



76mm Grenade Launchers



Introduction

During military operations, the protection of one's own troops through the use of smoke as an obscurant is a generally accepted practice, world wide. As a result, vehicular mounted grenade launcher systems are considered to be essential equipment for many types of military vehicles.

The modern enemy reconnaissance and target acquisition capabilities have greatly increased battlefield threats. Wegmann USA offers 76mm vehicular mounted grenade launcher systems designed to actively counter this type of modern enemy threat. Our corporate family has developed a new generation of the 76 mm Wegmann Grenade Launcher Systems. This "second generation" system makes it possible to launch modern anti-infrared smoke grenades. Their camouflaging prevents reconnaissance with day/night vision devices and greatly disrupts acquisition by targeting devices and infrared or heat-seeking missiles.

Additionally, the 76 mm Wegmann Grenade Launcher System has been optimized for the use of high-performance ammunition with improved firing caps and possible special ammunition.

With this new generation 76 mm Wegmann Grenade Launcher System, a substantial contribution to increasing the survivability of both vehicle and crew has been made. The fanning angles and elevation of the vehicle-specific 76 mm Wegmann Grenade Launcher ensures that the launched grenades create an optimal smoke screen between the vehicle and the enemy. This smoke screen helps operating troops to camouflage themselves against reconnaissance, retreat from enemy fire, exit a vehicle while under an enemy threat, or recover defective vehicles while under an enemy threat.

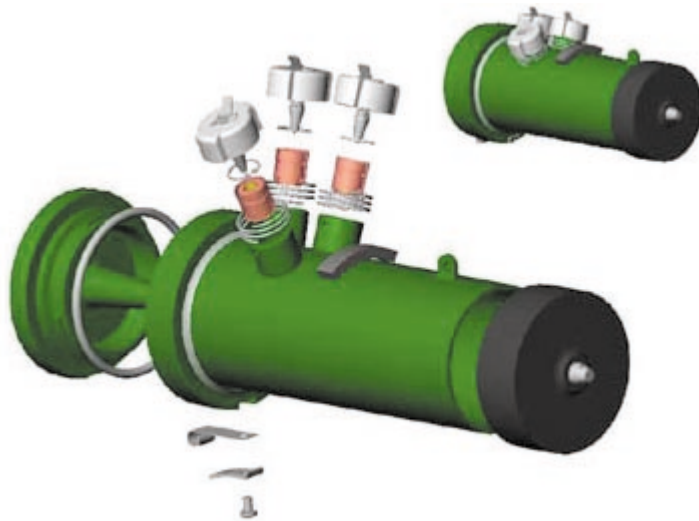
76mm Grenade Launcher System Description:

A typical Wegmann 76mm Grenade Launcher system consists of the following primary components:

- Launch Tubes
- Mounting Provisions
- Control Provisions
- Maintenance Accessories

Launch Tubes:

The picture below depicts a typical multi-purpose launch tube. This tube has three electrical contacts. It has one common ground contact, as well as two separate "hot" contacts for corresponding to either obscurant(smoke) or anti-personnel(HE) ammunition. This three contact system allows the user the option to fire either "smoke", or "HE" ammunition out of any given launch tube without the possibility of an inadvertent firing of an "HE" round.



"Smoke Only" tubes are also available which only have two contacts. Such tubes may offer a system weight savings where a multi-purpose system is not desired. These tubes are not capable of firing "HE" ammunition.

Launch tubes are placed on vehicles in any configuration desired by the end user.

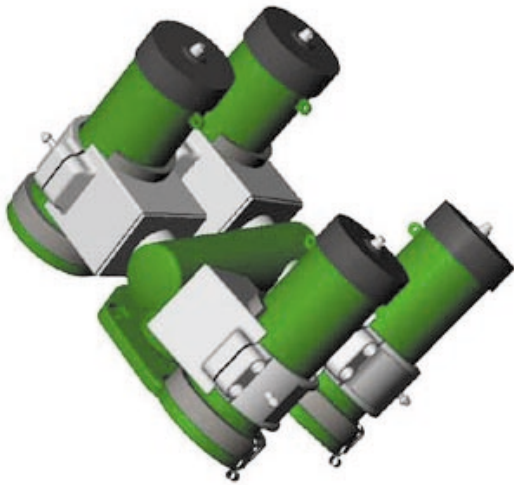
Mounting Provisions:

Mounting provisions typically exist as a bracket which is used to mount the launch tubes on to a given vehicle in a location which is desirable to the end user and which achieves the proper launch angle. The number and types of tube mounted on a vehicle is dependent upon the end users needs.

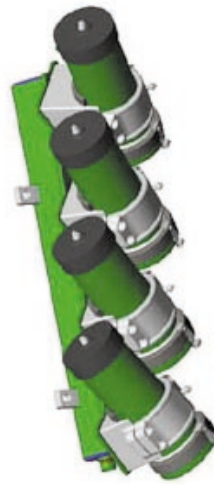
Mounting provisions also typically included some wiring which connects the launch tube to the Control Wiring Harness.

Optional brush guards may be provided with a launcher system.

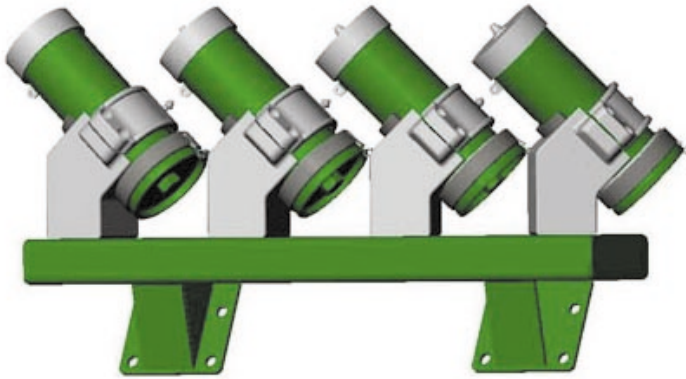
Some typical mounting arrangements are shown below.



"clustered" configuration



vertical configuration



"rail mounted" configuration

Control Provisions:

Typical control provisions include a "Control Box" and a "Control Wiring Harness"

Control Provisions are typically one of two major types:

- 1 - "Smoke Only" control provision for launching grenades for passive optical-optronic protection, or "smoke".
- 2 - "Multi-purpose" control provisions which can launch special munitions such as antipersonnel grenades, as well as passive optical-optronic protection, or "smoke".

Second Generation Control Provisions offer the following advantages over our older Grenade launchers:

Electronic micro-processor based design permits firing of newer "high fire current" grenades which are designed to maximize protection against EMI induced firing.

"Ripple Fire" launching of grenade salvos reduces the mechanical load on vehicles during firing.

-Ammunition loading status is displayed on the control box



"Multi-Purpose" Control Box
(second generation)

Basic, or first generation control provisions are still available from Wegmann USA for proven, reliable firing of "low fire current" ammunition.



"Multi-Purpose" Control Box
(first generation)

Maintenance Accessories:

Typical Maintenance Accessories include: Maintenance Kit, Launch Tube Cleaning Brush, Circuit Tester, and Contact Removal Slide Hammer.



Maintenance Kit



Launch Tube Cleaning Brush



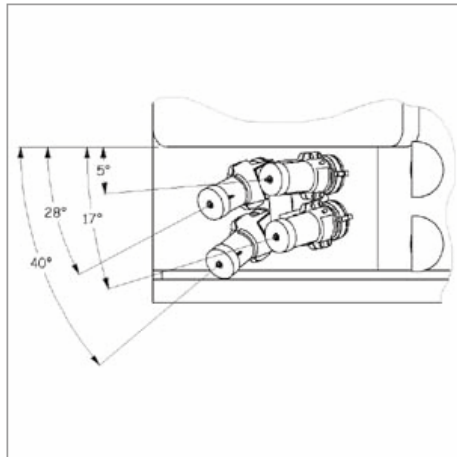
Circuit Tester



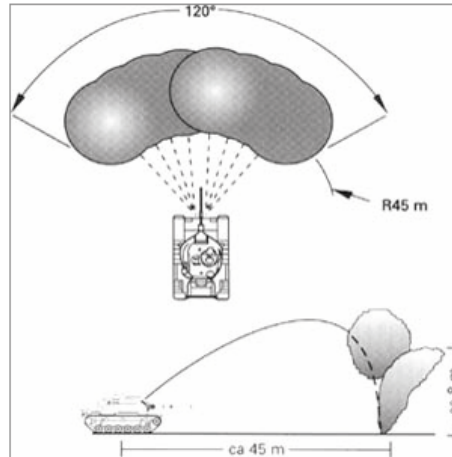
Contact Removal Slide Hammer

System Mounting & Performance Parameters:

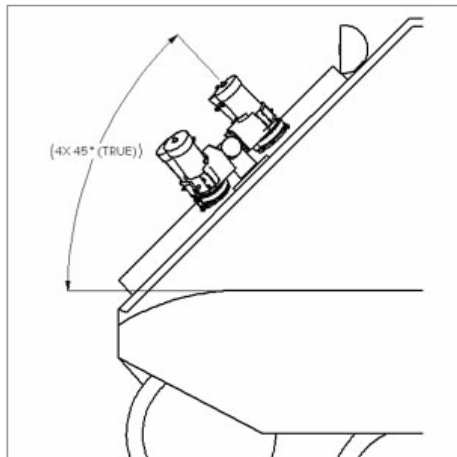
The diagrams below depict typical system mounting and performance parameters:
Azimuth Angles



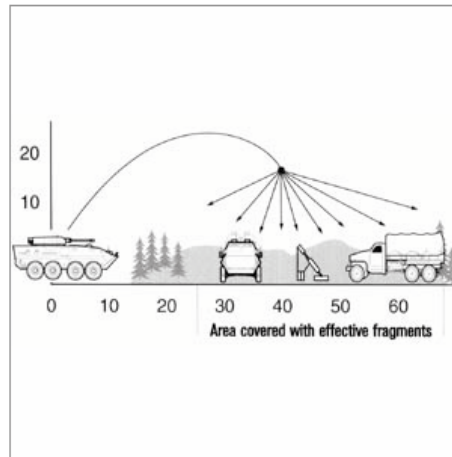
Azimuth Angles



Smoke Dispersion



Elevation Angle



HE Dispersion

An Established history of proven performance:

Our first 76mm grenade launcher system was developed more than 30 years ago by Wegmann & Co. GmbH for the German Army and has become a standard in countries throughout the world. The following countries are among those which have our 76mm Grenade Launcher systems in use:

Austria	Germany	Saudi Arabia
Belgium	Greece	Spain
Canada	Italy	Switzerland
Chile	Malaysia	Thailand
Denmark	Norway	Uruguay
Finland		

Continuous system improvements:

Although our system has a long history, it is still considered to be the best current technology for dispersing obscurants. Our system is constantly becoming more effective through system improvements and as the various ammunition manufacturers develop improved types of ammunition. For example, several manufacturers of ammunition have developed ammunition which obscures a vehicle in both the visual and infrared (IR) spectra. Ammunition & control systems have also been developed for our system to safely operate in environments with increasing levels of electro magnetic interference. Other system improvements are constantly being made in order to improve the systems durability, performance, and value, such as the "second generation" improvements described above.

The widest range of ammunition available:

There are more than 25 types of ammunition available for use with our system. These include various types of smoke, IR smoke, tear gas, "flash-bangs" and anti-personnel or "HE" ammunition. Not only are there numerous types of ammunition available for our system but there are also numerous suppliers for these types of ammunition. This competition among suppliers helps to control ammunition costs for our system. Some systems offer only one source for their ammunition.

Adaptability to any type of vehicle in the world:

Our system has been designed to easily adapt to any type of vehicle. Our team of engineers can work quickly with almost any vehicle manufacturer in the world in order to tailor our system to the end user's needs for a specific vehicle. Our system can be easily retrofitted on to an older vehicle, or integrated into a new vehicle purchase.

Large payload for maximum protection:

When Wegmann & Co. GmbH developed our launcher system more than 30 years ago, they made sure to develop a system with a large enough ammunition size to provide adequate smoke coverage. Furthermore, if the ammunition were not large enough, then an HE grenade would no longer be practical. The Wegmann system has been ideally sized as to give the maximum protection and a full range of ammunition choices. There are other large caliber systems on the world market, however, none have the proven track record, or the ammunition selection, and availability of our system.

A system designed for mission flexibility:

Our multi-purpose launch tube is designed around a multiple contact system. This system allows the user to load and fire any type of ammunition from a given launch tube if so desired. Because of the multiple contact system, however, HE ammunition will only be launched from a given tube if "HE" is selected on the control box from inside the vehicle. This prevents the accidental firing of HE ammunition.

Some systems do not even offer the possibility to fire "HE" ammunition. Any launch tube(s) on one of our launcher systems can be configured such that it will fire either "non-HE"(smoke or tear gas) and "HE" ammunition, exclusively "non-HE" ammunition, or exclusively "HE" ammunition. This flexibility allows our system to be customized to a greater variety of combat or law enforcement roles than other systems on the world market today. Obviously, our system can be configured to change from one role to another very quickly with a minimum number of launch tubes on a vehicle. Some other large caliber systems do not have the ability to fire "HE" and smoke from the same launch tube.