



PRODUCT BROCHURE



SUPER LOW PROFILE LHD (SLP)



GHH Group has the largest portfolio of „super low profile“ – LHDs (SLP), with capacities ranging between 3 and 14 tons.

The long-term experience of GHH in low profile applications in the platinum and chrome mines in Southern Africa and Zimbabwe as well as in European potash mines is reflected in the design of our vehicles.

Our vehicles are optimized for such low profile operating conditions, with low hanging walls, undulating footwalls and steep dips. The super low profile products are also designed with safety and maintainability being a key focal point. The robust design results in high mechanical availability supporting high productivity and low cost per ton.

PRODUCT NAME	PAYLOAD	BUCKET CAPACITY	WIDTH (AT CABIN)	HEIGHT (AT CABIN)	POWER
SLP-3H ¹	4.000 kg	1,2 m ³	2.413 mm	1.700 - 1.900 mm	100 kW
SLP-5	5.000 kg	1,6 – 2,5 m ³	2.330 mm	1.500 – 1.700 mm	92 kW
SLP-6	5.750 kg	2,2 – 2,7 m ³	2.662 mm	1.600 – 1.800 mm	105 kW
SLP-8	7.500 kg	2,8 – 5,3 m ³	3.034 mm	1.550 – 1.850 mm	178 kW
SLP-10	10.000 kg	4,0 – 5,5 m ³	2.700 mm	2.000 mm	230 kW
SLP-14H ¹	14.000 kg	8,5 – 9,7 m ³	3.680 mm	1.880 mm	265 kW

¹ Tier 3 / Tier 4f / Stage V, hydrostatic drive train

DIESEL LHD



GHH Diesel LHDs are custom designed to operate in the narrow vein and midseam mass mining operations. They are efficiently compact with an optimal operator's position. The lateral arrangement of the operator seat guarantees optimal views for forward and backward tramming. The capacities of the GHH LHDs are ranging between 1 to 21 tons. The LHDs are globally used in underground mining, in tunneling, hydro-power and other civil construction projects.

The „plain-tech“ LHDs are characterized by robustness and the „high-tech“ LHDs additionally by our efficient hydrostatic drive train (EDS) combined with best in class exhaust after treatment. Safety, ergonomics and maintainability are some of the key features of our design.

All our loaders come with optional GHH inSiTE digital analytics as well as RRC and automation ready.

PRODUCT NAME	PAYLOAD	BUCKET CAPACITY	WIDTH (AT CABIN)	HEIGHT (AT CABIN)	POWER
XLH05D ³	1.000 kg	0,59 m ³	1,165 mm	1.808 - 2.008 mm	72.4 kW
XLH12D ³	2.000 kg	1,2 m ³	1,372 mm	1.900 - 2.060 mm	72.4 kW
LF-3	3.500 kg	1,5 m ³	1.588 mm	1.600 mm	70 kW
LF-5	4.500 kg	1,9 – 2,4 m ³	1.765 mm	2.200 mm	129 kW
LF-6	6.000 kg	2,1 – 3,5 m ³	1.950 mm	2.300 mm	129 kW
LF-7	7.000 kg	2,4 – 4,0 m ³	2.150 mm	2.200 mm	164 kW
LF-8	8.000 kg	2,8 – 6,0 m ³	2.675 mm	1.850 mm	173 kW
LF-10	10.000 kg	4,0 – 5,5 m ³	2.600 mm	2.300 mm	200 kW
LF-10 NEO ²	10.000 kg	4.6 m ³	2.675 mm	2.350 mm	240 kW
LF-12H ^{1,2}	12.000 kg	8,7 m ³	3.224 mm	2.300 - 2.723 mm	265 kW
LF-14	14.000 kg	5,7 – 9,0 m ³	2.660 mm	2.550 mm	285 kW
LF-19H ^{1,2}	19.000 kg	12,9 m ³	3.090 mm	2.300 – 2.875 mm	360 kW
LF-21H ^{1,2}	21.000 kg	10,5 – 14 m ³	3.090 mm	2.300 - 2.875 mm	375 kW

¹ hydrostatic drive train ² Tier 3 / Tier 4f / Stage V ³Designed and manufactured by Overprime

ELECTRIC LHD



GHH offers electric LHDs with capacities up to 19 tons. The LF-19EB is a tethered electric LHD with an auxiliary battery for panel to panel tramming. Furthermore, all electric LHDs are equipped with an active drum control which ensures an orderly winding, whereby a long service life of the cable is reached due to low tensile forces.

The electric LHD offer particular advantages in underground applications through its emission-free drive and are therefore especially suitable for projects where ventilation is critical. Further advantages of the electric LHDs result from a low noise level. The battery electric systems also provide for simple and efficient panel

to panel driving negating the need for a generator or towing system to move between working sections.

A constant torque and the resulting dynamics allow for more efficient loading of the muck pile. Furthermore, economic benefits result from a high reliability and a long life span of the drive components. This means fewer spare parts and lower maintenance costs and hence lower overall operating costs.

Minimized brake and tire wear as well as simple maintainability are main characteristics of this LHD class.

PRODUCT NAME	PAYLOAD	BUCKET CAPACITY	WIDTH (AT CABIN)	HEIGHT (AT CABIN)	POWER
SLP-14E	14.000 kg	9,65 m ³	3.640mm	2.023 mm	200 kW
LF-19EB	19.000 kg	12,9 m ³	3.350 mm	2.850 mm	320 kW

UNDERGROUND DUMP TRUCKS



GHH Group has articulated dump trucks for mining and tunneling with capacities from 6 to 45 tons, and bowl sizes from 2.9 to 24m³. Our vehicles are characterized by their compact dimensions, higher comfort and better maneuverability with a swivel hinge. The vehicles have an excellent power to weight ratio to ensure high speeds even in high gradients. The particularly basic and robust design of the vehicles ensures a long service life at low operating costs.

For optimal ease of operation the MK-A20 has both side facing and optional forward facing cabins, the

MK-A35 has a bi-directional cabin in order to move the vehicle faster and more comfortable in both directions.

Thus, time-consuming maneuvers may be avoided. For high productivity our dump trucks may be combined optimally with GHH LHDs.

In addition to the standard Tier 3 engine, the GHH Truck offering now boasts Tier 4, Stage 5 engine packages to support industry drive towards environmental and operator friendly working environments.

PRODUCT NAME	PAYLOAD	BOWL CAPACITY	WIDTH (AT BODY)	HEIGHT (ABOVE CABIN)	POWER
XLD30D	6.000 kg	2,9 m ³	1.444 mm	1.900/2.100 mm	72.4 kW
MK-A20 ¹	20.000 kg	6 – 12,5 m ³	2.200 mm	2.555 mm	194 - 209 kW
SK-A30 ¹	30.000 kg	21,5 m ³	3.200 mm	2.897 mm	300 - 320 kW
MK-A35 ¹	35.000 kg	13 - 23,0 m ³	3.200 mm	2.897 mm	300 - 320 kW
MK-42 ¹	42.000 kg	19 - 24,0 m ³	3.060 mm	2.696 mm	450 - 460 kW
MK-45 ¹	45.000 kg	19 - 24,0 m ³	3.060 mm	2.696 mm	450 - 460 kW

¹ Tier 3 / Tier 4f / Stage V

FACE DRILLS



Mine Master offers a wide range of self-propelled drilling rigs suitable for various heights and width of headings. Plus a range of optional features that allow the machines to be operated under various exploitation conditions.

Operator's safety and protective canopies complying with requirements of FOPS/ ROPS, are basic features of our rigs while other features improve reliability and availability allowing our machines to be efficient and productive.

PRODUCT NAME	LENGTH [M]	WIDTH [M]	HEIGHT [M]	WEIGHT [T]	NO. OF BOOM	MAX. COVERAGE [M²]	MINIMUM WIDTH OF HEADING FOR TRAMMING @ 90° [M]	DRIFTER	POWER SOURCE TRAMMING / WORKING	APPLICATION
FM 1.4/ FLP1410	12,3	2,4	1,4	14,9	1	63	3,9	rotary- percussive	diesel / electric	hard rock / non-flameproof
FM 1.7	13,8	2,4	1,7	21	1	67	4,5			
FM 1.7K	13,9	2,4	1,7	21,5	1	66	3,9		electric batteries	
FM 1.7LE	12,5	2,4	1,7	19,5	1	66	3,9		diesel	
FM 1.7D	13	2,4	1,9	21	1	56	4,5	rotary	diesel / electric	soft rock / non-flameproof
FM 1.7R	13,4	2,4	1,7	21	1	67	4,5			Ex / flameproof
FM 1.8RS	16	2,4	1,8	24	1	56	5			
FM 2.1	10,2	1,35	2,1	13	1	25	2,6	rotary- percussive	diesel / electric	hard rock / non-flameproof
FM 2.3-1B	12,7	2	2,3	17,5	1	56	3,5			
FM 2.320	12	2	2,3	22	2	64	4			
FM 2.8MPD	14,5	2,5	2,8	30	2	65	5			
FM 3.0 Mk3	15,9	2,5	3	35	2+1	102	6,4			

BOLTERS



Roof support in mining excavations and tunnels by means of roof-bolting is one of the applications that can be achieved by machines manufactured by our company.

Self-propelled bolting rigs featuring various parameters depending on the height of the roof and hardness of rock are manufactured to tailor individual clients applications.

PRODUCT NAME	LENGTH [M]	WIDTH [M]	HEIGHT [M]	WEIGHT [T]	MAX. BOLTING HEIGHT	OPERATION	MINIMUM WIDTH OF HEADING FOR TRAMMING @ 90° [M]	DRIFTER	POWER SOURCE TRAMMING / WORKING	APPLICATION
RM 1.4	10,5	2,4	1,4	18,4	3,3	on the left side of the boom	4,5	rotary with dust collection	diesel / electric	non-flameproof
RLP1400-1B	10,1	2,4	1,4	19,7	3		4,5	rotary-percussive		
RM 1.7	11,3	2,4	1,7	19,5	4		4,5	rotary with dust collection		
RM 1.8AWK	13,9	2,4	1,8	22,4	7,5	from operator's compartment	4,9	rotary-percussive	battery electric	non-flameproof
RM 2.3AWK	11,3	2	2,4	20,5	8,3		4			
RM 1.8KE	13,6	2,4	1,8	24,5	5,8		4,9	rotary		
RM 2.6 ATEX	14	2,4	2,6	28	7,5		4,5	rotary-percussive or rotary	diesel/ electric	Ex / flameproof
RM 2.3	12,7	2,6	2,3	29,7	9	on the left side of the boom / from operator's compartment	4,5	rotary-percussive	diesel/ electric	non-flameproof
RM 2.0 SWKB	6,5	1,4	2,1	13	4	on both sides of the boom	2,4	rotary with dust collection or water flushing	electric	Ex / flameproof
AB (Roof bolter)	10	2,6	1,9	14,6	9,8	via radio remote control	4,5	rotary	diesel / electric	softrock

LONGHOLE/PRODUCTION DRILLS



For underground production drilling Mine Master offers a range of long hole drilling rigs in configurations suitable for the required work in mines. To adapt to specific working conditions the machines can be offered with variable setups of the working unit featuring different feed lengths and drifter parameters. For easy operation the customer can choose between mechanized or manual rod handling. In some models traditional control systems from the operator's stand are supported by a bluetooth remote control panel to improve safety as well as precision and efficiency of drilling.

A self-propelled Production Master 2.3 long hole drill rig is designed for drilling parallel upholes and downholes as well as fans and rings in vertical or inclined planes. A top-hammer system gives the possibility of drilling in a range of 64-165 mm holes depending on the configuration. Easy to use positioning system offers drilling in required directions. The machine has a very good stability for fast tramming even in tough road conditions. Remote control panel is included for easy operation and drilling accuracy

PRODUCT NAME	LENGTH [M]	WIDTH [M]	HEIGHT [M]	WEIGHT [T]	MAX. DEPTH OF DRILLING [M]	CONTROL SYSTEM	MINIMUM WIDTH OF HEADING FOR TRAMMING @ 90° [M]	DRIFTER	POWER SOURCE TRAMMING / WORKING	ROD HANDLING METHOD
PM 2.1	10,2	1,4	2,1	12,0	20,0	direct from operator's stand	2,85	20kW class	diesel / electric	manual with helper
PM 2.3	9,2-9,6	2,0	2,7	23,0	32,0	from operator's stand or remote via bluetooth	3,6	30kW class		rod magazine
PM 2.3M	11,7	2,0	2,3	20,6	20,0	direct from operator's stand	3,5	20kW class		manual with helper
SB 3 (Production Drill)	10,6	2,6	2,3	16,5	100	via radio remote control	4,5	Rotary	diesel / electric	Rod magazine
StBO (Bench Drill)	10,3	2,7	2,2	14,5	45	via radio remote control	4,5	Rotary	diesel / electric	manual

ROCK TOOLS



Mine Master is a provider of tools for use in mining, quarries and civil engineering works. We provide the highest quality tools supplied by manufacturers recognized worldwide.

The tools offered are made from the highest quality TC and stainless steel materials. In our offer you will find button bits, which, due to the chemical composition and shape of tungsten carbide can be used in all geological conditions in mines and quarries. You will also find drill rods and shank adaptors with a superior life service.

We also offer down the hole (DTH) hammers with very good characteristics and performance of work as well as excellent durability and great reliability.



Standard underground tools:

- Button bits - tapered & threaded (Ø 30 – 127 mm)
- Tapered rods (l - 1830 – 3100 mm)
- Extension rods (l - 2400 – 4915 mm)
- Tunneling rods m/f (l - 2400 – 4310 mm)
- Couplings
- Shanks adaptors – for many type of rock drills
- Reaming equipment

Standard quarrying tools:

- Button bits (Ø 76 – 127mm)
- DTH button bits (Ø 90 – fi 200 mm)
- DTH hammers (3” – 8”)
- Tube rods / drilling pipes
- Extension rodsIntegral drill steels
- Shank adaptors
- Tapered rods and bits

GROUND CONSOLIDATION

GHH Group provides Polyester resin capsules that contain two-component composition - intended for fixing mine workings with use of an anchor support, in both coal and hardrock applications. Capsules are made according to customer's needs: different length, diameter & cure time & add a unique value to rock reinforcement in Mining & Tunnelling applications.

& setting machines or by fully automatic drilling machines. A ready-to-use in a single-pack system with pre-accelerated cartridges or double chambered poly-tube capsule enabling extremely effective mixing of fire-retardant resin matrix & catalyst. A controlled setting time completely complements the requirements of underground mining & tunnelling.

The resin capsules provide quick strength & rigidity with permanent anchorage which is resistant to failure by vibration or corrosion



Multiple Advantages: Easy to install capsule configuration either by hand-operated drilling

SCALER



GHH Group also offers shearing scalers to prepare the roof for subsequent roof support. The highly efficient working principle of our shearing scalers is combined with the proven hydrostatic drive train EDS, which allows for sensitive roof and side wall scaling as well as quick reversing.

The cabins comply with the highest safety requirements and are designed for an extremely high load and provide an excellent overview in all working conditions – in particular at the scaling tool. The intelligent scaling safety system protects both the operator and machine during operation.

PRODUCT NAME	MAX. SCALING HEIGHT	WIDTH (AT CABIN)	HEIGHT (AT CABIN)	POWER
LF-7.6HB	4.000 - 7.850 mm	3.387 mm	1.700 - 3.300 mm	180 kW
LF-20HB	9.000 - 11.000 mm	3.387 mm	2.530 mm	300 kW
RS 2.0SB	2.000 - 6.200 mm	2.250 „	2.000 mm	100 kW

HEAVY DUTY ELECTRIC VEHICLES



IMPROVED WORKING CONDITIONS

- 100% electric
- Zero emissions
- Less noise
- Less vehicle heat

COST SAVINGS

- Low maintenance cost
- Low operational cost
- Lower ventilation cost
- No need of expensive fuel infrastructure
- Less downtime

MORE COMFORTABLE DRIVING EXPERIENCE

- Smooth acceleration
- Accelerates gradually
- Better weight distribution
- No engine noise

TYPE	CAPACITY	RANGE (KM)	POWER (KW)	CHARGE TIMES	RECUPERATION
Land Cruiser ELV / Hilux ELV	2 - 13 people	180 - 200 (72kWh)	Continuous: 65 Max: 110	1P: 2hr from 20% to 80% 3P: 1hour	Up to 75kW

Various conversion kits available:

- Personnel Carrier
- Mechanical and Electrical services
- Mobile offices
- Supervision vehicle
- Custom conversion kits

GHH UTILITY VEHICLES

GHH is able to offer the mining and tunneling market a full range of utility vehicles including concrete spraying machines, transmixers and pumps as well as passenger transporters, light crane trucks, scissor lifts, material, fuel and lubrication transporters and ANFO charge trucks in either a rigid or articulated design.

The entire range of products all have CE Certification, ROPs & FOPs level 2 certified closed cabins, powershift transmissions (hydrodynamic), 4x4 all-wheel drive

and articulated steering for superior manoeuvrability.

We deliver customized solutions, such as application specific machine designs:

- We offer special cabins and modifications for operators, as well as engine variants, with focus on safety and ergonomics as key design principles.
- We do modifications according to application requirements



LIGHT DUTY DIESEL VEHICLE

CE certified, with ROPS and 2nd level FOPS certified operator cabin, suitable for working in underground mines, 4x4 chassis mounted, with powershift fully automatic transmission.

MUV5 Multipurpose Utility Vehicle specifications are as follows:

- Deutz TCD 3.6 L4,
- 80 kW @ 2200 rpm, 460 Nm at 1600 rpm
- SAHR brakes
- Max gradient - 30%
- Max speed - 40 km/h

MUV5 variants:

- Scissor lift
- Personnel carrier for 10 people
- Lubrication and Maintenance vehicle
- Explosives Carrier



ARTICULATED

BAC2x350



ANFO Charger Truck

BMP2x3



Scissor Lift

BIA100



Fuel and Lube Truck

BPT24



Personnel Carrier

BVK05



Crane Truck

BIS20



Concrete Spraying Machine

BYM6



Concrete Transmixer

MODEL	DESCRIPTION	CAPACITY	WIDTH	HEIGHT
BAC2x350	Anfo Charger Truck	2x350 l	2.100 mm	2.450 mm
BMP2x3	Scissor lift	1500 kg	2.000 mm	2.600 mm
BVK05	Crane Truck	50 kNm crane	2.000 mm	2.550 mm
JM2	Underground Drill Rig	-	2.330 mm	3.200 mm (canopy up)
BPT24	Personnel Carrier	24 people	2.400 mm	2.550 mm
BIS20	Concrete Spraying Machine	30 m ³ /h	2.300 mm	2.550 mm
BKS9	Concrete Spraying Machine (Dry mix)	7 – 9 m ³ /h	2.300 mm	2.750 mm
BYM4.5	Concrete Transport Machine	4,5 m ³	2.000 mm	2.475 mm
BYM6	Concrete Transport Machine	5.6 m ³	2.300 mm	2.655 mm
BTM6	Concrete Agitator	6 m ³	2.300 mm	3.240 mm
BKPT7	Material Transport	7 000 kg	2.000 mm	2.450 mm
BEC100	Emulsion Charger Truck	-	2.400 mm	2.850 mm
BIA 100	Fuel and Lube Truck	3 500 l	2.000 mm	2.400 mm

GHH UTILITY VEHICLES

RIGID

MP2X3



Scissor Lift

SP1500



Basket Boom Truck

EC2x350



ANFO Charger Truck

IS21



Concrete Spraying Machine

PT16



Personnel Carrier

DK16



Dumper Truck

VK10



Crane Truck

TM05



Concrete Transmixer

AC500



ANFO Charger Truck

IS26



Concrete Spraying Machine

YTM05



Concrete Transmixer

MODEL	DESCRIPTION	CAPACITY	WIDTH	HEIGHT
PT16	Personnel Carrier	16 people	2.200 mm	2.950 mm
DK16	Dumper Truck	12.000 kg	2.400 mm	2.950 mm
SP1500	Basket Boom Truck	800 kg	2.400 mm	2.950 mm
VK10	Crane Truck	64 kNm crane	2.400 mm	2.950 mm
MP2x3	Scissor Lift	1.500 kg	2.000 mm	2.800 mm
AC500	ANFO Charger	2x500 l	2.400 mm	2.950 mm
EC2x350	Emulsion Charger	2x350 l	2.400 mm	2.900 mm
IS26	Concrete Spraying Machine	34 m ³ /h	2.400 mm	3.080 mm
IS21	Concrete Spraying Machine	34 m ³ /h	2.000 mm	2.950 mm
TM05	Concrete Transport Machine	5 m ³	2.400 mm	2.950 mm
YTM05	Concrete Transport Machine	5 m ³	2.400 mm	2.950 mm
HG16	Conveyor belt Maintenance	46 kNm crane	2.400 mm	3.100 mm



FIXED UTILITY VEHICLES



ISS
Concrete Spraying Machine



OMP30
Pre-Mix Mortar Pump



EBP60
Trailer-Mounted Concrete Pump



CONCRETE BUCKET
4,5 m³ - 9 m³

MODEL	DESCRIPTION	CAPACITY	WIDTH	HEIGHT
Concrete Bucket	Concrete Bucket	9 m ³ /h	2.800 mm	4.580 mm
ISS	Concrete Spraying Machine	10 m ³ /h	1.920 mm	1.950 mm
OMP30	Premix Mortar Pump	30 l/min - 30 bar	1.050 mm	1.320 mm
EBP60	Concrete Pump	55 m ³ /h	1.800 mm	2.080 mm (canopy up)
ISS	Concrete Spraying Machine	10 m ³ /h	1.920 mm	1.950 mm

GHH LOW PROFILE UTILITY VEHICLES

GHH has a complete offering of low profile utility vehicles used predominantly across the platinum group minerals and chrome mines in Southern Africa. This low profile range of utility vehicles comes in various carrier sizes with modular cassette options as well as fixed units. The utility vehicles include flat deck, passenger transporters, light crane trucks, scissor lifts, material, fuel and lubrication transporters and many more.

We deliver customized solutions, such as application specific machine designs:.

- We offer specialized variants of existing offering, with focus on safety, ergonomics as key design principles and low profile application in mind.
- We do modifications according to application requirements.



UVB SPECIALIZED VEHICLES

MODEL	DESCRIPTION	CAPACITY	WIDTH	HEIGHT	LENGTH
MV UT19P	Minebus	Driver + 18 personnel	2.200 mm	1.500 mm	7.790 mm
	Supervision Utility Vehicle	5 seats, 1.5 ton payload	1.700 mm	1.400 mm	6.969 mm
Rock Ranger 150	Service Recovery Vehicle	3 seats, 1.5 ton payload	1.700 mm	1.400 mm	6.969 mm
	Emergency Response Vehicle	-	1.700 mm	1.400 mm	6.969 mm
Reef Rover	Ambulance	Driver + 2 seats + 2 x stretchers +2 medical attendants	2.010 mm	1.460 mm	5.980 mm
Mine Scout	Supervisor Maintenance Vehicle	30 m3/h	1.700 mm	1.455 mm	4.400 mm



MV U40D - VEHICLE AND CASSETTE OFFERING



DESCRIPTION	CAPACITY	WIDTH	HEIGHT	LENGTH
Flat Deck Cassette	1000 kg	2.580 mm	1.400 mm	6.670 mm
Flat Deck Cassette	1000 kg	2.580 mm	1.400 mm	6.670 mm
Maintenance Cassette	1000 kg	2.500 mm	1.400 mm	6.754 mm
Explosives Cassette	1000 kg	2.500 mm	1.400 mm	6.754 mm
Lube and Fuel Cassette	1980 litre	2.500 mm	1.400 mm	6.754 mm
Water Bowser Cassette	1980 litre	2.500 mm	1.400 mm	6.754 mm
Bulk Emulsion Cassette	1700 litre	2.500 mm	1.400 mm	6.754 mm
Materials Handling Cassette	1000 kg	2.500 mm	1.400 mm	6.754 mm
Sewerage Tanker Cassette	1700 litre	2.500 mm	1.400 mm	6.754 mm
Comode Cassette	2000 litre tank with 3 toilets	2.500 mm	1.400 mm	6.754 mm
Fire fighting Cassette	2000 litre foam system	2.500 mm	1.400 mm	6.754 mm
Bulk Bowser	2000 litre	1.700 mm	1.400 mm	6.969 mm
Bulk Emulsion Carrier	2800 kg	1.700 mm	1.400 mm	6.969 mm
Concrete Remixer	1.45 m3	1.751 mm	1.695 mm	6.948 mm
Lube and Fuel Cassette	1980 litres 5 product	1.750 mm	1.400 mm	6.500 mm
General Transporter	4000 kg	1.700 mm	1.400 mm	6.969 mm
Honey Sucker	3000 litre	1.700 mm	1.400 mm	6.969 mm
Personnel Carrier	19 people + driver	2.000 mm	1.400 mm	6.778 mm
Scissor Lift	1500 kg	1.700 mm	1.380 mm	6.637 mm
Supervision and Transport	1500 kg raising platform, 3 seats + driver	1.750 mm	1.400 mm	6.320 mm

GHH LOW PROFILE UTILITY VEHICLES

MV U80D - VEHICLE AND CASSETTE OFFERING



MODEL	DESCRIPTION	CAPACITY	WIDTH	HEIGHT	LENGTH
MV U80D SL	Scissor lift	3000 kg lift capacity	2.126 mm	1.983 mm	8.169 mm
MV U80D CR	Concrete remixer	2 m ³	2.100 mm	1.983 mm	8.585 mm
MV U80D GT	General transporter	8 000 kg payload	2.100 mm	1.983 mm	8.585 mm
MV U80D DT	Dump truck	8 000 kg payload	2.100 mm	1.983 mm	8.585 mm
MV U80D FB	Fuel bowser	5 000 litre	2.126 mm	1.983 mm	8.169 mm
MV U80D ExC	Explosives carrier	8 000 kg payload	2.100 mm	1.983 mm	8.636 mm
MV U80D BEC	Bulk emulsion carrier	5 000 litre	2.100 mm	1.983 mm	8.636 mm
MV U80D LF	Lube and Fuel	5 000 litre	2.100 mm	1.983 mm	8.636 mm
MV U80D PT	Personal transporter	28 person + driver	2.126 mm	2.200 mm	8.169 mm
MV U80D CC	Cassette carrier	Multiple cassette options	2.126 mm	2.000 - 2.500 mm	8.285 mm



BAT UTILITY VEHICLES

HAULAGE, LOGISTICS AND SPECIALIZED OFFERING



MODEL	DESCRIPTION	CAPACITY	WIDTH	LENGTH	HEIGHT
FF 130	Drum cutting Scaler	8.28 m cutting height	3.500 mm	15.250 mm	2.950 mm
SLF	Explosives charger	1500/2000/2500/2700 litre	2.600 mm	8.100 mm	2.300 mm
BF-10	Stage vehicle	10 m max working height	2.700 mm	8.250 mm	2.300 mm
KVF	Crane basket, cable laying vehicle	9.5 m max working height	2.700 mm	8.300 mm	2.100 mm
SW1700	Chain saw machine	1.7 m cutting depth @ 38mm width	2.700 mm	10.645 mm	2.300 mm
GTF	Flatbed truck	16 000 kg	2.700 mm	9.570 mm	2.300 mm
ATF	4x4 Logistics carrier	13 900 kg	2.700 mm	8.720 mm	1.780 mm
AZM	4x4 Tractor	15 ton tractive effort	2.680 mm	6.380 mm	1.860 mm

GHH InSITE

TURNING DATA INTO REAL BUSINESS VALUE

Machine data is a conclusive source for information and process insights. Findings from machine data cannot be biased by subjective reporting or errors caused by manual documentation.

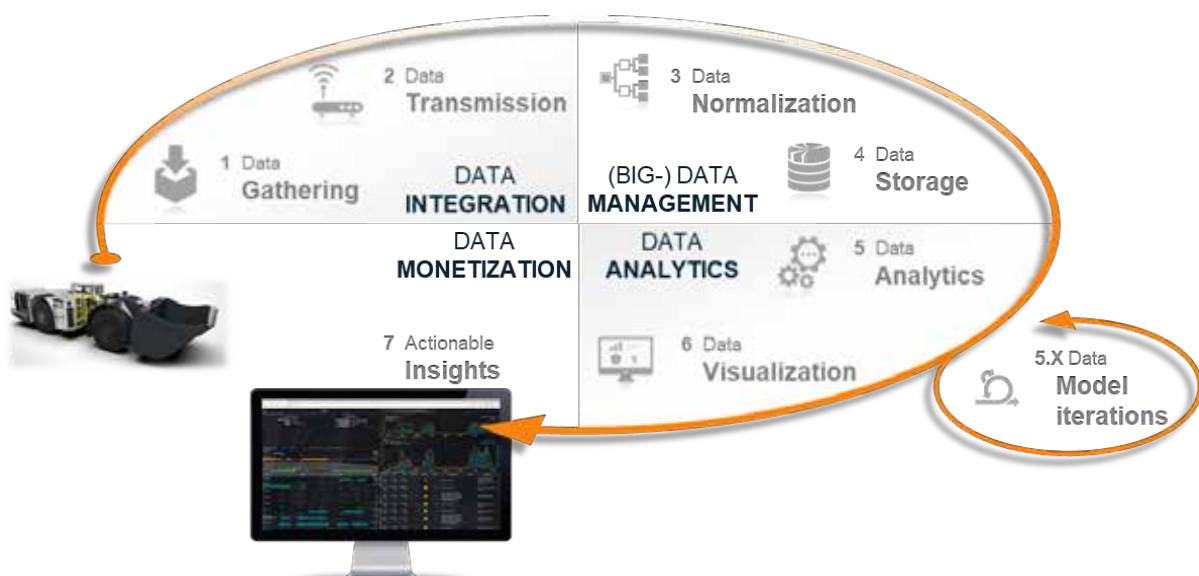
Accessing such data during the actual work process or close to real time by frequent transmission-events allows to gain an overview of machine activity, identify shortcomings in process efficiency and optimize the allocation of mobile equipment, as well as designate misuse of consumables.

The adoption of IT-solutions for data handling and analysis is most efficient when it involves and integrates different data-sources and processes throughout the industrial operation. Organizations can make the most of big data by aggregating information from different systems.

Smart industry applications can distill complicated and seemingly random information into powerful tools for analysis. For this, the targeted insights and scope of analysis need to be defined in order to design suitable algorithms.

Pre-Requisites for System Implementation

- Connective Infrastructure & Remote Access
- Ensure machine data transmission at least once a week
- Confirm that access points, such as WiFi Hotspots, are providing internet or intranet access
- Establish and provide a secured connection from the internet to the underground access points in the mine (usually IT department of the mine operator) - Such a connection (e.g. VPN) should be agreed upon mutually, as many options are possible.
- Make sure these access points are installed in the regular whereabouts of the machines for an assured periodic data transfer
- This enables remote commissioning, updating and trouble shooting possibilities, minimizing efforts for all stakeholders





The Solution

GHG inSite “end-to-end” solution consists of:

- EDGE computing based logging equipment for data capturing and transmission
- Hardware-as-a-Service package – no investment required
- Machine integration and data transmission setup
- Data management on high-performance cloud platform
- Several data analytics packages on SaaS basis - no investment required
- Flexible user management conditions
- Digital transformation support services
- Use cases available as downloads:
- Operational efficiency
- Maintenance support





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GHH GROUP

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GHH Fahrzeuge GmbH
Emscherstr. 53
45891 Gelsenkirchen
Germany

Tel: +49 (0) 209 38907-0
Fax: +49 (0) 209 38907-109

info@ghhrocks.com
www.ghhrocks.com

GHH Mining Machines
92 Kirschner Road
Boksburg, 1459
South Africa

Tel: +27 11 896 0600
Fax: +27 11 896 0605

sales@ghhmm.co.za, info@ghhmm.co.za
www.ghhmm.co.za

 **mine
master**
Rigs for your needs

Mine Master Ltd.
ul. Dworcowa 27, Wilków
59-500 Złotoryja
Poland

Tel: +48 76 87 83 511
Fax: +48 76 87 84 101

info@minemaster.eu
www.minemaster.eu