

Specification (Measurement)

**Transport and Main Roads Specifications
MRS68 Dynamic Testing of Piles**

July 2017

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1 Introduction

This Specification applies to the dynamic testing of driven piles (to MRTS65 *Precast Prestressed Concrete Piles* or MRTS66 *Driven Steel Piles*) by wave equation analysis techniques using a high strain dynamic tester.

High strain dynamic testing is often referred to as PDA™ testing, however PDA testing is a proprietary form of high strain dynamic testing.

High strain dynamic testing should not be confused with Pile Monitoring (PM). While dynamic testing could be used as a pile monitor this is not the intent of the specification. Generally the PM data should be correlated with the dynamic testing data.

This Specification shall be read in conjunction with MRS01 *Introduction to Specifications* and other Specifications as appropriate.

This Specification forms part of the Transport and Main Roads Specifications Manual.

2 Measurement of work

2.1 Standard Work Items

In accordance with the provisions of Clause 2.1.3 of MRS01 *Introduction to Specifications*, the Standard Work Items covered by this Specification are listed in Table 2.1. The Contractor shall supply the complete records / report of dynamic testing to the Administrator for forwarding to the Executive Director (Structures).

Table 2.1 – Standard Work Items

Standard Item No.	Description	Unit of Measurement
Dynamic Testing of Piles		
71001	Establishment of equipment on the site for high strain dynamic testing of piles	lump sum
71002	High strain dynamic testing of piles	each
71003	High strain dynamic testing of pile in difficult conditions to determine final set for subsequent piles	each

2.1.1 Work Operations

Item 71001 Establishment of equipment on the site for dynamic testing of piles

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply and setting up of all equipment to the Site
- c) conducting dynamic pile testing, and
- d) preparation and supply of report.

Item 71002 High strain dynamic testing of piles

Item 71003 High strain dynamic testing of pile in difficult conditions to determine final set for subsequent piles

Work Operations incorporated in the above items include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply and setting up of all equipment to the Site
- c) conducting of dynamic pile testing, and
- d) preparation and supply of report.

3 No additional payment

Where the Administrator requests that the wave equation analysis be revised using modified parameters, in accordance with Clause 5 of MRTS68, such revision shall be at no additional cost to the Principal.

Where the Contractor elects to use a different pile hammer to the design hammer and as a consequence the number of piles to be dynamically tested is increase by the requirements of MRTS65 *Precast Prestressed Concrete Piles* or MRTS66 *Driven Steel Piles* the cost of this increased testing shall be at no additional cost to the Principal.

