
PROBLEMS ENCOUNTERED IN BEVEL GEAR MANUFACTURING

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Abstract

Many mechanism designs involve transmitting rotation from one shaft to another when the axes of the two shafts intersect; bevel gear transmissions are particularly suitable for this. We consider the requirements listed in current standards for bevel gears. We show that ensuring bevel gear quality is a complex and involved problem, solving which means taking all the manufacturing process stages into account, from producing the rough workpiece to assembling the gears. We outline the main machining methods used for spiral and straight bevel gears.

Keywords

Bevel gear, gear, precision rating, machining, gear cutting, assembly

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