

SPINE Technology for Military Backpacks - Excellent Solution for Paratroopers and Alpini

Published on 26/02/2026

At **Enforce Tac 2026** in Nuremberg, **Bergans of Norway Special Products** – together with the Norwegian distributor **Oskar Pedersen AS** – publicly presents for the first time a **new line of military backpacks** based on **SPINE** transport technology. A solution that the company has been using for years in the civilian sector and is now being adapted to the operational needs of the armed forces, with the declared aim of improving **mobility, load stability, and comfort** during high-intensity deployments.

What is SPINE and why it interests the armed forces

The core of the proposal is the **SPINE** back panel, developed in collaboration with the **Norwegian School of Sport Sciences (NIH)**. Instead of "plastering" the torso like many rigid frames do, the system is designed to **accommodate natural movements**: trunk twists, hip

rotations, and posture changes remain more fluid even with a full backpack.

According to Bergans, this architecture also reduces **slippage** of the backpack during dynamic movements, improving load control. The company also cites evidence from studies indicating a **more natural and less constrained walk**, with potential impacts on **lower energy expenditure** and **reduced risk of injuries** compared to more rigid solutions.

Operational impacts: Alpini and Paratroopers, different needs

The same technology can appeal to different units because it addresses different problems.

For the Alpini, the key point is progression in complex environments: slopes, unstable terrains, traverses, and technical passages where balance depends on continuous micro-corrections. A backpack that follows the torso and pelvis can mean **more control**, fewer “forced” postures, and an advantage in **long durations**.

For the Paratroopers, on the other hand, the immediate phase counts: landing, reordering, restarting, and rapid tactical mobility. Here, a backpack that **does not hinder rotations and changes of direction** and remains stable when running, crouching, or climbing becomes crucial.

Finally, Bergans also looks at “heavy” use: the development plan includes more compact models and enlarged backpacks, with a focus on high loads. The company emphasizes that SPINE would perform best especially **over 40 kg**, a threshold that is not uncommon in the military world when equipment, systems, and specialized materials are combined.

News link: https://taskforcemilitary.com/collections/bergans?srsltid=AfmBOooHD7TQ3w3YUc43oU-xgi_rpnGePvN_bZWOQOccQE91Nfkf69T9