



DISCOVERY DRILL MANUFACTURER (DDM) LTD.

"Your Drilling Equipment & Service Partner"



THE EF Series Drill Rigs

THE MOST COMPREHENSIVE TURNKEY DRILLS IN THE INDUSTRY



Made in New Brunswick, CANADA



“ The EF-75 has helped us achieve results in very complicated drilling projects that our very experienced drillers did not believe possible. It has constantly been put to the test and come through for us and it keeps delivering. Power, ruggedness and reliability have been above expectations. Next one will be an EF-75! ”

Ove Göting
Asera Mining AB

Jönköping, Sweden

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Out with the old...



...in with the new
EF Series



Corporate Profile

Discovery Drill Manufacturer (DDM) Ltd.

is a leading manufacturer of Hydraulic Diamond Drills for core exploration and preliminary shale gas drilling. In 1999, our President, John Labonville, with over 30 years' experience in the exploration industry, and over 50 years' experience in the Diamond Drilling industries, founded DDM.

He realized a need for an improved Hydraulic Diamond Drill on the market in term of safety, performance, reliability, environmentally friendly, and ergonomic for the operators.

The EF Series offers a variety of Turnkey Hydraulic Diamond Drills that enables a drilling contractor to undertake their project upon delivery. The different models have all been designed keeping in mind the operators' safety and ergonomics while competing in the world markets with its performance.

Our manufacturing facility is located in Beresford, New Brunswick, Canada. Our shop is fully equipped with state-of -the-art welding and machining equipment. Our certified technicians have over 90 years' combined experience in the drilling industry, and our after-sale service is unmatched.

Mission Statement

Our goal is to manufacture the most efficient drill in the world markets while providing superior after-sale support to our clients.



Rod Capacity – B-N-H (P optional)

Water Pump – FMC W1122 BCD – 37 GPM @ 1,000 PSI (140 LPM @ 69 Bar)

Water Pump Drive – Hydraulic Motor

Drilling Fluid Mixer – In tub mud mixer hydraulically driven, heavy duty polypropylene tub with bottom drain

Instrumentation Panel – Complete with all Warning lights, gauges and camera monitor for your wireline hoist

Drill Enclosure – Rigid steel tubing structure with half inch plywood painted with high resistance paint, including company logos (Steel Drill enclosure optional)

Heavy Duty Rod Handler – Fully hydraulic with B – N – H – P Capability including Cat Train

Drill Head – 12HH or P size, DDM design including Safety Lockout guard with reduce Rod RPM

Chuck – Boyles 12 HH [12.5 degree – 25,000 lbs (11,339 kg)] [7 degree – 36,000 lbs (16,329 kg)] capacity

Chuck – Boyles P size (12.5 degree – 36,000 lbs (16,329 kg)) (7 degree – 50,000 lbs (22,679 kg)) capacity

Chuck – Boyles P size Heavy Duty (12.5 degree – 36,000 lbs (16,329 kg)) (7 degree – 50,000 lbs (22,679 kg)) capacity

Rod Clamp – DDM design, 4 jaws with 36,000 lbs (16,329 kg) capacity handles up to P rod (PW Adapter Kit Optional)

Transmission – Funk 2 speed

Rod Breaking System – DDM design, Hydraulic breakout tool

Hydraulic Motor – Rexroth 5,800 PSI variable displacement

Hydraulic Pumps

Main: Rexroth 4,000 PSI variable displacement (pc) (ls)

Rexroth 5,800 PSI variable displacement, closed loop

Secondary: Rexroth 4,000 PSI (pc) (ls)

Rexroth 4,500 PSI (pc) (ls)

Rexroth 5,000 PSI (pc) (ls)

Third: Rexroth 4,000 PSI (pc)

Fourth: Rexroth Charge Pump set at 400 PSI

Filtration – All filters, with LED warning lights included

Wireline Hoist – DDM design, including 3/16 Swaged cable complete with level wind

Rod Hoist – 1,000 lbs (454 kg) capacity

Lighting – LED 12 volt interior and exterior

Leveling Jacks – 4 hydraulic cylinders complete with pilot operated check valve, one mounted in each corner

Rod Make/Break System – DDM design, fully hydraulic, facilitates hoisting and lowering of rods

EF Series Specifications

EF-50	EF-50F	EF-75	EF-75F	EF-75M	EF-100
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	Optional	•	Optional	•	•
•					
•	•	•	•	•	•
•	•	•	•	•	•
12.5 degree	12.5 degree	7 degree	7 degree	7 degree	
12.5 degree	12.5 degree	7 degree	7 degree	7 degree	
					12.5 degree
•	•	•	•	•	•
•	•	•	•	•	
					•
160cc	160cc	160cc	160cc	160cc	250cc
125cc	125cc	125cc	125cc	125cc	250cc
					145cc
95cc	95cc	95cc	95cc	95cc	
45cc	45cc	45cc	45cc	45cc	71cc
Optional	Optional	Optional	Optional	Optional	63cc
•	•	•	•	•	•
5,000 ft	5,000 ft	7,500 ft	7,500 ft	7,500 ft	10,000 ft
1,524 m	1,524 m	2,286 m	2,286 m	2,286 m	3,048 m
•	•	•	•	•	•
•	Optional	•	Optional	•	•
•	Optional	•	Optional	•	•
•	•	•	•	•	•

• Included

FOR COMPLETE TECHNICAL DATA AND CUSTOMIZATION OPTIONS, VISIT:

www.discoverydrills.com



Stewiacke, Nova Scotia, CANADA

EF-50

Operator's Controls



EASE OF OPERATION

A full array of gauges is provided to indicate the various in-hole drilling condition.

"I have given the EF-50 the highest possible rating on all accounts. The EF-50 is by far the easiest drill to work with that I have encountered in the last 35 years as a driller."

Bill Hartford
Driller

Specifications

Depth Capacity N rods	5,000 ft	1,524 m
Engine*	Cummins 160 HP	
Pull Back Capacity	25,000 lbs	11,340 kg
Feed Capacity	12,000 lbs	5,443 kg
Total Weight ready to drill	21,000 lbs	9,525 kg

* Engine Options: John Deere and Caterpillar

FOR COMPLETE TECHNICAL DATA AND CUSTOMIZATION OPTIONS, VISIT:

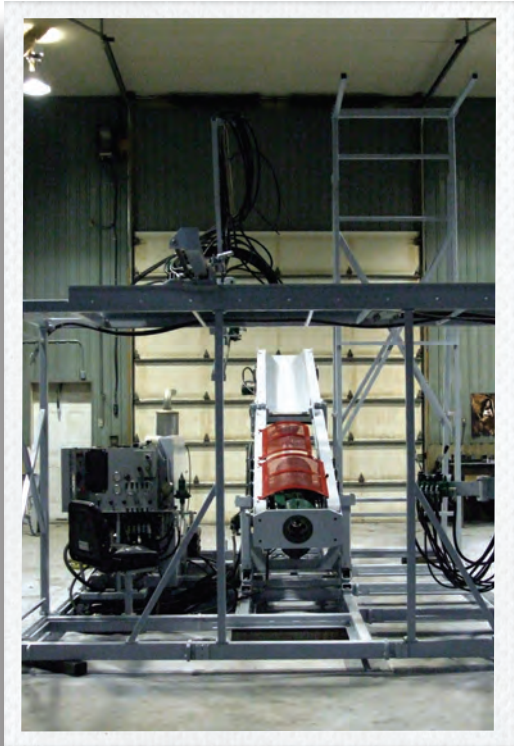
www.discoverydrills.com



PDAC - Toronto, Ontario, CANADA

EF-50F

Heli-Portable without drill enclosure



VERSATILITY

This Heli-portable drill gives you the capability of depth, heavy duty rod handler with the ability of becoming a Skid Mounted drill very easily.

**“ The EF Drills are exactly what you want:
E = efficient and effective,
F = friendly to operate and friendly to train new drillers.**

These drills have not disappointed us with the depth they can reach and the cost per meter that they operate at.

Rod Cyr
Rodren Drilling

Specifications

Depth Capacity N rods	5,000 ft	1,524 m
Engine*	Cummins 160 HP	
Pull Back Capacity	25,000 lbs	11,340 kg
Feed Capacity	12,000 lbs	5,443 kg
Fly Weight {8 loads}	Less than 2,000 lbs each	Less than 907 kg ea.
Total Weight ready to drill	12,050 lbs	5,466 kg

* Engine Options: John Deere and Caterpillar

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www.discoverydrills.com



Red Lake, Ontario, CANADA

EF-75

Drill Head Assembly



PERFORMANCE / BENEFIT

DDM design, drill head assembly which is centrally mounted, reduces torque requirements which in turn reduces fuel consumption and is equipped with a safety guard that reduces the RPM of the drill head when opened ensuring the safety of the driller.

“ In regards to the performance of the EF-75, I believe your drill is unmatched. ”

Rod Cyr
Rodren Drilling

Specifications

Depth Capacity N rods	7,000 ft	2,134 m
Engine*	Cummins 215 HP	
Pull Back Capacity	36,000 lbs	16,329 kg
Feed Capacity	17,280 lbs	7,838 kg
Total Weight ready to drill	22,350 lbs	10,137 kg

* Engine Options: John Deere and Caterpillar

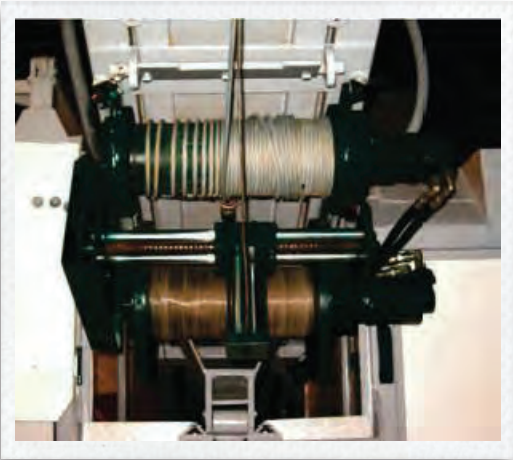
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EF-75F

Rod Hoist & Wireline Hoist



RELIABILITY

The EF-75F is heli-portable, designed to operate in remote locations and having the capability to drill to 7,000 ft (2,134 m) on N.

SAFETY

The EF Series drills are equipped with fully hydraulic heavy duty rod handling system with B-N-H-P rod capability. Its rod hoist has a reversible drive hub which reduces downtime in field operations if changing is required. The Wireline hoist is equipped with a level wind assembly to assist in guiding the cable and a high-torque hydraulic motor which provides speed and power for efficient and fast core retrieval while using minimal RPM on the diesel engine.

Specifications

Depth Capacity N rods	7,000 ft	2,134 m
Engine*	Cummins 215 HP	
Pull Back Capacity	36,000 lbs	16,329 kg
Feed Capacity	17,280 lbs	7,838 kg
Fly Weight (8 loads)	Not more than 3,250 lbs ea.	Not more than 1,474 kg ea.
Total Weight ready to drill	14,093 lbs	6,392 kg

* Engine Options: John Deere and Caterpillar

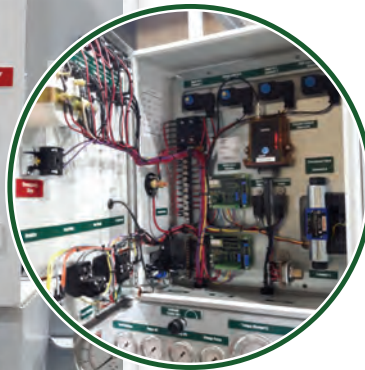
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EF-75M

Enhanced Control Panel



MULTI-PURPOSE

One drill, 4 different applications. Although the EF-75M is manufactured on tracks, it has the ability to be mounted on a truck, skids or dismantled for Heli-portable with minimal work required.

Safe Productivity is at the forefront with this rig. Its ability to close up, and move, then set up again make it a driller's choice. We love our EF-75M.

*Tyler Lief,
Major Drilling*

Specifications

Depth Capacity N rods	7,000 ft	2,134 m
Engine*	Cummins 215 HP	
Pull Back Capacity	36,000 lbs	16,329 kg
Feed Capacity	17,280 lbs	7,838 kg
Total Weight ready to drill	41,350 lbs	18,756 kg

* Engine Options: John Deere and Caterpillar

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EF-100

EF-100 gets record for longest hole in Canada



NEW DESIGN

The EF-100 has been design to meet the market requirements for a deeper core retrieval. DDM has designed a new heavy duty P size drill head including a rod breaking system. This new electronics over hydraulic design enabled DDM to incorporate a wireless remote control to operate the heavy duty rod handling system and the hydraulic leveling jacks. The drill dimensions are 23' L x 11'10" W x 9'6", which provides more room inside for your rod storage and allowing your inner tube to be emptied inside your drill.

EFFICIENCY

DDM developed its own mast raise system that exceeds the performance, efficiency and safety of any other manufacturer's product. Our mast raise system is fully hydraulic and operates by means of a feed screw system. The hydraulic motor that operates the feed screw is equipped with a brake to maintain stability throughout the drilling operation. The result is a drill mast that does not require any stay legs, considerably reducing setup time while being very efficient and safe.

Specifications

Depth Capacity N rods (V-wall®)	10,000 ft	3,048 m
Engine*	Cummins 260 HP	
Pull Back Capacity**	50,000 lbs	22,680 kg
Feed Capacity	15,306 lbs	6,943 kg
Total Weight ready to drill	41,350 lbs	18,756 kg

* Engine Options: John Deere and Caterpillar

** More Pull Back Capacity available upon request

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DDM Drill Locations



Sweden
Africa

Alaska
Nevada

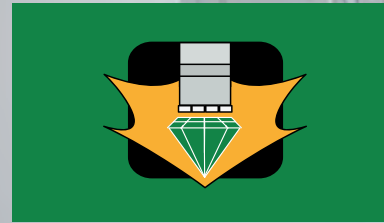
Utah
Colombia

Russia
Finland

Japan

TRANSPORTATION

As an additional service, DDM can help coordinate your shipment anywhere in the world.



*"Thank you very much
for the first class service."*

After Sales Service & Support



John Labonville
President/CEO
john@discoverydrills.com



Darlene Labonville
V-P of Operations
darlene@discoverydrills.com

TECHNICAL SUPPORT AVAILABLE 24/7

“Our clients remain completely satisfied with the overall performance, extreme efficiency, great dependability and ease of operation of these “Turnkey” drill rigs and they strongly recommend to anyone planning the purchase of a surface drill to give serious consideration to DDM as a supplier of choice. Of particular note, they all emphasize the strong after-sale support and training delivered by DDM.”



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