

M&D FOUNDATIONS MIDLANDS



MINI PILING ▶

PILING ▶

REINFORCED CONCRETE ▶

UNDERPINNING ▶

DRILLING & GROUTING ▶

SITE INVESTIGATION & PILE TESTING ▶

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COMPANY PROFILE

ABOUT M&D FOUNDATIONS

We are an established and reputable company operating on a nationwide basis. Our portfolio of services and friendly qualified staff will typically provide:

- Site survey and preparation of working drawings.
- Free quotations.
- Design of foundations to BS8004 and BS8110 and in full compliance of local authority and NHBC requirements.
- Preparation of working drawings on Autocad.
- Co-ordination of projects to fulfil clients' programme requirements.
- Quality control.

DEFECTS INSURANCE COVER

M&D Foundation's comprehensive Defects Insurance covers the works undertaken by the company, whether remedial, improvement, extension or new build, to industrial, commercial or domestic projects. Working either as a sub-contractor or direct to the client, M&D's Defects Insurance Cover offers our clients the confidence that in the event of the company ceasing to trade, its liabilities under the contract will be met.

This Defects Insurance Cover is applicable on all M&D Foundation's contracts where a guarantee has been issued and include the following benefits:

- Up to 15 year term.
- Covers for defects in design, installation and material failure.
- Includes for any new works necessary to correct the failure.
- Covers for damage to the superstructure consequent upon M&D's works failure.
- Is applicable on the works undertaken to a property, not to an individual, and is therefore not restricted by any subsequent sales of the property.
- Is available on domestic, industrial and commercial property.
- The cover limit is not restricted to the value of the original contract sum.
- Remedial works cover at prices current at date of claim.

** As with all insurance, please read the policy document for the full details.*



MINI PILING

Mini-pile systems can be used to underpin lightly loaded structures including properties affected by settlement. We tailor the type of pile and underpinning system to meet specific requirements - for example, the type of structure, general conditions, loading, access, etc.

Mini-piling equipment can be used for work inside buildings and in locations where headroom is restricted to an extent which would make the use of larger piling systems impossible.

We provide two types of mini piling techniques, as follows.

STEEL CASED DRIVEN PILES

Where piling is used to underpin existing foundations or to support new foundations on unstable ground, we employ a steel cased driven pile technique.

Typical pile dimensions and loads available are:

- 100mm diameter - approximate SWL50KN*
- 150mm diameter - approximate SWL90-100KN*

AUGERED PILES

We use this system in conditions where driven piles are unsuitable, as in cases of settlement related to clay shrinkage or for tension piles in a cantilever beam system.

To install these piles M&D Foundations use a special track-mounted mini-pile assembly which can be operated inside domestic properties and in locations where headroom is as low as 2.4 metres.

We offer piles ranging from 100mm-300mm in diameter. Safe working loads are established dependent on the nature of the bearing strata, into which piles are founded. This type of drilling rig can also easily be adapted for down the hole hammer drilling to enable anchorage into firm strata such as mudstone, sandstone, etc.

Pile loads:

- Typical approximate SWL50-200KN*

Machinery technical data:

- Height: 2200mm
- Min width: 720mm
- Max width: 1000mm
- Weight: 1500kg
- Pile size: 150mm-300mm Ø
- Tracks: Rubber

** Subject to confirmation*



Installation of 150mm diameter driven piles for a new commercial structure



Welding of pile sections together



Mini pile type tracked drilling rig working within domestic property installing augered piles in clay soil



Completed piles before construction of pile cap

PILING

STEEL CASED DRIVEN PILES

The M&D range of drop hammer rigs are ideal for larger steel cased driven piles (up to 324mm ϕ) in limited headroom, narrow accessed areas and large sites. Typically, these are used on new housing developments and commercial projects where their great advantage is accessibility, generally without the need for the provision of a piling mat.

Typical pile dimensions and loads available are:

- 150mm diameter - approximate SWL90-100KN*
- 220mm diameter - approximate SWL300KN*
- 273mm diameter - approximate SWL400KN*
- 324mm diameter - approximate SWL500KN*

Machinery technical data:

- Height: 2200-5500mm
- Min Width: 1200mm
- Max Width: 2500mm
- Weight: 2400-3700kg
- Pile Size: 150mm ϕ - 324mm ϕ

AUGERED PILES

Augered piles are ideal in cohesive soils for a wide range of requirements such as new housing, commercial projects and contiguous walls and again have the advantage of flexible accessibility, generally without the need for the provision of a piling mat.

Pile loads:

- To be confirmed from site investigation. Typical approximate SWL150-700KN*

Machinery technical data:

- Height: 10000mm
- Width: 3000mm
- Weight: 14t
- Pile Size: 250mm ϕ - 600mm ϕ



Installing 273mm and 324mm steel cased piles in long sections



Driving 220mm ϕ steel cased piles for new housing



Driving 220mm ϕ steel cased piles for new housing



Auger piling rig installing 450mm ϕ piles

* Subject to confirmation

PILING

PRE-CAST CONCRETE DRIVEN PILES

The M&D range of pre-cast piles are ideal for use on larger open sites.

Typical pile dimensions and loads available are:

- 200mm square - approx SWL350-400KN*
- 250mm square - approx SWL400-600KN*

Machinery technical data:

- Height: 10000mm
- Width: 3000mm
- Weight: 29t
- Pile Size: 200mm square - 250mm square

CFA PILING RIG

M&D CFA Rigs are a quiet minimal vibration system for the construction of deep concrete piles in poor wet ground conditions.

Machinery technical data:

- Height: Tracking: 3090mm Operating 18200mm
- Width: 2550mm
- Weight: 23t
- Pile Dimensions: 350-750mm diameter
- Max Pile Depth: 16000mm
- Max Nominal Extraction Force: 280kN



CFA Rig constructing 16m long piles



Installation of 200mm square pre-cast concrete pile



Positioning of 200mm square pre-cast concrete pile



Installation of steel tubes

* Subject to confirmation

REINFORCED CONCRETE WORKS

REINFORCED CONCRETE WORKS

M&D Foundations install a wide range of reinforced structures, specifically tailored to individual requirements. We also design in house where required.

Typical contracts include:

- Piled ground beams for new housing, commercial projects and domestic extensions.
- Piled slabs for garages, floors and machinery bases.
- Pile caps for steel portal frame buildings.



Placing concrete in a large slab supported on piles



Steel fixing in progress



Formwork and reinforcement



Concreted foundations ready for brickwork

UNDERPINNING

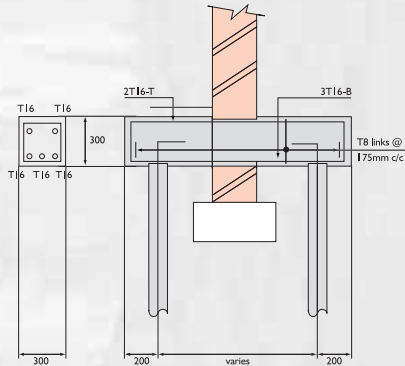
UNDERPINNING

M&D Foundations install a wide range of piled underpinning solutions to existing properties where subsidence has occurred or additional capacity to foundations is required.

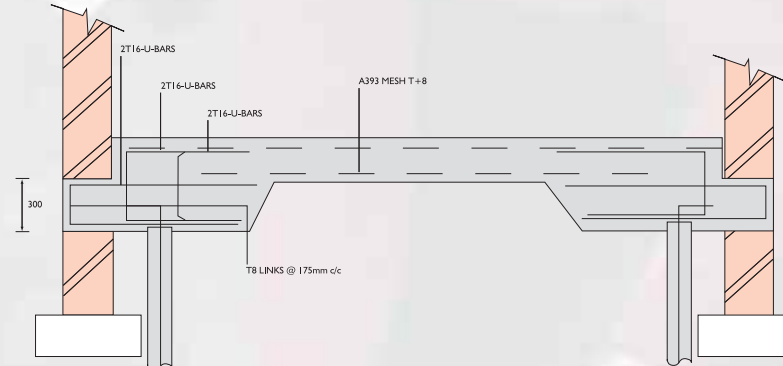
Each solution is tailored specifically to the property where careful consideration is given to client requirements such as access routes and the environment.

With M&D, our clients have the advantage of a wide range of suitable piling rigs to cover all eventualities.

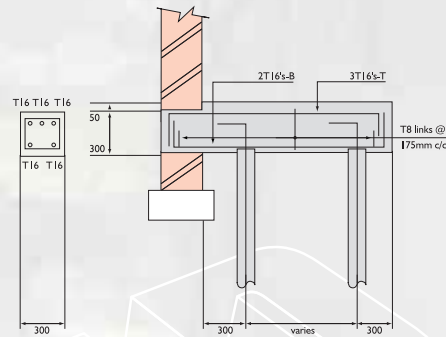
STANDARD NEEDLE BEAM DETAIL



STANDARD NIB/RAB SLAB DETAIL



CANTILEVER NEEDLE BEAM DETAIL



DRILLING & GROUTING

DRILLING & GROUTING

M&D Foundations offer a wide range of grouting solutions which typically include:

- Consolidation of old mine workings.
- Consolidation of voids below slabs in offices and domestic situations.
- General bulk filling of voids such as fuel tanks, basements, culverts, pipes, etc.



Drilling holes to access underground voids



Grout mixing tank

INVESTIGATION/TESTING

SITE INVESTIGATIONS

- Hand or manual excavation of boreholes.
- Windowless and window drilling and sampling boreholes with in-situ shear strength, U100 sample recovery and direct SPT testing using dynamic drilling rigs.
- Heavy Dynamic Probing (HDP) or Super Heavy Dynamic Probing (SHDP).

PILE TESTING

- Dynamic load testing.
- Integrity testing.
- Provision of report on completion.



Drilling of borehole



Dynamic load testing of a pile

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