

#### (RE)DEPLOYABLE MILITARY SHOOTING RANGE FOLDABLE CONTAINER TECHNOLOGY



#### A UNIQUE MOBILE SHOOTING RANGE SYSTEM BASED ON FOLDABLE CONTAINER TECHNOLOGY

The mobile shooting range systems was developed within the framework of a joint research and development project with the Institute of Modernization of the Hungarian Defence Forces in order to create dynamically relocatable, safe environment for conducting shooting exercises.

During the development, we created an armoured and soundproof shooting range based on a new foldable solution specially developed by Continest for this projects, suitable for live fire exercises with military steel core ammunition which is unique in the world.



- Transportable with 3 semi-trailer trucks with a flatbed trailer or 5 pcs. 20-foot side-loading container trailers due.
- Can be relocated and fully operational within 12 hours!
- Thanks to its modular design, the shooting distance can be increased optionally. In its current configuration with 6 innovative foldable armoured and noise insulated modules it provides 15 m range for static shooting.
- Either 4 person static or 1 person dynamic shooting exercises can be performed in the shooting range. The number of shooters can be increased to 5.
- Resistance of the ballistic protection is ensured by the SSAB Armox 600T armour.
- All surfaces comply with VPAM ARP2006 level 7 protection. The complete small arm range of the Hungarian Armed Forces can be used in the shooting range with standard ammunition (except for armour piercing and tracer rounds)
  - 0,22 mm, 9 mm, 5.56 and 7.62 NATO calibre.











- The shooting range is armoured in a 360° manner and its internal surfaces are completely ricochet-proof, thus protecting those inside and outside the shooting range from injuries caused by negligent discharges.
- The armour of the shooting range also prevents active shooters firing outwards. No projectile can leave the shooting range neither through the container connections nor the air-ducts, so the shooting range can be safely operated even in a populated area..
- Thanks to its unique sound-absorbing wall structure, specially designed to reduce the noise of shots, the in-use noise load of the shooting range 10 meters from the shooting range eaches a maximum of 50 to 70 decibels, which is lower than the average street noise, so it can be used from early morning until late evening without disturbing the surrounding population.
- The air conditioning container is a separate structural unit, which is a complex ventilation system built into a 20-foot container. It ensures the proper extraction of hazardous gases generated during shooting, the supply of fresh air and the heating and cooling of the shooting range.
- The shooting booth allows the command and control of a maximum 4 person shooting exercise. Also allows the control of the air conditioning, the light effects and provides safe storage for weapons and ammunition.
- The bullet trap made of 10mm Armox 600T plates and a ventilation unit is installed in the last 20 foot container.
- The bullet trap efficiently absorbs the energy of the impacting projectiles and directs them into trays that can be emptied without in the exposure of heavy metals.
- The ballistic protection system of the Shooting range was developed in cooperation with SSAB, Linde and the Technical University of Budapest.
  All ballistic tests were executed and certifield by HDF.



#### SUMMARY ARTICLE

#### CONTINEST PRESENTED ITS UNIQUE MOBILE SHOOTING RANGE SYSTEM AT KECSKEMÉT AIRSHOW The company developed the shooting range system in cooperation with the Hungarian Defence Forces

Continest presented its uniquely developed, (re)deployable mobile shooting range system at Kecskemét during the International Air Show and Military Display 2021. Our company built the mobile shooting range system within the framework of a joint research and development project with the Institute of Modernization of the Hungarian Defence Forces. As part of the development, we created an armoured and soundproof shooting range based on our foldable container technology, suitable for live fire exercises with military steel core ammunition which is unique in the world.

Our uniquely developed, (re)deployable military shooting range debuted at the Kecskemét during the International Air Show and Military Display 2021. Our company built the mobile shooting range system within the framework of a joint research and development project with the Institute of Modernization of the Hungarian Defence Forces in order to create a safe environment for conducting live fire shooting exercises with all small arms that are currently available in the HDF up to 7,62x39mm steel core and 5,56x45 NATO rounds. As part of the development, we created an armoured and soundproof shooting range based on our foldable container technology, which is unique in the world.





To be able to align with the high health and safety standards of HDF Continest used a mix of fixed frame as well a newly developed foldable Continest container solution that are individually soundproofed and armoured. The modularity, scalability, and economical transportability of Continest's containers is also outstanding in this case, as the range can be easily moved with 3 semi-trailer flatbed trailers or 5 ARMY standard side loaders (eg. MAN, Hammar), each 20 feet long, thanks to the new folding modules. In its current configuration with 6 innovative foldable armoured and noise insulated modules, the range provides 15 m long distance static shooting, which can be increased optionally by inserting additional modules (2,44. m / 8 ft. each module). The range is also suitable for dynamic shooting exercise, aimed towards the bullet catcher in the last container.

One of the design criteria set by the customer was that no bullet can leave the shooting range neither by negligence nor by intentionally shooting in wrong directions. Therefore, the shooting range container is armored in 360 degrees (including container connections, electricity and air ducting) with 5mm ARMOX 600T allowing live fire exercises to be conducted even in a heavily populated urban area. All internal surfaces provide protection from ricochet, rebound and bullet fragmentation. Sound insulation was also an important aspect during the development process, so a unique sound-absorbing wall structures were specifically developed in the container to reduce shot noises down to the range of 72-50 decibels, so that the shooting range can be operated without disturbing the civilian population.

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In addition to the presentation of the mobile military shooting range container, our company provided 15 pieces of CN20 containers for the International Air Show and Military Display 2021 in Kecskemét, in which the different commands of HDF could display their latest developments, achievements as well perform the drafting activities.

In connection with the project, the CEO and co-founder of the company, Vidor Kis-Márton, said that Continest's innovative technology allows them to set foot in new segments in temporary infrastructure projects globally. He added that the development of military products has been an important focus area for Continest, and the mobile military shooting range container is a good opportunity to further strengthen their position in the defence industry. The CEO also mentioned the fact that this new training solution of HDF attracted thousands of interested people both from the civilian as well as from the different service areas.

Finally, he said that due to the operational capability and scale up of the Continest Factory the company will be able to produce the shooting range in series, both for HDF as well for foreign end-users.

By this Continest will complete the mandate it has received from the Government Commissioner for Defence Development: develop a new, innovative defence technology that will support the modernization and growth strategy of HDF and will be able to compete on the international market.





#### FIRST INTERNATIONAL PRESENTATION - SLOVENIA, SOBRA - 8<sup>TH</sup> INTERNATIONAL FAIR OF DEFENCE, SECURITY, PROTECTION AND RESCUE

Between September 23-25, 2021 Continest Technologies presented the uniquely developed mobile military shooting range development at an international trade fair. The mobile shooting range system, implemented as a joint research and development project with the Modernization Institute of the Hungarian Defence Forces, was exhibited at a Hungarian stand set up by the VEX Military Technology Trade Agency Ltd.

For three days, thousands of visitors were able to see the new mobile shooting range of the Hungarian Defence Forces at the international exhibition held in Gornja Radgona, Slovenia. About 110 exhibitors from 11 countries visited the international defence conference and exhibition, which was organized for the eighth time and was attended by about 20,000 people.





Trademark No. 227509 | Patent Registration No. WO 2019/064036 CN (re)deployable military shooting range NATO Stock number: 5410-51-0009698 UNGM #739156 | NCAGE code: 2054V



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