



Supply of equipment and special machinery for  
the mining and metallurgical industry of the  
Russian Federation from the PRC

# Catalog products

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Special machinery and equipment  
for the mining industry



## Single boom underground drilling rigs

Designed for excavation and mining works in rocky mines and tunnels with a cross-section of 12-45 square meters. Capable of drilling vertical, horizontal and inclined blast holes. Equipped with Cummins National III low-pollution diesel engine. Exhaust gas cleaning device significantly improves working conditions in the mine.

Compact shape and flexible steering. Mine articulated chassis with wet axles, articulated steering

Angle  $\pm 40^\circ$ , rear axle steering angle  $\pm 10^\circ$ . Can easily pass through the narrowest 2m wide tunnels. It can also perform actions such as right angle turning on a 3 meter wide roadway.





## Underground drilling rigs with two booms

The double arm drilling rig is equipped with two sets of independently controlled drilling systems, which have higher efficiency and drilling range. It is suitable for sinking hard rock mines and tunnels with a cross-section of 16-68 square meters. Mining operations in which vertical, horizontal and inclined blast holes can be drilled.

Compact shape and flexible steering. Mine articulated chassis with wet axles, articulated steering angle  $\pm 40^\circ$ , rear axle steering angle  $\pm 10^\circ$ . It easily passes through the narrowest places with a width of 2.5 meters. It can also perform actions such as right-angle turns on a 3.5 m wide roadway.



## Drilling rigs for open pit mining operations

The hydraulic top hammer drill rig is equipped with a standard 51 mm diameter drill rod and can perform vertical drilling (89-127 mm), inclined drilling and horizontal drilling. The machine is widely used in pipeline laying, foundation construction and surface mining.

A self-contained diesel-powered drilling rig with a design and layout based on the classic Sandvik design. Equipped with on-board air compressor, operator's cabin, drill pipe changer and dust collector. Specially designed for blast hole drilling with a submersible air hammer in mining, quarrying and construction industries, the drill hole diameter is wide and can be used in a variety of challenging applications.

## Underground loading and delivery machines with lifting capacity from 0.6 to 18 tons

The reliable, safe and intelligent 18-ton PDM is designed for fast and large-scale underground mining. With its superior hydraulic power, powerful transmission system and intelligent electric control, it provides high tunneling speed and improves production efficiency. The maximum unloading height can reach 2937mm, which meets the loading requirements of 30-60 tons underground dump trucks.





## Underground dump trucks with lifting capacity from 5 to 45 tons

All machines are assembled using Volvo diesel engines, Dana torque converter and gearbox, Kessler front and rear axles





## Available configurations of PDMs and underground dump trucks

- Two pressure gauges for measuring front and rear axle brake system pressure
- 24V alternator
- Locking pin on the frame articulation to prevent the machine from folding during transportation
- Closed cab with heater and air conditioner with air filtration. Windshield wipers and washers
- Comfortable operator's seat
- Sound signals: main - controlled from the operator's cabin, with the function of breaking the power supply circuit of front lighting for simultaneous sound and light signal; reverse with automatic switching on.
- LED version of front headlights, rear brake lights.
- Powder fire extinguishers with capacity of 6 kg each in the amount of 2 pcs.
- Autonomous fire extinguishing system with automatic activation
- Automatic lubrication system
- Load weighing system
- Hydraulic tank made of stainless steel.
- Remote control that will provide operation up to 150 meters in line of sight (for PM)
- Telematics system with Wi-Fi module for collection, processing and transmission of operating parameters of the equipment
- Video recorder with 3 cameras in vandal-proof version
- Backup / emergency steering device
- Braking device with towing hook and towing hook with braking device
- Device for locking the boom in the raised position
- Tire pressure sensors
- Emergency stop sign - 2 pcs.
- 2 pcs. of wheel chocks.
- Spare tire assembly 1 pc.
- Set of hand tools for mechanics
- Set of hand tools for maintenance and repair of electronic systems of the machine.
- Set of filters for 3000 m/h



## 35 t dump trucks for open pit mines

A quarry dump truck designed for various underground and open pit mines, especially suitable for mining and excavation, with a load capacity of 35 tons. With good maneuverability, underground dump trucks are widely used in long distance transportation of bulk materials in small underground and large-scale quarries. With good reliability, reasonable price and high availability, they provide versatility for access to the whole work site.

The optimized transmission design increases tractive effort by 10% over competing products to ensure that it can withstand continuous heavy uphill operation.

The machine is equipped with two reinforced radiators and a special plate-type structure that enhances the machine's adaptability to high temperature conditions.



## Service underground machines and spare parts

Different combinations of underground service vehicles, refuelers, buses for people transportation are available for ordering.

Pump engine spare parts, gearbox, torque converter, multipass valve, engine spare parts and complete engine assembly





## Special equipment for road construction works

Excavators, bulldozers, rollers, motor graders





- Crushing equipment, analogs of Metso or Sandvik
- Mills MPSI, MSC, etc.
- Classifiers / Screens.
- Buckets, bodies, tracks for quarry equipment of well-known brands.







Equipment for ferrous  
metallurgy enterprises



- Equipment and technology projects for sinter production
- Sintering carts for sinter production





- Equipment and technology projects for blast furnaces





- Taperless charging devices for blast furnaces
- Metallurgical valves for blast furnaces from 179 to 5800 m<sup>3</sup>.





- Design and manufacture of equipment sets of coke dry quenching plants with capacity from 75 to 260 tons per hour.
- Bulldozers with remote control up to 200 m for work in especially dangerous places for personnel.





- Water-cooled copper tuyere for blast furnaces
- Tools for disassembly and assembly of lances
- Refractory materials for blast furnaces





- Iron ladles from 50 to 450 tons and carts, mixer trucks from 150 to 450 tons
- Cast iron and steel ladles from 20 to 397 tons
- Solid slag ladles from 5 to 40 m<sup>3</sup>, slag trucks





## Flue gas cleaning equipment and technology

First-class technologies and services in flue gas desulfurization and denitrification, high-efficiency electrostatic dust removal, fine dust suppression, blast furnace pressure equalization, gas recovery during venting and ultra-low environmental emissions.





- Special vehicles for transportation and rolling of slag bowls
- Special equipment for transportation of buckets with pig iron, liquid metal, coils, slabs





- Hulls and equipment for converters from 30 to 150 tons
- Cast iron ladle refractories, ladle steel and converter maintenance materials
- Furnace ladle covers
- Steel casting turntables up to 520 tons





- Slab and billet continuous casting plants
- Equipment for casting pig iron







Equipment for industrial enterprises





## Plate heat exchangers, analogues of European companies

The new generation of plate heat exchangers is available in a wide range of sizes, capacities and can meet different heat transfer conditions according to customer needs. They are suitable not only for safe operation at high temperatures and pressures, but also for harsh operating conditions such as small temperature differences and high heat transfer values.

The heat exchanger consists of a set of corrugated metal plates with four angled holes for the passage of two heat transfer fluids. The plates are mounted in a frame with a fixed plate and a movable pressure plate on the side and bolted together. The plates are equipped with sealing gaskets that seal the fluid channels and direct the fluid into the respective channels alternately to form a heat transfer.



- Flotation machines with effective volume from 5 to 320 m<sup>3</sup>





- Thickeners up to 65 m diameter with one to six motor drives
- Hydrocyclones with inner diameters from 10 to 840 mm





## Spare parts for equipment and special machinery

- Spare parts for special machinery of well-known manufacturers
- Components for Siemens electronic equipment
- Slurry pumps, Warman analogs and spare parts
- Tires for special equipment in sizes up to R57
- Electric motors, gearboxes



## Experience in PRC, logistics and customs clearance

LIRR LLC has a staff of specialists in China and a logistics service. Deliveries from China have been carried out since 2007.

All major manufacturers of the equipment are located in close proximity to the ports of shipment, which allows to minimize logistics costs.

For all offers the main delivery basis is DDP port Nakhodka with the possibility of delivery to any point of the Russian Federation. Shipment from China is carried out mainly by sea.

There is also a possibility of delivery of other equipment or special equipment according to your order.



Thank you for your  
attention



If you have any questions about the proposals,  
please contact us by tel/fax: +7 (928) 333-77-11  
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