



VÝVOJ
Martin
INNOVATION SPECIALISTS

member of | **MSM GROUP**...

THE POWER OF RESEARCH AND DEVELOPMENT

Heart. Heritage. Horizon.

The **Aerospace** division develops, manufactures and modernises civil and military aerospace equipment.



The **Ammo+** division specialises in small-calibre ammunition, mainly for the civilian market, hunting and target shooting.



The **Defence** division develops, manufactures and markets military and special vehicles, off-road vehicles, weapons and weapon systems, medium and large-calibre ammunition for combat vehicles, artillery and tanks.



The **Business Projects** companies have strong potential and interesting business opportunities.



The companies in the **Mobility** division are among the world's oldest manufacturers of transport equipment.



MSM GROUP

MSM GROUP is one of the main companies in the **CSG Defence** division. It is a European leader in the development and production of defence and civil equipment, specialising in artillery and tank ammunition. MSM GROUP unites traditional companies with a long history in the defence sector, thus having the entire production, service and supply cycle in its own hands.



Development and **production** of ammunition for military purposes, in particular large calibre artillery ammunition and pyrotechnic components.

Revision, modernisation and **life extension**, storage and disposal of ammunition, development and production of practice ammunition and mortar ammunition.

Development and **manufacture** of single and two-base propellants and propellant charges, rigid and liquid TNT, rockets, artillery, mortar and tank ammunition.

Development, design and **manufacture** of mobile and modular towers, navigation systems and specialised military and civil containers.

VÝVOJ Martin: An Innovative Company with a Rich History

VÝVOJ Martin focuses on the production of:

Military containers
Specialized containers for civilian customers
Mobile and modular air traffic control towers
Radio navigation systems and air traffic services

VÝVOJ Martin also provide repairs and services for various containers, radar technologies, air defence systems and air traffic services for the Slovak Ministry of Defense. Moreover, we custom design and manufacture highly specialized products client requirements.

PORTFOLIO

Civil technologies

Mobile air traffic control towers
Radar towers
Radar shelters
Modular air traffic control towers

Defence technologies

C2 Shelters
Container power generators
EMC GenSet

CIVIL TECHNOLOGIES



Mobile air traffic control towers / Radar towers / Radar shelters / Modular air traffic control towers





MOBILE AIR TRAFFIC CONTROL TOWERS

**These towers are full-fledged mobile replacements for classic fixed airport towers.
They are particularly suited to small airports.**

VÝVOJ Martin's Mobile Air Traffic Control Towers are suitable civil aviation replacement solutions in the event of a malfunction of the main airport tower. They also enable the creation of airports in a temporary location. Hence, they represent a flexible, functional and complex system for a range of use cases. The towers are installed on trailers that can be towed by standard trucks or transported by air by Lockheed C-130 Hercules and Alenia C-27J Spartan cargo aircraft.

Each tower is tailored to precise customer requirements and can contain various communication, meteorological, thermal imaging, and camera systems. They can additionally be placed on containers and built to meet ballistic protection standards.





RADAR TOWERS

VÝVOJ Martin's radar tower is used to ensure that that radar antenna systems are installed at the appropriate height for operations.

VÝVOJ Martin's radar towers consist of blocks assembled from welded steel beams, a cable tray, and a curved staircase. The entire tower is set on a concrete foundation, and cross-sections of the individual beams are designed to reflect the structural loads of the installed technology systems. Each radar tower project is custom built to customer requirements and is designed for the seismic and weather conditions of the area where it will be deployed. A radar tower's cable channel runs the height of the entire tower and connects the radar device. On a tower's top floor, mounting points anchor the radar body or antenna.

Radar Tower Dimensions:

Standard height: 18 m
Floor plan dimensions: 4.32m x 4.32m axially
Railing height: 1.1 m (per STN 73 4130 standard)





RADAR SHELTERS

Radar shelters are containers that support radar and antenna systems. The container's outer steel shell is the ISO standard certified support structure on which the radar or antenna is mounted. The container interior is customized to customer requirements for communication and technology systems or can serve as storage space. The radar shelter containers can stand alone or be integrated into a larger radar tower structure.





MODULAR AIR TRAFFIC CONTROL TOWERS

Modular air traffic control towers are solutions featuring lower purchase costs and shorter delivery times.

Modular air traffic control towers leverage the advantages of modular construction, while still enabling made-to-measure design and manufacturing. These towers meet all navigation and air traffic control requirements, and may contain communication, meteorological, thermal imaging, and camera systems. Built from standard ISO 1C containers and an exterior staircase, the tower's number of floors is adapted to customer specifications. The ground floor consists of a diesel generator, and additional floors may contain rest rooms, storage areas, a kitchenette, a conference room, sanitary facilities, etc. The top-floor cabin has 360° panoramic windows and all air traffic navigation control systems.





DEFENCE TECHNOLOGIES

C2 Shelters / Container power generators / EMC GenSet

C2 SHELTERS

These specialized containers meet combat operation control and communication needs.
C2 Shelter containers are custom designed to client needs and manufactured to ISO 668 1C and NATO standards.

Standard features typically include:

EMC/EMI protection according to MIL-STD461F
air conditioning
a nuclear biological chemical protection (NBC) unit
uninterruptible power supply (UPS)
vibration resistant equipment installation
corrosion protection.

Core C2 Shelter Modules include:

COS – Command Shelter
SWS – Staff Working Shelter
CNS10 T2 – Communication Network Shelter
CNS20 T2 – Communication Network Shelter
TMS – Technical Mast Shelter
TWS – Technical Work Shelter
CWS – Cell Working Shelter
BTS EP – Battalion Training System, Extension Point
BS 20 – Basic Shelter 20
C2S20 – C2 Stric Shelter



CONTAINER POWER GENERATOR

In conditions where access to the electricity grid is not possible, container generators are an ideal solution.

Our 120 kW generator is located in a technology oriented ISO 1C container constructed from trapezoidal steel profiles whose floor acts as an impermeable catch basin. The container is soundproofed and equipped with:

ventilation openings protected by IP 65 cover flaps

tool and accessory box/chest

internal lighting

TOTAL STOP safety emergency button

a 400V/16A mounting socket

other customer specified elements

The container generator features semi-automatic control and can be operated by one person. Moreover, it is capable of continuous operation when connected to an external fuel tank. This equipment is designed to accommodate normal military handling using a crane-and-hook loader.



EMC GenSet

With 1500RPM engine speed is used for powering different kinds of military loads: communication-, command- and control systems during transport and stationery. The genset consists of diesel combustion engine, full aluminium cover and extension railing kit. The engine uses diesel stored in tank located bellow the genset. The GS has extended lifecycle and extended time between failures. Power output and power factor can change greatly during operation.

TECHNICAL DATA

1 945 x 900 x 1 200 mm (LxWxH)
1 300 kg (including all equipment and diesel fuel tank with volume of 137,5 dm³)
17,6 kW generator set with prime performance: 20 kVA/16 kW
5,3 l/hour fuel consumption (100% load - 16 kW)
ISO 8528G2 governing class,
MIL-STD-461F



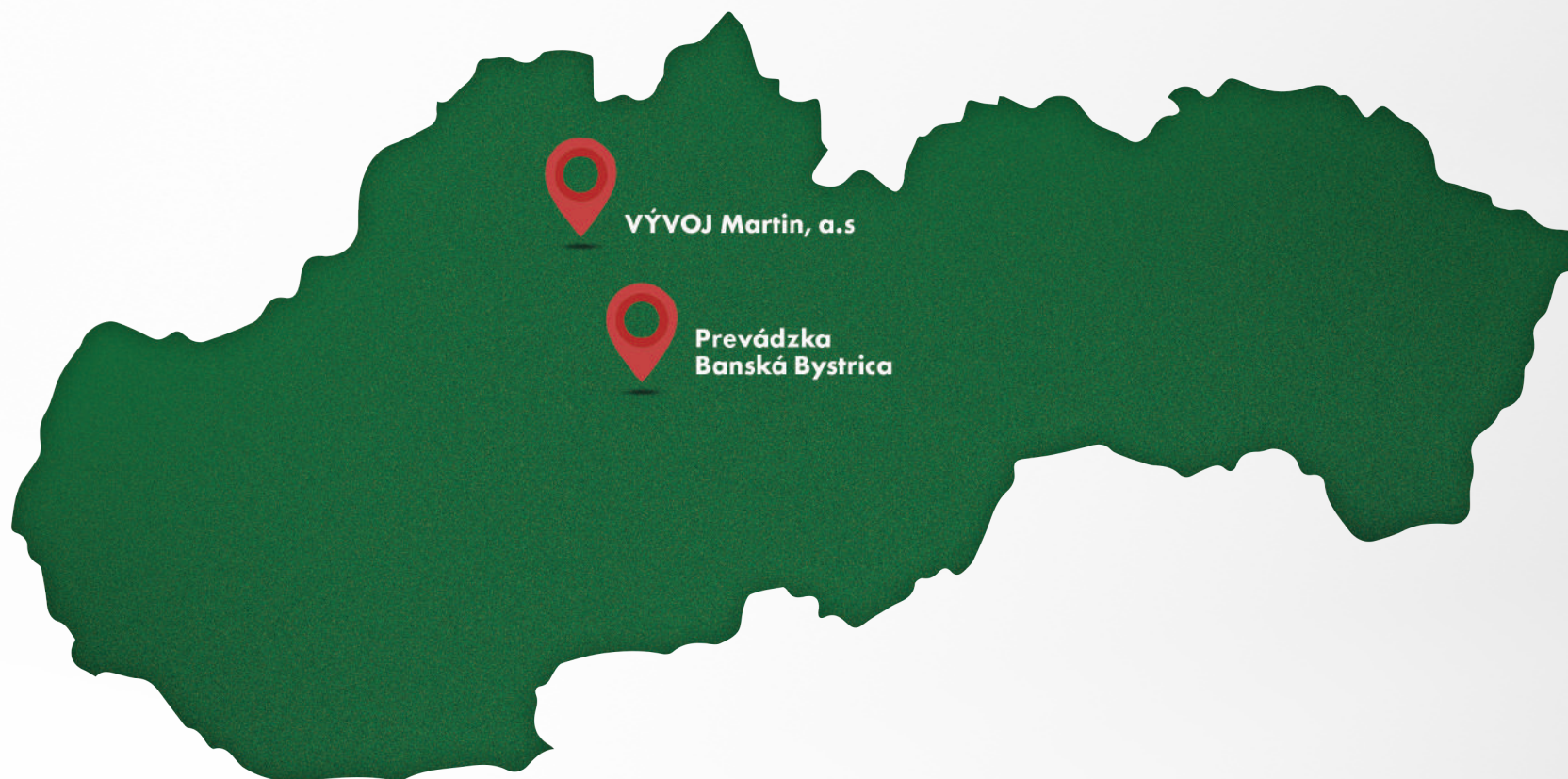
REFERENCES

We proudly maintain long-term partnerships with companies including:



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