# FWD CALIBRATION SYSTEM

STANDARD: AASHTO R32

The data from falling weight deflectometers (FWD) are used for structural evaluation of pavements and can be used to calculate remaining pavement life, load-supporting capacity, and the required thickness of structural overlays. The results of these calculations can be used to manage pavement systems at the project or network level. The data of FWD is used as the basis of calculation and analysis, and its accuracy has a major influence on subsequent work.

This FWD calibration system provides users with a fast, convenient and relatively accurate detection method, which is mainly calibrated for the load and deflection measurement systems of the falling weight deflection meter.

FWD CALIBRATION SYSTEM

LOAD CALIBRATION

Place the reference load cell used for calibration between the load plate of the Falling Weight Deflectometer (FWD) and the measured road surface, and perform the falling weight action at different heights. The data acquisition system saves the collected maximum impact value. Linearly correct the obtained data and the corresponding data collected by FWD, then calculate the correction coefficient and correlation.
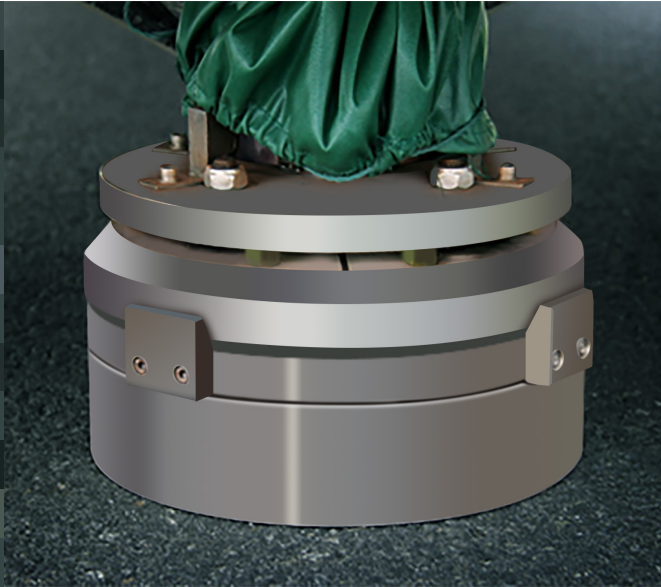
SOFTWARE

After setting the parameters, click "Start" to continuously collect data. Input the corresponding data collected by FWD into the current value sequence, and the correlation and conversion coefficient can be calculated. Users can delete data with large deviations, singular values, etc. to obtain a more reasonable correction coefficient.
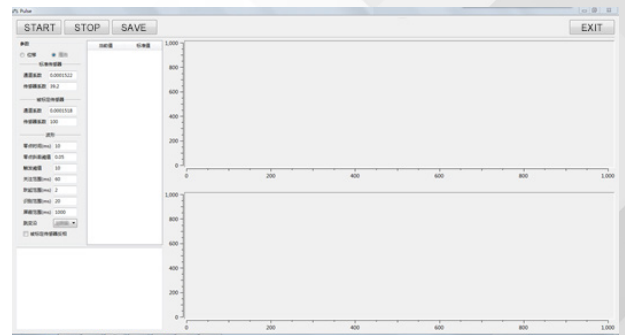
DEFLECTION CALIBRATION

Superimpose the displacement sensor used for calibration and the displacement sensor of FWD, rigidly connect, and collect the displacement caused by vibration at the same time. Compare the two displacement values, the correlation and correction coefficient can be obtained.

CONFIGURATION LIST

0-20T Reference load cell	1
Displacement sensor	1
Speed sensor	1
Calibration stand (customized)	1
Data acquisition system and software	1 set
Connecting cables	1 set
Meter box	1

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