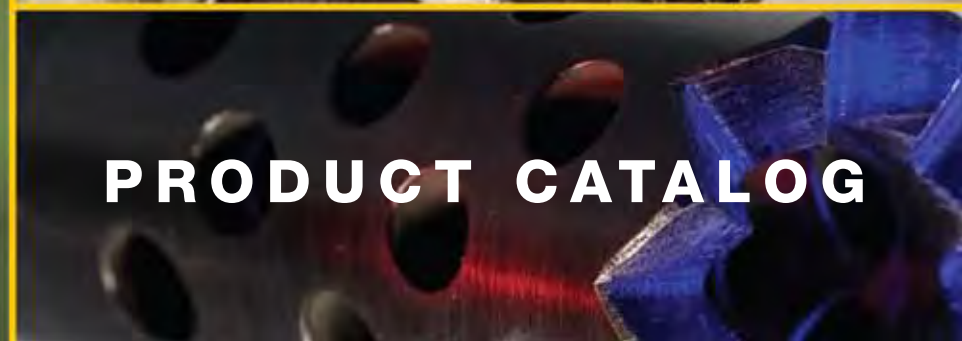




CSI
COMBINED
SYSTEMS



PRODUCT CATALOG

CSI is a U.S. based manufacturer and service provider to the Department of Defense and Department of Homeland Security Agencies. Founded in 1981, CSI's history is rooted in engineering and manufacturing of munitions and high quality components. Today, CSI produces a wide range of solutions in support of military operations.

Non-Lethal Munitions
Launching Systems
Warning Signals & Aerial Flash-Bangs
Tactical Munitions
Training Systems
Fuzes & Weapon Components

CSI is ISO 9001:2000 certified and DOD 4145.26-M compliant. CSI's military and homeland security customers are also development partners. They include the U.S. Army, U.S. Navy, U.S. Marine Corps, USSOCOM, Joint Non-Lethal Weapon's Directorate, U.S. Customs and Border Protection, and the U.S. Department of State. Currently, CSI has two product manufacturing divisions, CTS focusing primarily on munitions and Penn Arms on a variety of shoulder fired launchers. Both divisions engineer and manufacture all of their products in the USA following strict proprietary procedures to continually make product improvements while ensuring SAFETY and RELIABILITY with the most COMPETITIVE PRICING in mind.

WARNING: Products manufactured by Combined Systems are intended to and do cause varying degrees of pain, injury and death. The use of these products is restricted to military personnel in order to control the behavior of individuals, restore order in crowd and riot situations, temporarily incapacitate dangerous persons or fatally wound enemy combatants. Products made by Combined Systems may also cause damage to property. Persons using any Combined Systems products depicted in this catalog should receive proper training to ensure the safest and most effective use of the products.



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Non-Lethal Munitions

2/3

12GA and 40MM projectiles, grenades and flash-bangs in various configurations provide an array of options for force escalation, force multiplication, and non-lethal capabilities for point control and crowd dispersal.

Launching Systems

4/5

High capacity variable payload launching systems can be mounted on a variety of platforms. These systems afford high capacity and superior payload variations with extended range and portability.

40MM Launching Systems

6

Penn Arms, a division of CSI, manufactures versatile, light weight, single and multi-shot 12GA and 40MM launchers.

Warning Signals & Aerial Flash-Bangs

7

An array of air burst and signal flare products. CSI warning signals can be shoulder fired, hand-launched or launched from one of our high-capacity tube launched munition systems.

Tactical Munitions

8/9

Specialized munitions and pyrotechnics enhancing specific tactical capabilities. These tactical munitions support scenarios requiring both the incapacitation of humans and materials.

Training Systems & Programs

10/11

CSI provides training products and services supporting all of its customers and manufacturing divisions. These programs provide technical information and tactical application.

Fuzes and Specialized Military Components

12

Specialized military components, ranging from fuzes to rocket components.

Non Lethal Munitions

CSI manufactures a comprehensive line of non-lethal munitions to include Defense Aerosols, Irritant Munitions, blunt trauma Impact Munitions, Flash-Bangs and Sting-Ball Grenades.



Defense Aerosols – Aerosol spray products are offered in various sizes and delivery systems, used primarily by military police working in civil patrols and detention environments.

Products: CTS 1440 OC Spray
Features: Available in a variety of sizes and formulations.

Irritant Munitions – CN, CS & OC irritant grenades and projectiles address a wide range of scenarios in support of tactical operations or crowd control.

Products: CTS 9230 (M400 type munition)
Features: Unique waterproof features, no agent leakage from the grenade body, fast burning high-volume payloads.



Flash-Bangs – Built and tested to military ammunition standards, CTS Flash-Bangs provide unrivaled versatility and functionality while maintaining a high degree of safety. CTS Flash-Bangs are available in two sizes, the Model 7290 and the Model 7290M Mini-Bang™. The blast pressure is released radially and equally through bottom and top venting ports at an angle of 15° off the vertical axis. The balanced output ensures that the device does not become a dangerous projectile. The flash-bang remains intact and is disposable after use.

Products: CTS 7290, CTS 7290M
Features: Brilliant Flash, 175dB at 5', patented confidence clip for safety, pin shroud design prevents pin from snagging and ensures consistency of pin pull.



To review the comprehensive line of non-lethal munitions, call for a CTS Product Catalog or visit our website at:
www.combinedsystems.com

12 Gauge Options

Product: CTS 2581 Super Sock® Bean Bag
Features: Point control, high energy, patented design for accuracy at extended range and consistency. Kevlar bag construction provides flexibility, strength, and stability in flight.

Product: CTS Model 2550 Rubber Baton (M1012 type munition)
Features: Point control munition, fin-stabilized for accuracy and energy.

Product: CTS Model 2553 (M1013 type munition)
Features: Crowd dispersal, low energy impact from multiple projectiles for broad impact patterns.



Sting-Ball Grenades – CTS Sting-Ball Grenades can be deployed by hand or launched using the M500A2 launching cup. These grenades render multiple effects for indoor or outdoor riot control situations.

Products: CTS 9590 (XM104)
Features: Multi-effects of flash and sound, while ejecting a radius of rubber pellets.



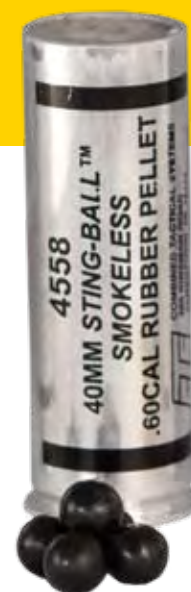
Impact Munitions – Point control and crowd dispersal munitions in 12GA and 40MM. These munitions provide operators with point control options for selective engagement or multiple projectile munitions for crowd dispersal.



40MM Options

Product: CTS 4557 Foam Baton (M1006 type munition)
Features: Point control munition, spin-stabilized for range and accuracy, hi-low propulsion system, compatible with M203, M79 and M32 type launchers.

Product: CTS 4558 – 60 Cal Sting-Ball Round (M1029 type munition)
Features: Crowd dispersal munition, multiple projectiles for maximum coverage of the crowd frontage.



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VENOM™ Launching Systems

Non Lethal/Tube Launched Munition System (NL/TLMS)



CTS VENOM™ is a platform mounted high-capacity variable payload launching system for early warning signals at vehicle checkpoints, moving convoys or for determining the intent of approaching marine vessels. It is effective as a force multiplier, capable of precise area delivery of munitions while enhancing the capabilities of area denial and force escalation in riot control situations.

CTS VENOM™ (NL/TLMS) accepts three cassettes each loaded with ten cartridges. (NSN 1055-01-563-5749)

CTS Venom™ Payload Variations:

- Colored Smoke
- Irritant Smoke
- Impact Munition
- Warning Signal
- Multi-Effect Flash-Bang w/ Impact Munition
- Multi-Effect Flash-Bang w/ Irritant
- Aerial Flash-Bang (NSN 1310-01-563-6423)

V-10

V-10 – is a 40MM light weight, portable version of the VENOM™ NL/TLMS accepting one cassette loaded with ten cartridges.

Features & Benefits:

- Compact, light weight and portable
- Remote electronic fire control capable of selective or rapid fire
- Servo-driven traverse and elevation mechanism
- High capacity
- Payload variation depending on the mission
- Non-Lethal effect at extended range - 1000 meters



Mounting Apps and Accessories

- Launcher, V10009
- Cassette, V10003
- Assembly, Tripod, V10015
- Mounting bracket kit, Tripod, V10016
- Tripod, V10017
- Hand Controller, V10011
- Cable, 10 ft, V10012
- Cable, 40 ft, V10013
- Charger, V10014



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Penn Arms 40MM Launching Systems

Penn Arms launchers are built to withstand abuse in the harshest of environments. Machined to exact specifications using 4140 hardened steel, 6061-T6 mil-spec hard anodized aluminum and DuPont super tough glass filled nylon, they are light weight, versatile and proven to be reliable in the field. The double action trigger, trigger lock push button and hammer lock safeties are standard in all Penn Arms launcher designs.



GL-1 Compact 40MM Launcher – A single break, top opening breach, folding and collapsing stock launcher evolving from the Penn Arms GL-1 design. The GL-1 Compact is intuitively designed with the tactical operator in mind.



Multi-Shot Grenade Launchers (MSGL) – The PGL65 is a patented pump-action 40MM multi-shot grenade launcher. The launcher is cycled by hand after firing to bring the next available round into the firing position. The magazine holds six rounds of low to medium velocity 40MM ammunition.

Under Barrel Mounted Hand Grenade Launcher – A single-shot break-open launcher with a rifled barrel. This launcher can be used as a stand-alone unit fitted with various stocks and sights or mounted underneath a variety of assault rifles.



Stiker-12GA – requires no recoil to cycle its 12-round magazine. It is well suited as a high capacity breaching shotgun and the first choice for robotic platforms. The spring advance magazine cycles high energy breaching rounds and low energy non-lethal munitions.

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GL65-40MM Multi-Shot Grenade Launcher – The GL-65 is a patented spring advance action 40MM MSGL. The spring action cylinder advances the cylinder automatically after each round is launched.

To review the comprehensive line of launchers call for a Penn Arms Product Catalog or visit our website at: www.pennarms.com



Warning Signals & Aerial Flash-Bangs

CSI developed a variety of shoulder fired warning signals and flares in response to military requirements for vehicle check points, during convoys, and on naval vessels. The munitions are launched from 12GA or 40MM launchers to enable service members to determine the intent of approaching vehicles or watercraft.



12GA Warning Signal

Aerial burst flash-bang munition, in 12-gauge with range options of 100 or 200 meters.

Products: 2590-1 (100 Meter Warning Signal, NSN:1370-01-530-6486), 2590-2 (200 Meter Warning Signal, NSN: 1370-01-530-6571)

12GA Flare Bang

Aerial flash-bang munition with a red illumiscent flare for enhanced visual effect in 12-gauge with range options of 100 or 300 meters.

Products: 2590T-1 (100Meter Flare Bang), 2590T-3 (300 Meter Flare Bang)



Viper - Pen Flare Warning Signal

Based on US Navy design, these signals are extremely rugged, portable and reliable. Available in three colors and four kit configurations: red, green, white. The signal flare is projected 250 feet and then initiates an aerial burst flash-bang.

Product: Model 80 (Red), Model 110 (Green), Model 134 (White)



40MM Flare Bang

Aerial burst flash-bang munition, in 40MM with range options of 100, 200 or 300 meters.

Products: 4090-1 (100 Meter Warning Signal, NSN:1310-01-534-8941), 4090-2 (200 Meter Warning Signal, NSN: 1310-01-534-8943), 4090-3 (300 Meter Warning Signal, NSN: 1310-01-534-8945)



Tactical Munitions

CSI conducts research into the development of specialized munitions and pyrotechnics providing certain tactical capabilities. These tactical munitions support scenarios requiring both the incapacitation of humans and materials.

Breaching Munitions

CSI manufactures 12 gauge breaching munitions with unique capabilities. These rounds defeat a variety of locking mechanisms, door hinges and fasteners to facilitate tactical entry. They may also be used to render safe or probe suspected IEDs.

Door Breacher (M1030 type ammunition) – This is a standard 12 gauge frangible slug of compressed zinc. This round has sufficient penetrating capability to disrupt and disable door looks, padlocks, hinges and other fasteners, such as bolts securing burglar bars. Following the impact of hardened door materials, the Door Breacher will disintegrate into a micro-pulverized powder.

Product: CTS 2570, 12GA Door Breacher

Product: CTS 2577, 12GA 24-7 Breacher – An enhanced 12 gauge heavy weight material compressed and encased in a plastic envelope. The 24-7 Breacher enhances breaching capability from greater stand-off distance with minimum collateral damage.



40MM Buckshot (M576 type munition)

The 40MM Buckshot round provides anti-personnel effectiveness in close quarters casting a wide cone of fire forward of the 40MM muzzle.

Product: CTS 4677, CTS 4678

Features: 1100 fps, up to fifteen 00 buck pellets.

FRAG-12™ HE Round

FRAG-12™ is a high-explosive 12-gauge round manufactured and sold exclusively by CSI. FRAG-12™ ammunition benefits military units involved in urban combat. FRAG-12™ is used by warfighters to defeat combatants behind reinforced intermediate barriers, stand-off breaching, probing and rendering safe of suspected IEDs and as an option to disable approaching vehicles. FRAG-12™ can function in smooth bore shotguns with up to intermediate choke barrels.

Product: 2700 HE (High Explosive), 2702 HE EP (High Explosive, Explosively Formed Penetrator)

Features: Arms 1 meter from shotgun muzzle, explodes on surface impact, Mil-Spec compliant fuze assembly.

Product: CTS 4677, CTS 4678



Smoke Grenades and Projectiles

CSI manufactures smoke munitions in a variety of grenade casings and projectile calibers.

Product: CTS 6210 Smoke Grenade, CTS 4210 Smoke Projectile

Features: For marking landing zones and targets, signaling and obscuring tactical movements on the ground.



Thermite Incendiary Grenade (AN – M14 type munition)

CTS Thermite Grenade reaches extremely high heat when it is ignited. It is used to destroy equipment, such as a gun breach or an engine block.

Product: CTS 6214 Thermite Grenade

Features: Reaches 4000 F, burns through 5/16" of steel in less than 20 seconds.



Training Products & Programs



Impact Munition Training System

CSI offers a cost effective training system for its most accurate 40MM impact munition, the 4557 Foam Baton.

Product: CTS 4504 Reload Kit

Features: Consistent accuracy duplicating operational rounds and ease of reloading at a fraction of the cost.



Flash-Bang & Sting-Ball Training Systems

CTS Flash-Bang and Sting-Ball products are complimented by training systems. Each operational device is supported by training devices weighing the same as their operational counterparts, but without the explosive charge. The training devices are bright blue for easy identification and can be used an unlimited number of times. The training fuze for the system has 10 times the output of a standard M201A1 fuze and is designed with a left hand thread so it cannot be accidentally used with other munitions.

Flash-Bang Training Products: CTS 7290T, 7290MT, 201FB

Sting-Ball Training Products: CTS 9590T, 201SB

Features: Weight, dimensions, and fuze delays simulate operational devices. Clearly identified, left hand thread prevents loading of operational fuzes. Reduced risk to end user from blast pressure and reduced risk of fire and damage to environment from thermal-incendiary effects of operational devices. Devices can be used an unlimited number of times.



Fragmentation Grenade Training Device

Specifically designed for training, the Training Frag Grenade is a multiple use device with a high audible primer hit (80dB) and final output (120 dB)

Product: CTS 990010 (reloadable device body), 201155 (fuze)

Features: Multiple use, 120 – 140 dB at 5'



IED Simulator

The Improvised Explosive Device Simulator (the "IED Simulator") is an excellent training tool to expose service members to the threat of improvised explosive devices in a SAFE environment.

Product: CSI 732065 IED Simulator Set (base plate, quick connect cables, firing device and noise-flash diversion devices)

Product: CSI 732059 Reloads (noise-flash diversion devices)

Features: Produces intense sound of longer duration, light, detectable pressure wave and smoke. It is reloadable an unlimited number of times.



CTSTI Training Programs

CSI offers comprehensive training programs on non-lethal munitions and launching systems via the CTS Training Institute (CTSTI). Our programs cover the full line of non-lethal options, tactical munitions, delivery systems, armorer programs and tactical courses. These programs can be tailored to meet your specific needs. Contact CTSTI at 888-989-7800 ext 119 or go to www.combinedsystems.com for more information.

Fuzes & Specialized Military Components

CSI manufactures a variety of specialized military components ranging from very precise fuzes to rocket components. CSI is a trusted sub-contractor to leading defense contractors and is currently one of the major suppliers of fuzes to the US Army. Our components can be found in many type classified weapons, such as the M72 LAW Rocket, HYDRA-70 Rocket System, M67 Fragmentation Grenade, M84 Flash Bang Grenade and M49 Surface Trip Flare.



Rocket Components

- Piezo-Electric Nose Caps
- Stabilizing Rods

Fuzes

- M201A1
- M208
- M213
- Model 201
- M155 Training Fuze
- M228 Training Fuze
- M67 Training Fuze



Trip Wire Spools for M49 Trip Flare



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