

DMD

G R O U P

MAJOR DMD GROUP, A.S. MILITARY PRODUCTION COMPANIES



— **zts** —
Š P E C I Á L

 **KONŠTRUKTA**
D E F E N C E

ZVS holding, a.s.

MINISTRY OF DEFENCE OF THE SLOVAK REPUBLIC



DMD GROUP, A.S. SHALL PARTICIPATE IN SECURING OF:

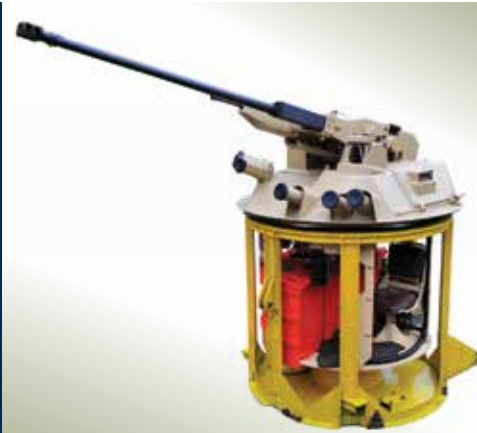
- a common DMD GROUP's R&D and commercial strategy
- new production programs to utilize existing production capabilities
- coordination of bilateral and multilateral relations with prospect domestic and foreign partners
- financial controlling

SHAREHOLDER'S STRUCTURE

75 years tradition in production of military equipment. The company is equipped with technologies for complete production of smooth and rifled barrels in caliber range from 30 mm up to 155 mm. ZTS – ŠPECIÁL, a.s. offers manufacturing, repairs and transfer of technology.

PRODUCTION OF:

- artillery systems
- howitzers
- rocket launchers
- mortars
- medium and light combat turrets
– turret system DVK-30
- gun barrels – 30 to 155 mm
- service, maintenance and repairs



CIVILIAN PRODUCTION:

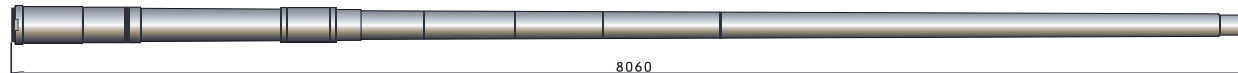
- CNC Turning
- Deep drilling
- Grinding, honing
- CNC horizontal milling
- Welding
- Cold forming
- Assembly

BARRELS PRODUCTION PROGRAMME

155 MM HOWITZER BARREL WITH LENGTH OF 52 CALIBRES (52.9 CAL.)



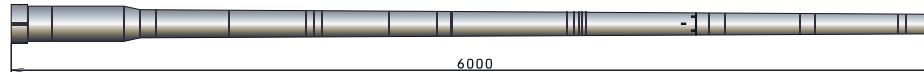
155 MM HOWITZER BARREL WITH LENGTH OF 52 CALIBRES



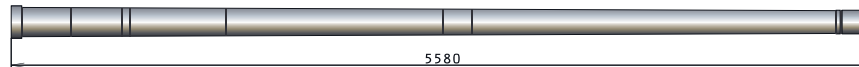
155 MM HOWITZER BARREL WITH LENGTH OF 45 CALIBRES



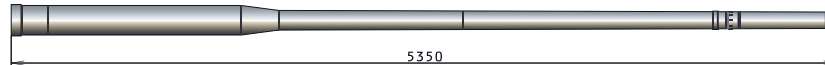
125 MM TANK BARREL WITH LENGTH OF 48 CALIBRES



152 MM HOWITZER BARREL WITH LENGTH OF 36 CALIBRES



100 MM TANK BARREL WITH LENGTH OF 53 CALIBRES



105 MM TANK BARREL WITH LENGTH OF 33 CALIBRES



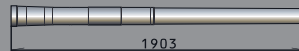
30 MM BARREL OF ARMoured PERSONNEL CARRIER WITH LENGTH OF 80 CALIBRES



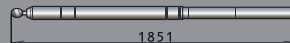
73 MM BARREL OF ARMoured PERSONNEL CARRIER WITH LENGTH OF 26 CALIBRES



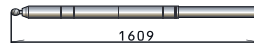
120 MM SELF - PROPELLED MORTAR WITH LENGTH OF 15 CALIBRES



98 MM SELF - PROPELLED MORTAR WITH LENGTH OF 18 CALIBRES



81 MM SELF - PROPELLED MORTAR WITH LENGTH OF 19 CALIBRES



- zts -
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TURRET SYSTEM DVK-30

One-man modular turret system with externally mounted guns, which gun system contains of 30mm automatic cannon 2A42, 7,62mm machine gun mounted coaxially with the main gun and 6 smoke grenade launchers.

MAIN ADVANTAGES:

- light, compact, tested, easy to operate and maintain effective firing on the move
- high probability by first shoot
- very accurate calculation of ballistic parameters
- easily installable on various wheeled and tracked vehicles
- use of combat proven weapons systems
- ammunition and FCS providing for effective conduct of combat at any weather conditions, day or night

BASIC TECHNICAL DATA

Crew:	One -man (Gunner)
Powered elevation:	-4° ÷ +50°
Manual elevation:	-4° ÷ +58°
Powered/ Manual traverse:	N x 360°
Gun/ Turret stabilization:	2 axes
Main gun:	2A42 30 mm
Coaxial machinegun:	PKT 7.62 mm
Main gun ready rounds:	100 + 200 pcs. (dual feed)
Machinegun ready rounds:	1650 pcs
Smoke grenade system:	6 x 81 mm
Empty turret weight (w/o ammo):	1150 kg

30 MM AUTOMATIC CANNON 2A42

The 30-mm automatic gun is designed for firing at:

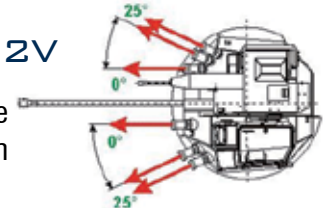
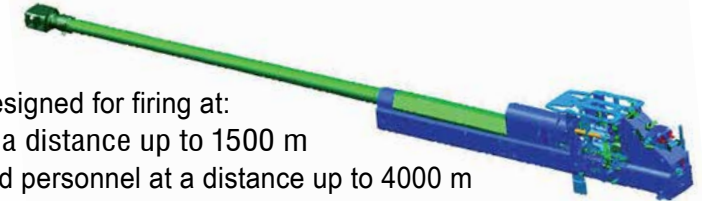
- light armored targets within a distance up to 1500 m
- non-armored firing means and personnel at a distance up to 4000 m
- low-flying subsonic air targets up to 2000 m within a slant distance of 2500m
- can be fired in single shots or in burst (low or high rate of fire).

7,62MM PKT MACHINE GUN

- Powerful automatic weapon intended for firing at ground targets, especially for destroying manpower, non-armored firing equipments and light armored targets.
- machine gun is mounted coaxially with 30 mm automatic gun 30 mm.
- combat rate of fire up to 250 rounds/min., effective range of fire up to 2 000m

SMOKE GRENADE LAUNCHER SYSTEM 902V

- System is used to launch the smoke grenades to disable observation by enemies and to surround the vehicle with smoke to be able to maneuver out of the danger area.
- Launcher length 270 mm, tube internal diameter 81 mm



ZTS - ŠPECIÁL, A. S.

CIVILIAN PRODUCTION CAPABILITIES



CNC Turning

- small, medium and large lathes with turning length up to 10 000 mm and maximum turning diameter \varnothing 1 000 mm (lunette)

Deep drilling

- deep drilling of rotating products up to maximum hole diameter \varnothing 120 mm for workpiece length 8200 mm

Grinding and honing

- grinding plane surfaces, grinding of rotating parts, vertical and horizontal honing, maximum diameter \varnothing 250 mm, workpiece length 8200 mm

CNC horizontal milling

- spindle diameter up to 130 mm for drilling, milling and recessing.

Welding

- gas welding
- electric arc welding
- shielded arc welding

Cold forming

Annealing and sand blasting

Locksmithing

Painting

Established in 1953, KONŠTRUKTA - Defence, a.s. is a leading defence company in the Slovak Republic which operates as an artillery system design house. The core business has been primarily centered around two main pillars:

- D&D&Testing of weapon systems and high calibre ammunition;
- Operation of the Special testing facility for defence related equipment.

RESEARCH AND DEVELOPMENT

- Weapon systems
- Ammunition
- Electronic systems
- Modernizations
- Testing operation



The D&D artillery weapon systems program contains the state-of-the-art products like:

- 155 mm / 52 cal. Self-propelled (wheeled) Gun-Howitzer ZUZANA 2,
- 155 mm / 52 cal. Truck Mounted Gun EVA,
- 155 mm / 52 cal. SpGH DIANA,
- Modernized Multiple Rocket Launcher RM-70/85,
- Self-propelled Explosive Mine Clearing Vehicle SVO-1,
- Mortar systems of 81mm and 98mm ranges.

155 MM / 52 CAL. HOWITZER FAMILY



155 mm SpGH ZUZANA 2



155 mm Truck Mounted Gun EVA



155 mm SpGH DIANA

COMMON FEATURES:

- High mobility
- Protection of the crew against NBC weapons
- Far- distant range of fire: 41 km +
- High accuracy of fire with both direct and indirect aiming
- Quick preparation of fire
- Fully automatic loading system
- Quick transition in and out of action

155 MM SPGH ZUZANA 2

155 mm SpGH ZUZANA 2 is a self-propelled autonomous artillery system with automatic loading of ammunition, which is capable to provide effective fire by both direct and indirect aiming.

- Ammunition carried / ready to fire 40 pcs
- Crew 4 men
- Combat weight 32 tons
- Travel speed 80 km/h
- Range of action 600 km
- Chassis 8x8 with engine in rear



155 MM TRUCK MOUNTED GUN EVA

155 mm 52 cal. TMG EVA presents a self-propelled autonomous artillery system with automatic loading and capability of direct and indirect firing. Design is based on the 155 mm 52 cal. SpGH ZUZANA 2 while overtaking maximum assemblies and design solutions verified within the course of demanding testing and tender trials performed in Slovakia and abroad.

- | | | | |
|----------------------|---------|------------------------|----------------------------|
| ■ Ammunition carried | 24 pcs | ■ Chassis | Tatra 6x6 (optionally 8x8) |
| ■ Ammo ready to fire | 12 pcs | ■ Air Transportability | Hercules C130 |
| ■ Crew | 3 men | | |
| ■ Combat weight | 22 tons | | |
| ■ Travel speed | 80 km/h | | |
| ■ Range of action | 700 km | | |



155 MM SPGH DIANA

155 mm 52 cal. SpGH DIANA presents a self-propelled autonomous artillery system with automatic loading and capability of direct and indirect firing. System is set on a powerful tracked chassis with engine power of 625 kW.

- Ammunition carried 80 pcs
- Ammo ready to fire 40 pcs
- Crew 4 men
- Combat weight 50 tons
- Travel speed 60 km/h
- Range of action 650 km



PROJECT NATO ALLIANCE GROUND SURVEILLANCE (AGS)

The ground segment will provide an interface between the AGS Core system and a wide range of Command, Control, Intelligence, Surveillance and Reconnaissance (C2ISR) systems to interconnect with and provide data to multiple deployed and non-deployed operational users, including reach-back facilities, remote from the surveillance area.

KONŠTRUKTA - DEFENCE, A.S.:

- Develops design and modifications of exterior and interior outfits of the MGCC Enclosure for placing of equipment and accessories
- Integrates hardware and software of MGCC into the Diagnostic and Monitoring System of Power Unit and Environmental Control System.
- Has overall system responsibility in terms of integration, verification and accreditation of the entire MGCC.



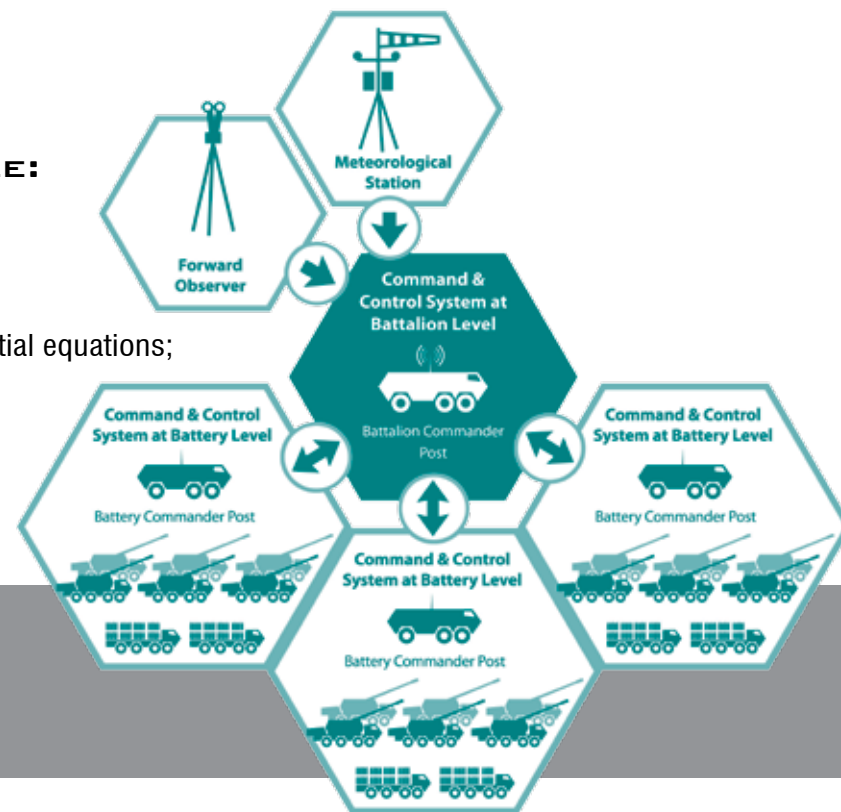
PROJECT DELOSYS – ARTILLERY COMMAND & CONTROL SYSTEM

Is a comprehensive artillery command and fire control system to be deployed on battalion and battery levels in conjunction with various artillery battle field command and fire control using the latest technical and software means. The system can be easily adjusted to fit any existing national fire command and control systems currently serviced. It might be built in any suitable carrier – container.



THE FUNCTIONS AVAILABLE:

- Calculating topographic information;
- Processing meteorological information;
- Computing the firing data using differential equations;
- Using digital maps;
- Fire planning;
- Fire efficiency simulation.



SPECIAL TESTING FACILITY LIESKOVEC

ACCREDITED TEST LABORATORY

Extending technical life of ammunition and ammunition elements
Tests of ammunition and ammunition elements
Tests of weapons and weapon systems
Tests of explosive substances (Government Order No. 419/2003)
Tests of personnel protective equipment
Tests of protective equipment
Climatic tests of technical products

ACCREDITED CERTIFICATION BODY FOR PRODUCTS

Arms and ammunition
Explosives
Pyrotechnic products



AUTHORIZED BODY SKTC-112

Member of Commission Internationale Permanente
permitted to issue certificates for:
Firearms and ammunition
Pyrotechnic products
Military weapons and ammunition

NOTIFIED BODY 1395

notified for:
Introduction of explosives for civil use into market and its control
according to Directive No. 93/15/EHS
Introduction of pyrotechnic products into market and its control
according to Directive No. 2007/23/ES



Established in 1937, ZVS holding, a. s. is a company dealing with development, production and sale in area of mechanical engineering, electrotechnics and special production focusing on ammunition.

- The company is able to offer a wide range of 30 mm ammunition for the 2A42 Canon, 125 mm ammunition for T-72, 155 mm ammunition capable of being fired from 39, 45 and 52 caliber guns, 81 mm, 98 mm and 120 mm HE mortar bombs, 152 mm HE ER BB upgraded ammunition and transfer of technology aimed for production and assembly of small, middle and large caliber ammunition.
- Complete new fields of production and development are small arm and shotgun cartridges, development and production of pistols and upgrading assault rifles



Current production program features:

- Mechanical engineering
- Transformers and industrial electronics
- Small caliber ammunition for sport and hunting
- 30 mm HE-T, HE-I, AP-T ammunition for cannons 2A42, 2A38, 2A72
- HE mortar bombs of caliber 81 mm, 98 mm, 120 mm
- 125 mm HE, HE-PRAC, APFSDS-T tank ammunition
- 152 mm HE ER BB upgraded ammunition
- 155 mm HE ammunition for 39, 45 and 52 cal. guns
- Ammunition components
- Demilitarization and disposal of ammunition
- Transfer of technology for production of ammunition and its part
- Pistols, modernization of assault rifles





Sporting shotgun cartridges
gauge 12, 16, 20



Special purpose
shotgun cartridges



Hunting shotgun cartridges
gauge 12, 16, 20



9x19 mm FMJ Luger



cal. 7.62x39 blank



Pistols ZVS P20/P21



PERUN



30 mm AP-T



30 mm HE-I



30 mm HE-T PRACTICE



81 mm HE mortar bomb



98 mm HE mortar bomb



120 mm HE mortar bomb



125 mm HE



125 mm HE-T PRACTICE



125 mm APFSOS-T



152 mm HE ER BB upgraded



155 mm HE ER FB-BT



155 mm HE ER FB-BB



155 mm HE ER FB-BB



155 mm HE ER FB-BB



155 mm HE ER FB-BB



Fuse MZ 95M



Fuse KZ 984





DMD GROUP, a.s.
Lieskovec 575/25
018 41 Dubnica nad Váhom

Tel: +421 42 2852 211
Fax: +421 42 2852 202
E-mail: info@dmdgroup.eu
www.dmdgroup.eu

KONŠTRUKTA – Defence, a.s.
Lieskovec 575/25
018 41 Dubnica nad Váhom

Tel: +421 42 2852 231
Fax: +421 42 2852 202
E-mail: kotadef@kotadef.sk
www.kotadef.sk

ZTS ŠPECIÁL, a.s.
Lieskovec 575/25
018 41 Dubnica nad Váhom

Tel: +421 42 2852 271
Fax: +421 42 2852 202
E-mail: ztsspecial@ztsspecial.sk
www.ztsspecial.sk

ZVS holding, a.s.
L'. Štúra 1
018 41 Dubnica nad Váhom

Tel: +421 42 2855 102
E-mail: info@zvsholding.sk
www.zvsholding.sk