

Bladder Accumulators

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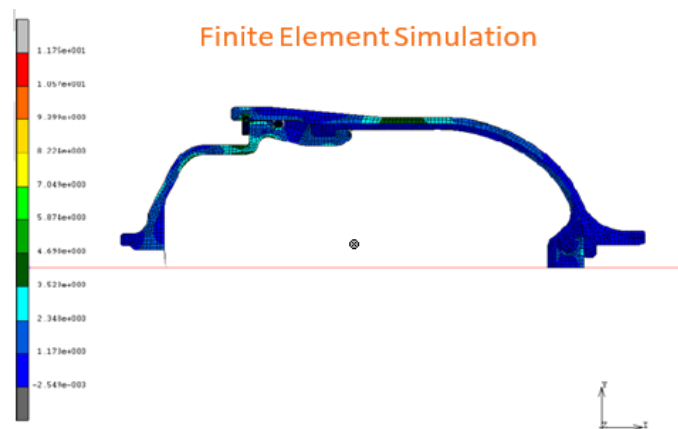


- > Used in fuel, coolant and hydraulic systems
- > High frequency pressure cycling
- > Cassette style assembly
- > Performs with lateral and vertical G loadings

Race-Tec's Motorsport accumulator technology is more responsive than piston style accumulators, as there is no requirement to overcome static friction.

They are particularly suited to systems where high frequency pressure cycling occurs and provide excellent performance when subjected to high vibration, lateral and vertical G loadings. Hydraulic bladders are less susceptible to vibration related problems than piston type accumulators which are more complex due to the increased number of moving parts.

Bladder accumulators are of a cassette style assembly so customer housing designs can be accommodated. Accumulator shells can be manufactured in Aluminium, Titanium, Steel or other custom materials. Unlike piston style accumulators, bladder accumulators do not need to be parallel so various shapes can be considered.



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Performance Features

Materials

Dependent on fluid type and operating temperature range, any of the following compounds may be used: Nitrile (NBR), Hydrogenated Nitrile (HNBR), Fluoroelastomers (FKM / FFKM), Epichlorohydrin (ECH).

Technical Features

A typical accumulator assembly comprises two mating components sealed with a pressure support ring. These assemblies may be separate components, welded or mechanically retained assemblies, allowing replacement of the custom bladder without renewing the complete assembly. These types of accumulator assemblies are successfully used in applications with pressures typically between 30 - 160 bar, with storage volumes from 12 - 300 cc. Careful selection of materials ensures optimised performance and life.

Hydraulic Accumulator Bladder Assembly



Applications

Bladder type accumulators are suited for use in any form of Motorsport, from Formula 1 through to Rally, where there is a requirement to accumulate hydraulic oil or cooling water/ fluid under pressure.