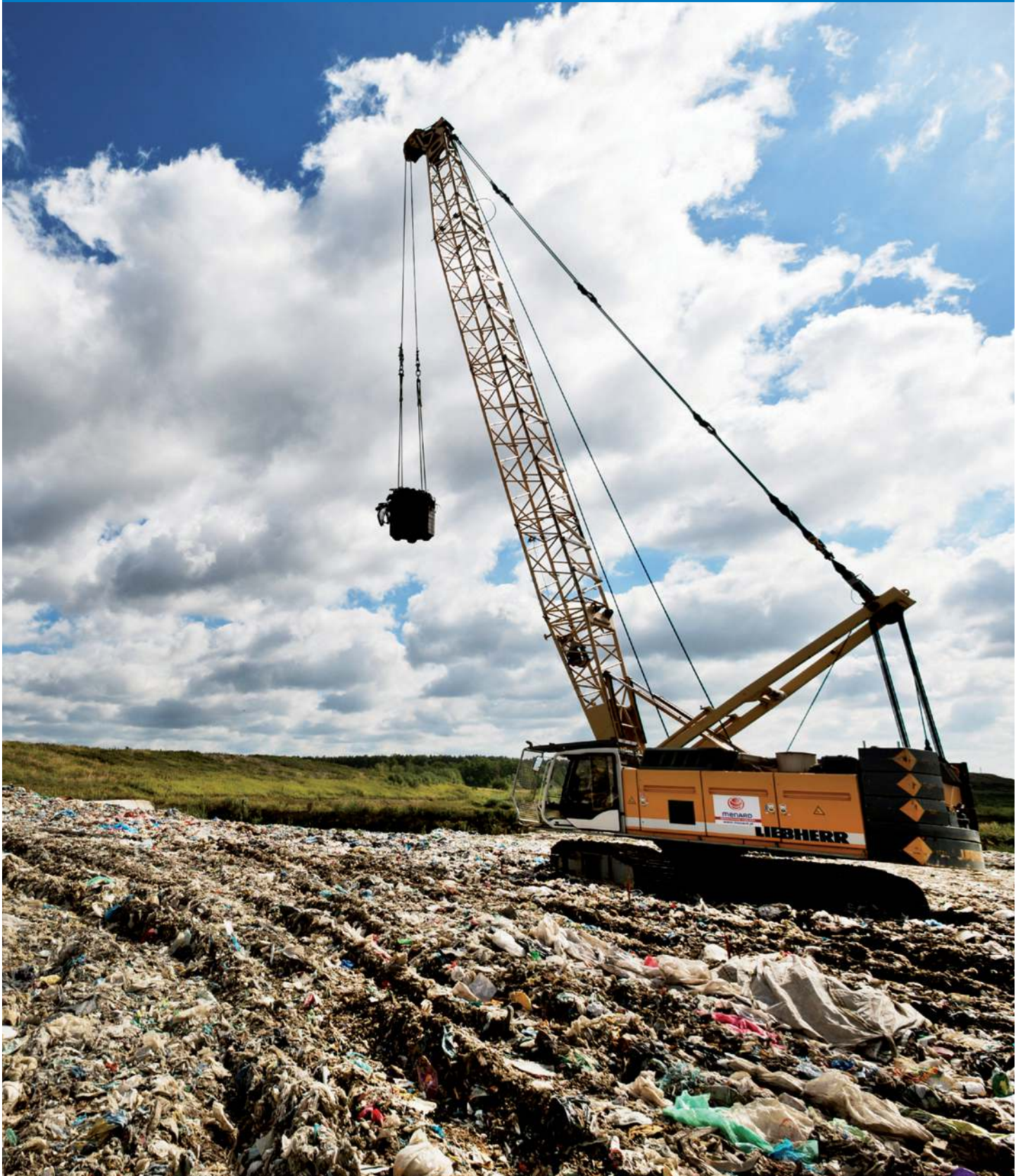


Menard Impact Compaction



menARD

ground improvement specialists

Overflowing landfills are more and more often a great problem in municipal waste disposal. The Menard Impact Compaction (MIC) technology improves waste compaction by 20% in comparison to conventional trash compaction methods. The MIC is a modification of popular Menard Dynamic Compaction implemented over 60 years ago by Menard Company. International experience gained at numerous landfills with different geotechnical conditions allowed the safe implementation and improvement of waste compaction parameters.



Technology specification

Municipal waste compaction by MIC is possible thanks to impacts of high kinetic energy generated by 10 to 40 t steel pounders free falling of 5 to 40 m.

In order to conduct successful compaction, heavy lattice-boom cranes capable of lifting at least 20 t up to a height of minimum 15 m are used.

The tractor type crawler allows efficient movement of heavy equipment on the waste pre-compacted by conventional trash compactors used in most of landfills.

Best results can be obtained with multi-stage compaction combined with additional compaction by conventional trash compactors between each compaction stage.

Proper selection of MIC parameters such as: impact energy, impact grid and the number of repeated compaction cycles should be site specific. Therefore, selection of appropriate technical parameters of MIC is conducted after on-site inspection, detailed assessment of the landfill structure, origin, age and condition of waste stored. Due to high heterogeneity of compacted medium, prior to commencement of actual compaction, technical assumptions are verified on the on-site pilot test area where the design parameters are confirmed.

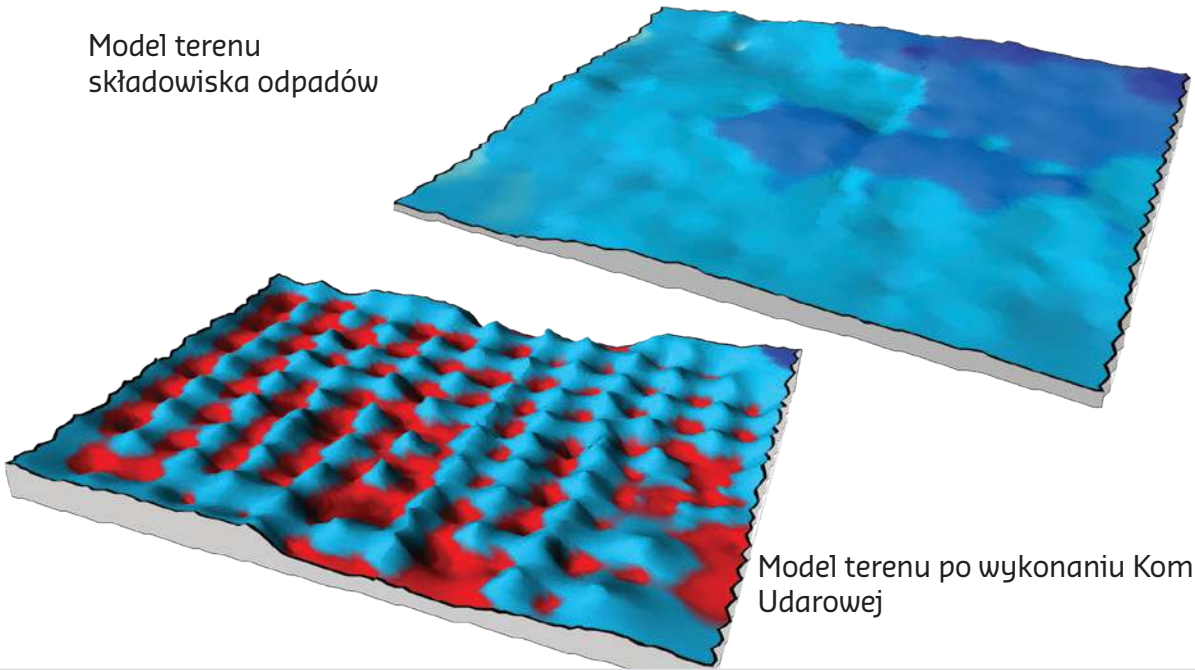
Verification of compaction quality and efficiency is checked by landfill surveying before and after the compaction.

Technological parameters

Weight of pounders	10 to 40 t	(application range)
Drop height	5 to 20 m	(technical capability)
Range	5 to 15 m	(site specific)
Daily output	5002 to 1,500 m ²	(site specific)
Waste volume reduction	10 to 20%	(after compaction with heavy equipment)
Monitoring and control	Surveying before and after impact compaction	

Model terenu
składowiska odpadów

m n.p.m.





Advantages:

- **Efficiency** – the great advantage of Impact Compaction is its capability to significant reduction of waste volume after conventional trash compaction.
- **Cost efficiency** – reduction of waste volume extends landfill life-cycle.
- **Safety** – improvement of mechanical parameters of compacted waste increases stability of the waste dump.
- **Environmentally friendly** – increased compaction factor improves biodegradation and accelerates landfill rehabilitation.
- **Environmental reclamation** – enhancing the stiffness of waste dump after the process of waste disposal increases commercial features of the reclaimed landfill area.

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