

STR 155

SPT & Wireline Rotary Core Test Drill Rig



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The STR-155 is our 55hp drill rig for SPT soil testing, wireline core testing and rotary drilling. It is designed for the engineer that requires an easily maneuverable, yet powerful SPT & coring soil investigation rig.

The STR-155 allows the engineer to install augers and micropiles, in addition to wireline core sampling and rotary drilling. This rig comes complete with a mud and water pump, manual or automatic SPT hammer system, retractable mast, dual winches for wireline drilling, and a compact and incredibly powerful 4-speed gearbox drill motor with a built in heavy duty wet swivel.

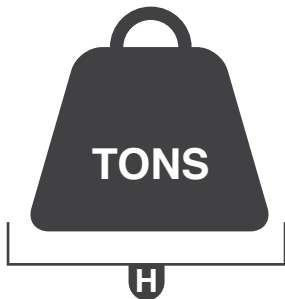
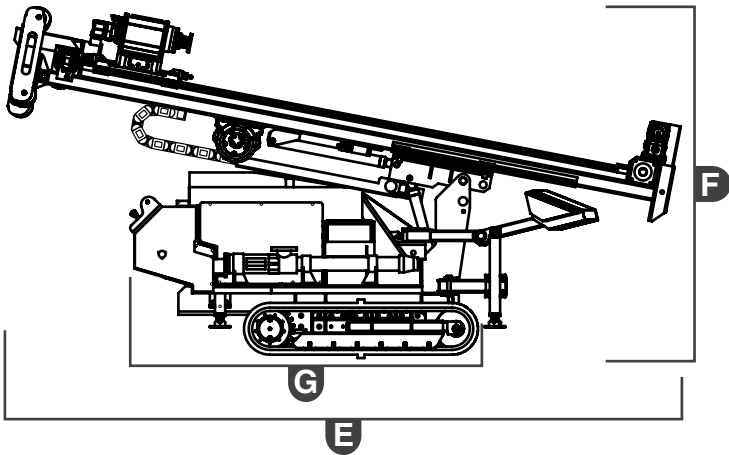
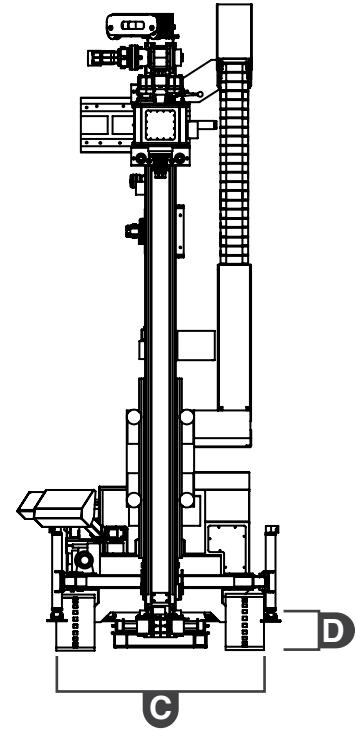
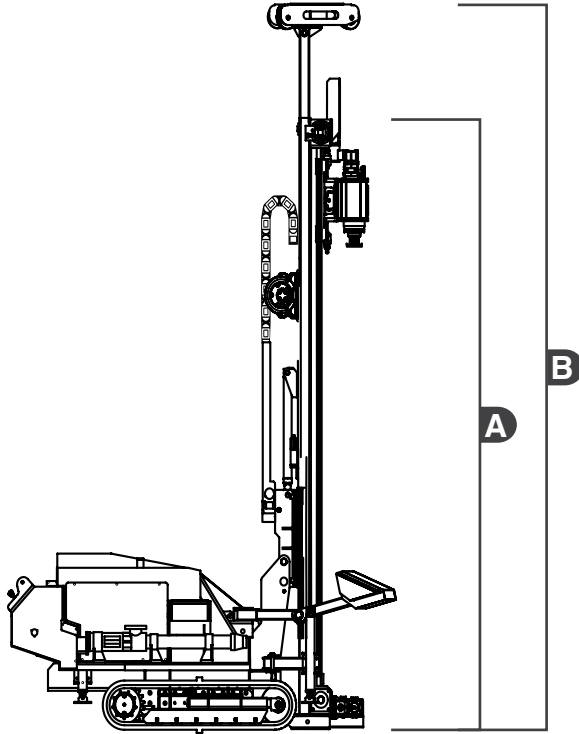
55
HORSEPOWER

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

482
RPM / 4-SPEED GEAR BOX DRILL HEAD

250-500
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 165" (13.75') - 419 cm	A. Height - Tower retracted 210" (17.5') - 533 cm
B. Height - Tower extended 265" (22') - 673 cm	B. Height - Tower extended 315" (26.25') - 800 cm
C. Width 60" (5') - 152 cm	C. Width 60" (5') - 152 cm
D. Ground clearance 11.7" - 29 cm.	D. Ground clearance 11.7" - 29 cm.
E. Length - Mast tilted 170" (14.16') - 432 cm	E. Length - Mast tilted 235" (19.58') - 597 cm
F. Height - Mast tilted 85" (7') - 215 cm	F. Height - Mast tilted 85" (7') - 215 cm
G. Length of body 120" (10') - 305 cm	G. Length of body 120" (10') - 305 cm
H. Weight (approximate) 5.25 tons - 10,500 lbs.	H. Weight (approximate) 5.25 tons - 10,500 lbs.

Engine

- 55 hp (41 kW), tier-4 compliant, turbo charged diesel engine
- Water cooled
- 12 V electric start
- Emergency stop button
- Rpm gauge
- Oil pressure gauge

Hydraulic System

- 45 gpm (170 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: 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
- Complete drill head motor options in 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 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

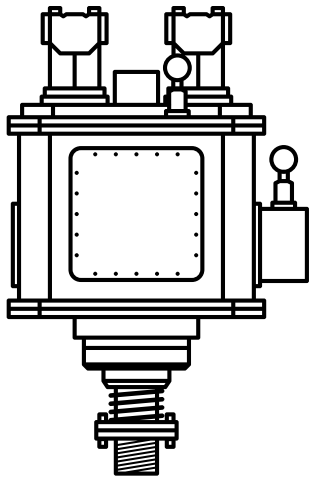
- 10 gallon (37.8 liters) fuel tank with fuel sending sensor

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

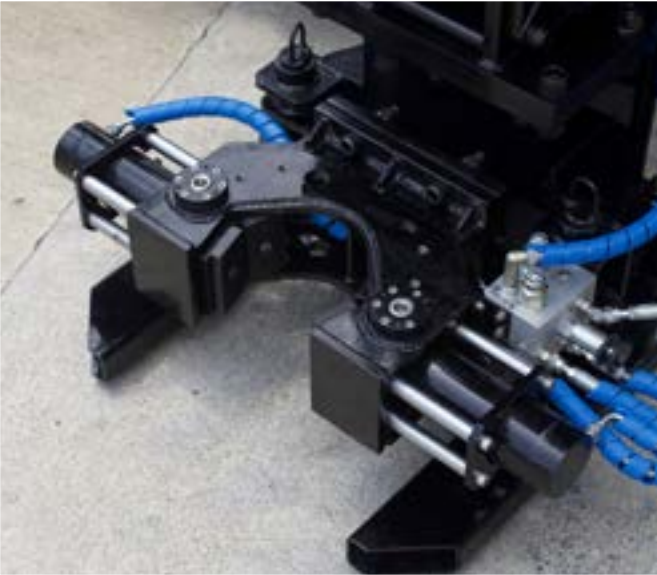


Rotary Drill Head Gearbox Options

For 55 hp & 45 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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