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Global Flooring Consultants



## New Flatness Standards For Concrete Floors



The latest edition of the Concrete Society's Technical Report 34, the principle guide to the design and construction of concrete industrial ground floors in the UK, includes new floor flatness standards designed to improve the efficiency and safety of fork lift truck operations in very narrow aisle (VNA) warehouses.

TR34 has included standards for floor flatness in defined movement areas – for example, warehouse racking aisles -- since first publication in 1988. However, these standards only covered the across-axle tilt measurement and the short wave-length characteristics of the outer two wheel tracks. It did not include measurement of the positions of all wheels or a long wave-length control.

Appendix C of the new edition of TR34 includes maximum values for differences in levels laterally and longitudinally for all wheel tracks within defined movement areas and also stipulates the rates at which levels change. Values are specified for three fork truck lift heights – up to eight metres, eight to 13 metres, and over 13 metres.

The new specification is based on a similar set of standards that has been in use in the USA since the late 1970s and has been introduced as the basis for a possible future European FEM (Fédération Européenne de la Manutention) standard.

TR34 edition 3 also proposes a new method for surveying defined movement areas, using a profileograph that simulates the dimensions of the trucks to be used. The profileograph produces a continuous profile of the floor surface in relation to the specification as it travels along the wheel paths of the lift truck, effectively recording the regularity of the floor as a truck would experience it.

“The new TR34 edition closes a significant loophole in the standards relating to floor flatness”, said Kevin Dare, Managing Director of Face Consultants and a member of the Concrete Society working group. “Warehouse owners and operators should now be able to get the standard of flatness they require for safe, efficient operation of lift trucks without any ambiguity”.



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