

BFH-10 BAM FALL HAMMER (IMPACT TESTER)

Product Datasheet

BAM Impact sensitivity tester BFH-10 serves for measuring impact sensitivity of solid or liquid high explosives, propellants, pyrotechnics and also primary explosives according to BAM standard procedure.

Impact sensitivity tester BFH-10 is designed to fulfill all corresponding international standards of testing with special attention paid to precision (*low-friction brass gliders for weights, calibrated set of drop weights*) and safety (*remote control, pneumatic-controlled weight releasing device, shielded protective box*).

Its applicable wide range of impact energies (from 0.5 to 100 J) allows to measure impact sensitivity of large variety of energetic materials from sensitive primary explosives to relatively insensitive secondary explosives, propellants or pyrotechnics.

APPLICATIONS

Impact sensitivity is one of the most important characteristics of energetic materials defining their safety in handling, processing or transportation.

BFH-10 is designed to comply with requirements of the following standards of testing:

- UN Recommendation on the Transport of Dangerous Goods, Manual of Tests and Criteria, United Nations, New York, 2003 [13.4.2 Test 3(a)(ii)]
- EN 13631-4:2002 Explosives for civil uses. High explosives Part 4: Determination of sensitiveness to impact of explosives
- STANAG4489: Explosives, Impact Sensitivity Tests
- European Commission Directive 92/69/EEC, method A14: Explosive properties

INSTRUMENT DESCRIPTION

Tester BFH-10 consists of a massive cast steel stand, two steel guides, pneumatic-controlled releasing device, shielded protective box, a steel anvil, a column with metric graduated ruler (logarithmic ruler as an optional equipment), set of drop weights and a remote control switch.

The testing substance is sandwiched between two steel cylinders centered together by a steel guide ring and this impact device is placed on a steel anvil. Each test requires new impact device. It can be recycled if the sample was not activated. For testing of substances which are sensitive to impact along with friction stimuli the impact device formed from a file plate and one steel cylinder is advisable. The file plate can be used for four tests along with one steel cylinder for each test.

The decomposition gases from the sample shall be extracted outside the working area by a flexible fume hood or Ex-proof suction device (optional equipment).



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TECHNICAL PARAMETERS

Fall hammer weights:	0.5; 1; 2; 5 and 10 kg (other weights available upon request)
Maximum drop height:	1 m (other heights available upon request)
Impact energies:	0.5 – 100 J
Sampling spoon volume:	40 mm ³
Consumption of compressed air:	10 ml (at 6 bars) per test

STANDARD INSTRUMENT PARTS

BFH-00	BAM Fall Hammer main components (pneumatic releasing device, wooden protective box incl.)
BFH-DW0.5	Drop weight 0.5 kg
BFH-DW1	Drop weight 1 kg
BFH-DW2	Drop weight 2 kg
BFH-DW5	Drop weight 5 kg
BFH-DW10	Drop weight 10 kg
BFH-SP-3	Set of sampling spoons for solid substances - 5, 10 and 40 mm ³



MAIN OPTIONAL ACCESSORIES

BFH-A	Spare intermediate anvil 26 x 26 mm (60 HRC)
BFH-CR	Spare locating ring with orifices for gas release <i>made from a stainless steel</i>
BFH-CR100	Spare locating plate <i>made from a stainless steel</i>
BFH-ERD	Electromagnetic releasing device 230 V / 50 Hz or 120 V / 60 Hz (an alternative to standard pneumatic releasing device)
BFH-FPH	File plate holder (to hold the file plate on the main anvil)
BFH-LGS	Logarithmic ruler (fit for testing in accordance with STANAG 4489)
BFH-BS-0.5/1.0	Brass sieve, calibrated (sieve mesh 0.5 or 1.0 mm)
BFH-EPS	Explosion-proof suction device
BFH-PCM	Small air compressor (working pressure 6 bar)

CONSUMABLES

BFH-SC-100	Set of steel guide rings - premium, 100 pcs 16 x 13 mm (D x L), all surface are polished
BFH-SR-200	Set of steel cylinders, 200 pcs 10 x 10 mm (D x L)
BFH-FP-100	Set of file plates, 100 pcs 20 x 20 x 5 mm (W x L x H)
BFH-OR-50	Rubber ring for liquid substances, 50 pcs

SHIPPING DATA (STANDARD)

Package dimensions (W x L x H):	59 x 176 x 62 cm
Package gross weight: approx.	420 kg
Custom code:	9031 80 98

INSTALLATION REQUIREMENTS

Space requirements:	W x L x H: 450 x 450 x 1800 mm; Weight: 340 kg
Concrete block with dimensions of	700 x 700 x 600 mm for placing the instrument
Source of compressed air:	6 bar (replaceable by small air compressor BFH-PCM as an optional equipment)
Local exhaust (replaceable by the Ex-proof suction device BFH-EPS as an optional equipment)	

