

New Compact/Lightweight CVJ Series

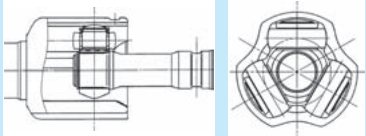
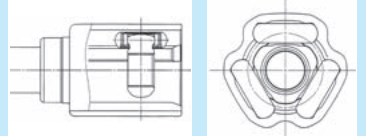
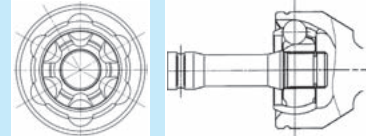


JTEKT has developed a new CV joint series reducing 4% in outer diameter and 8% in weight, by utilizing the latest and unique analysis method such as a high accuracy infrared stress measurement, and so on. The features of the newly developed CV joint series are introduced below.

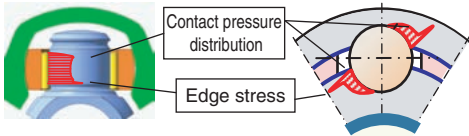
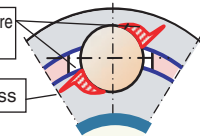
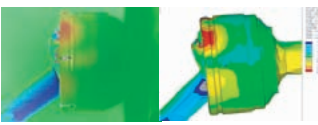
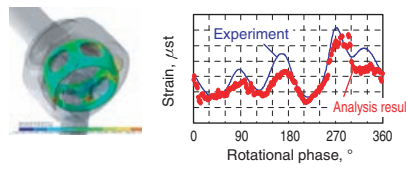
Outline

(1) Joint Type Variation

JTEKT introduced three types of CV joint to achieve the vehicle noise and vibration requirements.

<p>[Differential side joint]</p> <p>For smaller vehicle: JP series Low cost with single roller structure</p> 				<p>For larger vehicle: JPL series Low vibration with double roller structure</p> 		<p>[Wheel side joint]</p> <p>JF series Large angle with 50 degrees maximum</p> 	
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(2) Design method with the latest and unique stress analysis/measurement method

<p>① Differential side joint Needle contact stress distribution analysis</p>  <p>② Wheel side joint Ball contact stress distribution analysis</p> 	<p>③ High accuracy stress measurement Infrared stress measurement</p>  <p>Experiment FEM analysis result</p>	<p>④ Wheel side joint Dynamic cage stress analysis</p>  <p>Strain, /zst Rotational phase, °</p>
<p>Balanced design between strength and durability by numerical analysis of edge stress and contact pressure distribution.</p>	<p>Accurate surface stress measurement is utilized for the smaller package design.</p>	<p>Flexible Multibody Dynamics enabled to analyze cage stress fluctuation, and utilized to the smaller package design.</p>

Benefits

