

# Critical review of electrochemical honing: sustainable and alternative gear finishing process. Part 2: effects of various process parameters on surface characteristics and material removal rate

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Part 1 of this review discussed conventional gear surface finishing processes and their advantages and limitations, and introduced the electrochemical honing (ECH) process (and its extension of pulsed electrochemical honing (PECH)), to improve the surface characteristics of different types of gears, working principles, mechanism of material removal and equipment details. Part 2 gives a review of past work, and discusses effects of various process parameters on surface characteristics and finishing productivity (i.e. material removal rate), advantages and limitations, and its other applications. The objective of this review paper is to present ECH/PECH as one emerging alternative, economical, productive and sustainable gear finishing process.

**Keywords:** Gear; Finishing; ECH; PECH; Honing

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