# Article information:

Parametric analysis of the end face engagement worm gear | SpringerLink  
<https://link.springer.com/article/10.3901/CJME.2015.0708.089>

# Article summary:

1. A novel specific type of worm drive, the end face engagement worm gear (EFEWD), is presented to minimize or overcome the gear backlash.

2. The tooth profile of a worm is generated by the meshing movement of the worm wheel with the sine-shaped tooth, but just the end face of the worm is adapted to meshing.

3. Research results indicate that the bearing contacts of the generated conjugate hourglass worm gear set are in line contacts, with advantages such as no-backlash, high precision and high operating efficiency over other gears and gear systems.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a detailed overview of a novel specific type of worm drive, so-called end face engagement worm gear (EFEWD). It presents various factors taken into account to investigate its meshing characteristics and create its profile through mathematical models and theoretical analysis. The research results indicate that it has certain advantages over other gears and gear systems such as no-backlash, high precision and high operating efficiency.

The article appears to be reliable in terms of its content as it provides detailed information on EFEWD's design features and potential benefits. It also cites several references from reputable sources which adds credibility to its claims. However, there are some points that could be improved upon in terms of trustworthiness and reliability. For example, while it mentions potential risks associated with EFEWD's use, these risks are not explored in detail which could lead to an incomplete understanding of its implications for users. Additionally, while it does provide evidence for its claims made throughout the article, more evidence could be provided to further support them. Furthermore, there is a lack of counterarguments which could provide a more balanced view on EFEWD's potential benefits and drawbacks. Finally, there is no mention of promotional content which could lead readers to believe that all information provided is unbiased and objective when this may not necessarily be true.

# Topics for further research:

* End face engagement worm gear drawbacks
* End face engagement worm gear applications
* End face engagement worm gear reliability
* End face engagement worm gear risk assessment
* End face engagement worm gear performance evaluation
* End face engagement worm gear comparison with other gears

# Report location:

<https://www.fullpicture.app/item/91bb1cad588fac1d0e5d710ac2809f9c>