



# MIE-3000AE

## Dust Cloud Minimum Ignition Energy Tester



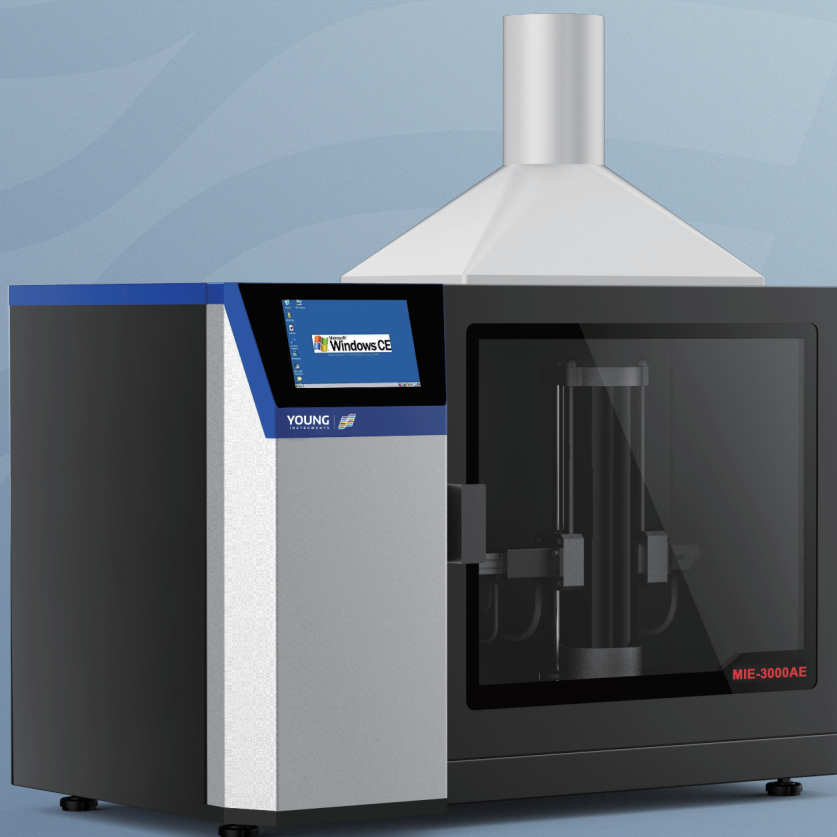
Advanced Technology



Accurate



Safety



The MIE-3000AE is a professional instrument for measuring the minimum ignition energy needed to cause a dust cloud explosion. It disperses a specific mass of dust sample into a cloud within a Hartmann tube using compressed air. The dust cloud is ignited with a specified spark energy, and the minimum ignition energy is determined through testing. This instrument reflects the ignition sensitivity of dust from an energy standpoint and is suitable for assessing the explosion hazard of dust clouds.

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## Product Features

- Incorporates commonly used international testing standards for both standard parameter testing and custom definitions.
- Input the ignition energy value for automatic optimal capacitor and voltage combination selection.
- Automatic high-voltage charging module disconnection for enhanced operational safety.
- Well-designed dust dispersion device ensures uniform distribution of dust samples.
- Flexible use of the instrument with convenient adjustment of electrode distance, powder pressure, and delay time.
- Automatic recording of electrode ignition counts prompts timely electrode replacement to prevent test impact.
- Hartmann tube with lifting and rotating mechanism for easy cleaning, saving experimental time.
- Remote ignition control for the safety of experimental personnel.
- User hierarchical management, enabling control and management of different level accounts.
- USB plug-and-play interface for convenient data management.
- Professional industrial design, simple and generous.
- User-friendly human-machine interaction, easy to learn, understand, and operate.
- 7-inch color touchscreen supporting Chinese input with direct and simple operations.

## Test Standards

- ASTM E2019
- IEC 61241-2-3
- ISO/IEC 80079-20-2
- GB/T 16428

## Technical Specifications

Operating Environment	5°C – 45°C, <85% RH
Universal Mode - Spark Energy	1 mJ, 3 mJ, 10 mJ, 30 mJ, 100 mJ, 300 mJ, 1000 mJ, 3000 mJ
Custom Mode - Spark Energy	1–3000 mJ, adjustable in 1 mJ increments
Charging Voltage	0–15 kV
Discharge Load	No load, 1 mH inductive load
Experimental Container	1.2 L Hartmann tube
Electrodes	Diameter 2 mm tungsten electrodes
Electrode Distance	2–10 mm, adjustable
Electrode Triggering Method	High-voltage relay triggering, movable electrode triggering
Ignition Delay Time	20–200 ms, adjustable
Powder Pressure	0.4–0.7 MPa, adjustable
Interface	USB*2
Power Supply	(90~260)VAC/(47~63)Hz
Power	300 W
Dimensions	840 mm × 500 mm × 850 mm (with exhaust hood), 840 mm × 500 mm × 460 mm (without exhaust hood)

## Application Fields



Chemical Industry



Pharmaceuticals



Coal Industry