

STR 174

SPT & Wireline Rotary Core Test Drill Rig



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The STR-174 is our largest and most powerful tier-4 compliant SPT, wireline rotary core test drill rig. The STR-174 can drill to 1000 feet and offers several drilling speed and torque options thanks to its 4-speed gearbox drill motor. Perfect for SPT soil sampling and rotary wireline core drilling, this drill rig is the best in its class.

The STR-174 includes a mud pump, manual or automatic SPT hammer system, retractable mast, dual winches for wireline drilling, and a single or dual pipe clamp with breakout.

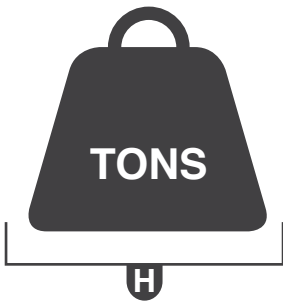
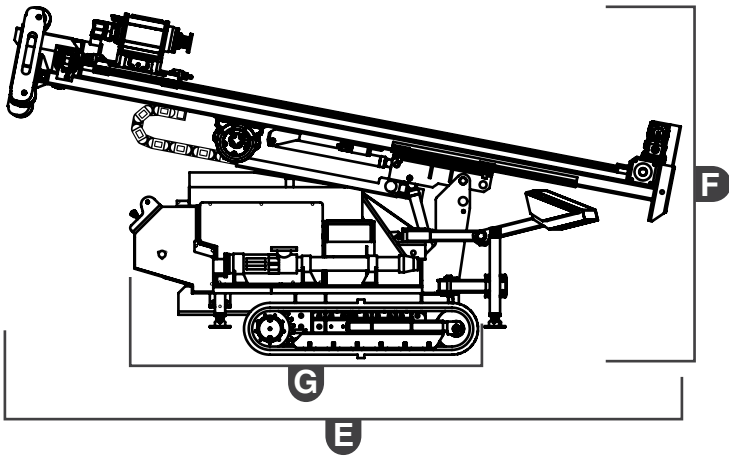
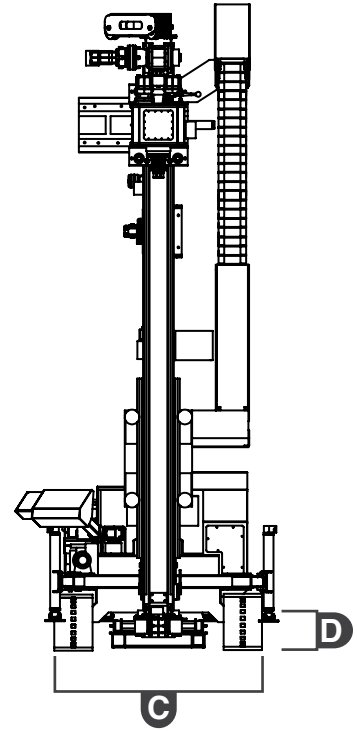
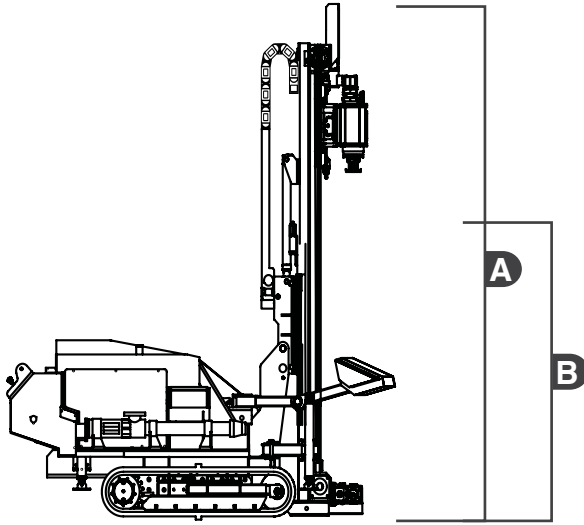
74
HORSEPOWER

9161
FT LBS OF TORQUE
(with rotary drill head ML-500)

723
RPM / 4-SPEED GEAR BOX DRILL HEAD

500-900
FEET OF DEPTH
(with rotary drill head ML-500)

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DIMENSIONS

Standard Mast

(5 ft - 1.5 mts drill pipe)

Extended Mast

(10 ft - 3 mts drill pipe)

A. Height - Tower retracted
150" (12.5') - 381 cm.

A. Height - Tower retracted
195" (16.25') - 495 cm.

B. Height - Tower extended
229" (19') - 582 cm.

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229" (19') - 582 cm.

C. Width
64" - 162 cm.

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64" - 162 cm.

D. Ground clearance
11.7" - 29 cm.

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11.7" - 29 cm.

E. Length - Mast tilted
196.9" - 500 cm.

E. Length - Mast tilted
196.9" - 500 cm.

F. Height - Mast tilted
102" - 259 cm.

F. Height - Mast tilted
102" - 259 cm.

G. Length of body
101" - 256.5 cm.

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101" - 256.5 cm.

H. Weight (approximate)
4 tons - 8000 lbs.

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4 tons - 8000 lbs.

Engine

- 74 hp (55.2 kW), tier-4 compliant, turbo charged diesel engine
- Water cooled
- 12 V electric start
- Emergency stop button
- Rpm gauge
- Oil pressure gauge

Hydraulic System

- 50 gpm (189 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 (300 mm wide 1727 mm long - 11.8" wide 68" long)
- NACHI 3B 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 (1.5 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: 723 rpm at 573 ft lbs (776 Nm) torque
- Gear 2: 361 rpm at 1145 ft lbs (1552 Nm) torque
- Gear 3: 181 rpm at 2290 ft lbs (3104 Nm) torque
- Gear 4: 90 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
- Three quick-change connectors (AWJ, AW, BW, BQ, NW, NQ, HW, HQ, PW, PQ) others available
- Automatic spring floating system

Mud Pump

- Moyno 3L6 (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

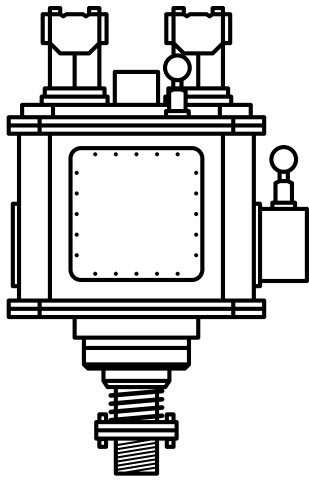
- 10 gallon (37.8 liters) fuel tank with fuel sending sensor

Hydraulic Oil Tank

- 30 gallon (113 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 74 hp & 50 gpm, diesel engine

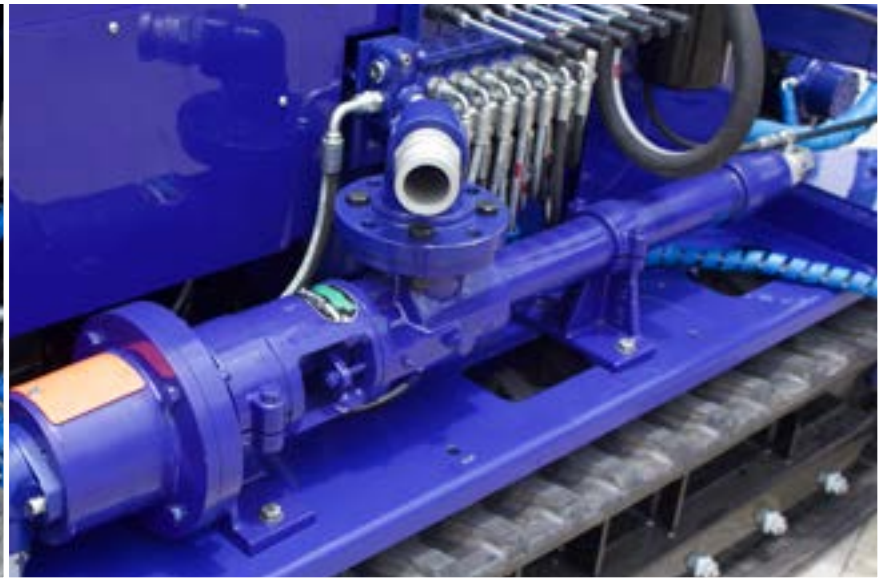
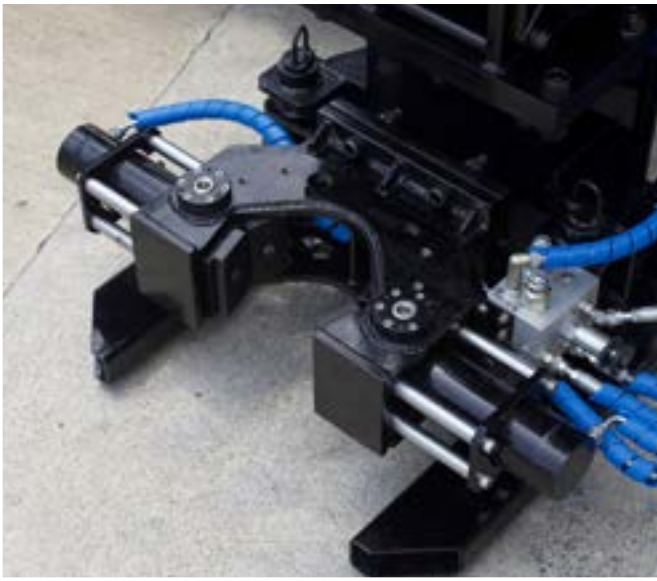
	MS Series					ML Series			
	MS-200					ML-200			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4		GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	1880	940	470	235	.....	1880	940	235	117
TORQUE - Lb ft	220	440	881	1761	.....	220	440	1761	3523
TORQUE - Nm	298	596	1194	2387	.....	298	596	2387	4776

	MS-250					ML-250			
	GEAR 1	GEAR 2	GEAR 3	GEAR 4		GEAR 1	GEAR 2	GEAR 3	GEAR 4
RPM - Max speed	1503	751	376	188	.....	1503	751	188	94
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	1160	580	290	145	.....	1160	580	145	72
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	723	361	181	90	.....	723	361	90	45
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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