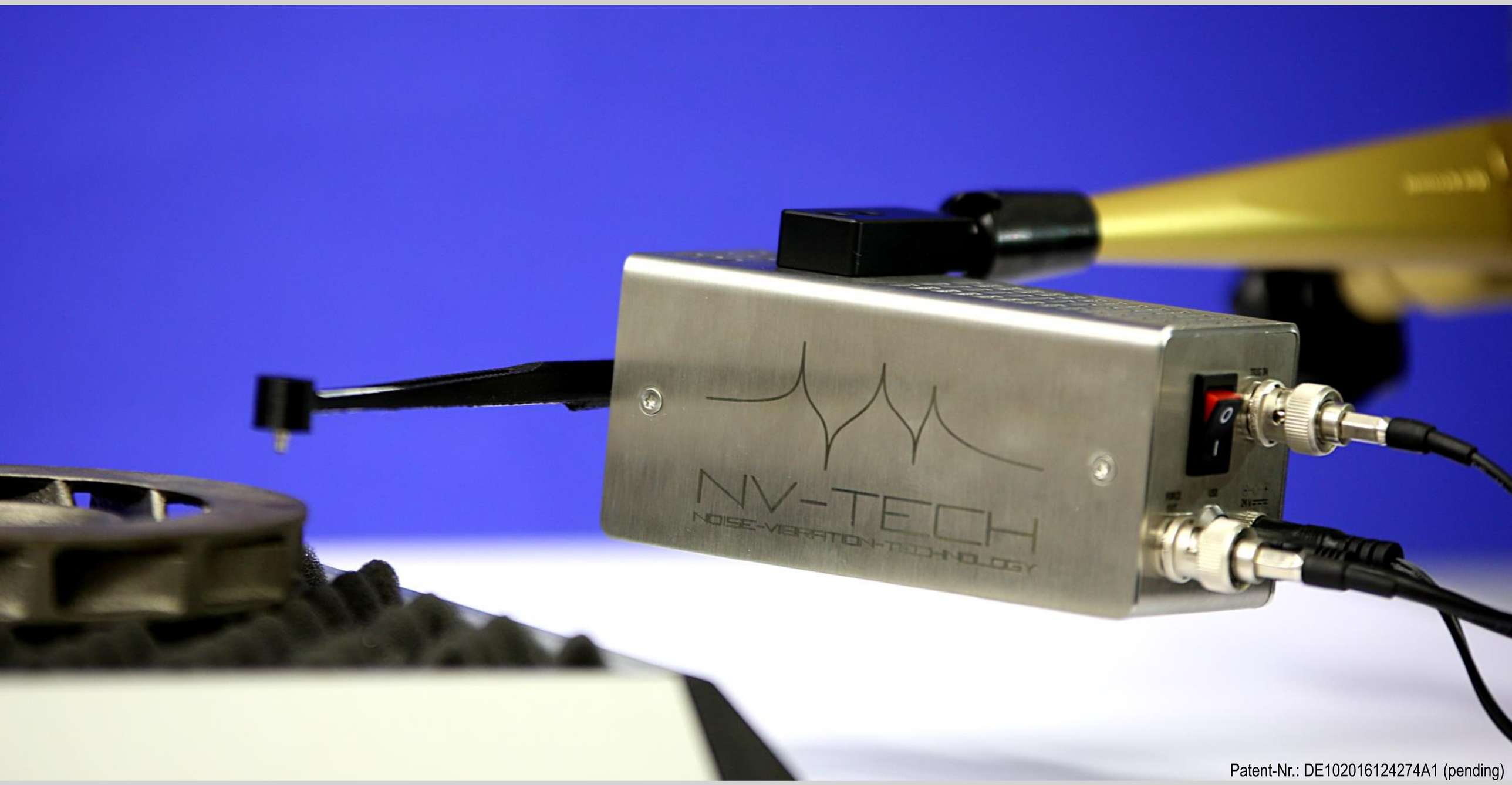
# NV Tech Design
# Scalable Automatic Modal Hammer
for structural dynamic measurements and modal analysis

Brochure




Patent-Nr.: DE102016124274A1 (pending)

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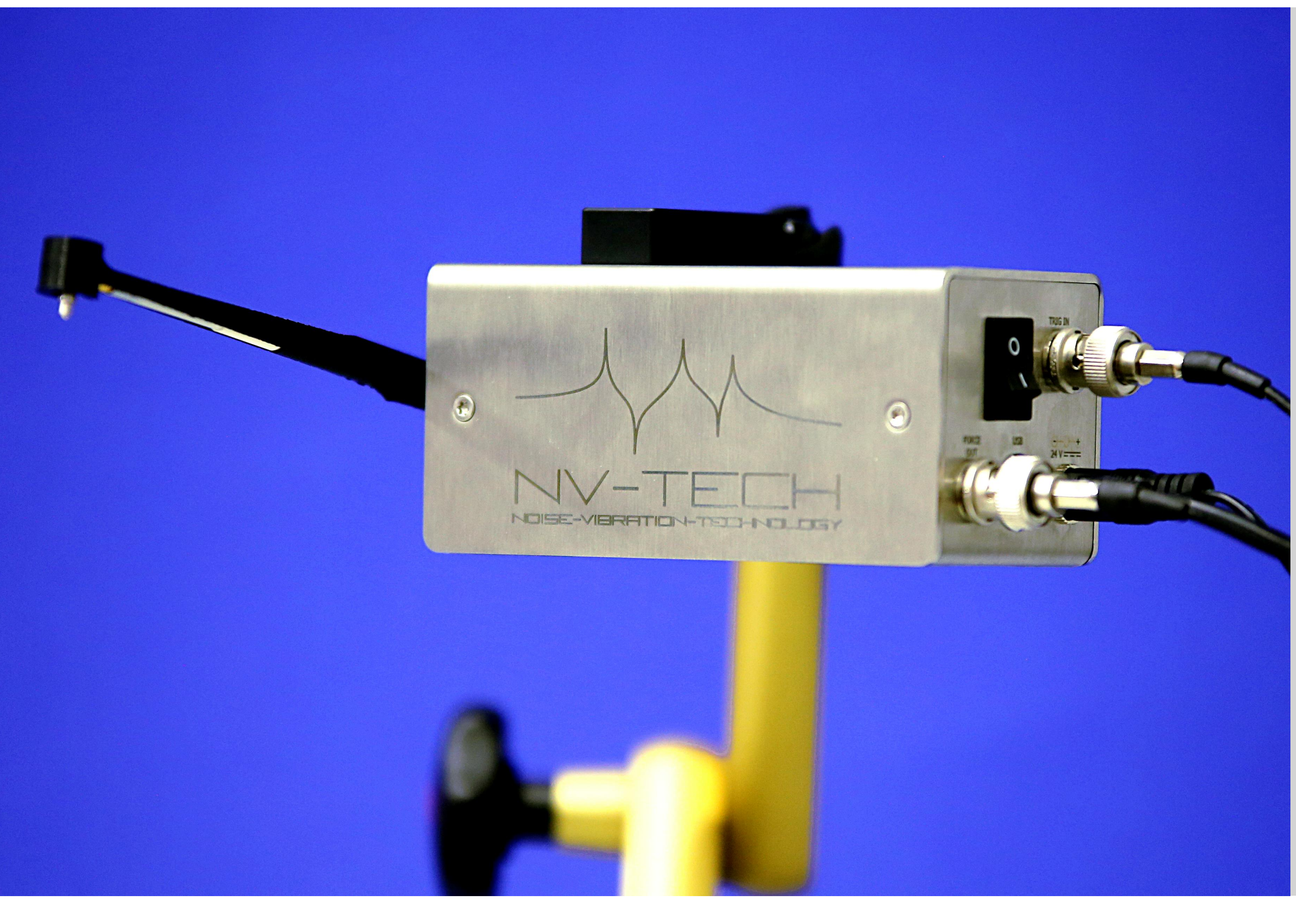
# Scalable Automatic Modal Hammer 1 (SAM1)




- Frequency range: > 20 kHz*
- Max. excitation force: 200 N / 45 lbf
- Sensitivity: 22.5 mV/N / 100 mV/lbf
- Operating temperature: 0 – 120°C / 32 – 248°F
- Weight: 1.1 kg / 2.4 lbs
- Power supply: 100 – 240 V / 50 – 60 Hz
- External trigger input: 5 VDC

(*) Exact values depend on the tested structure

# Scalable Automatic Modal Hammer 3 (SAM3)

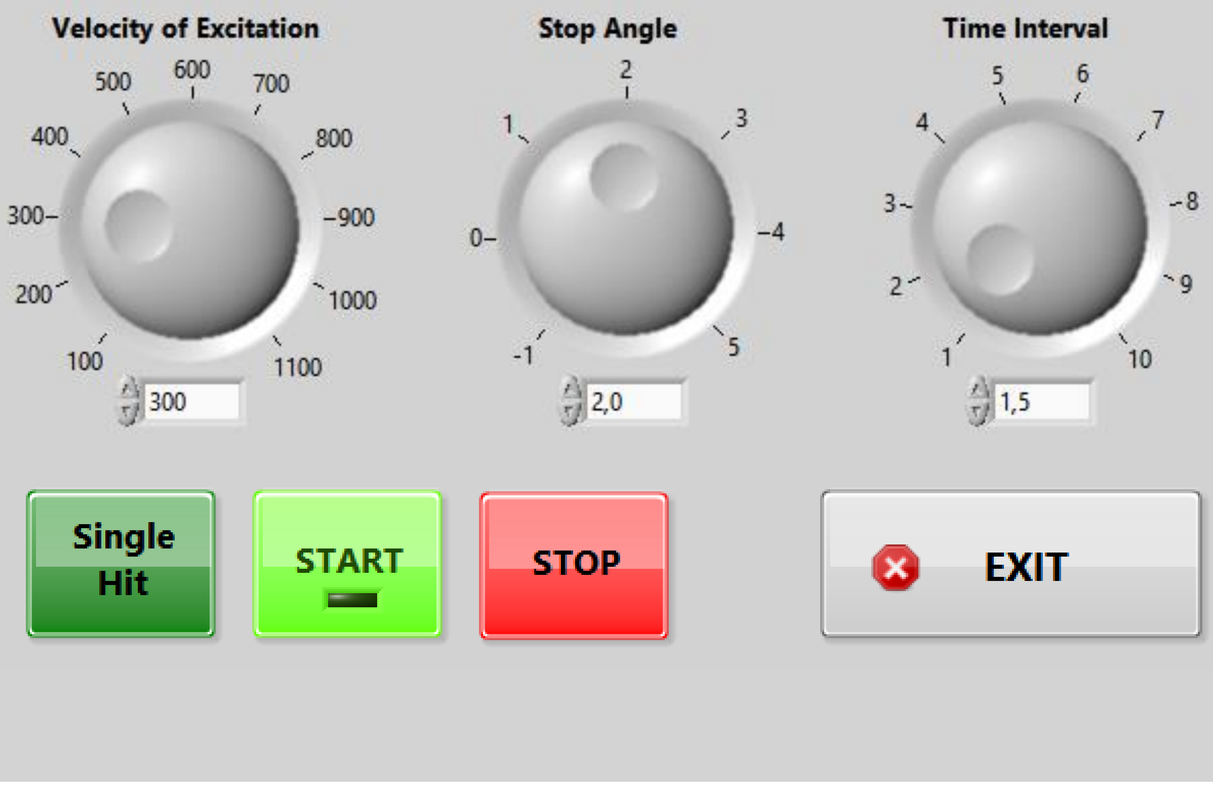

- Frequency range: > 10 kHz*
- Max. excitation force: 2200 N / 500 lbf
- Sensitivity: 2.25 mV/N / 10 mV/lbf
- Operating temperature: 0 – 120°C / 32 – 248°F
- Weight: 2.6 kg / 5.7 lbs**
- Power supply: 100 – 240 V / 50 – 60 Hz
- External trigger input: 5 VDC

(*) Exact values depend on the tested structure and on the specific impact tip mounted in the modal hammer.
(**) When instrumented with hammer PCB mod. 086C01.

# SAM Features

- Precise, repeatable non-mass loaded impacts in any direction.
- Excitation bandwidths up to 20 kHz (SAM1) and 10 kHz (SAM3).
- No double impacts.
- Lightweight, easy to handle.
- Software-controlled force amplitude, USB connection.
- Precise, repeatable positioning via remote control.
- Versatile mounting options.
- Robust and scratch-free stainless steel housing, adequate for high temperature testing.
- 5 V external trigger input.
- Upon request, the SAM3 can be instrumented with heavier modal hammers for impact amplitudes up to 22 kN.

# SAM-GUI Features




- Robust and intuitive LabVIEW-based control software.
- Fine-tuned control over the hammer impact for any test application.
- Maximum number of impacts limiter for tests with large DOF counts.
- Seamless integration with Polytec mod. PSV-500-3D.
- Practical remote control for precise hammer positioning in any experimental setup.
- External trigger module.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