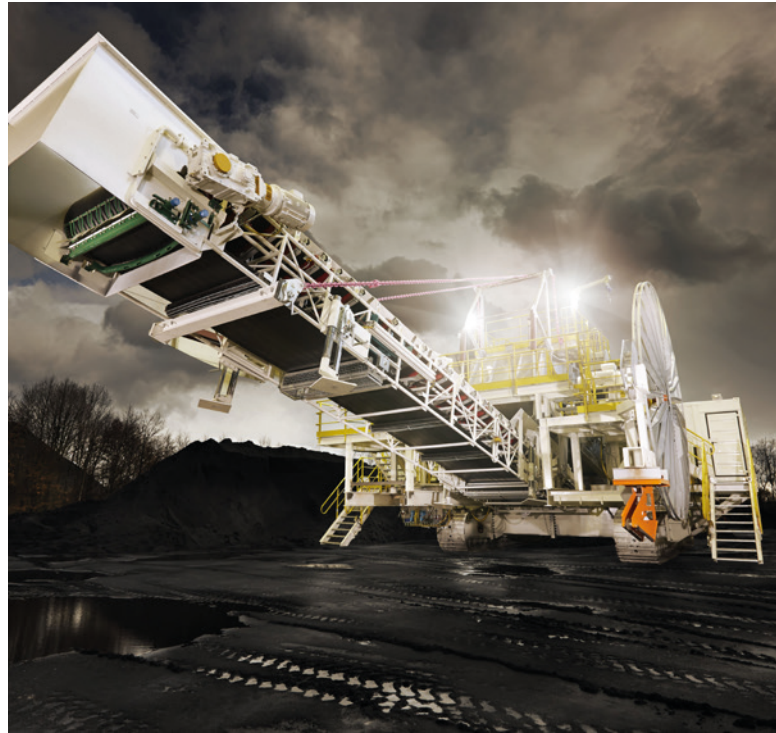


HAZEMAG



Range of products



Salzgitter

TURMAG

HAZEMAG



It's hard to impress them, but we did – worldwide.

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HAZEMAG MINING – Surface, underground. Redefined

Mining experience around the world

HAZEMAG & EPR GmbH can look back on more than 175 years of history and, with a workforce numbering around 450 worldwide, the company is operating successfully on all 5 continents. With HAZEMAG MINING, the company has a highly specialised supplier of mining products. HAZEMAG is a competent, reliable and customer-oriented partner of the global mining industry. Decades of experience in combination with continuous innovation are the basis of the HAZEMAG product range for the mining industry.

The entire HAZEMAG mining portfolio represents durability, high operational availability and efficiency. Quality is the basis of our sustainable success. Economic coal mining can only be ensured by modern and reliable machines backed by expert service – HAZEMAG provides its customers with this basis for success.

HAZEMAG is solution provider for surface and underground mining. Especially for coal, salt and narrow vein ore mining.

Typical applications include

- coal mine development and production
- underground ore crushing and narrow vein development
- crushing plants
- multitude of tasks on stockyards, trans-shipment sites and in the bulk materials industry

Main equipment

- horizontal impact roll crushers
- feeder breakers
- chain conveyors
- dinting loaders
- drill jumbos
- anchor bolting machines
- side tipping loaders
- road heading machines
- longhole drills
- hand-held drills





Overview

Horizontal crushing and conveying of coal, salt, softrock and ore

■ HORIZONTAL IMPACT ROLL CRUSHER	HHI	5
■ FEEDER BREAKER	HFB	6
■ CHAIN FEEDER	HCF	7

Dinting | Gallery reconstruction | Infrastructure work

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Gallery heading | Mine development

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Horizontal Impact Roll Crusher | HHI

- The horizontal impact roll crusher of the HHI series mainly consists of two machine components: the impact roll and the chain conveyor. The arrangement of the crushing roll above the chain conveyor permits to use the chain conveyor as feed and as discharge conveyor.
- The procedure of feeding the material to a rotating impact roll via an at-degreese chain conveyor, to crush and then discharge it, is the basic principle of the HAZEMAG HHI – a horizontal and thus deflection-free material flow. It permits an extremely compact design with very high throughput rates.
- The impact roll crusher is standardly equipped with complete control unit including PLC control which monitors the power consumption on the impact roll as well as on the chain conveyor. The control automatically protects the plant against blockages and in case of overload, thus enabling the plant to be operated fully automatically.
- Throughput rate and product size can be influenced by the height adjustment of the impact roll as well as by the chain conveyor's conveying speed by means of frequency converter.

Main advantages

- Crushing of the feed material directly on site
- At-degreese material feeding
- Highly mobile
- Suitable for narrow underground conditions and tunneling
- Set-up without foundations
- High crushing ratio
- Variable length of chain conveyor

Additional equipment

- Feed hopper
- Pre-screening with integrated roller screen HRS

Mobility options

- Steel substructure / skids
- Powerless crawler track
- Powered crawler track

Typical application

- Coal and ore mining underground and open pit
- Aggregates
- Recycling of concrete and rubble

HHI – HAZEMAG Impact Roll Crusher			
Type	Feed size up to [Inch]	Throughput rate [t/h]	Drive power of roll [HP]
HHI 1515	40 x 55	550 - 2,000	200 - 700
HHI 1518	45 x 70	900 - 2,800	400 - 1,000
HHI 1521	45 x 85	1,100 - 3,300	700 - 1,000
HHI 1525	45 x 95	1,300 - 4,400	1,000

*Data are variable, depend on the feed material and can be adapted to the particular requirements.





Feeder Breaker | HFB

- The HAZEMAG Feeder Breaker HFB is a complete horizontal roll crusher plant, which works according to the field-proven principle of crushing in the horizontal material flow.
- The feeder breaker mainly consists of two machine components: the crushing roll and the chain conveyor. The arrangement of the crushing roll above the chain conveyor permits to use the chain conveyor as feed and as discharge conveyor.
- The design and arrangement of the picks on the crushing roll as well as the scrapers in the conveyor decisively determine the product size. By means of the height-adjustable crushing roll and the adjustment of the chain conveyor's conveying speed via a frequency converter the granulation size may be variably adjusted to customer requirements.

Main advantages

- Crushing of feed material to suitable size for belt conveyor transport directly at the face
- At-degrease material feeding
- Set-up without foundation
- Highly mobile
- Variable length of chain conveyor
- Arrangement of picks depending on task

Additional equipment

- Feed hopper
- Pre-screening with integrated roller screen HRS

Mobility options

- Steel substructure / skids
- Sliding skid, hydraulically adjustable in height
- Powerless crawler track
- Powered crawler track

Typical application

- Underground coal and salt mining
- Open pit gypsum, chalk and coal mining
- Stockyards and transshipment sites, especially slags, petroleum coke and others

HFB – HAZEMAG Feeder Breaker			
Type	Feed size up to [Inch]	Throughput rate [t/h]	Drive power of roll [HP]
HFB 0714	20 x 50 x X	250 - 550	100 - 200
HFB 1014	30 x 50 x X	550 - 1,100	150 - 300
HFB 1111	50 x 45 x X	330 - 550	100 - 200
HFB 1414	60 x 55 x X	750 - 1,200	200 - 500

*Data are variable, depend on the feed material and can be adapted to the particular requirements.





Chain Feeder | HCF

Chain conveyors are successfully used in different branches and applications. Especially coarse or cohesive material as usually occurring in mining and mineral processing, is continuously and smoothly transported with a chain conveyor. Being used as a discharge conveyor under bins and bunkers the chain feeders take up large static and dynamic loads, if for example fed with large feed sizes or from a greater height.

Main features

- Low-profile and rugged design
- Modular design, subsequent lengthening or shortening without special tools
- No foundation required for the set-up
- No feed hopper is required
- Frequency converters permits variable conveying speeds and thus different conveyor capabilities with one conveyor

Additional equipment

- In combination with impact roll crusher or feeder breaker
- Roller screen HRS for prescreening

Typical application

- On stockpiles and transshipment sites
- Bulk goods transport, especially coarse or cohesive materials in mining and mineral processing

Further fields of application of the HCF as:

■ Lightweight conveyor

Lightweight conveyors are used wherever mostly small-sized bulk material has to be economically transported.

Depending on the equipment, lightweight conveyors are installed as top or bottom strand conveyors. In special cases, the conveyance is effected on the top strand and then back on the bottom strand.

■ Spillage conveyors

Spillage chain conveyors are lightweight, compact conveyors designed especially for use at transfer points with a high spillage rate, for instance, where scrapers are used in conjunction with belt conveyors or under apron feeders.

Spillage conveyors prevent contamination, eliminating troublesome material build-up at transfer points, belt cleaning points, belt reversing facilities and highmaintenance locations.

Chain conveyor with rolled profiles (Utilized also in HAZEMAG Feeder Breaker – HFB)		
Type	Nominal width outside [Inch]	nominal width inside [Inch]
HCF 800 P	30	20
HCF 1000 P	40	30
HCF 1200 P	45	40
HCF 1600 P	65	55
HCF 1800 P	70	60

Chain conveyor with changeable wear plates (Utilized also in HAZEMAG Impact Roll Crusher – HHI)		
Type	Nominal width outside [Inch]	Nominal width inside [Inch]
HCF 1500	70	45
HCF 1800	85	60
HCF 2100	90	70
HCF 2300	105	85





Dinting Loader | HDL 300

- HAZEMAG MINING dinting loaders with crawler tracks are used in underground mining for straightening the rock which had swollen due to geological influences. They are indispensable for ripping up the drifts as well as for loading and crushing of loosened rock. They are equipped with a bucket in which hydraulically driven percussion bits are integrated.
- The dinting machines stand out for a simple as well as compact and serviceable design and high operational reliability.
- The assembly groups which are designed according to the unit construction principle are easy to transport and may be quickly assembled underground.

HDL 300 – HAZEMAG Dinting Loader		
	Starrer Ausleger with (non) activated box-type bucket	Telescopic Boom with (non) activated box-type bucket
Weight	19,500 lb.	23,800 lb.
Length	300 In	300 In
Width	45 In	45 In
Height	48 In	48 In
Adm. longitud. inclination	23 degrees	18 degrees
Adm. cross inclination	10 degrees	9 degrees
Slewing angle of boom	2x30 degrees	2x25 degrees
Stroke of telescopic boom	–	28 In
Bucket capacity	80 gal	80 gal
Slewing angle of bucket	2x30 degrees	2x30 degrees
Electric motor	75 hp	75 hp
Service voltage	500/1,000V 660/1,140V	500/1,000V 660/1,140V
Electrical equipment in flameproof design / ATEX conform or non-flameproof design		
Accessories		
Side tipping bucket		
Pick hammer		
Different drill attachments		
Guide coupling device		
Typical application		
In underground coal mining especially in depths over 2,600 ft		





Multi-functional Machine | HMF

- The HMF is a crawler-mounted and electro-hydraulically driven loader which, because of its different attachments, may be used for a wide range of applications.
- The HMF is very successfully used for target-oriented working such as drift refurbishments, degasification borings, roof-bolting of drifts, preparation of stress relieving cuts and garlands in the floor as well as for back-work for roadway supports.
- The attachments are coupled to the basic machine via a quick hitch. By means of hydraulic multi-couplings a system change is comfortable and time-saving.
- Electrical equipment in flameproof design / ATEX conform or non-flameproof design

HMF – HAZEMAG Multifunktionsmaschine				
	HMF 300	HMF 600	HMF 800	HMF 1500
Length of basic machine (incl. side-tipping bucket)	330 ln	250 ln	340 ln	350 ln
Width	45 ln	47 ln	50 ln	65 ln
Height	50 ln	55 ln	60 ln	65 ln
Weight of basic machine (depending on equipment version)	12 - 15t	10t	15 - 20t	25 - 30t
max. gradient/slope	18 degrees	18 degrees	18 degrees	18 degrees
Stroke of telescopic arm	28 ln	20 ln	40 ln	40 ln
Electric motor	75 hp	60 hp	80 hp	125 ln
Attachments				
Side tipping bucket	x	x	x	x
Demolition hammer	x	x	x	x
Slot cutter	–	–	–	x
Stress-relieving drilling machine	x	x	–	x
Rockbolter carriage	x	x	x	x
Working platform	x	x	x	x
Box-type bucket (active / passive)	x	x	x	x
Accessories				
Cable drum				
PLC control				
Typical application				
In underground coal and ore mining				





Side Tipping Loader | HSL

- HAZEMAG MINING side tipping loaders are suited for all loading works arising in underground operation. They are characterized by a simple, compact and easy to maintain design as well as by a high operational availability.
- The machines work with a low noise level. The hydraulics are designed for hardly inflammable pressure liquids or mineral oil.
- The electrical equipment of the side tipping loaders is made in flame-proof design according to the regulations of the respective authorities.
- The operator's cab is designed in compliance with ergonomic guidelines. The assembly groups are made according to the unit construction principle and are easy to transport and may be quickly assembled.

HSL – HAZEMAG Side Tipping Loader			
	HSL 600	HSL 1000	HSL 1500
Working area	10 - 15yd ²	15 - 20yd ²	20 - 60yd ²
Total length with bucket	250 In	280 In	285 In
Width	45 In	50 In	65 In
Height	55 In	60 In	65 In
Weight	10t	12t	15t
Maximum incline	20 degrees	20 degrees	20 degrees
Stroke of telescopic arm	20 In	40 In	40 In
Type	percussive	percussive	percussive
Bucket capacity	160gal	260gal	400gal
Discharge height	90 In	85 In	130 In
Electric motor	60 hp	60 - 100 hp	100 - 125 hp
Electrical equipment in flameproof design / ATEX conform or non-flameproof design			
Accessories			
Cable drum			
Typical application			
In underground coal and ore mining			





Drilling Jumbo | HDM 1

- The single-boom drilling jumbo HDM 1 has an electro-hydraulic central drive, a hydraulic hammer for percussive drilling or drill drive units for rotary drilling and has been constructed for the preparation of blast hole and anchor drillings as well as for roof bolting.
- Its distinctive features are the following ones:
 - low and compact design, which permits the application in small roadway cross sections
 - parallel automatic in horizontal and vertical plane for cross sections of roadways from 16m² up to 46m²
 - two front supports for improving the stability
 - modular design for easily assembling and dismantling the assembly groups and transport units.

HDM – HAZEMAG Drilling Jumbo	
	HDM 1
Working area	up to 55yd ²
Total length	400In
Width	50In
Height	55In
Weight	15t
Longitudinal inclination	20degrees
Cross inclination	10degrees
Stroke of telescope in drill arm	40In
Double rotation unit	+105/+180
Stroke of telescopic cylinder	45In
Stroke of feed cylinder	40In
Working length of drill rods	120In
Adapter	R 38 A / R 32 I
Drill hole diameter	1.5 - 3.5In
Extension drilling diameter	≥ 2In
Service voltage	500/1,000V 660/1,140V
Electric motor	100hp
Electric equipment in flame proof design / ATEX conform or non-flameproof design	
Accessories	
Drill tools	
Typical application	
In underground coal and ore mining	





Boring Loader | HBL

- For gallery mine development in cross sections from 14 up to 21yd² in mining projects, HAZEMAG & EPR GmbH offers the crawler-mounted boring loader HBL which is able to realize load works and drilling works for blasting also with a single machine.
- The semi-automatic changeable devices only need a deposit frame to change between drill rig and shovel. Because of quick couplings in the hydraulic system, the change between the drill rig and the shovel only takes a few minutes.
- The drilling unit has a hydraulic hammer for percussive drilling and has been constructed for the preparation of blast hole and anchor drillings.

HBL – HAZEMAG Boring Loader			
	HBL 600	HBL 1000	HBL 1500
Working area	10 - 15yd ²	10 - 20yd ²	15 - 20yd ²
Total length with bucket	260 In	300 In	300 In
Total length with drill rig	280 In	320 In	360 In
Width	45 In	50 In	65 In
Height	55 In	60 In	65 In
Weight	10t	15t	20t
Maximum incline	18degrees	18degrees	20degrees
Stroke of telescopic arm	20 In	40 In	40 In
Type	percussive	percussive	percussive
Drilling diameter	1 - 2 In	1 - 2 In	1 - 2 In
Bucket capacity	160gal	210 - 260gal	400gal
Discharge height	100 In	100 In	120 In
Electric motor	60hp	60 - 100hp	100 - 125hp
Electrical equipment in flameproof design / ATEX conform or non-flameproof design			
Accessories			
Cable drum			
Typical application			
In underground coal and ore mining			





Long Hole Drilling Machine | HLH

- Drill rigs of the TURMAG type series HLH 50 to HLH 300 may be applied for a multitude of drilling tasks, such as core drillings, exploration and degasification drillings.
- The Long Hole Drilling Machines HLH comprise the drill rig, the electrohydraulic power pack and the control panel. By means of the powerful drill rig boring into all directions is possible. The compact design of the hydraulic units and operator panels also allows the application in narrow space conditions.
- Together with the drill rods and bits, which are tailored to the drill carriages as well as to the purposes, a high operating efficiency is guaranteed.
- Electrical equipment in flameproof design / ATEX conform or non-flameproof design

HLH – HAZEMAG Long Hole Drilling Machine				
	HLH 50	HLH 120	HLH 165	HLH 300
Torque drill drive	630Nm	1,200Nm	1,650Nm	3,600Nm
Rotational speed (infinitely variable)	0 - 360 min ⁻¹	0 - 320 min ⁻¹	0 - 950 min ⁻¹	0 - 200 min ⁻¹
Service pressure	180 bar	200 bar	250 bar	150 bar
Hollow shaft diameter	–	–	–	4 In
Clamping range	–	–	–	1 - 4 In
Flushing pressure, max.	25 bar	25 bar	25 bar	25 bar
Feed force	25 kN	50 kN	60 kN	60 kN
Retraction force	25 kN	50 kN	100 kN	100 kN
Feed rate, max.	–	12 ft/min	50 ft/min	45 ft/min
Standard length of drill rod (other lengths are available)	40 In	40 In	60 In	60 In
Diameter of drill rod, min. – max.	2 - 5 In	2 - 4 In	3 - 6 In	2 - 8 In
Drive capacity (electric)	40 hp	60 hp	100 hp	100 hp
Dimensions of drill feet				
Length	90 In	95 In	130 In	130 In
Weight	650 lb.	950 lb.	3,200 lb.	5,000 lb.
Dimensions of hydraulic unit				
Length	110 In	115 In	90 In	80 In
Weight of control panel	220 lb.	220 lb.	220 lb.	660 lb.
Accessories				
Drill rod loosening device				
Erection frame with hydraulic slewing-gear drive				
Flushing pumps				
Wide range of drill tools				
Typical application				
In underground coal, salt and ore mining				





Latest Long Hole Drilling Machine | HLH 260

- Drill rigs of the TURMAG type series HLH 50 to HLH 300 may be applied for a multitude of drilling tasks in coal mining, such as core drillings, exploration and degasification drillings.
- The drills comprise the drill rig, the electro-hydraulic power pack and the control panel. By means of the powerful drill rig boring into all directions is possible. The compact design of the hydraulic units and operator panels also allows the application in narrow space conditions.
- Together with the drill rods and bits, which are tailored to the drill carriages as well as to the purposes, a high operating efficiency is guaranteed.
- Electrical equipment in flameproof design / ATEX conform or non-flameproof design

HLH 260 – HAZEMAG Long Hole Drilling Machine	
	HLH 260
Torque drill drive	2,600 Nm
Rotational speed (infinitely variable)	0 - 1,000 min ⁻¹
Service pressure	260 bar
Flushing pressure, max.	25 bar
Feed force	120 kN
Retraction force	160 kN
Feed rate, max.	40 ft/min
Length of drill rod (other lengths are available)	60 ln
Diameter of drill rod, min.–max.	5 - 8 ln
Drive capacity (electric)	125 hp
Dimensions of drill feet	
Length	130 ln
Width	35 ln
Height	30 ln
Weight	3,800 lb.
Dimensions of hydraulic unit	
Length	100 ln
Width	50 ln
Height	55 ln
Weight (without hydraulic fluid)	8,200 lb.
Weight of control panel	400 lb.
Accessories	
Drill rod loosening device	
Erection frame with hydraulic slewing-gear drive	
Flushing pumps	
Drill tools	
Typical application	
In underground coal mining	





Hand-Held Drilling Machine | HTS 4

- The pneumatically driven drilling machines of the HTS 4 series may be used for a multitude of drilling applications. The powerful rotary drill drive in combination with the sturdy design characterizes this successful series of machines.
- The low self-weight and the infinitely variable rotational speed provide for a very good handling. Either as hand-held drilling machine HTS 4 or in combination with the telescopic jack leg as a variant, termed HTH 4, the machines are used with different drilling tools in mining.

HTS – HAZEMAG Hand-Held Drilling Machine		
	HTS 4	HTH 4
Service pressure (pneumatic)	4 - 15 bar max	4 - 15 bar max
Rating of drill motor	3.2 hp	3.2 hp
Nominal Speed	1,000 min ⁻¹	550 min ⁻¹
Air consumption	5 yd ³ /min	5 yd ³ /min
Weight	18 lb.	18 lb.
Drilling diameter	1 - 7 In	1 - 6 In
Drill hole depth (e.g. in coal) at a diameter of 44 mm	165 ft	230 ft
Accessories		
Drill shafts (chucks)		
Flushing heads		
Filter units (improvement of air quality)		
Drill tools		
Typical application		
In underground coal and salt mining		



HAZEMAG



HAZEMAG – because quality matters.

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