and distribute standalone devices.

#### **KEY FEATURES**

- Dynamic Scenario Inputs: Adapts to real-time changes in target distance, wind, temperature, and more, mimicking real-world conditions.
- Developed with NATO Experts: Created in collaboration with NATO sniper trainers to ensure authenticity and effectiveness.

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## **SKILLTOOLKIT LIVE**

#### **ELEARNING PLATFORM**



#### **BENEFITS**

The SkillToolkit Live! software is a practice oriented eLearning platform. In addition to the complete management of digital trainings and exams, it also provides the creation of highly effective elearning materials in a single combined solution. Its unique capability is to provide a fast and low risk of errors solution to keep training materials up to date. SkillToolkit Live! has a proven track record in the Defence & Security sector for over nine years and it is the official eLearning platform of the Hungarian Defence Forces.

## PARTICULARLY EFFECTIVE IN THE FOLLOWING AREAS:

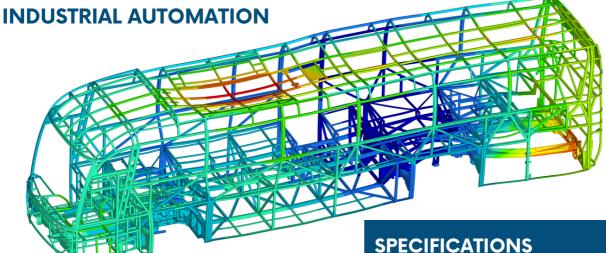
- operation and maintenance of various technical equipment, weapons, tools, machinery, equipment and vehicles, software usage,
- proper implementation of work processes, protocols and procedures,
- onboarding training of new employees,
- understanding and memorising legislation, organisational, professional rules, principles, and so on.



## **VIRTUAL PROTOTYPING**



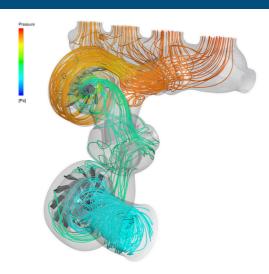




#### **BENEFITS**

- Field of expertise Automotive,
   Aerospace, Space, Composite, Defence,
   Healthcare, Energy industry
   (Renewable, Oil and Gas), Agriculture,
   Industrial.
- Simulation: FEA, CFD, EMAG, 1D, Fatigue
- Automation: Individual Single-Purpose
   Machines, Semi and Full Automated
   Assembly Solutions, Production
   Technology Developments.
- Software distribution and training center of Ansys, Moldex3D, Dante, Particleworks.
- High added value from RDI until trainings.
- 100+ engineers.

- High-end engineering knowledge in composites.
- Application of new technologies in the heavy duty.
- Riveting, welding, gluing.
- Virtual validation and verification.
- Method development using AI and new materials.
- Quick and effective concept development in early phase of product development, without physical testing in prototype-development phase.
- Universal testing machines for fatigue testing and material characterisation.



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#### CONTACTS

## HUNGARIAN DEFENCE EXPORT AGENCY LTD.

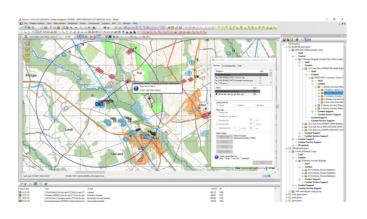
## MARCUS CONSTRUCTIVE SIMULATION

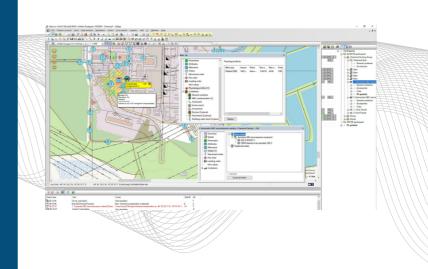
#### **BENEFITS**

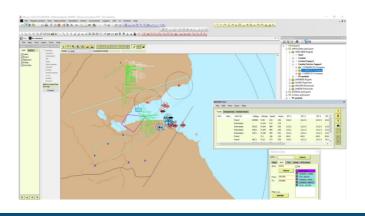
The CAX (Computer Aided eXercise) driver and combat simulation system now is one of the World's most sophisticated entity and aggregate level commander and staff training simulator system. MARCUS is a constructive simulation joint, model, with military and nonmilitary (disaster management, critical infrastructure protection, etc.) activities.

#### **SPECIFICATIONS**

- Land forces
- Air forces, air defence forces
- Naval forces
- Logistic (transport, medical, engineering)
- CBRN
- OOTW
- Urban operations
- Computer-generated civil environment
- Disaster management
- Anti-terrorist operations
- Homeland security
- Critical Infrastructure Protection







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#### CONTACTS

### **CMS**



## INTEGRATED CRISIS MANAGEMENT TRAINING SIMULATOR

CMS is a Synthetic Training Environment to provide a realistic and complex training and modeling environment to train various parties of managing a crisis situation: law enforcement (military, police, disaster management, etc.), intervention units of critical infrastructures, politician decision makers, local authorities, etc.





#### **FEATURES**

- In the complex environment, not only tasks are practiced, but also the communication and cooperation between different organizations.
- CMS includes several subsystems: constructive and virtual simulators, replicas of real systems, such as an Early Warning Monitoring system, on-board reconnaissance software, life detectors etc. Using data exchange gateways all components see a common virtual environment and exchange data and events.

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#### CONTACTS

## GTS VR TACTICAL SIMULATION PLATFORM



#### **BENEFITS**

Based on advanced VR technology and backed by scientific research, GTS is a personalised and holistic tactical simulation platform. The GTS system is a fully customizable cost-effective training tool for dismounted soldiers, law enforcement officers, and special forces operators.

#### **SPECIFICATIONS**

- Team, individual tactical and communication skill development up to 8 people.
- Military, law-enforcement, and security scenarios (basic set and on demand).
- Stress tolerance improvement with full immersivity, physiological measurements.
- Accurate weapons and weapon systems for muscle memory training.
- Instructor workstation for in-action interaction and measurement.
- Millisecond level action capture, measurement, and playback for After Action Review and AI analysis.
- Capable from shooting tuition to special forces and SWAT training.
- Customizable for specific requirements (weapons, environments, training tasks).





#### HUNGARIAN DEFENCE EXPORT AGENCY

## **DEFTECH XR**

## ADVANCED EXTENDED REALITY TRAINING SOLUTIONS





DefTech XR combines our innovative DEFTECH Framework, LeoXR SDK, and LeoXR 360 Safety Framework to provide state-of-the-art AR and VR training solutions. These platforms are integrated to develop customized training modules for a spectrum of military operations, from basic equipment handling to advanced tactical maneuvers.

#### **BENEFITS**

- Realistic Simulations: Hyper-realistic,
   3D environments for immersive training that replicates real-world conditions without risks.
- Cost-Effective Training: Reduces the need for physical resources and logistical preparations, significantly lowering training costs.
- Scalable and Flexible: Easily adaptable to different scopes and sizes of military units, with capabilities for both small teams and large-scale operations.
- Military-Grade Development and Support: Designed to meet stringent military standards, ensuring robustness and reliability with dedicated technical support and development for seamless operational integration.



HUNGARIAN DEFENCE EXPORT AGENCY

#### **3D ASSEMBLY DEMO**



#### 3D VISUALIZATION FOR COMPLEX ASSEMBLY TRAINING



#### **BENEFITS**

- Detailed Visualization: Provides high-resolution, autostereoscopic 3D visuals of complex structures, allowing for in-depth understanding of assembly and disassembly processes.
- Interactive Learning: Interactive elements enable users to manipulate components in a virtual environment, enhancing hands-on learning.
- Cross-Platform Capability: The application supports multiple platforms and devices, ensuring accessibility and adaptability: VR/AR, 2D and Stereo 3D laptops, Stereo 3D Tablet.
- Error Reduction: Helps reduce errors by allowing trainees to practice assembly in a risk-free setting, ensuring proficiency before handling real equipment.
- Scalable Training Modules: Easily scalable to different equipment types and complexity levels, from small arms to large military systems.
- Military-Grade Development and Support: Developed to meet strict military specifications, ensuring reliability and accuracy with comprehensive support for integration.

#### HUNGARIAN DEFENCE EXPORT AGENCY

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#### CONTACTS

#### **VR IMMERSION**



#### **VR TRAINING FOR MODERN COMBAT SCENARIOS**

#### **BENEFITS**

- Immersive Learning: Engage in fully immersive virtual environments that mimic the intensity and unpredictability of street-level combat.
- Enhanced Situational Awareness: Trains soldiers in maintaining awareness in dynamic and potentially chaotic environments to make informed decisions under pressure.
- Adaptable Scenarios: Flexible scenarios that can be adjusted to reflect current threats and tactics, ensuring training remains relevant to modern warfare.
- Military-Grade Development and Support: Built to military specifications with robust software architecture, providing ongoing updates and support for seamless integration into training programs.



#### HUNGARIAN DEFENCE EXPORT AGENCY

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#### CONTACTS

#### **3D STAGER**



#### **COLLABORATIVE 3D ENVIRONMENT**

3D Stager is an advanced tool for collaboratively creating and testing 3D environments, perfectly suited for military, educational, and professional use. It allows for comprehensive visualization of entire battlefields or terrains in stereo 3D, using drone and satellite imagery to facilitate simple planning and simulation of military movements.

#### **BENEFITS**

- Real-Time Collaboration: Facilitates enhanced decision-making with multiuser interaction, allowing teams to plan and simulate in a shared virtual space.
- User-Friendly Interface: Simplifies use for professionals in various fields without needing specialized training, making it accessible for military strategists and planners.
- Wide Compatibility: Accommodates various file formats and integrates seamlessly with existing systems, enhancing operational flexibility.
- Interactive Learning: Engages users and improves retention by enabling active exploration and modification of 3D models, ideal for training and educational purposes.
- Strategic Visualization: Enables the creation of detailed tactical plans using realistic 3D visualizations of actual terrains, providing a strategic advantage in military operations.



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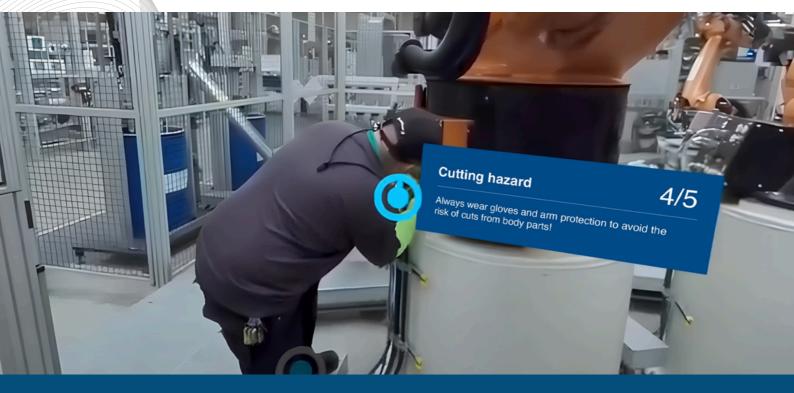
#### CONTACTS

#### **LEOXR 360**



#### **360 EXTENDED REALITY TRAINING FRAMEWORK**

LeoXR 360 is an advanced tool designed to rapidly develop 3D video-based safety and security training courses, which operate effectively on light, standalone VR headsets without the need for high-powered PCs, lowering the entry barrier for new users.



#### **BENEFITS**

- Enhanced Safety Training: Immersive, video-based scenarios that demonstrate real-world hazards to improve safety awareness.
- Quick Course Development: Rapid creation and deployment of safety training modules, reducing development time.
- Interactive Learning Experiences: Engagement of trainees with interactive elements, enhancing comprehension and retention of safety protocols.
- Wide Applicability: Suitable for various industries including manufacturing, construction, and healthcare.
- Scalability: Accommodates different organizational sizes and training needs, ensuring consistent training quality across multiple sites.

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#### CONTACTS



#### UBEX-PRO20-HDMI-F100



#### OPTICAL AV OVER IP VIDEO SYSTEM FOR 10G NETWORKS



#### BENEFITS

Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.

UBEX is an optical scaling extender which allows 4K UHD@60Hz 4:4:4 uncompressed signal extension with latency-free multistreaming. The device is designed to use Video Over IP transmission on a 10G Ethernet network.

#### **SPECIFICATION**

- Scaling of video signals to match the properties of the target display/sink.
- Support for high bitrate audio, including Dolby TrueHD, Dolby ATMOS and DTS-HD Master Audio.
- HDR support.
- $4096 \times 2160 @60 Hz/4:4:4 maximum resolution (600 MHz)$ .
- Uncompressed video up to 18 Gbps datarate.

Using visually lossless compression, UBEX can extend two signals over a single, 10 Gbps Ethernet port. This generates substantial cost-saving on the required Ethernet switch side, as with UBEX only half the router size is required compared to the needs of similar, 10 Gbps IP-based architectures.



#### MX2-8X8-HDMI20-CA







#### BENEFITS

Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.

Its compact size and silent design makes it particularly suitable for offices and meeting rooms and other corporate collaborative environments.

The two audio connectors at the input ports are for embedding analog audio into the HDMI stream. The two audio connectors next to the output ports can provide de-embedded audio for amplifiers and audio systems; the output volume is adjustable.

#### **SPECIFICATION**

- HDCP 2.2 and HDCP 1.4 compliant with cross-conversion capabilities.
- Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps).
- HDMI 2.0, HDMI 1.4 and DVI 1.0 compliant.
- HDR and Low Latency Dolby Vision support.



#### MX2-16X16-HDMI-AUDIO







#### **BENEFITS**

Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.

The matrix has an outstanding port density that makes it particularly suitable for fix-install applications and for future-proof operation centers. It is also a perfect choice for installations where a huge number of HDMI 2.0 compliant input and output ports are required along with audio inputs and outputs.

#### **SPECIFICATION**

- Audio embedding and deembedding.
- HDCP 2.2 and HDCP 1.4 compliant with cross-conversion capabilities.
- Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps).
- HDMI 2.0, HDMI 1.4 and DVI 1.0 compliant.
- HDR and Low Latency Dolby Vision support.

#### C4ISR

### HDMI-3D-OPT RX110DD & TX210DD



#### **MULTIMODE SINGLE FIBER EXTENDER PAIR**

#### BENEFITS

Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.

The extenders offer data diode technology, which means that an optical fiber with a sender on one side and a receiver on the other ensures that data can only be transferred in a forward direction, and never in reverse. This means there cannot be a two-way transfer, preventing leakage and manipulation from taking place.





#### **SPECIFICATION**

- Built-in data diode for enhanced security.
- 1920x1080@120Hz/4:4:4, 4096x2160@30Hz/4:4:4 or 60Hz/4:2:0 maximum resolutions (300MHz).
- Adjustable analog audio settings (volume, gain, balance).
- Single Fiber Technology.
- Audio embedding from 3.5mm jack or 5-pole balanced Phoenix connector.
- HDMI 1.4 and DVI 1.0 compliant.
- Local monitor output on transmitter.



#### MMX4X2-HDMI



#### MATRIX SWITCHER WITH BREAKAWAY ANALOG AUDIO



#### BENEFITS

Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.

MMX4x2-HDMI is a uniquely mini size matrix switcher. It has four HDMI inputs and two independent HDMI outputs. The device has a built-in Event Manager, wich is smart, built-in, added-value room control application. The feature is available through the freely downloadable Lightware Device Controller software.

#### **SPECIFICATION**

- Cisco VC room integration compatibility
- Advanced control feature pack for 3rd party video conference collaboration
- Command injection on RS-232 and IR ports...

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#### **CONTACTS**

#### HDMI-OPTJ-TX90/RX90



#### FULL 4K HDMI 2.0 COMPATIBLE FIBER OPTICAL EXTENDER

#### **BENEFITS**

- Lightware's products have achieved NATO SDIP 27 Level B TEMPEST accreditation.
- These optical extenders have a machined aluminium chassis, which is very durable, while their surface can also be kept clean easily, and also provides excellent passive cooling to channel the operating heat.

#### **SPECIFICATIONS**

- Single Fiber Technology.
- Uncompressed video up to 18 Gbps datarate (600 MHz pixel clock).
- 4096x2160@60Hz/4:4:4 maximum resolution (600MHz).
- Solid machined aluminium body.
- Government enforcement agencies in ad hoc operations with video technology can also find an easy placement, rugged housing, and reliable, fault-free signal extension advantageous.



#### PMS2 'SENTINEL'



#### MAN-PORTABLE MULTI-SENSOR SYSTEM



#### **BENEFITS**

- The PMS2 'Sentinel' is offering a lightweight, cost-efficient and easy to deploy solution optimized for silent battery operation with long runtime.
- The system integrates two surveillance sensors, a PGSR-3i 'Beagle' Mk. II. Ground Surveillance Radar System and Bordercam-225 Uncooled Electro-Optical Camera System.

#### **SPECIFICATIONS**

Detection Ranges		
Soldier	10 km	
Road vehicle	15 km	
Helicopter	18 km	
Large vehicle	24 km	
Scan Rate	7°/sec or 14°/sec	
Accuracy	Range: +/- 10 m at 10 km range Azimuth: ≤ 0.4°	
Target Capacity	600 plots can be displayed	
Instrumentation	PGSR-3i 'Beagle' Mk. II. Radar System	
	Bordercam-225 Uncooled E-O Camera System	

- The system provides continuous observation of a large area detecting any movements, and detailed image of any detected targets for accurate identification in both day and night operation.
- Surveillance data and user interaction is recorded and can be replayed for further/later analysis.

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#### CONTACTS

#### **PGSR-31 'BEAGLE'**

#### MAN-PORTABLE GROUND SURVEILLANCE RADAR





#### **BENEFITS**

- PGSR-3i 'Beagle' Mk. II. is a unique lightweight man-portable radar, which is capable of intercepting, detecting and tracking targets moving on or close to the ground.
- It can also classify and differentiate targets based on their size and movement characteristics.

#### **SPECIFICATIONS**

Detection Ranges	
Soldier	10 km
Road vehicle	15 km
Helicopter	18 km
Large vehicle	24 km
Scan Rate	7°/sec or 14°/sec
Accuracy	Range: +/- 10 m at 10 km range Azimuth: ≤ 0.4°
Target Capacity	600 plots can be displayed
Frequency Band	X Band (NATO I/J Band)
Power Requirements	28 VDC (22 – 33 VDC) max. 65W

- Ideal choice for the border guard, military and combat duties. Durable, withstand harsh environmental conditions.
- Portable in backpacks by two-man teams or can be mounted on mast/vehicle.
- It is ready for operation in 5 minutes' time.

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#### CONTACTS

#### PGSR-3IFT 'BEAGLE' MK. II.



#### TOWER MOUNTED GROUND SURVEILLANCE RADAR



#### BENEFITS

- PGSR-3iFT 'Beagle' Mk. II. is a tower-mounted radar for detection, tracking and classifying targets moving on or close to the ground.
- It is designed for desert and harsh environment operation.
- It is placed inside a hermetically sealed Radome to withstand extreme weather conditions.
- Mounted on top of towers, it is abserves and collects information from the surrounding area practically in 360 degree.

#### **SPECIFICATIONS**

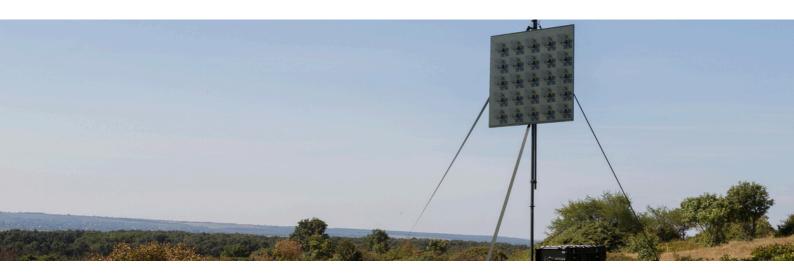
Detection Ranges	
Soldier	10 km
Road vehicle	15 km
Helicopter	18 km
Large vehicle	24 km
Scan Rate	7°/sec or 14°/sec
Accuracy	Range: +/- 10 m at 10 km range Azimuth: ≤ 0.4°
Target Capacity	600 plots can be displayed
Frequency Band	X Band (NATO I/J Band)
Power Requirements	28 VDC (22 – 33 VDC) max. 100W



#### PASR-17C 'POINTER'







#### **BENEFITS**

- PASR-17c 'Pointer' is a short-to-middle range Passive Coherent Locator (also known as passive radar) for air surveillance applications.
- As a passive radar, to detect moving targets it is able to utilise an already existing radio frequency sources in the environment instead of actively illuminating the surveillance area. The utilised illuminators, or so-called Illuminators of Opportunity (IoO) are typically broadcasting signals.
- Since the radar has no RF emission it is able to operate fully covert without the need of frequency authorization.
- Fully covert operation, low system and maintenance cost.
- Easy integration with Command and Control Systems.

#### **SPECIFICATIONS**

	nators of ortunity	DVB-T	FM
	Mini UAS	8 km	_*
	Small UAS	15 km	_*
Detection Ranges	Medium UAS	36 km	74 km
Kunges	Helicopter	48 km	92 km
	Aircraft	65 km	125 km
	able target locity	≥ 5 km/h	≥ 30 km/h
Track u	pdate rate	0.1-1 sec	0.6 -2 sec
Azimuth coverage		60°	360°
Elevatio	n coverage	60°	80°
Range	resolution	39 m	1500 m

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#### CONTACTS

#### **GASR-3D 'TERRIER'**

#### COUNTER-UAS AIR & GROUND SURVEILLANCE RADAR



#### BENEFITS

The GASR-3D 'Terrier' is the next generation of Counter-Loitering Munition/UAS/Drone solution.

- The Radar is able to simultaneously detect, track and classify Loitering Munition, UAS/Drone, Helicopter, Aircraft and ground targets. (humans, vehicles, etc.) In V-SHORAD configuration, the system detects and recognizes aerial threats and provides target information for the fire control system.
- The principle of operation is Frequency Modulated Continuous Wave (FMCW) technology with DBF enabling high MTBF.
   It utilizes unique AESA transmitter. Low power and continuously changing frequency provides Low Probability of detection and Interception (LPI).





#### **SPECIFICATIONS**

Detection Ranges	
Loitering Munition	(RCS 0.05 m²) - 3.6 km
Pedestrian	(RCS 0.5 m²) - 6.8 km
Soldier	(RCS 1 m²) - 8.5 km
Vehicle	(RCS 10 m²) - 14.5 km
Helicopter	(RCS 50 m²) - 22 km
Accuracy	Range: 4 m Azimuth: 0.4° Elevation: 0.5°
Operation Principle	FMCW - Doppler with DBF, AESA, AI
Azimuth Coverage	90° with DBF staring beams (single plate unit)
Elevation Coverage	80° with AESA Tx
Frequency Band	X Band (NATO I/J Band)

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#### **BORDERCAM-225**

UNCOOLED MID-RANGE ELECTRO-OPTICAL CAMERA SYSTEM





#### **BENEFITS**

- The Bordercam is a mid-range electrooptical camera system. This unique system combines an advanced high-resolution uncooled continuous zoom thermal camera with a mid-range daylight camera on an accurate pan-tilt unit.
- Independent continuous zoom thermal and color cameras provide maximum situational awareness, user friendliness, and 24/7 threat assessment.
- Ruggedized for Harsh Environments. A rugged design, certified to IP66, and protected against dusty, and other harsh or industrial environments.
- TCP/IP interface, proprietary protocol.

#### **SPECIFICATIONS**

Thermal Imager	640 x 480 Uncooled Sensor
Thermal Optics	LWIR - Continuous zoom
Visible Imager	Sony color CMOS camera
Visible Optics	Up to 30x Continuous Optical Zoom
Weight of the camera unit	(daylight camera + thermal camera + PTU) = 22kg
Video Streaming (TCP/IP)	Multiple independent video streams, RTP, RTSP, UDP output format Encoding in H.264, H265 or MJPEG
Visible Optic Features	Infrared Cut Filter Removal
Connection and Control	TCP/IP: 1000 Mbps Ethernet

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#### **IFP**



#### INTEGRATED RECONNAISSANCE PLATFORM

#### BENEFITS

The 'IFP' Integrated Reconnaissance Platform is complex sensor system combined with a unique single mast solution for limitless operation. The sensor system consists of a dual camera system with built in LRF and a Ground Surveillance Radar as well as a heavy duty Leveling Unit for compensating the slope of the vehicle. The entire platform is designed to withstand harsh environmental condition in the operational area without the need to dismount from the vehicle.

- The PGSR-3i Beagle Mk II. radar is mounted on the Leveling Unit with a special Rotator Unit which supports sectorial and continuous 360 degree scanning.
- The GSR has special artillery mode in which it is capable of detecting and determining the coordinates of artillery shells with NATO Class-1 accuracy and forward them to fire control systems.
- The high resolution dual camera systems is PPE's own developed solution consists of uncooled thermal camera and daylight camera with integrated LRF for accurately measuring target distances.
- The GSR and the dual camera system is integrated into PPE's ADAMS software.



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BENEFITS

**SRS-3000** 

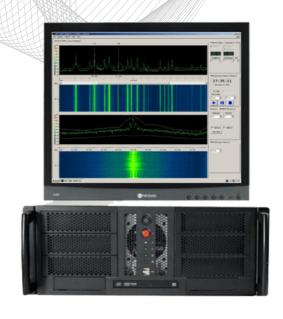
The receiver consists of the usual components of digital fast-scanning intercept receiver:

- RF front-end,
- HF/VHF digitizer,
- Digital filtering and
- Digital signal processor.

The SRS-3000 is a frequency-agile, lightweight HF/VHF/UHF receiver designed for limited space and high-mobility application for ground and air environment. Its compact size, broad tuning range and high-level remote control functionality make it ideal for multitude of system application, including commercial frequency management and military EW/SIGINT/COMINT missions...

#### **SPECIFICATIONS**

- Compact design with graphical user interface.
- Up to 40 MHz wide instantaneous real-time bandwidth.
- Down to 1 ms time resolution.
- Down to 1 kHz frequency resolution.
- Quasy real-time frequency spectrum.
- High probability of intercept.
- Wide-band direction finding processor.
- Flexible compatibility for system integration.



#### C4ISR

#### **SSS-3000**

#### RECORD AND PLAYBACK SERVER



#### BENEFITS

The equipment offers high-capacity, full-featured digital hard-disk signal record/playback capability in a compact 4U rack-mount case. The product is based on well proven Software Defined Radio (SDR) technology already deployed in a wide range of communication systems.

The storage server can be used to record and later playback the stored analog signal with up to 40 MHz instantaneous bandwidth. The bandwidth of the recording could be reduced by the builtin digital tuner to increase the storage capacity. The storage server is able to operate in record or playback mode of operation. The format of the recorded file is available and Matlab® interface is provided for off-line processing.



#### **SPECIFICATIONS**

- Compact design with easy to use graphical user interface.
- Up to 40 MHz wide instantaneous real-time bandwidth.
- Digitally selectable recording bandwidth with tunable center frequency.
- Analog or digital input and output.
- Up to 8TB storage capacity in 4U.
- Removable drives in 4U rack-mount units.
- Stand-alone or network access.
- Flexible compatibility for system integration.



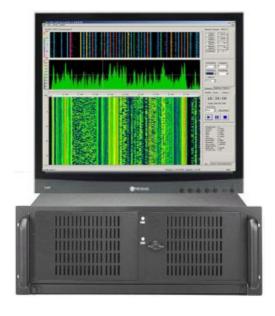


#### **BENEFITS**

The SRM-3000 is a broadband, digitally implemented monitoring receiver. With a frequency preselector it can be used in HF bands as direct digitized receiver. (DDR) The frequency range could be extended using a VHF/UHF receiver frontend tuner with wide-band IF output. The receiver digitizes the incoming signal in its instantaneous (real-time) bandwidth. Its digital receiver channels can be tuned to given frequency in its real-time bandwidth.

The data streams of the channels are processed by the digital demodulators, supporting usual number of carrier modulation waveforms and bandwidths of wireless emitters. The receiver consists of the RF front-end, digitizer and data capturing unit implemented as a computer add-on card using desktop PCI form factor and the associated driver, signal processing and user interface software components.

For forming a full-functional monitoring receiver the basic components are installed in a high-grade industrial interface computer.



#### **SPECIFICATIONS**

- Compact design with graphical user interface.
- Up to 40 MHz wide instantaneous realtime bandwidth.
- Real-time IF panorama display by complex FFT algorithm.
- High channel selectivity by digital filtering.
- Excellent precision and sensitivity.
- Raw data IF and demodulator AF recording.
- Built-in direction finding processor.
- Flexible compatibility for system integration.

#### SPACE/MISSILE/AIR DEFENSE

### COMPUTATION PLATFORM FOR NANO/MICRO SATELLITES



#### **BENEFITS**

#### CHP-OBC

 The CHP-OBC is a general-purpose computation platform for nano- and micro satellites. It provides high computation capacity, versatile and flexible interface capabilities, and robust and reliable power supply for payload subsystems.

#### Main features:

- High computational & storage capacity.
- Full-featured Linux environment for application development.
- Highly customizable interface set.
- Wireless link for development-time debug purposes.

Central microprocessor	Quad-core Cortex-A35
μP core frequency	Up to 1.2 GHz
RAM	1 GB LPDDR4
Mass storage	5 GB on-chip eMMC, removable SD
Operating system	Yocto Linux*
Dimensions	≈ 100 × 100 × 50 mm
Interfaces	Fixed interfaces  8 × GPI, 8 × GPO  1 × SPI bus master (LVCMOS3V3)  1 × SPI bus master (LVDS)  2 × full-duplex UART (LVCMOS3V3)  2 × SpaceWire (ECSS-E-ST-50-12C)  3 × CAN 2.0B  1 × USB2.0, 1 × USB3.0  1 × Gigabit Ethernet





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#### **CUBE SATELLITE PLATFORMS**



### Designed to Explore

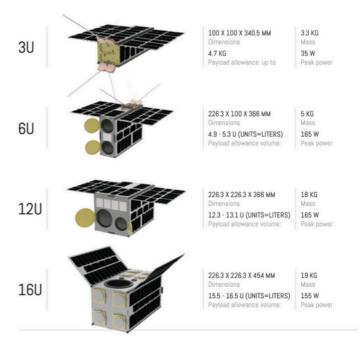
LARGE SAT RELIABILITY, SMALL SAT SPIRIT

### CubeSat Size, Large Sat Technology

#### BENEFITS

- 3-16U platforms for constellation purposes focusing on Earth Observation and IoT.
- Providing tailored space and technology for payloads of different sizes.
- Main strength is in the great attention devoted on thermal design during the development.
- The structure is optimized for high dissipation density and thermo-elasticity, both payload and platform wise.
- Unique radiator design allows unequaled freedom in payload dissipation along unprecedentedly high payload power availability.
- Along unprecedentedly high payload power availability our bus offers great flexibility regarding the shape and positioning of the payload.

#### 3-16 CubeSat Platforms



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#### **CONTACTS**

#### SPACE/MISSILE/AIR DEFENCE

### LARGE SATELLITE ELECTRONICS





#### BENEFITS

GRASSHOPPER – GaN-based Resonant Aerospace Switching-mode Supply, for High Output Power with Promising Efficiency and Reliability.

The GRASSHOPPER is a galvanically isolated power system for small, medium and large-sized satellites.

It is a 750 W Switching-Mode Power Supply with 2 parallel PSFB cores, that features very high efficiency utilizing the advantages of GaN FETs and Zero-Voltage Switching.

#### **SPECIFICATIONS**

Maximal power	750 W
Input voltage	100 – 150V
Output voltage	28V (± 2.5%)
Converter cores	2 x Phase-Shifted Full Bridge
Free-running frequency	165 kHz(typ)
Output ripple frequency	330 kHz (typ, current doubling topology)
ТМТС	<ul> <li>ECSS-based         discrete</li> <li>TMTCTM: LV/HV-         HPC</li> <li>TC: BSM</li> <li>Analogue telemetries:</li> <li>Multiple thermistors</li> <li>Output voltage</li> <li>Output currents         from both sides</li> </ul>



- 90 150V input voltage range, 28V (± 2.5%) output.
- 94 98% (TBC) efficiency on the full input voltage and temperature range.
- Further parallelization capability for higher power needs or redundancy.

#### CONTACTS

H - 1011 Budapest, Fő u. 14-18.

Building A.

+36 1 201 3271

vex@vexhungary.com

### TEAR GAS SPRAY MANUFACTURING



#### **BENEFITS**

- 50 years' experience in tear gas spray development and manufacturing.
- Flexible Private Label conditions.
- Unique product development on demand.
- Cs & pepper type tear gases.



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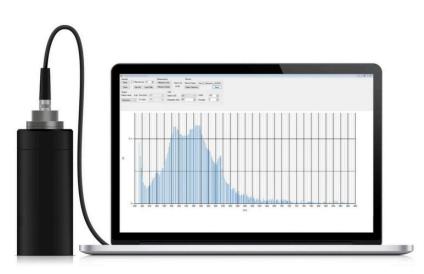
#### CONTACTS

#### **SPECTROCAPTURE**

#### PORTABLE BIOMOLECULE DETECTION BY FLUORESCENT TECHNOLOGY







#### **BENEFITS**

- Laboratory in a suitcase.
- On-site, immediate inspection.
- In 1 minute SpectroCapture can measure the protein, humic component, blue and green algae concentration of the given water on-site.

#### **SPECIFICATIONS**

Excitations	280 nm, 450 nm, 620 nm
Sensing	340 nm840 nm
Protein	Excitation: 280 nm Max. Emission: 350 nm
Humic Substances (HSs)	Excitation: 280 nm Max. Emission: 460 nm
Algae	Excitation: 450 nm Max. Emission: 680 nm
Cyanobacteria	Excitation: 620 nm Max. Emission: 650 nm
Operating Temperature Range	0°C60°C
Measurement Range	<lu>del </lu>

#### **CYCLOPS**

#### MILITARY DESIGN HANDHELD MONOCULAR THERMAL CAMERA



#### BENEFITS

- One of the best quality/price ratio portable reconnaissance thermal cameras with 640x480 pixel resolution on the market.
- The camera operates for 8 hours with one set of batteries however, its weight (incl. batteries) does not reach 1.6 kg.
- The exceptionally bright lens detects a vehicle from a distance of more than 4,000 m and a person from a distance of more than 2,000 m.
- The device can be ordered with a 3D magnetic compass, a built-in GPS module, WLAN communication and an LRF unit.

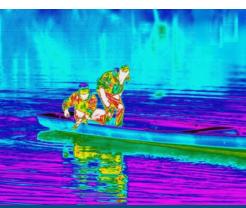


# Thermal Camera Spectral Band Zoom X2, x4, x8 Monocular full color OLED 800x600 GPS (optional) GPS & QZSS L1 C/A, GLONASSL1OF WLAN (optional) IEEE 802.11b/g, 2.4GHz

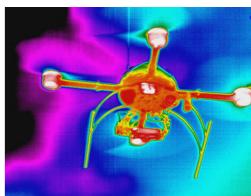
**SPECIFICATIONS** 

Digital Magnetic

Compass







(18) 360° / ±2.5°

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#### CONTACTS

#### **PYROLATER**

#### THERMAL CAMERA



#### **BENEFITS**

- ATEX certified, explosion-proof, shatter-proof and waterproof.
- Fire source search function.
- Person search function.
- Thanks to its sensitivity, it is not only suitable for detecting fires, but can also be a useful tool for fire safety prevention and maintenance.
- Heated electrical wires running in the walls, overheated switches, batteries and other parts and equipment can be observed, and possibly heated elements can also be detected among the stored raw materials and finished goods.









#### **SPECIFICATIONS**

Sensor type	Uncooled VOx FPA
Resolution	640 pixels x 512 pixels
Spectral range	7 μm 14 μm
NetD	<40 mK
Optics	Ge + AR; f = 7.5 mm; F1,2
Display type	3,5" color LCD
Resolution	640 pixel x 480 pixel
Tempereture measurement	
Range I.	-40°C +150°C
Range II.	-40°C +800°C
ATEX	Zone 2, Ex II3G, Ex ic IIC T4 Gc

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#### CONTACTS

#### **JUMBO**

#### **HX-IDS-MMRS-SYS**

#### HUNGARIAN DEFENCE EXPORT AGENCY LTD.

#### UNCOOLED MULTISPECTRAL RECONNAISSANCE SYSTEM







#### **SPECIFICATIONS**

Movement Unit	
Pan movement:	n x 360°
Tilt movement:	-90°+90°
Field of view (hor)	4,1°25,3° (Continuous optical zoom)
Zoom:	6x Optical zoom and 4x Digital zoom
Laser Range Finder	
Wavelength	1520 nm-1580 nm
Measurement range	50 m-12000 m
Thermal Imager	
Resolution	640 x 480 pixel
Detection range	>10000 m (2.3 m x 2.3 m)
Day/Light Camera	
Resolution	1920x1080 pixel
Detection range	>29 km (2.3 m x 2.3 m)

#### **BENEFITS**

- Built-in uncooled thermal camera.
- Built-in gyro-stabilized platform.
- Built-in visible color camera.
- Remote control via LAN.
- Advanced image processing functions.
- GPS.
- Digital magnetic compass.
- LED reflector.
- Built-in laser rangefinder (optional).



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#### CONTACTS

#### **JUMBO**

#### **HX-IDS-HDC-SYS**

#### CAMERA PLATFORM AND COOLED MULTISPECTRAL RECONNAISSANCE SYSTEM



#### **BENEFITS**

- Built-in laser rangefinder.
- Built-in cooled thermal camera.
- Built-in visible color camera.
- Precision moving platform.
- Remote control via LAN.
- · Advanced image processing functions.
- · GPS (optional).
- Digital magnetic compass (optional).
- Built-in gyro-stabilized platform (optional).







#### **SPECIFICATIONS**

Movement Unit	
Pan movement:	n x 360°
Tilt movement:	-45°+10°
Laser Range Finder	
Wavelength	1520 nm-1580 nm
Measurement range	50 m-20000 m
Thermal Imager	
Resolution	1280 x 720 pixel
Detection range	>29000 m (2.3 m x 2.3 m)
Day/Light Camera	
Resolution	1920x1080 pixel
Detection range	>29000 m (2.3 m x 2.3 m)

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#### **TRAFFICAPTURE TC-108**

#### POLICE TRAFFIC ENFORCEMENT SYSTEM











#### **BENEFITS**

- Day and night mode.
- Speed measurement in a stationary position and from a moving car.
- User-friendly portable display (tablet).
- High resolution sharp image.
- Speed measuring over 1000 m.

#### **SPECIFICATIONS**

Imaging		
Frame rate	50 frames/s	
Sensor type	1920 x 1080 pixels; global shutter CMOS	
Image format	JPEG	
Optics		
Optical zoom	36x motorized	
Field if view (horizontal)	2.0°52.0°	
Illumination		
LED type	IR 850 nm (1.1ms)	
Ranges		
Distance range	min.: 15 m; max.: 1700 m	
License plate is readable	>220 m (daytime); >150 m (nighttime)	
Laser		
Wavelenght	905 nm	
Pulse firing rate	max.: 3200 Hz	
Display		
Туре	Industrial tablet	
Size	10.1 inch (diagonal)	

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#### CONTACTS

### FOLDABLE CONTAINER SOLUTION



**CN20 STANDARD** 

#### **BENEFITS**

The company offers sustainably foldable container solutions for temporary infrastructure use in 30+ countries worldwide, targeting the event and defense sectors. They won Canadian DND IDEaS' top prize in 2023 and gained "NATO Approved Supplier" certification in 2024.

The CN20 standard combines all the benefits of a 20' ISO fixed frame container with the advantages of foldability, enabling cost-effective transportation and deployment, reliable infrastructure for forces in austere conditions, and NATO interoperability.







- Risk mitigation
- Effective (re)deployment with diverse applications
- · MOTS and COTS compatibility, standardized technological platforms



#### **SPECIFICATIONS**

DIMENSIONS	LENGTH	WIDTH	HEIGHT
Closed	6058 mm	2440 mm	555 mm
Open	6058 mm	2440 mm	2777 mm
Interior	5820 mm	2314 mm	2507 mm
	Weight		
	1750 kg	1 truck = 10 units	

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#### **CONTACTS**

#### CN10 / CN10 BED-STAY



#### **BENEFITS**

The CN10 blends the advantages of a 10' ISO fixed frame container with foldability, enabling safe stacking for storage and transport. This reduces costs and emissions by up to 80%.

The CN10 Bed-Stay, based on the standard foldable CN10 unit, features 2 bed frame systems with mattresses built into the floor, swiftly providing comfortable sleeping arrangements for two people within minutes.

- Quick and Safe Set-up and teardown in only 5-10 minutes on level surface using a single machine (forklift, telehandler, crane, etc.) and crew.
- Multifunctional Uses: accommodation, office, first aid, storage, etc.
- Comfortable Insulated units can be cooled or heated.
- Mobile, scalable, modular.

#### **SPECIFICATIONS**

	LENGTH	WIDTH	HEIGHT
CN10 DIMENSIONS			
Closed	3000 mm	2440 mm	495 mm
Open	3000 mm	2440 mm	2624 mm
Interior	2428 mm	2260 mm	2420 mm
	Weight		
	900 kg	1 truck = 20 units	
CN10 Bed- Stay			
	Bed size: 190 × 75 cm	Bed height: ~53.5 cm	A 199L × 86W × 46H cm storage space is available under the beds
	Weight		
	1070 kg		





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#### **CN HYBRID**

#### **TACTICAL SHELTERS**



#### **BENEFITS**

The CN Hybrid unit delivers effective energy generation and storage for infrastructure systems in any environment. By integrating fuel and maintenance cost savings, autonomous features, and foldable design for easy transport, it's an ideal solution for field operations.

At its core, the system maximizes efficiency by connecting various power sources through a central inverter, namely the Victron Energy MultiPlus II 48V/5000/70. This setup optimizes the generation and storage of energy for maximum efficiency.

With the ability to tap into solar from an attached PV panel, external generators, built-in batteries, and the grid, the CN Hybrid slashes genset fuel consumption by 50–70% and cuts generator maintenance by 80%.

#### **SPECIFICATIONS**

	CN Hybrid standard	CN Hybrid medium	CN Hybrid max off- grid
Output power	5 kVA	10 kVA	10 kVA
Battery capacity	14.7 kWh	31.95 kWh	49.7 kWh
System voltage	230 Vac	230 Vac	230 Vac
Photovolt aic system	from 2 kWp	from 2 kWp	from 2 kWp
Genset power	3.7 kVA	3.7 kVA	3.7 kVA









### HIGH-SPEED COMPLEX PCB DESIGN



#### INDEPENDENT ENGINEERING CENTER

#### **ABOUT THE COMPANY**

The company is an AS/EN 9100 certified, independent engineering service provider in Budapest/Hungary with a focus on complex electronics.

The company provides custom, rugged electronics, PCB design and product development for various industries including Aerospace & Defense, Space, IT and High-Performance Computing. Services include: system design, schematic, PCB layout, IBIS simulation, embedded SW and low volume high-end prototyping.

The company has references across Europe (Belgium, Luxembourg, Switzerland, Germany, Norway, United Kingdom, Ireland, Italy) and overseas (Israel, USA). 150 PCBs designed annually, from which 50+ are HDI design.

#### **ACTIVITIES**

Hardware Design Services:

- System design
- Schematic capture
- Board design /
- PCB layout
- IBIS (AMI) simulation

#### Embedded Software Development:

- MCU programming
- Embedded linux BSP, device drivers
- FPGA programming

#### Other Services:

- Mechanical design and simulation
- Small series high-end prototyping
- CE/FCC/MILSTD certification
- Functional test systems







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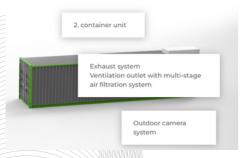
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### CONTAINER SHOOTING RANGE











#### **BENEFITS**

Mobile Container Shooting Range built from 40' HC container units. Spaces of any size can be created by lining up the container units. They are suitable for performing static and dynamic shooting tasks performed with handguns without caliber limitations. Thanks to the innovative solutions, it can be installed and commissioned in about 2 hours in any environment.

#### Construction solutions:

- Recruiting block (with a firing range of 7,000 m) 1 pc  $40^{\circ}$ HC / 2 firing positions.
- Basic GHI-MKL (with a firing range of 20,00 m) 2 pcs 40 HC / 2 firing positions.
- Extended with a firing range increased every 12.00 m.
- GHI-MODUL MKL with 5 firing positions, any firing range, min. 6,000 m wide firing position.

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#### **CONTACTS**

#### **DAD BULLET TRAP**







#### **BENEFITS**

- DAD bullet trap is a portable device to check whether or not handguns or rifles are loaded, while adequately complying with the rules of weapon management.
- The DAD appliance works like a swirling drum, absorbs the unhealthy, unwanted, and environment harming factors of shots.
- The DAD type bullet trap function as a mobile equipment in the environment of special groups and units safely, while complying with the rules of weapon usage. The equipment can be utilized in different areas like armed forces, law-enforcement authorities, security authorities, firing range etc. to deactivate the harmful shooting factors.
- The DAD bullet trap capeable to check the clearance up to 5000 muzzle Joule energy weapons.

#### **SPECIFICATIONS**

Calibers what we used to test the durability of the DAD Bullet trap:

- 7.65x17 mm Browing R78 pistol
- 9x18 mm PA 63 pistol
- 9x19 mm 96M P9RC pistol
- 43 M AMD-65 rifle 7.62x39 mm
- 43 M AMP-69 rifle 7.62x39 mm
- 5,56×45 mm NATO rifle
- .223 Remington rifle
- 7.62×51 mm NATO rifle
- .308 Winchester rifle
- 12/70 Mossberg 500 shotgun

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#### **CONTACTS**

### MODULAR SHOOTING RANGE SYSTEMS



#### **BENEFITS**

Module shooting range block system can be constructed by installing a starting (shooting block) and closing (energy absorbing block) and assigning any number of interconnectors (intermediate block) between them to build up a closed shooting range.

The blocks have a width of 6,000 mm, a height of 3,000 mm and a length of 2,000 mm, so that the design dimension of the facility can be extended every 2000 mm.

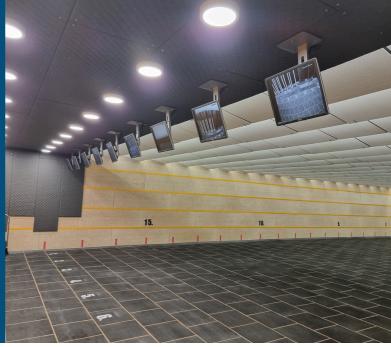
The HARDOX-covered decompression space, with 5 firing positions, is capable of reliably shooting tasks.

The structure has a sound insulation of approximately 80 dB and is therefore suitable for installation in any qualified area.

Its foundation does not require any environmentally damaging construction activity, it can be mounted on a suitable ground screw. Thus, its disassembly is entirely possible. The installation can be scheduled with 1-2 hours of operation time per block after the area is sorted.

The company offer several different designs. Adapted to the customer's needs, the wall structure can be made with a light metal structure or solid concrete, and offer a panel-mountable/foldable, dismountable version of the intermediate modules.





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#### CONTACTS

#### **ENERGY ABSORBING WALLS**



#### ANGLE STEEL ENERGY ABSORBING WALL

#### **FUNNEL TRAP**

#### LAMELLA ENERGY-ABSORBING WALL







#### **Technical details**

3000°1500°7500 mm can be sorted from units, can be adjusted to customer needs if required by keeping the angular positions.

Length: 3m

Width: 1.5m

Height: 7.5m

#### **Technical details**

Minimal safety distance: 5m

Width: 1m

Height: 0.75m

The Target plates size: 0.4m

#### BENEFITS

- DAD Energy-absorbing wall made of HARDOX 600 with high abrasion resistance steel.
- Ideal for caliber-independent shooting ranges. Thanks to its design, it can be used
  with up to 20,000 Joule muzzle energy firearms. Thanks to the angles of the lamellas, it
  can be used from 1m and is perfectly protected against projectile recoil.
- The structure can be mounted by sliding without welding and screwing. The structure
  can be transported flat on pallets. Once shipped, it can be assembled and
  commissioned within a short period of time based on instructions.
- The debris from the incoming projectiles arrives at the back of the device, a collection tray that is easy to clean.

#### **SHOOTING RANGE TARGETS**





#### Human silhouette target head

For the production of Silhouette targets, we use HARDOX 600, 600 Brinell hardness, 10 mm thick plates. Due to their design and material quality, they are excellent for use with any gavel and shotgun.



#### **Full shape targets**

We use HARDOX 600, 600 Brinell hardness sheets with a thickness of 10 mm for the production of Full Shape targets. Due to their design and material quality, they are excellent for use with firearms of any caliber.



#### Reactive gravity target

HARDOX 600, 600 Brinell hardness, 10 mm thick plates are used for the production of Reactive Gravity Targets. Due to their design and material quality, they are excellent for use with firearms of any caliber.



#### Texas-star target

For the production of Texas-star targets, we use HARDOX 600,600 Brinell hardness, 10 mm thick plates. Due to their design and material quality, they are excellent for use with firearms of any caliber.



#### **Sniper target**

The target is made entirely of HARDOX 600 600 brinell hardness 10 mm diameter sheet. Its design perfect for use with large caliber.



#### Plate rack metal target

The target surfaces and the structure protection plate are made of HARDOX 600 600 brinell hardness 10 mm diameter plate, the plinth and other parts are made of simple carbon steel.



#### Gong stand

The racking stands are great for attaching to any suspended metal target manufactured by us.

Thanks to its design, it can be taken to pieces and easily transportable.



## MANUFACTURING OF LARGE WELDED AND MACHINED STEEL STRUCTURES

#### **ABOUT THE COMPANY**

Their main profile is the manufacture of complex, large welded and machined steel structures, the assembly and machining of engine and generator housings, bearing shields, wind turbine components and tunnel boring equipment. The company performs locksmithing, welding and machining using machining technologies.

Their main partners are Siemens, VEM, Voith, GE Energy Power, Elin Motoren, Vestas, ABB, all leading companies in the energy sector.

They are able to **offer customized or series production**, and they are flexible to their customers' needs. The company and its management have received numerous high-quality awards.

#### **APPLIED TECHNOLOGIES**

- CNC flame cutting, plasma cutting:
   w/h/m: 4000 mm x 8000 mm x 30 mm
- Edge bending: 4000 mm / 400t
- Rolling: w/th: 2500 mm x 40 mm
- Industrial welding: MAG/SAW/TIG, welding robot
- Stress relief heat treatment: 4400x3000x6000 / 25t
- Mechanical machining:

vertical: D4500/mag: 3200 mm,

horizontal: D200mm: 12000 mm, 3600 mm, 2500 mm

- Surface treatment (grit blasting/painting):
   1K/2K anti-corrosion primer, painting)
- Quality control: NDT, VT, PT, MT, RT, UT, conventional tools, Faro 3D precision measuring arm, Leica laser tracker







#### **AUDIO JAMMER BOX**



#### **BENEFITS**

Confidential conversations have to be protected against information leakage.

The Audio Jammer Box (AJB) provides an ideal solution to isolate the phones/electronic devices from the meeting environment.

#### **UNIQUE FEATURES OF THE AJB:**

- Double layered transparent and soundproof plexiglass box.
- Sound Generator (SG) in each AJB that makes impossible for the phones/electronic devices to pick up on the conversation in the meeting room.
- SG plays 6 different simultaneous audio tracks, all generated using random music and speech elements from several different languages.
- SG random patterns based on a unique burnt-in individual code for each SG plus manually adjustable code at start up time.



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#### **BENEFITS**

The WatchDog service is a basic building block of the company's Qvas Brand Protection package.

WatchDog searches for all customer's domains on DarkWeb to find leaked data originating from data theft. Number of searches is set by the customer. They recommend frequent searches. The stolen data on DarkWeb can include email addresses, email user's birthdays and physical addresses etc. They also search for email address passwords. Brute force attacks accelerate if stolen passwords help discover the type of passwords users would use.

Watchdog sends alerts if the customer's domains and related confidential data is found.

Alerts should initiate: countermeasures against insider threats (malicious employees), targeted information security training for employees, proactive actions for threat prevention and mitigation.



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### RADIATION AND GAS DETECTORS



### FOR MONITORING AND ON-BOARD CBRN RECONNAISSANCE SYSTEMS

The company offers highly sensitive instruments and systems designed for measuring gamma radiation level in a wide range. These devices are suitable for the aerial and terrestrial reconnaissance of widely contaminated areas after nuclear incidents, and for the localization and identification of gamma and neutron orphan sources.

GTI gas detectors are intelligent transmitters with quick and reliable operation, low-noise electronics, excellent zero and span stability.

#### **FEATURES**

- Radiation measurement with Geiger-Müller counters and spectrometric scintillation detectors.
- Wide range of gas sensors (electrochemical, pellistor, PID, NDIR).
- Ideal tools for radiation protection applications and environment monitoring.
- Suitable instruments for UAV, UGV applications.
- Various configurations for different vehicles with radiation level meters and spectrometric probes.







### PROTECTIVE SUITS AND FILTER CANISTERS

#### FOR CBRN AND INDUSTRIAL PROTECTION



The company offers high-quality individual protective clothing for chemical protection and fire-fighting purposes, and filter canisters for respiratory protection. The composite chemical protective clothing system consists of a highly activated carbon filter layer and a treated outer fabric. The firefighting protective suits meet the level 2 requirements of the EN 469:2020 standard. The R18 NBC filter canisters are for protection against chemical warfare agents. The ABEK2P3 RD class 2 combined filters are for industrial respiratory protection against hazardous contaminants, toxic gases, vapours and particles.





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