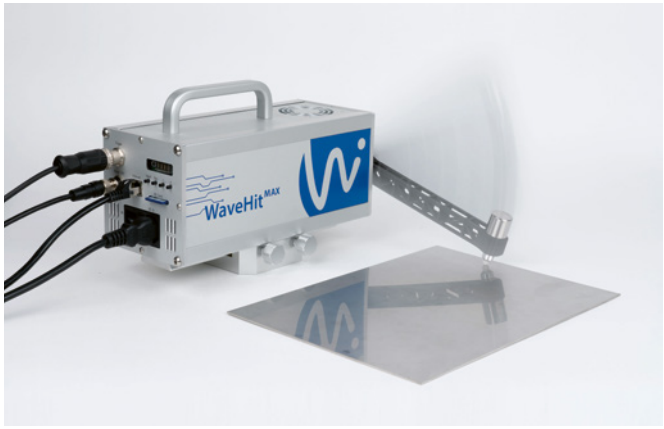
Smart Impulse Hammer WaveHit^{MAX}

Easy Automated Single Hit Configuration



WaveHit^{MAX} with mounting plate (optional)

BENEFITS

- Reproducible, high precision single hit excitation
- Automatic zero point search and automatic self calibration process (no presetting necessary)
- Internal processing of the sensor signal
- Configuration of magnitude and pulse width using the supplied accessories (weights and tips)
- Start the hit series via trigger, IR remote control, TTL signal or software
- Set impact forces
- SD card for quality assurance

APPLICATIONS

- Experimental modal analysis
- Acoustic resonance testing
- Condition monitoring
- Material testing
- Impact hammer testing
- Frequency response function testing

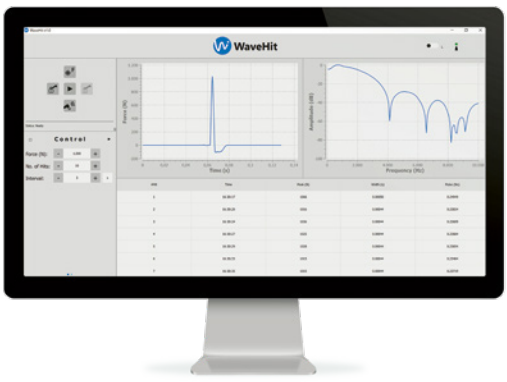
The invention of the first smart impact hammer provides new possibilities of mechanical excitation for structural dynamic applications. Smart means the device does its signal processing internally.

The WaveHit^{MAX} guarantees fully automatic, reproducible and high precision excitation of a test object without double hits. The user can set the number of hits, impact force and the delay between hits accounting for different degrees of damping / delay times.

All presettings like zero point or impact force search are made automatically by the hammer. Manual adjustment by the user is no longer necessary.

WaveHit^{MAX} offers new possibilities compared to the partially automated impact hammers. Advantages of internal signal processing: Fully automatic single hits, automatic search for user defined impact force, automatic zero point search, validation of the impact for quality assurance, change of the position between hammer and test object are possible and does not require a new setup.

Via Ethernet, the WaveHit^{MAX} can be operated quickly and easily via the supplied software on a Windows enabled device (PC or tablet).



Software for operating WaveHit^{MAX}

Smart Impulse Hammer WaveHit^{MAX}

TECHNICAL DETAILS		
BNC output	±10 V, noise floor < 100 mV (1 %)	
Impact interval[3]	600 ms – 1 h	
No. of hits	1 – 1,000,000	
Operation	Via LED display on device or WaveHit GUI	
Impact release	Via trigger, WaveHit GUI, IR remote control	
Attachment	Fastening via prism rail / prism clamp, optional accessories	
Connections	Ethernet, trigger, integrated power supply, 240 V AC, signal out	
SENSOR SPECIFICATION		
Available ICP® force sensors	 **ICP® force sensor – 445 N**	 **ICP® force sensor – 2224 N**
Impact force	50 – 445 N	80 – 2000 N
Sensitivity (BNC Output)	50 N/V	250 N/V
Impact pulse width[1]	≥ 0.80 ms	≥ 0.80 ms
Kinetic energy[2]	3 – 850 mJ	3 – 850 mJ
Linearity error	< 1 %	< 1 %
AVAILABLE ACCESSORIES		
Hammer tip	 Metal (hard)	 Plastic (medium)  Rubber (soft)  Rubber (extra soft)
Hammer weight	 12 gram	 60 gram

[1] The pulse width depends on the combination of the selected impact force, the instrumented impact tip and the physical properties of the test object.
[2] The kinetic energy depends on the instrumented additional mass and the selected impact force.
[3] The range is limited by the width of the LED display. Usable range larger when using GUI.

gfai tech GmbH
Volmerstraße 3,
12489 Berlin, Germany

www.gfaitech.com
E-Mail: info@gfaitech.de
Tel.: +49 (0)30 81 45 63-750