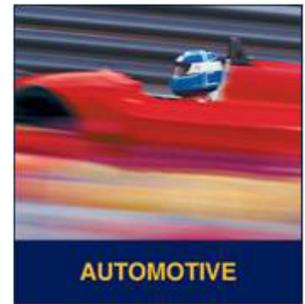


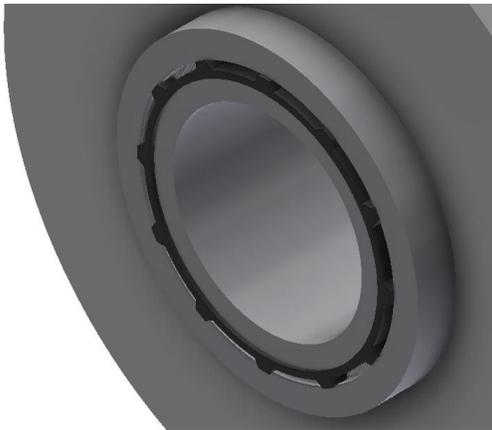
Problem Solved!

TECHSEAL INNOVATIONS - PRECISION CUT PRESS-IN-PLACE SEALS

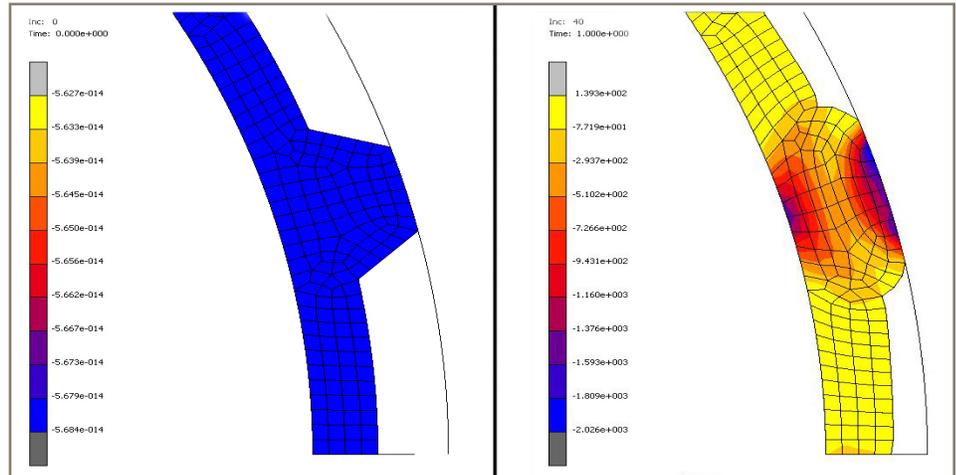


Application

The metal housing of an automotive power take-off unit.



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FEATURED PRODUCT: Press-In-Place Seals

Problem

A customer was using a lathe cut static face seal with a rectangular cross section for one of their automotive components. The seal's main purpose was to prevent water, dust, and debris from entering

the power take-off unit, especially during rain storms and water fording, protecting the inner components from corrosion and destruction. Due to the exposed nature of a face seal during the

assembly and transportation processes, the seal was prone to being dislodged. The customer was evaluating several alternatives when the TechSeal Division proposed the optimal solution.

Parker Solution

Parker TechSeal Division was able to solve this problem with a precision cut press-in-place (PiP) seal design. The lathe cut PiP seal has nibs designed into the O.D. of a regular lathe cut seal, creating an interference between the groove wall and the seal. This interference results in maximum seal retention. The FEA simulation above shows the seal's deflected shape once it is installed into the groove.

Additionally, the precision cut PiP seal still maintains the rectangular cross section of a lathe cut seal, providing **the maximum sealing contact area**. A wider contact surface compensates for imperfections in mating components like porosity in cast grooves. (For more information, please see the Press-in-Place bulletin, TSD 5434, which is available on parker.com/techseal).

TechSeal's unique extruding and cutting processes produce precision cut PiP seals with minimal tooling costs and without flash, voids or parting lines.

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