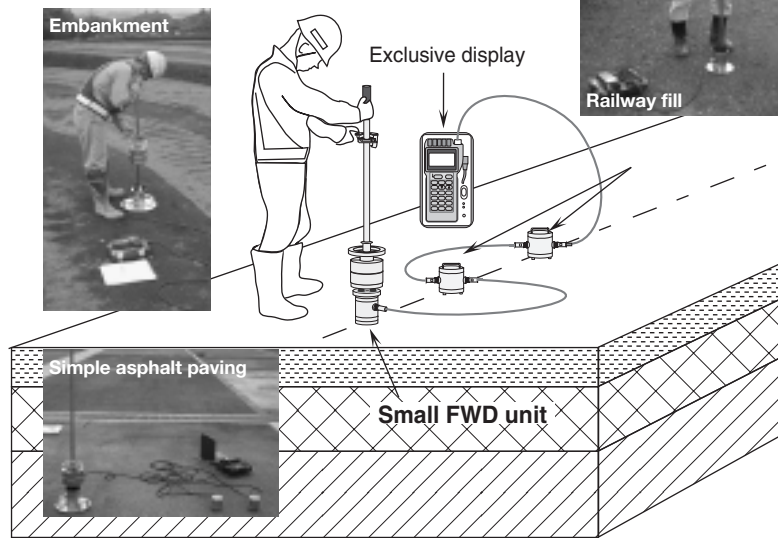


5 Falling Weight Deflectometer FWD

TML small FWD system "FWD-Light®" is a testing device applicable for management and rigidity evaluation of soil structures such as a fill, cut, subbase course and subgrade. As it is easy-to-handle and portable and can measure subgrade reaction coefficient "K" and subgrade elastic modulus "E" in a short period of time, real time feedback to construction site is possible. It can also be used for bearing capacity measurement and rigidity evaluation of asphalt pavement, interlocking block pavement and so on. The testing is conducted according to the methods introduced in the "FWD and Portable FWD Handling Manual (2003.1)" issued by JSCE (Japan Society of Civil Engineers) and "Design Standards for Railway Structures and Commentary" edited by RTRI (Railway Technical Research Institute).

Main Applications

- General ground such as railway fill, subgrade and subbase course
- High rigid ground such as airport
- Refilling soil for buried pipe
- Small asphalt paving
- Interlocking block paving



An example of data sheet creation

Instruments	Type	Brief Specification
Small FWD unit	KFD-100A	Build-in load cell and accelerometer, Max. load: 20kN, Max. displacement: 2.5mm
Exclusive display	TC-351F	Displays max. load, max. displacement, subgrade reaction coefficient and subgrade elastic modulus and records/saves on memory card.
External displacement sensor	KFDS-1B	Built-in accelerometer, max. displacement of 1mm
Measurement/processing software	TC-7100	In addition to analysis result with exclusive display, waveform display of load, acceleration, velocity and displacement and display of O-P time and time accumulation is possible.

Measuring System Block Diagram

