



المتقدمة بايروتكنيكس  
Advanced PyroTechnics



Igniting Solutions for a Safer Future



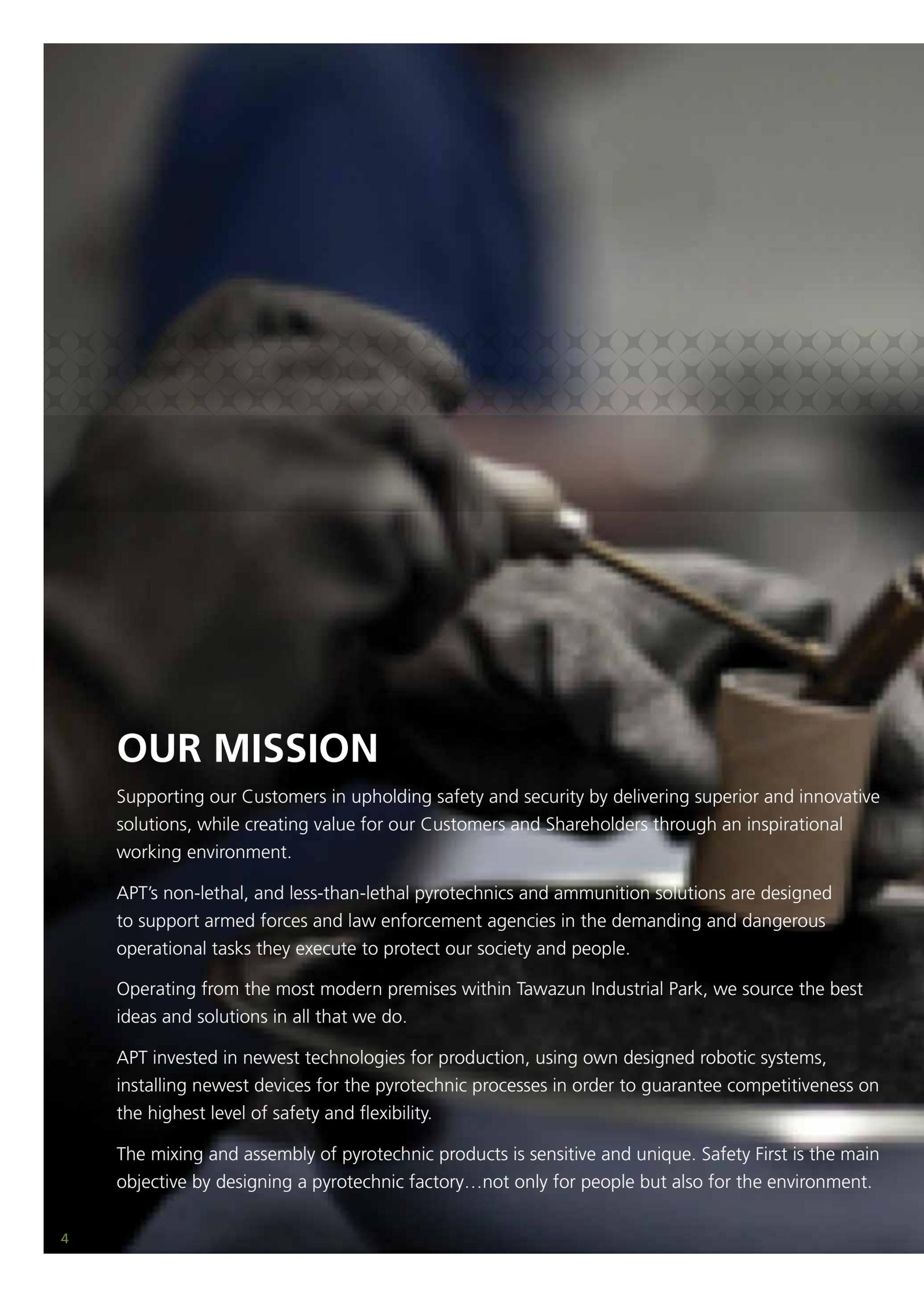
A Tawazun Subsidiary



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## OUR MISSION

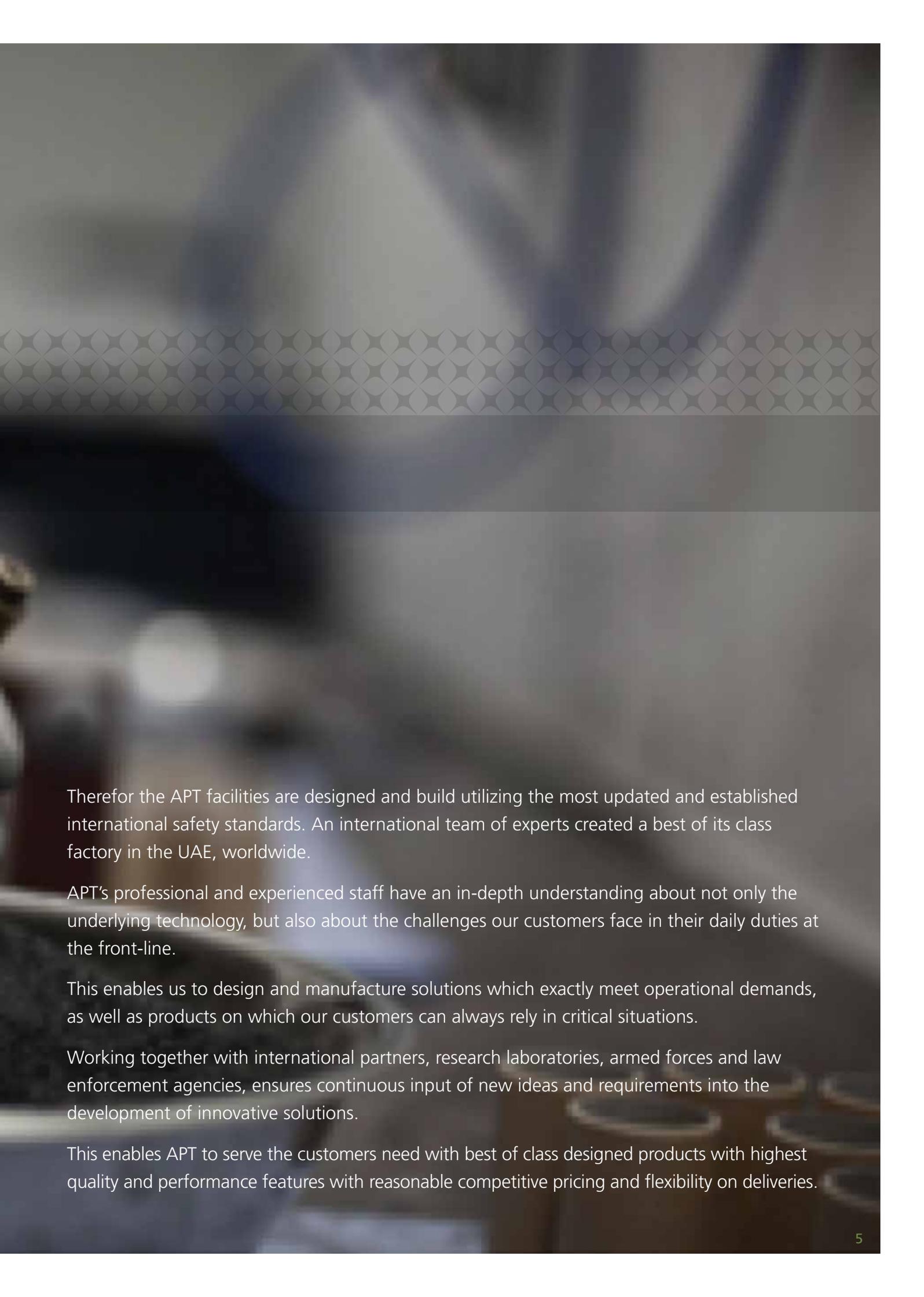
Supporting our Customers in upholding safety and security by delivering superior and innovative solutions, while creating value for our Customers and Shareholders through an inspirational working environment.

APT's non-lethal, and less-than-lethal pyrotechnics and ammunition solutions are designed to support armed forces and law enforcement agencies in the demanding and dangerous operational tasks they execute to protect our society and people.

Operating from the most modern premises within Tawazun Industrial Park, we source the best ideas and solutions in all that we do.

APT invested in newest technologies for production, using own designed robotic systems, installing newest devices for the pyrotechnic processes in order to guarantee competitiveness on the highest level of safety and flexibility.

The mixing and assembly of pyrotechnic products is sensitive and unique. Safety First is the main objective by designing a pyrotechnic factory...not only for people but also for the environment.



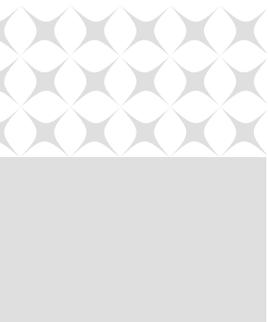
Therefore the APT facilities are designed and built utilizing the most updated and established international safety standards. An international team of experts created a best of its class factory in the UAE, worldwide.

APT's professional and experienced staff have an in-depth understanding about not only the underlying technology, but also about the challenges our customers face in their daily duties at the front-line.

This enables us to design and manufacture solutions which exactly meet operational demands, as well as products on which our customers can always rely in critical situations.

Working together with international partners, research laboratories, armed forces and law enforcement agencies, ensures continuous input of new ideas and requirements into the development of innovative solutions.

This enables APT to serve the customer's need with best of class designed products with highest quality and performance features with reasonable competitive pricing and flexibility on deliveries.



## COLORED SMOKE

### RED / GREEN / WHITE / YELLOW / GREY / PURPLE / BLUE / ORANGE

Armed Forces, Special Forces, Law Enforcement Agencies and Rescue Teams have used various kinds of pyrotechnic smoke for decades for signaling purposes. Some of the applications of colored smoke are to locate troops for rescue forces, define wind direction and speed for helicopter landings, marking positions and boundaries or transmitting coded messages.

The APT product range of smoke applications includes different colors, various burning times and volumes and selectable ignition systems to meet the requirements for different operational situations.

Our designs fulfil the highest safety and environmental standards, for example the EU-REACH regulations (Registration, Evaluation, Authorisation

and Restriction of Chemicals) to ensure that users are not harmed by hazardous substances.

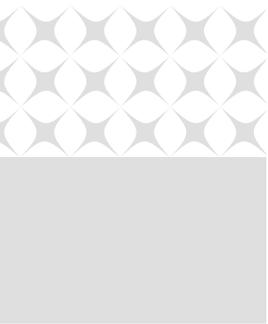
APT smoke grenades are water resistant and are delivered in seamless aluminium cans, corrosion and humidity protected, to ensure a long shelf-life.

The density, speed of deployment and burning duration of the smoke cloud can be adjusted. The grenades can be delivered in various diameters (44mm to 63mm) and heights, depending on customer specification.

The standard burning time features ranges between 15 and 300 seconds.

The brilliant colored smoke clouds are based on organic dyes, which are environmentally friendly.





# SCREENING SMOKE

## 40 MM / 60 MM / 76 MM / CYLINDRIC / CAN / CUSTOMER SPECIFIC VERSIONS

Camouflage is a crucial asset to protect operating forces in operation areas.

The screening smoke should deploy very quickly and develop a density covering own Forces and mission critical objects completely in a minimum of time.

High density and absolute reliability in all weather and humidity conditions are essential for the effective use of screening smoke.

Risk of fire and risks for health must be reduced to an absolute minimum.

APT offers a wide range of screening smoke solutions which generate solid white/grey smoke.

Our smoke compositions react perfectly under dry cold as well as humid hot weather conditions, ensuring performance wherever the products are used.

We are offering three different ignition systems: standard Fly-off lever, electrical or remote ignition.

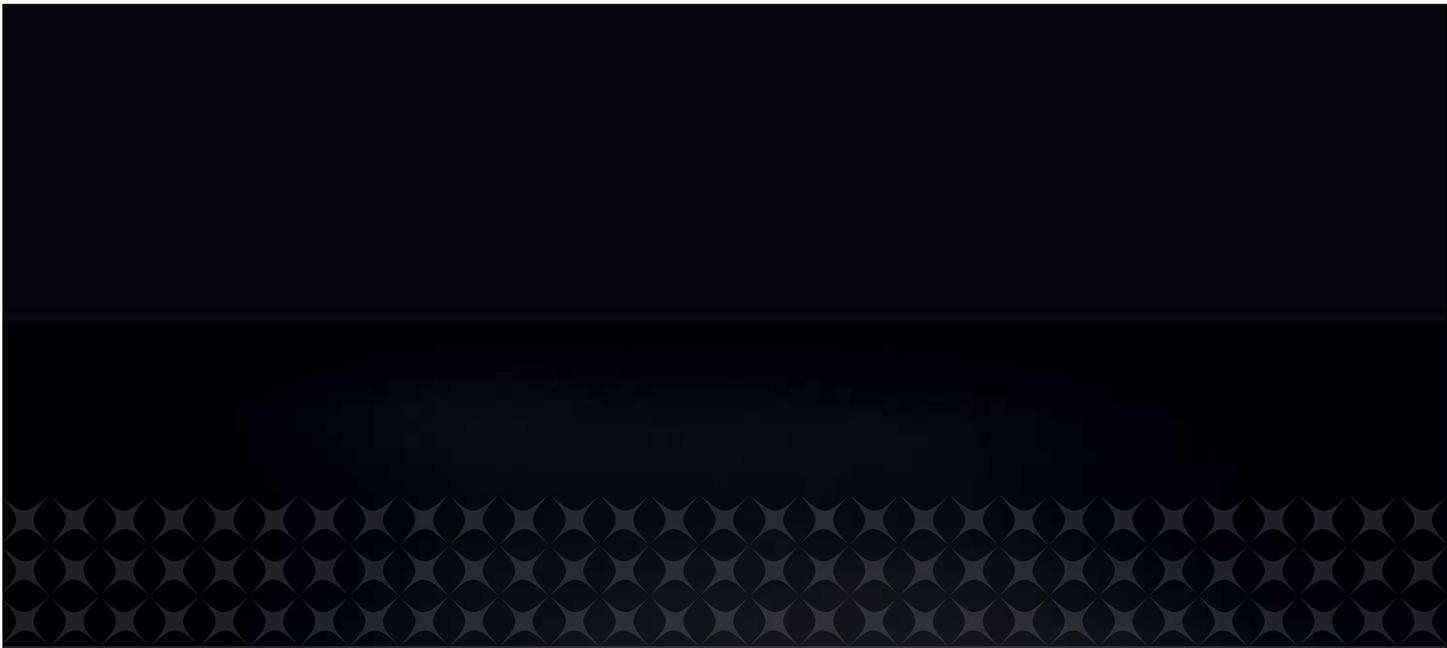
The standard Screening Smoke comes in weights between 300 to 500 grams. Based on specific requirements, customized versions in weights from 50 g to 10 kg can be also be delivered.

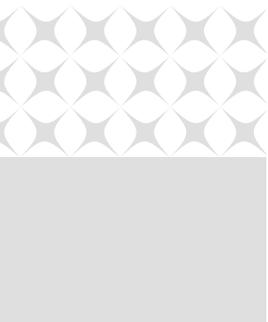
This flexibility serves various operational needs, such as covering small and locally defined spots up to very large areas like urban terrain, airfields, harbours entries and other critical infrastructure.

The design of components used give a low burning temperature, allowing the use of screening smoke even in dry areas or near important assets without the risk of fire.

Placing the smoke generators on trucks, boats or other vehicles gives the user the opportunity to cover large areas without using special launcher systems.

Rapid deployment, extremely good coverage combined with hazard-free substances to protect the health of operational forces makes APT screening smoke solutions a first choice.





# SIGNAL CARTRIDGES AND ILLUMINATING DEVICES

## 1-INCH CARTRIDGES / 1.5-INCH CARTRIDGES RED / GREEN / WHITE / YELLOW / ALARM TRIP FLARES

Pyrotechnic ammunition fired from signal-pistols, fired as hand-held rockets or deployed stationary fulfil different tasks: Communication of color-coded messages, warnings or used as distress signals under both day- or night-time conditions.

Another field of operation is the illumination of special areas either with hand-held rockets or deployed at fixed positions with trip flares.

All our signal cartridges have a rigid design which assures highest safety and environmental standards and maximum performance (i.e. stabilized stars)

We have optimised candela power and standard height (up to 120m) with minimizing the recoil forces.

APT's cartridges can be fired from any

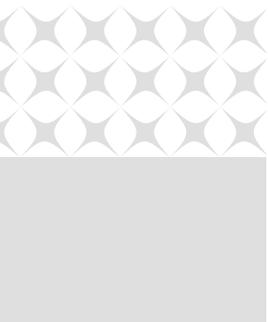
1-inch or 1.5-inch signal pistol. Available colours are red, green, white and yellow with one or multiple star capability. Special messaging and NBC-alert ammunition is available.

Trip flares are used to illuminate infiltrating forces into prohibited areas such as camps, depots, or other critical infrastructure. Our alarm- and trip flares have several designs and ignition options.

Our hand-held rockets can be delivered with parachute and additional propulsion, reaching up to 300 m.

All of APT's signal ammunition and illumination devices are in accordance with the newest international legal and environmental regulations for Safety & Health.





# STUN GRENADES (Flash & Bang)

## SIDE VENT / BOTTOM VENT / BOTTOM VENT EJECTION / MULTIBANG / ELECTRIC / ADAPTOR / SPECIAL EFFECTS

Stun grenades are essential for missions in which incapacitating enemies is necessary without causing any collateral damage to third parties, e.g. in hostage situations. This is achieved by the use of high volume noise (bang, whistle) and/or high levels candela (flash, strobe-light) which

disorientates immediately any persons within the effective range.

Stun grenades are often used in the most stressful situations, so it is essential that the operational use of the devices is safe under all conditions and circumstances.

## APT CREATED THREE TYPES OF VENTING SYSTEMS FOR ITS STUN GRENADES:

**Side-Vent system:** allows for modular adaptable units for flash & bang as well as for smoke and additional effects/special chemicals for incapacitating and marking.

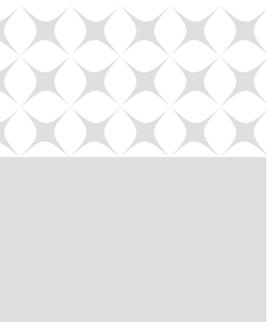
the best operational efficiency when applied from above of a crowd of aggressors. In addition, the pressure deflection system for the bottom vent concept increases safety and flexibility.

**Bottom Vent system:** allows for a very safe handling and gives sound levels up to 170 dBA. Possible effects of the bottom vent ejection system are whistling, sound, strobe light and flash.

**Electronic delay system:** programmable delay times to the respective operation. The device can produce up to separate 7 bangs (or all ignited at the same time). Any combination with visual effects or the use of special effects and chemicals is possible.

The bottom vent ejection system has





## **40 MM AND 37/ 38 MM LOW VELOCITY AMMUNITION**

**TARGET MARKER / BARRICADE PENETRATOR / FLASHBANG / COLORED SMOKE / SCREENING SMOKE / RUBBER BATON / MULTIRUBBERBALL / IRRITANTS**

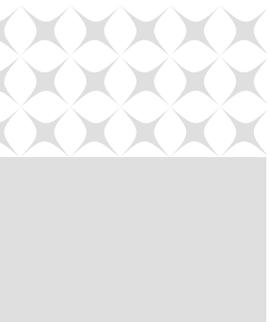
Law Enforcement Agencies and Special Forces use 40 mm Low Velocity Grenade Launcher ammunition to meet a range of operational requirements including neutralizing a single person, marking persons, incapacitating aggressors, crowd control and breaking barricades.

The user must be in the position to make an accurate strike against the intended target over various distances. Different kinds of ammunition are necessary for operational effectiveness

APT offers a wide range of 37/38 mm & 40 mm ammunition to meet the different operational requirements. Our ammunition and the special designed payloads assure the highest safety levels with maximum accuracy over the effective distances between 5- and 100 meters.

The ammunition can be reloaded up to 10-times and is designed for use with most 37/38 mm & 40 mm grenade launcher. These attributes and the long shelf-life provide customers with a very cost effective solution.





# TRAINING

## THUNDERFLASH / WHISTLE BANG

Realistic Training is an essential part in the preparation for operational readiness and APT training products are contributing to this by exposing the trainee to the most realistic but safe imitation of explosions through sound & flash.

In addition trainees learn the safe handling of pyrotechnic components.

Using a onetime friction ignition, the APT Thunderflash is designed for easy operations. Electrical igniters are available optional.

The report charge assembly contains the pyrotechnic charge and delivers a report of 145 dBA.

The size of the paper tube and the protection grade of the material can be defined by the client.

The components used are environmentally friendly and consist of a paper tube, damping material, report charge assembly and a plastic safety cap with a water proof friction surface.

The materials and packaging used ensure a long storage life.

