



Putzmeister

Quality is calculable – The finite element method

Construction vehicles are exposed to and need to withstand extreme loads, the longer and more reliable, the better. We therefore consider not only ensuring but also continuously increasing this required longevity as paramount.

That's why we employ the finite element method, FEM for short, for all new developments. These structural calculations, developed originally for the aerospace industry and applied to vehicle construction, are used to determine the strength and deformation stability of solid bodies. They are able to calculate complex structures in precise terms.

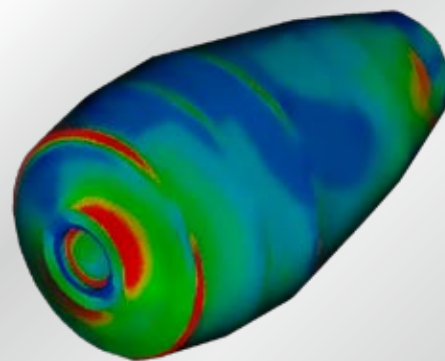
The results are immediately incorporated into the design of our machines to increase the functional safety and reliability and significantly reduce failures and malfunctions.

Truck mixers from Putzmeister – Reliability is our passion

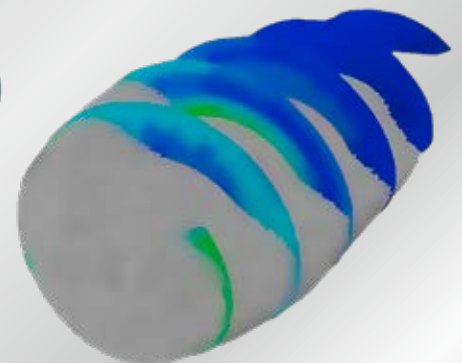


Optimised drum geometry for stability of the concrete matrix

In applying the FEM, we realised that a higher number of spiral windings and a winding distance of below 80 cm makes the concrete easier to mix and apply. The concrete matrix stays the same during transport to the job site. In addition, wear at the joints on the spiral and drum is significantly reduced.



Mixing drum geometry
calculated using FEM

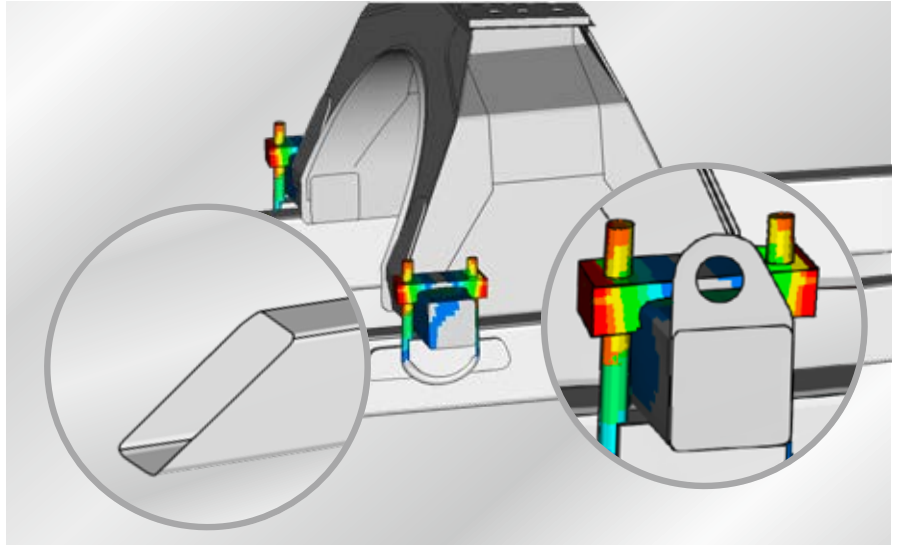


Spiral geometry with simulated
concrete filling

Enclosed frame for maximum stability

The vehicle frame forms the basis for all superstructures and for the associated machine functions. All the brackets, lugs and supports attached to the frame are exposed to extreme loads, and calculated taking into account all supporting conditions and active forces.

The best results are achieved with a completely closed vehicle frame, ensuring maximum stability and durability.



Putzmeister – No compromise in continuous development

All departments and construction machines of the Putzmeister Group benefit from the experience and expertise, which is documented through comprehensive knowledge management.

This is used as the basis for every new design or development – the aim being to provide you with the best machines.

Robust keypad for precise control

The analytical approach in each development phase creates huge benefits, even for product design and operator ergonomics. Our EMC controller has therefore been equipped with a robust keypad and an operating lever with contactless sensor. This has allowed us to combine "robustness" and "accuracy" requirements in operation.



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