

K-FTS

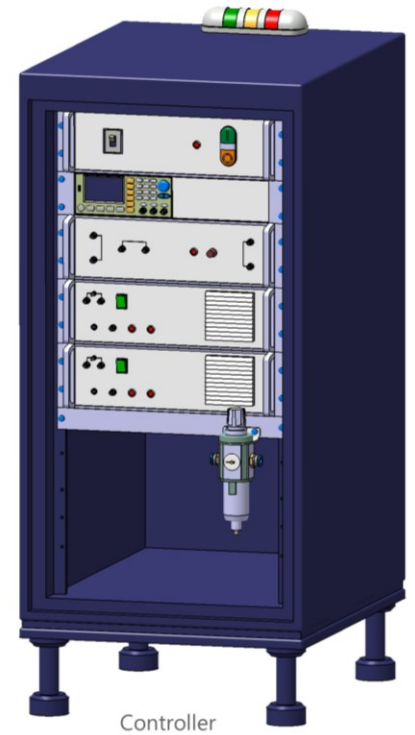
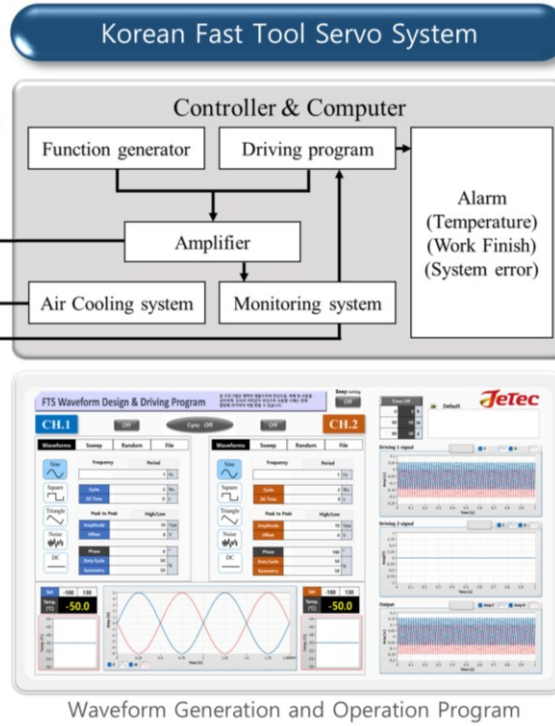
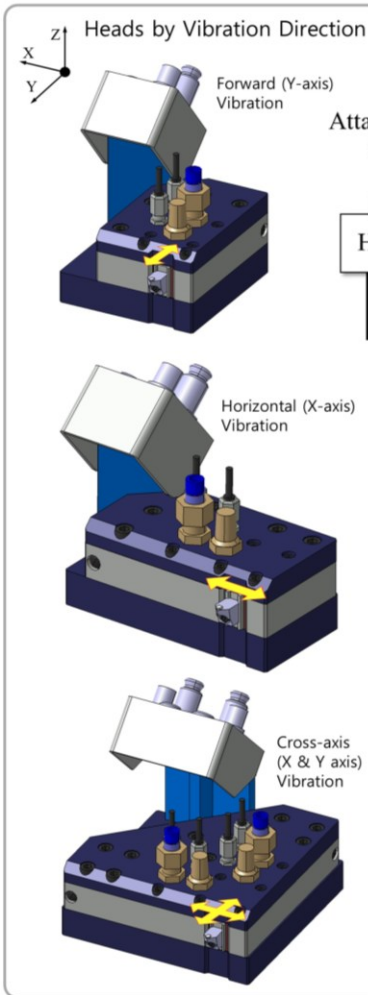
Korean Fast Tool Servo



JeTec
COMPANY



Application technology utilized for micro-patterning processes to produce functional surfaces and perform mirror-finish and difficult-to-machine material machining through high-speed, high-precision vibration cutting when mounted on existing machine tools.



Interchangeable Head System

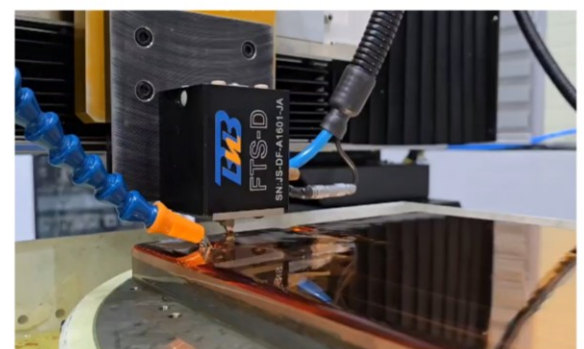
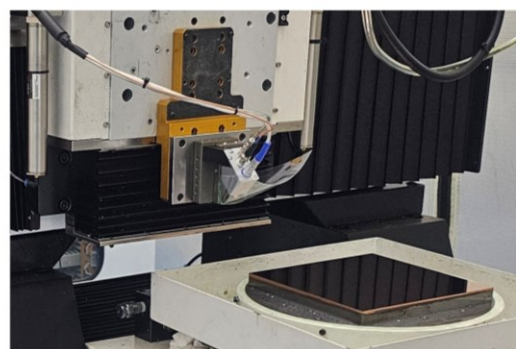
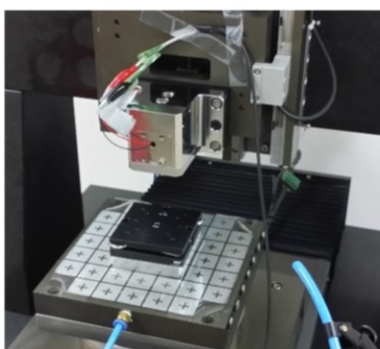
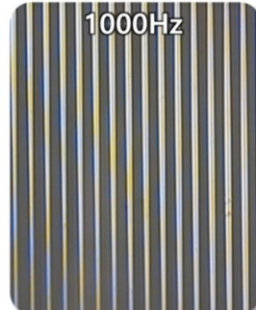
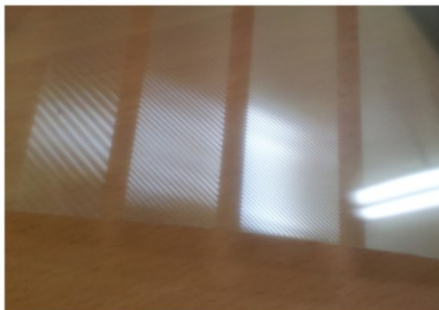
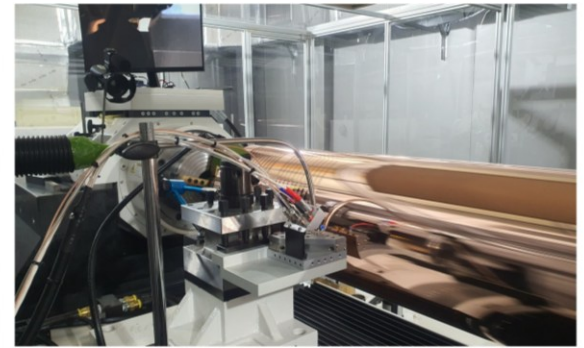
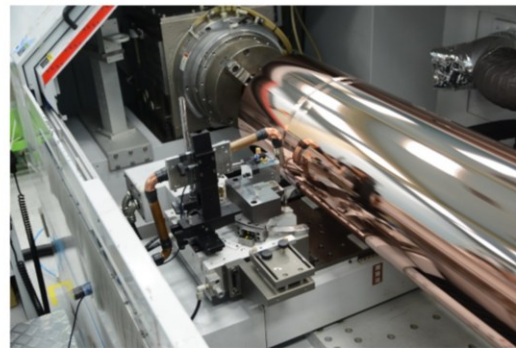
▷ Separately configured heads by type can be used interchangeably depending on the required process.

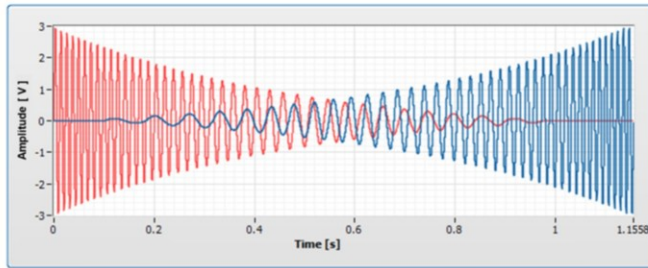
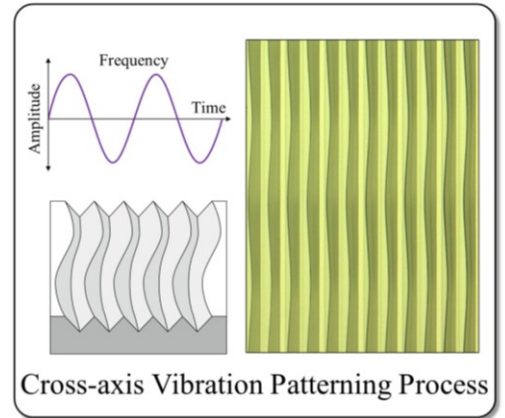
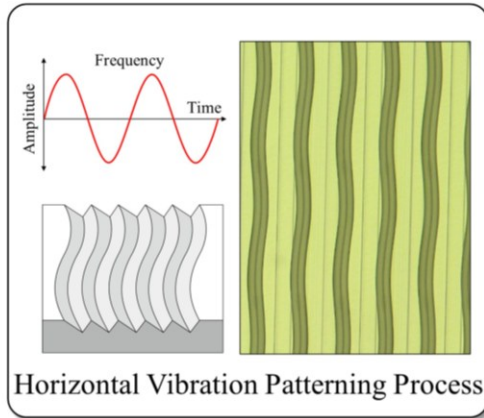
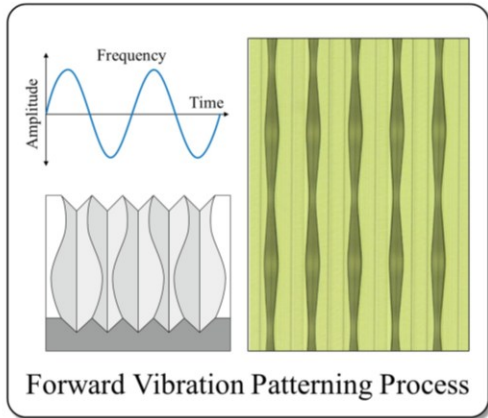
Module Selection System

▷ Low cost and high efficiency through the selective purchase of modules required for the process.

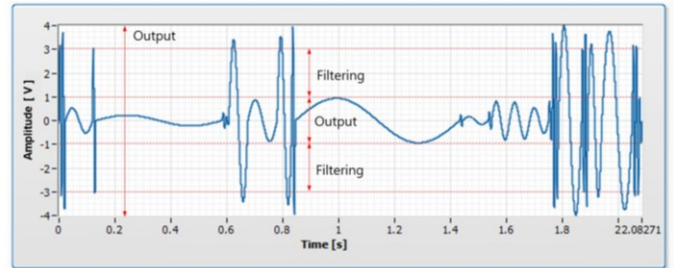
Monitoring System ▷ Detects risk by monitoring output signal and overheating temperature.

Air Cooling System ▷ Performs zero-oil, eco-friendly cutting process.





Sweep Waveform Design



Random Waveform Design

General and Random Waveform Generation Program ▷ Utilized for research and development of various 3D complex waveforms in addition to general patterns.

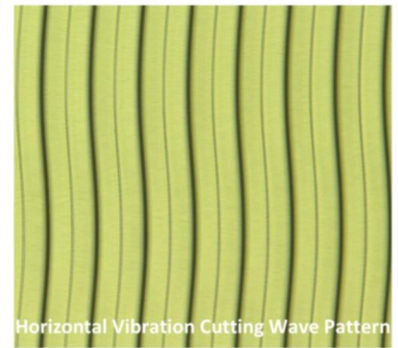
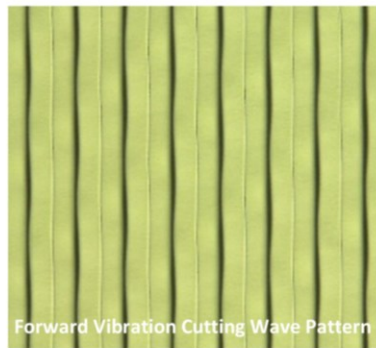
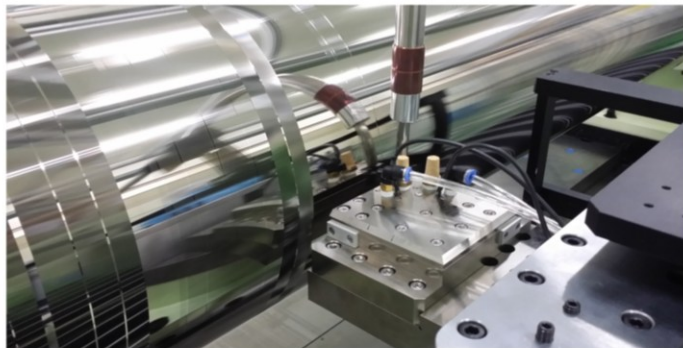
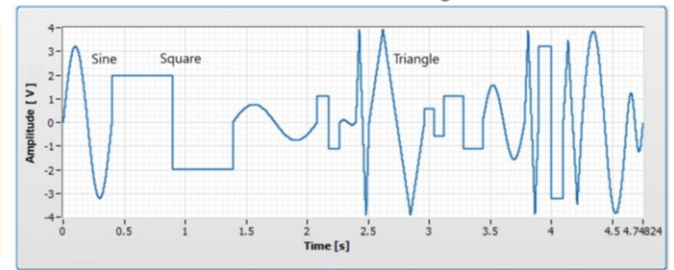
Various Sweep Waveform Designs ▷ Sequential increasing or decreasing waveforms design by setting voltage and frequency modulation ranges.

Various Random Waveform Designs

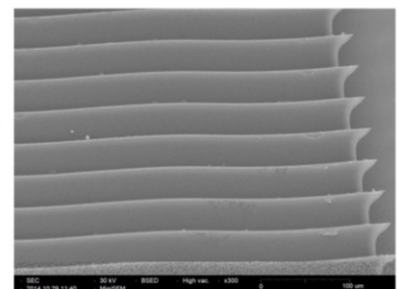
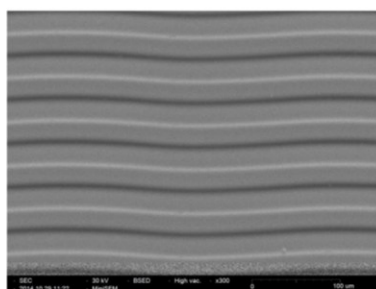
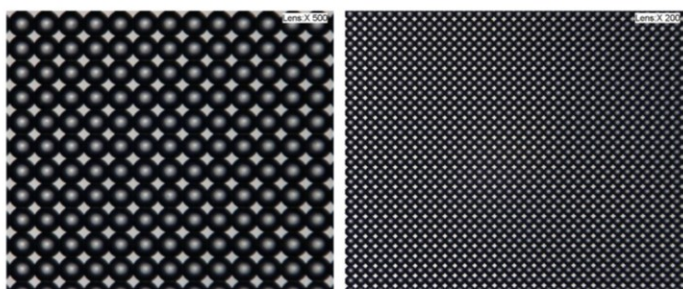
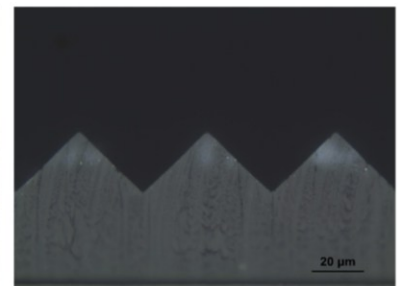
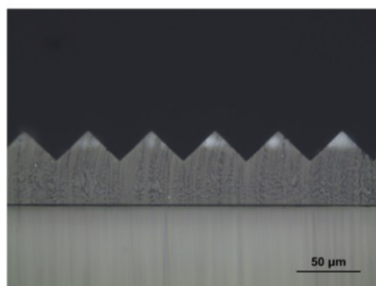
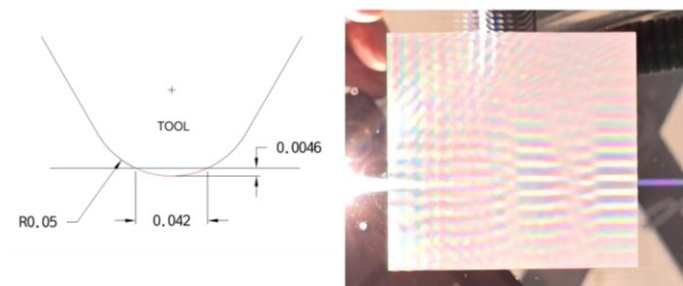
▷ Random generation and repetition settings for various waveforms.

Limited Random Waveform Design

▷ Setting limited voltage and frequency ranges.

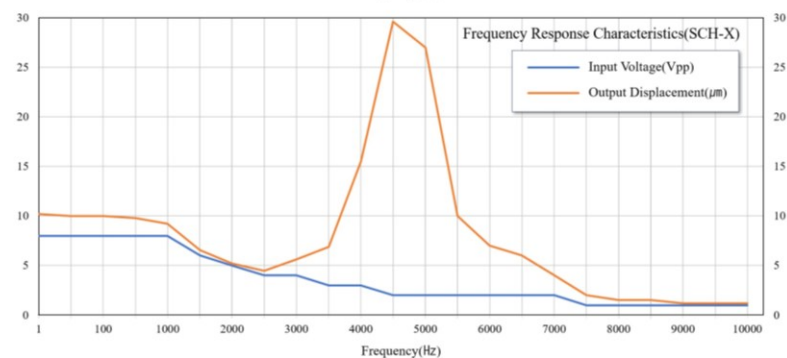
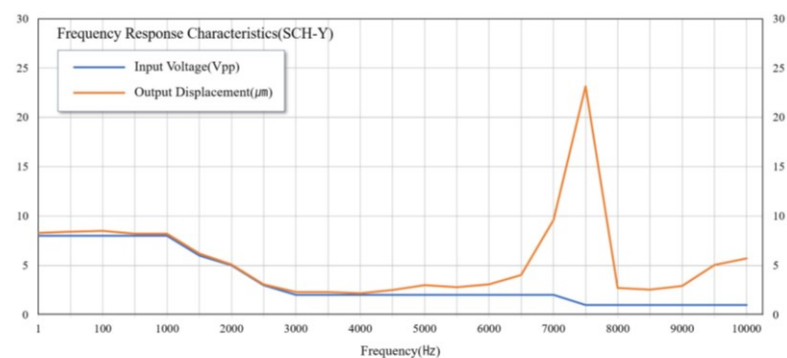
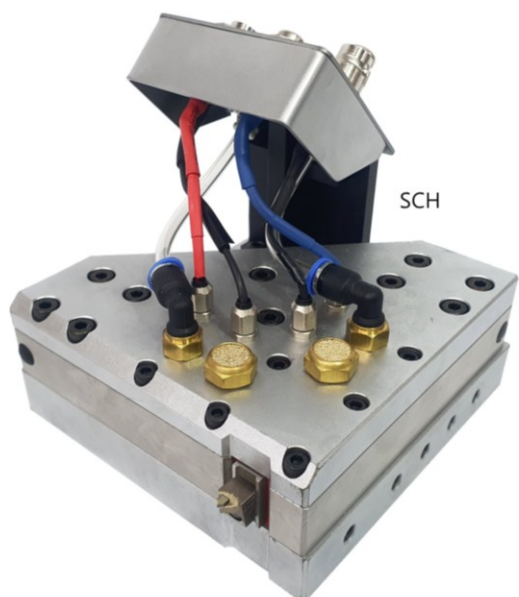
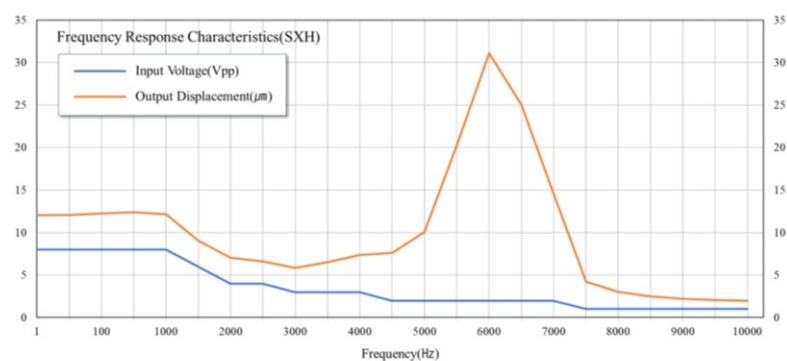
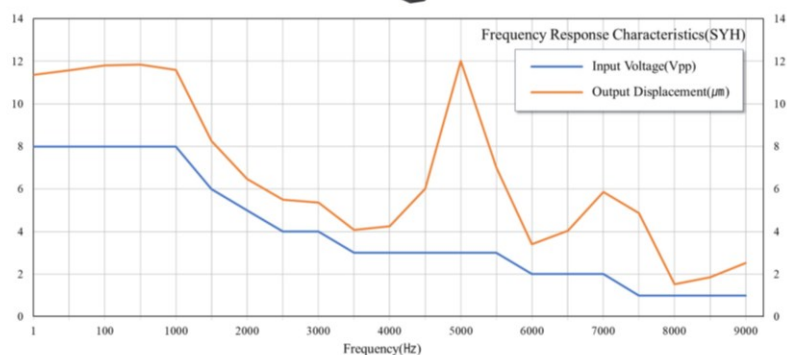
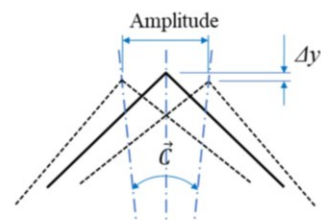
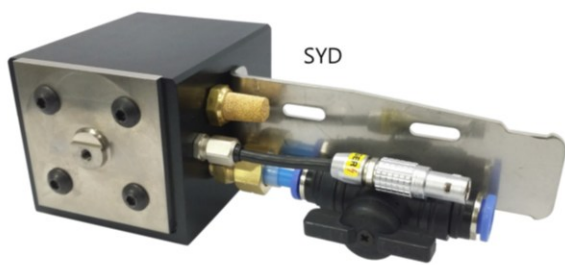


Wave Patterning Process on Roll Mold using FTS (Production of polarizing films for display)



Measurement of Micro Lens Array UV Film Sample (OPTICAL)

Measurement of Horizontal Wave Patterned UV Film Sample (SEM)

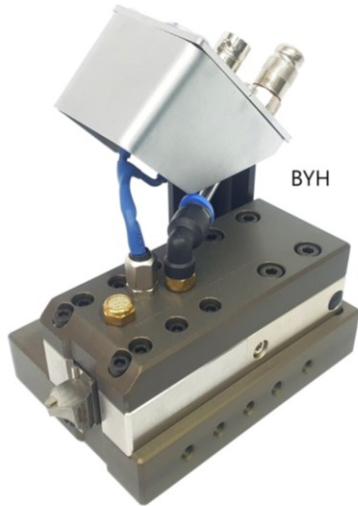


※ The design is subject to change without prior notice to improve and enhance product quality.

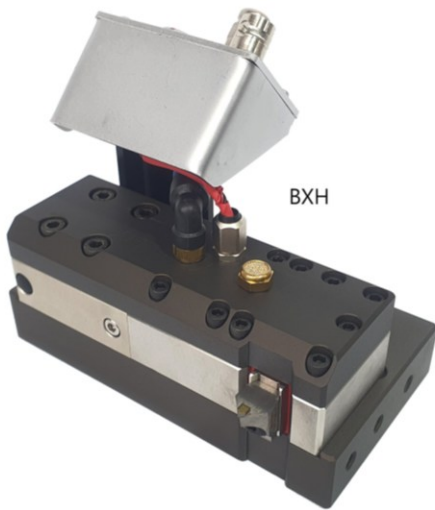
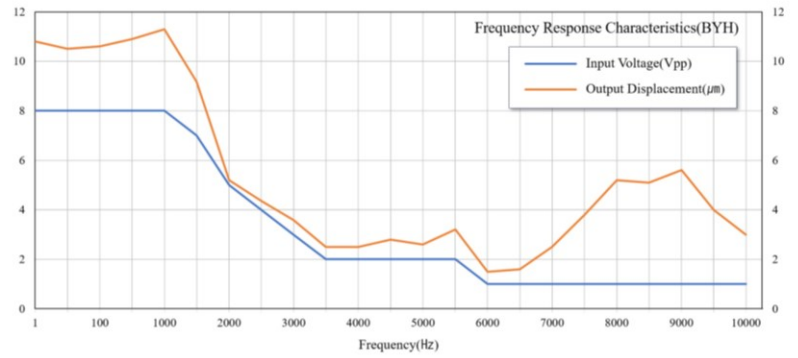
※ The product specifications and design may be changed based on customer requests and consultation.



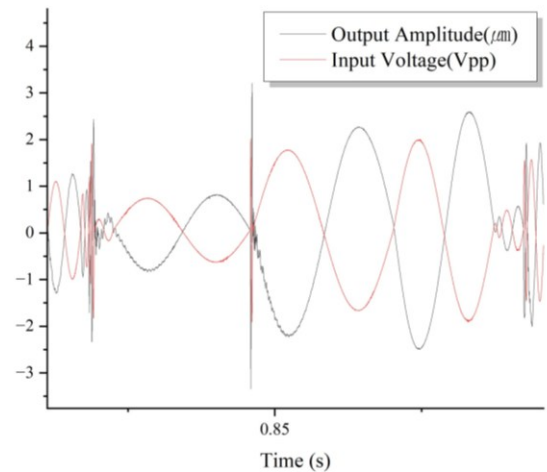
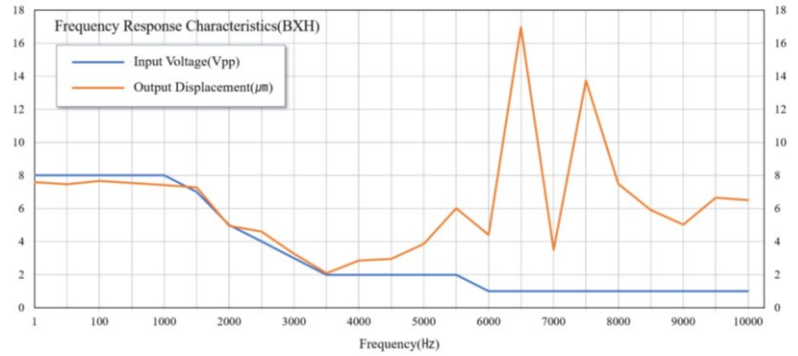
B Models with Small Amplitude Natural Frequencies series



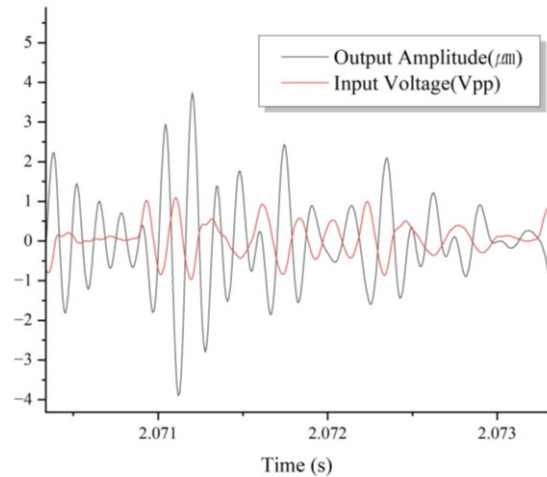
BYH



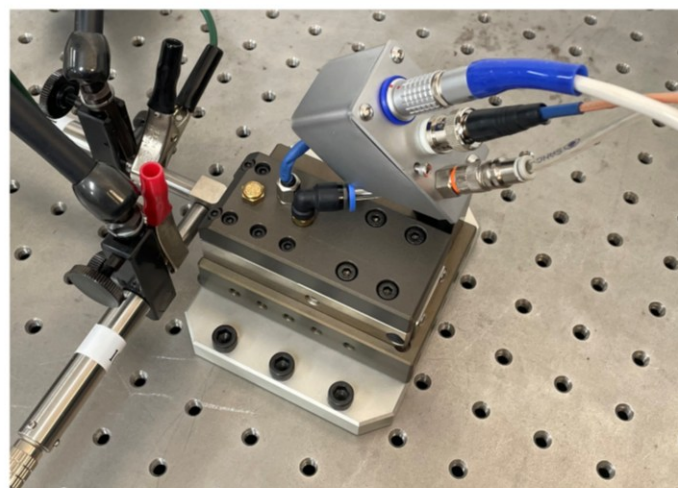
BXH



BYH model Random: 10Hz~3kHz/0.001~4(Vpp)



BYH model Random: 3~6(kHz)/0.001~4(Vpp)



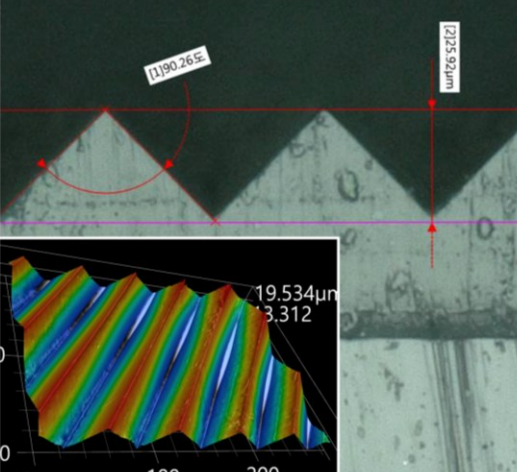
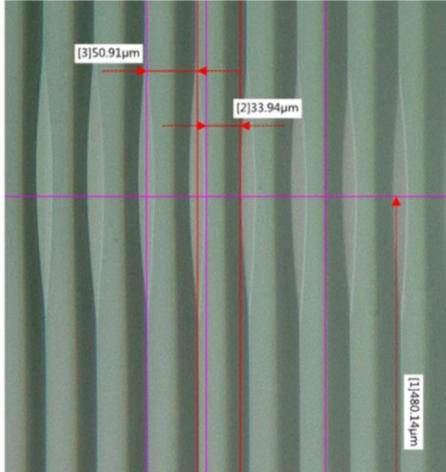
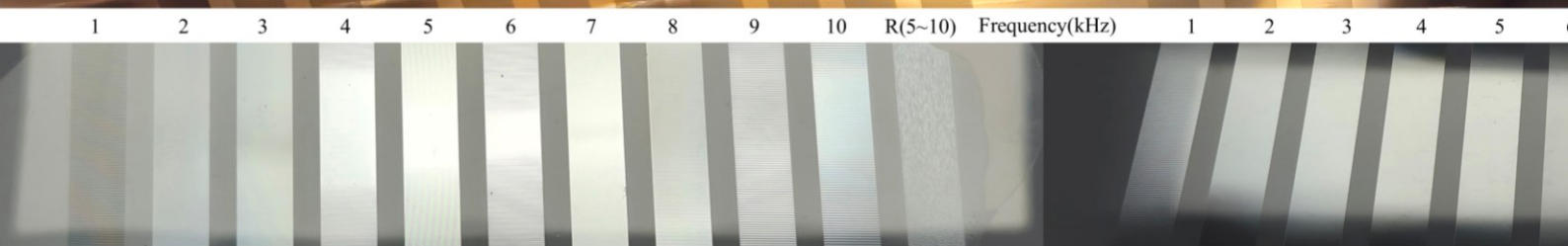
- ※ The frequency response characteristic graphs and processing test results for each product are for reference only to aid in understanding the characteristics according to voltage and frequency, and do not guarantee absolute values.
- ※ Product performance evaluation was conducted in a constant temperature and humidity environment of 21°C (±3°C), and performance may vary depending on design changes and the environment.



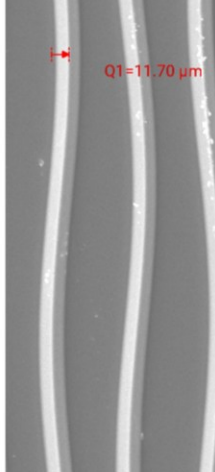
Patterning Process Experiment

Forward Vibration Cutting Wave Patterning (BYH Model)

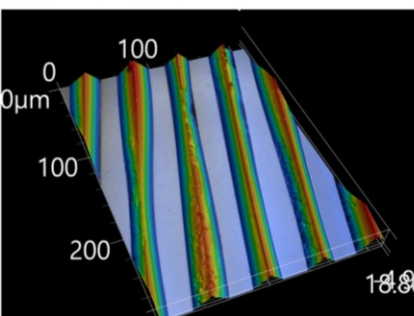
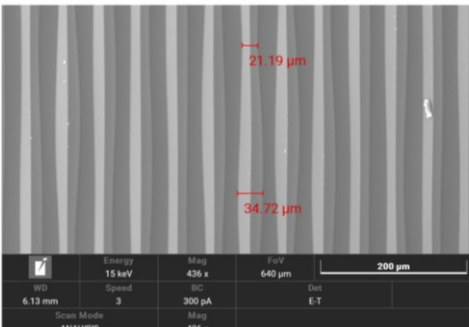
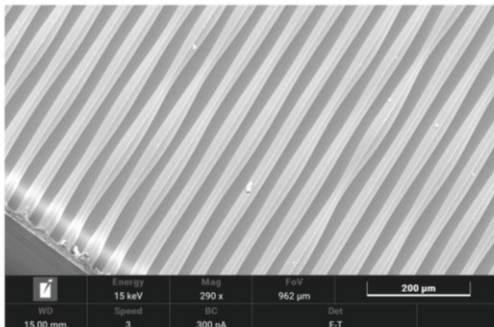
Horizontal Vibration Cutting



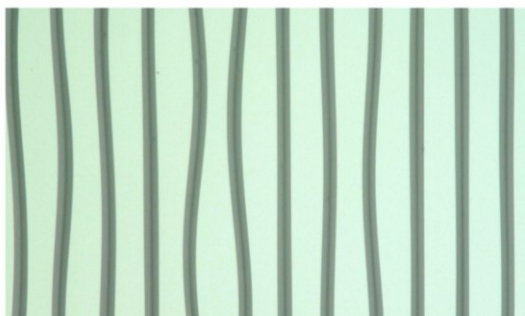
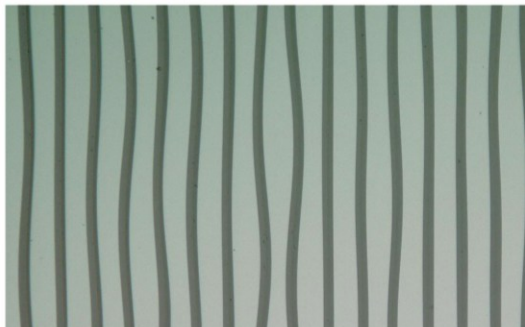
30rpm_1kHz_8Vpp



200rpm_8kHz_1Vpp



200rpm_Random5~10(kHz)_1Vpp



200rpm_Random5~10(kHz)_1Vpp

on Roll Mold using K-FTS

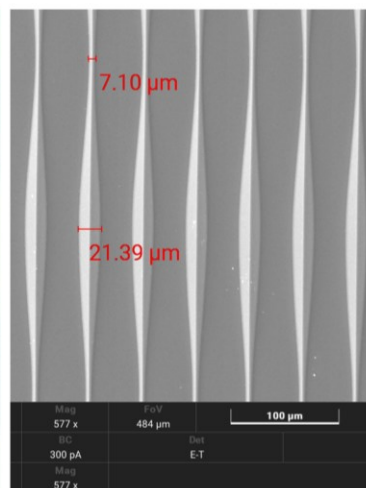
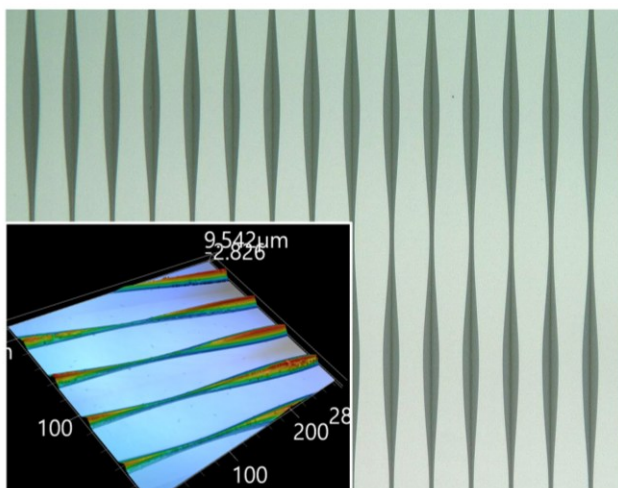
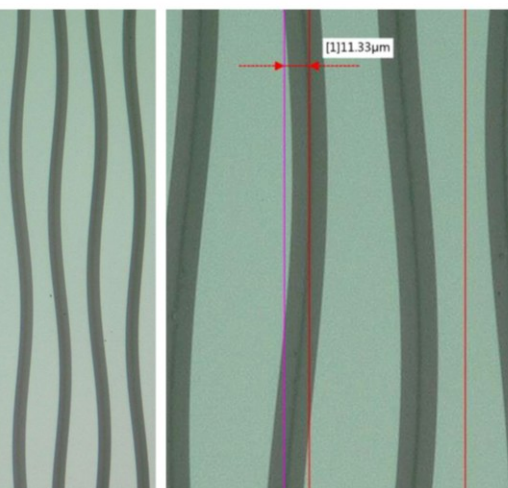
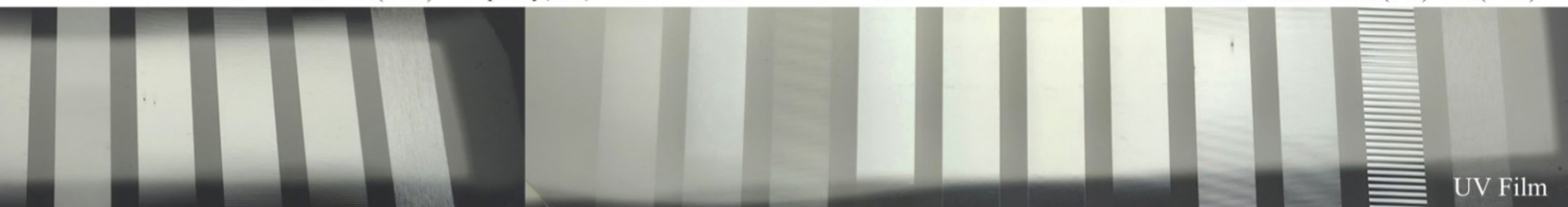
Fetec

Wave Patterning (BXH Model)

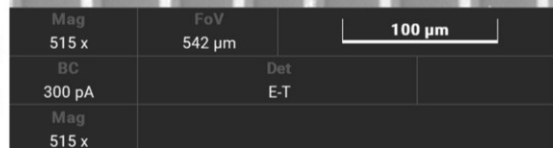
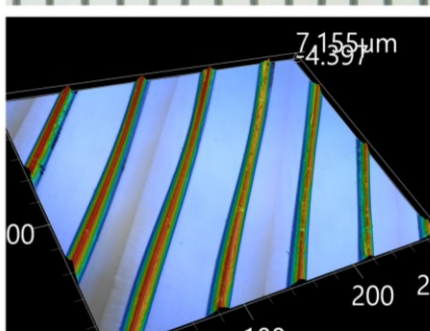
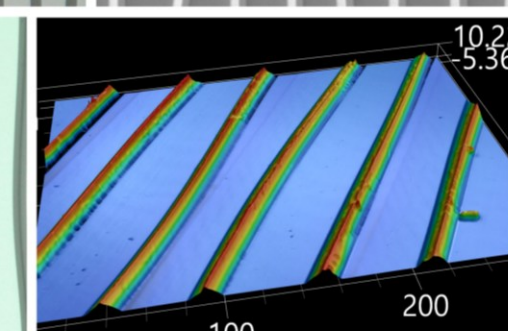
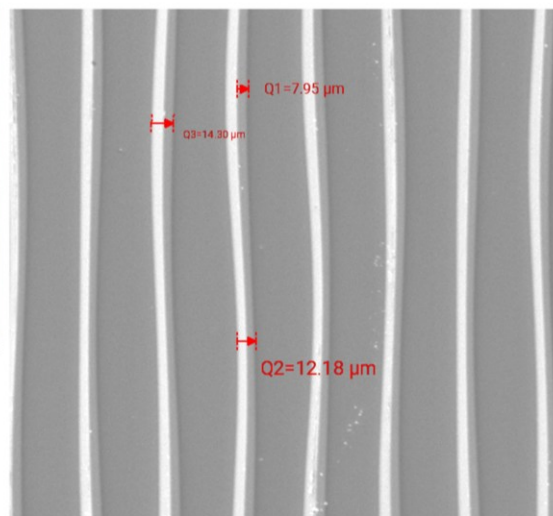
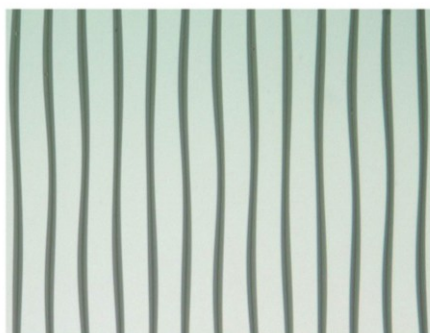
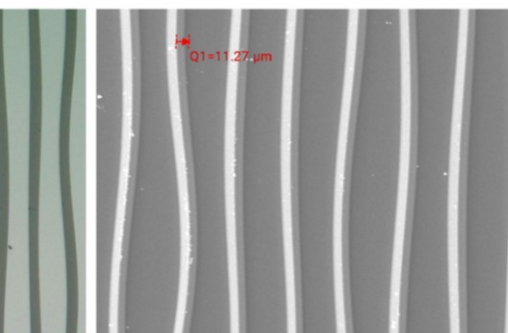
Cross-axis Vibration Cutting Wave Patterning (SCH Model)

Roll Mold

6 7 8 9 10 R(5~10) Frequency(kHz) Y3 Y5.5 Y10 X4 X5 X5.5 X10 Y8/X6 Y5/X4 Y1/X(1~3) Y8/X(7~10)



Y-axis single drive 200rpm_10kHz_1Vpp



150rpm / Y: 8kHz_1V / X: 6kHz_1Vpp



<https://blog.naver.com/je-tec>

Contact us: je-tec@naver.com

<https://www.youtube.com/@je-tec>

Copyright© 2026 JETEC Co. The material contained herein cannot be reproduced or used in any other way without the express written permission of JETEC. All rights reserved.



Senior Researcher **Jian Jang**



Linked in: [jetec](https://blog.naver.com/je-tec)
<https://blog.naver.com/je-tec> www.youtube.com/@je-tec
2303ho, BI bldg, Dongwon Institute of Science and Technology, 321,
Myeonggok-ro, Yangsan-si, Gyeongsangnam-do, Rep. of Korea