

STR 138

SPT & Wireline Rotary Core Test Drill Rig



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The STR-138 is a mini drill rig for SPT soil testing, wireline coring and rotary drilling, and is the perfect entry level SPT rig. This small yet very powerful drilling rig is designed for tight job sites while still having all the features needed for SPT testing and wireline core drilling.

The STR-138 has a 38hp tier-4 diesel engine, a water / mud pump, retractable tower, a 4-speed gearbox drill motor with wet swivel and dual wireline winches.

The STR-138 can be ordered with manual or automatic SPT hammer system.

38

HORSEPOWER

9161

FT LBS OF TORQUE

(with rotary drill head ML-500)

482

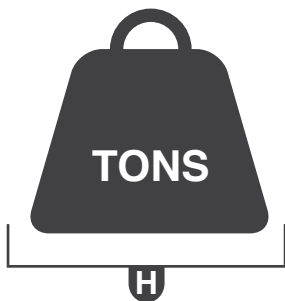
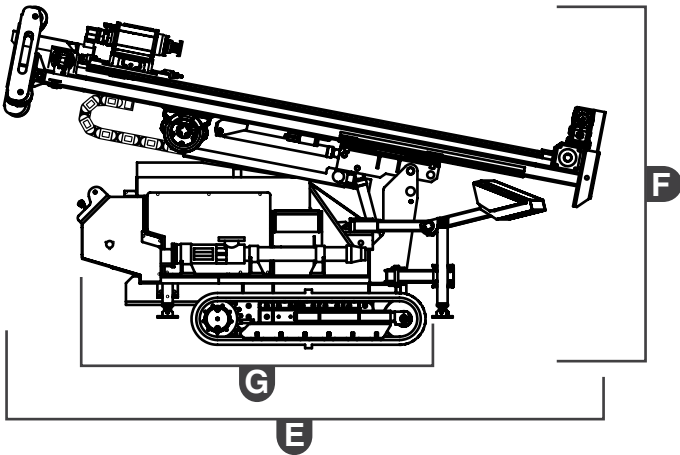
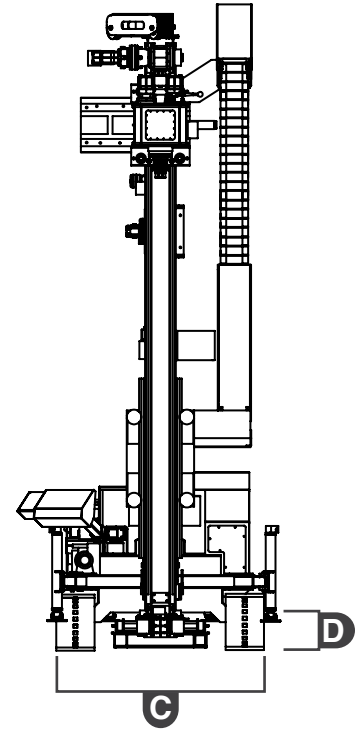
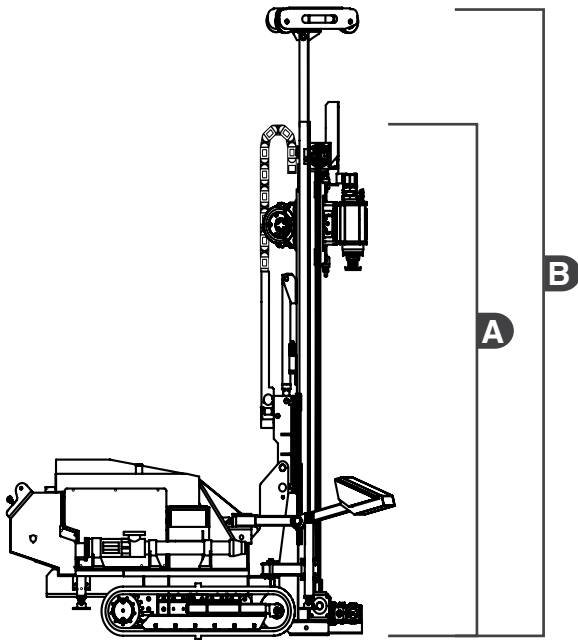
RPM / 4-SPEED GEARBOX DRILL HEAD

150-250

FEET OF DEPTH

(with rotary drill head ML-500)

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DIMENSIONS

Standard Mast (5 ft - 1.5 mts drill pipe)

- A. Height - Tower retracted**
165" (13.75') - 419 cm.
- B. Height - Tower extended**
265" (22') - 673 cm.
- C. Width**
50" - 127 cm.
- D. Ground clearance**
11.7" - 29 cm.
- E. Length - Mast tilted**
170" (14.16") - 432 cm.
- F. Height - Mast tilted**
85" (7') - 215 cm.
- G. Length of body**
115" (9.5') - 292 cm.
- H. Weight (approximate)**
4.5 tons - 9000 lbs.

Engine

- 38 hp (28.35 kW) tier-4 compliant, turbo charged diesel engine
- Water cooled
- 12 V electric start
- Emergency stop button
- Rpm gauge
- Oil pressure gauge

Hydraulic System

- 22 gpm (83.3 lpm) max combined hydraulic flow
- Max 3000 psi (206 bar)
- Load sensing variable displacement axial piston pump
- Feather touch controls
- Oil cooler

Track System

- Stationary track system (260 mm wide 1676 mm long - 10.2" wide 66" long)
- NACHI 2B track motor with automatic brake system
- Built-in grease filled tensioning arm and spring

Mast

- Chain driven mast
- V-Rollers
- Tilt rotate for travel
- Standard mast 5.5 ft (1.67 m) stroke or extended mast 10.5 ft (3.2 m) stroke

Pipe Clamp

- Single pipe/rod bottom clamp
- Size capability from 1.5" to 6" (Other sizes available)

Telescopic SPT Tower

- Telescopic SPT tower
- 19 ft (5.79 m) max height (longer travel available)
- Dual pulley system - SPT rope pulley and wireline pulley. Tower counterbalance hydraulic locking system

Leveling Outriggers

- 4 hydraulic level outriggers with independent controls

SPT Hammer System

- Rotary capstan system for manual SPT hammer (SPT hammer sold separately) (Auto hammer option available)

Drill motor - Rotary Gearbox MS-500

- Gear 1: 482 rpm at 573 ft lbs (776 Nm) torque
- Gear 2: 241 rpm at 1145 ft lbs (1552 Nm) torque
- Gear 3: 120 rpm at 2290 ft lbs (3104 Nm) torque
- Gear 4: 60 rpm at 4580 ft lbs (6209 Nm) torque
- See complete list of options on next page
- Built-in heavy duty wet swivel (see bellow)

Heavy Duty Wet Swivel

- Top intake
- One quick-change connector (AWJ, AW, BW, BQ, NW, NQ, HW, HQ, PW, PQ) others available
- Automatic spring floating system

Mud Pump

- Moyno 3CL4 (or equivalent) continuous flow stator / rotor style mud pump
- Up to 225 psi (15.5 bar)
- 25 gpm flow (94 lpm)
- Independent hydraulic motor
- Quick coupling
- Mounted on drill rig frame

Lifting Winch

- 4,500 lbs (2,041 kg) lift capacity
- Planetary gear
- 10 ft/sec travel speed
- Balance weight and locking hook
- ¼"- ½" (6-12 mm) cable diameter

Wireline Winch - 2nd Winch

- For wireline operations
- 1,000 lbs (453 kg) lift capacity
- 20 ft/sec travel speed

Fuel Tank

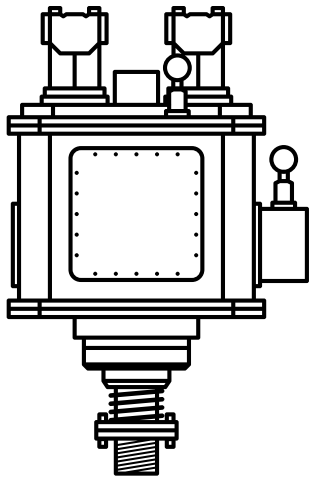
- 10 gallon (37.8 liters) fuel tank with fuel sending sensor

Hydraulic Oil Tank

- 20 gallon (75 liters) hydraulic oil tank with built in site level glass

Options

- Remote control for driving operations
- Various auger drill heads available
- Automatic drop hammer 140 lbs (63 kg)
- Manual drop hammer 140 lbs (63 kg)
- Dual pipe clamp with breakout
- Direct push drill head



Rotary Drill Head Gearbox Options

For 38 hp & 22 gpm, diesel engine

	MS Series				ML Series			
	MS-200				ML-200			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4	GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	1253	627	313	157	1253	627	157	78
TORQUE - Lb ft	220	440	881	1761	220	440	1761	3523
TORQUE - Nm	298	596	1194	2387	298	596	2387	4776
	MS-250				ML-250			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4	GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	1002	501	250	125	1002	501	125	63
TORQUE - Lb ft	275	551	1101	2203	275	551	2203	4405
TORQUE - Nm	372	747	1492	2986	372	747	2986	5972
	MS-400				ML-400			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4	GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	773	387	193	97	773	387	97	48
TORQUE - Lb ft	357	714	1427	2855	357	714	2855	5710
TORQUE - Nm	484	968	1934	3870	484	968	3870	7741
	MS-500 - Standard				ML-500			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4	GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	482	241	120	60	482	241	60	30
TORQUE - Lb ft	573	1145	2290	4580	573	1145	4580	9161
TORQUE - Nm	776	1552	3104	6209	776	1552	6209	12420

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