



AL EFAH'S EOD/IEDD SOLUTIONS



Tools and equipment developed by EOD & IEDD trained Engineers.

Safety, Quality and reliability delivered at affordable pricing.

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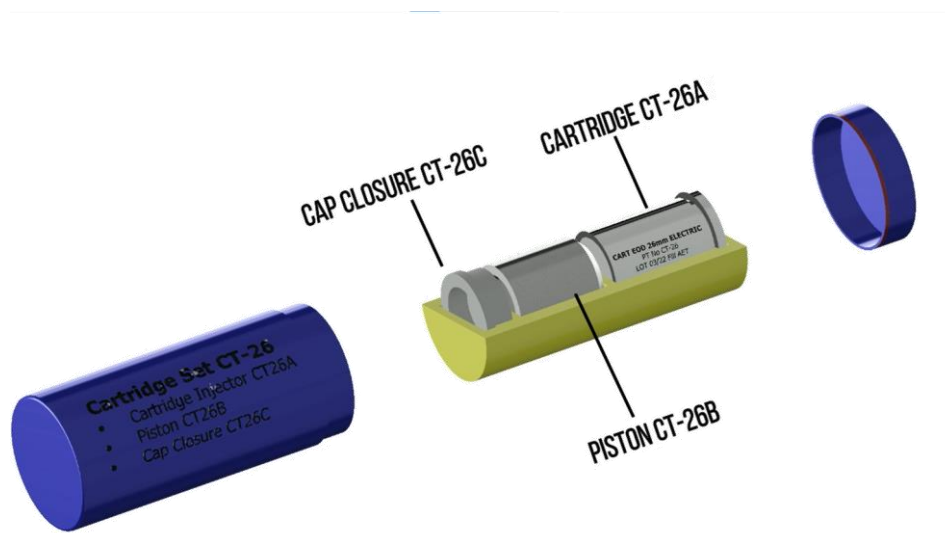
DISPOSAL EXPLOSIVES



EOD Power Cartridge Kit CT-26



The IEDD disruptor and EOD render safe tools are mostly powered by electrically initiated power cartridges. We supply a variety of EOD cartridges. These cartridges undergo a well-defined qualification process. Each lot of the cartridges is proof tested before final release to the customer. The Cartridge kit CT-26 is used with barrel bore of 26-27 mm like EAD-26 disruptor as well as with the legacy Pigstick disruptors. In the kit, with Cartridge injector (CT-26A), a Piston (CT-26B) and a Closure cap (CT-26C) is also provided.





CT-26A has aluminum alloy body, with propellant as its main filling and having an electric primer. The primer does not contain any corrosive or toxic materials. It meets the requirements of L2A1 blank power cartridge. As this is bespoke cartridge and alternation in dimensions can be done to the customer requirements.

Packing

In packing, the cartridges are first secured in an aluminum container and then packed in sealed ammunition container secured by the polystyrene slots. One environmentally sealed ammunition box can house qty 40 or 20 of the CT-26 Cartridge sets. The packing meets the requirements of transportation as per the UN HD 1.4S and UN Number 0276.



Important specifications

Cartridge Injector CT26A			
Length	42-43mm	Diameter	26 mm
NEQ	6-7 grams	No fire current	0.4A
Consumables			
Size Piston CT26B (Lx D)	32mm x Ø 27mm	Size Cap Closure CT26C (Lx D)	8mm x Ø 29 mm



EOD / IEDD Power Cartridge CT-05W



The IEDD disruptor and EOD render safe tools are mostly powered by electrically initiated power cartridges. We supply a variety of EOD cartridges. These cartridges undergo a well-defined qualification process under MIL-D-21625. These are certified for performance, handling safety and operational reliability. Each lot of the cartridges is proof tested before final release to the customer. Cartridges are secured and finally packed in environmental sealed ammunition container secured by the polystyrene slots.

The cartridge CT05W is a 0.5-inch caliber EOD cartridge with a lead for firing. It is used with different EOD/ IEDD kits such as De armour, Recoilless disruptor (like EAD-50) and the Rocket Wrench. The lead length required can be defined by the customer.

Specifications

Title	Specs	Title	Specs
Body material	Brass	Weight	72 g
NEQ	9-12 grams	No fire current	0.4 A
Caliber	0.5 inch	Case Length without lead	100 mm
Hazard No	1.4 S	Lead length	200 mm or 300 mm
Equipment used with	Rocket Wrench, De-armour, 0.5 inch Disruptors		



EOD / IEDD Power Cartridge CT05D



The IEDD disruptor and EOD render safe tools are mostly powered by electrically initiated power cartridges. We supply a variety of EOD cartridges. These cartridges undergo a well-defined qualification process under MIL-D-21625. These are certified for performance, safety and reliability. Each lot of the cartridges is proof tested before final release to the customer. Cartridges are secured in an aluminum container and finally packed in sealed ammunition container secured by the polystyrene slots.

The CT05D is a 0.5 inch caliber Cartridge widely used with EOD and IEDD equipment. It is used with Recoilless disruptor EAD-50 De armer / Disruptors. The cartridges are produced in lots and each lot undergoes comprehensive lot acceptance testing to ensure correct and consistent performance. The cartridges are supplied in environmentally sealed containers for a long life during storage.

Specifications

Title	Specs	Title	Specs
Body material	Brass	Weight	72 g
NEQ	7-8 grams	No fire current	0.4A
Caliber	0.5"	Case Length	100 mm
Hazard No	1.4S		
Equipment used with	Rocket Wrench, De-armour, 0.5 inch Disruptors		



EOD / IEDD Power Cartridge CT-20



The IEDD disruptor and EOD render safe tools are mostly powered by electrically initiated power cartridges. We supply a variety of EOD cartridges. These cartridges undergo a well-defined qualification process under MIL-D-21625. These are certified for performance, safety and reliability. Each lot of the cartridges is proof tested before final release to the customer. Cartridges are secured in an aluminum container and finally packed in sealed ammunition container secured by the polystyrene slots.

The cartridge CT20 is a 20mm cartridge used with Recoilless disruptor EAD-20. The cartridge is provided with Teflon cap installed on the front end which provides a seal when water is filled inside the disruptor.

Title	Specs	Title	Specs
Body material	Brass	Kinetic energy delivered by liquid projectile	3.1 KJ
NEQ	6.5 grams	No fire current	0.4A
Caliber	20mm	Hazard No	1.4S
Equipment used with	EAD-20S		



Safety Fuse



Safety Fuse is a flexible fuse cord with inner core containing special grade black powder and is covered with textile yarns. For water proofing, fuse is insulated with uniform PVC coating. Safety Fuse burns slowly for transmitting of the burn to a detonator providing time for the demolition team to evacuate from the area.

Title	Specification	Title	Specification
Physical Appearance	Black color with uniform coating	Packing	800 - 1000 meters per box
Outer Diameter	5mm	Black Powder Filling	5 to 6 g/m
Initiation Power	No 8	Flashover Sensitivity	25.0 mm Min
Burn rate typical	110-150 sec/mtr	Water resistance	Excellent
External Coating	PVC		



Detonating Cord



Detonating cord consists of PETN core covered by woven tube of polythene tape and cotton threads protected by an outer PVC insulation. The weight of standard cord is approximately 10 g/m with our diameter of 5.0 – 5.5mm. The Cord is a strong, is Flexible and has linear explosive. It is cap sensitive product having the ability to initiate all cap sensitive explosives & primers.

Title	Specification	Title	Specification
Physical Appearance	Orange color, Flexible & uniform PVC coated.	Outer Diameter	5.0 - 5.5mm.
Explosives Charge	10 +1 g/m (PETN)	Tensile Strength	60kg/ 6 inches
VOD	6000 - 7000 M/Sec	Sensitivity	No.8 Cap.
Detonation Test	Detonates with < 20 branches.	Water Immersion Test	03 meter depth for 24h
Packing	1000 meters per box.	Shelf Life	12 months.
Storage	Keep in dry and well-ventilated conditions at ambient temperature.		

Detonation Cord Connector

Detonation Cord connectors are a useful consumable for reliable connections of the Detonation cord. It makes the demolition operations easy to setup the demolition pit.





ELECTRIC DELAY DETONATORS



The usage of short delay detonators in blasting has been extensive. These detonators have a composition similar to electric or plain detonators, with the addition of a delay element positioned between the fuse head and primary charge. The delay element is activated by an electric impulse. Electric detonators with delays of milliseconds or half-seconds are commonly employed in activities such as quarrying, open pit operations, and breaching projects.

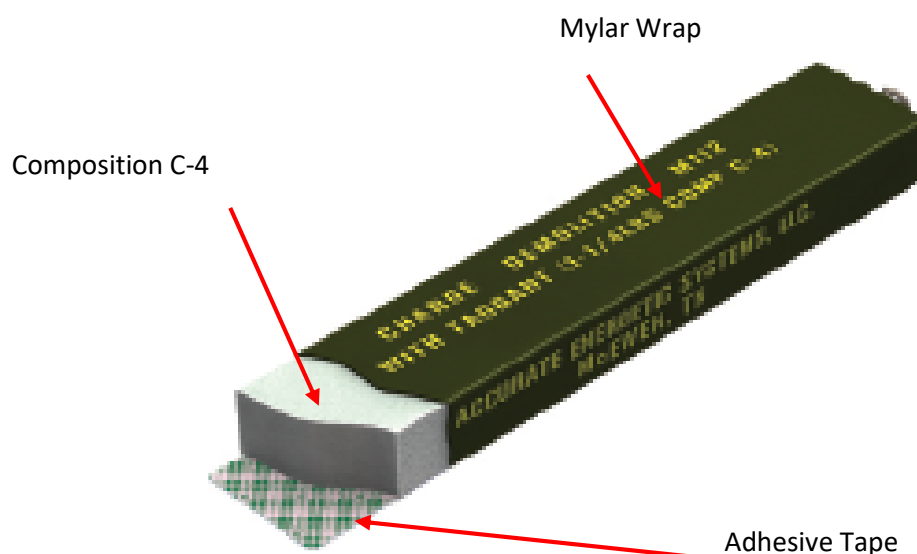
Title	Specification	Title	Specification
Physical Appearance	Aluminum Capsule with connected 2 leg wires	Initiation Power	No. 8 detonator
Primary Filling	PETN	Secondary Filling	DDNP/LA, LS
Firing Current	1 amp	Nom. Time Interval	1- to 20 Milliseconds
Diameter	6.95 mm	Safe current	0.50 amp
Tube Length	60 - 75mm	Friction sensitivity	2 kg
Sensitivity	Electric Impulse	Performance	99%
Water resistance	Excellent	Packing box size	Small – 20 Large -300
Resistance of leg wire	0.05 - 0.055 Ω	Shelf Life	12 Months
Resistance fuse head	1 - 1.2 Ω	Impact sensitivity	20 cm/1 kg
Leg Wire Length	3,5,7,& 10 meter (as per user)	Storage	In dry and well-ventilated conditions.



M112 Demolition Charge



The M112 Demolition Charge with taggant is comprised of a pressed Composition C-4 block wrapped and sealed in Mylar plastic. The M112 includes a pressure sensitive adhesive tape for application to a variety of surfaces. M112 is easily transported, water resistant and can be used to produce a scalable effect. The Composition C-4 is moldable for irregular shaped targets.



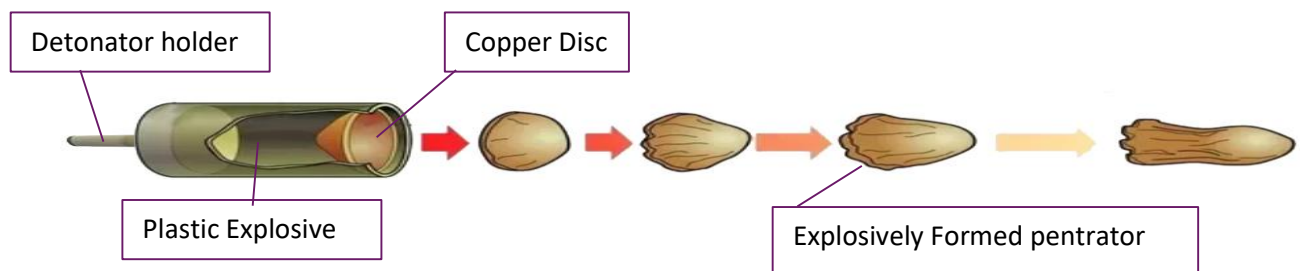


SafeClear Shape Charge

SafeClear is a multipurpose EOD demolition charge available in different sizes. It achieves low order disposal of different sizes of munitions. It consists of a dished copper plate at the end of an Aluminum tube. When filled with plastic explosives like C-4/ PE-4 and detonated, the copper disc is self-forged to form a slug. It penetrates the UXO/ ammunition casing and gives a 90% probability of deflagration. A nominal standoff is used according to the size used giving best results.



Charge can be placed with two versions of stands - a tripod or a clipped stand. Kits are provided for small, medium and large sizes for munitions. For best results two or more charges can be used.



Options

Part no	Item	Purpose and kit items
AET-SC01	SafeClear Mini	Charge Intended for Grenades size, sub-munitions L= 2.5"
AET-SC02	SafeClear Compact	Intended for Artillery Shells, Mortars L= 3"
AET-SC03	SafeClear Standard	Intended for Large Artillery Shells, Small Aerial bomb, Warheads of missiles and rockets. L= 4"
AET-SC04	SafeClear Maxi	Intended for Large Aerial bomb L= 6"
AET-SCK15	SafeClear LSA Kit Clipped	5x SafeClear Mini, 5x detonator holder, 5 x clipped stands, 5x Loading sticks
AET-SCK22	SafeClear LSA Kit tripod	2x SafeClear Compact, 2x detonator holder, 4x Tipod stand, 4x Loading sticks
AET-SCK36	SafeClear Kit bombs	5x SafeClear Standard, 5x SafeClear Maxi, 10x detonator holder, 10 Tipod stand, 10x Loading sticks
AET-SC01B	Detonator holder set	10 x Spare Det holder



Copper Linear Shaped Charge

Linear Shaped Charge (LSC) is an explosive enclosed in a seamless metal sheath and fabricated in continuous lengths shaped in the form of an inverted “V”. When detonated, the V-shaped metal liner with explosive core produces a uniform linear cutting action. The cutting ability of LSC needs study of the detonation rates, core load, metal liners and the density of the material being cut. Copper is generally used with most large core loads.

Core Load Grains/Foot	Width (In)	Height (In)	Approx. Gross weight Lb/ft	Approx standoff (In)	Penetration at Optimum Standoff (In.)
1254	.37	.27	.14	.20	.20
250	.46	.38	.22	.35	.40
400	.48	.51	.31	.37	.50
600	.68	.61	.51	.60	.7
900	.72	.69	.70	.66	.85
1200	.92	.90	.96	.70	1.00
2000	1.15	1.07	1.31	.75	1.50
3200	1.43	1.23	1.66	1.00	1.70
4000	1.55	1.38	2.25	1.15	2.00
10,500	2.23	1.87	4.30	2.50	3.00





Disposal Explosives (Initiators)

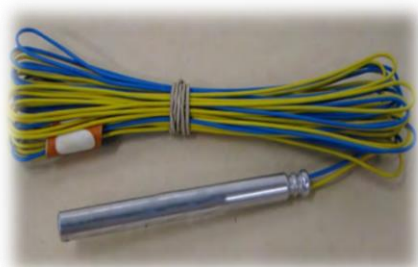
Igniter Safety Fuse

This device is designed to provide a means of ignition for initiation of burn. Igniter consists of a reliable fusehead crimped into a copper tube with a vent hole. The tube has an integral stop to ensure correct fitting to safety fuze. The wires are twisted to reduce the risk of accidental initiation by stray Radio Frequency (RF) interference.



Resistance of fuse head	1-1.2 ohm	Safe current	0.50-amp
Safe current	0.5 A	Firing Current	1A

Electric detonator No. 8



It is high power detonator and initiated by an electric impulse. It can reliably initiate plastic explosives & detonating cords and explosives used in demolition. Electric energy is introduced into the detonator from our remote and wired initiation system like Shrike exploder via a primary circuit wire through detonator leads.

Resistance of fuse head	1-1.2 ohm	Safe current	0.50-amp
Safe current	0.5 A	Firing Current	1A

Non Electric Detonator

It is initiated with Safety Fuse to provide a high power shockwave. It can reliably initiate all type of cap sensitive explosive and primers for demolition work, explosives disposal and mining.



Initiation Power	No 8	Sensitivity	Safety Fuse Flame



Shock Tube & Shock Tube Detonator



The signal shock tube consists of a narrow plastic tube coated inside surface with a very thin layer of high explosives. Shock tube can be initiated by detonators, detonating cord & mechanical shot shell starter device. In resulting shock ways travels at high speed (2000 m/s) through the tube towards detonator connected at the other end.

Appearance	Transparent Surlien	Shock Wave Velocity	2000-2100 m/s
Tensile Strength	25kg at 20	Initiation Sensitivity	No.8 Cap/ Detonating Cord



Disposal Explosives Box Detonator box



Detonators are always required in Explosives demolition and EOD operations. Due to their high sensitivity, strict regulations govern their storage and transportation. Our Detonator Safe boxes are specially designed for the customer needs to different dimensions required to have. In the event of an accidental initiation of a detonator, in the box internal molded chambers, the neighboring chambers will not detonate.

When on demolition exercises locks are provided for security of the box. When the detonator in this box can be stored with the other explosives with 1.4S classification of UN hazard system and mixing of the compatibility groups. Separate storage cabinets can be provided for specialized application to meet the explosives regulations.

Box with Ammunition box

Length: 11.8 inches

Width: 6.1 inches

Height: 7.48 inches



10 DETS DETONATOR CONTAINER



Perfect and safest way to transport electric or nonelectric detonators. It is filled with foam to hold the caps in any transportation.

Max. capacity	10 caps
Cylinder measures	4-1/2" OD
Height without vent or handle	8-3/4"
Overall height is approx	12 inches
Weight	7 Kg
Material	Stainless steel
Safety	Vent and foam filling



Ammunition Carrier box MCU-100



The Munitions Carrier Box MCU-100 is designed to provide a safe, practical, and affordable method for the storage and transportation of operational ammunition used by EOD teams

Critical Parameters:

- *It is suitable for storage of a wide variety and combinations of ready-use ammunition, including detonators, detonating cord, and plastic explosives, as well as safety fuses and linear cutting charges.*
- *It reduces the risk of injury to users and the public in the event of an explosive event.*
- *It has locks for security.*
- *It prevents sympathetic detonation, ensuring no propagation.*
- *It reduces external blast effects.*
- *It has segregated compartments to avoid explosive cross-mitigation.*
- *Box can be tailored to the user's requirements.*
- *The weight is greater than 5kg.*



Disposal Explosives Gun Powder/ Black Powder Burn Bags

Black powder bags have the same powder used in our Safety Fuse. The burning rates of the materials are altered for different applications. It is specially designed for initiation of burning the explosives materials like Pyrotechnics, propellants, gas generators and Blank cartridges. The burning bag is useful in disposal of High explosives when exposed from their casing like after use of Explosives cutting tape. The burning is initiated by the safety fuse of the ISFE.





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