

AIR CORE DRILL RIG

GEMEX AC / 150



*design for
Professional Drillers*

GEMSA
general machine

Enjoy the experience
of drilling with a
reliable companion



Drilling depth capacity's are based on feedback from field operatives and can be reasonably expected with vertical, water filled holes, by well-trained drilling crew using high quality drilling tools. GEMSA cannot guarantee that these results will be achieved in all drilling conditions.
(-20%) safety margins are considered on components capacity's.

AIR CORE DRILLING DEPTH GUIDELINES

DRILL ROD / CORE BARREL	Hole Depth "METRIC"	Hole Depth "U.S."
AC Rod (75 mm "3in")	250 m	820 ft

RC DRILLING DEPTH GUIDELINES

DRILL ROD / CORE BARREL	Hole Depth "METRIC"	Hole Depth "U.S."
4" (101,6 mm)	175 m	574 ft

Robust and Versatile for high productivity

EXPERIENCED AND PROVEN

GEMEX AC 150 is a powerful and versatile Gemsa's small-range mineral exploration drilling rig with a pullback capacity of 60kN and can meet a range of drilling operations such as mineral exploration, air-core drilling and reverse circulation drilling all over the world. Rig proven itself from easy access open drill sites to the remotest steeply soft formations.

CONFIGURED TO YOUR APPLICATION

Even though GEMEX AC 150 is a small-range drill rig, still has a remarkable depth capacity for the job. Thanks to onboard air compressor, makes the rig as a compact unit and ideal for shallow drilling in soft or medium surface formation.

The drills can be track or truck (6x6, 6x4) mounted according to customer needs. Truck mounted rig has greater maneuverability and ease of relocating the drills between drill sites. Crawler tracks, powered from the rig hydraulic system and tramming can be controlled from radio control device.

BASE FRAME / UNDERCARRIAGE			
		"METRIC"	"U.S."
Weight of the Rig		16.000 kg	35.273 lb
Length		8.000 mm	26,2 ft
Width		2.600 mm	8,5 ft
Height		3.000 mm	9,8 ft
Stabilization		Four hydraulic jacks on each sides of rig	
Undercarriage Type		Strickland Model Crawler Unit	
Crawler Width		600 mm	1,9 ft
Crawler Track Type		Steel wide triple grouser shoes	
Driving Speed	1st Speed	3,5 km/h	2,17 mph
	2nd Speed	5 km/h	3,11 mph



GEMEX AC/150

Longevity for all conditions



AC/150 has solid engine that coupled with onboard air compressor by clutch, provide perfect combination for any drilling condition. Additional factors like load sensing and fan speed controls add performance

Service technicians need a well designed work deck area. These drills offer easy to access that keeps you up and running, reducing downtime.

ROBUST MAST STRUCTURE

- Capacity to angle drill between vertical to 45°.
 - Flexible drilling advantage
 - Drill head operating surfaces coated Hardox.
 - Box section of mast 250x250 mm ST52-3
 - Cradle supported with rollers
- Double Shaft Hydraulic Feed Cylinder.
- Feeding Stroke is 4m (13 ft)
- Fast feeding down and pull-back speed is 80m/min (263 ft/min), with 60kN (13.489 lbf) pull-back capacity



GM 250 DRILL HEAD FOR THE JOB

- Hydraulically driven by two high torque motors
 - Rotation speed : 10-90 rpm 4.000 Nm “2.950 lbf ft”
 - Pilot-adjustable torque control
- Drill head floating spindle, spindle thread 4 in (101,6mm).
- Heavy duty chain feed system.

Hydraulic leveling jacks make set-up fast and easy and stabilize the rig to an ideal drilling position



Rig overcomes the rugged terrain in site environment with top performance from strong, structurally sound undercarriages and high strength heavy duty frame.

Features and advantages

Simple & easy control

Robust feed and drill head designed for any ground condition. Operator has excellent accessibility for minor and major maintenance work on feed.

Side located drill rod storage rack activated by a hydraulic cylinders and can rotate 70-80 degree, reference to the axis of base frame.



Anti-slip constructed folding operator's platform allows driller to have ergonomic work place (not shown).

An intuitive control panel design, a safety cage and multiple emergency shutdowns contribute to the inherent safety of the rig



POWER PACK FOR TOP PERFORMANCE

- With powerful, reliable and economical Versatile Diesel Engine built on dependable Volvo in-line six design.
- Peak power rating 300 kW (408 hp) at 1800 rpm with 200 g/kWh (0,324 lb/hph) specific fuel consumption.
- Fully electronic with Volvo Penta EMS 2
- Smooth and vibration-free operation with low noise level, featured with high torque.
- Easily accessible service points
- High-tech injection and air charging system with low internal losses contributes to excellent combustion and low fuel consumption.



ONBOARD AIR COMPRESSOR

- Air compressor Atlas Copco two stage screw compressor", working over pressure max. 25 bar (365 psi) with free air delivery 283,2l/sec (600cfm)
- Robust connection , Integrated gearbox
- Cooler fan is powered by hydraulic motor, variable speed control according to set temperature.

High-quality means high-efficiency



ENJOY DRILLING

Improved safety & work environment

- Entire drilling process is controlled from a single control panel and all controllers and gauges ergonomically positioned for operator comfort.
 - Excellent overview of the drill site.
 - Easy to learn and operate.
- The straight forward design helps to minimize maintenance of the system and increases the rig availability with smooth rig operation.
- Drilling functions are pilot control and manual control.

POWERFUL AND HIGHLY EFFICIENT HYDRAULICS

- Highest quality Sauer Danfoss axial piston pumps and motors used on AC/150
- With PVG control valves drill rig reaches
 - Greater flexibility,
 - Highest possible circuit efficiency
 - Fine control of drilling functions.



WATER PUMP

- High pressure hydraulic powered water pump
- Durable, compact and easy to use
- Maximum Flow : 30 l/min (7,92 gal/min)
- Maximum Pres. : 200bar (2900 psi)

SERVICE FRIENDLINESS

- Each rig has been designed with ease of maintenance in mind.
- Open in-line design - with all components very accessible for fast and safe servicing
- Fluids service center, for filling fuel, hydraulics, and water and for hydraulic evacuation.

RELIABILITY

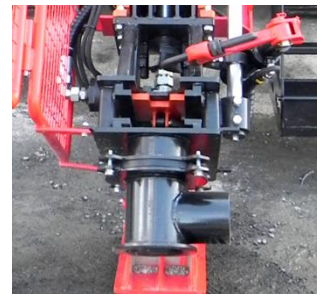
- Reliability is essential when drilling in tough locations. Drill rigs are based on proven and tried technology on a simple design, which ensures continuous and uninterrupted operation – even in the harshest conditions. With AC/150, there is no need to rely on luck.

ENVIRONMENT

- A low-emission engine, designed to minimize hydrocarbon spills, reduces the impact on the surrounding environment while lowering running costs.

AC/150 Flexibility

Drill Anywhere !



HIGH PERFORMANCE

RC DRILLING EQUIPMENT

- Hydraulic control automatic blow down perfect choice for RC
 - Replaceable wear tubes
- Cyclone with replaceable wear plates and nylon bag base. Sample inlet port is coated with ceramic.
 - Easy to clean and suitable for sample collection RC drilling.
- Cylinder actuated rod thread breaker, mounted on lower right hand side of mast, with wrap around spanner tool
- Hydraulic double rod key unit with higher weight holding capacity.
- Hydraulic control air-line lubricator system.

SOLID & SAFE DESIGN

- Safety must always come first. The rig's design allows the operator to stand outside the hazardous zone.
- Opening safety cage restricts oil flow to drive head motor thus limiting drive head rotation speed.
- Safety stops placed on each side of the machine where operator and assistant can reach easily.
- All high-pressure air hoses fixed by safety socks on to anchor points.
- Fire extinguishers are several places where operator and assistant can reach easily. Also fire sensitive balls inside the engine cabinet.



ACCESSORIES ON AC/150

- Standard Rod Carrier
- Working led lights, Trimming lights, Service Lights
- Lockable tool cabinet
- HD Steel Work Bench with HD Work Vice

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