



Precast Micro Injection (PMI) Technology works on “silent” hydraulic

Public-listed Sunway Building Technology Berhad or better known as SunTech has been cited as being in the forefront of technology and innovation within the construction and manufacturing industry.



SunTech is indeed leading a revolution in piling technology for the construction industry. The state-of-the-art technology addresses and overcomes environmental and economic concerns through a revolutionary method of hydraulically injecting pre-cast concrete piles.

Thanks to the smooth injection of the hydraulic ram, neighbours of construction sites no longer have to bear with the noise, vibration and air pollution caused by conventional piling activities.

The Precast Micro Injection (PMI) pile consists primarily of a low water-to-cement ratio concrete mixture and one or more high-tensile-strength prestressing steel wires. The two commonly used sizes of PMI pile are 125mm by 125mm in lengths of 3, 4.5 and 6 metres, and 150mm by 150mm in lengths of 3 and 6 metres. The latter boasts a remarkable workload capacity of 26 tonnes.

The relatively short length and small section of each unit brings important benefits in terms of time, manpower and materials. It is easier to transport and it ensures speedier handling and on-site safety. In addition, the wastage that normally results from cutting odd, excess lengths is dramatically reduced.

The absence of heavy piling stresses also means there is no need for costly steel reinforcements. Each piling point is individually test-loaded to twice its specified working load by the hydraulic ram at the time of installation.

SunTech also adheres to strict quality control on materials, production and complete piles.

Static tests have conclusively proven that PMI piles can be used for a wide range of soils, ranging from marine clay and sandy silt to residual soils.

PMI piling is highly recommended for foundation of low-to-medium-rise structures, whether residential, commercial or industrial. Apart from building support, the piles are also ideal for soil stabilisation on embankments, roads, bridges and other civil works.

Its versatility extends beyond building structures to include piling for machine foundations and upgrading works in warehouses and factories. A head clearance of just 20 feet is sufficient to allow the use of PMI piles within buildings.

The considerable environmental, safety and cost benefits mean that PMI piling is increasingly being recommended by architects and consultants. Today, it is in use in literally hundreds of projects around the country.

In another development, Sunway Precast Industries Sdn Bhd, a subsidiary of Sunway Building Technology has taken a significant step to complement the construction industry by developing the Sunway Precast Prestressed Hollow Core Slabs. The company introduced the revolutionary flooring system to replace the slow and tedious brick-by-brick construction method.

Factory produced in accordance to customers' requirements, Sunway Hollow Core Slabs offer the design advantages of longer spans for a given depth while eliminating intermediate supports that makes it suitable for the best structural and economic solution for floor work.

Amongst its recent clientele are the Ministry of Finance (Putrajaya), Sunway Tunas and Asia Pacific Land Bhd. [BS](#)

