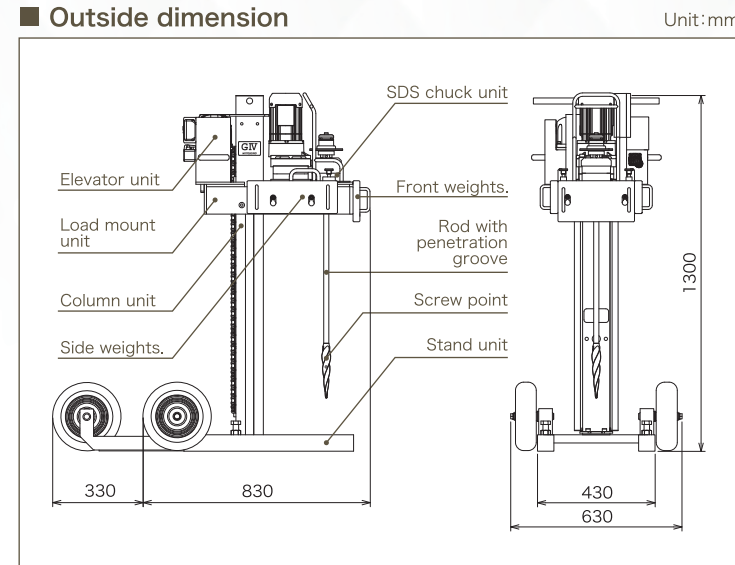


■ Specifications

Name / Model	GeoKarte IV Model SD401	
Test Method	Automatic penetration test controlled by computer based on the Screw weight sounding test method	Automatic penetration test controlled by computer based on the Screw driving sounding test method
Changing of Test Load	6 level (0.05, 0.15, 0.25, 0.50, 0.75, 1.0kN) 4 level (0.25, 0.50, 0.75, 1.0kN)	11 level (0.05, 0.10, 0.15, 0.20, 0.25, 0.38, 0.50, 0.63, 0.75, 0.88, 1.0kN) 7 level (0.25, 0.38, 0.50, 0.63, 0.75, 0.88, 1.0kN)
Test Data Contents	Information (Date, time, No.) Tast data (Penetration amount, load, half-rotations, etc)	Information (Date, time, No.) Tast data (Penetration amount, Rod rotation torque, Load, etc)
Data Storage Capacity	50 Points (Total 5,000m)	10 Points (Total 50m)
Chucking Method	Rods are Chucked automatically and chuck is released manually	
Penetration Rod	φ19mm×750mm	
Max. Rotation Speed	Approx. 25rpm	
Max. Rotation Torque	210N·m	
Max. lifting speed	160mm/sec	
Load sensor/Torque sensor	Strain gauge type load sensor · Strain gauge type torque sensor	
Load Control	Load feedback control using load sensor	
Control System	Microcomputer control (32-bit)	
Test Data Output	Printed by internal printer Communication (Wireless: Bluetooth, Wire: RS232C) Output to Compact Flash	
Machine size and weight	W630×D830(D1,160)×H1,300 ()during testing 148Kg (with weights)	
Control unit size and weight	W448×D349.5×H459 23.5Kg	
Power source specification	Eng. Generator (100 VAC 16kW)	
Use Temperature	0~45°C	

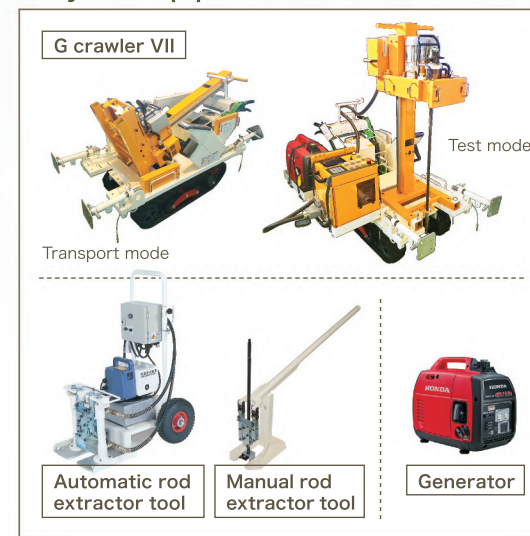
※Inverter with specification 100V AC more than 2.3kW is necessary in case of using together with rod extractor.
 ※Recommend SD card: RSDC-008GU1S produced by BUFFALO, CF card: RCF-X32MY produced by BUFFALO
 ※Image in this catalog include some options.

■ Outside dimension



Unit:mm

■ System up product



SDS test is developed by TOKYO CITY UNIVERSITY, JAPAN HOME SHIELD CORPORATION, and NITTOSEIKO CO., LTD.
 JAPAN HOME SHIELD CORPORATION analyzes SDS test result.

NITTOSEIKO CO.,LTD.

Control System Division

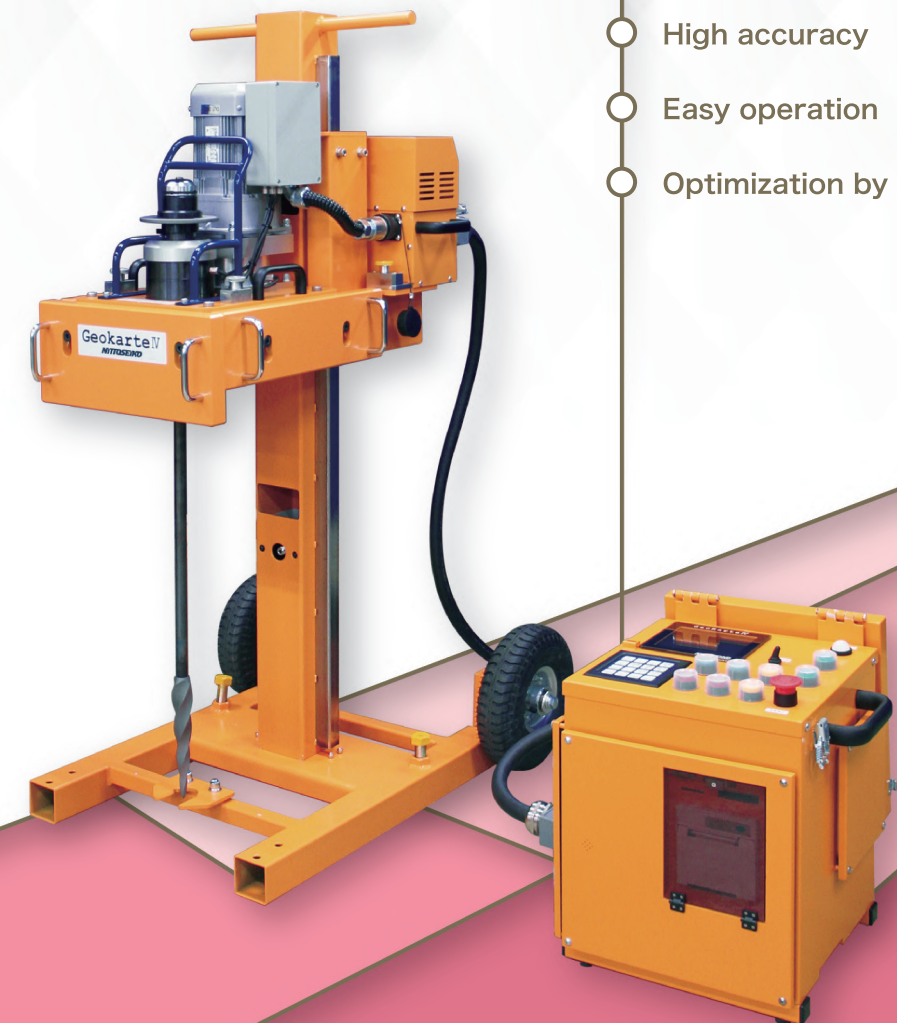
30, Nogamibata, Nobu, Ayabe city, kyoto 623-0041, Japan
 TEL : +81-773-43-3151 (Domestic operation)
 : +81-6-6105-5086 (Global sales section)
 URL : <https://www.nittoseiko.co.jp/>

- Specifications are subject to change without notice for the purpose of improvement of functions.
- Product names used in this catalog are trademarks and registered trademarks of NITTOSEIKO registered in Japan and/or other countries.

Automatic penetration machine for SWS·SDS test

GeoKarte IV SDS

- Classification of soil
- Low running cost
- High accuracy
- Easy operation
- Optimization by data transfer



Evolving ground investigation equipment for SWS test and SDS test

Srew Weight Sounding

Screw Driving Sounding

Rod-lock mechanism prevent slipping

Rod is chucked automatically, easily and steadily. Do not need any tool for extension of rod. Chucking is released by one-touch.

Built-in load sensor

It maintains accuracy of inspection load by feed-back operation.

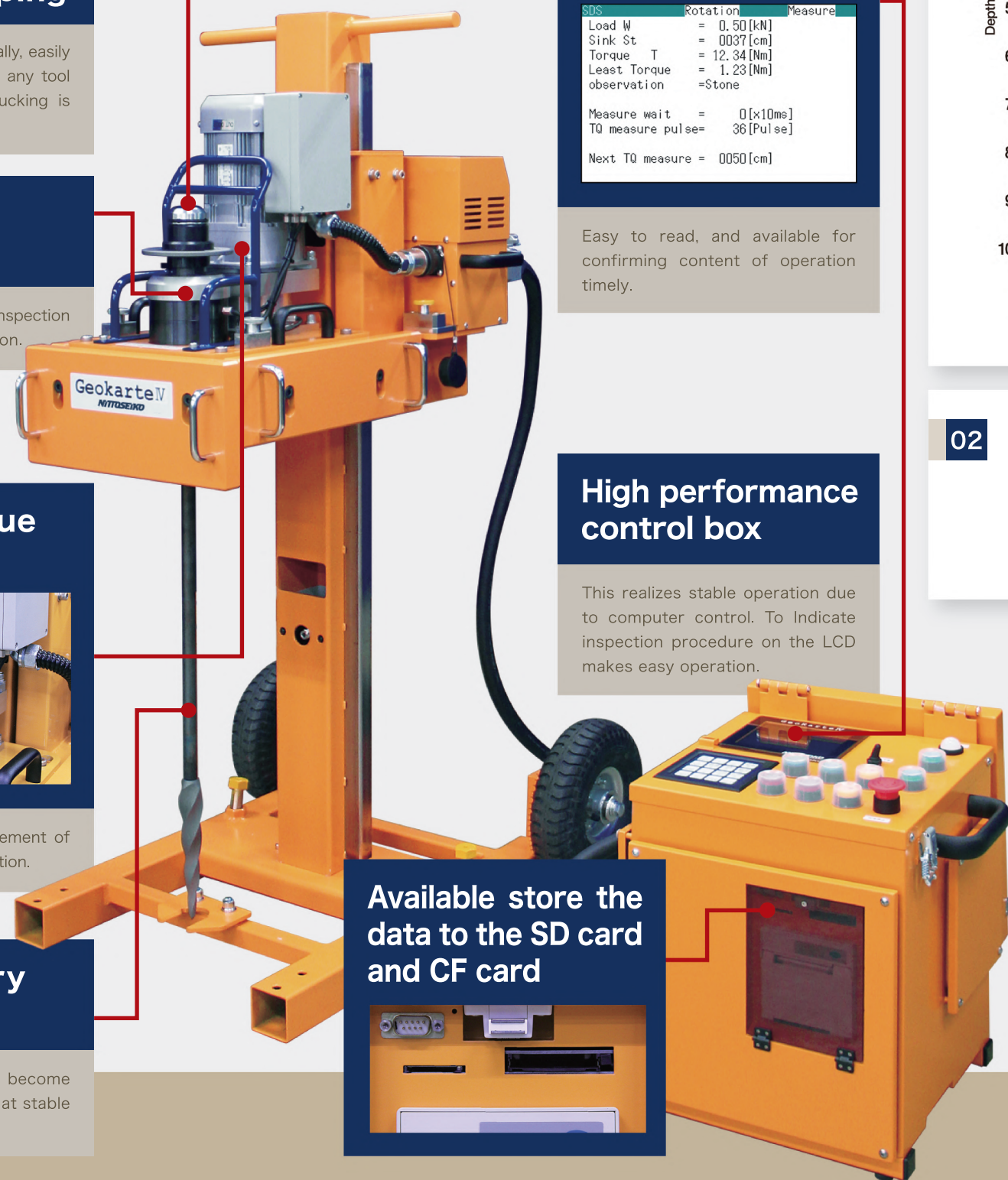
Built-in torque sensor



It enables precise measurement of torque for ground penetration.

Strong rotary torque

Motor for rod rotation become strong and rotary torque at stable rotation is increased.



Large color LCD

SDS	Rotation	Measure
Load W	= 0.50 [kN]	
Sink St	= 0037 [cm]	
Torque T	= 12.34 [Nm]	
Least Torque observation	= 1.23 [Nm]	=Stone
Measure wait	= 0 [x10ms]	
TQ measure pulse	= 36 [Pulse]	
Next TQ measure	= 0050 [cm]	

Easy to read, and available for confirming content of operation timely.

High performance control box

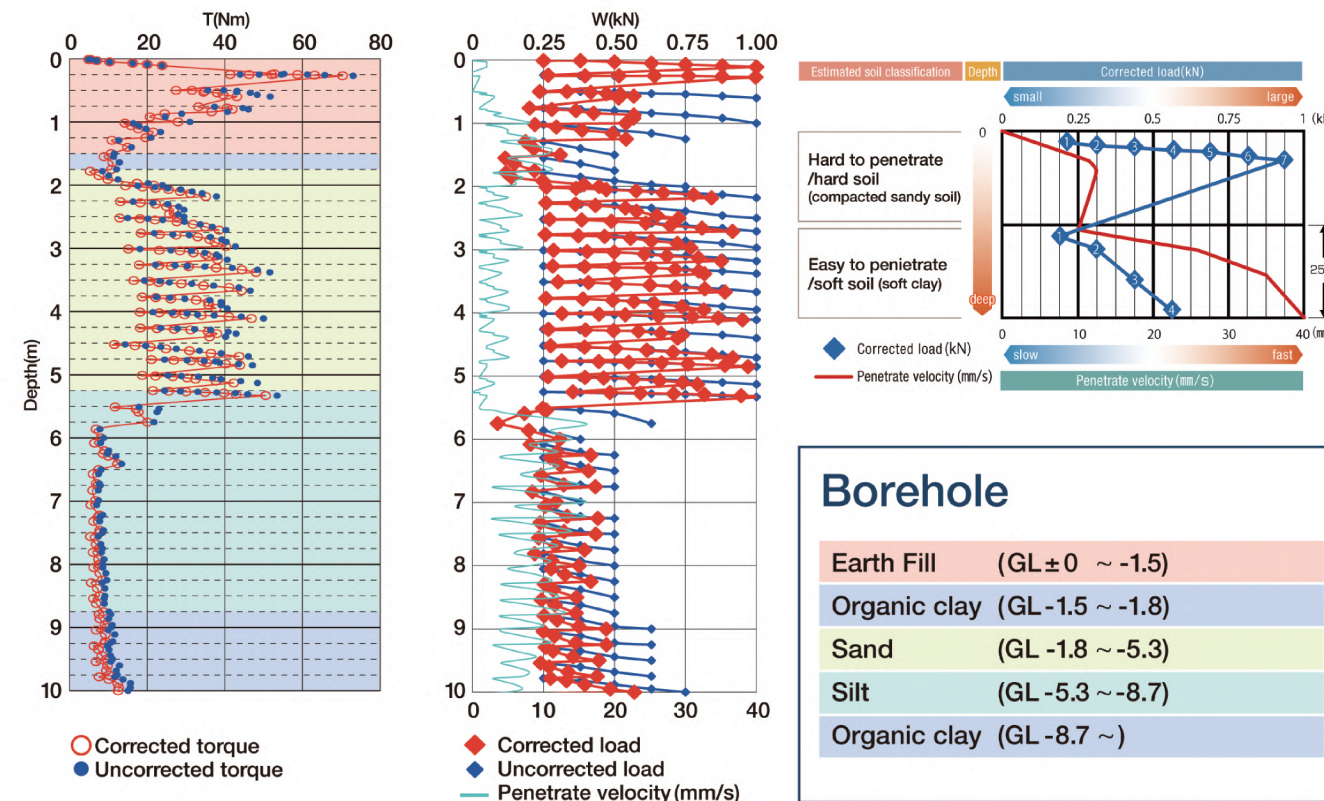
This realizes stable operation due to computer control. To indicate inspection procedure on the LCD makes easy operation.

Available store the data to the SD card and CF card



01 Automated test and record

Example of primary data of SDS test. Penetration volume, load, torque, and sinking speed are recorded correctly.



02 It reduces hard work, and improves work efficiency.

Mounting and dismounting of weight by hand are not required due to computerized control when changing the load. Hard work as in the past is not required any more.

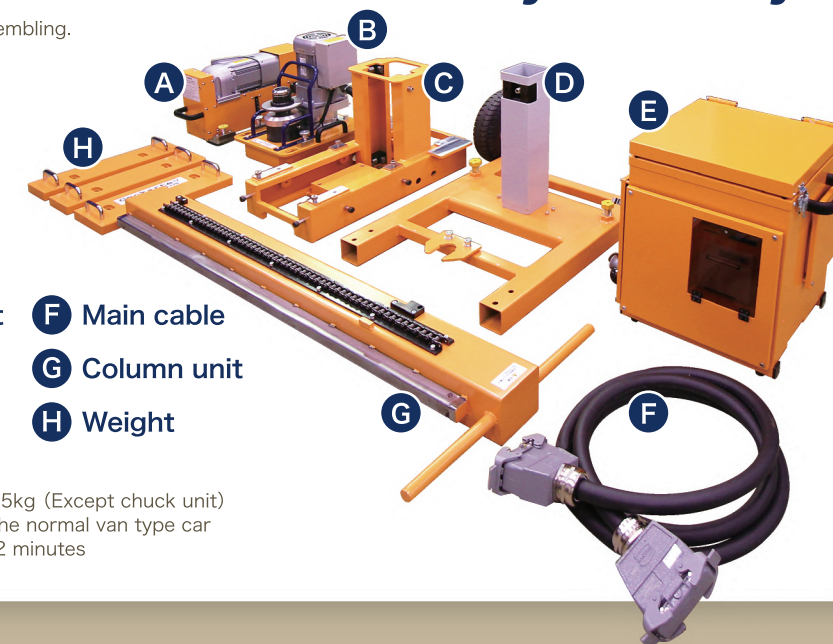
03 Excellent safety structure

Lifting part has fall prevention structure. Low height, and safety structure with hard-to-fall.

04 Build block structure is easy to carry

Easy assembling and disassembling. Available for carrying into the narrow space.

- Ⓐ Elevator unit
- Ⓑ Chuck unit
- Ⓒ Load mount unit
- Ⓓ Stand unit
- Ⓔ Controller
- Ⓕ Main cable
- Ⓖ Column unit
- Ⓗ Weight



※ 1 block weighs less than 25kg (Except chuck unit)
 ※ Available for loading into the normal van type car
 ※ Assembling time is within 2 minutes