

# MULTIASCEND ROPE TEST

## Overview

The Ninja MultiAscend is an ascent / point of contact device that is engineered to provide increased efficiency in a range of applications. The innovative dual cam design as well as the dual-stage locking swingplate ensure consistent engagement with the rope, preventing unwanted detachments. In addition, the external release triggers make adjusting the Ninja MultiAscend safe and easy when used as an ascender or a progress capture device on a safety line. In order to confirm proper operation and compliance, a series of load test were run using multiple samples of rope from different manufactures.

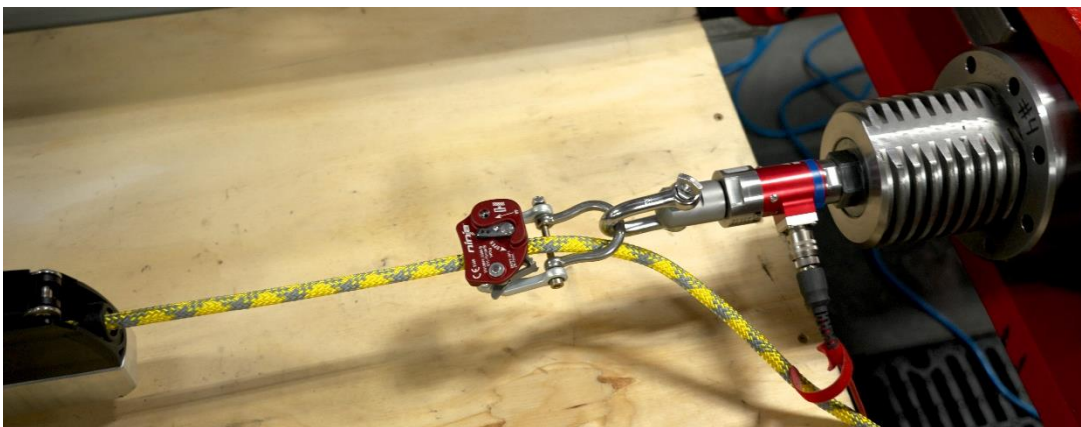
## Objective

Confirm MultiAscend performance parameters, and measure the failure load that different types of ropes exhibit when pulled with the Ninja MultiAscend.

## Test Method

Each rope sample was anchored to the test stand and loaded into the MultiAscend. The device was pulled with a hydraulic cylinder, at a rate of 25mm/min  $\pm$ 5mm with each rope sample. The same device was used for all test samples. Rope diameters ranged from  $\varnothing$ 9mm to  $\varnothing$ 13mm

8 different rope samples were tested with an n of 5 tests per sample. The results reflect the average of each of the 5 tests per sample.



## TAKEAWAYS

- Across the 9-13mm rope range tested, the Ninja Multiascend never reached a minimum breaking load before failure of the rope cover occurred. In each test the rope sample failed. The device never reached a load where it was damaged or failed. The load required to break rope cover was consistent for each sample.

## TEST RESULTS

