PILETEST
Take a Deeper Look

PSI

Parallel Seismic Instrument

PSI uses the well-known Parallel Seismic method to establish the length of existing foundations (specifically for a pile or deep foundations) where the superstructure (i.e. existing building) precludes access to the pile heads. It is sometimes the only pile integrity test that can be performed.

- For making reuse of old piles.
- Easy to run test.
- Measures only the pile length under a structure.
- Standard compliant with
  - AFNOR NF P94-160-3
  - ASTM D8381-21

Applications

The test requires the installation of a plastic access tube in parallel and as close as possible to the tested pile. The tube should be carried down to a depth exceeding the assumed pile length by a margin of 8-10 meters and filled with water. In unsaturated soil the tube should be firmly grouted in the hole to achieve good coupling with the surrounding soil.

Easy to Operate Inclination test for Borehole and Pile Foundations, Diaphragm and Secant Walls

Reliable

- Specially designed and tested for a hostile construction environment.
- 3-year warranty!
- 10 years free software
- Rugged connectors, cables & sensors

Easy to Use

- Easy to use: It is usually self-taught in less than a day. No additional expensive training is needed.
- Interpretation assistance by Second Opinion Services (SOS) is included.

Top Performance

- Highly sensitive acoustic sensors
- Check any pile length up to 50m in less than 20 minutes.
- Test all types of deep pile foundations.
- Weighs under 10Kg

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PSI – Technical Specification

Physical	**Housing**	Sensor: Rugged metal case Instrument: Rugged, Environment-proof
	Dimensions	210W x 140L x 40H (instrument only)
	Weight	6.0 kg (instrument with 50m cable) 0.8 kg (instrument only) 13.0kg (Typical shipping)
	Temperature range	Operating: -25°C to 50° Storage: -40°C to 70°C
	Humidity	90% (non-condensing)
	Waterproof	Sensor: IP67, Protection against complete submersion Instrument: IP62, 90% condensation (light rain)
Power	**Internal**	USB cable, from computing device
Standards	**ASTM D8232-18** **AFNOR NF P94-160-3**	Meets or exceeds
Technical	**Hydrophone**	100Hz ~ 4kHz in stainless enclosure. 25 mm diameter
	Cables	Heavy-duty polyurethane on reel.
	Sample rate	50kHz (20µS resolution)
	Resolution	16bit A/D + 14 gain levels = 30bit dynamic range .
	Depth accuracy	3mm resolution <0.1% error.
Performance	**Pile length**	1m-50m
	Productivity	10-15 min (depending on pile length) per pile
	Memory Storage	Unlimited
Output	**Reporting**	Arrival time vs. depth Pile tip depth Wave speed in the pile
	Language	Multi-lingual report generation in MS Word format
Requirements	**Computer** (Minimum)	Windows Win7/Win10/Win11. Screen resolution 1280 x 1024 min.