Driving innovation in gear development

Formed in 2013, Dontyne Gears works across a range of sectors and facilitates small testing programmes for both large and small specialist companies. We offer a revolutionary approach to the design, analysis, manufacture and measurement of gears, providing clients with a fresh, new approach that is helping them break new ground.

Specialising in prototyping and testing, we are able to expand on gear design ideas and concepts including evaluating manufacturing techniques for efficient production and optimum performance using the latest developments in hardware, CAD and production equipment.

Dontyne Gears can assist with the design and development of your gearing system – with proven performance. If required, we can offer a turnkey solution to reproduce this. Our expertise has made it possible to design, analyse and prove new gear forms.

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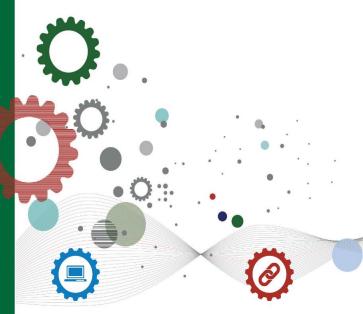
Dontyne Gears uses Dontyne Systems software. Dontyne Systems provides intuitively designed, user-friendly gear software to companies across the globe. Our Gear Production Suite software now has more than 150 installations in 15 countries, including the UK, Japan and the USA.

We work with tool makers and machine tool manufacturers to provide improved communication between design room and workshop as well as integration to measuring devices for Closed Loop Gear Manufacture.

Dontyne develops custom solutions such as tooth contact analysis for the Convoloid gear from Genesis Partners, USA, including tool design and analysis of continuous grinding technique for mass production.



Convoloid® which, in certain applications, gives 10 to 50 per cent (or more) power density over Involute. Example of Convoloid design reducing centre distance by 20% over Involute equivalent.



Design and Analysis Service

We offer a design service to create new gear systems using standard techniques, optimise existing systems or research and develop novel designs.

This includes analysis of operating criteria under load such as stress, vibration, efficiency and power loss to determine optimum form before moving to the manufacturing process.



Manufacture and Inspection

We can produce test gears of up to 500mm diameter, helping clients to ensure they have the right gears for their processes, and we inspect gears using high precision machines.

Testing and Validation

We are able to carry out testing in-house using a range of test rigs and with our partners at The Design Unit, Newcastle upon Tyne to validate various performance criteria of gear designs.



Due to our commercial agreements with several major manufacturers, we are able to offer a variety of products as part of a complete package to our customers.







