



Jack Down Piles



Federation of Piling Specialists

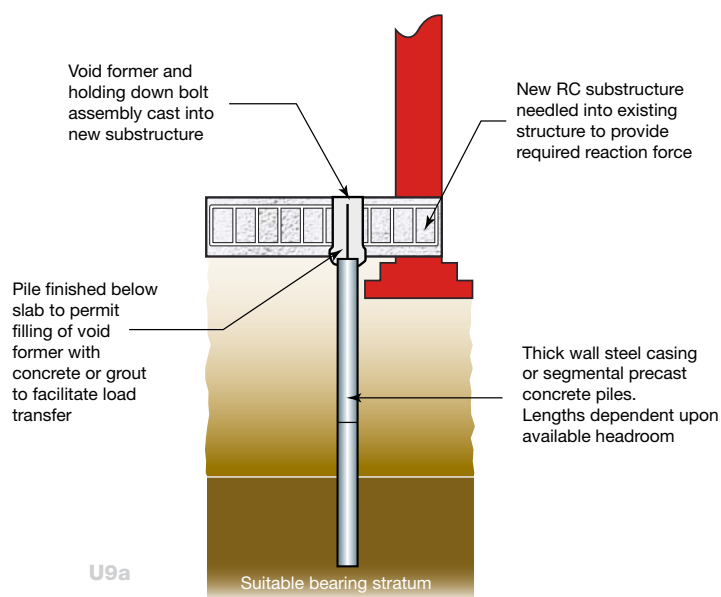


Deep Foundations Institute

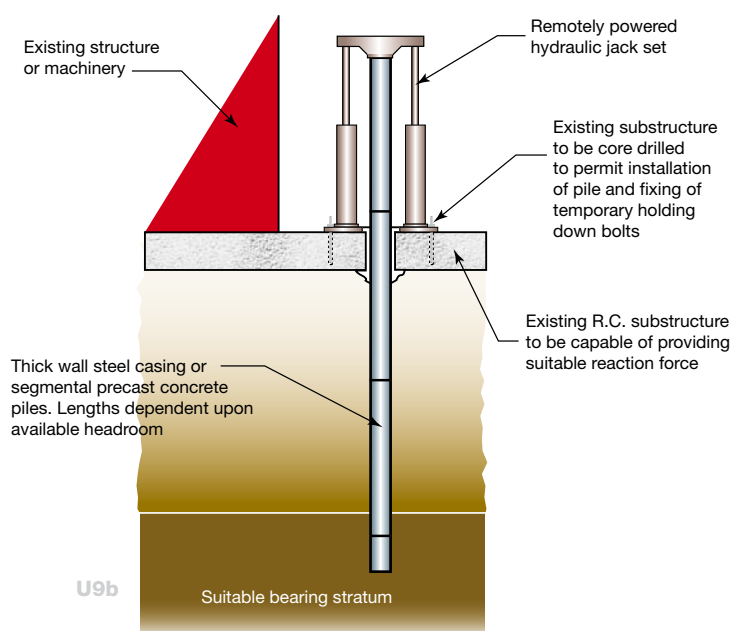


Association of Specialist Underpinning Contractors and Engineered Foundations

Installation using new substructure



Installation using existing substructure



Description

The silent and vibrationless installation of piles using hydraulic jacking techniques for:

- The upgrading and stabilisation of existing foundations and column bases.
- The provision of new piles in sensitive areas.

Loading Capabilities

The dead load of the structure, ground anchors and/or kentledge are used to mobilise sufficient resistance to equal the working load of the pile plus its factor of safety. Working loads available vary and are dependent upon:

- Ground conditions
- The fabric of the existing structure
- Space available for the provision of kentledge

Piles can be installed to S.W.L. in excess of 1000 kN in headrooms of less than 2.5m.

Application

All types of foundation stabilisation, upgrading and new works piling.

Installation Procedure

After the provision of a suitable reaction medium eg., RC beams and rafts, steel grillage, kentledge, ground anchors or existing foundations; heavy steel casings or precast concrete piles are jacked in sections to the required load. The piles are concreted and bonded to the structure to be supported.

Advantages

- Recommended for use on listed buildings and for highly loaded structures.
- Every pile is tested as it is installed.
- Almost silent and vibration free.
- The jack rigs are operated by hydraulic power packs that can be sited away from the area of works. Electric power packs are available.
- Clean, dust free - piles have been installed in operational food factories and operational printing press halls.
- Piles can be installed within 260mm of a wall to the centre line of the pile and 500mm into an internal corner.
- Because of their unique size and adaptability, the jack rigs can be manhandled into the most difficult areas, with a maximum operating headroom of 1.8m but an access size requirement of only 1.2m x 0.7m.



