



Tactical Breaching in the Battlefield

Soldier Modernisation talks to SAN Ltd's CEO, Mr Ran Nakash about the growing use of electro-hydraulic breaching in tactical operations, the importance of knowledge share in training and correct breaching gear selection

Q: With the modern war-fighter facing more and more urban situations as part of operations, building entry and clearance are a day-to-day scenario; what have been the main problems in this area?

A: There are three major elements which we would like to address in building entry and clearance operations which also highlight some of the added values we bring to tactical operators:

Mobility – Tactical operators from Police & HLS units, Firefighters & Rescue teams, Military & Special Forces are faced with multiple challenges when clearing out a high rising building. Mobility is a major challenge faced when moving from one floor to the other for partial or full apartment scans. Such missions require light yet multifunctional equipment which allows for versatility when encountering different elements in the urban environment. Being mobile and fast-moving saves lives and valuable time.

Another aspect of mobility is the ability to reach the location of the operation. Nowadays, tactical operators, especially emergency response teams, are faced with huge delays due to heavy traffic in city centres. Efficient manoeuvring capabilities via motorbikes or other light vehicles can be achieved with SAN's equipment as it is carried on the operator's back while heading to the location in need.

Energy – This element is divided into two aspects, the first is addressing the physical energy of the operator, or alternatively his physical fatigue. Tremendous effort is required by the operator just by climbing up the stairs

and carrying equipment. Breaching a building entry and clearance in minimum time require concentration, therefore, using light yet rapid breaching equipment is essential for saving the physical energy of operators.

The second aspect is the energy (power) source of the equipment which needs to be self-sufficient and light while enabling the tactical operator to complete his mission. SAN's electro-hydraulic breaching gear is operated by a Li-FePO4 rechargeable battery, capable of opening a minimum of 25 doors. Each system is normally equipped with 2 batteries (one battery only weighs 900 gm, so operators can carry even more if needed).

Versatility – Modern construction in urban environments is shifting to high rising buildings. Additionally, urban citizens are installing higher security doors in their homes, these two factors are creating a challenging environment for the tactical operators in their breaching operations. This increases the necessity of breaching tools which are light and provide certainty in their ability to breach any object in the urban environment. With over 15 years of operational experience, SAN's tools have breached thousands of objects as inward, outward, rolling, sliding, zero-gap and high-level security doors in various structures, residential and commercial areas, shelters, ships, aeroplanes, trains, cars, armoured vehicles, etc. Moreover, the operator can be equipped with additional tools like cutters and spreaders in different forms which will allow them to overcome any element in the urban environment.



SAN's door breaker - for breachers by breachers

Q: What are the major differences for the use of hydraulic breaching instead of explosive?

A: The explosive breaching method has been common within military forces for years, yet it presents many disadvantages, for example: it may risk the target/object as well as operators due to exposure to collateral damage, i.e. "shockwave". It might injure innocent bystanders and may cause environmental damage, such as brain damage to the operator. The operators may lose eye contact with the object during the breach, the method takes a longer operation time and does not enable the operator the solution needed to handle a second door breach. In addition, explosives can't be used in undercover operations or explosive environments, such as drug labs. Approvals to use explosive in a civilian environment are very rare as it also disturbs the normal life of the surroundings or might raise liability issues when an error in identification of the target may occur. The

high command also needs to take into consideration that in the long run, explosive breaching is very expensive as the explosives can't be reused and it takes a long time to reach a high professional level in this field, which also requires many additional follow-up training courses.

In hydraulic breaching and specifically with SAN electro-hydraulic tactical breaching systems, there are no liability issues as it creates minimal damage necessary to breach, the operator always has eye contact with the door while standing behind a secure location while achieving a fast breach. An additional advantage is the ability to quietly breach into a house which allows the operator to utilize the surprise element and be ready for a second door breach if necessary. Basic training takes around three days and there is very low maintenance required to keep the tool running within 100% of its capabilities.

Q: At SAN one of the areas you look at, as well as training, is specifically tailoring your range for Security Forces, Special and Tactical Forces and Police; could you talk about the main differences in needs between them?

A: At SAN our additional challenge is to identify and customize our breaching gear to suit the needs of each tactical operator. This can be found in the different kind of carriers we develop, or in the tools which we supply. For example: rescue teams will normally be equipped with our longer spreader and the Guillotine cutter which can provide them with better capabilities in the scenarios they are facing. Our individual work with each end-user helps us make the right adaptation to create the perfect fit with their gear, while also offering customized training courses at SAN's academy in Israel or at the operator's location. SAN also provides reusable training aids that were developed to train the tactical operators for every foreseeable scenario.

At SAN we have in-house capabilities from design through engineering, different manufacturing methods and disciplines which allow us to develop a customized solution in a very short time frame according to the end-user's operational requirements. As our equipment was created FOR breachers BY breachers we are in constant discussions with the end-users to tailor the right adjustments according to their requirements. For example, accessories such as a magnet for quick work with the door breaker, special handles, different breaching tool docking placements and of course design of additional tools, such as our last development of a hydraulic piston which is designed for prison doors and bunkers.



SAN's training courses - training session at Tactical Energetic Entry Systems (TEES), USA



SAN's reusable training aids - advanced breaching training facility

Q: Could we talk about the history of the company and who you are supplying, both in Israel and internationally?

A: SAN Ltd. was established in 1995 with a focus on design, production, engineering and project management. In 2005 we opened our tactical breaching division to bridge the breaching capability gap shared with us by the Israeli Special Forces, who commissioned us to find a solution for them. Today, we are the biggest supplier in this sector for the Israel Defense Forces (IDF), in addition to police and firefighter units. Globally, our breaching gear is operational in special forces units in over 30 countries in North and Latin America, Europe, Asia, Australia and Africa. We cannot disclose the names of specific units due to their line of work and confidentiality agreements, but we can state that the breaching capability upgrade which we are presenting has become standard breaching equipment for special forces around the world dealing with terror attacks, hostage scenarios, war against drug dealers (DEA) organized crime, target arrests, intelligence operations, operations in remote sites, mass evacuations, disaster areas, etc.

Q: We mentioned training earlier on, how do you work with forces to ensure correct training and correct use of tools in different scenarios?

A: As SAN's breaching gear was created FOR Breachers BY Breachers we see ourselves as a solution provider, not only a systems manufacturer. At SAN we supply tactical operators with our breaching systems, but we always try to build and improve their breaching capabilities by training and sharing lessons learned from our broad operational experience (accumulated experience of over two decades in challenging environments). Our in-house ex-special forces instructors have a rich and broad operational background in breaching from different segments which are studied by the tactical operators in our academy or travelling around the world to ensure that our systems are capable of breaching into any element in their local environments.

In addition to our basic training, we offer advance courses which are built according to the end-user unit's activities, in order to address and train them on breaching scenarios which they have to face in their operations. We assist in analysing and constructing different local elements they will be facing and sometimes we are requested to give our advice and share our knowledge ahead of a live operation, as this is part of our ongoing support in the tactical operator's community. ■



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