

## BAM IST CONSUMABLES - COLLARS

### BAM Impact Sensitivity Tester for Explosives

**BAM Impact Sensitivity Tester (also known as Fallhammer) is a standard testing instrument for determination of impact sensitivity of energetic materials such as high explosives, primary explosives, propellants and pyrotechnics.**

#### Application

Each energetic material requires its activation energy for initiation of decomposition, burning, deflagration or detonation. This energy varies with the type of stimuli and conditions so that several standards were globally adopted for testing by impact, friction and electrostatic discharge stimuli. These sensitivity data provide essential characteristics of each material and is key information for its production, manipulation, handling, processing and transportation.

Energetic materials may change their properties depending on external conditions, therefore, sensitivity testing is often combined with standard ageing procedures. Sensitivity testing is a necessary part of the quality management of the production process and transport or storage classification.

#### Principle

BAM method for sensitivity testing is based on observation of sample reaction after the exposition to impact between 2 steel cylinders guided by a steel collar. Impact energy is determined by the height and weight of the impacting body. Precision and surface roughness of used cylinders and collars is essential for testing reproducibility.

#### Description

BAM IST Collar is a precise custom-made part. It is made of high quality bearing steel hardened to 60-65 HRC and ground to reach required precision. The production process involves a strict quality inspection.

#### Specifications

Outer Dimensions	D16 x L13 mm
Inner Hole Dimension	D10 mm (+0.010 to +0.005)
Surface	ground ( $R_z < 4$ ), polished

#### Compliance

UN RTDG 2003 [13.4.2 Test 3(a)(ii)], STANAG4489  
MIL-STD-1751A, EN 13631-4:2002  
EC Directive 92/69/EEC (m. A14)

