

CASE STUDY



High capacity
weighbridges help
Komatsu engineers
put tracked vehicles
through their paces.

KOMATSU

Twin, high capacity concrete weighbridges, designed and installed by Weightron Bilanciai, are playing an important test and development role for Komatsu UK Limited at their Test Centre in Birtley, County Durham.

Bespoke Weighing System

Instead of going to land fill, Hull's domestic waste collections will be transported directly to the facility for processing into pelleted RDF, a large proportion of which will then be supplied to local energy from waste facilities.

Weighing materials entering and leaving site is a critical part of the plant management. Throughout the project Weightron worked directly with main engineering contractor Keltbray and Geminor's software engineers, ensuring a fully seamless integrated system.

Weighbridge Specifications

The weighbridges, installed side-by-side in a single pit, each measure 7.5 metres long by 3.0 metres wide, with an individual capacity of 80 tonnes and a measuring precision of 10 kg.





"We used to have a single weighbridge and stability tests were carried out with one track on the weighbridge and the other on the solid concrete at the side. This limited the tests we could carry out and results were sometimes inconsistent. The new installation will give us much more testing flexibility and provide improved load distribution accuracy. The new weighbridges needed to be compact yet have sufficiently high capacity and Weightron designers were able to supply exactly what we needed. The weighing system will also be used for testing our high capacity dumper trucks."

- KOMATSU'S DEVELOPMENT ENGINEER ANDY LINCOLN

The pre-stressed concrete design of the weighbridge decks provides superior strength and durability, whilst the accuracy of the stainless steel, C5 grade, CPD-M digital load cells ensures the required performance and repeatability. The proprietary load cell mounting assemblies ensure optimum load introduction and the concrete surface finish gives a self-draining, non-slip surface.

The load cells are connected via individual junction boxes to a single Weightron Flynet touch screen weight terminal, fitted with a dual scale input card. Outputs from the Flynet unit to three large outdoor weight displays allow the driver to view the different loads during the tests.



"Unlike many of our competitors, we have the in-house design experience and manufacturing versatility to meet the challenges of such out-of-the-ordinary projects. The Komatsu application required a combination of robust structural design with exceptional accuracy. Our civil contractors worked closely with Komatsu engineers to ensure the pit foundations were strong enough for the loads involved. Full calibration of the weighbridges was carried out using our in-house weight calibration truck."

- WEIGHTRON'S REGIONAL SALES MANAGER RICHARD STOKES

Komatsu UK Limited manufactures medium-size and large crawler excavators (17 to 70 tonnes) and working gear excavators. The 50 acre plant in County Durham produces over 1100 units per annum.

If you are looking for a new weighbridge, automation software, or equipment repairs – contact the team at Weightron today.

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