



ARMAMENTS



Launcher STRIJELA 2M LU S-2 HV

Launcher Strijela 2M LU S-2 HV is assigned for launch preparing and self-launching of the rockets in manual and automatic target practice conditions of portable surface-to-air missile system.

Dimension: 380x160x60mm

Mass: 2kg

Acceleration time of gyroscope: max 5s

Permission time of target following: max 60s

Rocket launch time after trigger activation: max 1.93s in automatic mode
max 0.91s in manual mode

Power SupplyBATNAP 40-1 , 3

Power Supply BATNAP is designed for power supply of portable surface-to-air missile system STRIJELA 2m and IGLA.

Dimension (with bag): 210x120x210mm

Mass: 3.8kg

Minimal number of launches with charged battery 100 launches at 0 - 50 C. 50 launches - 30 - 0 C



The new concept of the launcher design is based on the application of the latest technologies and new subsystems such as optronic subsystem with TV and thermovision camera and monitors for the operator and commander, and subsystems for automatic positioning and automatic orientation of the vehicle and the launcher, and automatic determination of the launching zone. Thus, the newly developed launcher can be compared with similar modern systems in the world. using optimally designed hardware that also includes the central computer, and using the own developed software, the reaction time of the system has been significantly reduced, resulting accordingly in increase effectiveness of the system. The structure of the launcher, illustrated in the block diagram, enables further upgrading, in accordance with the customer's wish, of both the hardware and the software, and in this way, the preconditions are created for possible application of the missile used in the West (e.g. CHAPARRAL, STINGER, MISTRAL, RB-70, etc).



Power SupplyBATNAP 40-1 , 3

System of Low Velocity 40 mm x 46 Grenades

HE FRAG 01 Grenade High Explosive Fragmentation

The standard 40 mm grenade HE FRAG 01, high explosive fragmentation (pre-patterned steel cup) is extremely effective against personnel and vehicles. Highly sensitive fuse provides excellent efficiency.

HEDP 01 Grenade High Explosive Dual Purpose

The 40 mm HEDP 01 grenade (high explosive with hollow charge cone) is extremely effective against personnel, vehicles and other armored targets. Highly sensitive fuse provides excellent efficiency.

Launcher

40 mm RGB-6, lightweight and 40 mm RGB-1, 40 mm EX41, 40 mm MM 1, 40 mm M203, HK69A1, HK79 or any Shoulder-fired 40 mm Launcher for standard 40 mmx46 HE grenade.

Packing

Each grenade is inside hermetically closed plastic tube; each of 6 tubes are connected with a transporting tape, 100 grenades in a wooden box.



TYPE	HE DUAL PURPOSE	HE AP
REFERENCE	HEDP 01	HE-FRAG 01
TOTAL HEIGHT	106 mm	103 mm
BODY DIAMETER	40 mm	40 mm
TOTAL WEIGHT	< 240 g	< 240 g
FUSE	URJ-00-0004	URJ-00-0004
ARMING OF THE FUSE	Inertia and centrifugal force, with misaligned fire train	Inertia and centrifugal force, with misaligned fire train
ARMING DISTANCE	12 - 18 m	12 - 18 m
EXPLOSIVE	RDX/TNT	RDX/TNT
EXPLOSIVE WEIGHT	32 g	45 g
FRAGMENTS WEIGHT	> 56 g	> 69 g
LETHAL RADIUS	> 5 m	> 5 m
RANGE	400 m	400 m
VELOCITY	76 m/s	76 m/s
COLOR, PAINTING	Black	Black, gold
EMPLOYMENT	RGB-6, MGL, M79, M203, RGB-1, EX41, HK69A1, HK79	RGB-6, MGL, M79, M203, RGB-1, EX41, HK69A1, HK79
PENETRATION	> 60 mm steel plate	> 15 mm steel plate

SMOKE EMISSION BOXES

Red, white, blue, black, gray, yellow and green smoke colour.

Boxes weight 20 - 1000 g, in diameter 20 - 80 mm, 50 - 125 mm high.

They are electrically ignited and have smoke emission time 10 - 120 s.



**Rocket
RIZC 107 M97
Flying Target**

The rocket RIZC 107 M97 flying target with 4-rail launcher LVL RIZC 107 is a low cost and efficient training system for training and operative tests of air defence systems and its units.

It is used for systems, which need infrared detection of flying targets like airplanes and helicopters, for their functioning.



The rocket RIZC 107 M97 is non-guide rocket and it is powered by solid rocket motor. Head of the rocket includes special pyrotechnical charge. During the flight of the rocket RIZC 107 M97, pyrotechnical charge produces high intensity emission in a visual spectral range (red light) and infrared spectral range. In this way it is possible to detect rockets during the flight by instruments or visually. Dimensions of the rocket are sufficient for direct impact of the anti-aircraft rockets or for initialization of the approximate fuse.

Flight speed of the rocket RIZC 107 M97 is lower than 300 m/s and it is designed specially for little anti-aircraft rockets (type Stinger, Strela 2 and similar) for training launching on arrival and departure targets.

Technical data:

Max range	6,7 km
Rocket weight	17,8 kg
Rocket length	1070 mm
Caliber	107±0,25mm
Pyrotechnical Infrared charge IC 21	0,8kg
Mass of rocket propellant	2,5 kg
Max speed	300 m/s
Infrared emission time	35 s
Infrared emission delay time	0,2 - 0,7 s
Rocket motor working time	0,9 s



Sniper armour-piercing ammunition in calibre 338 Lapua Magnum 8.6x70mm and 300 Winchester Magnum 7.62x66mm, for its own rifle, and then other calibres as well:

- 308 Winchester 7.62x51mm
- 223 Remington 5.56x45mm
- 7.62x39mm
- 9x19mm



Cal 9x19mm - BP - 5mm / 300HB / 50m



Cal 223(5.56x45mm) Rem. - BP - 15mm / 300HH - 100m



Cal .388(8.60x70mm) Lap. Mag. - BPM
- 17mm / 300HB - 550m



Armor - piercing penetration of a steel plate harness 300HB illustrated by photos:



Cal 7.62x39mm - BP - 12mm / 300HB / 100m

Armor-piercing ammunition are as well internationally patented for industrial design.

MILITARY PROGRAM

Hand Grenade M 92

Dimensions with fuse	Ø58x88
Hand grenade mass	355 g
Explosive charge	37 g
Hand grenade body	2,5-2,9 mm
Pulling force of safety element	68-177 N
Delay time	3-4,4 s
Packaging	48 pcs

Hand Grenade M 96

Total weight	480±20 g
Lenght	115±2 mm
Largest diameter	60±1 mm
Weight of explosive charge	95±5 g
Diameter of the fragments	2,0-2,3 mm
Number of fragments	approx 5300
Delay time	4,0 +1,5 -0,5 s at 21 °C
Packaging	30 pcs

Rocket 128 mm M 91

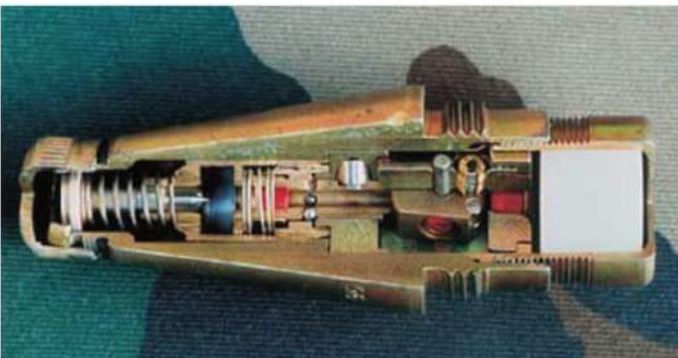
Type of rocket	ballistic HE
Mass of rocket (without fuse)	23,1±0,3 kg
Mass of warhead (with detonator)	8,53 kg
Mass of explosive charge	2,3 kg
Mass of propelled charge	4,56 kg
Mass of ignition charge	0,057 kg
Lenght of rocket	- with fuse 832 mm
	- without fuse 766,2-1,8 mm
Maximal rocket velocity	460 m/s
Max. throw	8.500 m
Resistance of electric capsule	0,35-0,8 Ω

Rocket Fuse RUTI M 94

RUTI M 94 is point detonating, mechanical fuse of superquick and inertia action.

Action selecting by removing the cap.

Action type	superquick and inertia
Minimal arming conditions	12000 o/min
Drop safety	3 m
Muzzle safety	min 40 m
Airtightnes	airtight
Mass	355 g





Special features:

Trigger safety, Grip safety, Firing pin block (drop) safety, Loaded chamber indicator, Firing pin status indicator, Ambidextrous magazine release, Picatinny Accessories Rail.

Sight:

3 dot system.
 Front - blade, dovetail.
 Rear - square notch, dovetail.
 Drift adjustable and replaceable.
 Fiber Optic and Tritium sights available.

HS-9 | HS-40 | HS-357 SIG | HS-45 ACP

Model	HS-9	HS-40	HS-357 SIG	HS-45 ACP
Caliber	9 x 19 mm Para	.40 S&W	.357 SIG	.45 ACP
Weight (empty)	705 g	760 g	735 g	750 g
Magazine capacity	16 rounds 10 rounds	12 rounds 10 rounds	12 rounds 10 rounds	13 rounds 10 rounds
Magazine weight (empty)	85 g	85 g	88 g	99 g
Magazine weight (full)	280 g (full 16 rounds)	290 g (full 12 rounds)	260 g (full 12 rounds)	370 g (full 12 rounds)
Length (overall)	180 mm	180 mm	180 mm	183 mm
Barrel length	102.5 mm	102.5 mm	102.5 mm	102.5 mm
Height	140 mm	140 mm	140 mm	144 mm

Operation: Short recoil, locked breech mechanism, self loading, safety locked action.
 Frame: Improved polymer with oversized heat treated steel side rails.



Firing Pin Status Indicator
 High Visibility White Dot Sights
 Thumb Rest
 Grip Safety

Advanced engineering and ergonomics, state of the art safety solutions and flawless reliability are some of the qualities that make the HS pistol a truly revolutionary handgun. Built in Croatia's advanced HS Produkt production facility, this modern design is made to exacting tolerances using 21st century CNC machines and CAD-CAM systems. The resulting handgun is what independent law enforcement evaluators are calling a "World Class Pistol" equaling or exceeding the best available anywhere. The HS pistol incorporates 4 redundant safeties, one in the grip, a trigger safety, a firing pin (drop) safety, and an out of battery safety.



- 5.56 x45 NATO calibre
- the bull-pup construction reduces the total length of the weapon while retaining the length of the barrel
- made of high quality steel and resistant polymers
- can be equipped with various accessories such as grenade launchers, folding bipods, optical sight or flashlight
- both the standard VHS-D rifle with a 500mm barrel and the short VHS-K rifle with a 410 mm barrel are produced
- standard weight, without the magazine is 3,5 kg for the standard rifle and 3.4 kg for the short-ened version
- the weight of an empty magaziner for 30 bullets is 116 grams
- the magazine is made of transparent polymers, rifle is gas operated and rate of fire is 750 bullets per minute



Technical characteristics

MODEL VHS-BG

Caliber	40x46 mm
Barrel length	260 mm
Rate of fire	5 to 7 shell/min.
Range	450 m
Length, overall	345 mm
Width	84 mm
Height	186 mm
Weight	1,4 kg

of a 5.56 mm calibre weapons, which automatically eliminated all the so-called "Eastern" types and helped give HS products

The VHS assault rifle has passed through heavy testing and has met all of the CAF's and NATO's criteria.

Plans for the development of Croatian assault rifles were set in motion along with the founding of the company and the development of pistols somewhere in the early nineties.

Getting equipped with a new assault rifle was one of the priorities for the modernisation of the CAF, whose official rifle up to now has been the AK-47. Entry into NATO implied the usage

direction that it will pass rigorous testing that are set by the North Atlantic Alliance standards. The VHS rifle is a new product, but its future is heading towards further equipping of Croatian soldiers.

The HS Produkt "assault rifle" project has confirmed its unquestionable expertise, knowledge, professionalism, consistency and market dynamism.



VHS WITH INTEGRATED OPTIC SIGHT IRBCT 1.5X

Length	173,2 mm
Width	45 mm
Height	53 mm
Weight	395 g
Magnification	1,5 x
Diameter	10 mm
Visibly field	5,1°
Optimal distance from eye	70 mm
Operating temperature	from -32 °C to +49 °C
Storage temperature	from -40 °C to +71 °C



REMOTE LASER MINE ACTIVATORS LAM-1 AND LAM-2

Principle of operation:

The invisible laser beam is used to remotely activate mines or mine fields. The system consists of the laser transmitter and four receivers. The laser transmitter irradiates a digitally modulated beam. Four different codes of beam modulation are available. For each of the codes there exists a receiver as a part of the set. That enables activation of various receivers that are all in the same laser beam. Receivers are wire-connected with mines.



TECHNICAL SPECIFICATIONS:

Range: 1500 m for LAM-1, 5000 m for LAM-2 (extendable to 10 km)
 Beam width at 1000 m: 4 m
 Transmitter's autonomy: 100 times
 Optical sight magnification: 4 x
 Angle of circular reticule: 4 mrad
 Receiver's autonomy: at least 40 hours in the worst conditions
 Receiving angle: $\pm 35^\circ$ for LAM-1, $\pm 20^\circ$ for LAM-2
 Number of codes: 4
 Mass of the transmitter: 1.4 kg
 Mass of the set: 7.6 kg (LAM-1); 8.1 kg (LAM-2)
 Mass of the set with the carrying case: 17.5 kg (LAM-1); 17.7 kg (LAM-2)







40 mm Six Shot Launcher is a light-weight, semi automatic, shoulder fired grenade launcher for infantry use. It fires the widely used 40 mm low velocity family of grenades. The weapon is based on revolver principle with a cylinder holding six rounds, and is fitted with an Occluded Eye Gunsight (O.G.E.), which means that the weapon is fired with both eyes open. The sight is operational in poor light conditions as long as the target can be seen.



Technical data

Calibre	40 mm
Feed	6 - chamber revolving cylinder
Operation	semi-automatic, single shot
Weight	empty, 5.6 kg
Length	butt folded, 566 mm
Length	butt extended, 777 mm
Height	300 mm
Muzzle velocity	76 m/s
Maximum effective range	375 m
Maximum range	400 m



Shot Launcher is a lightweight, shoulder fired grenade launcher for infantry use. It fires the 40 mm low velocity family of grenades, and is easy to mount onto semiautomatic and automatic weapon. The launcher is fitted with an Occluded Eye Gunsight (O.G.E.). The sight is operational in poor light conditions.

Technical data

Calibre	40 mm
Weight	empty, 1.5 kg
Length	barrel, 232 mm
Length	overall, 400 mm
Muzzle velocity	76 m/s
Maximum effective range	375 m
Maximum range	400 m

DEFENCE PRODUCTS:

82 mm HE Projectile for Recoilless Gun

Purpose: recoilless gun 82 mm
 M60 and M60A
 Max. range: 4.000 m
 Fuse: delayed action inertial
 with instant action on impact
 Muzzle safety 10 m
 Projectile mass 4,3 kg
 Mass total 7,27 kg



40 mm Grenade for Grenade Launcher Type M79, M203 or RGB-6 or compatible

Calibre 40 mm
 Length 103,5 mm
 Mass 268 ±2 g
 Range 400 m max.
 Arming - inertial-centrifugal at 14 m
 Action on impact
 Muzzle safety distance min. 10 m



26 mm Ammunition for Signal Pistol
 (red, white, green, yellow)



60 mm Mortar Shell - Extended Range

Fuse: inertial with instant action on impact
 Length 387 mm
 Mass 1.700 g
 Max. range 5.100 m
 Airtight



Plastic Maneuver Ammunition
 7,62 mm



Smoke Screen M96

Hand Grenade M91



Ground Burst Simulator M93



Fuse for Training Hand Grenades

DUAL USE (CIVIL-MILITARY) PRODUCTS:

- Linear cumulative cutting device LKP
- Device VT-1 for mine destruction
- Device VT-2 for mine destruction (deflagration principle)
- Water bomb for the fire extinguish (from helicopter)



**Fuse for Hand Grenade
Impact Detonator with Safety Disc
for Hand Grenade**

CIVIL PRODUCTS:

- Rings (flanges) made of stainless steel (inner diameter 63 - 2000 mm)
- Wide range of high precise metal products
- Wide range of connectors for electronic
- Electronic mono phase active electric energy meter
- Electronic triple phase active electric energy meter
- Subscribers electricity automat - PAS





Basic characteristics of the Material:

The Material is coated with polymer and:

- is 100% particle tight
- Resists up to 2 bar liquid pressure
- Gives good permeation resistance for many inorganic chemicals
- Protects against body liquids and micro-organisms
- Tough yet lightweight (83g/m2)
- Color: - outer: olive green, yellow
- inner: white



Material Barrier properties

Agent Challenge	Breakthrough time (hours) Liquid Penetration	Remarks
Unthickened Sulphur Mustard	> 48	No pressure applied
Thickened Sulphur Mustard	> 48	No pressure applied
Unthickened Sulphur Mustard	> 48	20kPa for 5 mins
Thickened Sulphur Mustard	> 48	20kPa for 5 mins
Lewisite	> 48	Test at 20°C

PROTECTIVE COAT - PONCHO "C"

PROTECTIVE COAT - PONCHO •	is used for the body protection against chemical contamination made by the chemical agent's drops, as to prevent the radioactive dust sedimentation on the clothing, weapons and the equipment. It does not protect against the chemical agent's vapours. For the purpose of the protection against chemical contamination made by chemical agent's drops - it can be used ONLY ONCE.
PROTECTIVE COAT - PONCHO •	is made in unique size
PROTECTIVE COAT - PONCHO •	exceptionally lightweight - weight is approximately 400 gr.
PROTECTIVE COAT - PONCHO •	dimensions before use e.g. before placing to protective point is approx. 200x200x30 mm
PROTECTIVE COAT - PONCHO •	when not used as protection against chemical agent's drops it can be used as protection against various weather conditions e.g rain, snow, wind. Its good mechanical (physical) properties allow it to be used numerous times for training purposes.

Antitank Highly Destructive Mine TMRP-6

The mine is intended for incapacitating and demolition of enemy armoured and other combat and transport vehicles.

It has a destructive and penetrating effect.

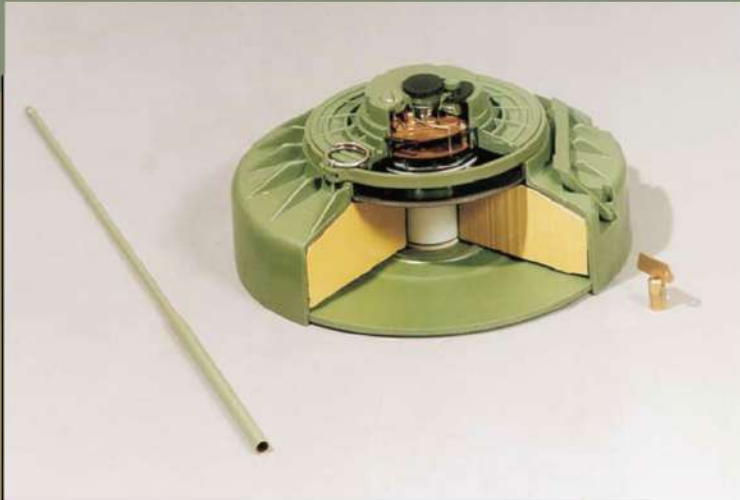
The activation force by rod is 10 -17 N and by pressure 1,5 - 3 KN, anywhere on the stepping area.

Operating temperature range: -30°C to + 50°C in all climatic and environmental conditions, in dry and swampy ground.

The activation delay for TMRP-6 is 1 to 4 minutes, depending on the time set, i.e. before elapse of this time, the mine can't be activated, even if an armoured or other vehicle steps on it.

The mine is safe and stable in mine field for 6 months, even in very unfavourable conditions.





**Armouring Clockwork
Mechanism
Model GB - M 94**

Purpose: incorporation into grenade 40 mm for hand launcher

Alternative: incorporation into fuse for missiles with axial and centrifugal acceleration

Data

Size: 290 x 136 mm (with rod 720 mm)
stepping on area diameter 166 mm
Total weight: 7,2 kg
Weight of explosive TNT: 5,00 kg

Specific applications:

- when activated under caterpillar track or vehicle tyres, TMRP-6 destructs completely the movement track and disables further movement of the vehicle
- when activated between caterpillar track or vehicle tyres or tank, TMRP-6 pierces the lower armour, completely disables the vehicle for further movement or action, and destroys the crew
- hand and mine-layer possibility of laying
- activation preparation by additional fuse

It is armed with the pressure lever type mechanical fuse, which makes a unit with the mine. The firing pin of the fuse is locked and the explosive train interrupted, securing safety in storage, transportation and laying.

Clockwork Timing Mechanism

Model GB - M 94 is equipped with inertion fuse and centrifugal fuse.

Minimum axial acceleration for
armouring of inertion fuse: 2000 g
Armouring of centrifugal fuse: 2000-2500 rpm
Projectile velocity: 76 mps (250 Fps)
Arming distance: 14 - 27 meters
Weight: 0,01172 kg
Size: 32 x 9,7 mm
Detonator: M55





SEA BARELL
Moored Influence Mine

Sea Barrel is an influence moored mine programmed to anchor itself automatically at the desired depth. It is equipped with an ignition system against surface ships.

The mine is equipped with a complex acoustic ignition system, with ship detection and location sensing.

Due to the modular design of the mine, it can be easily modified and/or modernised with new

ignition system on a simple dismount-mount principle.

Equipped with an adequate ignition system, the mine can be used for defence against submarines.

The mine is safe against activation in handling, close explosion, irregular mooring and mine sweeping.

The mine is stored fully assembled and ready for use. Its body is made of non-magnetic material.

It can be also used as a near-bottom moored mine.

Operating principle

- Acoustical sensor
- Analog signal processing
- Anti-clearance functions
- Programmable timer
- Logic circuits

- Transport safety device
- Hydrostatic safety device
- Delayed arming with clock-work mechanism
- Ignition circuit with safety functions
- Priming and explosive charges

Data

Length	1665 mm
Width	923 mm
Height	1520 mm
Total weight	1100 kg
Mine sinker weight	552 kg
Weight of explosive TNT	250 kg
Bottom depth range	50-400 m
Mine depth	25 m
Mine depth accuracy	± 2 m
Minimum distance between mines	120 m
In-water laid life	12 months
Shell life	20 years



Artillery Fire Control System "ART SYS 2000"

Purpose

Artillery Fire Control System (ART SYS 2000) is designed for field artillery fire control in accordance with the tasks of modern war management. The system is interoperable with the command information system (CIS) of the joint forces.

ART SYS 2000 is a complete system, battle proven. It comprises all equipment needed for accomplishing of artillery tasks, ranging from observer's instruments and fire direction centre (FDC) to fire positions. ART SYS 2000 also includes digital communications and differential GPS (D-GPS) technology.

ART SYS 2000 advantages are as follows:

- significant reduction in artillery reaction time,
- considerable increase in firing accuracy,



- increase in artillery efficiency,
- reduced quantity of needed ammunition,
- simultaneous firing of different weapons,
- simultaneous firing at a number of different targets,
- data base management for all targets, weapons and all artillery deployment elements,
- efficient and simple artillery missions planning,
- redundancy: each fire position tacter (tacti-

cal terminal) or observer tacter is capable to take over the tasks of FDC; redundancy at low levels: in case of failure of a part of the observer's equipment, or equipment at FDC or fire positions, ART SYS 2000 can accomplish its tasks,

- standard artillery commands and messages are installed, and they can be sent automatically.

ART SYS 2000 can control the fire of:

- all weapon types of Western and/or Eastern origin,
- weapons of all calibre,
- various types of weapons (guns, howitzers, MLRS, mortars) at the same time.

Basic tactical and technical characteristics

Reaction time (from target acquisition to firing)	15 - 60 sec
Observer's and fire positions coordinates measuring error	max. 10 m
Target coordinates measuring error	max. 25 m
Time necessary to get into combat position	max. 3 min



Meteorological data (NATO compatible)	automatically
Firing elements calculations	complete, with all relevant parameters and data
Ballistics	6 DOF or approximations
Number of targets	1000
Number of observers	100
Number of artillery units	100
Equipment operating conditions	full MIL SPEC
Distance (combat deployment dispersion) units between	within the communication area
Radio transceivers type	VHF, UHF
Number of digital repeaters (digipeater)	10

ART SYS 2000 Description

ART SYS 2000 enables fast reaction time of artillery units, firing accuracy, optimal efficiency with minimal use of ammunition, and it is soldier-friendly. This is achieved by using the most recent technologies and their integration into the system. The system design and its application are very flexible, and thus it can be easily expanded and adapted to any specific use of the field artillery.

GPS equipment that works in real-time differential mode (D-GPS) is integrated into the system. This means that the GPS base station (B-GPS) is also one of the ART SYS 2000 elements. B-GPS broadcasts differential correction messages to the GPS receivers of observers and fire positions. Other licenced users of the GPS receivers (those that have keys for differential messages encryption) are capable to use differential corrections too. In this way, by applying the GPS technology, the coordinates of observers and fire positions are measured with high accuracy and in a short period of time. The typical accuracy of coordinates measurements achieved by applying D-GPS in ART SYS 2000 is 2 to 5 meters within the time interval of 1 to 3 minutes. The coordinates measurement is soldier-friendly and in the case of self-propelled artillery it is fully automated. The new D-GPS generation is even of better accuracy: less than 1 meter in less than one-minute measuring interval.

The number of weapons and their type are not practically limited and can be combined in accordance with users' needs. ART SYS 2000 simultaneously supports different artillery weapons. The artillery weapons can be of Western or Eastern origin, or combined. Actually, ART SYS 2000 has been designed to control artillery fire on the whole battlefield with all artillery weapons and units that make fire support on the battlefield. Besides artillery weapons, ART SYS 2000 supports the fire control of mortars of different caliber.

Missile IZC BR-1-57-UZ

Caliber 57 mm
 Infra red radiation time 15-20 sec.
 Max. speed 300-725 m/s

Launcher: universal tube
 16 tubes ub-16-57u
 32 tubes ub-32-57-u

Pylon:
 n aircraft mig 21-bis
 n helicopter mi 24

Purpose: can be used as air target in air defence exercise.



Missile - RIZC 128 M97

Technical data
 Calibre 128 mm
 Length 793 mm
 Weight 23,1 kg
 Infrared head weight 8,78 kg
 Radiation time 35 s
 Infrared mixture weight 0,85 kg
 Propulsive fuel weight 4,6 kg
 Max. velocity 460 m/s
 Max. range 8540 m
 Electrical resistance (0,8÷1,2) W
 Temperature range (-30÷+45°C)

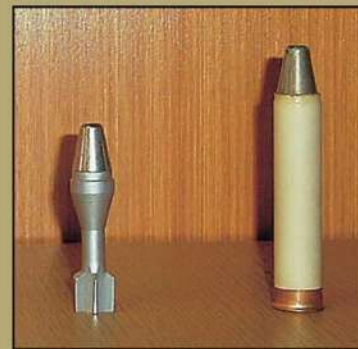
Launcher: VLR 128 M91
 LR 128 M91

Purpose:
 - Can be used as a target in anti-aircraft defence exercise
 - Missile trajectory demonstration

Infra Red / Training Projectil M97

General data
 Infrared burning time 6-10 s
 Colour of flame red
 Max. range 800 m

Purpose:
 Training and practice using simulator and training rocket
 Targeting and firing training using M57 Launcher



The company was registered in 1995 during the Homeland war. Among the others, product mix of the company ULJANIK - Special Production includes 128mm missiles, air target missiles and training projectiles.

Missile RAK 128 TF M91 A1/A2

Caliber 128 mm
 Length 766 mm
 Mass 23,1 kg
 Head Mass 8,42 kg
 Explosive Charge Mass 2,3 kg
 Propulsive Fuel Weight 4,7 kg
 Max. Speed 460 m/s
 Max. 8540 m

Launcher: VLR 128 M91
 LR 128 M93

Purpose: destruction of live force and technical equipment.

Missile RAK 128 TF U1-A

Caliber 128 mm
 Length 998 mm
 Mass 26,1 kg
 Head Mass 8,6 kg
 Explosive Charge Mass 3,2 kg
 Propulsive Fuel Weight 8,30 kg
 Max. Speed 460 m/s
 Max. Range 12000 m

LAUNCHER: VLR 128 M91
 LR 128 M93

Purpose: destruction of live force and technical equipment.



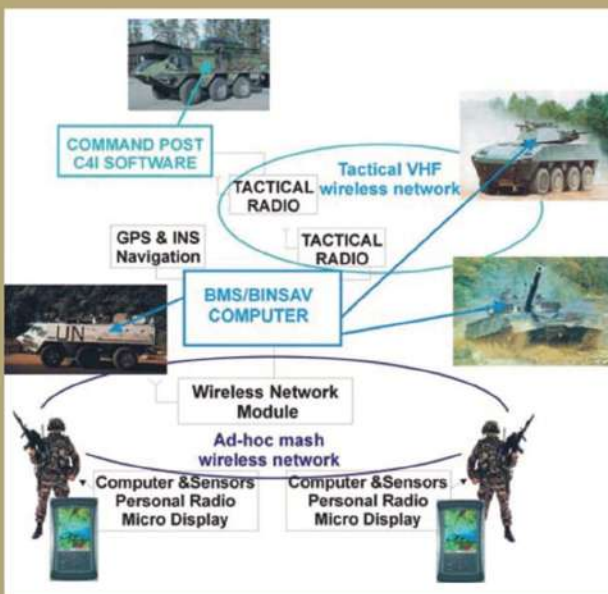
BMS/BINSAV with Dismounted Infantry (Future Soldiers)

(Battlefield Information and Navigation System for Armored Vehicles)

New technologies, like GPS (Global Positioning System) and GIS (Geographic Information System), have significant influence into changing of tactics and military technics enhancement, even if basic weapon systems have not been changed vitally. There are a lot of such examples, but to mention typical examples: fire control systems for field artillery modernisation or MBTs modernisation and application of BMS/BINSAV system to armoured fighting vehicles (AFV) with or without armamaent.

There is an option for using of inertial navigation systems (INS) as a backup if GPS signal is not present or jammed.

By using of the BINSAV (Battlefield Information and Navigation System for Armored Vehicles) as a part of modernisation of MBTs and AFVs, which applies equipment for real-time position and orientation tracking, tactical level (even operational and strategic levels, too) has capability to get complete information regarding position of armed forces and their real location on



terrain i.e. system BINSAV represents one of the most important part of digital battlefield. The BINSAV gives to MBT's/AFV's tank crew capability of better coordination within battlefield and significant risk reducing for a "friendly fire". It has been achieved thru direct, clear and correct answers to these basic questions:

- Where am I?
- Where are my forces?
- Where is the enemy?
- What is my task?

FUTURE SOLDIER Soldier Modernization Programme (SMP)

Our approach in the Future Soldier development:

- Requirement specifications from top-down strategy;
- Realization from bottom-up approach;

For the Basic configuration hardware modules have been chosen as COTS (Commercial, off-the-shelf) components and software modules have been developing "in house" having the full control over software i.e. each line of code has been developed by us.

Basic configuration of the Future Soldier provides a fully integrated Combat Management System that allows users to monitor, decide and act effectively during the chaos of close combat. With the Basic configuration the user has full digital mapping, navigation, Situational Awareness and integrated Command and Control. This allows a faster op-tempo, and improves Survivability and Lethality of the soldier and his section.



COMMUNICATION



VHS RADIO MOUNTED ON OPS VEH



COMPUTERS FOR CRIME DATA



HAND HELD RADIO



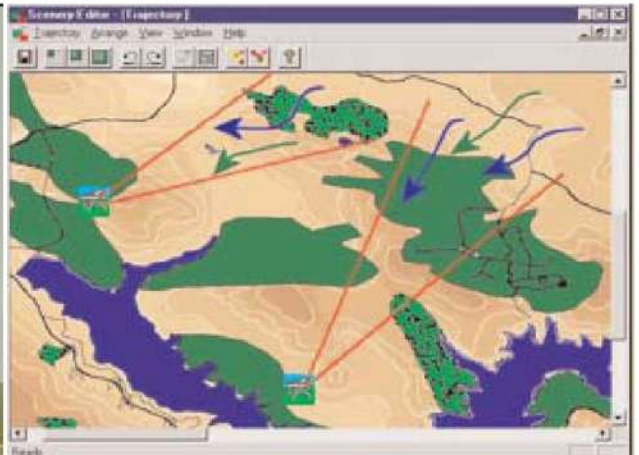
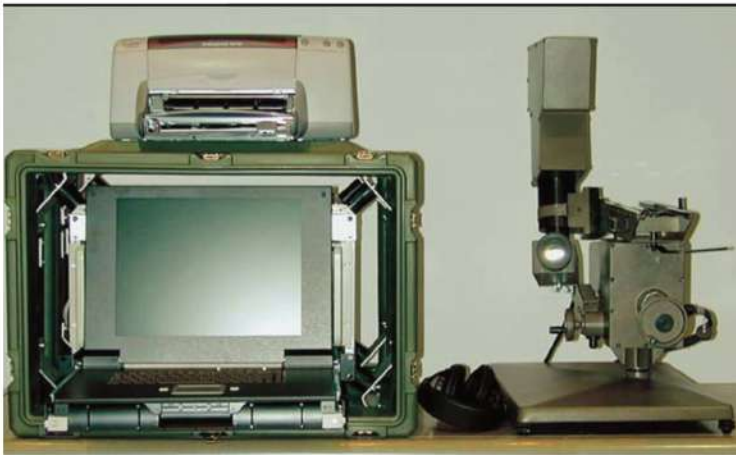
BASE STATION RADIO



TP220 Field Telephone



Ericsson QuickLink



SIMTREND

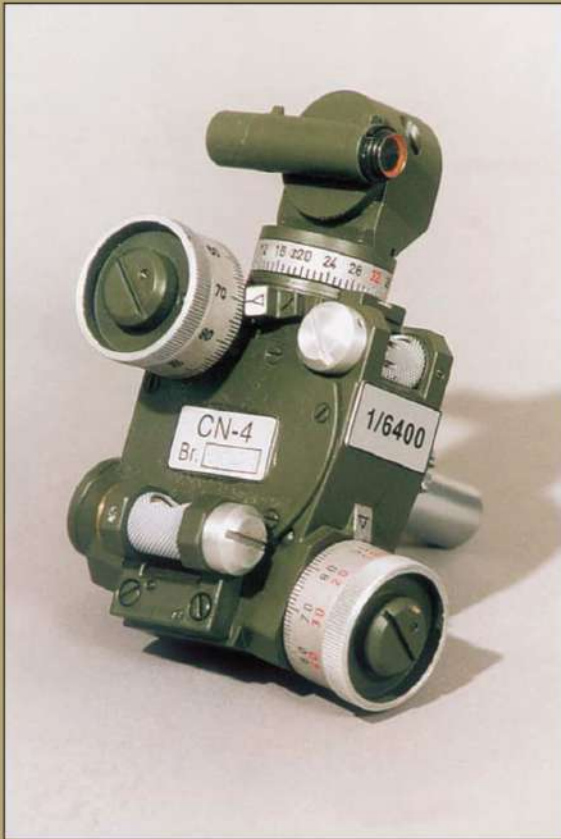
The SIMTREND digital simulators are intended for training of new AT gunners in the firing AT-3 (SAGGER) antitank missile system of first generation, and AT-4, AT-5 and AT-7 (SPIGOT, SPANDREL and SAXHORN) antitank missile systems of second generation.

The SIMTREND simulators are based on a high performance multiprocessor PC based system that provides facilities for a complex and highly realistic simulation of the real AT systems operating conditions.

Technical specifications

- Computer: PC Pentium IV in industrial housing
- I/O hardware: Special design
- Digital Signal Processor board: TI C3x series
- Graphics board: 3D OpenGL accelerator
- Instructor's display: LCD SVGA color
- Gunner's display: Micro LCD SVGA color
- Firing-post model: Replica of the real launcher
- Commercial Software: Windows 2000, OpenGL
- Application Software: Special software for SIMTREND
- Battlefield scenarios: At least 15 scenarios
- Scenarios landscape: Photographic imagery and artificial 3D scene
- Counter-measurement: Simulates IR jamming
- 3D targets: At least 10 different type of targets
- Sounds: Simulated different noise background
- Power supply: City network, 220V 50 Hz, 350W via UPS
- Operating temperature range: 50 - 450 C
- Humidity: 10% - 80%
- MTBF: At least 1000 hours





Night sights:

- Night sight - NC-2
- Observing night sight with tripod - NC-3

Compact aiming telescopes:

- Aiming telescope for recoilless gun BT-82 - CN-5
- Aiming telescope for rocket launcher RL90 M95 - CN-6

- Aiming telescope for hand launcher M57 - CN-7
- Elbow telescope for gun-howitzer- CN-9
- Compact sight - CN-10

Diagnostic devices:

- Initial velocity measurement system for muzzles MPB-1
- Initial velocity measurement system for grenades MPB-2
- Test and diagnostic station for "AT-4 Spigot" - MDS-1

Training devices:

- Laser tank gunnery simulator - LST M84
- Laser anti-tank gunnery simulator - M79PT
- Anti-aircraft gun tracking training device - NPC-1
- Simulator for "AT-4 Spigot" and "AT-7 Saxhorn" - SIMTREND
- Simulator for AT-3 Sagger MCLOS ATGW - CROTREND

Product Examples

PC-1 Panoramic telescope is the aiming device for guns and howitzers.

K-1H Collimator with tripod is used for determination of the aiming point for guns and howitzers, for orientation of the weapon and topographic artillery application.

CN-4 Optical mortar sight is the aiming device for mortars and rocket launchers

CN-5 Aiming telescope for recoilless gun BT-82

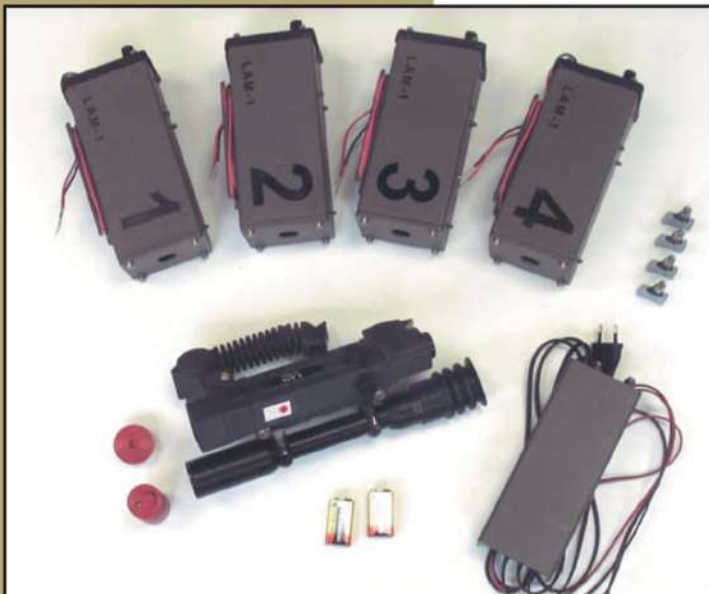
The reticle can be changed in accordance with the desired ballistics and desired external configuration for the use on similar systems.



REMOTE LASER MINE ACTIVATORS LAM-1 AND LAM-2

Principle of operation:

The invisible laser beam is used to remotely activate mines or mine fields. The system consists of the laser transmitter and four receivers. The laser transmitter irradiates a digitally modulated beam. Four different codes of beam modulation are available. For each of the codes there exists a receiver as a part of the set. That enables activation of various receivers that are all in the same laser beam. Receivers are wire-connected with mines.



TECHNICAL SPECIFICATIONS:

Range: 1500 m for LAM-1, 5000 m for LAM-2 (extendable to 10 km)
 Beam width at 1000 m: 4 m
 Transmitter's autonomy: 100 times
 Optical sight magnification: 4 x
 Angle of circular reticule: 4 mrad
 Receiver's autonomy: at least 40 hours in the worst conditions
 Receiving angle: $\pm 35^\circ$ for LAM-1, $\pm 20^\circ$ for LAM-2
 Number of codes: 4
 Mass of the transmitter: 1.4 kg
 Mass of the set: 7.6 kg (LAM-1); 8.1 kg (LAM-2)
 Mass of the set with the carrying case: 17.5 kg (LAM-1); 17.7 kg (LAM-2)





UAV Systems

MISSIONS:

- Forward area Close range reconnaissance (ISTAR)
- Urban warfare support
- Artillery fire correction
- Convoy support and protection
- Special operations
- Battle damage assessment
- Peacekeeping operations

- Counter terrorism operations
- Force protection
- SAR
- Law enforcement
- Firefighting
- Disaster control management
- Nature control and protection
- Environmental surveillance
- Traffic control
- Pollution control
- Illegal immigration control
- Water management
- Agriculture and forestry
- Archeology
- Small area mapping
- PR and Media

SENSORS

- Visible spectrum video camera
- Digital camera (still)
- Thermal camera
- Infrared camera
- Various other sensors based on customer needs



Fenix UAV

- Fenix is a fixed wing, electric motor powered UAV designed for various missions and payloads
- Highly autonomous operation
- Real time data transfer
- Preplanned mission stored in the computer
- GPS navigation
- Portable design - deployed and operated by two man crew
- Rapid deployment - from transport to flight in less than 5 mins
- Hand launch and recovery - deep stall landing

Technical data:

Endurance	60/90 mins
Operational range	1 - 5 km
Speed - max	150 km/h
Speed - min	20 km/h
Operational altitude	300/1000 m
Hand launch/recovery	
Weight	4,1 kg
Wingspan	3,75 m



ZOON UAV

- Multi rotor helicopter
- Extremely quiet electric propulsion

- Six engine concept for exceptional reliability
- GPS assisted
- Real time data transfer
- Altitude and position lock capabilities
- Gyro-stabilized, gimbaled payload
- Very low signature
- Man-portable system
- Operated by two men crew
- Rapid deployment

Technical data:

Flight duration	15 min
Operational range	500 m
Speed	0-50 km/h
Operational ceiling	300/1000 m
Hand launch/recovery	
Weight	1.4-3 kg
Size (diameter)	60 cm

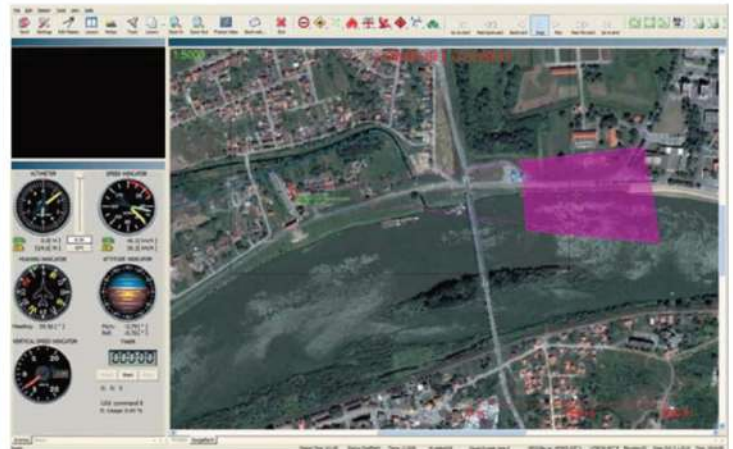
PUMA Software

Data: Integration - Processing - Storage - Distribution

Task (mission): - Planning - Control

Own development in C ++

Adaptable to different devices and communication systems



YOU know your NEEDS.

We know how to adapt our systems to suit YOUR NEEDS



HF SSB Military Radios

Short wave SSB transceivers 2-30 MHz, power output 20 and 100 W. Simple operation, possibility of using a wide variety of antennas without adjustment of controls, meet a full range of tactical communication requirements.

- RU-20 HF/SSB Transceiver Pack Set
- TRC-20H HF/SSB Frequency Hopping Transceiver
- RU-100 HF/SSB Transceiver
- RECOMM-200 Radio-Error Correction Modem

Battery Chargers

- PA-25 Trickle Charger
- PA612A -1/2
- A 4805/1
- A 1750



HF/SSB Frequency Hopping Transceiver TRC-20H

The TRC-20H is a military manpack HF/SSB transceiver with integrated frequency hopping concept. It is interoperable with the existing HF/SSB or AM radio sets without integrated hopping, operating in the same frequency range (RU-20 and similar).

The equipment has possibility of memorizing 10 channels. The TRC-20H can be associated to constitute fixed or mobile radio station. Integrated frequency hopping concept provides communications protected from listening-in, intrusion and localization. The frequencies are generated by a synthesizer controlled by a highly stable oscillator.

frequency range: 2-30 MHz
 output HF power: 20 W PEP in normal power (2W PEP in reduced power)
 antennas: whip (up to 3 m), dipole or other 50 Ohm antenna
 hopping mode: pseudorandom
 hopping bandwidth: from 32 kHz (on the lowest reference frequencies) to 2 MHz
 frequency stability: $\pm 0,8$ ppm
 consumption: less than 2,75 A
 power supply: 25 V nominal in range 22 to 30V DC
 transceiver weight: 6,3 kg
 dimensions (with battery): 360x320x90 mm



Base for one device PUS-12

PUS-12 serves for operating the device ITT SINGARS on external power supply of 12 VDC.

Connectors for connection of the CDU, GPS antenna and external power supply are placed on this base.

Girder of the device has shock-absorbers so that the set is suitable for fitting into vehicles. PUS is manufactured in versions for 24 VDC and 220 VAC.

Composition of the set:

1. Base of the device
2. Girder MTK and CDU
3. Cable for external power supply

Characteristics:

- working temperature	25°C +55°C
- humidity at 20°C	90%
- storage temperature	-40°C +70°C



Artillery Fire Control System "ART SYS 2000"

Purpose

Artillery Fire Control System (ART SYS 2000) is designed for field artillery fire control in accordance with the tasks of modern war management. The system is interoperable with the command information system (CIS) of the joint forces.

ART SYS 2000 is a complete system, battle proven. It comprises all equipment needed for accomplishing of artillery tasks, ranging from observer's instruments and fire direction centre (FDC) to fire positions. ART SYS 2000 also includes digital communications and differential GPS (D-GPS) technology.

ART SYS 2000 advantages are as follows:

- significant reduction in artillery reaction time,
- considerable increase in firing accuracy,



- increase in artillery efficiency,
- reduced quantity of needed ammunition,
- simultaneous firing of different weapons,
- simultaneous firing at a number of different targets,
- data base management for all targets, weapons and all artillery deployment elements,
- efficient and simple artillery missions planning,
- redundancy: each fire position tacter (tacti-

cal terminal) or observer tacter is capable to take over the tasks of FDC; redundancy at low levels: in case of failure of a part of the observer's equipment, or equipment at FDC or fire positions, ART SYS 2000 can accomplish its tasks,

- standard artillery commands and messages are installed, and they can be sent automatically.

ART SYS 2000 can control the fire of:

- all weapon types of Western and/or Eastern origin,
- weapons of all calibre,
- various types of weapons (guns, howitzers, MLRS, mortars) at the same time.

Basic tactical and technical characteristics

Reaction time (from target acquisition to firing)	15 - 60 sec
Observer's and fire positions coordinates measuring error	max. 10 m
Target coordinates measuring error	max. 25 m
Time necessary to get into combat position	max. 3 min



Meteorological data (NATO compatible)	automatically
Firing elements calculations	complete, with all relevant parameters and data
Ballistics	6 DOF or approximations
Number of targets	1000
Number of observers	100
Number of artillery units	100
Equipment operating conditions	full MIL SPEC
Distance (combat deployment dispersion) units between within the communication area	
Radio transceivers type	VHF, UHF
Number of digital repeaters (digipeater)	10

ART SYS 2000 Description

ART SYS 2000 enables fast reaction time of artillery units, firing accuracy, optimal efficiency with minimal use of ammunition, and it is soldier-friendly. This is achieved by using the most recent technologies and their integration into the system. The system design and its application are very flexible, and thus it can be easily expanded and adapted to any specific use of the field artillery.

GPS equipment that works in real-time differential mode (D-GPS) is integrated into the system. This means that the GPS base station (B-GPS) is also one of the ART SYS 2000 elements. B-GPS broadcasts differential correction messages to the GPS receivers of observers and fire positions. Other licenced users of the GPS receivers (those that have keys for differential messages encryption) are capable to use differential corrections too. In this way, by applying the GPS technology, the coordinates of observers and fire positions are measured with high accuracy and in a short period of time. The typical accuracy of coordinates measurements achieved by applying D-GPS in ART SYS 2000 is 2 to 5 meters within the time interval of 1 to 3 minutes. The coordinates measurement is soldier-friendly and in the case of self-propelled artillery it is fully automated. The new D-GPS generation is even of better accuracy: less than 1 meter in less than one-minute measuring interval.

The number of weapons and their type are not practically limited and can be combined in accordance with users' needs. ART SYS 2000 simultaneously supports different artillery weapons. The artillery weapons can be of Western or Eastern origin, or combined. Actually, ART SYS 2000 has been designed to control artillery fire on the whole battlefield with all artillery weapons and units that make fire support on the battlefield. Besides artillery weapons, ART SYS 2000 supports the fire control of mortars of different caliber.

ADA/MFCC (Artillery Digital Assistant - Mortar Fire Control Computer)

ADA serves as an artillery (including mortars) fire support for infantry and other supporting units that is capable to be integrated in to a digital battlefield under the Network Centric Warfare (NCW/C4I) concept.

- Vector layers;
- 3D position using DEM;
- Artillery units own position;
- Forbidden Zones;
- Target positions;
- Forward observers;

The ADA is capable to serve as artillery fire control computer down from single weapon up to, and not limited to, artillery battalion level. There is no technical limit for number of weapons, targets and other elements within the single ADA. There is practical limitation only because larger number of firing units will be spread over larger area and communication problem could be severe if there is no network environment. For larger number of firing units some kind of tactical INTRANET within the NCW/C4I has been suggested (required).

ADA combines navigation and mapping systems to provide a state-of-the-art assistance to artillery units deployed on the battlefield.

Navigation Using the GPS positioning system, positions of the artillery units and other battlefield elements have been continuously determined in real-time.

The ADA provides the artillery man a lightweight handheld fire control system and a modem that allows for digital communication within the fire support network. The system calculates ballistic solutions to fire missions and provides fire support coordination measures. The ADA is capable to control the fire of:

- all weapon types of Western and/or Eastern origin,
- artillery weapons of all calibre.

Tactical digital map provides a powerful tool to aid the artillery man in accomplishing his task.

Tactical digital map displays:

- Raster background map;



- Terrain profile;
- Reference Points

ADA combined with communications can provide a powerful networked system for tactical situation awareness of the whole unit, and more:

- Members of the unit can exchange data on their own and enemy positions;
- Unit commander can issue orders in an unambiguous graphic and textual way;
- Data entered by soldiers on the battlefield can be sent to unit commander and travel upwards in military hierarchy, where it can be viewed by higher ranked military staff which can make plans according to current battlefield situations;

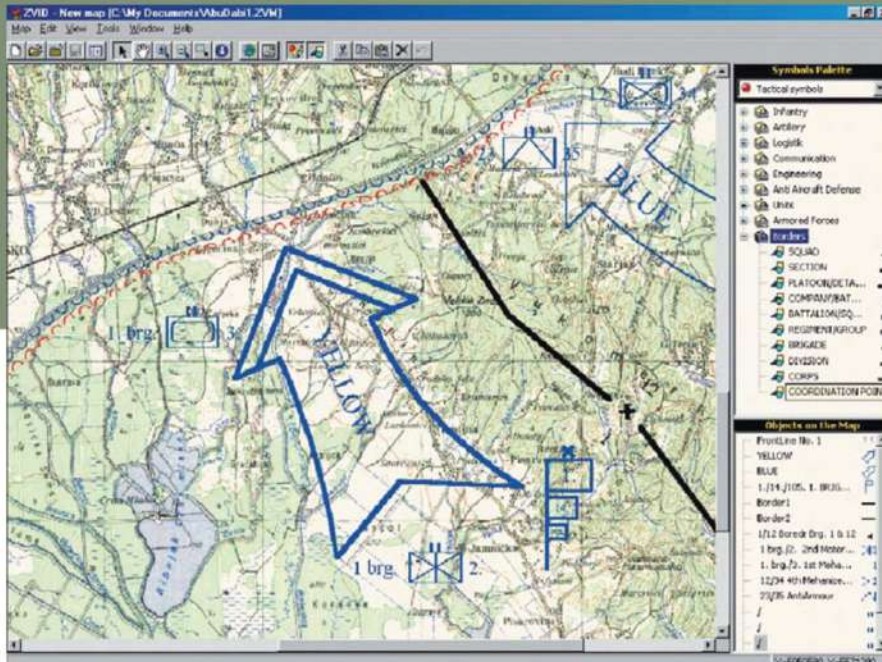
In this way, the ADA actually could serve as the Battlefield Management System (BMS) expanded with the Artillery Fire Control features and presents basic element of C4I.

AC4IS

AC4IS supports entire artillery corps with the information and communication infrastructure, thus improving its efficiency through all levels of command in combat tasks. This support includes:

- **Decision making,**
- **Command issuing,**
- **Communication,**
- **Artillery fire control.**

AC4IS is not intended as a standalone system, it also provides interoperability services so it can be fully integrated with all friendly forces



voice over wide area on the battlefield. Communication equipment consists of standard military communication equipment (radio, landlines) coupled with Intelligent Communication Processors (ICP) at each station and Tactical Switches. One important feature is that the links between network nodes can be either radio or land-line!

Deployment is simple - just connect each node to the switch

CIS/C4ISR (Command Information System /Command, Control, Communication, Computer, Intelligence, Surveillance and Reconnaissance) inside the battlefield.

Decision making

Decision making at higher levels of command is supported through situation awareness. High level of situation awareness is provided with the use of digital display of tactical situation. By providing the current, correct and relevant information in a clear, graphic way, battlefield situation picture gives unique advantage to the commander in the decision making process. Battlefield situation picture is generated using the information received from all available information sources on the battlefield (observers, UAVs, radar posts, other friendly forces). Battlefield situation picture displays friendly and enemy forces, along with other landmarks, borders, areas and such.

Command issuing

Along with standard military command issuing, the AC4IS system provides commander with a digital command issuing through graphical and/or textual commands. Command issuing is supported differently at different levels of command (Corps level - Regiment level - Battery level).

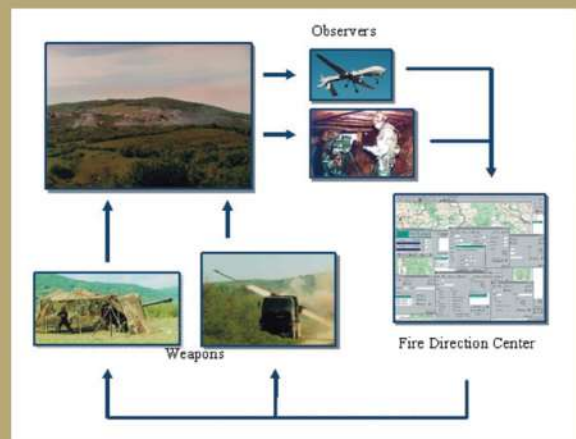
Communication

Communication is a crucial aspect of the AC4IS system. Standard military communication equipment (radio, landlines) is integrated into a fully digital packet switched network capable of transmitting error free, encrypted data and

using either landline or radio - no extra network configuration is needed.

Network protocols are based on broadly accepted and reliable internet protocols, thus enabling connections with other networks through network bridges.

Important aspect of the AC4IS is the Artillery Fire Control subsystem. It provides the user with a powerful tool for planning and controlling artillery fire on an unlimited number of targets with many types of weapons (Tube Artillery, Rocket Artillery and Mortars). Its core ballistic module already supports most weapons of both Western and Eastern origin. Also, it is possible to easily add support for additional weapons. Artillery Fire Control subsystem contains modules for meteorology, fire and ammo distribution, firing elements calculation and safety.



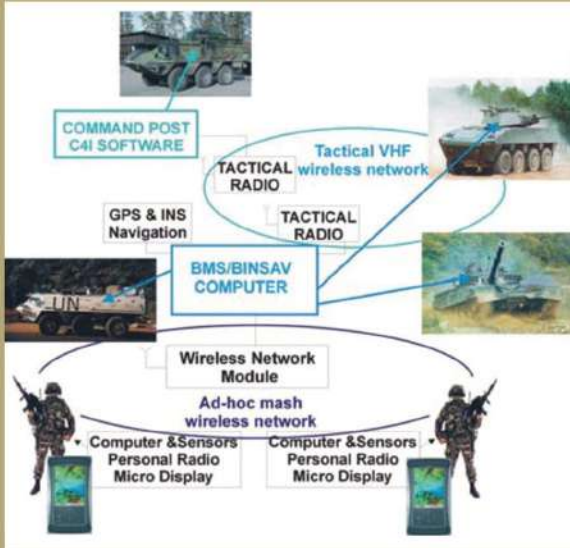
BMS/BINSAV with Dismounted Infantry (Future Soldiers)

(Battlefield Information and Navigation System for Armored Vehicles)

New technologies, like GPS (Global Positioning System) and GIS (Geographic Information System), have significant influence into changing of tactics and military technics enhancement, even if basic weapon systems have not been changed vitally. There are a lot of such examples, but to mention typical examples: fire control systems for field artillery modernisation or MBTs modernisation and application of BMS/BINSAV system to armoured fighting vehicles (AFV) with or without armamaent.

There is an option for using of inertial navigation systems (INS) as a backup if GPS signal is not present or jammed.

By using of the BINSAV (Battlefield Information and Navigation System for Armored Vehicles) as a part of modernisation of MBTs and AFVs, which applies equipment for real-time position and orientation tracking, tactical level (even operational and strategic levels, too) has capability to get complete information regarding position of armed forces and their real location on



terrain i.e. system BINSAV represents one of the most important part of digital battlefield. The BINSAV gives to MBT's/AFV's tank crew capability of better coordination within battlefield and significant risk reducing for a "friendly fire". It has been achieved thru direct, clear and correct answers to these basic questions:

- Where am I?
- Where are my forces?
- Where is the enemy?
- What is my task?

FUTURE SOLDIER

Soldier Modernization Programme (SMP)

Our approach in the Future Soldier development:

- Requirement specifications from top-down strategy;
- Realization from bottom-up approach;

For the Basic configuration hardware modules have been chosen as COTS (Commercial, off-the-shelf) components and software modules have been developing "in house" having the full control over software i.e. each line of code has been developed by us.

Basic configuration of the Future Soldier provides a fully integrated Combat Management System that allows users to monitor, decide and act effectively during the chaos of close combat. With the Basic configuration the user has full digital mapping, navigation, Situational Awareness and integrated Command and Control. This allows a faster op-tempo, and improves Survivability and Lethality of the soldier and his section.



LOGISTICS



ARMoured PERSONAL CARRIER



ARMoured PERSONAL CARRIER APC



COMMAND POST APC



RESCUE AMBULANCE APC



ARMoured RECOVERY APC



HIGH MOBILITY AMoured VEHICLE



TOYOTA LAND CRUISER 78 4x4 CABIN



LIGHT CARGO TRAILER



MEDIUM CARGO TRILER



RECOVERY TRUCK ARMoured



TOYOTA HINO TRUCK REFRIGERATOR AMoured



MAINTANANCE TRUCK MEDIUM



TANKER TRUCK (up to 5000ltrs)



TRUCK KRANE (up to 10tons)



REFIGERATORED TRUCK (20 or more feet)



KITCHEN TRAILOR



LIGHT CARGO AXLE



TRACTOR TRUCK (up to 40tons)



FUEL TRAILER UP TO 5000ltrs



FLAT BED (up to 20tons)



KITCHEN TRAILOR



EXCAVATOR 1m3 UPWARDS



COMPRESSOR TRAILER



WATER TRAILER UP TO 5000ltrs



Adria-Mar Shipbuilding Ltd. specializes in design, building and repair of special purpose and naval vessels, and equipment.

Our Market Strategy

- Flexibility in cooperation with our customers. Our goal is to define the design objective together with our customer, offering expertise in process.
- Quality in performing design, shipbuilding or ship repair task in reasonable time period.
- Long-term relationship with our customer through lifetime service and support.
- Quality management and quality assurance policy in accordance with EN ISO 9001

Our Team

Every project in our company is carried out by special taskforce assembled for the purpose. We are a team of both young and experienced naval architects, marine engineers, mechanical and electro engineers.

External Cooperation

In accordance with our market strategy we consult our partners for service whenever it is

necessary. We successfully cooperate with companies and institutions that are prominent in their field of work.

Our Capabilities

- Design, building and repair of special purpose and naval vessels
- Design, building and repair of special ship equipment
- Overhaul of navigation and communication equipment
- Overhaul of weapon systems (rocket bays, guns)
- Engineering and consulting services
- Participation in general design, feasibility studies, expert studies, project management and project supervision

Current Projects

OPB31 - patrol vessel

Length: 30 m

Speed: 30 kn

- based on PV30-LS project

- S&R duties, EEZ control

OPB39 - patrol vessel

LOGISTICS

Length: 39 m
Speed: 30 kn
- S&R duties, EEZ control
- extended mission duration

OPV60 - offshore patrol vessel
Length: 60 m
Speed: 27 kn
- EEZ control
- monitoring of sea traffic
- law enforcement duties

References

Patrol vessel PV30-LS; 6 units
Year: 2006 - 2008
Length: 30 m
Speed: 30 kn
Installed power: 2 x 1680 kW
Commission:
- Complete design and building of six (6) vessels
- Crew training

LSTH ships Ibn Haritha, Ibn Duf
Year: 2008
Length: 100 m
Installed power: 2 x 2000 kW
Armament: 3 x
2/40mm

Commission:
- Repair estimates
- Overhaul including weapons and C3I systems

Combattante IIG class ship Laheeb
Year: 2008
Length: 50 m
Installed power: 4 x 2000 kW
Armament: 1 x 76 mm, 1 x 40 mm

Commission:
- Repair estimates
- General overhaul including guns, rocket bays and C3I systems

Hydrographic boat HVO1

Year: 2008
Length: 8 m
Propulsion: Jet
Commission:
- Design and delivery of boat and hydrographic equipment
- Crew training

Spasilac class rescue vessel Al Munked

Year: 2006
Length: 60 m
Commission:
- Repair estimates
- General overhaul including hydrographic equipment, diving bell, rescue submarine, pressure chambers and C3I systems



LOGISTICS

Brodarski Institute is a research and development institution of applied technical sciences, founded in 1948. Brodarski Institute is a limited liability company owned by the Republic of Croatia and represented through the Ministry of Science, Education and Sports, the Ministry of Economy, Labor and Entrepreneurship, and the Ministry of Defense. Brodarski Institute's main activities are in the fields of marine technologies, surveillance, monitoring and defense, environmental technologies, renewable energy sources and safety.

Patrol boat





Height to main deck	6,40 m
Draught at normal displacement	2,62 m
Speed, continuous max. at displacement of 750 t	12,50 knots
Displacement, max. at draught of 3,2 m	1000 t
Payload	410 t

Construction:

The hull and the superstructure are made of higher strength shipbuilding steel in welded construction.

Armament:

- Two twin 30 mm guns
- One barrel AA gun 20 mm
- Four portable SAM launchers

Machinery And Electric:

The propulsion system consists of two four-stroke diesel engines with maximum continuous power of 1140 kW and two controllable pitch propellers (CPP).

Navigation Equipment:

Gyrocompass, magnetic compass, echosounder, log, radar, etc.

Cruising Range And Autonomy:

The cruising range is to 1200 NM and autonomy is 10-12 days.

Complement:

The ship provides full accommodation for 41 person plus 8 auxiliary berths.

LANDING SHIP - MINELAYER

The ship is a closed ferry type with a possibility of off-loading vehicles through fore and aft ramps. The basic purpose of the ship is to transport equipment armament for the naval infantry and its embarkation on roughly prepared sites, and possibility of laying of defensive mine fields.

The ship revolving crane provides for loading and off-loading and off-loading of lighter cargo.

Main Characteristics:

Length, overall	49,69 m
Length, on water line	45,03 m
Breadth, max.	10,20 m



LOGISTICS



DOK-ING Ltd. is a 100% privately owned Limited liability company, established under laws and regulations of the Republic of Croatia. Its principal place of business and main office is in Zagreb, Croatia.

DOK-ING was established in late 1991, and registered for the production of robots and equipment for special purposes. Today, DOK-ING is the largest commercial humanitarian demining company in South Eastern Europe and one of the international leaders in the production of machinery for landmine & EOD clearance. DOK-ING is EN ISO 9001:2000 certified, and has the capacity to perform mechanically assisted mine clearance of approximately 1,000,000 square meters per month, and the capacity to produce around 60 mine clearance machines per year. DOK-ING has so far gained more than fifteen years of experience in different types of landmine clearance.

The mechanical engineer Vjekoslav Majetić, who is the designer of all machines, has also been the CEO of DOK-ING from the very beginning. He started development of his first machine in 1996. Since

The MV-10 Double Tool Mine Clearance System was designed based on the development of the previous DOK-ING demining systems: MV-1, MV-2, MV-3, MV-4, and MV-20. All of DOK-ING's extensive mine clearance experience has been incorporated into the design of the MV-10 system.

The MV-10 system weights around 17 tons, with excellent cross country performance. It is controlled by a single operator through a remote control unit. This system provides the best possible protection for the operator. By ensuring the operator is well clear of the MV-10 or inside a protected vehicle, organisations can be certain that should a mine (particularly anti-tank) be detonated, their people will be protected from even minor injuries or health issues that can arise from being in close proximity to the blast.

Strict design and capability requirements were considered in developing the MV-10 platform based on demonstrated demining requirements, and not by adapting an existing construction machine, loader type, or forestry machine. Some of these specific requirements were:

- safe and effective clearance of antipersonnel and antitank mines,
- intensive use in the most severe working conditions,
- ability to work on soil with a hardness rating from the first to fourth category,
- ability to work in extremely high temperatures,
- high performance,
- modular design,
- lowest possible maintenance requirements,
- environmental protection.

MVD XLP Dozer

The MVD XLP Dozer is designed as a very low profile remote controlled machine for multiple use such as; underground mining, the building and construction industry. The first dozer was developed in 2003 because the South African mining sector expressed the need for a small machine which could assist with the cleaning of stopes after blasting. The operating tool for

MV-10



MV-10 flail tool attachment and tiller tool attachment



MVD XLP Dozer



JELKA-4

digging and pushing in front of the machine was designed as a dozer blade. It is controlled by a single operator using a simple and convenient hand remote control unit.

The MVD XLP Dozer system weighs around 4 tons and the tests and evaluations in South African mines have shown that the machine is capable of handling 50 to 120 tons of ore per hour, which means that the cleaning productivity has been increased significantly and at the same time improving the safety of



JELKA-10

the workers. Strict requirements have been set in the development of this machine, such as: intensive use in the most severe working conditions; ability to work in extremely high temperatures; high performance; modular design, lowest possible maintenance requirements, and environmental protection.

Because of its dimensions, very good maneuverability, high engine power, and low track-ground pressure, the MVD XLP Dozer can work year round in almost all conditions.

Original design & construction based on extensive experience and study of user needs:

- Sound technology based on an integral approach,
- High mobility and flexibility,
- Safety of personnel,
- Cost-effectiveness and rationalism,
- Excellent efficiency and productivity,
- Low operating and maintenance costs

JELKA-4 and JELKA-10 (Multi-Purpose Fire Fighting Vehicle)

Jelka range of products is designed to fight fires in hazardous areas but with modified versions of our solutions Jelka firefighting machines can be adapted for wild fires and forest fires.

Areas of use:

- Oil refineries and chemical plants
- Storage areas of chemicals
- Storage areas of flammable materials
- Army storage depots for explosives
- Nuclear power stations
- Airports and special circumstances management (fire/explosion of airplanes)
- Transportation of flammable materials (trains, lorries, etc)
- Forests, for areas non-accessible by fire-fighting vehicles and/or firemen and where only fire-fighting airplanes and helicopters can be used (only during daylight). Unit can be used to clear path (using the flail tool) and create accessible zones for fire-fighting vehicles
- Forests with dangerous areas (where unexploded cells or mines exist below the ground surface)

The fire fighting vehicle will be used to help fire-fighters and people surrounded or attacked by fires to be helped or withdrawn from critical situations. Particularly in surrounding conditions or where a collapse of the structure is a threat. Wealth of experience of building machines for extreme conditions enables Dok-ing to produce Jelka line of fire-fighting robots designed to sustain, defend and overcome critical situations where any human involvement would be unreasonable and hazardous.

LOGISTICS



“**Đ**URO ĐAKOVIĆ” - SPECIAL VEHICLES company limited by shares has earned its reputation as a factory for production of armoured battle vehicles.

most complex product in category of battle vehicles, has confirmed capability of our Company for dynamic interaction between our own know how and production potentials with know how and potential of other producers and research institutions, and has established all necessary requirement for the new world of productivity and efficiency, for implementation of quality assurance system, and the final integration and testing of the most complex systems, which all resulted in good product.

The company operates within Holding “Đuro Đaković”, major and well known metal manufacturing complex with international reputation in the field of industrial equipment, power production facilities, petrochemical industry, rolling stock, special vehicles and agricultural machinery including wide range of manufacturing and engineering services and single products, and was founded in 1921 as the first factory for wagons, machines and bridges in the Southeastern Europe.

Within the program of reconstruction as strategic development goal - ĐĐ SPECIAL VEHICLES company should be considered as croatian center of competence for design, production and maintenance of combat vehicles & defence equipment, demining machines & cargo railway wagons.

It is permanently and consequently oriented on market demands of the foreign partner and the market demands of Republic Croatia and neighbouring countries.

All these products have been designed in accordance with West European standards being equipped up to the level of provision of all special, additional equipment.

The experience in production of battle tank, as the

QA system:

ĐĐ SPECIAL VEHICLES is the first company within the Republic of Croatia with Certificate 9001 in the field of research, design, production and maintenance of special vehicles and military equipment and civil engineering machinery and steel structures.

System of quality management has been implemented through production of battle tank, it is completely documented and corresponds to the requirements of the international family of norm ISO 9001.

Implementation of the approved quality policy is realized and documented in the Quality Handbook for the selected model of quality assurance in accordance with the norm ISO 9001 (i.e. EN 29001), which includes organizational structure, authorities and responsibilities, procedures, activities, potentials and means for realization of quality policy.

The described quality policy is foundation for planning, implementation and documentation of all activities and the permanent improvement of quality of products and services in the company limited by shares ĐĐ SPECIAL VEHICLES.



Armoured Modular Vehicle Patria AMV 8x8

Armoured modular vehicle Patria AMV 8x8 is a multipurpose military vehicle, production of which is based on cooperation with the Finnish company PATRIA LAND & ARMAMENT OY, realized through transfer of technology.

In production of AMV 8x8 vehicles the most up to date technologies have been applied. Vehicle features maximal capacity of payload, simultaneous integration of the high level armour with high level of mine protection and incorporation of heavy weapon platform - without jeopardizing of vehicle mobility.

The basic feature of the vehicle AMV 8x8 is its modular design, which enables installation of equipment for various missions on the same vehicle platform.

Typical basic configurations of the vehicle include:

- AIFV-12.7, with remote weapon station 12,7 mm
- AIFV-30, Armoured Infantry Fighting Vehicle, armed with 30 mm automatic gun
- AICV, Armoured Infantry Command Vehicle
- AAV, Armoured Ambulance Vehicle
- ARRV, Armoured Repair & Recovery Vehicle
- ATGMV, Anti-Tank Guided Missile Vehicle





MAIN BATTLE TANK M-84D

Development, production and/or integration of new, NATO interoperable systems of new generation designed for enhancement of the existing M-84/T-72 tanks and/or integration of the new tank has been started within the framework of the Project DEGMAN, pursuant to Contract between company ĐĐ SPECIAL VEHICLES and Croatian Ministry of Defense.

The aim of the project is "...through digitalization and interconnection of the key MBT systems create hunter-killer capability and ensure compatibility and interoperability between new and enhanced tanks".

The term "tank destroyer" defines Fire-on-the-move & Hunter-Killer tank capable to aim and fire while on the move under all terrain conditions (dust, mud...), day and night and all diverse climatic conditions (rain, fog..). Accordingly, the new or enhanced tank has significantly better characteristics than its basic version (M-84).

Besides the above specified this project has been designed on the principle of the "open architecture", which is the fundamental precondition for application in upgrading and the new production, but also enables fulfillment of the customers' requirements (i.e. diverse communication systems, different protection levels, etc.).

Specificity of the initial requirements referred to compatibility of new systems (and with it upgrading program) with tank T-72, which potentially opens wide market for modernization regarding number of countries where they are in use.

Project DEGMAN realizes enhancement of the M-84 MBT according to contract between Croatian Ministry of Defense and company ĐĐ SPECIAL VEHICLES (DDSV). Such enhanced tank carries designation M-84D.





Project DEGMAN: M-84D

Initial Requirements

- Upgraded Ballistic Fire-Control System OMEGA-D
- Thermal Imaging System (TIS)
- All-Electric turret and gun drive
- New VHF-HF radio communication
- Digital Intercom System with Mobile Terminals
- Add-on (or "appliqué") armor and explosive reactive armor (ERA)
- New Generation Laser warning System (LIRD) connected with Smoke Pot Launchers
- NATO compatible Nuclear, Biological and Chemical (NBC) warfare protection system
- Fire Extinguishing and Anti Explosion System
- New Hull Management System
- Automatic System of Engine and Transmission Protection
- Upgraded Tracks - NATO Tracks
- New Batteries and Battery Charger (internal and external)
- New Heating and Cooling System

Specific Requirements

- "TANK DESTROYER" (Fire-on-the-move & Hunter-Killer)
- ATAC - Commander's Battle station which enables:

- Panoramic observation
- Daylight video channel and thermal imaging system
- Eyesafe Laser Rangefinder
- Commander-Take-over System (main gun fire control)
- Battlefield Management System
- Remote aiming of the external 12,7 mm machine gun
- Enhanced anti-mine protection
- SONG-84: Integrated System for Training and Fire Control
- Enhanced reliability (MTBF & MTTR)
- NATO Inter-operability
- Power-pack



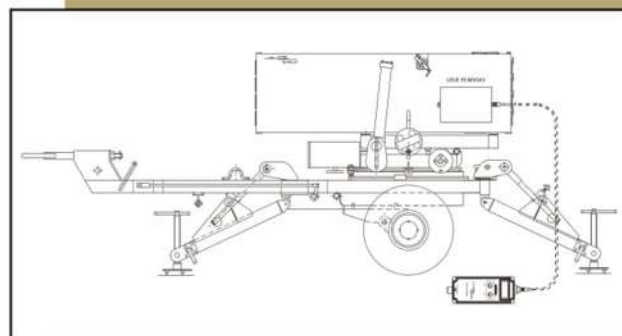


LMLRS HERON B is all weather, direct or indirect, area-fire support artillery system, characterized by:

- multiple rocket launcher with 40 rockets
- ability to launch rockets individually or in ripples 2 to 40 accuracy at ranges of 8000 m (target area 200 m x 300 m)
- fire remote controller (FRC)
- b.i.t.e.
- easy access to equipment for modular replacement

Technical Data HERON B

- Model M93A3
- Caliber 70 mm
- Length 3150 mm
- Width 1850 mm
- Height 1400 mm
- Weight 920 kg empty, 1250 kg loaded
- Tube Length 1600 mm
- Field of fire - in bearing $\pm 15^\circ$ (option 360°)
- in elevation -1 to 46°
- Sighting device UN-2



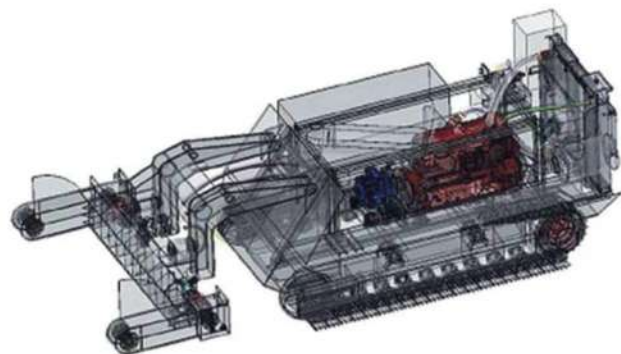
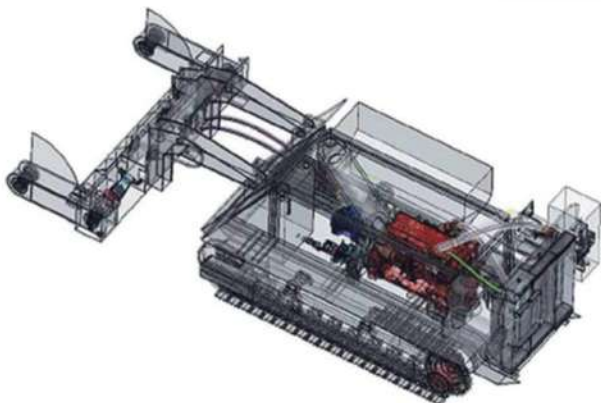
DEMINING MACHINE



- Total weight	11 t
- Total length	5.000 mm
- Total width	2.000 mm
- Ground clearance	340 mm
- Height	1.600 mm
- Engine Perkins,	107 kW
- Cruising speed	0 ... 5 km/h
- Working speed	0 ... 3 km/h
- Control	full remote control

DEMINING UNIT

- Type	flail
- Flail diameter	900 mm
- Clearing width	2.000 mm
- Clearing depth	0 ... 300 mm
- Rotation speed	0 ... 600 rpm
- Rotation direction	both



The new mine sweeper, also middle weight machine, with improved technical properties, should replace existing RM KA 02 on the market, till the end of 2009.



Since 1950 it started to manufacture lifesaving equipment and lifeboats from aluminium alloy. During the sixties development started on GRP lifeboats. In the same year production also included lifeboat lifting and lowering arrangements.

Today shipyard "GREBEN" is one of the leading manufacturers of lifesaving equipment in Europe (davits, winches, lifeboats etc.).

Besides lifesaving equipment, between the 70's and 80's, shipyard "GREBEN" has transformed to manufacture large crafts from GRP. It started manufacturing fishing vessels, patrol boats, landing crafts, fast boats, passenger boats and sailing yachts as well. By developing new products, renovation of production premises has been made (workshops, slipways, assembly shops, fitting out quay and the remaining necessary premises for production).



Vessels, lifeboats, lifesaving equipment are made in compliance with all Classification Societies (Lloyd, Bureau Veritas NMD, R.I.NA

etc.). We signed a contract with Bureau Veritas and started with a new quality control system according to ISO 9000.

"GREBEN" generally has a good reputation and exports over 70% of the total production to various countries worldwide (Europe, Africa, Asia).



PRODUCTION PROGRAM

- MILITARY AND POLICE VESSELS
- FISHING VESSELS
- LIFESAVING EQUIPMENT
- PASSENGER VESSELS, SAILING AND SPORT BOAT
- OTHER PRODUCTS from GRP





Dinghy

- rollo wood floor length of 2,00 m to 3,40 m, they will excellently serve for the transfer from ship to land, manufactured from quality hypalon neoprene

Sport boats

-length of 2,50 m to 3,10 m with a plastic bottom, offered in two versions - Classic and Sportline. They are different in design, sportline models have a new and attractive design and modern lines so if you want a stylish and functional dinghy our models are an ideal choice, produced of hypalon neopren or PVC Valmex

RIB

-length of 3,80 m to 8,50 m, RIB's which are characterized by an attractive design, modern interior, build quality, exclusive equipment and lots of innovations, our products are certainly competitive with foreign producers, we offer the fast and reliable sun-seekers,



such as RM 480 Sportline, RM 599 Sportline and RM 850 Sportline up to fine RIB's, which are characterized by quality, design and details such as RM 480 Exclusive or RM 599 Exclusive

Polyester boat

-boat RM 850 Cabin, length 9,14 m, achieved a speed of around 50 knots and bearing capacity of 12 people. The plastic parts are made massive and compact, and the tube-sand rubber are made from premium quality

Hypalon neoprene and they are maximally resistant to sunlight and the environment

Special and working boats

-Boats of 5.99m to 9.14m, military boats, police and patrol boats, fire boats, Boats for Search and Rescue. Characterized by perfect maritime characteristics due to many of them are produced for Ministry of Defence of Croatia, Ministry of Interior of Croatia, Ministry of Interior of Slovenia, Mountain Rescue Service, the Fire Department, National Protection and Rescue

Rafting boats

-7 RIS, RIS8,9 and RIS11 -allow you an enormous amount of adrenaline as you fight a wild river, safe, stable, comfortable and fast

In our offer except RIB production we also offer repairs and servicing of our product - brand RISMARINE and also products of other manufacturers.





NAVY

Basic materials for production of personal NBC protections are combination of textile (PES) and rubber bromobutyl rubber (BIIR). They are resistant at physical conditions (rupture, friction and higher temperature and similar), low inflammable (they are self-extinguish), but the basic protective characteristic is impermeability for most of the NBC agents. Colour, texture and thickness of protective layer and the combination of the protective layers are changeable according to the need. Protective products are simple and easy for decontamination, and they are made for multiple usage.

Ballistic protection for personal usage (vest and suit) is made of textile materials. For maximal durability enlargement of protective characteristics, protective package is protected with water-repellent textile covering against moisture, perspiration and light. For additional buttoning and fastening there are forethought Velcro tapes, iron-rings for tapes connection, and similar.

Outer cover and other parts are made for heavily conditions, and in the same time outward appearance, colours, signs and patterns and similar are changeable according to the order.

Products are made in various colours, shapes and sizes with demanded protection level.

BALLISTIC PROTECTION

Protective vest against fragments B1

Protection against fragments from exploded missiles, grenades, rejected missiles and physical shoots primarily for demining activities. This type enables comfortable wearing with free movements during work, moving and using of the military technique, armament and vehicles (e.g. for the tasks of mechanized land troops).

Vest tested by Beschussamt Mellrichstadt, Germany, in accordance with STANAG 2920

BALLISTIC PROTECTION

Protective vest against bullet B2

Combat protective vest with ballistic protection for genitals. Basic purpose is protection in warlike actions and protective tasks (convoy, check points and similar), actions in populated area, crew of the fighting vehicle and so on. In its basic purpose it represents simple and permanent protection. Type B-2A is a version of the combat protective vest B-2 without ballistic protection for genitals but with implants for fixing it in case of its usage.

The vest was tested by Beschussamt Mellrichstadt, Germany, in accordance with NIJ STD 0101.03



BALLISTIC PROTECTION
Protective vest against fragments B1

Sizes:	S (148-50)	M (150-52)	L (152-54)	XL (154-56)	XXL (156-58)
Weight (kg):	2320	3100	3200	3400	3600
Protection level:	STANAG 2920 V50 = 400m/s				

B-1



BALLISTIC PROTECTION
Protective vest against bullet B2

Sizes:	S (148-50)	M (150-52)	L (152-54)	XL (154-56)	XXL (156-58)
Weight (kg):	4380	4520	4720	5020	5400
Protection level:	NIJ STD 0101.03 IIA				

B-2

NBC - PROTECTION

Isolation protective suit OZI M-2

Device for military usage, for NBC protection in conditions which need complete isolation of people from radiated atmosphere; it is used in combination with rubber protective gloves, rubber protective boots and protective mask, and additionally it is used with protective apron. Protective suit is anticipated for multiple usage in contaminated conditions, after preliminary decontamination. It has a wide range of usage, from control and rescue tasks in industry and mines, fire brigades and special rescue brigades (evacuation of injured from contaminated area), special police and army forces (investigation, equipment and people decontamination, and similar). According to outer conditions it can be worn on ordinary clothes or on special light clothes.

All implanted materials are self-extinguishing. Colour, texture and the thickness of protective layer, combination of protective layers, are changeable according to the order. The durability of constructive materials of protective suit against chemical war substances is tested by independent laboratory: (LABOR SPIEZ- Switzerland).

NBC - PROTECTION

Protective covers for military footwear NZ M-2

Device for personal protection in military usage, for soldier protection and lower part of feet, against NBC (nuclear, biological, chemical protection) for single usage in contaminated conditions and multiple usage in normal conditions. They are worn over footwear and are reliable. Covers are resistant on various influences (shoots, radiation and similar). Light weight and dimensions enable them to be permanently preventive in complete of personal protection.

Material for basic protective part is self-extinguishing. The durability of constructive materials of protective covers against chemical war substances is tested by independent laboratory: (LABOR SPIEZ- Switzerland)

BALLISTIC PROTECTION

Protective vest against bullet B7

Protection against bullet and from fragments from exploded missiles, grenades, rejected missiles and phys-

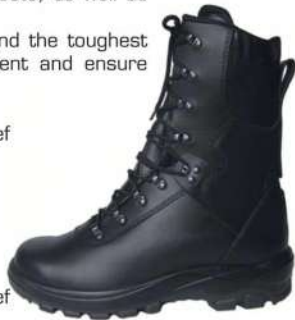
ical shoots. It is comfortable for wearing with easy movement during working tasks, for military tasks, in using army techniques, vehicles and weapons (e.g. for tasks mechanized and investigative troops for army). Vest tested by Beschussamt Mellrichstadt, Germany, in accordance with NIJ STD 0101.03

MILITARY BOOT BOROVO AND OFFICERS SHOE

Borovo designs and manufactures military high performance combat, tactical and police duty boots, as well as footwear for other military forces.

Our combat boots are made to withstand the toughest conditions in both battle and environment and ensure comfort in every situation.

UPPER : Leather - hydrofobed beef
 LINING : Tekstile
 INSOLE : Syntetic insole
 SOLE : PU/Rubber
 DESCRIPTION: Special forces boot
 SIZE : 39-47



UPPER : Leather - hydrofobed beef nappa
 LINING : Leather - hydrofobed beef
 INSOLE : Leather - hydrofobed beef
 SOLE : Leather
 DESCRIPTION: Officers shoe
 SIZE : 39-48



RKB - ZAŠTITA

Protective covers for military footwear NZ M-2

Size: Unique size and shape (the same for left and right)
 Weight: 700 ± 30 grams

Protection level: Duration of mustard gas (perit) drop penetration test: 24 hours

NZ M-2



NBC - PROTECTION

Isolation protective suit OZI M-2

Size: S (48-50) M (50-52) L (52-54) XL (54-56) XXL (56-58)
 Weight (g): 2200 +/- 150g

Protection level: Duration time of mustard gas (yperte) drop penetration test: 24 hours

OZI M-2



BALLISTIC PROTECTION

Protective vest against bullet B7

Size: S (48-50) M (50-52) L (52-54) XL (54-56) XXL (56-58)
 Weight (g): 2770 2900 3040 3200 3410

Protection level: NIJ STD 0101.03
 III-A



B-7

- High quality fabric PA/PAM /Cordura/ for Croatian army is ideally suited for uniforms and other work apparel. It is light weight, color-fast and has a much higher abrasion and tear resistance than polyester/cotton blends.

- It is also more durable, maintaining texture and superior appearance through repeated wash cycles.

- It has twice the abrasion resistance of standard nylon, three times that of standard polyester and seven times that of spun cotton.

- Fabric is hydrophobic and oleophobic treatment, resistance to toxic chemical and aspersion.

- High color persistence

Dyed fabric with high quality colors are in a visible and invisible light spectrum (IR spectrum) highly harmonised with colors of natural environment.



Product description:

- Military combat uniform (jacket and trousers) winter, fabric: cotton 50 %, polyester 50 %, 250 g/m² ± 5 %

- Military combat uniform (jacket and trousers) summer, fabric: cotton 50 %, polyester 50 %, 165 g/m² ± 5 %

- Military combat shirt - winter, fabric: cotton 100 %, 150 g/m² ± 5 %

- Military combat shirt - summer, fabric: cotton 50 %, polyester 50 % 165 g/m² ± 5 %

- Military combat cap - winter, fabric: cotton 50 %, polyester 50 %, 250 g/m² ± 5 %

- Rain - clothes, fabric: polyamide 47%, polyurethane 53%, 150 g/m²

- Military cape, fabric: polyamide 47 %, polyurethane 53 %, 150 g/m²

- Camouflage fabric in digital printing (shirt and trousers) - green

fabric: cotton 50 %, polyamide 50 %, 220 g/m² ± 5 %

- Camouflage fabric in digital printing (jacket) - green

fabric: cotton 50 %, polyamide 50 % 310 g/m² ± 5 %

- Camouflage fabric in digital printing (shirt and trousers) - desert

fabric: cotton 50 %, polyamide 50 %, 220 g/m² ± 5 %

- Camouflage fabric in digital printing (jacket) - desert

fabric: cotton 50 %, polyamide 50 % 310 g/m² ± 5 %

- TEXPUR - laminated material with breathable membrane





Camouflage uniform



Pilot overalls



Pilot jacket



Multi-purpose overalls



Special underwear



SYMPATEX the innovative hi-tech climate system for footwear. Created for people with high expectations - independent of the weather and outside circumstances, individual for each situation, for each challenge. SYMPATEX the 100% waterproof and breathable system for protective footwear. For the highest levels of wearer comfort and protection.

SYMPATEX is a hydrofoil, polyester membrane without pores, only 15 microns thick (1/16mm), which is extremely light and highly elastic, all of which ensures both 100% water - resistance and extreme airiness. SYMPATEX membrane fitting process is constantly monitored by the licensing company, and all products are subjected to rigorous tests: stitching test, ripping test, wearing out test, twisting test and simulation walking test.





OSRH

OSRH

OSRH

OSRH

OSRH







Combat Vacum Bag (CVB2) is modular system while having two main components; buoyancy compensator and waterproof transport bag. Model CVB 2 is designed to transport equipment during swimming or diving where the diver is equipped with a rebreather apparatus which is located on the chest (Drager Lar V, VI LAR. ETC.).

Waterproof bag can be vacuumed or inflated. Advantage of vacuum is to achieve stability and reduce the volume - buoyancy of waterproof transport bag. The choice between vacuum and - or inflation depends on the type and weight of equipment/payload but also the way of transport.

Waterproof transport bag can be quickly and easily separated from the buoyancy compensator. Out of the water transport waterproof bag can be carried on back with his own harness system. With use of additional RedTech military equipment model line CVB 2, you can quickly and easily transformed for use with an open circuit or other types of re breather apparatus. RedTech that gives you the possibility of education and training for the use of buoyancy



compensator and the waterproof transport bag. PMU is portable system for preparation and supply of all types of diving mixed gases; Air, Nitrox and Trimix. It is designed in that manner that thanks to the small dimensions and weight can provide fast and simple work in conditions of field operations. It consists of device for continuous gas mixing, mixture analyser, booster pump and four outlets for filling diving cylinders.

RedTech gives you the possibility of education and training for the use of CVB2 and PMD systems.

Dry suit RedTech Military

Designed for the needs of military and technical divers. The aim of design is to give a maximum comfort and flexibility of the movements, minimal resistance in swimming and walking and in the same time increase the durability and resistance on mechanical abrasion.

Material Butyl trilaminate with two-ply nylon fabric exterior reinforced by cordura on shoulders, back, elbow, knees and buttocks.

This specially designed reinforcements give durability and material strength during demanding Dives and missions but agility and movability are easy which cause less effort during long swimming.

Latex collar, and wrist Hood made from elastic neoprene, Diagonal dry zip with cover protection and additional zip, colour black The diagonal zip position enables easy donning and agility.

There is the elastic back insert which gives flexibility in all positions and additional comfort in swimming and on land movements.

RedTech DRY SUIT

Designed for the needs of military and technical divers

RedTech CVB 2

modular system - buoyancy compensator and waterproof transport bag



Ballistic protection		Weight - M size (gram)			
NIJ 0106.01 (modified)	STANAG 2920 V ₅₀ (Fragment 1,1 gram)	Shell (gram)	Helmet		
			Shoteck Shoteck 2M (200 g. + 70 g.)	TC TC 2M (160 g. + 40 g.)	TR TR 2M (150 g. + 30 g.)
	550 m/s	960	1230	1160	1140
	580 m/s	1025	1295	1225	1205
↓ IIIA 9 mm ↓	600 m/s	1100	1370	1300	1280
	620 m/s	1165	1435	1360	1340
↓ IIIA .44 Mag. ↓	650 m/s	1260	1530	1460	1420
	680 m/s	1300	1570	1500	1480
	700 m/s	1365	1635	1565	1545
	720 m/s	1445	1715	1645	1625
	740 m/s	1595	1865	1795	1775

- | | | | |
|-------------------|---|--|--|
| 1. Croatian | - Ministry of Defence
- Ministry of Interior
- Security companies
- Demining companies | 15. Egypt | - Ministry of Interior |
| 2. Czech Republic | - Ministry of Defence | 16. UN Committee | for Demining |
| 3. Bulgaria | - Ministry of Defence | 17. Russia | - Ministry of Interior |
| 4. Poland | - Ministry of Finance/
Department Warsaw | 18. Saudi Arabia | - Ministry of Interior
- Ministry of Defence, aviation and
generally supervision |
| 5. U.A.E. | - G.H.Q. Armed Forces
- H.Q. Royal Guard | 19. Finland | - Finland Army |
| 6. Lithuania | - Lithuanian military forces | 20. Colombia | - State police of Colombia
- Ministry of National Defence |
| 7. Mexico | - Ministry of Defence | 21. Kazakhstan | - Ministry of Defence |
| 8. England | - MET police | 22. Italy | - General staff of Carabinieri/Office
for armaments and special
equipment |
| 9. Spain | - Ministry of Defence
- Ministry of Interior | - Italian Army, Institution for
maintance of lightweight weapon | |
| 10. Turkey | - Ministry of Defence | 23. Ukraine | - Ministry of Interior |
| 11. Pakistan | - Pakistan Army | 24. Hungary | - Agency for development and
logistic - of Ministry of Defence |
| 12. Macedonia | - Ministry of Interior | 25. Argentina | - Ministry of Defence
- Ministry of Interior |
| 13. France | - Elno Societe Nouvele | | |
| 14. Malaysia | - Malaysian Army | | |

Ballistic protection		Weight - M size (gram)			
NIJ 0106.01 (modified)	STANAG 2920 V ₅₀ (Fragment 1,1 gram)	Shell (gram)	Helmet		
			Shoteck Shoteck 2M (200 g. + 70 g.)	TC TC 2M (160 g. + 40 g.)	TR TR 2M (150 g. + 30 g.)
↓ IIIA 9 mm ↓	600 m/s	1060	1330	1260	1240
	620 m/s	1155	1425	1355	1335
↓ IIIA .44 Mag. ↓	650 m/s	1225	1495	1425	1405
	680 m/s	1255	1525	1455	1435
	700 m/s	1335	1605	1535	1515

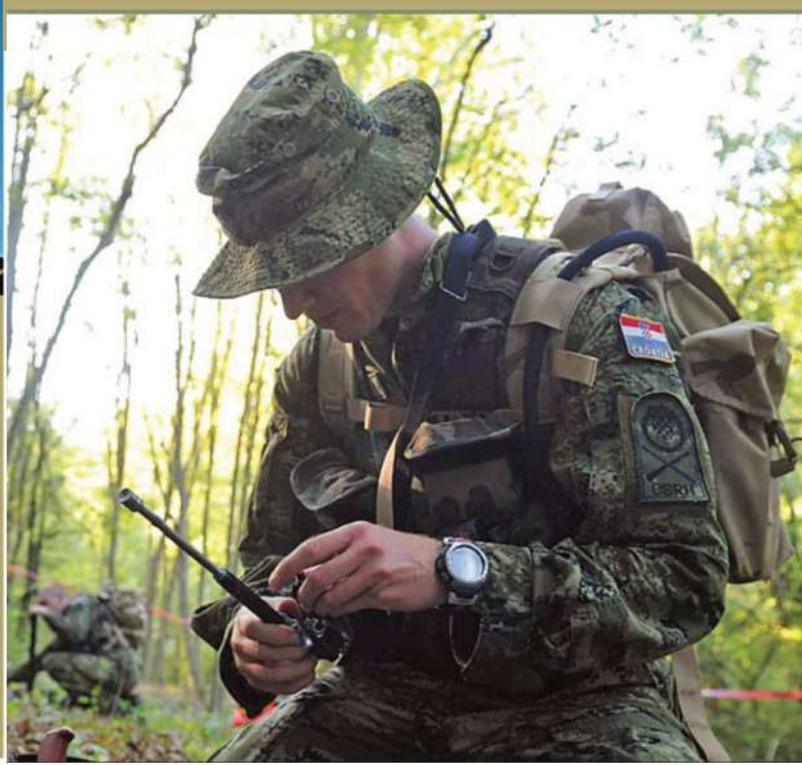


UPOD-M1 Universal Individual Decontamination Kit Technical data	
Mass (full)	420 g
Dimension of box	107 x 45 x 130 mm
Volume seal battle	60 ml
Filling with solution TD-M1	2 x 50 ml
Area coverage peer filling TD-M1	over 2 m ²
Filling with sodium-hydrocarbonate	10 g
Filling with anti-smoke antidote	2 x 2 ml





Ceremonial officer peaked cap



Patrol cap, desert camouflage pattern



Naval officer peaked cap



Female officer peaked cap



PROGRAMS:

READY - MADE ARTICLES:

- Working clothes for all subdivisions of industrial service trade
- Working clothes for all medical and tourist personnel
- Working uniform for army and police
- Bed-clothes, table-clothes, napkins, towels
- All kind of flags
- Embroidery service
- Ready-made fashion articles

LEATHER GOODS:

- Work-shielding gloves and aprons
- Tarpaulins and covers for machines and equipment
- Hunting and fishing equipment
- Ready-made leather articles and leather goods

PRINT:

- Complete printing service
 - Graphical final processing
 - Cardboard and packing production
- All kind of bindings

ORTHOPEDICS AND FOTWEAR:

- Prosthesis
- All kind of orthopedic footwear and insets by order
- Medical personnel footwear
- Army and police footwear
 - Footwear for all subdivisions of industrial and service trades

GAM:

- Knitting, haberdashery
- Unique and souvenir ceramic
- Lamps of all shapes and sizes, candlesticks, mirrors
- Forged fences for parks, private plots, balcony
- Hand-hold, window shielding railings, hangers

REHABILITATION:

- Social-working welfare for employees
- Organizing, performing and evaluating practical part of professional development difficulties
 - Children with development difficulties
- Work Centre for Disabled Persons







Tent Small M-01-W (1 field)

Dimensions: 2.50 x 3.00 x 2.50 m
(length x width x height)

Accommodation capacity: 3 fold-up beds



Tent Large V-01-W

Dimensions: 5.00 x 5.60 x 2.80 m
(length x width x height)

Accommodation capacity: 12 fold-up beds

According to the NATO codification system our products "Tent Small M-01-W" and "Tent Large V-01-W", including spare parts, have been awarded with the NCAGE code and NATO stock numbers (NSN) in 2004.



Air Tent Tent dimensions and design are adaptable to users needs. Tent is made of special synthetic material decreasing its total weight and allowing easier handling.



Fold-up beds:

Steel construction

Mark: L - 04 - W1

Dimensions: 190 x 70 x 40 cm (length x width x height)

Weight: 11 kg

Aluminium construction

Mark: Al - 04 - W1

Dimensions: 210 x 63 x 40 cm (length x width x height)

Weight: 8 kg

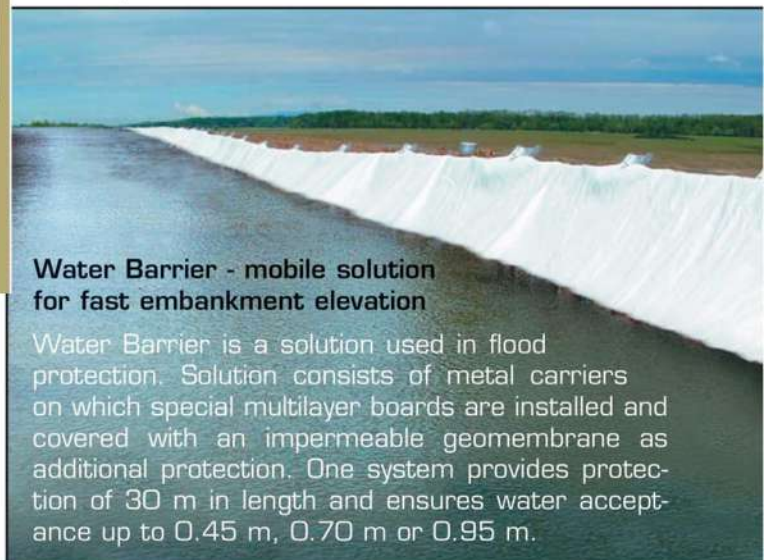


Box Barrier - system for fast fortification and interventions in flood protection

Box Barrier is a foldable wire-mesh construction, without top or bottom, with a filling form as an efficient protection barrier.

System cells are filled with available material (sand, gravel, rock).

Standard system dimensions are 3 x 1 x 1 m or 5 x 1 x 1 m (length x width x height) and can be adapted to specific terrain needs.



Water Barrier - mobile solution for fast embankment elevation

Water Barrier is a solution used in flood protection. Solution consists of metal carriers on which special multilayer boards are installed and covered with an impermeable geomembrane as additional protection. One system provides protection of 30 m in length and ensures water acceptance up to 0.45 m, 0.70 m or 0.95 m.