

OZM RESEARCH Instruments & Technologies for Energetic Materials

## BFH-PEx SMALL BAM FALL HAMMER (IMPACT TESTER) Product Datasheet

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

Impact sensitivity tester Small BAM Fall Hammer BFH-PEx serves for measuring impact sensitivity of solid or liquid primary explosives, propellants and pyrotechnics according to BAM standard procedure.

Small impact sensitivity tester BFH-PEx is designed to fullfill all corresponding international standards of testing with special attention paid to precision (low-friction brass guide rails, calibrated set of drop weights) and safety (remote control, remote-controlled weight releasing device, shielded protective box).

Its applicable wide range of impact energies (from 0.025 to 10 J) allows to measure impact sensitivity of large variety of energetic materials from highly sensitive primary explosives to relatively insensitive propellants or pyrotechnics.

#### INSTRUMENT DESCRIPTION

Tester BFH-PEx consists of a massive stainless steel stand, two brass guide rails, hand-controlled releasing device, pneumatically or electromagnetically, shielded protective box, a main anvil, a column with metric graduated ruler or logarithmic ruler and set of drop weights from 25 g to 1000 g.

The testing substance is sandwiched between two steel cylinders centered together by a steel guide ring and this impact device is placed on the main anvil. Each test requires new impact device. 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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# BFH-PEx SMALL BAM FALL HAMMER (IMPACT TESTER)

### Product Datasheet

#### **TECHNICAL PARAMETERS**

Fall hammer weights:	25; 50; 100; 250; 500 and 1000 g (other available upon request)
Maximum drop height:	1 m (other available upon request)
Impact energies:	0.025 - 10 J
Sampling spoon volume:	40 mm <sup>3</sup>
Consumption of compressed air:	10 ml (at 4 bars) per test

#### STANDARD INSTRUMENT PARTS

BPEx-M	Small BAM Fall Hammer main components
BPEx-DWA25	Drop weight 25 g
BPEx-DW005	Drop weight 50 g
BPEx-DW01	Drop weight 100 g
BPEx-DW025	Drop weight 250 g
BPEx-DW05	Drop weight 500 g
BPEx-DW1	Drop weight 1000 g
BFH-SP-3	Set of sampling spoons for solid substances - 5, 10 and 40 mm <sup>3</sup>



#### MAIN SPARE PARTS AND OPTIONAL ACCESSORIES

BFH-A	Spare intermediate anvil 26 x 26 mm (60 HRC)
BFH-CR	Spare locating ring with orifices for gas release made from a stainless steel
BPEx-PRD	Pneumatic releasing device (an alternative to standard releasing device operated by hand)
BPEx-ERD	Electromagnetic releasing device 230 V / 50 Hz or 120 V / 60 Hz (an alternative to standard releasing device operated by hand)
BPEx-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
BPEx-FPH	File plate holder

#### 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-100 Rubber ring for liquid substances, 100 pcs	

#### SHIPPING DATA (STANDARD)

Package dimensions (W x L x H): 60 x 120 x 60 cm	
Package gross weight: approx. 120 kg	
Custom code: 9031 80 98	

#### INSTALLATION REQUIREMENTS

Space requirements: W x L x H: 400 x 400 x 1400 mm; Weight: 60 kg Local exhaust (replaceable by the Ex-proof suction device BFH-EPS as an optional equipment)

# Steel guide rings and cylinders



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