

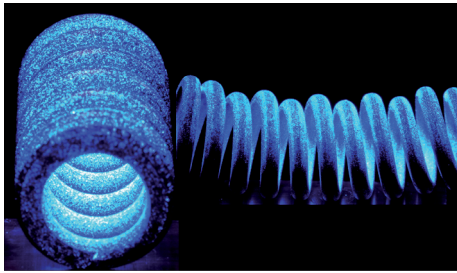
Weight optimisation and increase of durability - without compromise



Nitriding of springs exposed to maximum stresses

The BRAND GROUP, founded in 1922, is the specialist in development of spring solutions for the automotive powertrain business and has become a global leader in its field.

For decades the BRAND GROUP has developed and produced springs and spring systems exposed to maximum stresses. The whole process, from the design and spring calculation to the production of prototype springs, culminating in totally automated production with high vertical integration is their skill.



High-tensile materials and profiled wire cross sections are continuously developed and improved by close cooperation with a supplier network specialising in these applications. This enables the optimal use of materials considering the maximisation of spring designs with a focus on exceptionally high stress.

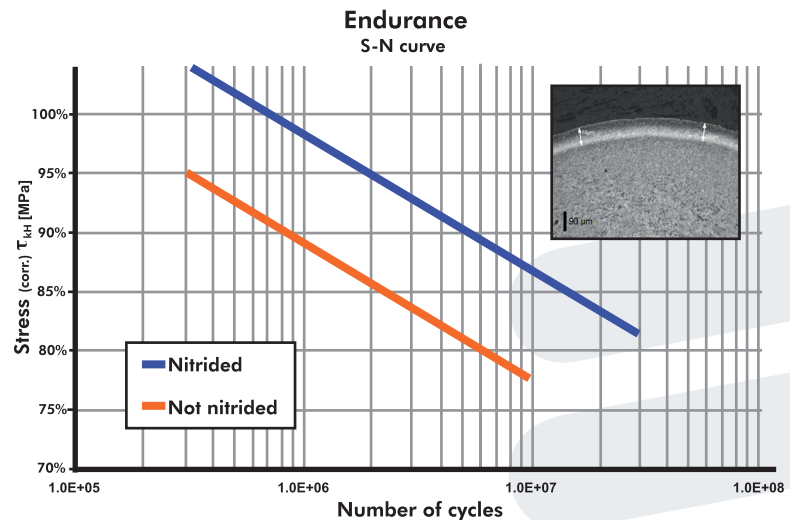
The demand for low fuel consumption is a great challenge for the development staff in the automotive powertrain area. Best performance at a minimum component weight in a given space must be realized and optimum comfort must be fulfilled.

On the basis of the experience with springs exposed to the highest stress levels the engineers of the BRAND GROUP have developed a nitriding process to harden the surface of the springs which further increases the performance capability.

For optimal realisation of the demands of high stress levels having to somewhat compete with the opposite requirements concerning performance and weight, the nitriding parameters are already incorporated in the spring design and the whole production process of the springs is

The engineers of the BRAND GROUP are not only able to nitride high quality materials but have the ability to develop the optimal combination of material qualities, nitriding parameter and spring processes according to individual applications and customer requirements thereby achieving economical solutions.

Nitrided springs exposed to the highest stresses are extensively used in clutches, torque converters and many other applications requiring ever-increasing demands on stress levels and weight optimisation.



orientated about them. This achieves an improvement of the S-N curves (Wöhler) of the springs which significantly increases the load capacity and the durability (see chart). At the same time an improved wear protection is created by the nitrided surface. Extensive durability studies and use in applications over many years confirm these results.

Brand KG
 Völlinghauser Straße 44
 D-59609 Anröchte
 Germany
 Phone: +49 (0) 2947 8 89-0
 Fax: +49 (0) 2947 8 89-2 99
 kontakt@federn-brand.de



Arc springs for torque converters etc.



Compression springs for clutches etc.



Arc springs for DMF etc.