

Technical Solutions of CBRN Decontamination in Transport Infrastructure

Within the Security Research Program of the Czech Republic in 2015/2020 (BVIII / 1 - VS) and with the support of the Ministry of the Interior and in cooperation with SÚJCHBO v.v.i. DEKONTA a.s. develops 3 prototypes of equipment designed to decontaminate chemical, biological and radioactive substances in the transport infrastructure, focused on the Prague Metro.



DA1 Decontamination Equipment

DA 1 is a portable decontamination device designed for indoor and outdoor use, where access to the affected area is either restricted (cramped spaces, stairways, mechanical obstacles), or where robust rinsing techniques are avoided for subsequent damage.

DA 1 is designed for one-man operation. Device variability, this is the ability to change the decontaminant's consistency from fine mist, foam, or rinse, allow team work to interfere with units and shorten the time of CBRN disposal.

DA 1 is a set of two decontaminant (steel) and air (kevlar), which are fastened to the base support body. Simple adjustment of the straps is ensured by moving in the vertical and horizontal direction. Clamping is ensured by a quick link.

Pressure cylinders are equipped with special valves (safety, drainage, pressure regulating 300 / 0.5 bar, reversing) and connection terminals for accessories (one or two-way pistols and the respective sets of nozzles of various parameters, pressure gauge 0-400 bar).



DA2 Decontamination Equipment

DA 2 is a mobile decontamination device designed for indoor and outdoor use, where access to the affected area is either restricted or where a robust rinse technique is avoided for subsequent damage. With a 4-fold decontaminant content in relation to DA 1, it allows a greater range of CBRN terrorist attacks.

Decontamination equipment is designed for one-man operation. When moving over obstacles, two-man operation is enough. However, due to its capacity it is more efficient and does not burden its weight with the operator.

This decontamination device is variable, it is possible to vary decontaminant consistency from fine mist, foam, or rinse, and allow team work to intervene and shorten the time of disposal of CBRN.

DA 2 is a set of three pressure tanks mounted on a two-wheeled rudl. Pressure cylinders are equipped with special valves (300/10 bar control, reverse) and terminals for connection accessories (one or two-way pistols and nozzle sets of various parameters, manometer 0-400 bar).



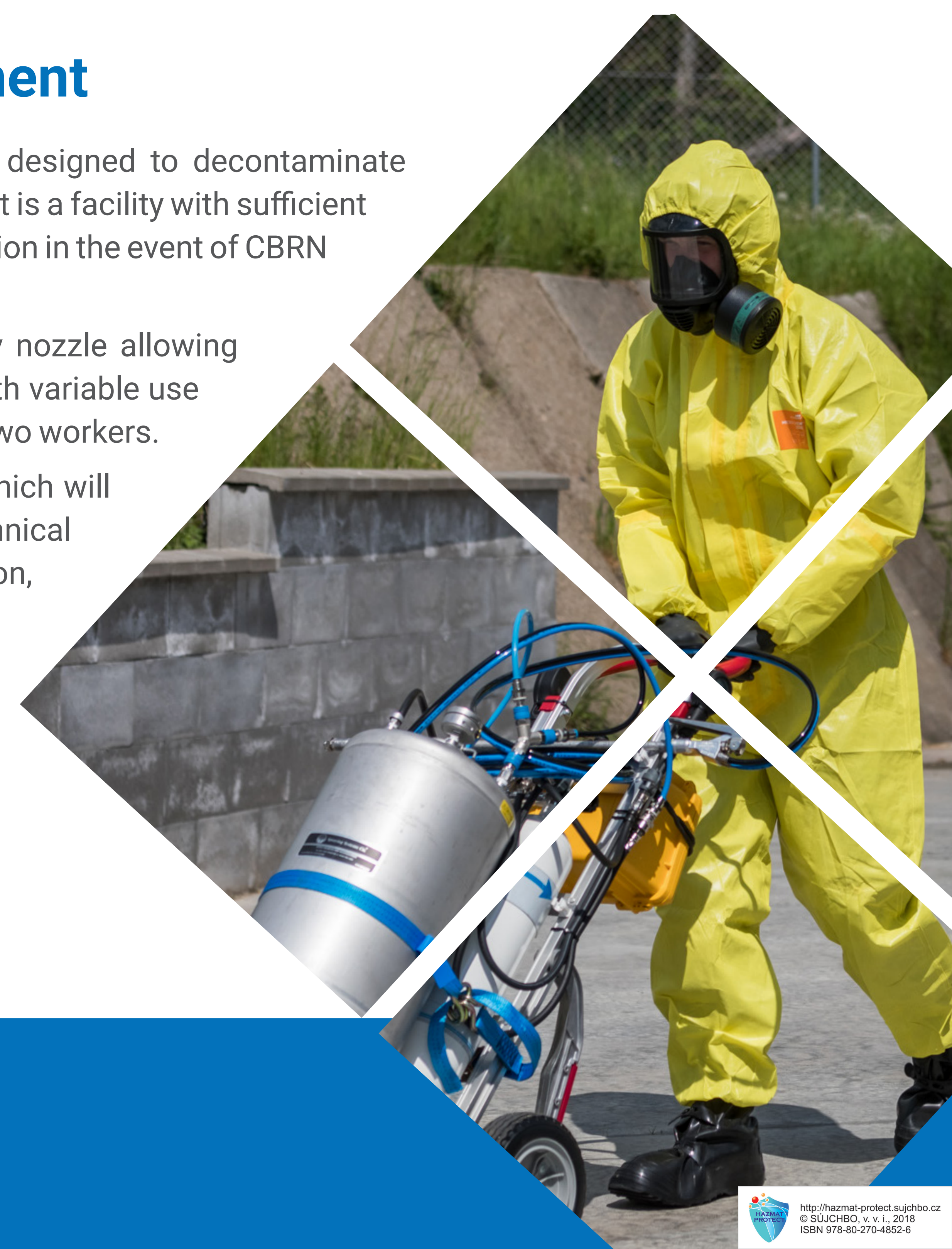
DA4 Decontamination Equipment

DA4 is a large-volume decontamination equipment designed to decontaminate the internal spaces of platforms and subway tunnels. It is a facility with sufficient water supply and allows rapid rinse and decontamination in the event of CBRN attack in the metro.

It is a mobile device equipped with a large-capacity nozzle allowing decontamination of the entire tunnel profile, again with variable use (foam, fog, rinse). The device requires a minimum of two workers.

The technology is located in an atypical container, which will be located on the railway chassis. These are technical assurance of high capacity nozzle operation, decontaminant reservoirs, pump system, compressor, mobile generator.

The decontamination solution container will also be used to replenish DA1 and DA2.



The decontamination device prototypes are developed by Dekonta, a.s. In cooperation with SÚJCHBO v.v.i. with the support of the Ministry of the Interior, within the Security Research Program of the Czech Republic in 2015/2020 (BVIII / 1 - VS), project ID: VI20162019031.