

Hydrodemolition has big future in Singapore

Asia Waterjet Equipment Pte Ltd, the Singapore division of the Dubai-based specialist in high-pressure water jetting and hydrodemolition equipment, sees great potential in Singapore, following the initiative by the government to reduce the use of foreign contract workers by offering grants and incentives for contractors to mechanise.



Mr Christopher Parkhill, Regional Sales Manager, Asia Waterjet Equipment Pte Ltd, Singapore.

The company has recently taken on the distributorship in Singapore, Malaysia and Hong Kong for hydrodemolition equipment from Sweden's Aquajet Systems AB.

Asia Waterjet has been the distributor for the hydrodemolition equipment in the Middle East for the past 13 years.

The company sold its first machine in Southeast Asia to a tunnelling contractor working on Singapore's Downtown Line Stage 2 project.

The contractor used the machine, an AQUA CUTTER 710V Robot, to 'break out' concrete to below the rebar on the diaphragm walls of three underground stations in order to tie in further elements of the structures.

Breakout rates of 110 m² and 150 m² at an average depth of 65 mm to 75 mm were achieved, which is said to be equivalent to the contractor employing 30 to 50 jackhammer operators and associated equipment to achieve the same results.

Asia Waterjet was founded by Mr Mike Biddle who, in the early 1990s, supplied high-pressure water jet cold-cutting equipment during the fire fighting and capping of damaged oil wells, immediately after the Kuwait war.

Asia Waterjet Equipment evolved from that experience. It is currently based at Jebel Ali Free Zone in Dubai and acts as the exclusive Middle East distributor for leading market suppliers.

The Singapore division was founded three years ago and covers a wide area of Asia, from Korea to India, but excluding China.

"We are not contractors, we are providing solutions and equipment, to solve customers' problems", said Mr Christopher Parkhill, Asia Waterjet Equipment's Regional Sales Manager.

"We discuss with the customers what their needs are, and visit the site to fully assess the requirements before offering a solution. Often we custom-design an equipment package or specific application tool package in our Dubai headquarters and supply it complete with on-site commissioning and operator training included", he added.

"Singapore is our hub location for Southeast Asia and as such we keep stock of all fast moving parts and provide after-sales service support to the region", Mr Parkhill continued.

In the Middle East, Asia Waterjet Equipment has supplied a number of machines to shipyards and marine installations, with units being used for cleaning and surface preparation of ship hulls in dry docks

and others undertaking hydrodemolition on, for example, piers and jetties. However in Singapore, it is the construction and demolition sectors that are expected to start using Aquajet technology.

"The construction sector here is going to continue its strong performance for many years to come. When contractors see the benefits of investing in Aquajet hydrodemolition machines, then I am sure that we are going to see further sales of equipment", Mr Parkhill said.

Hydrodemolition works by pressurising and widening existing pores and micro-cracks in a concrete structure using high-pressure water penetration.

The rate of removal is dependent on the amount of water directed towards the concrete surface, and consequently the area and depth of removal can be closely controlled. Using a high pressure water jet also makes it easy for the operator to work around obstructions.

With hydrodemolition, once programmed the jet moves rapidly and continuously over the selected area for removal.

There is no percussive effect on the surface, with the water jet penetrating the deteriorated concrete, and there is no modification of the concrete microstructure or pore structure.

There is also no adverse effect on the rebar and, in fact, the MRT contractor was using the AQUA CUTTER to clean away surplus concrete from the rebar on the three underground stations.

Added to this is the fact that the transmitted noise of jackhammers and the physical and medical problems for jackhammer operators are eliminated.



Hydrodemolition technology can reduce labour costs in tunnelling projects by eliminating the need for jackhammer operatives.

ADVERTISERS' INDEX

MANCHESTER BUSINESS — OUTSIDE BACK COVER
SCHOOL

MAPEI FAR EAST — PAGE 19

PHILIPS ELECTRONICS (S) — INSIDE FRONT COVER
PTE LTD

SIM GLOBAL EDUCATION — 4 & 5

TÜV SÜD PSB PTE LTD — INSIDE BACK COVER