**MICROTUNNEL BORING MACHINES (MTBMs)**

SL44C, SL46C, SL51C

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### FEATURES
- Slurry/earth pressure balanced cutting chamber with slurry spoil removal
- Slurry modulating valves regulate flow to slurry chamber or crushing chamber
- Electric, water-cooled, variable frequency drive (VFD) motor with heavy duty drive bearing for high thrust capacity and extended life
- High pressure jetting nozzles
- Three point steering control system
- Active target system relays MTBM X and Y coordinates, roll in degrees and anticipated position
- On-board hydraulic power pack for steering, system flow, slurry switching and torque wing functions
- Camera for maintenance and passive target
- Equipped with dirt wing assembly to minimize potential MTBM roll
- Audio system microphone for live, one-way audio monitoring by the operator
- Gas detector system monitors combustible gas levels
- Submersible pump to remove excess water
- Increase kits are available to accommodate larger diameter pipe
- Cutter head types available: soft ground, mixed ground, and rock (see reverse) with carbide hard-facing tapered crushing chamber

### SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>SL44C</th>
<th>SL46C</th>
<th>SL51C</th>
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</thead>
<tbody>
<tr>
<td><strong>Machine Diameter/ Max. Pipe OD</strong></td>
<td>44-in (1,118 mm)</td>
<td>46-in (1,168 mm)</td>
<td>51-in (1,295 mm)</td>
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<tr>
<td><strong>Length: Starting Section/Total</strong></td>
<td>123/249-in (3,124/6,325 mm)</td>
<td>126/252-in (3,200/6,401 mm)</td>
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<tr>
<td><strong>Heaviest Section/Overall Weight</strong></td>
<td>15,000-21,500 lbs (6,804-9,752 kg)*</td>
<td>16,000-23,500 lbs (7,257-10,659 kg)*</td>
<td>18,000-25,500 lbs (8,164-11,566 kg)*</td>
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<tr>
<td><strong>Overcut</strong></td>
<td>1.5-in (38 mm)</td>
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<tr>
<td><strong>Drive Type</strong></td>
<td>Electric, 575 volt, 3-phase</td>
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<tr>
<td><strong>Drive Motor</strong></td>
<td>75 HP (56 kW), water-cooled, electric motor with VFD</td>
<td>125 HP (93 kW), water-cooled, electric motor with VFD</td>
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<tr>
<td><strong>Cutter Head Speed/Torque</strong></td>
<td>option 1) 0-11 rpm, 35,000 ft-lbs (47,454 Nm) continuous, 44,000 ft-lbs (59,656 Nm) intermittent</td>
<td>option 2) 0-8 rpm, 49,500 ft-lbs (67,113 Nm) continuous, 61,700 ft-lbs (83,654 Nm) intermittent</td>
<td>0-9.5 rpm, 68,500 ft-lbs (92,874 Nm) continuous, 86,000 ft-lbs (116,601 Nm) intermittent</td>
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<tr>
<td><strong>Steering Control System</strong></td>
<td>3 points</td>
<td></td>
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<tr>
<td><strong>Steering Cylinder Thrust Capacity</strong></td>
<td>69,750 lbs (31,638 kg) each</td>
<td>114,000 lbs (51,710 kg) each</td>
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<tr>
<td><strong>Camera</strong></td>
<td>Passive target, MTBM maintenance</td>
<td></td>
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<tr>
<td><strong>Machine Control System</strong></td>
<td>Akkerman Gen. 2/3 with ethernet</td>
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<td><strong>Hydraulic Power Pack</strong></td>
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<tr>
<td><strong>Motor</strong></td>
<td>2 HP, 480 Volt, 3-phase</td>
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<tr>
<td><strong>System Flow</strong></td>
<td></td>
<td></td>
<td>0.50 gpm</td>
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<tr>
<td><strong>Steering System</strong></td>
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<td></td>
<td>7,250 psi max. (500 bar)</td>
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<tr>
<td><strong>Torque Wing System</strong></td>
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<td>5,000 psi max. (345 bar)</td>
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*Actual weights may vary based on specific configuration.*

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Rev.030916
### MTBM LEAD SECTION - LEFT VIEW

**Slurry Booster Pump**
- **SL44C:** 15 HP (11 kW) Sanko
- **SL46C:** 30 HP (22 kW)
- **SL51C:** 30 HP (22 kW) standard
- 40 HP (30 kW) recommended

**Submersible Pump**
- **Motor**
- **Flow**
  - **SL44C:** 2 HP, 480 Volt, 3-phase
  - **SL46C:** 25 gpm max. @ 200 ft head (87 psi)

**Jetting Nozzles**
- **No. of Nozzles**
  - 0-6
- **Recommended Pressure**
  - 2,300 psi

*SL 51 can be configured with a trailing dolly instead of a tailing section.

**Cutter Head Options**
- **Soft Ground**
- **Mixed Ground**

**Cutter heads can be configured to suit project demands.**