



Doppler Gear TechBit: Shoulder Clearances for Hobbing



Gears and splines are commonly generated using a process called "**Hobbing**" in which a cylindrical cutting tool generates teeth in a surface.

The diameter of the tool and the path it takes can often result in clearance issues and undesirable material removal beyond the full effective depth of the tooth. This can be seen on the part above.

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Attached is a simple spreadsheet to aid in calculating the full length a hob will cut depending on several factors.

Another process, **gear shaping**, is often a good alternative when tool path clearances become a problem.

For a competitive estimate on your next hobbing or shaping job, contact Doppler Gear Company.

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