



THE ASSOCIATION OF **PRODUCERS AND REPAIRERS** OF RAIL VEHICLES

The members of the association are the most distinguished companies active in the field of production, repairs, modernization, subassemblies and components for rolling stock.

THE ASSOCIATION OF PRODUCERS AND REPAIRERS OF RAIL VEHICLES

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ŽOS Trnava, a.s.

www.zostrnavagroup.eu

**PRODUCTION
REFURBISHING,
RETROFIT AND
MODERNIZATIONS
OF FREIGHT RAILCARS,
RAIL PASSENGER
COACHES**

Since 1924 grew to largest repair workshop of freight railway wagons in Europe.



We carry out up to 6000 revisions in a year and we carry out also refurbishing, retrofit and upgrades, modernizations of freight passenger coaches, their bogies,

wheel-sets, brake system, buffer & draw gear.

Our customers are all major European railway state owned and private companies like DB, ÖBB, NACCO, ZSSK and CD Cargo, SBB, GATX, AAE, ERMEWA, VTG, and others.

We design and manufacture new freight wagons of various types (gondola, container, flat, hopper, silo, etc.) for European Railway Wagon Keepers and deliver components for transport vehicles to companies like ŠKODA Transportation, Bombardier and others.



ŽOS VRÚTKY

www.zos-vrutky.sk

**PRODUCTION,
MODERNIZATION
AND REPAIRS
OF RAIL VEHICLES**

ŽOS Vrútky a.s. is a technically well-advanced company with rich engineering tradition, lasting longer than 130 years. The company deals with production, modernization and repairs of rail vehicles and of their design parts and with engineering production on the basis of customer's requirements.

In recent years the company ŽOS Vrútky a.s. is especially focused on production of electric and diesel-electric train units for

track gauges of 1 435 mm, 1 000 mm and 760 mm.



operation at national and regional railway tracks with 1435 mm track gauge.

Various types of reconstructions of passenger coaches and locomotives are usual part of manufacturing programme of the ŽOS Vrútky a.s.

At the present time the company manufactures new motor units with diesel-hydraulic power transmission series 861 which are intended for



www.zoszv.sk

**REPARATION
AND MODERNIZATION
OF MOTOR
LOCOMOTIVES
AND MOTOR RAILCARS**

Železničné opravovne a strojárne Zvolen a.s., (ŽOS Zvolen) is the biggest and most significant company focusing on reparation and modernization of motor locomotives and motor railcars in Slovakia.



The reparation of railway vehicles has got tradition for 140 years, since the creation of railway manufactory in 1872.



Technological equipment depends on level of technological park of railway vehicles.

The current production programme in the field of repairs of railway vehicles offers wide range: motor units and motor locomotives all depends on the customers' requests.



Electrotechnical research
and projecting company Nová Dubnica, j.s.c.

www.evpu.sk

SPECIAL AND POWER ELECTRONICS FOR RAIL VEHICLES AND RAILWAY INFRASTRUCTURE

Tailor made solutions
in the field of special and
power electronics.
Static converters for auxiliary
drives:



- Input voltage range 700 V DC to 3000 V DC
- Power range 3 kW-120 kW
- Modular construction
- IGBT technology

Electronics for railway
vehicles and public transport
vehicles:

- Traction converters
- Static power converters for feeding auxiliary drives
- Electrodynamic brakes
- Control systems
- Integration with the traction motors

Static converters for
railway infrastructure:

- Sources for heating of points
- Compensated converters for railway infrastructure
- High voltage power supply for testing purposes



www.techklima.sk

AIR CONDITIONING, COOLING AND VENTILATION SYSTEMS FOR PASSENGER COACHES

Techklima is a
manufacturing company
offering complete services in
the field of air conditioning,
ventilation, cooling and
ventilation systems for
railway carriages during the
process of modernization of
rail transport.

Product range:

- Horizontal air conditioning units KJLY
- Condensing and air conditioning units for railway wagons
- Block condensing units
- Wall heating units JV
- Evaporator unit for cooling and freezing
- Heat exchangers - water, steam



Additional services:

- Design
- Installation of ventilation and hoods
- Installation of air conditioning
- Production of customer documentation



www.regonik.sk

HVAC CONTROL, INFOTRAIN, INTERCOM, SAFETY AND DIAGNOSTIC SYSTEMS

REGONIK Ltd. is
internationally experienced
supplier of specialized
analogue and digital
electronics for rolling stock
industry.

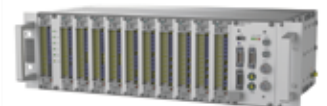
systems as well as safety and
high-end diagnostic systems
with strong focus on
respective norms and
standards. As a mid-sized
company we are able to
provide high flexibility for
tailor-made solutions.

Product range examples:

- Intelligent HVAC control
- Passenger information (Audio&Video) system
- Emergency train Intercom
- Full brake control system
- Emergency brake override
- Selective door blocking
- Testers of brake functions
- Remote HVAC diagnostics
- UIC Cables



With more than 22 years
of experience we are
providing end-to-end
development and production
of rail automation systems,
passenger information





www.hmh.sk

CONTROL, TRAIN PROTECTION, RECORDING AND INDICATING SYSTEMS

HMH s.r.o. is a modern and dynamically growing company focused on the area of technical process control, automation and regulation with a preeminent position not only on the domestic market but also in nearby markets abroad.

Since its establishment in 1993 the company has experienced a significant process of development. Initial focus was on the implementation of energy and machinery projects and

the creation of custom software; in 1997 this focus changed to the area of control, measurement and train control systems for railway transportation.



The company developed the modular MIREL system for railway applications and this system has become the basis for a majority of applications.



www.kinex.sk

ROLLING BEARINGS FOR THE RAILWAY VEHICLES

KINEX BEARINGS offers complex services in the fields of research, development and production of roller bearings, measuring tools and engineering production.

KINEX BEARINGS belongs to the leaders in supply of railway vehicle bearings on the European market and owns the certifications necessary for delivery of various products used in railway industry on the international market.

The production of single row bearings used in railway industry is secured according to the European standards EN 12080.

KINEX BEARINGS also delivers axleboxes for the goods wagons with load on the axle 22.5 tons and axle load of 25 tons.



Applications of railway bearings:

- Axle bearings for freight wagons, passenger coaches, electric and diesel locomotives, electric and diesel motor vehicles and motor units.
- Traction motors and generators, gearboxes, compressors and fan motors.



www.nes.sk

POWER CONTROLLERS, ADDITIONAL SYSTEMS AND ACCESSORIES FOR RAIL VEHICLES

Since 1992 NES Nová Dubnica has delivered modern energy saving electronic devices for a wide range of industrial and railway applications. Engineering activity is mainly oriented on the design and production of complex electrical projects that meet or exceed customer specifications.

Product portfolio includes following fields:

- Control systems for diesel-electric locomotives series MORIS
- HV-Power-Supplies for railway vehicle testing facilities



- High & Low voltage traction rectifiers
- Exciters of traction alternator
- Accumulator chargers
- Displays
- Automation components