

Novamac industries was founded in 1988 to provide solutions to the drilling industry by manufacturing equipment that specifically answers the needs of the people who drill.

Through the years its engineering department researched and developed precision rock drilling technologies, which are manufactured at Novamac's state-of-the-art plant. We pride ourselves in delivering products that are simple to operate, reliable, rugged and whose performance increases yield and reduces operating cost.

DP648-Platform



The "Nova-Rig" is a multi-function drilling platform designed for air or mud-rotary drilling. The "full hydraulic" control panel controls all the positioning and drilling operations. Novamac can customize the mounting plate in order for the Nova-Rig to be installed on your carrier (truck, muskeg , etc)

The rig develops 48,000 lbs $\leftrightarrow 213\text{Kn}$ of pull back and pull down , while the 3 speed rotary delivers up to 4751ft/lb. The rig is powered by a Cummins QSB4.5 turbocharged diesel engine which drives an hydraulic system of pressure compensated, variable displacement, load sensing piston pump.

An ingenious rod handling system loads and trips out the 20 ft rods to the drilling rotary . The Nova-Rig standard equipment include s water-pump, automatic lubricator, jib winch. Optional mud pump, hydraulic break out & more.



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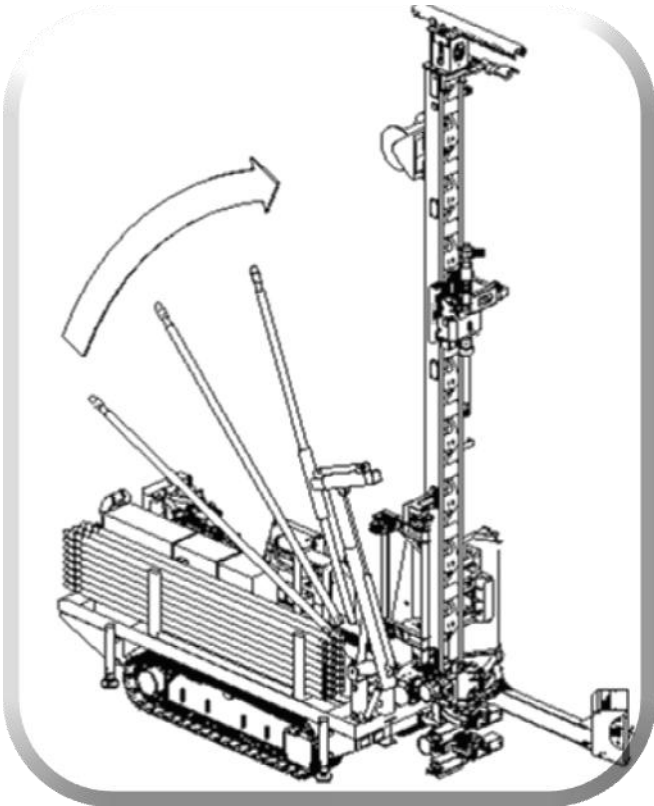
Innovative Solutions Provider

The "Nova-Rig is an innovative drill rig designed to be installed on the customer's carrier to deliver high performance drilling performance at a lower capital investment cost. Here are some of the features :

- * Feed system equipped with 48,000 lbs <> of pullback & pull down
- * 3 speed air & mud rotary delivering up to 4,751 ft/lbs of torque
- * Powered by a reliable turbocharged Cummins engine
- * PCVDLS : Pressure compensated , variable displacement, Load sensing piston pump . Efficient sturdy and reliable power.
- * Full hydraulic control panel on swing arm
- * Optional 65° front tilt of rotary sled for casing
- * FMC water pump with aluminium tank
- * Double filtrations system (Dry & Turbo II)
- * 5 Micron filtration system
- * Urethane anti-wear slides, Safety lock cylinders.



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"ROD HANDLING"

The simplicity of the rod handling system ensures its reliability. Each rod is picked up by the clamp-arm and deposited in the rod feeder (see picture at left).

The rod-feeder is stand-by to swivel and feed the rod under the rotary once the previous rod is uncoupled . Reverse the procedure when tripping out.

**Simple
Fast
Reliable
Productive**



Rod-Feeder



Double hydraulic break-out





Innovative Solutions Providers



Drilling system specifications

- Feed boom stroke 25ft <> 7.62 meters
- Starter rod 20ft <> 6.09 meters
- Mast extension pin #1 40" <> 101.6 cm
- Mast extension pin #2 274" <> 187.96cm
- Pull down – Pull back @ start 40,000lbs<>172.2Kn
- Pull down –Pull Back 48,000lbs<>213.5Kn
- Dump from horizontal 0 to 100°
- One hydraulic gear box driving double chain
- Jib winch 1200 lbs

Power system specifications

- Engine diesel Cummins QSB4.5
- Gross power 160 hp/ 119.1kw @ 2200 rpm
- Fuel consumption 1.8 gpm<>6.8 litres /hr
- Voltage 24 volts
- Turbocharged, water cooled
- Air cleaner Two stage (dry) + Turbo
- Fuel tank 60 gallons <> 227 liters
- Certificats EPA Tier 3, EU Stage III

Drill mast and feed assembly

- Dump 0-100°
- Pull down –Pull back 48,000 lbst<> 213.5 Kn
- Drill head stroke 25"<>7.62m
- Drill pipe and casing 20'<>6.08m
- Urethane anti wear slides Yes
- Jib wich 1,200 lbs<>544 kg

Hydraulic system specifications

- Type Piston pump, Pressure compensated , variable displacement, load sensing
- Auxiliary Gear pump
- Oil tank 100 gls <> 378L
- Cooling integrated system

Transport dimension specifications

- Width 7"4" <> 2.26m
- Height 9'6" <> 2.90m
- Weight(w/o pipes) 18,500 lbs<>8,392kg
- Length (traveling) 33'8" <> 10.31 m

Drill head:

- model 9320 Torque capacity: 4751 lb-ft <> 6431 Nm
- Rotation speed 0-250 rpm
- Floating spindle for RC

Control system specifications

- Full hydraulic
- Display Yes
- Hydraulic/ Hydraulic Yes
- Moveable Yes

RHS: Rod Handling System

- Make Novamac
- Pick up arm Novamac
- Rod Rack 500' of 3" (3.5" & 4" optional)
- Rod feeder Single clamp

