



# vPRAB-1000-9

## Hardened Penetration Aerial Bomb



### Purpose:

The hardened penetration aerial bomb, vPRAB-1000-9, is used for the annihilation and neutralization of reinforced objects located on the surface, buried under the ground or sheltered behind rocky terrain. Its destructive effect is realized by penetrating through the object's protective walls and after penetration, using a controlled detonation of its explosive charge, it sends a shock wave primarily and secondarily uses its bomb body for steel mantle fragmentation.

The penetration effect is achieved by kinetic energy generated from the sum of the kinetic energy at the instant of releasing from the aircraft and the energy potential of gravitation. The penetration effect is in direct dependence to the aircraft flight speed at the moment of bomb delivering. The bomb can be used as unguided or as warhead of guided aircraft bombs.

The bomb is aerodynamically shaped and during the flight on its ballistic path it is stabilized by rotation, determined by its stabilizer fins.

The bomb is designed for bombing from adequate NATO standard aircrafts. There is an option for the possibility to be used in aircraft of the RUSSIA standard.

### Bomb consists of:

- Body with explosive charge
- Conical fin
- Two suspension lugs
- Separate tip for bomb configuration with aft fuze only
- Protective transport plugs
- Packaging for transport and storing

## General characteristics:

- |                                      |                         |
|--------------------------------------|-------------------------|
| • Body length without conical fin    | 2504 mm                 |
| • Length with conical fin            | 3722 mm                 |
| • Warhead diameter (max)             | 370/405 mm              |
| • Conical fin span                   | 628/456 mm              |
| • Distance between suspension lugs   | 762 mm (30 in.)         |
| • Warhead weight                     | 884 kg                  |
| • Gross weight with conical fin      | 921 kg                  |
| • Mass of explosive charge - nominal | 247 kg                  |
| • Explosive type                     | TNT, Comp B or TRITONAL |
| • Flight speed at bombing            | 130 - 310 m/s (600 kn)  |

## Short description

- The bomb possesses the ability to be loaded onto an aircraft weapon carrier which can carry a standard payload (not less than 1000kg) and with a rack suspension hook distance of 762 mm (30").
- The bomb is armed with one NATO standard aft fuze.
- It can be used with basic or modern aiming systems.
- Assurances are provided that the crew and airplane are secured from the bomb during adjustment, transport, and deploying.
- The bomb functions in a temperature range of -40°C to +70°C.
- Servicing of the bomb is done with standard weaponry platforms, lifts and tools.
- All the parts of the bomb are protected with their corresponding covers.
- Minimal life-span, provided it is stored in a temperature range between -40°C to +70°C and 100% humidity, is 20 years. Inspections should be carried out every 5 years.

