# TSV SERIES

TESTING CLOSED VESSELS

The TSV Series<sup>™</sup> Testing Closed Vessels (Manometric Bombs) are designed for the measurement of burning behavior (pressure-time profiles) and ballistic parameters (quickness and the specific energy) of gun, rocket or airbag propellants, pyrotechnic mixtures and other energetic substances or small explosive devices (igniters, squibs).



TSV 40 (40 cm<sup>3</sup>)

## **APPLICATIONS**

The **TSV Series** Testing Closed Vessels are used for measuring the burning pressure profile of not only energetic materials (gun, rocket or airbag propellants, booster and gas-generating pyrotechnics or other substances, etc.) but also igniters as electrical squibs or for other special testing purposes. Data obtained from the measurements in closed vessels are used for development of new products or their quality control during manufacture or in-service surveillance.

Compared to larger test closed vessels, such as **RB series**, the **TSV Series** is a convenient low-cost solution for non-frequent testing in laboratories, for testing fast burning samples (small caliber gun propellants and ignition powders) or for testing samples creating highly corrosive residues.





TSV 15 (15 cm<sup>3</sup>)

#### TSV 40 with EDA Light measurement and the control unit

### **ADVANTAGES & FEATURES**

- > Low-cost solution for testing burning parameters of energetic materials or igniters
- Closed vessels are made of high-strength stainless steel
- Working pressure up to 3,000 bar
- 5,000 bar proof pressure tested by burning gun propellants
- > The EDA analyzer available for proper electric ignition and signal analysis

There are two versions of TSV available:

| Version                             | Double sided open | One side open |
|-------------------------------------|-------------------|---------------|
| Standard volumes [cm <sup>3</sup> ] | 10, 15, 20        | 40, 100       |



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