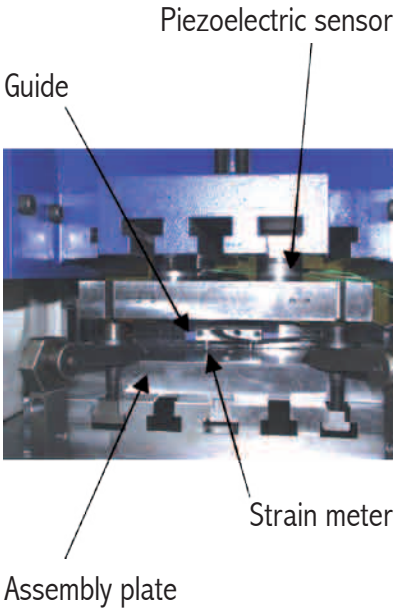
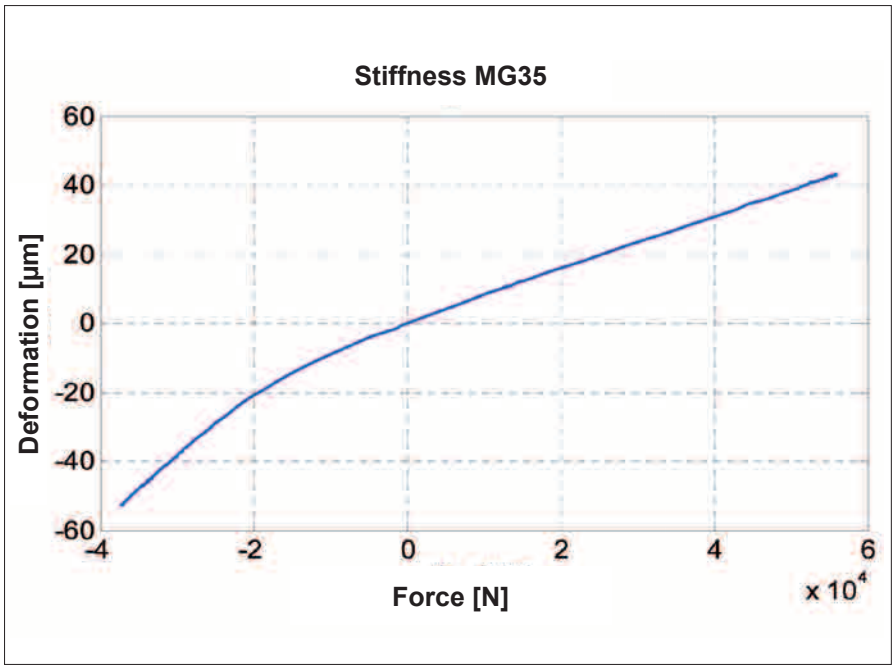
Setting of the test to measure the stiffness



The force is measured by means of a piezoelectric sensor that is installed between the hydraulic cylinder and the assembly plate where the carriage is fastened.
To correctly measure the deformation, an incremental optical ruler was used together with four jumpered strainmeters with a 0.1µ resolution.
To have a reliable deformation – force curve, eight measurement cycles are performed for each type of carriage, and then the average values will be calculated.

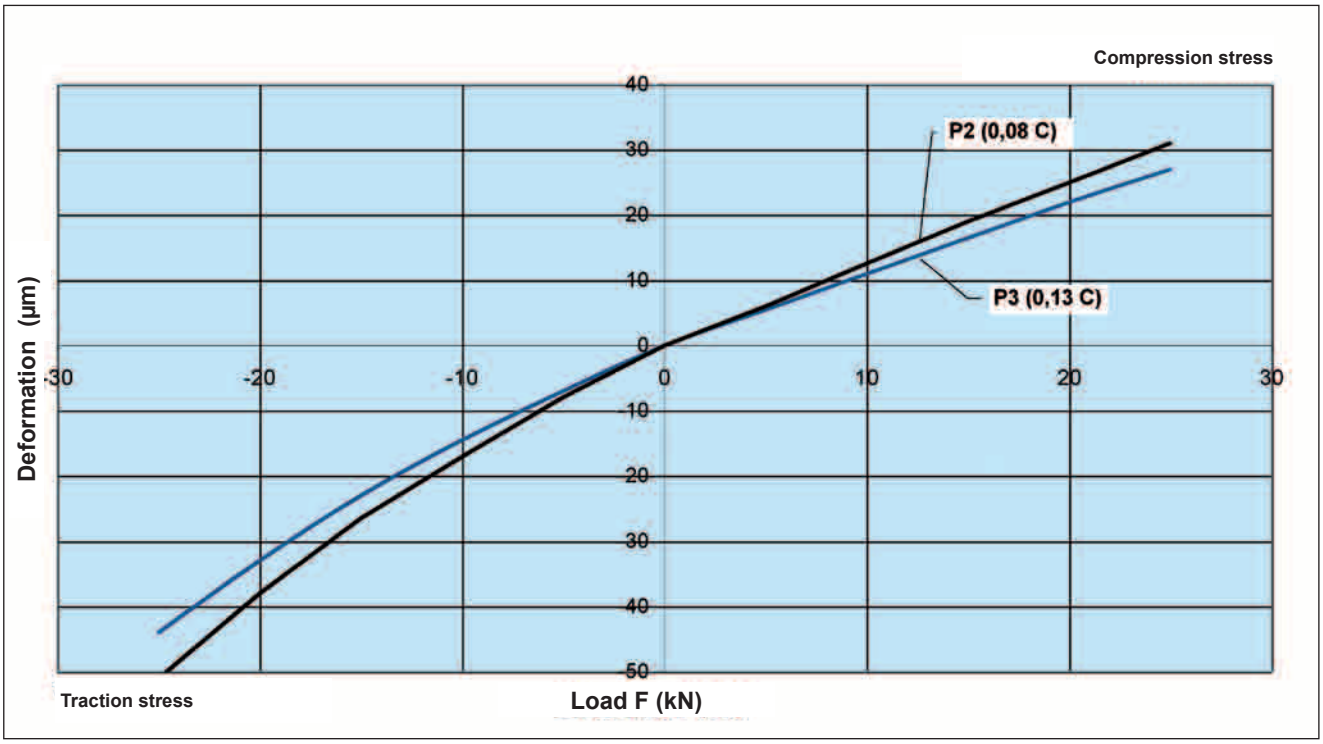
Measurement results

The measurement of the stiffness in compression and traction conditions according to the above-mentioned modes allowed establishing the deformation - force curves for all types of carriage.
The diagram below shows the curve for MG 35 LC P3.

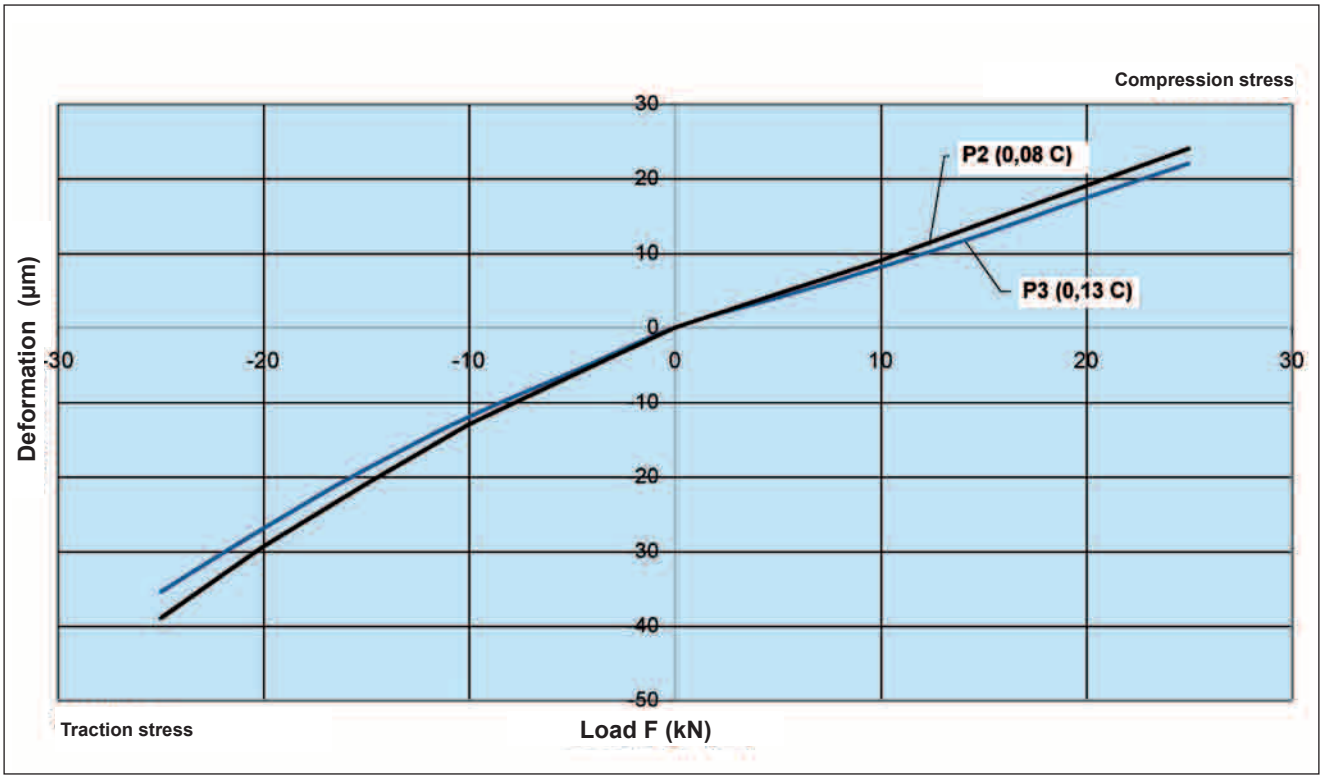


2.13 Stiffness diagram

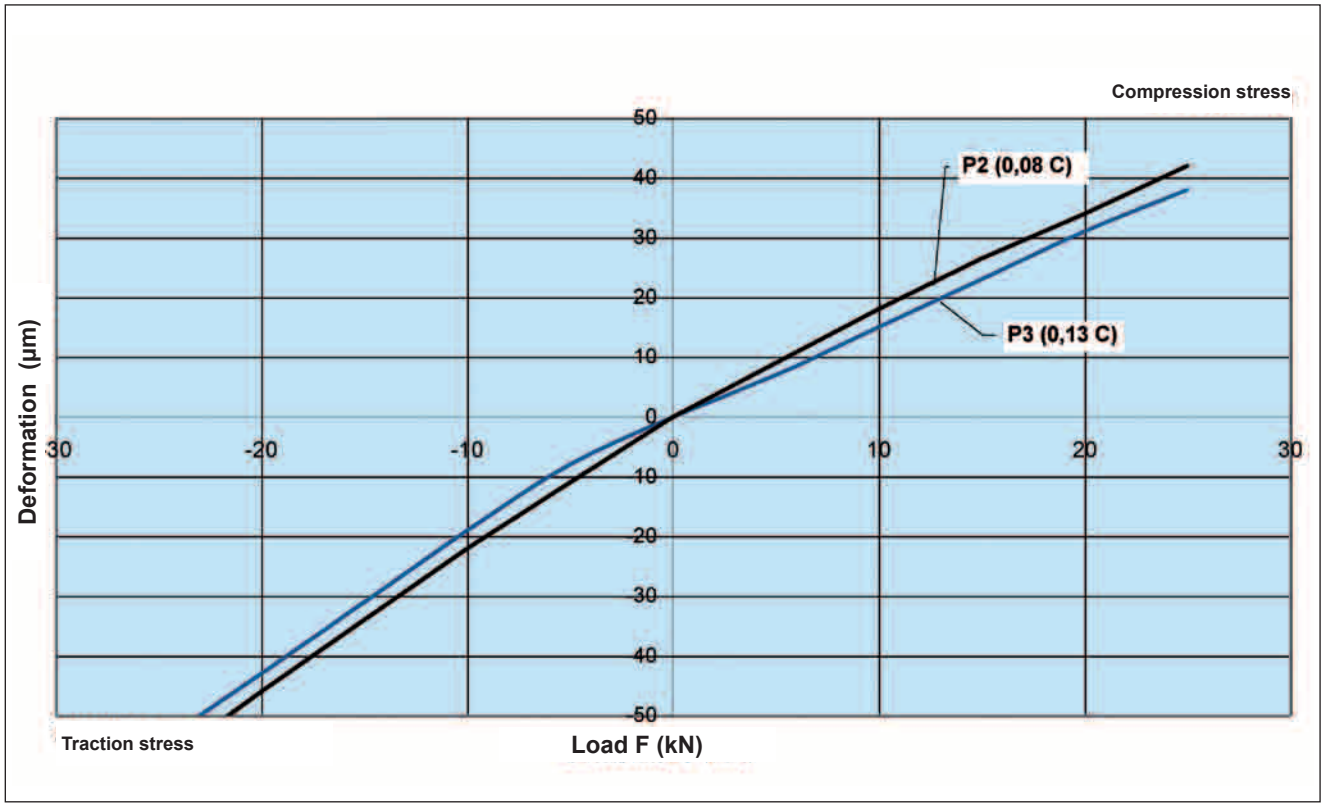
Stiffness MG25 LC



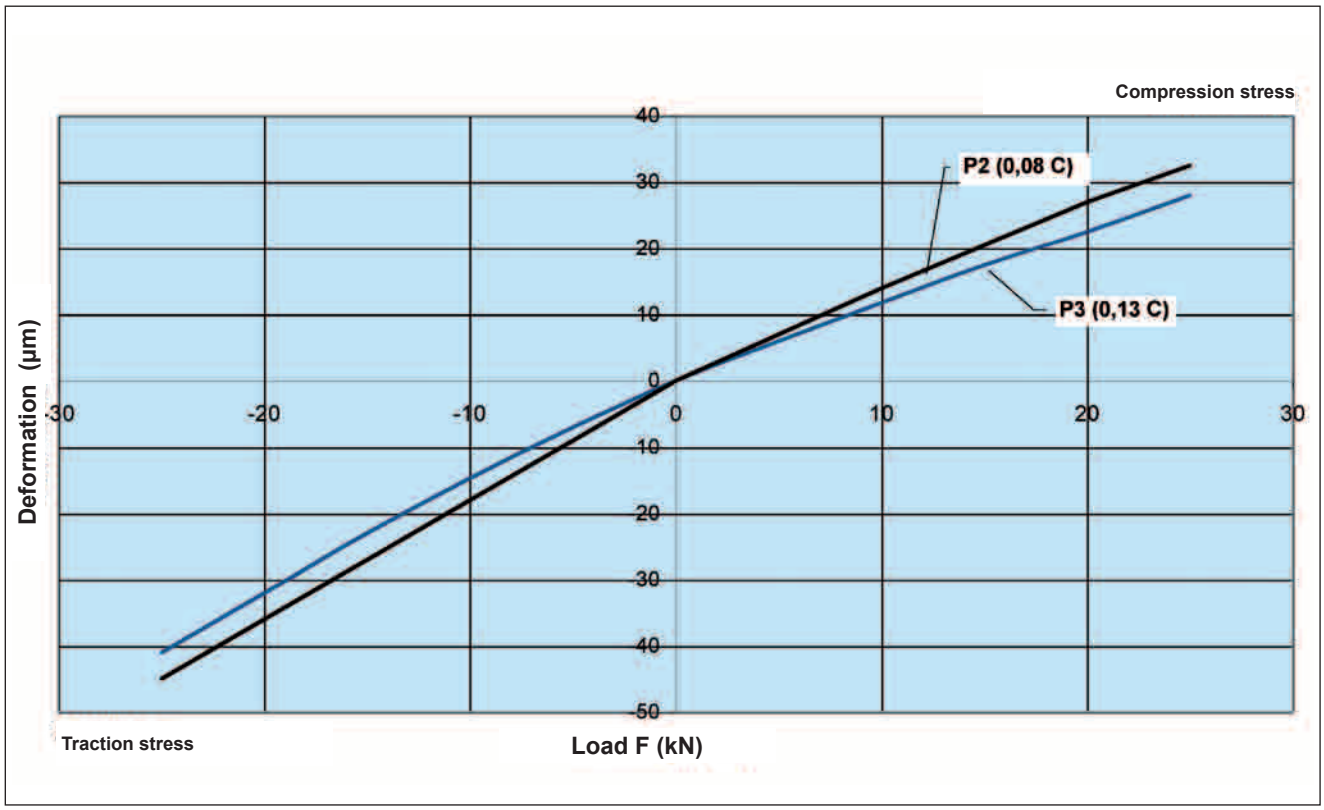
Stiffness MG25 LL



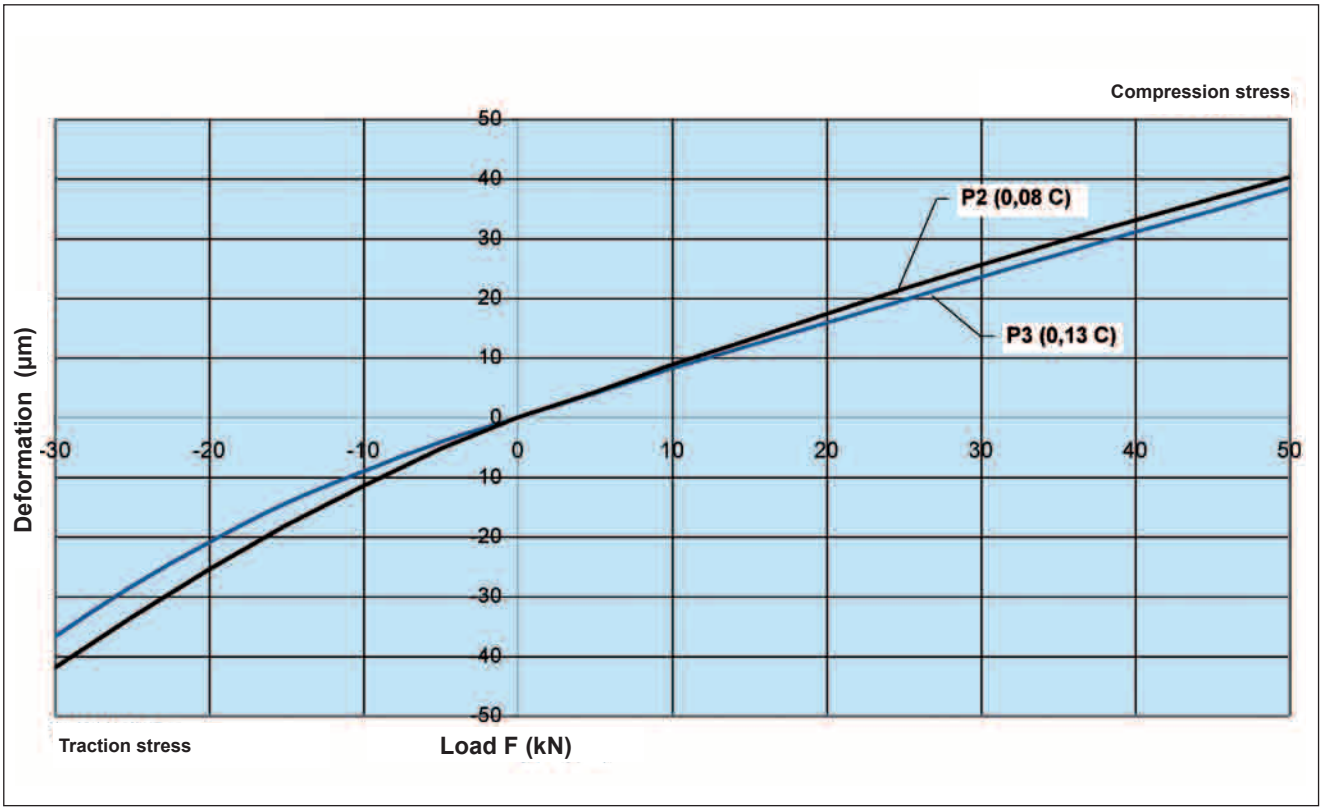
Stiffness MG25 SC



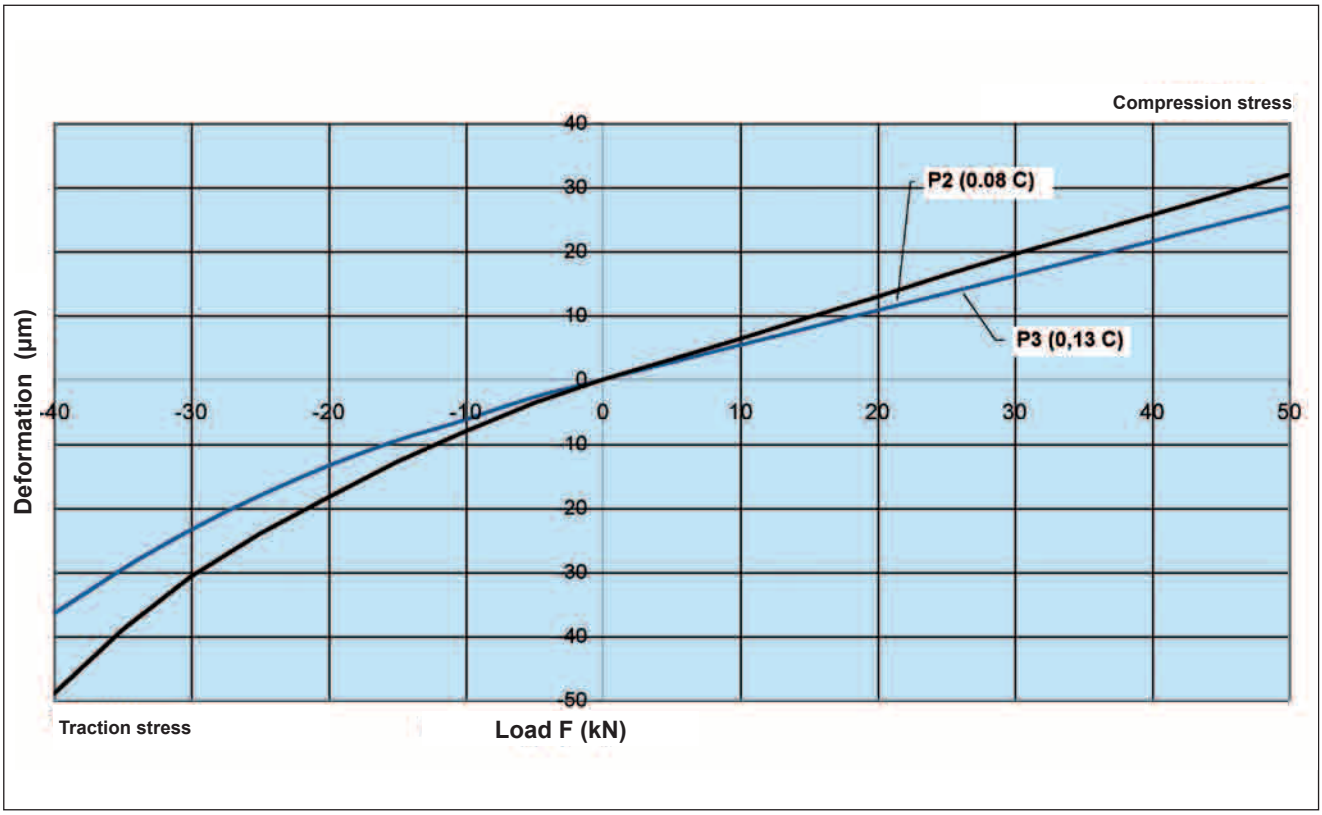
Stiffness MG25 SL



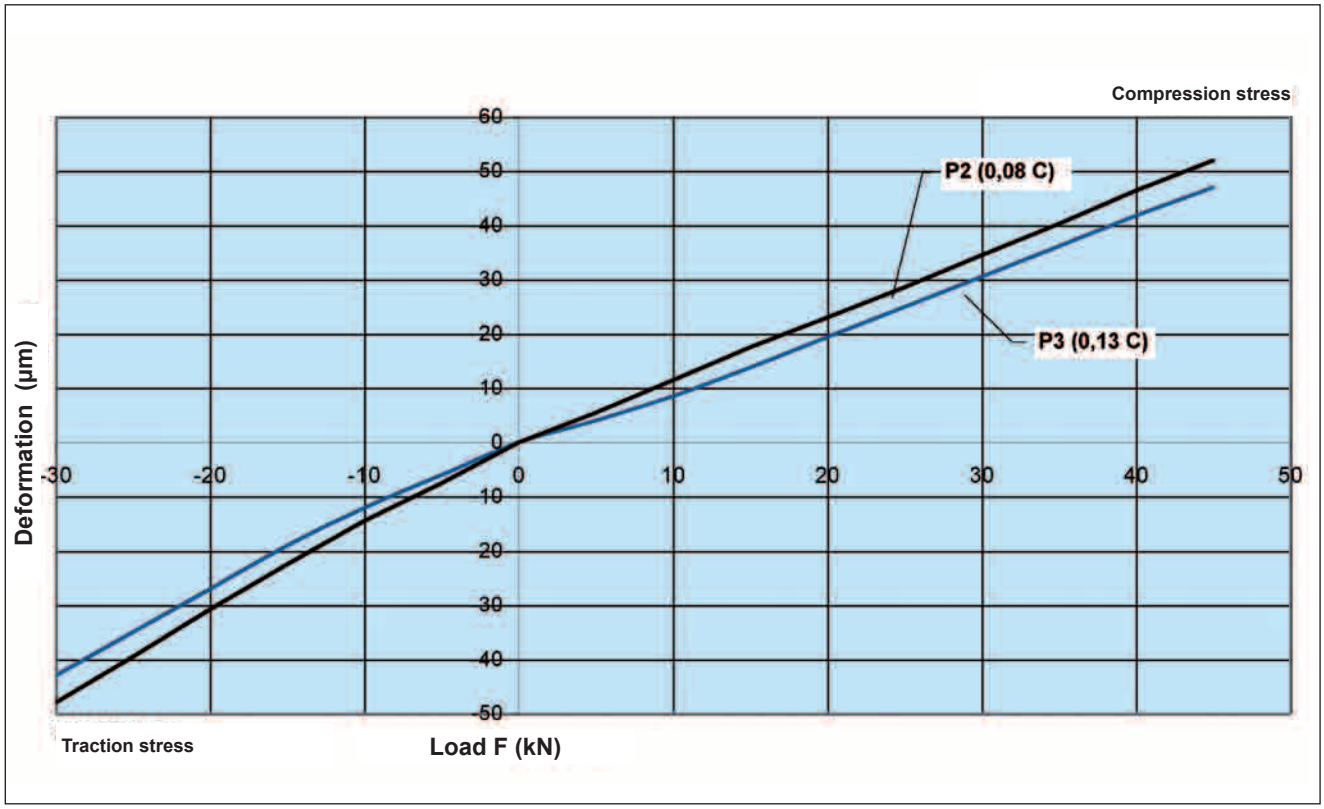
Stiffness MG35 LC



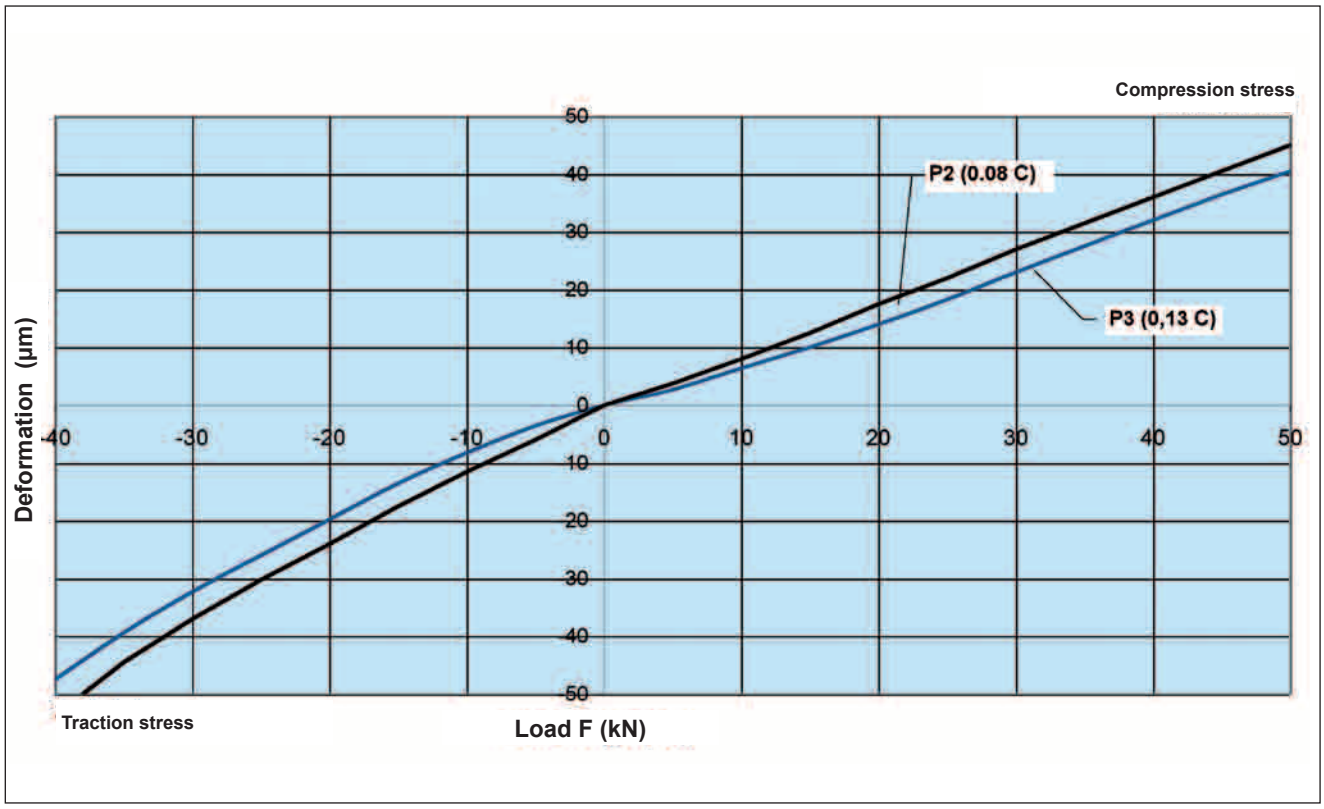
Stiffness MG35 LL



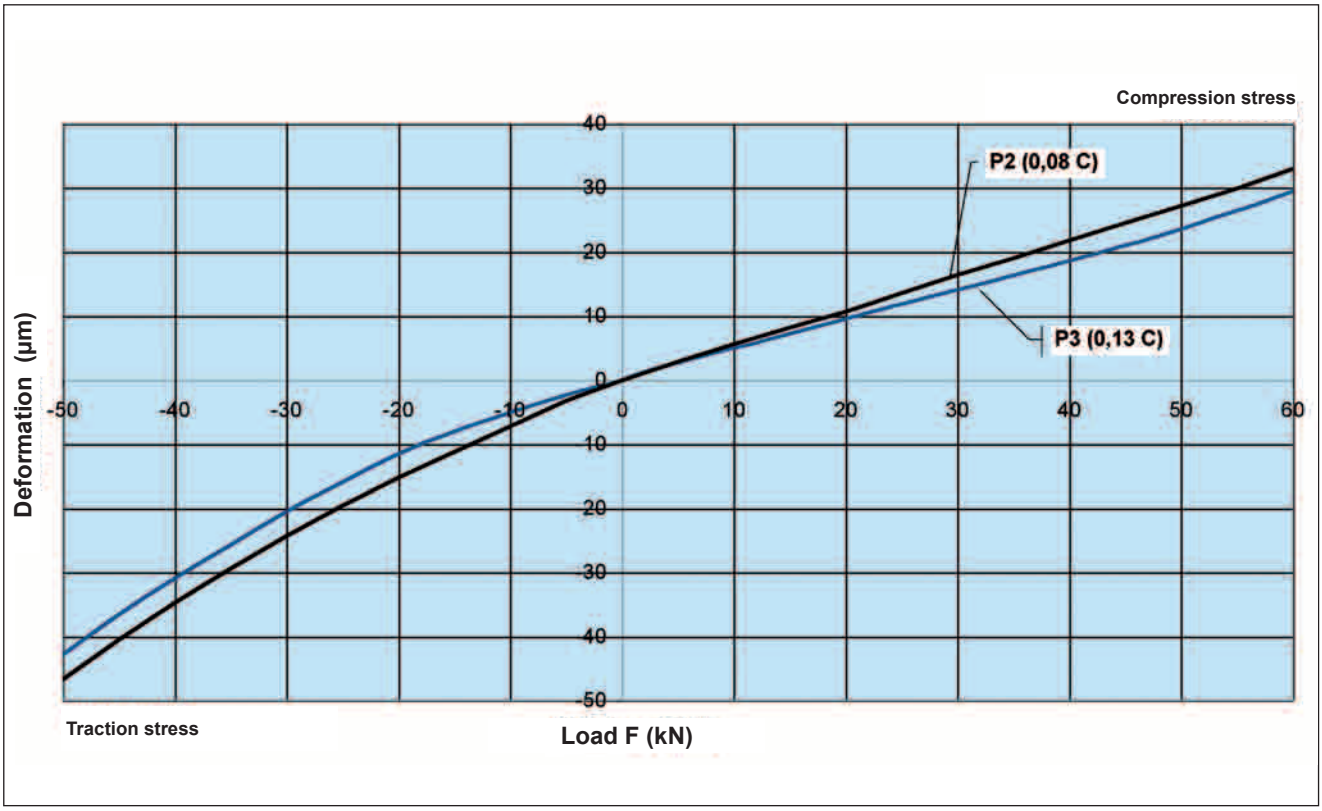
Stiffness MG35 SC



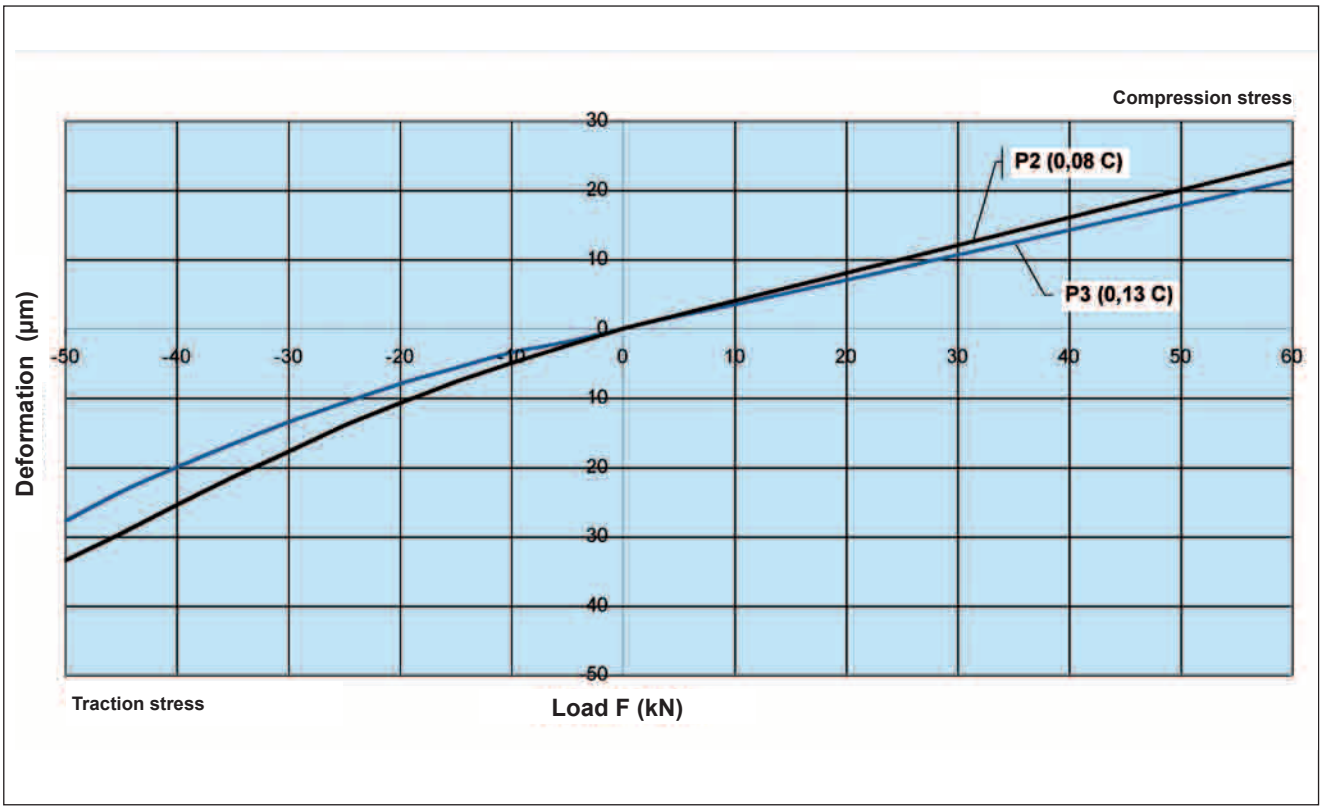
Stiffness MG35 SL



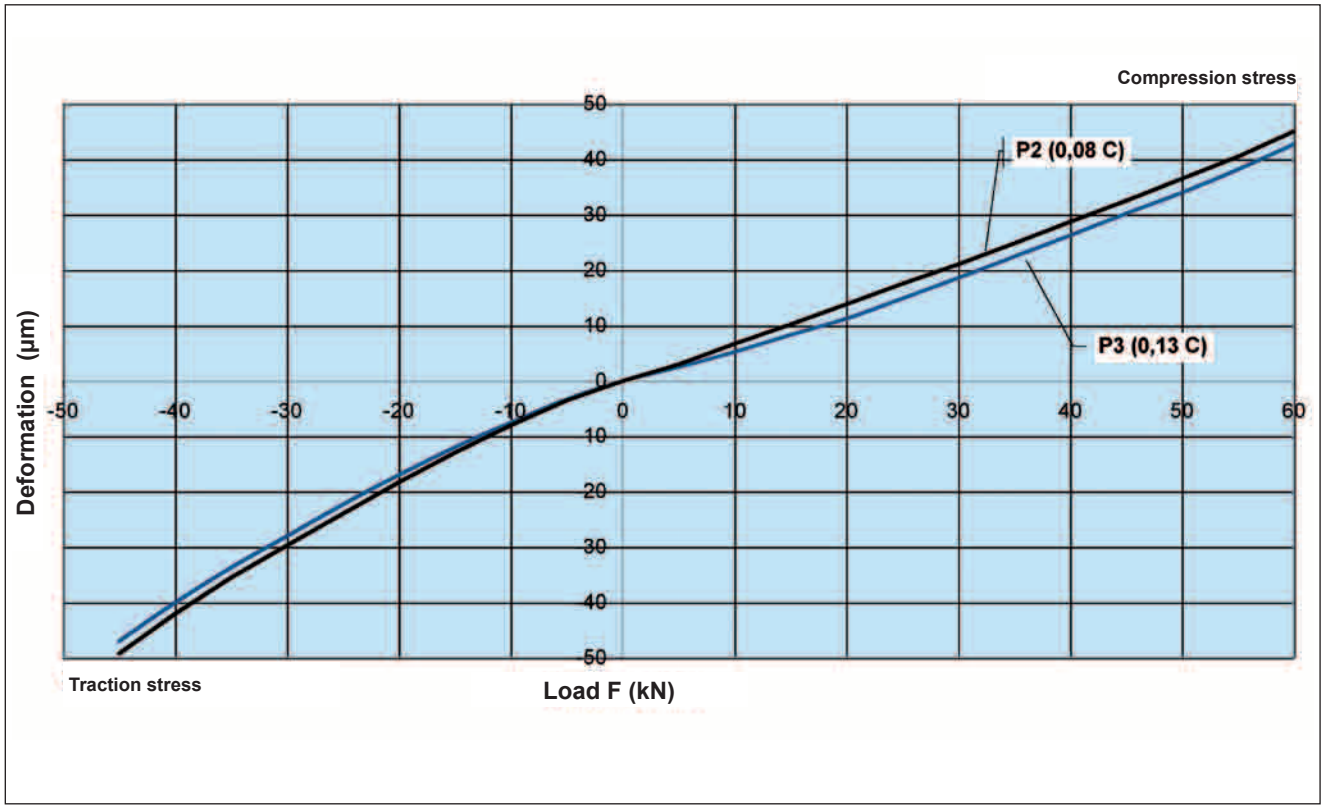
Stiffness MG45 LC



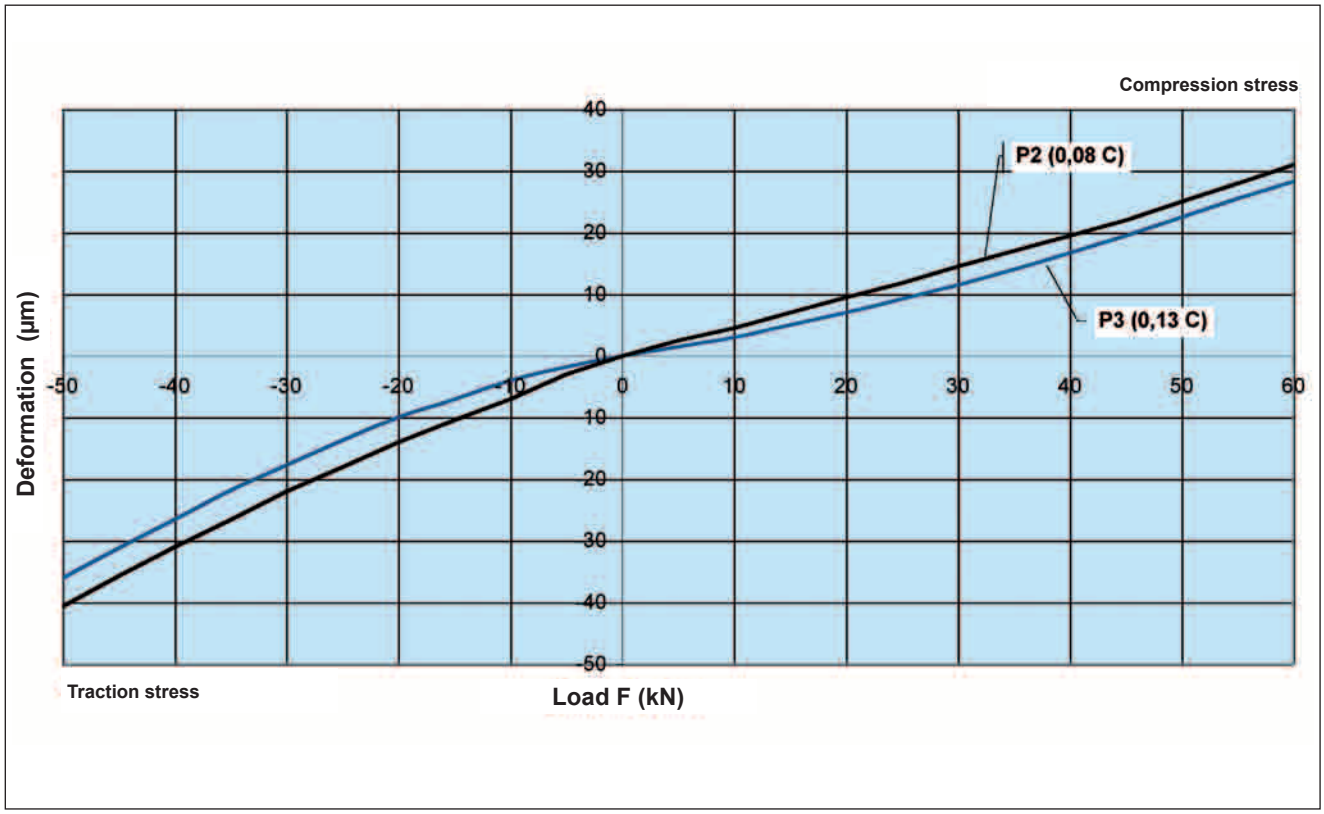
Stiffness MG45 LL



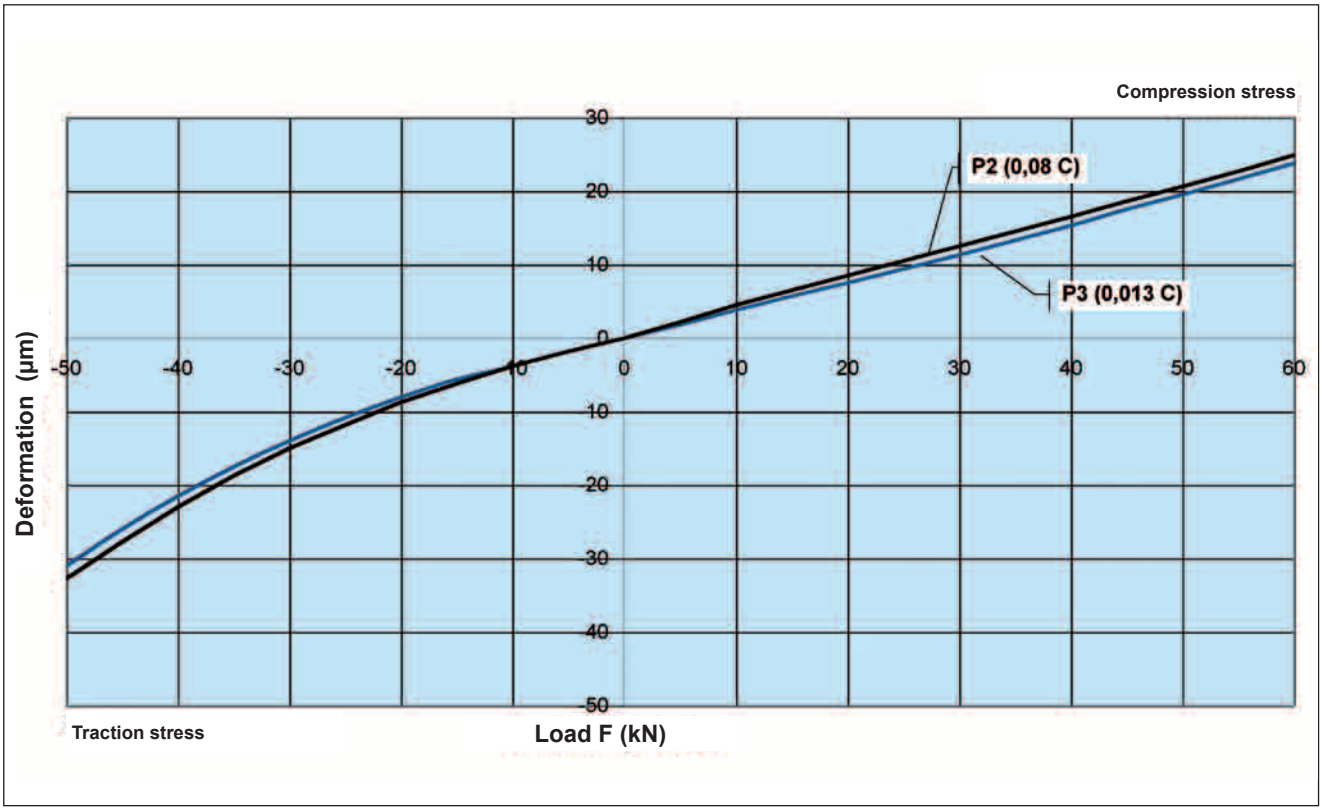
Stiffness MG45 SC



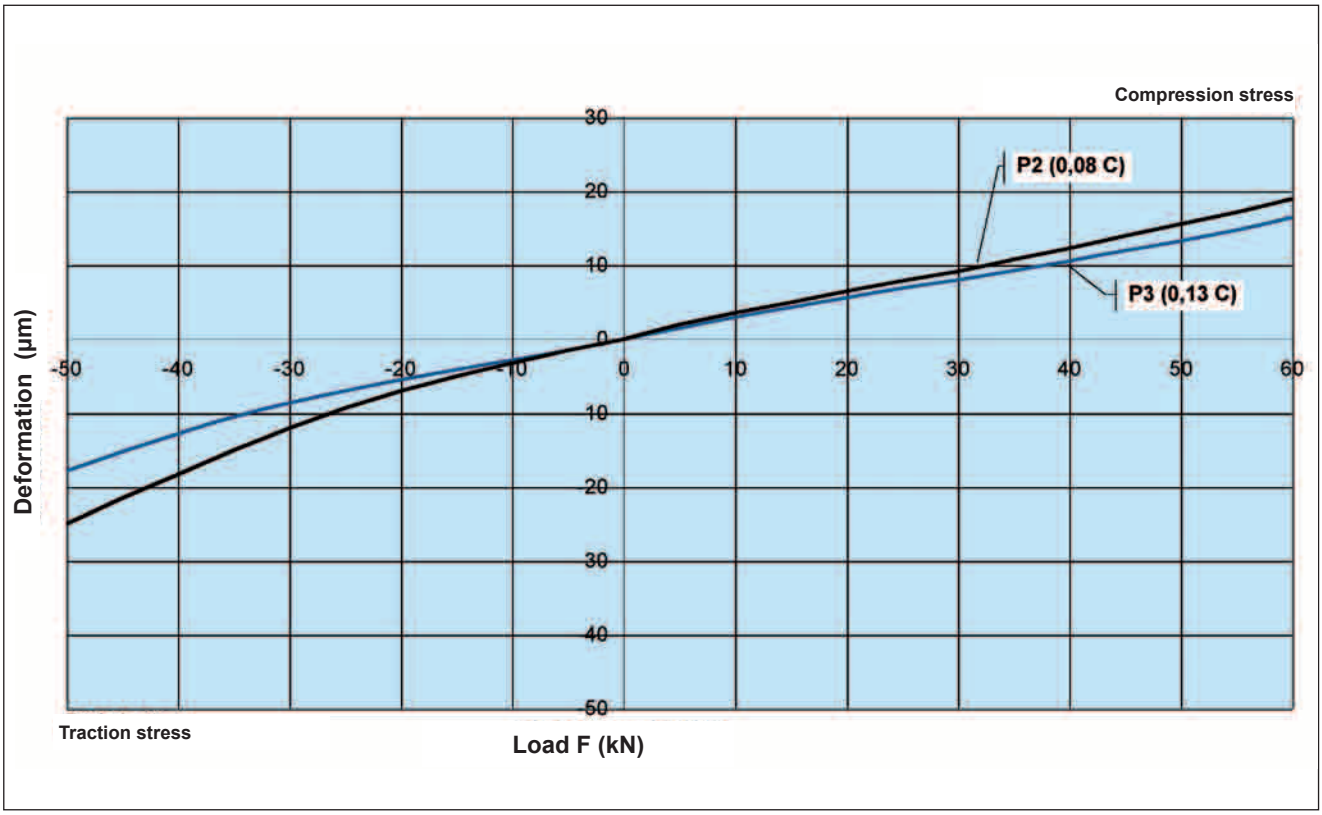
Stiffness MG45 SL



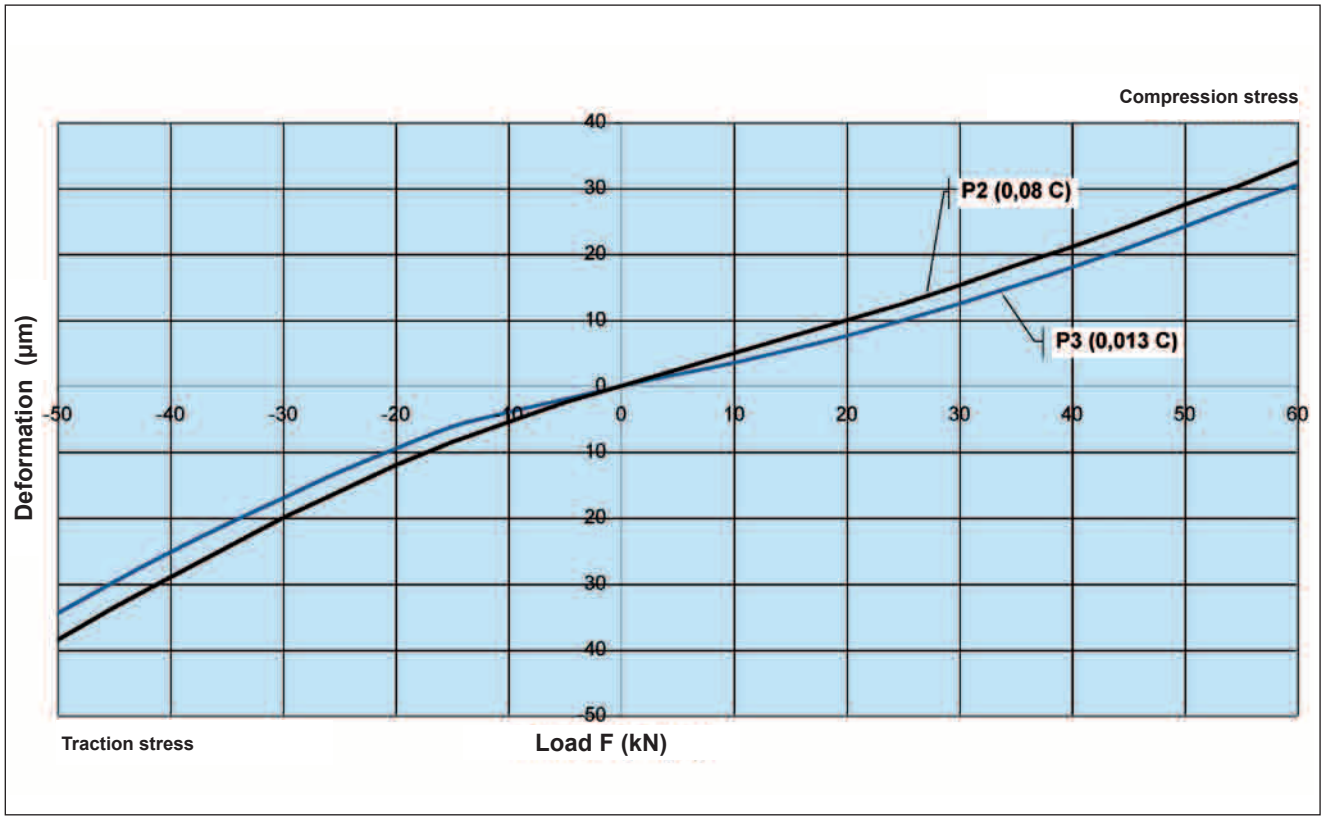
Stiffness MG55 LC



Stiffness MG55 LL



Stiffness MG55 SC



Stiffness MG55 SL