AL BAYRAQ - HYBRID ROCKET ENGINE

POWERING
THE NEXT
FRONTIER

An ongoing development of a hybrid rocket engine that combines the best features of the solid and liquid rocket systems. It is designed to produce a propulsion system that is simpler, safer, controllable and cost effective with the use of 3D printed ABS as a fuel. The engine has the potential to be used for future missions required for guided missiles and sounding rockets.

#### **SPECIFICATIONS**

Diameter	122 mm
Length	2 m
Average thrust	850 N
Burning time	20 s
Fuel	Acrylonitrile Butadiene Styrene (ABS)
Oxidizer	Nitrous Oxide (N <sub>2</sub> O)



**HUNTER 2-S FUZE** 

## HIGH-LEVEL IMPACT. SUPERIOR DETONATION.



#### **FUZE TYPE**

This is an electromechanical fuze, designed specifically for, and used on, the HUNTER 2-S weapon.

#### **SPECIFICATIONS**

Operating temperature	-40 °C to+71 °C
Storage temperature (Long term)	-10 °C to+40 °C
Shelf life:	10 years
SIZE	
Diameter	55 mm
Length	58 mm



RASH 2H FUZE

# SINGULAR MISSION. EFFECTIVE EXECUTION.



An electro-mechanical fuze with Point Detonation mode designed for use on gravity release weapon

#### **FUZE TYPE**

This is an electromechanical fuze, designed specifically for, and used on, the RASH 2H weapon.

#### **SPECIFICATIONS**

Operating temperature	-40 °C to+71 °C
Storage temperature (Long term)	-10 °C to+40 °C
Shelf life:	10 years
SIZE	
Diameter	129 mm
Length	120 mm



#### TV SEEKER FUZE

CUSTOM
DESIGN.
SUPERIOR
DETONATION.



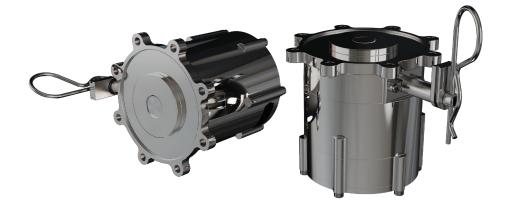
An electro-mechanical fuze that can be used in two modes: Proximity Height and Point Detonation.

#### **FUZE TYPE**

This is an electromechanical fuze, designed specifically for, and used on, the TV SEEKER weapon.

#### **SPECIFICATIONS**

Operating temperature	-40 °C to+71 °C
Storage temperature (Long term)	-10 °C to+40 °C
Shelf life:	10 years
SIZE	
Diameter	58 mm
Length	63 mm



**DESERT STING-25 WARHEAD** 

## LETHALIMPACT. DESTRUCTIVE LETHALITY.



DESERT STING-25 warhead is designed to be effective against personnel and light armored vehicles.

#### **DIMENSIONS**

Calibre	175 mm
Length	349 mm

#### **MASS**

Warhead mass 25 kg

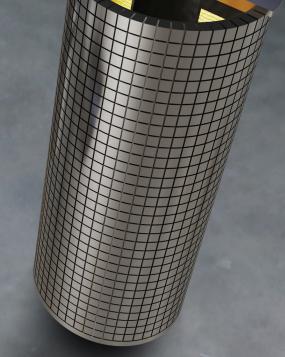
Fragment shape	Cubic
Number of fragments	3,500
Fragment diameter	6 mm
Fragment material	Tungsten



GATTAL

# DESTRUCTIVE LETHALITY. CONTROLLED DAMAGE

GATTAL Warhead developed at HALCON to incapacitate troops and damage soft targets in an open area. This Warhead is designed to produce uniform sized fragments of a predetermined shape and mass. GATTAL is useful in anti-personnel and anti-materiel systems where impact patterns having a fairly uniform distribution and predictable area coverage are needed. GATTAL can be mounted on different weapon platforms.



#### **DIMENSIONS**

**Case material** 

Calibre	70 mm
Length	154 mm
MASS	
Warhead mass	1.5 kg
Explosive mass	310 g
FRAGMENTS	
Grooves thickness	0.5 mm
Grooves radial depth	3 mm

Stainless steel/EN24T



**HUNTER 2-S WARHEAD** 

LETHAL BLAST
TACTICAL
IMPACT.



A multipurpose warhead shaped charge with blast fragmentation effect developed at Halcon to defeat targets such as Soft targets, Light vehicles, and Armored vehicles.

#### **DIMENSIONS**

Calibre	76 mm
Length	194 mm

#### **MASS**

Warhead mass 2 kg

Fragment shape	Spherical
Number of fragments	780
Fragment diameter	5 mm
Fragment material	Carbon steel Carbon steel



**UAV WARHEAD** 

TACTICAL
IMPACT.
ATTACK
ACCURACY.

UAV Warhead developed at HALCON to provide forward lethal blast effective for destroying soft targets in an open area. It can be mounted in different platforms mostly mobilized with UAVs.

#### **DIMENSIONS**

Calibre	70 mm
Length	154 mm

#### **MASS**

Warhead mass	1.5 kg
Explosive mass	0.4 kg

Fragment shape	Spherical
Number of fragments	930
Fragment diameter	5 mm
Fragment material	Carbon steel



#### **MODAMER WARHEAD**

## LETHAL BLAST. DESTRUCTIVE LETHALITY.



High blast, fragmentation warhead designed to be effective against soft skin targets.



#### **DIMENSIONS**

Calibre	202 mm
Length	377.5 mm

#### **MASS**

Warhead mass 34.5 kg

Fragment shape	Spherical
Number of fragments	69,000
Fragment diameter	3 mm
Fragment material	Tungsten



**SHADOW 25 WARHEAD** 

PRECISION
STRIKE.



The SHADOW 25 loitering unmanned aerial vehicle (UAV) system provides defence forces with a jet powered, rapid-strike kamikaze munition capable of delivering a precision strike against fixed targets.

The SHADOW 25 system has a cruising speed of 400 km/hr, creating new opportunities to swiftly neutralize stationary enemy targets with a 25 Kg warhead, packed with cubic tungsten fragmentation.

#### **DIMENSIONS**

Calibre	175 mm
Length	335 mm

#### **MASS**

Warhead mass	25 kg
Explosive mass	8 kg

Fragment shape	Cubic
Number of fragments	13,000
Fragment diameter	6 mm cubes
Fragment material	Tungsten



TV SEEKER WARHEAD

BLAST
DAMAGE.
FATAL
LATHALITY.



A TV SEEKER warhead is a blast fragmentation effect developed at HALCON to defeat targets such as personnel and light vehicles.

#### **DIMENSIONS**

Calibre	100 mm
Length	200 mm

#### **MASS**

Warhead mass 3.2 kg

Fragment shape	Spherical
Number of fragments	1,688
Fragment diameter	5 mm
Fragment material	Carbon steel

