



Carlson - Dimond & Wright, Inc. Automotive Class Gear & Rack



Heat-treated precision gear & rack are required drive components for today's high cycling equipment used in body welding systems and lift and transfer systems. Precision gear & rack are required because commercial (i.e. "catalog") gear & rack are not held to the close tolerances needed for automotive body welding systems. Quality heat treatment allows precision components to operate at high speeds and high cycle rates (16-20 hrs/day and 50 weeks/year) and provides substantial wear life. Commercial gear & rack simply does not provide adequate service life in this type of application.

Carlson – Dimond & Wright, Inc. supplies precision gears and rack for all automotive companies as well as their-tier one and tooling system suppliers. We will provide application assistance as well as material and sizing recommendations for your specific requirements. We have tooling for circular pitch spur gear & rack as well as diametrical pitch. In addition we can manufacture gear & rack for the metric (module) system.

Our precision heat-treated gear & rack is available in both ANSI standard 20° involute (diametral pitch and 1" pitch systems). We also offer this high precision rack in 25mm pitch. The metric pitch was developed for customers needing the number of gear revolutions to equal exact metric linear travel. The need for this type of gear & rack is ever increasing and Carlson-Dimond & Wright is the leader in this technology.

Gear & rack can be finished with all necessary bores, keyways, splines and bolt mounting holes or tapped holes as required with precision tolerances. Our specification for gear hardness is 58-62 Rc case - carburized teeth with a ductile core to handle shock loads. The precision rack is made of 28-32 Rc PHT steel and can be furnished with tapped & dowel holes to your specifications. Another feature of our rack is that we can provide it in lengths up to 12 feet.

Contact us for your next gear & rack application; we will be pleased to assist you.

Carlson - Dimond & Wright, Inc.

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