Sandvik DT821 is a two boom electro hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation. The hydraulic controlled drilling system with added automatic functions and optional instrumentation enable productive and high quality excavation. The RD520 rock drills deliver superior performance with high consumable life.

Sandvik SB90 universal booms have a large optimum shaped coverage and full automatic parallelism. In addition to face drilling the unit can also be used for crosscutting and bolt hole drilling. An optional utility boom for bolting and utility works is available.

The powerful 4-wheel-drive center articulated carrier ensures rapid and safe tramming with good balance.

### KEY FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic rock drill</td>
<td>Sandvik RD520</td>
</tr>
<tr>
<td>Drill feed</td>
<td>Sandvik TF500-16’</td>
</tr>
<tr>
<td>Boom</td>
<td>Sandvik SB90</td>
</tr>
<tr>
<td>Control system</td>
<td>Sandvik THC561</td>
</tr>
<tr>
<td>Coverage area</td>
<td>14,210 x 8,420 mm (110 m²)</td>
</tr>
<tr>
<td>Hole length</td>
<td>Up to 6,180 mm</td>
</tr>
<tr>
<td>Turning width (T-section)</td>
<td>4,730 mm (with TF500-14’</td>
</tr>
<tr>
<td>Tramming / drilling width</td>
<td>3,000 mm / 3,000 mm</td>
</tr>
<tr>
<td>Transport width</td>
<td>2,500 mm</td>
</tr>
<tr>
<td>Transport / drilling height</td>
<td>2,750 / 3,600 mm</td>
</tr>
<tr>
<td>Transport length</td>
<td>14,930 mm (with TF500-16’</td>
</tr>
<tr>
<td>Total weight</td>
<td>26,500 kg (without utility boom)</td>
</tr>
<tr>
<td>Total weight</td>
<td>28,900 kg (with utility boom)</td>
</tr>
</tbody>
</table>

*depending on options*
**HYDRAULIC ROCK DRILL**

- **Rock drill**: Sandvik RD520
- **Percussion power**: 20 kW
- **Percussion pressure**: Max. 220 bar
- **Percussion rate**: 74 Hz
- **Stabilizer**: Hydraulic
- **Rotation speed**: Max. 280 rpm (with OMS125)
- **Rotation torque**: 625 Nm (with OMS125)
- **Hole size (drifting)**: 43 - 64 mm
- **Hole size (cut hole)**: 76 - 127 mm
- **Recommended rod**: T38 - H35 - R32
- **Shank adapter**: T38 (male)
- **Weight**: 225 kg
- **Length**: 1,010 mm
- **Profile height**: 90 mm
- **Shank lubrication device**: Air / oil mist, SLU-2
- **Air consumption**: 250 - 350 l/min
- **Oil consumption**: 180 - 250 g/h

**Options**
- Sandvik HLX5 instead of Sandvik RD520.
- Power extractor.

**BOOST**

- **Boom type**: Sandvik SB90
- **Parallel coverage**: 90 m²
- **Parallelism**: Hydraulic
- **Boom extension**: 1,800 mm
- **Feed extension**: 1,650 mm
- **Boom weight, net**: 2,650 kg
- **Roll-over angle**: 35°

**FEED**

<table>
<thead>
<tr>
<th>Feed type</th>
<th>Feed force (Max.)</th>
<th>Total length (mm)</th>
<th>Hole length (mm)</th>
<th>Rod length (mm)</th>
<th>Net weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF512</td>
<td>25 kN</td>
<td>5,270</td>
<td>3,440</td>
<td>3,700</td>
<td>500</td>
</tr>
<tr>
<td>TF514</td>
<td>25 kN</td>
<td>5,680</td>
<td>4,050</td>
<td>4,305</td>
<td>530</td>
</tr>
<tr>
<td>TF516</td>
<td>25 kN</td>
<td>6,490</td>
<td>4,660</td>
<td>4,915</td>
<td>560</td>
</tr>
<tr>
<td>TF518</td>
<td>25 kN</td>
<td>7,100</td>
<td>5,270</td>
<td>5,525</td>
<td>590</td>
</tr>
<tr>
<td>TF520</td>
<td>25 kN</td>
<td>7,710</td>
<td>5,880</td>
<td>6,135</td>
<td>620</td>
</tr>
</tbody>
</table>

**Options**
- Feed length 12’, 14’, 18’, 20’.
- Telescopic feed. Sandvik TFX6/12, TFX8/14, TFX10/16.
- Rod retainer. SCR with TF feed (incl. safety wire).
- Rod retainer. TRR1 with TFX feed (incl. safety wire).

**CONTROL SYSTEM**

- **Type**: THC561, hydraulic
- **Manual boom control**: Direct control
- **Drilling control**: Feed / percussion control
- **Automatic cycle**: Stop and return automatics

**Options**
- Constant speed drilling. Replaces feed / percussion control.
- TMS D2 or DDSS2 system. Spec. 5-9200.

**ELECTRIC SYSTEM**

- **Total input power**: 135 kW
- **Main switch**: MSE20
- **IP classification**: Spec. sheet TS2-132
- **Standard voltage**: 380 - 690 VAC (+ 10%)
- **Starting method**: Star-delta starter 380 - 690 VAC
- **Automatic cable reel**: TCR4E
- **Cable reel control (in / out)**: Operator station
- **Front lights** (combined working and driving): 8 x 50 W LED (24VDC)
- **Rear lights** (combined working and driving): 4 x 50 W LED (24 VDC)
- **Rear brake / park lights**: 2 x Red LED

**HYDRAULIC SYSTEM**

- **Powerpack**: HPP555 (2 x 55 kW)
- **Percussion pump**: 110 cc (variable)
- **Rotation pump**: 60 cc (gear)
- **Filtration size**: 20 micron (pressure), 10 micron (return)
- **Oil tank volume**: 290 liters
- **Tank filling**: Electric pump
- **Oil cooler**: Water cooled. Cooling capacity 2 x 30 kW

**Options**
- Safety canopy for utility boom. FOPS approved.
- Spot lights for utility boom. 2 x 17 W LED
- Rod racks for utility boom. For 4 pcs of 10 or 12 ft rods.
- RX expansion bolt installation kit for utility boom. D30 mm or D41 mm
- Utility boom pump 60cc (gear).
- Manual oil filling pump instead of electric.
- Vacuum pump for hydraulic system.
- Biodegradable oils. Shell Naturelle HFE46 / HFE68.

**UTILITY BOOM (OPTIONAL)**

- **Boom type**: SUB3A
- **Boom extension**: 2 x 2,000 mm
- **Boom weight, net**: 2,350 kg
- **Max allowed load**: 510 kg
- **Max allowed load with safety canopy**: 400 kg

**Options**
- Sandvik HLX5 instead of Sandvik RD520.
- Power extractor.
- Utility boom pump 60cc (gear).
- Manual oil filling pump instead of electric.
- Vacuum pump for hydraulic system.
- Biodegradable oils. Shell Naturelle HFE46 / HFE68.

**UTILITY BOOM**

- **Boom type**: SUB3A
- **Boom extension**: 2 x 2,000 mm
- **Boom weight, net**: 2,350 kg
- **Max allowed load**: 510 kg
- **Max allowed load with safety canopy**: 400 kg

**Options**
- Safety canopy for utility boom. FOPS approved.
- Spot lights for utility boom. 2 x 17 W LED
- Rod racks for utility boom. For 4 pcs of 10 or 12 ft rods.
- RX expansion bolt installation kit for utility boom. D30 mm or D41 mm
- Sandvik HLX5 instead of Sandvik RD520.
- Power extractor.
- Utility boom pump 60cc (gear).
- Manual oil filling pump instead of electric.
- Vacuum pump for hydraulic system.
- Biodegradable oils. Shell Naturelle HFE46 / HFE68.

**ELECTRIC SYSTEM**

- **Total input power**: 135 kW
- **Main switch**: MSE20
- **IP classification**: Spec. sheet TS2-132
- **Standard voltage**: 380 - 690 VAC (+ 10%)
- **Starting method**: Star-delta starter 380 - 690 VAC
- **Automatic cable reel**: TCR4E
- **Cable reel control (in / out)**: Operator station
- **Front lights** (combined working and driving): 8 x 50 W LED (24VDC)
- **Rear lights** (combined working and driving): 4 x 50 W LED (24 VDC)
- **Rear brake / park lights**: 2 x Red LED

**2. SANDVIK DT821**
### FLUSHING SYSTEM

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flushing</td>
<td>Water</td>
</tr>
<tr>
<td>Water pump type</td>
<td>WBP2 HP (11 kW)</td>
</tr>
<tr>
<td>Water pump capacity</td>
<td>200 l/min</td>
</tr>
<tr>
<td>Water pump inlet pressure</td>
<td>2 - 7 bar (Min.)</td>
</tr>
<tr>
<td>Flushing water pressure</td>
<td>10 - 15 bar</td>
</tr>
<tr>
<td>Air compressor</td>
<td>CTN10, 1 m³/min (7 bar, 7.5 kW)</td>
</tr>
</tbody>
</table>

### Options
- Optional voltage. 1,000 VAC, 50 Hz.
- Electric cable rubber or PUR. Spec sheet TS2-121.
- Spooling device for cable reel for voltages 690 - 1,000 VAC
- Electricity outlet in front carrier. 1 x 400 VAC or 1 x Main voltage.
- Remote control for reel(s) at rear machine.
- Amber strobe light. Flashing (24VDC).

### TRAMMING AND OPERATOR STATION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tramming speed</td>
<td>16 km/h (Horizontal)</td>
</tr>
<tr>
<td>Gradeability / inclination</td>
<td>5.4 km/h (14% = 1:7 = 8°)</td>
</tr>
<tr>
<td>Safety canopy</td>
<td>FOPS (ISO 3449)</td>
</tr>
<tr>
<td>Operation</td>
<td>Standing drilling, seated tramming</td>
</tr>
<tr>
<td>Sound pressure level</td>
<td>According to EN791</td>
</tr>
<tr>
<td>Operator station</td>
<td>103 dB(A)</td>
</tr>
<tr>
<td>Emitted</td>
<td>125 dB(A)</td>
</tr>
<tr>
<td>Safety barrier in doorway</td>
<td>Chain</td>
</tr>
<tr>
<td>Stairs and service lights</td>
<td>LED lights</td>
</tr>
</tbody>
</table>

### Options
- Reduced tramming speed. 3rd gear lockout.
- Reversing camera the rear of the machine.

### CARRIER

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier</td>
<td>Sandvik TC8</td>
</tr>
<tr>
<td>Carrier type</td>
<td>Frame steering, Orbitrol</td>
</tr>
<tr>
<td>Frame steering</td>
<td>± 37°</td>
</tr>
<tr>
<td>Rear oscillation</td>
<td>± 8°</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>400 mm</td>
</tr>
<tr>
<td>Diesel engine</td>
<td>MB OM904LA, 110 kW</td>
</tr>
<tr>
<td>Tier</td>
<td>3, Stage IIIA</td>
</tr>
<tr>
<td>Transmission</td>
<td>Hydrodynamic, Spicer T20 000</td>
</tr>
<tr>
<td>Axles</td>
<td>Dana Spicer 113 (front)</td>
</tr>
<tr>
<td></td>
<td>Dana Spicer 123 (rear)</td>
</tr>
<tr>
<td>Tires</td>
<td>14.00-24 PR28</td>
</tr>
<tr>
<td>Service brakes</td>
<td>Hydraulic wet disc brakes</td>
</tr>
<tr>
<td>Parking and emergency brakes</td>
<td>SAHR type, fail safe wet disc brakes</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>150 liters</td>
</tr>
<tr>
<td>Hydraulic jacks</td>
<td>TJ60 (front), TJ75 (rear)</td>
</tr>
<tr>
<td>Hand throttle</td>
<td>Standard</td>
</tr>
<tr>
<td>Centralized greasing points</td>
<td>Carrier</td>
</tr>
</tbody>
</table>

### Options
- High speed carrier. TC8 incl. MB OM906LA, 170 kW, Tier 3, Stage IIIA, with Spicer T32 000 transmission.
- High speed carrier. TC8 incl. QSB6.7, 164 kW, Tier 4i, Stage IIIB, with Spicer T32 000 transmission.
- Optional engine. QSB4.5, 119 kW, Tier 4i, Stage IIIB.
- Foam filled tires.
- Exhaust catalyst. For Tier 3 engines.
- Rod rack under carrier. For 12 - 20 ft rods.
- Fast filling system. For fuel or complete.
- Wheel chocks and holders. 2 pieces.
- LP cleaning system with reel. Max. 15 bar.
- HP cleaning system with reel. Max. 180 bar.
- Automatic greasing system. Carrier, booms and utility boom.
- Handheld fire extinguisher. 1 x 7.7 kg type ABC
- Manual fire suppression system. 8 nozzles (incl. 1 x extinguisher).
- Auto. fire suppression system. 8 nozzles (incl. 1 x extinguisher).
- Access Detector system (Spec. TS2-211).

### Packages
- Anti-freezing package: Block heater for engine, heater for hydraulic oil, Water circuit flushing with air, antifreeze adding in water circuit.

### Extra items
- Ground fault and overcurrent protection (VYK).
- Spare rock drill.
- Spare wheel assembly.
- Special tools for rock drill.
- Tunnel laser set.
- Documentation. Extra manuals.
TF500-12°  TF500-14°  TF500-16°  TF500-18°  TF500-20°

Feed length  5,330 mm  5,940 mm  6,550 mm  7,160 mm  7,770 mm
Overall length  14,680 mm  14,900 mm  14,900 mm  15,350 mm  16,400 mm
Overall length with TRR1  14,710 mm  14,930 mm  14,930 mm  15,380 mm  16,430 mm

DT821 (TF500-12°)
Angle (A)  37°  7,940 mm  4,730 mm
Radius (R)  4,655 mm
T-cross (C)  4,120 mm

DT821 (TF500-14°)
Angle (A)  37°  7,940 mm  4,730 mm
Radius (R)  4,655 mm
T-cross (C)  4,120 mm

DT821 (TF500-16°)
Angle (A)  37°  8,050 mm  4,840 mm
Radius (R)  4,655 mm
T-cross (C)  4,120 mm

DT821 (TF500-18°)
Angle (A)  37°  8,190 mm  4,980 mm
Radius (R)  4,655 mm
T-cross (C)  4,120 mm

DT821 (TF500-20°)
Angle (A)  37°  8,300 mm  5,090 mm
Radius (R)  4,655 mm
T-cross (C)  4,120 mm

Sandvik Construction reserves the right to make changes to the information on this data sheet without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.