

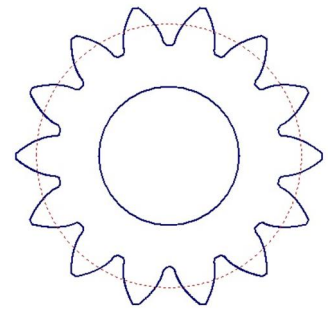


Doppler Gear TechBit: Gear and Spline 201

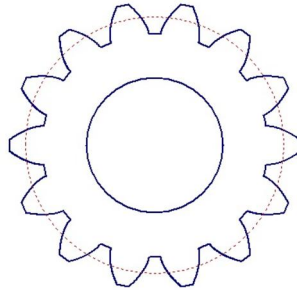
What makes an involute gear an involute spline? Usually just a high pressure angle and a stub tooth. So what is a “**stub tooth**”?

The “**whole depth**” of a gear tooth is its “**addendum**” (distance from the pitch diameter to the outside diameter) plus its “**dedendum**” (distance from the pitch diameter down to the root or minor diameter).

A standard depth 12DP 30°PA 14 Tooth gear might look like this

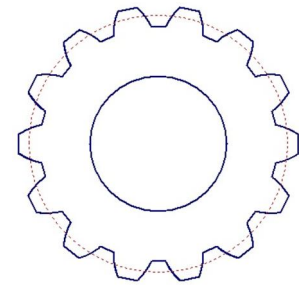


The same gear with a 20% reduction in whole depth (“**AGMA STUB**”) gear might look like this



The same gear with a 50% reduction in whole depth (“**12/24” DP**)

(“12/24” essentially means a 12 pitch gear with a 24 pitch depth)

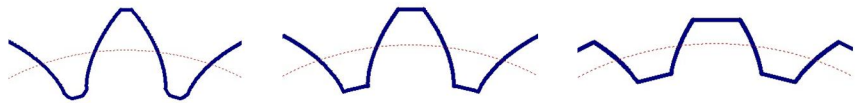


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These gears all have the same number of teeth, the same diametral pitch, the same pressure angle, and the same circular tooth thickness. The only difference is the depth of the tooth, yet the one on the left is a “12 pitch gear” and the one on the right is a “12/24 spline”.

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