

Press Release

October 25th, 2022

Built-in Mist Collector “zeroFOG” Now on all machines & with new compact size!

DMG MORI CO., LTD. (hereinafter referred to as “DMG MORI”) has released a new size of its Built-in Mist Collector “zeroFOG” to collect mist during machining and maintain a clean factory environment.

Since its launch in 2021, “zeroFOG” has been very well received by customers and requests for “zeroFOG” on compact-size machine tools have been rising. DMG MORI answered this demand by developing a compact “zeroFOG” model with 40% smaller size than the standard “zeroFOG”, equipped with a small-size turbo fan for optimized ventilation and the same level of mist collection. With these 2 models, “zeroFOG” is now available on all Japan-made DMG MORI machines. In the future, its application will be expanded to 5-axis machines made in Europe as well.

The increasing popularity of high-mix low-volume production and automation causes high demands for precision and efficiency, making high-pressure coolant for cooling and chip breakage a necessity. The result is an increasing amount of mist generated during machining processes. Now, with additives contained in coolant and decomposition-caused microorganisms that may be harmful to the human body, the need for mist collectors is increasing greatly. While on the one side, the growing global awareness of Sustainability (SDGs) and interest in products for clean factory environments and health are further promoting such needs, customers continue to struggle on the other side with the additional space requirements for separately placed mist collectors.

“zeroFOG” is equipped with a sophisticated final filter that meets the HEPA filter standards of collecting over 99.97% of 0.30μm fine particles. It reliably catches the fine mist generated during machining and creates a clean factory environment. Its compact body and excellent shape are realized through a hydrodynamic-optimized design. No installation space is needed as “zeroFOG” can be mounted directly onto the machine tool. Also, the automatic cleaning function for the primary filter ensures excellent maintainability and greatly reduces time and cost.

DMG MORI dedicates itself to solving machining trouble of cutting chips, coolant and mist to support customers’ productivity and contribute to Sustainability (SDGs) with its green products.

“zeroFOG” is on display for 6 days from November 8 to 13 at JIMTOF2022 (Tokyo Big Sight) and the DMG MORI Open House at Tokyo Global Headquarters.

A video about “zeroFOG” is available on our website:

<https://www.dmgmori.co.jp/theme/movie/id=5808>

■Main Features

① Compact design

- 40% more compact than before, directly mountable onto the machine tool*¹
- No installation work or space necessary thanks to the integrated built-in design

② High-performance mist collection

- Uses the HEPA filter capable of collecting over 99.97% of 0.3μm fine particles
- Generates a large volume of air flow with the impeller turbo fan for high-performance ventilation

③ Maintainability

- Automatically cleans the primary filter for drastic reduction of maintenance time
- Alarm warns of needed replacement of the final filter to avoid mist leakage into the factory
- Greatly reduced maintenance time (max. down to 1/60) thanks to final filter replacement without tools*²

④ Reduction in running cost

- Running cost saving of more than 1 million yen in 10 years due to less filter cleaning & replacement alongside energy saving*³

⑤ Energy-saving & sustainable design

- The specially designed impeller-shape turbo fan and synchronous motor annually save 130,000 JPY power and 1.8 tons CO₂. *²

DMG MORI will continue to launch highly functional, reliable and investment-worthy products to the market. We are committed to meeting the needs of customers across the world.

https://www.dmgmori.co.jp/en/movie_library/movie/id=5808

Product name	zeroFOG
Applicable machines*4	<p><u>Compatible with the new compact-size model</u></p> <ul style="list-style-type: none"> • Vertical MCs CMX 600V / CMX 800V / CMX 1100V / NV4000 DCG NMV3000 DCG / NMV5000 DCG • Horizontal MCs NHX 4000 / NH4000DCG • Turning Centers NLX 1500 / NLX 2000 / NLX 2500 / ALX 1500 / ALX 2000 ALX 2500 • Mill-Turn Machines NTX 500 / NTX 1000

*1: Depending on models and specifications, the built-in installation may not be possible.

*2: Survey by DMG MORI (Comparison with a product of other manufacturer)

*3: Calculated based on the following condition.

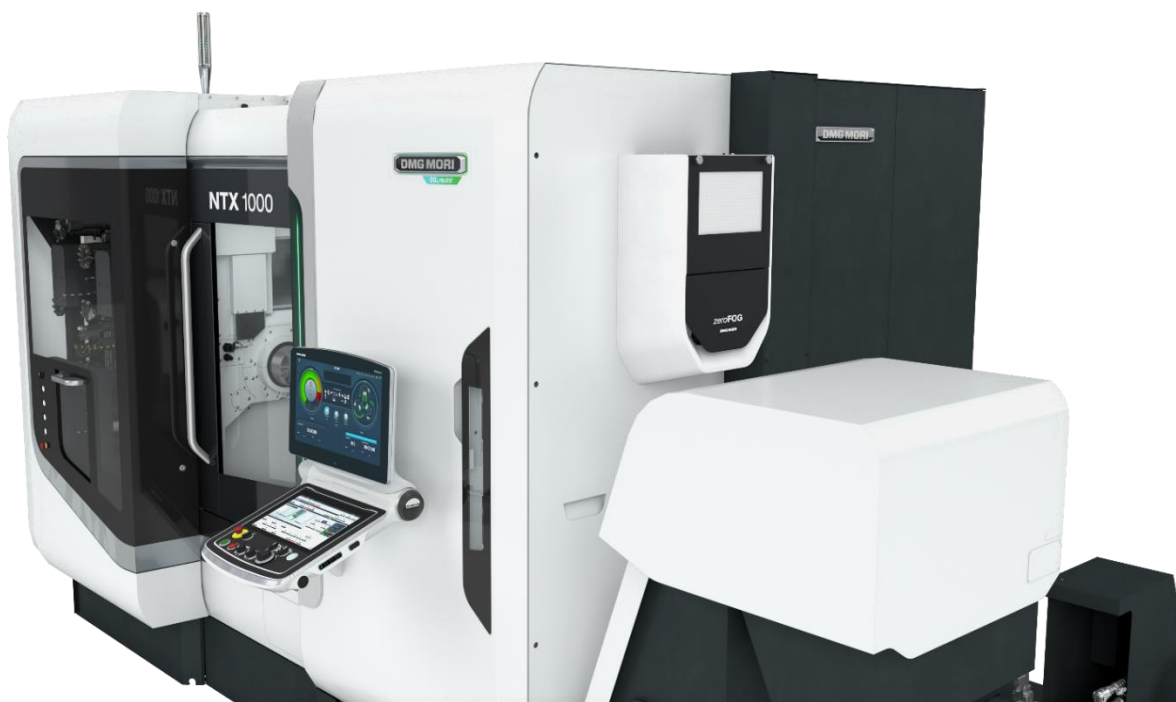
Annual operating hours = 16 hrs. x 240 days; electricity charge = 30 yen/kWh;
primary filter replacement every 3 months; final filter replacement every 6 months

*4: These are the machine models supported with the newly developed compact-size zeroFOG as of October 2022.
New models will be added in the future.

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The 2 zeroFOG models



Installation image