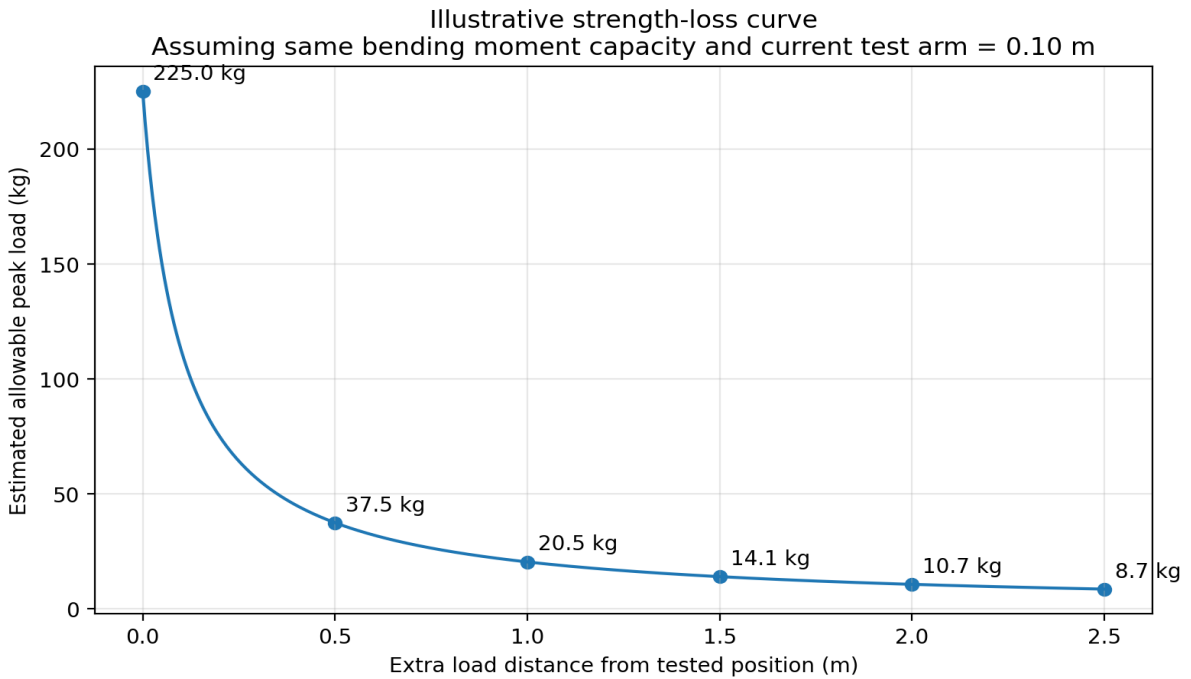


Awning Load Capacity & Bending Moment Report

Technical and illustrative report showing how load capacity decreases as distance (lever arm) increases from mounting brackets on a high-roof van awning system.

Strength Reduction Curve



Estimated Load Capacity by Distance

Distance from Mount (m)	Estimated Capacity (kg)
0.5	37.5
1.0	20.5
1.5	14.1
2.0	10.7
2.5	8.7

Engineering Assumptions

- Peak tested load: 225 kg
- Failure governed by bending moment ($M = \text{Force} \times \text{Distance}$)
- Load capacity decreases inversely with lever arm
- Static approximation only (no wind, fatigue, or dynamic effects)

■ Safety Notice

Real-world loads such as wind, vibration, and dynamic forces can significantly reduce capacity. Always use support legs and tie-down straps. Do not rely on cantilever loads at extended distances.

DISCLAIMER: This report is for illustrative purposes only and does not constitute certified engineering advice. Not developed or endorsed by MechTest.

Visual Bending Moment Representation

