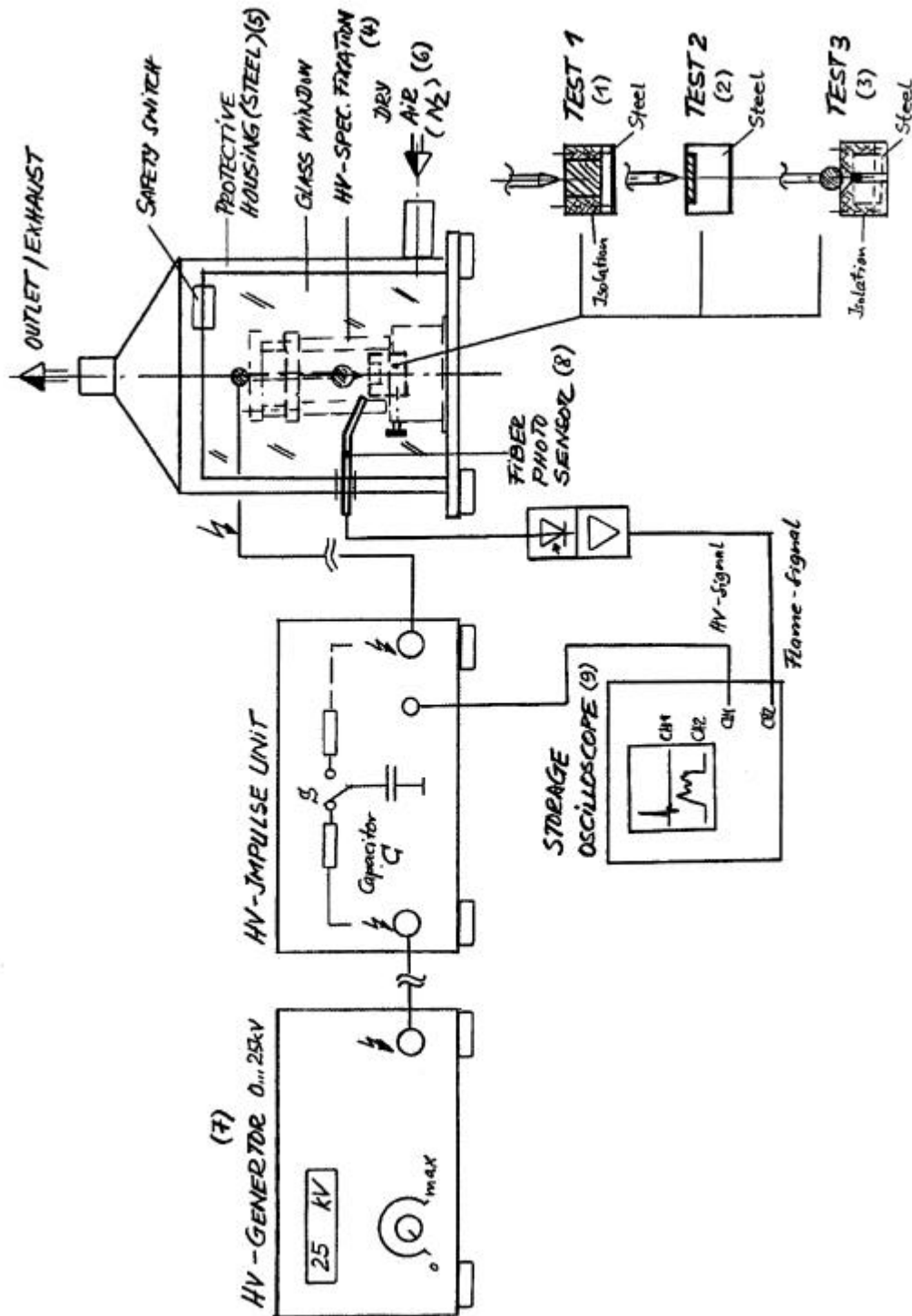


## Electrostatic Sensitivity Tester





# Explosive Testing Equipment

Materials Testing & Laboratory Equipment

## Electrostatic Sensitivity Tester

Unit to investigate the sensibility of explosives (propellants, HE explosives, pyrotechnics) to electrostatical and sparking effects.

Universal system for application of different types of electrode shapes and specimen parameters (diameter, volume, weight) according to international tests

### Description:

Samples can be tested by needle or ball electrodes:

Test 1: Sample  $\varnothing$  10 mm, height: 10 mm; sample holder 1 used for propellants, pyrotechnics and explosives; sample weight approx. 1.5 g; testes by needle electrode

Test 2: Sample  $\varnothing$  10 mm, height 1 mm; sample holder 2 used for propellants and explosives; sample weight approx. 0.2 g; tested by needle electrode

Test 3: Sample  $\varnothing$  3 mm, height 2 to 3 mm; sample holder 3 used for explosives; sample weight approx. 20 mg; tested by ball electrode

All tests are applied in standardised holders (1,2,3) placed in a high voltage specimen fixation ( 4 ). For control of test atmosphere the specimen fixation is mounted in a steel housing ( 5 ) with protected front window. Dry air or nitrogen gas is feeded in the test room to ensure stable and controlled test humidity and temperature ( 6 ).

The HV voltage is delivered by a HV-generator 0...25 KV, ( 7 ), the electrical energy is stored in capacitor C. With the manually controlled HV-switch S the adjustable energy impulse is feeded to the test specimen. Observation of spark and flame effects are made by fibre coupled photo sensor with amplifier ( 8 ) and documented by storage oscilloscope ( 9 ). With storage oscilloscope documentation can be made for:

?? Amplitude and energy of electrical impulse;

?? Time delay of inflammation (or non-inflammation)

?? Multitesting of specimen (by rotation)

### Construction:

The equipment is constructed for a safe and reproducible testing of specimen. The test room is protected by a solid protective housing with front window for safe observation and conditioning of test atmosphere. The front window is equipped with safety contact. All flame and fume contacted material is corrosion proof prepared and made of stainless steel or Teflon.

### Standard Accessories:



HV-Generator 0...25KV, HV-Impulse Unit, Protective Housing; HV-specimen fixation, one each test holder for test 1, test 2 and test 3, Fibre photo sensor with amplifier and power supply and 1 each of needle / ball electrode.