



the power to
perform

BSP RAPID IMPACT COMPACTOR



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Derived from the Rapid Runway Compactor developed over a number of years in collaboration with the Ministry of Defence, the civilian variant, mounted an excavator or crawler crane, is designed around a modified version of the BSP 357 Hydraulic Hammer.

Comparison with conventional dynamic compaction

Dynamic compaction (DC) acts by imparting impact energy to soils or fills. This is achieved by dropping a large weight through a known height.

With conventional DC the weight is typically 10 to 15 tonnes, the height 5 to 15m and the frequency only one or two drops per minute. The BSP Rapid Impact Compactor imparts energy by dropping a 5, 7 or 9 tonne weight through a relatively small height (1.2m) at a rate of 40 to 60 times a minute. The energy inputs of both systems are directly comparable but the energy transfer of the BSP Compactor is far more effective by virtue of its foot which stays in contact with the ground during the impacting sequence ensuring efficient transfer of energy into the ground.

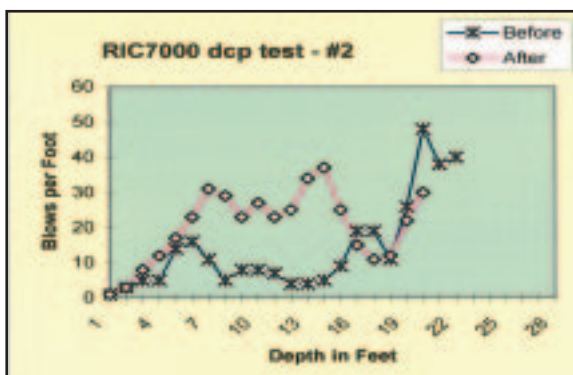
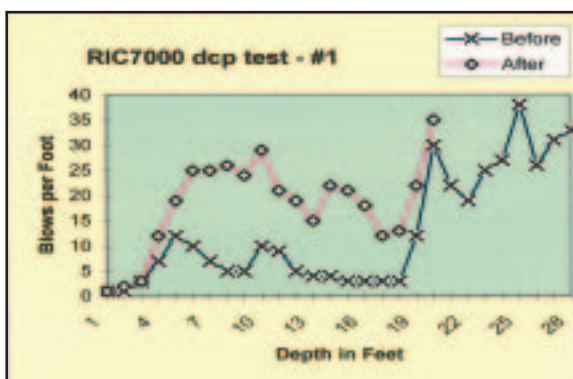


Advantages of the BSP system:

Treatment. The BSP compactor is a very economical and effective machine for the compaction of granular and loose landfills to depths of up to 5m even for small sites. Ground vibrations are less than conventional DC and noise can be reduced by means of an acoustic shroud.

Obstructions. The design of the compactor foot substantially obviates the need to remove underground obstructions. It will also successfully compact sites with some large debris

Control. The high degree of control over the energy is introduced lends itself to planning subsequent stages of treatment. It can also help to avoid the formation of deep craters or the build up of high pore pressures sometimes associated with conventional DC.



Safety. Because the impact foot is always in contact with the ground the risk of flying debris and danger from falling weights is eliminated. This allows other site activities to take place close to the compactor during operation.

Cost Effectiveness. Fast mobilisation plus the elimination of the need to import good quality stone to form stone columns make it very cost effective against other systems. A raft foundation laid on the treated area can often replace a suspended floor and ground beam system.

Quality Assurance. The configuration of the equipment lends itself to effective monitoring of comparative soil stiffness across a site, and the production of daily records of work carried out. These records can be supplemented by post-treatment ground bearing tests.



Six BSP Rapid Impact Compactor working in Kazakhstan on oil and gas plant

BSP COMPACTION MONITORING

The Compaction monitor is a kit of parts which can be coupled to BSP's compaction system to record the performance of the hammer and the rate of ground improvement.

The advantages of the monitor include:

- The ground can be improved to a specified minimum stiffness.
- The improvement can be carried out in a more efficient manner.
- The site compacted can be recorded on a computer, analysed and any soft areas treated again.
- Plugs directly into the compactor controls.

[An optional printer can be supplied to allow data to be printed on site.](#)



Rapid Impact Compactor controls and monitor mounted in excavator

BSP RAPID IMPACT COMPACTOR		SPECIFICATIONS
Height of rig	7.5m	
Length of rig	9.4m	
Width of rig	3.55m	
Approx working weight (t)	57.6	
Ram weights (t)	5, 7 or 9	
Max drop	1.2m	
Max energy (tm)	6.0, 8.4 or 10.8	
Blows per min	40/60	
Foot diameter	1.5m	



BSP Compactor,
7 tonne ram weight
working in Canada



BSP Compactor,
9 tonne ram weight
working in Iran

IN THE INTEREST OF QUALITY AND PERFORMANCE, WE RESERVE THE RIGHT TO AMEND SPECIFICATIONS AT ANY TIME.

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