FULL- CONSTELLATION

Capable of tracking full constellations, including GPS, GLONASS, BeiDou, Galileo, and QZSS, the SP100 GNSS piling system provides real-time precise positioning & heading and achieves centimetre-level piling accuracy, significantly improving work quality and efficiency.

HUMANIZED GUIDANCE

Especially designedfor piling, SP100 piling software provides complete workflow from work file import, calibration, pile driver modeling, piling and accuracy check. It offers humanized graphic and voice-broad- cast piling instructions, greatly facilitating your work and saving your time.

MADE FOR FLEXIBILITY

SP100 pilingsystem supports multiplework modes for different types of pile divers, such as hydraulic static pile driver, rotary bored pile driver, multi-axis mixing pile driver and photovoltaic pile driver. For data transmission, users can also choose UHF or 4G according to their needs.

DUEL ANTENNA

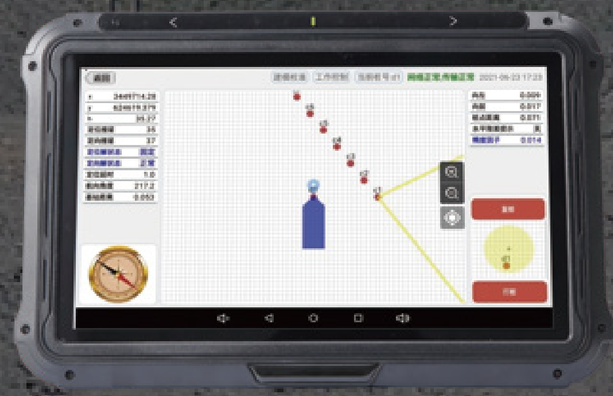
The dual-antenna configuration provides both precise positioning and heading of the machine, allowing centimetre-level pile placement accuracy.



SP100

GNSS PILING SYSTEM

Precise Guidance, Easier Piling





Cape Laboratory Equipment (Pty) Ltd

CLE CAPE LABORATORY EQUIPMENT

41 Killarney Avenue, Killarney Gardens, Cape Town, 7441, South Africa

+27 21 839 5163

sales@capelab.co.za

www.capelab.co.za

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SP100

GNSS PILING SYSTEM

TECHNICAL SPECIFICATIONS T10 GNSS TABLET

SYSTEM

	PERFORMANCE
Piling Accuracy	• 0.01 m + 1 ppm
PileDriver Types	• Hydraulic static pile driver • -Rotary bored pile driver • -Multi-axis mixing pile driver • -Photovoltaic pile driver

GNSS

	SPECIFICATION
GPS GLONASS	• L1, L2
BDS	• B1, B2
Galileo	• E1, E5b
RTK Accuracy	1. H: 10mm+1ppm 2. V: 15mm+1ppm
QZSS	• L1, L5
SBAS	• WAAS, EGNOS, MSAS, GAGAN
Data Format	• RTCM V2.3/3.0/3.2, NMEA0183
Data Format	• Maximum 20Hz

SYSTEM

	SPECIFICATION
Operation System	• Integrated multi-function interface with power and Ethernet connection
CPU	• Quad Core 1.5GHZ
Memory	• 2GB RAM+16GB ROM
Flash	• T flash, up to 64GB

ELECTRICAL

	SPECIFICATION
Input Voltage	• 9-36 VDC
Power Consumption	• ≤4.5W

PHYSICAL

	SPECIFICATION
Size	• 281×181×42mm
Weight	• 1.5Kg

ENVIRONMENTAL

	SPECIFICATION
Shock	• Designed to survive a 2m drop onto concrete
Environmentally Sealed Type	• IP67, Waterproof and dustproof
Operating Temperature	• -20 °C to + 70 °C (-4 °F to 158 °F)
Storage Temperature	• -40 °C to +85 °C (-40 °F to 185 °F)
Humidity	• 100% non-condensing

LCD DISPLAY

	SPECIFICATION
Screen	• 10.1” screens with sun-readable • capacitive touch screen
Resolution	• 1024×600 pixels

COMMUNICATIONS

	SPECIFICATION
WIFI	• 2.4GHz IEEE 802.11a/b/g/n
Bluetooth	• V4.1
USB Port	• 1×USB2.0 (Host & Debug)
Serial Port	• 2×RS232, 1×RS485
CAN Port	• 2×CAN (J1939, CANOpen, ISO15765)
CAN Port	• 1×RJ45(100M Ethernet)
4G	• FDD-LTE (Band 800 / 1800 / 2100/ 2600 MHz) • TD-LTE (Band 1900 / 2300 / 2500 / 2600 MHz) • WCDMA (Band 850 / 900 / 1900 / 2100 MHz) • GSM/GPRS/EDGE (Band 850 / 900 / 1800 / 1900 MHz)

DEPLOYMENT

	SPECIFICATION
LNA Gain	• 40dB
Dimension	• Φ152x62.2mm
Connector	• TNC Female
Weight	• 374g
Mounting Configuration	• 5/8"x 11 Threaded
Operating Temperature	• -40℃ to +85℃ (-40 °F to 185 °F)
Operating Temperature	• Environmentally Sealed Type
Frequency Range	• GPS: L1, L2, L5 • GLONASS: L1, L2 • BeiDou: B1, B2, B3 • Galileo: E1, E5a/E5b, AltBoc • L-Band • SBAS

APPLICATIONS

- **The SP100 Piling system features a 10-inch GNSS tablet display that offers a graphical interface for operators.**
- **It manages the entire workflow—importing pile files, calibration, modelling, piling, and accuracy checking- while providing visual and voice guidance for positioning the rig.**
- **The system can be self-installed and becomes operational within an hour.**

<u>The SP100 piling guidance system includes:</u>

- **GNSS tablet controller (operator screen)**
- **Dual GNSS antennas mounted on the rig**
- **RTK base station**
- **Mounting brackets and cables**
- **Piling guidance software**

<u>Typical information shown on the screen:</u>

- **Pile grid layout**
- **Current machine position**
- **Distance to the target pile**
- **Alignment arrows,**
- **Pile number, coordinates, and**
- **Installation status.**

Standard Package

<u>Typical information shown on the screen:</u>

- **T10 GNSS Tablet x1**
- **SA100 GNSS Antenna x2**
- **SP100 Piling Software x1**
- **GNSS Antenna Cable x2**
- **Power Cable x1**
- **4G Antenna x1**
- **RAM Bracket, Sucker x1**
- **Data Transmission Cable x1**
- **4G Antenna x1**

SP100





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