



Pile Dynamics, Inc.  
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## Technical Specifications

# Shaft Quantitative Inspection Device\*(SQUID) Specifications

## SQUID Data Collector

### Size (height x largest diagonal)

629 x 647 mm (24.75 x 25.5 in)

### Weight (including penetrometers and contact plates)

188 kg (415 lbs.)

### Material

Stainless Steel and Aluminum

### Standard Kelly bar connection sizes

101.6 mm (4 in), 152.4 mm (6 in), 203.2 mm (8 in)

### Cable Length

Standard 61 m (200 ft) standard; Optional Cable Length 152m (500 ft)

### Temperature Range

Operating -20° to 55° C (-4° to 131° F); Standard -40° to 85° C (-40° to 185° F)

### Applied force limit

135 kN (30 kips)

## SQUID Penetrometers

### Material

Stainless Steel

### Number of penetrometers

3-standard

### Penetrometer tip

Area 10 cm<sup>2</sup> (1.55 in<sup>2</sup>) standard, larger tips optional; replaceable





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### Maximum penetrometer pressure

100 MPa (14 ksi/2000 ksf)

### Penetrometer pressure measurement resolution

MPa/1N (1 psi/0.01 ksf)

### Maximum depth of penetration

150 mm (6 in)

## SQUID Contact Plates

### Size

OD 152 mm (6 in); ID 46 mm (1.8 inch); thickness 25.4 mm (1 in)

### Weight per Contact Plate assembly

In air 6.75 kg (14.9 lbs.); in water: 5.85 kg (12.9 lbs.)

### Contact Plate pressure (free to move)

In air 4 kPa (0.58 psi/0.083 ksf); in water 3.5 kPa (0.50 psi/0.072 ksf)

### Contact Plate displacement measurement resolution

0.005 mm (0.0002 in)

### Maximum Contact Plate movement

150 mm (6 in)

## Wireless Transmitter

### Transmission Range

100 m

### Frequency

2.4 GHz

### Output power

18 dBm

### Mounting

On cable reel

\*Patent Pending

Rev. 10.2023

## Temperature Range

Operating -10° to 55°C (14° to 131° F); Storage -20° to 70°C (-4° to 158° F)

## SQUID Main Unit

### Size

320 x 250 x 68 mm (12.6 x 9.8 x 2.7 in)

### Weight

5 Kg (11 lbs.)

### Temperature range

Operating 0° to 40°C (0° to 104° F); Storage -20° to 65°C (-4° to 149° F)

### Display

26.4cm (10.4 in), sunlight readable, resolution 1024 x 768; capacitive touch screen

### Video Outputs

HDMI, VGA

### Battery Power

4-hour continuous data collection 12 V battery + back-up battery standard

### Charging time

4.5-hour maximum; 120/240 charger input voltage

### Operating System

Microsoft Windows® 10





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## Other

### **Data storage and ports**

A minimum of 128 GB SSD internal drive; Ethernet port; 4 USB ports

### **Optional external accessories**

USB keyboard and mouse

### **Remote Operation**

SQUID Main Unit is equipped for high-speed internet access and remote operation

### **Technical support**

SQUID Main Unit is equipped for remote error checking and updating

### **Units of operation**

Traditional US or SI

Full one-year warranty on parts and labor

Technical manual provided in PDF form on a USB drive