



PRODUCT **GUIDE**

PORTFOLIO INFANTRY

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40 MM LOW VELOCITY

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40 MM X 46, CS-D

The cartridge 40 mm x 46, CS Dust is a highly effective irritant grenade. The projectile is equipped with a powdery CS payload which is released upon impact as a plume; thus there is no risk of starting a fire when used indoors. The projectile is also capable of penetrating plywood doors.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Flameless
- Training variant available
- Penetrates plywood doors

IDEAL FOR

- Crowd Riot Control (CRC) and law enforcement

TECHNICAL DATA

Range of use	10m to 50m
Kinetic energy	approx. 150J
Weight of projectile	approx. 37g

IN SERVICE WORLDWIDE

Police forces (e.g. Germany, Netherlands, Sweden, France ...)



40 MM X 46, CS-P

The cartridge 40 mm x 46, CS-P is a highly effective irritant grenade. The projectile is equipped with a delay element which ignites the payload after a defined time when being fired producing a dense CS cloud. It is designed for outdoor applications but is also capable of penetrating plywood doors and double glazing windows.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Penetrates double glazing windows
- Training variant available
- Penetrates plywood doors

IDEAL FOR

- Crowd Riot Control (CRC) and law enforcement

TECHNICAL DATA

Range of use	10 m to 50 m
Kinetic energy	approx. 150J
Weight of projectile	approx. 37 g

IN SERVICE WORLDWIDE

Police forces (e.g. Germany, Netherlands, Sweden, France ...)



40 MM X 46, HEBE14 SO

The 40 mm x 46 High Explosive Blast Enhanced cartridge is a high performance tactical resource for both military and law enforcement applications. On impact the projectile provides a massive blast effect of approx. 0.2 bar in a distance of 3 meters. In combination with its low fragmentation, the cartridge is suitable for room clearing. A unique feature and game changer concerning the tactical use is the attachable standoff spike. By screwing the standoff spike on top of the projectile the massive blast effect is utilized for breaching light reinforcements such as doors and windows.

USP's

- Minimum fragmentation
- Enhanced blast effect
- Multipurpose tactical resource
- Attachable standoff spike
- Self-destruct fuze

IDEAL FOR

- Room clearing, breaching of reinforcements

TECHNICAL DATA

Range	max. 350m
Delay time	approx. 1.5 s
Emission time	approx. 30s

IN SERVICE WORLDWIDE

n/a – Under development (TRL 7)



40 MM X 46, ILLUMINATION

The cartridge 40 mm x 46, Illumination is a highly effective device for area illumination and target visualization. The projectile is equipped with a delay element which ignites the illumination star after a defined time when being fired producing a strong illumination effect. The parachute attached to the illumination star provides a slow and steady descent over the burning time.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers

IDEAL FOR

- Area illumination and target visualization

TECHNICAL DATA

Altitude	>185 m
Delay time	approx. 4 s
Burning time	>30 s
Light intensity	>80,000 cd, <500 cd (IR)

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Netherlands, Australia, France ...)

VARIANTS

IR Illumination



40 MM X 46, IMPULSE

The cartridge 40 mm x 46, CS, Impulse is a less than lethal ammunition designed as a last resort prior to life firing. It enables users to engage single targets with a high precision within a range of 10 to 50 meters. The projectile can also be equipped with an additional marker dye payload providing the capability to safely tag ringleaders, troublemakers or other offenders of interest.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Effect on target evaluated by independent institute
- Additional marker dye payload available

IDEAL FOR

- Crowd Riot Control (CRC) and law enforcement

TECHNICAL DATA

Range of use	10m to 50m
Kinetic energy	approx. 150J
Weight of projectile	approx. 37g

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Belgium, Australia, Switzerland ...)

VARIANTS

Impulse Marker



40 MM X 46, SMOKE, NT

The cartridge 40 mm x 46, CS, Smoke, NT is a high performance screening device for pinpoint smoke applications. The projectile is equipped with a delay element which ignites the NT smoke composition after a defined time when being fired producing a dense screening smoke maintained by a steady burning rate. The screening smoke provides cover in the visible and Near Infrared (NIR) spectrum.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Effect on target evaluated by independent institute
- Additional marker dye payload available

IDEAL FOR

- Crowd Riot Control (CRC) and law enforcement

TECHNICAL DATA

Range	max. 400m
Delay time	approx. 3 s
Emission time	>20 s

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Belgium, Australia, Switzerland ...)



40 MM X 46, COLOURED SMOKE

The 40 mm x 46, Coloured Smoke is a highly effective signalling and marking device. The projectile is equipped with a delay element which ignites the payload after a defined time when being fired producing a clearly visible coloured smoke plume marking a specific spot, such as landing zones or targets for air support.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Five colours available

IDEAL FOR

- Signalling, area and target marking

TECHNICAL DATA

Range	max. 350m
Delay time	approx. 1.5 s
Emission time	approx. 30s

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Netherlands, Australia, Sweden ...)

VARIANTS

Red, Green, Blue, Yellow and White



40 MM X 46, SOUND & FLASH, DELAY 1.3 S

The 40 mm x 46, Sound & Flash, 1.3 s cartridge is a high performance tactical resource for both military and police applications. The projectile is equipped with a delay element which ignites the payload after a defined time when being fired producing a blinding flash and deafening noise level to daze and disorient the intended target.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Penetrates plywood doors
- Penetrates double glazing windows

IDEAL FOR

- Military Operations in Urban Terrain (MOUT), hostage rescue, law enforcement and counter terrorism

TECHNICAL DATA

Range	max. 100m
Delay time	approx. 1.3 s
Sound intensity	approx. 150 dB
Light intensity	approx. 3 mcd

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Australia, Austria, Belgium ...)



40 MM X 46, SOUND & FLASH, IMPACT FUZE

The 40 mm x 46, Sound & Flash, Impact Fuze is a high performance tactical resource for both military and law enforcement applications. The projectile is equipped with a mechanical impact fuze which ignites the payload upon impact producing a blinding flash and deafening noise level to daze and disorient the intended target.

USP's

- In Service Worldwide
- REACH conform
- Suitable for in service grenade launchers
- Additional CS dust payload available
- Penetrates plywood doors
- Penetrates double glazing windows

IDEAL FOR

- Military Operations in Urban Terrain (MOUT), hostage rescue, law enforcement and counter terrorism

TECHNICAL DATA

Range	max. 400 m
Ignition	Impact fuze
Sound intensity	approx. 150 dB
Light intensity	approx. 3 m cd

IN SERVICE WORLDWIDE

Police and military forces
(e.g. Germany, Australia, Austria, Belgium ...)



40 MM X 46, HEDP14

The 40 mm x 46 High Explosive Dual Purpose 14 cartridge is a high performance tactical resource for military applications. The projectile is equipped with a base fuze featuring a pyrotechnical self-destruct mechanism to maintain highest safety standards. The warhead contains a shaped charge and a fragmentation sleeve. On impact the projectile provides a penetration capability of up to 50 mm RHA steel.

USP's

- Superior penetration capabilities
- High accuracy
- Self-destruct fuze

USE APPLICATIONS

Anti-material, anti-personnel

IN SERVICE WORLDWIDE

Germany

STATUS

In service, qualified



40 MM X 46, HEDP16

The 40 mm x 46 High Explosive Dual Purpose 16 cartridge is a high performance tactical resource for military applications. The projectile is equipped with a base fuze featuring a pyrotechnical self-destruct mechanism to maintain highest safety standards. The warhead contains a specially designed shaped charge developed by Rheinmetall. On impact the projectile provides a superior penetration capability of up to 70 mm RHA steel. This penetration capability in combination with a massive fragmentation makes this cartridge a game changer for modern infantry operations.

USP's

- Superior penetration capabilities
- High accuracy
- Self-destruct fuze

USE APPLICATIONS

Anti-material, anti-personnel

IN SERVICE WORLDWIDE

Germany

STATUS

In service, qualified



40 MM X 46, HEFRAG14

The 40 mm x 46 High Explosive Fragmentation 14 cartridge is a high performance tactical resource for military applications. The projectile is equipped with a base fuze featuring a pyrotechnical self-destruct mechanism to maintain highest safety standards. The warhead provides a specially designed fragmentation sleeve. On impact the projectile provides a superior fragmentation with more than 1,000 fragments.

USP's

- Superior fragmentation
- High accuracy
- Self-destruct fuze

USE APPLICATIONS

Anti-personnel

IN SERVICE WORLDWIDE

Germany

STATUS

In service, qualified



40 MM X 46, HEFRAG16

The 40 mm x 46 High Explosive Fragmentation 16 cartridge is a high performance tactical resource for military applications. The projectile is equipped with a base fuze featuring a pyrotechnical self-destruct mechanism to maintain highest safety standards. The warhead provides a specially designed fragmentation pattern developed by Rheinmetall. On impact the projectile provides a superior fragmentation with a lethal radius up to 10m and more than 1,000 fragments. The 40 mm x 46 High Explosive Fragmentation 16 cartridge is a game changer for modern infantry operations.

USP's

- Superior fragmentation
- High accuracy
- Self-destruct fuze

USE APPLICATIONS

Anti-personnel

IN SERVICE WORLDWIDE

Germany

STATUS

In service, qualified

40 MM HIGH VELOCITY

- 22 40mm x 53 Drill
- 23 40mm x 53 Target Practice ammunition
- 24 40mm x 53 HE-T, ESD, IM
- 25 40mm x 53 HEDP-T, ESD, IM
- 26 40mm x 53 HE-T, ESD, ABM, IM
- 27 40mm x 53 HEDP-T, ESD, ABM, IM



40 MM X 53 DRILL

The 40 mm x 53 Drill cartridge is designed to train personnel handling ammunition as well as loading and unloading weapons.

USP's

- No explosives/completely inert
- All-aluminum
- Belted
- Fully REACH compliant

IDEAL FOR

- Training ammunition/weapon handling

TECHNICAL DATA

Length	112 mm
Weight	370 g

PRODUCT VARIANTS



40 MM X 53 TARGET PRACTICE AMMUNITION

The 40 mm x 53 Target Practice ammunition is designed to train personnel handling ammunition, weapon and other related equipment (e.g. FCS) in different scenarios. Due to ballistically match with Rheinmetalls live ammunition the gunner gets the feeling where to aim to hit the target in combat operations.

USP's

- High accuracy
- Fully IM compliant – HC 1.4 S
- NATO qualified
- Fully REACH compliant

IDEAL FOR

- Training ammunition/weapon handling
- Train as you fight

TECHNICAL DATA

Length	112 mm
Weight	380 g
Impact signature	orange
Tracer	6 s
Max. range	2,200 m

PRODUCT VARIANTS

- Target Practice, Target Practice Marker, Target Practice Marker Day/Night
- Optionally available w/o tracer element



40 MM X 53 HE-T, ESD, IM

The 40 mm x 53 High Explosive cartridge with tracer (HE-T) is designed to engage lightly armored and soft targets. The Rheinmetall nose fuse combines several safety features: electronic self-destruct after predetermined time of flight, electronic spin decay self-destruct as well as redundant PD function, mechanical and electrical. Due to these features the dud rate of this ammunition type is <1%. The functional reliability is $\geq 98\%$.

USP's

- High accuracy and reliability
- Very good fragmentation performance
- Electrical and spin decay self-destruct
- NATO qualified
- Fully REACH compliant

IDEAL FOR

- Engaging lightly armored targets (like vehicles)
- Engaging soft targets

TECHNICAL DATA

Length	112 mm
Weight	385 g
Fragments	>1,500
Max. range	2,200 m

PRODUCT VARIANTS

Optionally available w/o tracer element



40 MM X 53 HEDP-T, ESD, IM

The 40 mm x 53 High Explosive Dual Purpose cartridge with tracer (HEDP-T) is designed to engage lightly armored and soft targets. The Rheinmetall nose fuse combines several safety features: electronic self-destruct after predetermined time of flight, electronic spin decay self-destruct as well as redundant PD function, mechanical and electrical. Due to these features the dud rate of this ammunition type is <1%. The functional reliability is $\geq 98\%$.

USP's

- High accuracy and reliability
- ≥ 70 mm penetration capability of RHA
- Electrical and spin decay self-destruct
- NATO qualified
- Fully REACH compliant

IDEAL FOR

- Engaging lightly armored targets (like vehicles)
- Engaging soft targets

TECHNICAL DATA

Length	112 mm
Weight	385 g
Fragments	>1,200
Penetration	≥ 70 mm
Max. range	2,200 m

PRODUCT VARIANTS

Optionally available w/o tracer element



40 MM X 53 HE-T, ESD, ABM, IM

The 40 mm x 53 High Explosive Airburst cartridge with tracer (HE-T, ABM) is designed to engage soft targets in defilade. Its high accuracy is granted by Rheinmetall's patented, unique IM propulsion system. The airburst capability requires a Fire Control System (FCS) and an InfraRed Programming Unit (IR-PU).

USP's

- High accuracy and reliability
- Very good fragmentation performance
- Electrical and spin decay self-destruct
- NATO qualified
- Fully REACH compliant
- IR signal not jammable

IDEAL FOR

- Engage soft targets in defilade (ABM)
- Engage lightly armored targets
- Repulsing an attack

TECHNICAL DATA

Length	112 mm
Weight	385 g
Fragments	>1,500
Max. range	2,200 m

PRODUCT VARIANTS

Optionally available w/o tracer element



40 MM X 53 HEDP-T, ESD, ABM, IM

The 40 mm x 53 High Explosive Dual Purpose cartridge with tracer (HEDP-T, ABM) combines airburst with penetration capability to engage lightly armored as well as targets in defilade. The Rheinmetall nose fuse combines several safety features that result in a dud rate of <1%. The functional reliability is $\geq 98\%$. The airburst capability requires a Fire Control System (FCS) and an InfraRed Programming Unit (IR-PU).

USP's

- High accuracy and reliability
- ≥ 70 mm penetration capability of RHA
- Electronical and spin decay self-destruct
- NATO qualified
- Fully REACH compliant
- IR signal not jammable

IDEAL FOR

- Engage soft targets in defilade (ABM)
- Engaging lightly armored targets (like vehicles)
- Engaging soft targets

TECHNICAL DATA

Length	112 mm
Weight	385 g
Fragments	>1,200
Penetration RHA	≥ 70 mm
Max. range	2,200 m

PRODUCT VARIANTS

Optionally available w/o tracer element

SOUND & FLASH

- 30 1 Bang VANGUARD
- 31 2 Bang BTV-EL
- 32 6 Bang
- 33 7 Bang Propelled Charges
- 34 9 Bang
- 35 Training Body & Effect Charge



1 BANG VANGUARD

The 1 Bang VANGUARD is a high performance stun grenade which produces blinding flash and deafening noise levels to daze and disorient intended targets. The Bottom Top Venting (BTV) system combined with the Extended Length (EL) body ensures a high degree of hand safety for the user.

USP's

- High function reliability
- 100% X-ray control
- User safe BTV-EL system
- Reduced movement of grenade
- Exceptional water tightness (20 m)

IDEAL FOR

- MOUT
- Hostage rescue
- High risk arrest

TECHNICAL DATA

Dimensions	Ø42 x 132 mm
Weight	315 g
Delay	0.5 s or 1.5 s
Sound intensity	180 dB
Light intensity	15.5 Mio cd

PRODUCT VARIANTS

170 dB twist-pull pin



2 BANG BTV-EL

The 2 Bang BTV-EL is a high performance stun grenade which produces blinding flash and deafening noise levels to daze and disorient intended targets. The Bottom Top Venting (BTV) system combined with the Extended Length (EL) body ensures a high degree of hand safety for the user.

USP's

- High function reliability
- 100% X-ray control
- User safe BTV-EL system
- Reduced movement of grenade
- Exceptional water tightness (20 m)

IDEAL FOR

- MOUT
- Hostage rescue
- High risk arrest

TECHNICAL DATA

Dimensions	Ø 42 x 132 mm
Weight	364 g
Delay	0.5 s or 1.5 s
Sound intensity	170 dB
Light intensity	8 Mio cd

PRODUCT VARIANTS

Twist-pull pin



6 BANG

The 6 Bang is a high performance irritation device which produces blinding flash and deafening noise levels to daze and disorient intended targets. The Bottom Venting (BV) system ensures a high degree of hand safety and the heavy steel body reduces the movement of the device.

USP's

- High function reliability
- 100% X-ray control
- User safe Bottom Venting system
- Reduced movement of grenade
- Training system available

IDEAL FOR

- MOUT
- Hostage rescue
- High risk arrest

TECHNICAL DATA

Dimensions	Ø 40 x 112 mm
Weight	563 g
Delay	1.0 s
Sound intensity	165 dB
Light intensity	4 Mio cd

PRODUCT VARIANTS

150 dB training system/twist-pull pin



7 BANG PROPELLED CHARGES

The 7 Bang is a high performance distraction device which produces blinding flash and deafening noise levels to daze and disorient intended targets. Seven effect charges eject from the top of the canister in a peripheral dispersion with a radius of up to 20 m.

USP's

- High function reliability
- Propelled charges
- Peripheral dispersion
- Ideal for bigger rooms
- Ideal for snow/deserts

IDEAL FOR

- Crowd riot control
- Hostage rescue
- High risk arrest

TECHNICAL DATA

Dimensions	Ø 60 x 135 mm
Weight	264 g
Delay	1.5 s
Sound intensity	160 dB
Light intensity	2.0 Mio cd

PRODUCT VARIANTS

n. a.



9 BANG

The 9 Bang is a high performance irritation device which produces blinding flash and deafening noise levels to daze and disorient intended targets. It provides a long effect duration and is available in steel or aluminium version.

USP's

- High function reliability
- 100% X-ray control
- Less weight for user (aluminium)
- Reduced movement of grenade (steel)
- Long effect duration

IDEAL FOR

- MOUT
- Hostage rescue
- High risk arrest

TECHNICAL DATA

Dimensions	Ø 40 x 112 mm
Weight	330 g / 725 g
Delay	0.5 s or 1.5 s
Sound intensity	165 dB
Light intensity	2.5 Mio cd

PRODUCT VARIANTS

Aluminium or steel/twist-pull pin



TRAINING BODY & EFFECT CHARGE

The Sound & Flash Training System is a realistic, low cost training variant. A re-usable body, identical in shape and weight to the operational items, is fitted with a one-time use training capsule. It produces a single reduced flash and noise level.

USP's

- High function reliability
- Train as you fight
- Low cost training
- Reusable body
- Identical in shape to operational items

IDEAL FOR

- Military and Law Enforcement Training

TECHNICAL DATA

Dimensions	Ø40 x 132 mm
Weight	67 g + 267 g
Delay	0.5, 1.0 or 1.5 s
Sound intensity	150 dB
Light intensity	0.5 Mio cd

PRODUCT VARIANTS

Ø40 x 112 body/Twist-Pull Pin

COMBAT HANDGRENADES

- 38 Handgrenade 85
- 39 Handgrenade 86
- 40 Expandable 08/Cutting Charge
- 41 BEHGr
- 42 Air Burst HGr – SHGR 07



HANDGRENADE 85

The hand grenade 85 is the perfect solution in form, fit and function. This hand grenade version guarantees either a perfect fragment performance/distribution and an effective blast for indoor battles.

USP's

- Effective fragmentation and pressure performance for battles in an urban area
- Available with twist and pull fuze
- Delay time adjustable to customers request
- High safety standard

IDEAL FOR

- Close quarter battles and open battle field

TECHNICAL DATA

Dimensions	Ø 54 (57) x 96 mm
Weight	180 g or 340 g
(Offensive or fragmentation)	
Delay (+63°C to -46°C)	3.0s-5.0s
Effective fragmentation	15 m
Effective blast room size	Up to 40m ³

PRODUCT VARIANTS

Fragmentation Handgrenade 85 (SplHGr 85)/Offensive Handgrenade 85 (OffHGr 85): Training version available



HANDGRENADE 86

The hand grenade 86 is a lightweight hand grenade system with high safety features and a perfect performance for close quarter battle. This hand grenade lightens the soldier's load and reduces the probability of hazard to the operator.

USP's

- Effective Fragmentation and pressure performance in close quarter battle
- Reduced safety distance
- Delay time adjustable to customers request
- High safety standard

IDEAL FOR

- Close quarter battles

TECHNICAL DATA

Dimensions	Ø44 x 77 mm
Weight	180 g or 106 g
(Fragmentation or offensive)	
Delay (+63°C to -46°C)	1.0 s–2.0 s or 2.0 s–4.0 s
Effective fragmentation	10 m (SplHGr 86)/5 m (ShockMax)
Effective blast room size	Up to 40 m ³

PRODUCT VARIANTS

Fragmentation Handgrenade 86 (SplHGr 86)/ShockMax/Offensive Handgrenade 86 (OffHGr 86); Training version available



EXPANDABLE 08/CUTTING CHARGE

The expandable 08 is a modular offensive grenade which provides the user blast effect options for different operation areas.

The cutting charge in combination with an expandable 08 module is a perfect system for demolition and breaching actions.

USP's

- High and adjustable blast performance
- High penetration performance with the cutting charge
- Available with twist and pull fuze
- Delay time adjustable to customers request
- High safety standard

IDEAL FOR

- Close quarter battles, bunkers and caves
- Demolition of sensitive goods and breaching actions

TECHNICAL DATA

Dimensions (with 3 explosive modules)	Ø 56 x 163
Weight (with 3 explosive modules)	440g
Delay (+63°C to -46°C)	3.0s - 5.0s
Effective blast	Up to 40m ³ room size/1 module; 80m ³ room size/2 modules; 200m ³ room size/3 modules
Penetration effect	>15 mm armor steel

PRODUCT VARIANTS

Usable with different numbers of explosive modules;
Training version available



BEHGr

The Blast Enhanced is an excellent offensive hand grenade with enhanced pressure effects for effective actions in big rooms, bunker and cave systems.

USP's

- High and long lasting blast performance
- Small dimensions compared to the performance
- Available with twist and pull fuze
- Delay time adjustable to customers request
- High safety standard

IDEAL FOR

- Operation in urban areas, bunkers and caves

TECHNICAL DATA

Dimensions

Ø 585 x 123 mm

Weight

393 g

Delay (+63°C to -46°C)

3.0 s – 5.0 s

Effective blast

Up to 200 m³ room size

PRODUCT VARIANTS

NA



AIR BURST HGR – SHGR 07

The air burst hand grenade “SHGR 07” is a unique combat hand grenade with an excellent performance and high safety features.

The detonation height of 1.5 to 2.0m ensures a perfect incapacitation level within a radius of 4 m against a protected target as well as targets behind a cover, barricade or a low wall.

USP's

- Detonation height of 1.5 to 2.0m
- Maximum incapacitation at 4 m radius
- Easy change from air burst to ground burst
- Shape of body direct the fragments in a downward dispersion pattern
- High safety standard

IDEAL FOR

- Defeat of soft targets in defilade

TECHNICAL DATA

Dimensions	Ø69 x 130 mm
Weight	462 g
Delay (+63°C to -46°C)	3.0s to 5.5 s
Effective fragmentation	5 m (Air Burst); 20 m (Ground Burst)

PRODUCT VARIANTS

Training version available

SIGNALLING & ILLUMINATION

46 Mithras

47 Trip Flare



MITHRAS

MITHRAS is a family of hand fired rockets with a wide variety of effects which can be fired up to ranges of 300m, 600m and 1000m. The base of the system is a modular rocket which carries different payloads. All variants of the MITHRAS family operate with one ignition system, therefore, the handling of the rocket family is very easy to train.

USP's

- Wide variety of effects
- Simple and safe handling (STANAG 4497)
- Low recoil and low smoke signature
- Commonality (one ignition for all systems)

IDEAL FOR

- Illumination
- Signalling

TECHNICAL DATA

Dimensions	Ø45 x 350 mm
Weight	500g
Range	300m
Burning time	>27s
Light intensity	>150,000 cd

PRODUCT VARIANTS

Effects: Illumination/IR-Illumination, Signalling Flares and Coloured Smoke

Ranges: 300m, 600m, 1000m



TRIP FLARE

The FLAR GRD ILUM TRIP Signal Kit can be used for warning- and illumination purposes. Different flares can be applied employing the same mechanical base element of the trip flare. Once the ignition unit has been set up, the effects can be changed depending on whether it is day or night or when the tactical situation has changed.

USP's

- High safety due to separated pyrotechnic & ignition system
- Installation material included
- Ignition system reusable for training purposes

IDEAL FOR

- warning for areal & camp protection
- illumination

TECHNICAL DATA

Dimensions (Flare)	Ø 35.5 x 105 mm
Dimensions (ignition unit)	115 x 90 x 52 mm
Total weight	450 g
Light intensity	80,000 cd
Burning time	43 s

PRODUCT VARIANTS

- Illumination/IR-Illumination
- NATO Green/Desert (Sand Colour)

SMOKE

- 50 Smoke Hand Grenade 74 mm, 80 s, KM
- 51 Smoke Hand Grenade 44 mm, 80 s, NT
- 52 Handgrenade Screening RP SPIRICO
- 53 Signalling Coloured Smoke Grenades



SMOKE HAND GRENADE 74 MM, 80 S, KM

The KM Smoke is a high performance smoke hand grenade. It is designed to assist armed forces in temporarily obscuring the line-of-sight of enemy forces and can also blockade the opponents escape route. With an emission time of approximately 80 seconds an effective and long lasting smoke protection is created.

USP's

- High function reliability
- Less-toxic smoke
- Ideal for humid climates
- Progressive and dense smoke
- Long effect duration

IDEAL FOR

- Interrupting the line-of-sight
- Increasing survivability by invisibility
- Training purposes

TECHNICAL DATA

Dimensions	Ø74 x 149 mm
Weight	810 g
Delay	1.5 s
Emission time	80 s

PRODUCT VARIANTS

n.a.



SMOKE HAND GRENADE 44 MM, 80 S, NT

The NT Smoke is a high performance smoke hand grenade. It is designed to assist armed forces in temporarily obscuring the line-of-sight of enemy forces and can also blockade the opponents escape route. With an emission time of approximately 80 seconds an effective and long lasting smoke protection is created.

USP's

- High function reliability
- Small body dimensions
- Easy user handling
- Progressive and dense smoke
- Pressed without body shell, no residues
- Long effect duration

IDEAL FOR

- Interrupting the line-of-sight
- Increasing survivability by invisibility

TECHNICAL DATA

Dimensions	Ø 44 x 112 mm
Weight	330 g
Delay	1.5 s
Emission time	80 s

PRODUCT VARIANTS

Twist-Pull-Pin



HANDGRENADE SCREENING RP SPIRKO

The SPIRKO red phosphor smoke hand grenade provides a rapid reaction invisibility.

In less than one second after burst the SPIRKO generates a smoke screen which is effective against visual sight and aiming equipment, night-vision devices, laser range finders and also sensor operating in the near IR-spectrum for a short time.

USP's

- Effective smoke protection within 1 s
- Smoke screen dimensions approx. 10 x 2.5 m
- Min. 25 s smoke duration
- High safety standard

IDEAL FOR

- Spontaneously interrupting the line of sight

TECHNICAL DATA

Dimensions	Ø62x132 mm
Weight	380 g
Delay (+63°C to -46°C)	2.5 s to 4.5 s
Effective Smoke	1 s
Smoke duration	min. 25 s

PRODUCT VARIANTS

NA



SIGNALLING COLOURED SMOKE GRENADES

The GREN HND Ø63.5 SMK Smoke Grenades are used to generate brilliant coloured smoke signals. Their bright, recognizable colours can be used for example to mark drop zones and to indicate wind direction. Available in a variety of colours, initiated with a fly-off lever ignition system the grenade is easy and reliable to use.

USP's

- Long and intensively evolving coloured signal of 60 seconds
- Large variety of colours
- Clearly identifiable colours from long distance

IDEAL FOR

- Marking targets or drop zones
- Ground-to-ground or ground-to-air signalling
- Indicating wind direction
- White smoke grenade can also be used as screening smoke

TECHNICAL DATA

Dimensions	Ø63.5 x 135 mm
Weight	315 g
Burning time	60 s
Delay	2.0 s

PRODUCT VARIANTS

Colours: red, yellow, green, blue, orange, violet, white

TRAINING

56 Simulator Battle Sound



SIMULATOR BATTLE SOUND

SIM SND FRIC IGN is used for battlefield simulation and training. It is ignited by striking the friction head on the friction surface on top of the safety cap. The Simulator Sound has been designed to be extremely safe to use – it has a two stage safety fuze, clear indication of ignition, little to no debris from detonation and a handle that remains intact after detonation.

USP's

- Highest user safety in handling
- No dangerous fragments or parts
- Bio-degradable

IDEAL FOR

- Simulation
- Training

TECHNICAL DATA

Dimensions	Ø23 x 160 mm
Weight	65 g
Ignition	Friction ignition
Delay	5–9 s

PRODUCT VARIANTS

130 dB (at 10m)/145 dB (at 10m)/
 Electric Ignition 145 dB (at 10m)

CROWD & RIOT CONTROL

- 60 40 mm x 123 Irritant Cartridge
- 61 40 mm x 123, Sound & Flash, 4
- 62 Irritant Device 24 g CS



40 MM X 123 IRRITANT CARTRIDGE

The 40x123 IRRT CS8 Cartridge consists of an aluminium case which contains a propellant charge and a projectile. The cartridge is designed to be fired from all standard 40 mm LV grenade launchers during riot control situations. 8 containers are ejected from the projectile during flight, each of them generating CS irritant.

USP's

- Wide spread distribution of 8 CS irritant containers
- Low risk of injuries due to very low kinetic energy of the payloads
- No throwback to the forces

IDEAL FOR

- Crowd & Riot Control (CRC)
- Training

TECHNICAL DATA

Dimensions	Ø40 x 123 mm
Weight	200 g
Emission time	22.5 s

PRODUCT VARIANTS

- 30–60 m CS/30–60 m Training
- 60–90 m CS/60–90 m Training
- 120–150 m CS/120–150 m Training



40 MM X 123, SOUND & FLASH, 4

The 40x123 mm SND 4 Cartridge is designed to be fired from all standard LV grenade launchers for use in riot control situations. The cartridge can be used as a warning shot fired in the proximity of rioting crowds.

USP's

- Four sound & flash payload containers
- Very low kinetic energy of the expended payloads
- Low risk of injuries
- Sound pressure ≥ 150 dB at 2 m

IDEAL FOR

- Crowd & Riot Control (CRC)
- Training

TECHNICAL DATA

Dimensions	Ø40 x 123 mm
Weight	167 g
Range	60–90 m

PRODUCT VARIANTS

4 Bang



IRRITANT DEVICE 24 G CS

Irritant Grenade GREN HND CS24 g FOL with fly-off lever is designed for the use in anti-riot and crowd control situations, giving a dispersal of either CS or white smoke for training.

USP's

- Approved system
- Fly-off-lever with twist/pull pin

IDEAL FOR

- Crowd & Riot Control (CRC)
- Training

TECHNICAL DATA

Dimensions	Ø 50 x 136 mm
Weight	300 g
Irritant	24 g CS
Burning time	20 s
Delay	2.0 s

PRODUCT VARIANTS

CS/Training (White Smoke)

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