

TOMER OVERVIEW

TOMER. LTD, was established in order to develop and manufacture propulsion systems, which are tested and qualified for the particular requirements of Israel's Ministry of Defense or other customers (IAI, Elbit Systems, etc.)

TOMER's highly experienced at designing, developing and manufacturing of solid rocket motors, for the specific applications.

TOMER is deeply involved in Israel's Space Program and its missile defense systems (the Arrow interceptor programs).

The propulsion systems for these programs are developed and produced by Tomer.





TOMER's profile capabilities include:



Design and analysis of solid rocket motors and components



Development, qualification and manufacture of motors, propellants and components



Managing aging programs



Large and short series production

TOMER is well qualified to supply your requirements as it has:



Experience in the design, development, and manufacture of solid rocket motors and components



Highly developed Quality Assurance Systems certified to ISO -9001



All necessary facilities and personnel on-board



We look forward to meeting with you to discuss any of your future needs.



TOMER TEL: 972-8-9127843 | MAIL: Dotang@tomer-rs.co.il website: www.tomer-rs.co.il

T-BOOSTER extended missiles range

TOMER

In order to answer new threats in today's battlefield, our weapon systems require constant improvement and change. When facing new threats, our goal is to find the quickest and easiest way to develop an answer.

In some cases our customers requires us to improve existing missiles instead of developing entirely new systems.

To meet the demands of our customers, 'Tomer' has developed a BOOSTER MOTOR. This motor is designed to attach to an existing missile in order to enhance its range. The booster motor is added as the first stage of the missile and provides the initial velocity and thrust which enhance the overall range.

The booster motor is developed and manufactured separately from the main missile motor and can be supplied separately.





T-BOOSTER extended missiles range

Solid rocket motor for extended range guided rocket system

Motor Characteristics

Casing Material metal Throat Material Graphite Casing Diameter 300 mm

Propellant

Type & Composition HTPB / ALUMINUM / AP Propellant Configuration Star/cylinder Burning Type Internal

Weights

Total Weight 140 kg Propellant Weight 94 kg

Temperature Limits

Operation -30 °C to 55 °C Storage -30 °C to 70 °C

Igniter

Pyrotechnic forward/ aft igniter





T 009 07 2021



TOMER PROPULSION SYSTEMS



- Tomer is Israel's sole supplier of large rocket boosters.
- Tomer has extensive capabilities in the design, development and production of solid rocket motors with fixed or flexible nozzles.
- These capabilities include a complete infrastructure for manufacturing, testing, and a professional workforce of scientists and engineers encompassing all requisite disciplines. Therefore, Tomer is a "one stop shop" for propulsion systems.
- Our products span the entire range of sizes and applications including shoulder launched personal weapons, artillery rocket systems and missiles, Air Defense missiles, guidance thrusters for trajectory correction, and large rocket boosters.
- Tomer is deeply involved in Israel's space program and missile defense programs, the solid boosters for the "SHAVIT" satellite launcher and for the "ARROW" program (targets and interceptors) are developed and produced by Tomer.
- The data sheets on the following pages provide physical and performance specifications for a representative range of our solid rocket motors.
- We look forward meeting with you and discuss any of your future needs.



T-SRM (122MM)

Solid rocket motor for artillery rocket weapon system

Motor Characteristics

Casing Material metal Throat Material Graphite Casing Diameter 122 mm

Motor Performance @ 21 C°

Maximum Pressure 220 kg/sq.cm Maximum Thrust 4000 kgf Total Impulse 7000 kgf·sec Specific Impulse above 250 sec

Propellant

Type & Composition HTPB / ALUMINUM / AP Propellant Configuration Star/cylinder Burning Type Internal

Weights

Total Weight 50 kg Propellant Weight 30 kg

Temperature Limits Operation -34 °C to 63 °C Storage -34 °C to 63 °C

Igniter Pyrotechnic forward/ aft igniter

Т-MRM (150мм)

Solid rocket motor for medium/ light Artillery Rocket weapon system

Motor Characteristics

Casing Material metal Throat Material Graphite Casing Diameter 150 mm

Motor Performance @ 21 C°

Maximum Pressure 160 kg/sq.cm Maximum Thrust 6,700 kgf Total Impulse 12,000 kgf·sec Specific Impulse above 250 sec

Propellant

Type & Composition HTPB / ALUMINUM / AP Propellant Configuration Star/cylinder Burning Type Internal

Weights Total Weight 80 kg Propellant Weight 50 kg



Temperature Limits Operation -34 °C to 63 °C Storage -34 °C to 63 °C

Igniter Pyrotechnic forward/ aft igniter



Temperature Limits Operation -34 °C to 63 °C Storage -34 °C to 63 °C

Igniter Pyrotechnic forward/ aft igniter

Т-LRM (зо2мм)

Solid rocket motor for extended range guided rocket system

Motor Characteristics

Casing Material metal Throat Material Graphite Casing Diameter 302 mm

Motor Performance @ 21 C°

Maximum Pressure 120 kg/sq.cm Maximum Thrust 5500 kgf Total Impulse 60,000 kgf·sec Specific Impulse above 240 sec

Propellant

Type & Composition HTPB / ALUMINUM / AP Propellant Configuration Star/cylinder Burning Type Internal

Weights Total Weight 330 kg Propellant Weight 240-260 kg





MULTIPLE PULSE MOTOR

TOMER

Advanced technologies and weaponry in today's battlefields require flexible solutions to allow for a quick and effective response to the ever-changing threats.

A solid rocket motor, with all its advantages, does not enable for much flexibility as it burns from beginning to an end of its propellant with no way to stop the burn or change the propellant characteristics.

In order to reach more flexibility and maneuvering Tomer has developed a MULTIPLE PULSE MOTOR. The motor advance design enables to combine different propellants with varying characteristics in the same hull, burning through the same nozzle.

The motor design includes a different igniter for each pulse. This design allows a complete separation in ignition between the pulses which in turn gives more flexibility when timing the ignition of each one. The missile can ignite one pulse right after the other ends, or at any other specified time, according to the missile specification and mission requirements.

The MULTIPLE PULSE MOTOR includes dividers that separates the pulses and prevents the passages of hot gases into the front pulses during the burn of the others. When one of the front pulses ignites it opens partition, and allows for the gasses to pass through to the nozzle.

Using different propellants and different igniters allows for much greater maneuverability and flexibility for the missile, and can provides an answer to various threats and mission requirements.









T-MPM MULTIPLE PULSE MOTOR

Solid rocket motor for Interceptor missiles with maneuvering capabilities that provide a response to various threats

Motor Characteristics

Casing Material metal Throat Material Graphite Casing Diameter 220-240 mm

Propellant

Type & Composition HTPB / ALUMINUM / AP Propellant Configuration Star/cylinder Burning Type Internal

Temperature Limits

Operation -30 °C to 55 °C Storage -30 °C to 70 °C

Igniter

Pyrotechnic front igniter With an electronic safe & arm device



T 008 07 2021



TEL: 972-8-9127843 | MAIL: Dotang@tomer-rs.co.il WEBSITE: www.tomer-rs.co.il