COMPANY BUSINESS AREAS

OWN DESIGN OFFICE

MEETING CUSTOMER EXPECTATIONS

- Low-emission drives
- Low-profile machines
- Electrification
- Process automation

PRODUCTION OF HEAVY TRUCKS

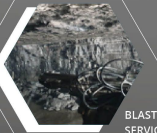
PRODUCTION OF STRUCTURES AND EQUIPMENT

SERVICING OF HEAVY TRUCKS

INSTALATION AND CONTRUCTION SERVICES

TRANSPORT AND FREIGHT FORWARDING SERVICES

MINING WORK



BLASTING SERVICES

MAINTENANCE, SERVICE WORK AND IPC INVESTMENTS IN COPPER SMELTERS „GLOGOW" AND „LEGNICA"

MAINTENANCE AND REPAIR WORK AT THE ORE PROCESSING PLANT

IMPLEMENTATION OF INVESTMENTS

FOUNDRY

NEARLY 60 YEARS OF EXPERIENCE

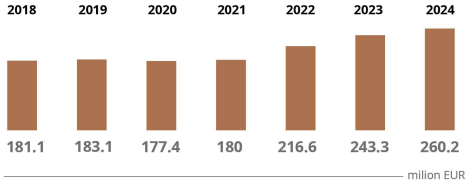
1966 establishment of LEGMET

1974 establishment of ZANAM

2003 merger of LEGMET & ZANAM

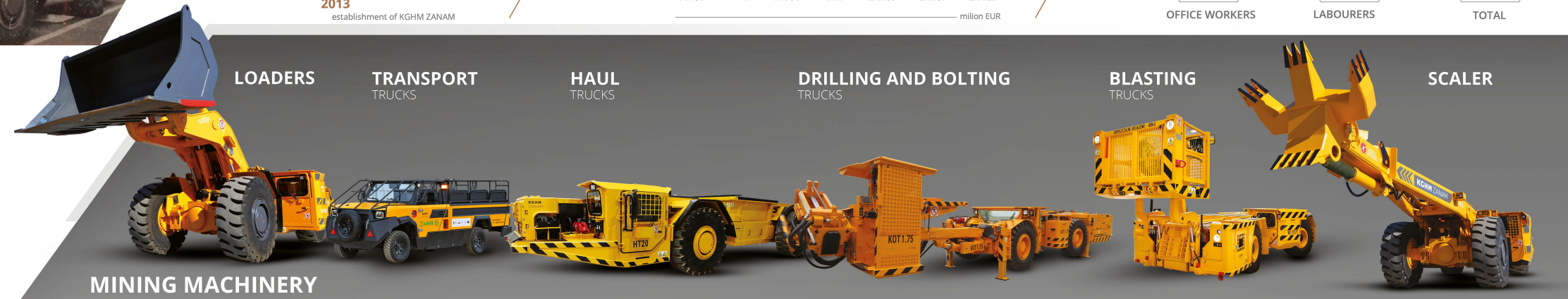
2013 establishment of KGHM ZANAM

ANNUAL TURNOVER



WORKFORCE

577	1780	2357
OFFICE WORKERS	LABOURERS	TOTAL



LOADERS

TRANSPORT TRUCKS

HAUL TRUCKS

DRILLING AND BOLTING TRUCKS

BLASTING TRUCKS

SCALER

MINING MACHINERY

LKP-0903
LOADER

Technical specification

Length	10 600 mm
Width	3 150 mm
Heigh	1 750 mm/2 100 mm
Total weight:	30 200 kg
Bucket capacity:	4.6 m3
Lifting capacity:	90 kN
Engine power:	185 kW
Euro emission standard:	Stage V
Driving speed:	1st gear 4.5 km/h
	2nd gear 9.0 km/h
	3rd gear 14.0 km/h
	4th gear 19.0 km/h

The LKP-0903 loader manufactured by **KGHM ZANAM S.A.** is a modern machine designed for the toughest mining conditions. Benefiting from the company`s rich experience in handling high tech solutions, this very loader has proven its reliability in underground mines through its unmatched dependability, as well as peak efficiency and safety. The rated lifting capacity of the machine is 90 kN and it is equipped with a low-emission Cummins 6.7L STAGE 5 engine, which combines high power with ecological solutions, meeting the latest emission standards.

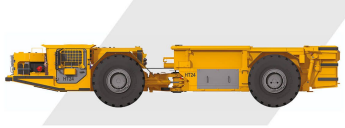
The machine is designed for loading and transporting of material excavated from mine faces in underground excavations. It is a proven design that has been successfully operating in KGHM mines for almost 20 years, proving its durability and reliability in the most difficult conditions.

**Operator`s comfort and safety were priorities** when designing of the machine. The spacious, air-conditioned cab was designed with ergonomics and comfort in mind, ensuring optimum conditions even in the demanding mining environment. The solid design of the cab also guarantees a high level of Operator`s protection – it protects against crushing in the event of a vertical impact with energy of up to 60 kJ.

MODEL		LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	BUCKET CAPACITY [m³]	LIFTING CAPACITY [kN]	ENGINE POWER [kW]	EURO EMISSION STANDARD [STAGE]
4 Series	ŁK-1M **	8800	2400	2200	15100	2.0	40	86,5	STAGE III A
	LD4	8800	2760	1750/1800	15900	2.0	40	99	STAGE V
7 Series	LD7	8900	2800	2200/2500	21700	3.3	68	168	STAGE V
	LD8	10000	3120	1750/2100	28000	3.5	80	168	STAGE V
9 Series	LKP-0900B	10300	3300	1500/1750	30200	3.8/4.2	90	168	STAGE V
	LKP-0903	10600	3150	1750/2100	30200	4.0/4.5/4.6	90	168	STAGE V
10 Series	LD10	9800	3290	1850/2050	30900	4.3	100	225	STAGE V
	LD10N*	9800	2650	2320	30900	4.3	100	225	STAGE V
17 Series	LD17	11500	3380	2350	48600	8.6	172	330	STAGE V
	LD17N*	11500	3060	2700	48600	8.6	172	330	STAGE V

* project in progress ** available outside Europe

HT20
HAUL TRUCK



The HT20 haul truck is designed for hauling of material excavated from mine faces in methane-free mines extracting non-ferrous metal ores and/or minerals. These machines are equipped with STAGE V engines.

The HT20 truck comes with **a protective cub assuring operator`s safety up to a 60-kJ impact vertical force crash resistance.**

This is an optional system equipped with additional hydraulic motors built into the hubs; under normal conditions, the drive is transmitted only to the drive axle, and in the event of loss of traction, the machine operator has the option of engaging the additional drive by transmitting torque to the hubs.

Good stability and the appropriately selected drive system make it possible to use the truck for deposits with a longitudinal inclination (in the direction of travel) of up to 8° and in excavations with a transverse inclination of up to 5°(for two-wheel drive) and 15° and 5° (for four-wheel drive), respectively.

Technical specification

Length	10 300 mm
Width	3440 mm
Heigh	1900 mm / 2000 mm / 2100
Total weight:	26 320 kg
Working unit capacity:	11.1 m3
Working unit lifting capacity:	20 Mg
Engine power:	168 kW
Euro emission standard:	Stage V
Driving speed:	1st gear 5.0 km/h
	2nd gear 9.0 km/h
	3rd gear 15.0 km/h
	4th gear 22.0 km/h

MODEL	LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	CAPACITY OF THE WORKING ELEMENT [m³]	WORKING UNIT LIFTING CAPACITY [Mg]	ENGINE POWER [kW]	EURO EMISSION STANDARD [STAGE]
DT20*	9365	2300	2500	20000	10	20	194	STAGE V
HT20	10300	3350/3440	1900/2000/2100	27100	11,1	20	168	STAGE V
HT24	10550	3450/3650	1900/2000/2100	28510	13,5	24	168	STAGE V
HT24e	10550	3600	1900	30000	13,5	24	-	ELECTRIC

* project in progress

SWO4
SELF-PROPELLED DRAINING MACHINE

The SWO4 self-propelled draining machine is designed for draining faces, transport roads and workings in underground non-methane mining plants extracting metal ores and underground non-methane mining plants extracting minerals other than hard coal and metal ores.

Optionally, it can also be equipped with a sprinkler system.

The machine is based on the L4 loader truck, which uses an internal combustion engine that meets the STAGE 5 exhaust emission standard.

Scope of works performed by the machine:

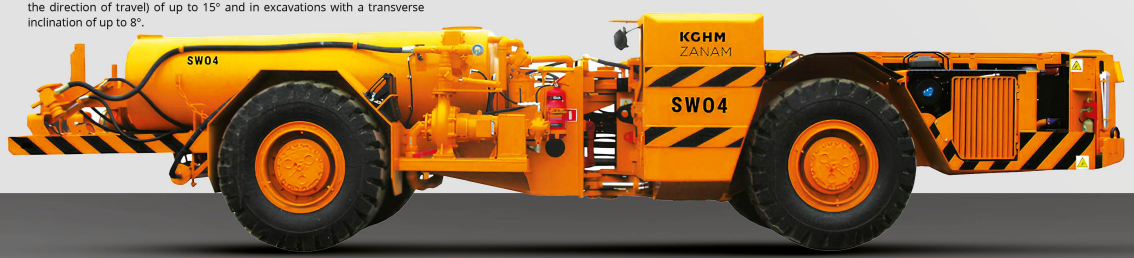
- **draining faces, transport routes and mine workings,**
- **water-sprinkling of transport routes,**
- **water transport.**

The SWO4 machine is equipped with an air-conditioned cab that protects the operator sitting at the workstation against crushing in the event of vertical machine impact with a force of up to 60 kJ.

Good stability and the appropriately selected drive system make it possible to use the machine for deposits with a longitudinal inclination (in the direction of travel) of up to 15° and in excavations with a transverse inclination of up to 8°.

Technical specification

Length	9400 mm
Width	2730 mm
Heigh	1750/1800 mm
Total weight:	14000 kg
Water tank capacity:	3000 dm³
Engine power:	99 kW
Driving speed:	1st gear 6.0 km/h
	2nd gear 12.0 km/h



MODEL	LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	BOOM LENGTH [m]	CLAW WIDTH: [m]	ENGINE POWER [kW]:	EURO EMISSION STANDARD [STAGE]
SWB-900B	10300	3300	1500/1750	24800	3.05	2.6	168	STAGE V
SC8	12800	3000	1750/2100	26700	6.00	1.65	149	STAGE V

MODEL	LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	WORKING ELEMENT [BLADE]	POWER RATING [kW]	EURO EMISSION STANDARD [STAGE]
SPK-805C	9900	3600	1750/1830	24700	2,8 m³	168	STAGE V
SWO4	9400	2730	1750/1800	14000	Tank capacity: 2200/3000 [dm3]	99	-

SC8
SCALER

The SC8 is a scaler manufactured by KGHM ZANAM S.A., designed for use in underground mining conditions. It is designed to remove rock overhangs, side rocks of mining faces in non-methane mining plants extracting ores and mineral raw materials.

The machine moves directly within the work area, and its drive enables the effective splitting of even the hardest rocks.

The SC8 operates on the principle of moderately invading the point of rock removal with the entire machine, using the energy of the machine's movement and the tractive force of the drive system.

With a 6 m long boom and a 1.65 m wide claw, it offers a greater working range without the need for frequent position changes.

Additionally, the great manoeuvrability and durability of the machine translate into high efficiency of the performed work.

Technical specification

Length	12800 mm
Width	3000 mm
Heigh	1750/2020 mm with 20.5-25 wheels
	1830/2100 mm with 23.5-25 wheels
Total weight:	26700 kg
Claw width:	1.65 m
Engine power:	149 kW
Euro emission standard:	Stage V
Driving speed:	1st gear: 4.0 km/h
	2nd gear: 8.0 km/h
	3rd gear: 15.0 km/h

Compliance with STAGE V emission standards makes the SC8 more environmentally friendly, allowing it to operate effectively in demanding underground conditions.

KGHM ZANAM

ROBUST T14

Technical specification

Length [mm]	5950
Width [mm]	2025
Height [mm]	1880/2130
Nominal payload [kg]	1400
Number of seats:	13+1
Power rating [kW]	55.4
Clearance [mm]	210/240
Total weight:	4700

ZANPER S14

ELECTRIC UTILITY VEHICLE

Technical specification

Number of seats:	13+1
Length [mm]	5850
Width [mm]	2100
Height [mm]	1900
Total weight [kg]	5500
Permitted Load Capacity [kg]:	1400
Engine power [kW]:	120/140
Clearance [mm]	2210/240
Charging Time	up to 90 min
Range	200 km

VEHICLE TYPE	CHASSIS	NUMBER OF SEATS	LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	DRIVE	PERMISSIBLE PLATFORM LOAD CAPACITY [kg]	CLEARANCE [mm]	GRADE	TYPE OF ENGINE	MAX. POWER ---------- MAX. ENEGINE REVS	BRAKE SYSTEM	BATTERY NOMINAL CAPACITY	CABIN	EURO EMISSION STANDARD	REQUIREMENTS AND COMPLIANCE
SWT ROBUST T10	TOYOTA LC79	10	5650	2025	1880-2130 1)	4100	4X4	800	210/240 2)	15°	diesel engine	55.4 kW 375 Nm	dry/wet	-	open	STAGE V	3) 4) 5)
SWT ROBUST T14	TOYOTA LC79	14	5950	2025	1880-2130 1)	4600	4X4	1200	210/240 2)	15°			dry/wet		open		3) 4) 5)
SWT ZANPER T5	TOYOTA LC79	5	5650	2025	2130 1)	4300	4X4	500	210/240 2)	15°	electric motor	140 kW 350 Nm	dry/wet	NMC 54,0 kWh	closed	Zero emission	3) 4) 5) 6) 7)
SWT ZANPER T10	TOYOTA LC79	10	5650	2025	1880-2130 1)	4300	4X4	800	210/240 2)	15°					open		3) 4) 5) 6) 7)
SWT ZANPER T14	TOYOTA LC79	14	5950	2025	1880-2130 1)	4900	4X4	1200	210/240 2)	15°					open		3) 4) 5) 6) 7)
SWT ZANPER S10	ZANAM Heavy Duty	10	5650	2100	1900	4500	4X4	800	210/240 2)	15°	electric motor	140 kW 350 Nm	dry/wet	NMC do 90,0 kWh	open	Zero emission	3) 4) 5) 6) 7)
SWT ZANPER S14	ZANAM Heavy Duty	14	5890	2100	1900	5000	4X4	1200	210/240 2)	15°			dry/wet		open		3) 4) 5) 6) 7)

1) depending on the vehicle version used low (1880) / high (2130), and tires used 225/75R16 or 235/85R16
2) depending on the tires used 225/75R16 or 235/85R16
3) FOPS according to ISO 3449 , ROPS according to ISO 3471
4) ISO 19296:2019 Machines for underground mines
5) 2006/42/EC Machinery directive
6) 2014/30/EC Electromagnetic compatibility directive
7) 2014/35/EC Low voltage directive

SWW2.0A

The SWW2.02 is a self-propelled single-station blast hole driller for non-methane, non-ferrous mines, equipped with a RWP telescopic boom and a RRW telescopic drilling frame.

Technical specification

Length	12 000 mm
Width	2 600 mm
Heigh	2000 mm
Total weight:	18 800 kg
Drilled hole lenth:	1 900 -2 900 mm
Drilled hole diameter:	28 - 64 mm
Engine power:	100 kW
Driving speed:	1st gear 3 km/h 2nd gear 7 km/h 3rd gear 18 km/h

SWW2.0B

The SWW2.0B self-propelled drilling rig is a single-station, single-boom machine designed fordrilling blast holes in underground workings of non-methane mining plants extracting non-ferrous metal ores and/or mineral resources.The working system of the drilling rig is equipped with the RWP telescopic boom and the RRW drilling frame.

Technical specification

Length	12 000 mm
Width	2 600 mm
Heigh	2000 mm
Total weight:	18 800 kg
Drilled hole lenth:	1 900 -2 900 mm
Drilled hole diameter:	28 - 64 mm
Engine power:	100 kW
Driving speed:	1st gear 3 km/h 2nd gear 7 km/h 3rd gear 18 km/h

SWK2.0

The SWK2.0 self-propelled bolting rig is a working machine designed for roof and sidewall bolting in underground workings of non-methane mining plants extracting non-ferrous metal ores and/or mineral resources.Depending on the type of bolting turret, it is possible to install expansion bolts and glue-in bolts with a length of 1.6÷2.6 m. A rotaryor rotary-hammer drill can be installed on the turret.

Technical specification

Length	12 000 mm
Width	2 600 mm
Heigh	2000 mm
Total weight:	18 800 kg
Drilled hole lenth:	1 900 -2 900 mm
Drilled hole diameter:	28 - 64 mm
Engine power:	100 kW
Driving speed:	1st gear 3 km/h 2nd gear 7 km/h 3rd gear 18 km/h

KOT1.75

The KOT1.75 self-propelled bolting rig is designed for roof and side rock bolting for non-methane, non-ferrous mines, (1,95 m to 4,0 m) underground workings.
The machine provides for 1,6 m to 2,4 m adhesive charge roof lamp bolting within the diameter of 25 mm to 38 mm. A telescopic bolting turret equipped with a gripper allows for drilling of 7-metre charging drill holes.

Technical specification

Length	12 000 mm
Width	2 600 mm
Heigh	2000 mm
Total weight:	18 800 kg
Drilled hole lenth:	1 900 -2 900 mm
Drilled hole diameter:	28 - 64 mm
Engine power:	100 kW
Driving speed:	1st gear 3 km/h 2nd gear 7 km/h 3rd gear 18 km/h

MODEL	LENGTH [mm]	WIDTH [mm]	HEIGHT [mm]	TOTAL WEIGHT [kg]	HOLE LENGTH [mm]	HOLE DIAMETER [mm]	ENGINE POWER (kW)	EURO EMISSION STANDARD [STAGE]
SWW2.0A	12 000	2 600	2 000	18 800	1 900 - 2 900	28 - 64	100	STAGE V
SWW2.0B	13 900	2 600	2 000	19 000	3 200 - 4 450	28 - 64	100	STAGE V
SWK2.0	12 000	2 560	2 000	18 000	-	28 - 38	100	STAGE V
KOT1.75	11 450	2 300	1 750	22 200	UP TO 7 000	25 - 38	115	STAGE V
WIR1.75	12 800	2 300	1 750	21 000	3 200 - 4 450	28 - 64	115	STAGE V