

Race-Tec Motorsport CVJ Seal Technology

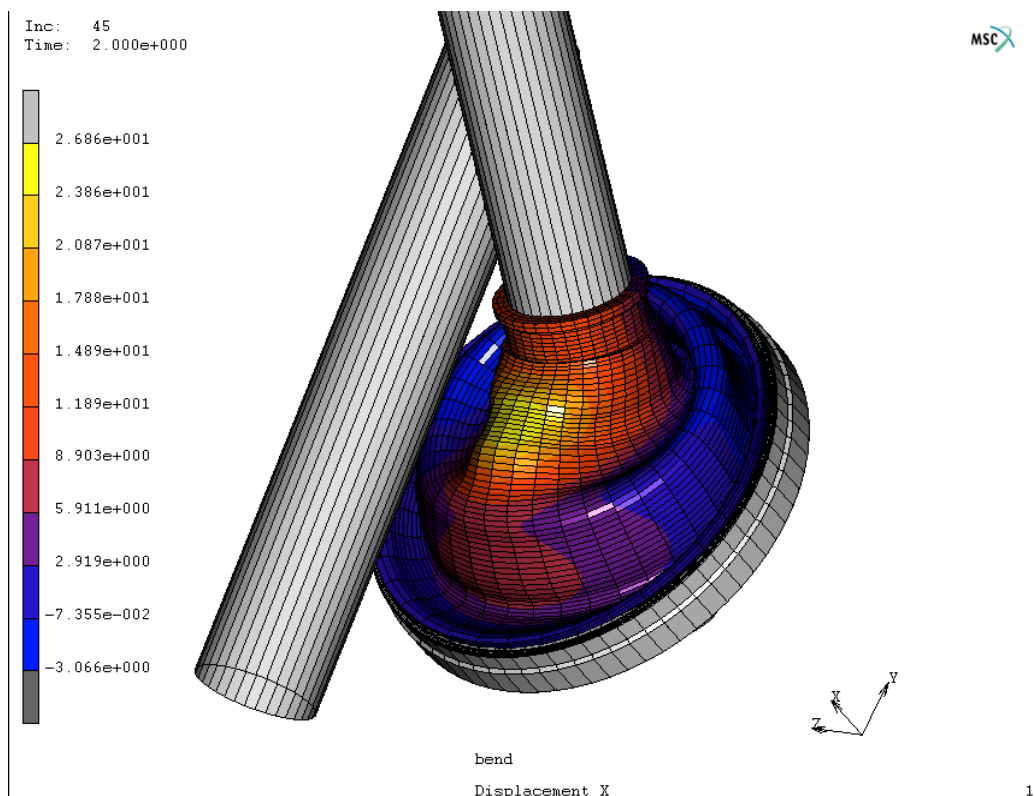
- High performance materials
- Compact Seal designs
- Integrated PTFE-Lined Seal



Using non-linear Finite Element Analysis (FEA) simulations, Race-Tec NAK offers custom-designed CVJ Seals & Boots to meet all motorsport requirements. These include high angularity applications such as may be found in steering axles or on Rally Raid cars.

Compact designs may be arranged to be integrally-mounted to the differential assembly reducing aerodynamic drag and offering a general size reduction in adjacent components. Several boot mounting & shaft retention methods are available together with a number of Breather design options.

Custom design using non-linear FEA



Race-Tec Motorsport race proven custom sealing

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Ref.	PDS003
Issue	C
Date	16/03/2006

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Performance Features

Materials

The elastomer selected may be any of the common compounds, Nitrile (NBR), Ethylene Acrylic (EAM), Hydrogenated Nitrile (HNBR), Silicone (VMQ) & Fluoroelastomers (FKM).

Special material formulations have been developed by Race-Tec NAK for :

- Compatibility with latest generation Trilobe greases
- Reinforced grades to improve tear & cut resistance
- Extremely high articulation angles.

Technical Features

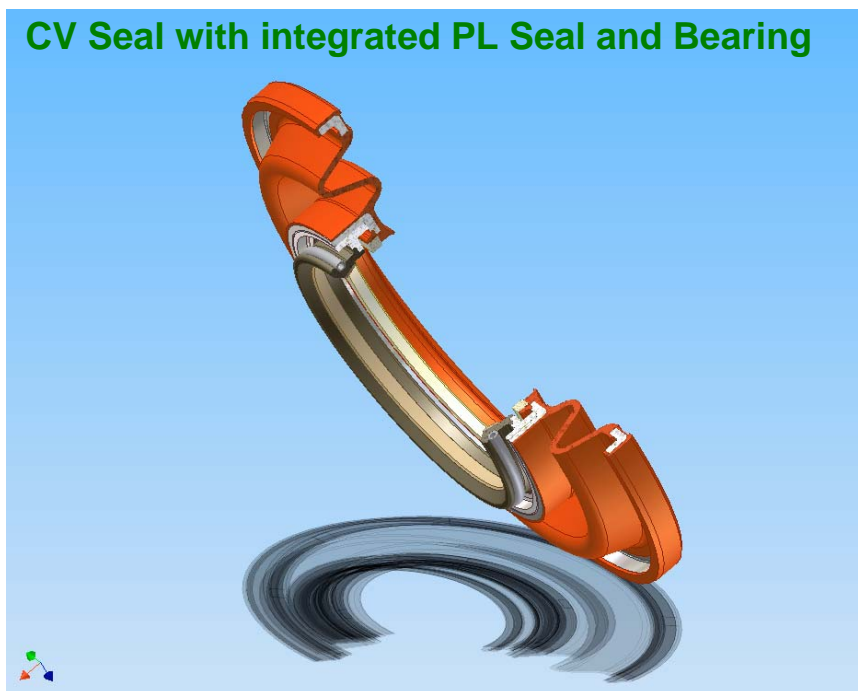
The CVJ Seals & Boots may be mounted on/in the hub/transmission using one of the following methods

- Interference press fit,
- Mechanical retention with a custom-designed circlip,
- Cable tie/clamp
- Chemically bonded into housing

For the shaft the seal retention can be achieved using cable tie, clamp or garter spring.

To avoid pressure build up within the CV joint, breather vents can be designed into the seal.

As shown in the example below, special designs can be configured for the 'unsolvable' problems.



Applications

Race-Tec CVJ seals are used in top levels of motorsports i.e. F1, F3, LMES / ALMS LMP 675 & 900, GT, GrandAm, Sportcars, WRC, etc, where the seal is custom- designed to meet the performance demands of the application, whether it be high flexibility, good tear resistance, compact design etc.

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