

# High Strain Dynamic Pile Testing (HSDPT) Certification Explained

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**H**igh Strain Dynamic Pile Testing (HSDPT) is a highly specialized and powerful technique for pile capacity evaluation and pile construction control. The technology is now commonly used in many countries around the world. Because the technique is so specialized, many project owners and their engineer representatives are unlikely to have the skills to critically or independently evaluate the quality of the testing or the consequent advice. This places additional responsibility on the testing provider. As dynamic pile testing is used as a quality assurance technique for foundations, it is fundamental that persons providing such services are themselves the subject of a quality assurance process.

Like most technology, in the right hands the Pile Driving Analyzer (PDA) can be a powerful tool with great benefits to the construction process, or in the wrong hands, a tool that is ineffectual, misleading or even wrong. Proper use of the PDA requires the test engineer on site to be knowledgeable and skilful in data acquisition and for the PDA Test signatory to have additional skills in data interpretation. The necessary knowledge and skills are tested in the HSDPT Certification Examination. The certification program has now been in place for 10 years, and is being recognized and specified by an increasing number of private and public sector clients.

## The Examination

The HSDPT exam itself consists of 90 multiple-choice questions, and accompanying reference data. It is split into two sections as follows:

**Part A: Data Acquisition** for high-strain dynamic pile tests: This part tests skills and knowledge that are fundamental to ensuring that correct procedures are maintained during data acquisition in the field; that the tester has a good background in material properties; and that data problems can be identified and rectified in the field.

**Part B: Data Interpretation** for high-strain dynamic pile tests: This part tests skills and knowledge that are fundamental to ensuring that the data recorded can be adequately interpreted in the field so that proper and timely advice can be given to the client. This part covers assessment of stresses, damage detection, driving system performance, and capacity evaluation.

## Certification Levels

The HSDPT Certification system is a two-tiered system with six levels. The first tier is designated "PDA Tester" and is awarded either at the Provisional, Basic or Intermediate level, on the basis of their performance in Part A of the examination alone. Although it is ultimately at the discretion of the Client and the project specification requirements, it is intended that a person with PDA Tester status is qualified to undertake PDA testing in the field, and has sufficient knowledge to competently undertake this task, ensuring the data is of appropriate quality.

The second tier is designated "PDA Signatory" and is awarded either at Advanced, Master or Expert level on the basis of their separate performance in Parts A and B. Again, although it is ultimately at the discretion of the client and the project specification requirements, it is intended that a person with PDA Signatory status will be qualified to interpret and analyze the PDA test results, and then provide appropriate advice and guidance to the client under his or her signature.

The qualifying scores are as follows:

### PDA Tester

Provisional:	minimum 45% pass on Part A
Basic:	minimum 50% pass on Part A
Intermediate:	minimum 75% pass on Part A

### PDA Signatory

Advanced:	minimum 75% pass on Part A, and minimum 70% pass on Part B or combined Part A and B percentages totalling 150% or greater
Master:	minimum 85% pass on Part A, and minimum 80% pass on Part B or combined Part A and B percentages totalling 170% or greater
Expert:	minimum 93% pass on both Parts A and B

The validity period of certification differs according to the level achieved – the higher the level, the longer the certification is valid for. In all cases, an annual renewal fee is payable to keep certification current. At the end of the validity period, individuals must re-take the exam in order to be re-certified.

#### **Benefits of HSDPT Certification:**

1. Verification for providers and clients alike that testing personnel have appropriate minimum skill levels
2. Feedback to testers on areas where skills can be improved
3. Feedback to employers of testers on areas which need attention to minimize risk exposure
4. A marketing tool to convince new clients of capability
5. An edge in competitive bid proposals
6. Ability to provide services to clients who require quality services as demonstrated by satisfactory completion of the examination
7. Certified PDA Testers contact details are available on the Web

#### **Exam locations:**

The HSDPT exam is held around the world in conjunction with industry seminars, workshops and conferences, or

can be taken by arrangement individually at any time at one of thousands of Regus Serviced Office locations across the U.S. and internationally.

#### **PDA Modular Training Program:**

Testers can prepare themselves for the examination with the comprehensive self-paced PDA Modular Training Program, which assists PDA Testers to develop their knowledge and understanding of Dynamic Pile Testing and prepare for the HSDPT Exam. Further details are available at [www.foundationqa.com](http://www.foundationqa.com) or [www.foundationqc.com](http://www.foundationqc.com).

For all information relating to the HSDPT Examination and Certification program, please visit [www.hsdptregister.org](http://www.hsdptregister.org) or email [melanie@foundationqa.com](mailto:melanie@foundationqa.com). ▼