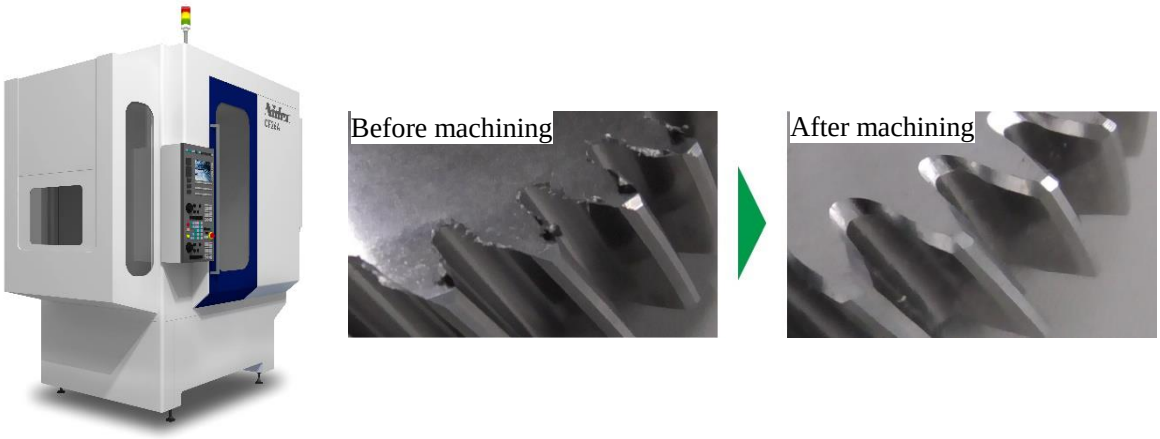
September 29, 2022

Nidec Machine Tool Debuts CF26A, a Newly Developed Cutting Chamfering Machine, Together with EdgeCut, a Dedicated Tool

- Highly accurate chamfering shapes that respond to the EV gear's finishing process
- Providing ideal chamfering shapes based on a newly developed tool design simulation function

Nidec Machine Tool Corporation ("Nidec Machine Tool" or the "Company") announced today that it will launch CF26A, a cutting chamfering machine that can cut a gear to remove its chamfers (corners) to ensure a highly accurate finish, and EdgeCut, a dedicated tool, on September 29.

CF26A can speedily and accurately machine the corners of electric vehicles' (EVs') high-accuracy gears, which are required to have reduced noise and better transmission efficiency. Nidec Machine Tool has also developed a new tool design simulation function to design chamfering shapes, to ensure a high-accuracy and -efficiency machining performance based on a trinity of the machine, the tool, and simulation. CF26A will be unveiled at this year's Japan International Machine Tool Fair (JIMTOF2022), scheduled to be held from November 08 – 13 at Tokyo International Exhibition Hall (Tokyo Big Site). This event will serve as an opportunity for the Company to propose gear machining solutions as a manufacturer that can cover machines and tools needed in the entire gear-making process, from rough processing to finish machining.



Cutting Chamfering Machine **CF26A**

CF26A adopts the generative method*[1], a mass-production-friendly way that cuts and machines gears efficiently. While the phrasing process*[2], the mainstream method so far, leaves raised sections and burrs in the tooth or end face's direction, CF26A, which cuts a gear to remove its corners, secures a surface quality better than the one achieved by the phrasing process. In addition, CF26A does not produce secondary burrs, which are generated after the phrasing process*[3], while removing end-face burrs generated in the previous process of hobbing. CF26A can chamfer the corners on a tooth root – a difficult process with the conventional phrasing process – and handle corners as wide as 1mm or more.

EdgeCut, the latest dedicated tool, uses the cutting-edge tool design simulation function, secures targeted chamfering shapes during the actual machining. With a long life and a low exchange frequency, the tool can also be re-sharpened and recoated, keeping a low running cost.

As the demand for BEVs (battery electric vehicles) is expected to surge amidst the global tightening of environmental regulations, etc., the Company stays committed to offering new values via new products and machining solutions as one of the few manufacturers around the world that produce both gear machine tools and cutting tools.

Notes:
1. A gear machining method to use a screw-like tool to create a shape based on a synchronous movement between the tool and the gear to be machined (work).

2. A machining method to use the corners of both end faces of a gear to remove corners by the rolling method (plasticity processing).
3. Based on the results of a magnification inspection using the Company's internal form measuring instrument.

Nidec's special website for JIMTOF2022: https://www.nidec.com/jp/machine-tool-jimtof2022
For more details on the products, visit https://www.nidec-machinetool.com/product/
For inquiries, please contact Nidec Machine Tool Corporation's Sales Division at +81-77-552-9760.

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