

## **MANUFACTURER'S PRODUCT DECLARATION**

**DYNAMAX Via Ferrata (CTD001), DYNAMAX STREAK SET (SDS001)  
and FERRATA MAX SET (SFM001)**

The Croatian Ministry of Economy, Entrepreneurship and Trades conducted independent testing at the Institute of Mechanical Handling and Logistics at the Universität Stuttgart (NB 1771) on Rock Empire's DYNAMAX product with a production batch number of **170292**. Given that two results (from the eight required tests) did not meet the values required by the new EN 958:2017, valid since October 2017, Rock Empire has decided to voluntarily withdraw Dynamax Via Ferrata sets with production batch number **170292** from the European market. In order to examine and test further, we have temporarily discontinued sales of additional Dynamax.

Specifically, one of two the non-conformity results was during the dynamic test 4.2.3/a, which is a fall absorption test with a load of 40kg where the standard when absorbing the fall requires a load with a maximum force of 3.5kN and the maximum breaking length of the absorption strap up to 2 200mm.

From European Norm 958:2017-4.2.3/a: „*When tested in accordance with 5.2.4.3 with a rigid steel mass of 40kg the maximum impact force shall not exceed 3,5kN and the maximum breaking length shall not exceed 2 200mm.*“

This test is new in the standard and should test the fall arrest of an iron weight weighing 40kg. The testing result was 3.8 kN, which means about a 10% "harder" fall arrest than predicted by this standard. This test does not investigate the values of the critical strengths of the components involved; it tests the lower limit measurement at which the absorption effect of the brake (absorber webbing) starts to work. Another test (using a new sample) is then performed at 120kg, where the maximum applied fall arrest force must be no greater than 6kN (Dynamax testing result was 5.3kN, which is in compliance with the requirement of the standard).

The second non-conformity result was during the destructive static (dry) test of the whole system after the fall arrest 4.3.2, which requires a resulting value to be greater than 12 kN.

From European Norm 958:2017-4.3.2: „*When tested in accordance with 5.3.1 after being subjected to the dynamic test in accordance with 5.2.4.3, the EAS shall withstand a static force greater than 12kN.*“

We assume that with this static test, the sample was deployed/"ripped" after one dynamic 120kg fall. It is not clear from the above results whether a new sample was used for each dynamic test as required by the standard (we know a production number from only one test sample). The measured value of 10.6 kN is below the standard requirement of 12 kN. This test simulates the required strength of the entire system after arresting a fall. The previous standard had a limit of 9kN; the new standard increases it to 12kN (1200kg of load).

Measured values show a 10% deviation from the current requirement of the standard we met by certification in 2018.

According to standard EN 958+A1, valid from July 2011 to October 2017, this value is safely compliant, and we consider use of the product still safe under this judgement. This result is not a life-threatening parameter. We have arrived at this opinion after consultation with experts with reference to the robustness of the measurements so far not exceeding the statistical deviation.

Insufficient static strength is still the subject of discussion based on the results when (one) dynamic fall arrest was performed with only one sample available (according to our information). To determine the significance of the deviation in the 40kg dynamic fall (new requirement of the standard), we are currently missing a broader comparative test at an independent test facility. We compare this one result with the results of our vendor's tests of the absorber webbing.

With this opinion and in connection with the above findings, we want to verify all standardized characteristics of the tested production batch (**170292**). We are closely cooperating with the CE Certification Body 1015 (Independent Testing Site) as well as the absorber webbing manufacturer to minimize any deviations from the requirements of the EN standard for Rock Empire's Dynamax.

**Rock Empire's Dynamax Via Ferrata with batch number 170292 could have been sold separately Dynamax (CTD001) or as part of a set – either the Dynamax Streak Set (SDS001) or the Ferrata Max Set (SFM001).**



*Dynamax (CTD001)*



*Dynamax Streak Set (SDS001)*



*Ferrata Max Set (SFM001)*

If you purchased Dynamax separately or as part of set, please check the production batch number, which can be found on the label inside the black stretch bag. If the number starts with **170292**, please discontinue use and contact your point of purchase for more information as to returning the product(s).

Location of Production Batch Number:



8.12.2018 – in Benešov nad Ploučnicí, Czech Republic