

# Product Presentation - SDR



**Applicant Name:** Chi Shing Equipment Trading Company Limited

**Product Name:** BOMAG Single Drum Rollers & Soil Compactors

**Specification:**

- BW 211D-5
- BW 213D-5
- BW 216D-5
- BW 219D-5
- BW 226DH-5

- **Core Function:**
  - Earthworks Compaction
- **Technology Used:**
  - TELEMATIC      - TERRAMETER
  - BOMAP            - ECOSTOP
- **Construction Process Involved:**
  - Compaction
- **Key Improvement in Construction Process:**
  - Productivity
  - Quality
  - Environmental



S/N	Project Name	Type of Project	Year	Trial or adoption phase
1	Ballan Road, Weribee Melbourne, Australia	Road Maintenance	Ongoing	Trial
2	Berrybank Transgrid-Terminal station Pad, Australila	Windfarm Project	2019	Trial
3	Northern Corridor Improvement, New Zealand	Highway Construction and Extension	Ongoing	Adoption
4	New Istanbul Airport	New Airport Construction	2018	Adoption
5	Changi East Development, Singapore	New Airport Construction/Runway Extension	Ongoing	Adoption

# Innovative Features



- **Core Technology**
  - TERRAMETER
- **Patent (if applicable)**
  - NA
- **Comparison with current practise and popular models**

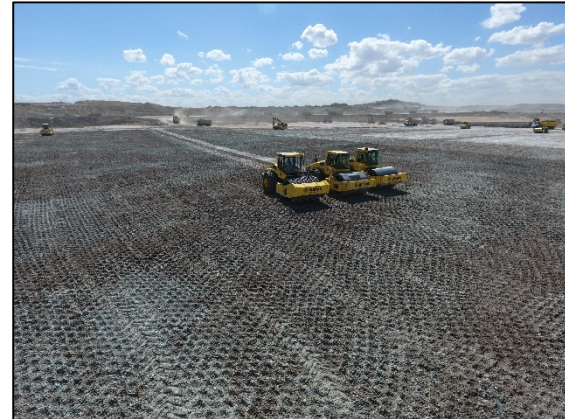
<b>TERRAMETER</b>	<b>Current Practice</b>
Ability to measure level of stiffness $E_{VIB}$ in MN/m <sup>2</sup>	No measurement available
Operator can see compaction progress	Based on operator experience and QC test
Compacts to a target value as specified	Based on specified passes
Immediate site evaluation with print-out	No evaluation available
Compaction completion signal for the operator	Based on specified passes
Over-compaction warning signal for the operator	Based on operator experience
Reduction of passes	Based on specified passes

- **Comparison with similar Pre-approved list products and competitors**
  - NA

# Adoption Example



- Project for Illustration : New Istanbul Airport, Turkey, 2018
- Work process : Compaction
- Use/function in project :
  - Compaction of Backfill
  - Calibration trials for CCC
  - Quality control

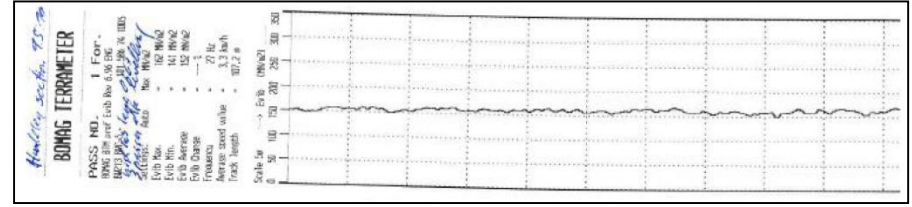


- Improve productivity by:
  - Reduction of passes between 10 to 40%, therefore improving overall efficiency
  - Weak spots are immediately identified and targeted rework is being carried out rather than the whole lot.
  - Less material used by achieving target compaction values set.
- Traditional Output:
  - 8 passes (as dictated by specifications)
- Output by TERRAMETER
  - 5 passes (based on system or calibrated target result)
- Total savings
  - ~ 37.5% less passes
  - Reduction in operating costs
  - Less working hours on machine, less down time

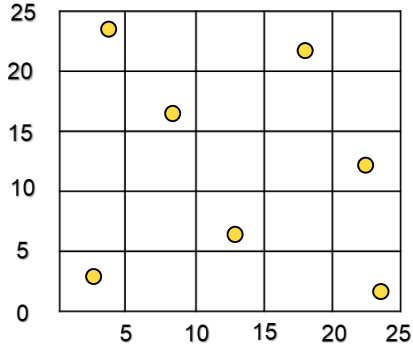
# Benefits - Quality



- Improve quality by:
  - No over-compaction.
  - Uniform compaction throughout the whole jobsite
  - 100% coverage of the whole jobsite
  - Reports can be generated for as-built submission
  - Quality control tests can be reduced



100% coverage for individual lane for TERAMETER



Typical QC Tests: 1 test for each 100m<sup>2</sup> for areas > 500m<sup>2</sup>  
 Surface coverage is < 1% based on spot testing

Upgradable to BOMAP, BOMAP Connect

# Benefits - Environmental



- Improve Environmental performance by:

TERRAMETER	BOMAP	ECOSTOP	TELEMATIC
	Reduction of passes	Reduce idling time by shutting down engine after defined period of time	Predictive maintenance Maintenance is always planned ahead and on time
	Measurement and document of compaction passes	Complements with ECOMODE (load dependent engine speed control)	Fleet management analysis to analyse performance and cost drivers
<b>Which contributes to the:</b>			
Reduction of fuel consumption			
Reduction of carbon emissions			