

# RB SERIES

## HIGH PRESSURE CLOSED VESSELS

The RB Series™ is a portable instrumentation for measurement of the burning parameters (pressure-time profile, vivacity, pressure gradient, maximum pressure, force etc.) of gun propellants in the pressure range up to 500 MPa. The RB Series is fully professional system for ignition, measurement and evaluation, coupled with selected closed vessel.



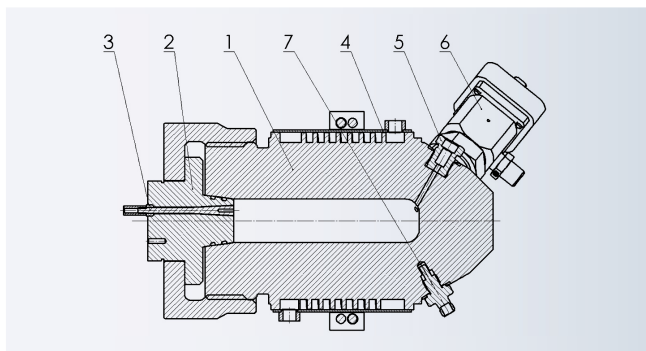
## APPLICATIONS

The RB Series apparatus is used for measuring the burning pressure profile of gun propellants.

The RB Series are especially suitable for research, development and quality control in the manufacture and in-service surveillance of gun propellants.

## ADVANTAGES & FEATURES

- ▶ Heavy-duty closed vessels made of high-strength stainless steel
- ▶ Working pressure up to 500 MPa
- ▶ 600 MPa proof pressure tested by burning gun propellants
- ▶ An analyzer for proper electric ignition and signal analysis
- ▶ The **ABSW™** software for operation and evaluation of results
- ▶ Unique design of the test vessels allows for easy access for their cleaning
- ▶ Upgradable for remote opening of one valve



RB 200 vessel on support stand with Chiller unit and schematic vessel parts: (1) Pressure vessel (2) Breech nut with lid (3) Electrical ignition (4) Water cooling jacket (5) Pressure transducer adapter (6) Gas release valves (7) Temperature sensor

Offered closed-vessel volumes:

Version	Standard	On demand
Volume [cm <sup>3</sup> ]	200, 500, 700	100, 400, etc.

Examples of the use of closed vessels

Type/Volume [cm <sup>3</sup> ]	Limiting vivacity L [MPa <sup>-1</sup> s <sup>-1</sup> ] at 250 MPa	Sample weight [g] for loading density 0.2 g cm <sup>-3</sup>	Examples of testing samples – main powder from std ammunition of
TSV 10	13	2	44 Remington Mag. or bigger
TSV 20	9	4	.22 Hornet, .222 Remington, .223 Remington, .30 Carbine, 7.62×39 or bigger
TSV 40	6.5	8	9.3×62, 7.62×54 R, .30-06 Springfield, 7×57, 7×57 R, 7×65 R and 7×64 to 8×57 IS, 5.6×52 R, .223 Remington or bigger
TSV 100	4.6	20	12.7 mm, .50 Browning or bigger
RB 100	5.1	20	12.7 mm, .50 Browning, 30 mm-2A42, 30×173 or bigger
RB 200	3.7	40	155 mm short range, 30×273 mm, 23×157 mm, 30×273 or bigger
RB 400	3.1	80	155 mm short and long range, 125 mm tank, 23×157 mm or bigger
RB 500	3	100	155 mm short and long range, 125 mm tank, 23×157 mm or bigger
RB 700	2	140	155 mm long range, 125 mm HE (OF) tank or bigger

NOTE: The recommended minimum number of sample grains is 10–30 pcs per one test.

## COMPLIANCE

- STANAG 4115
- MIL-STD-286C



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