



20 Jones Street
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Break-Safe®

Breakaway Support System for Sign Posts

PERFORMANCE SPECIFICATIONS:

System Performance Criteria:

1. Break-Safe® conforms to AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.”
2. Break-Safe® has been crash-tested and FHWA approved in accordance with the requirements of NCHRP Report 350, “Recommended Procedures for the Safety Performance Evaluation of Highway Features.”

Component Properties:

Anchors: Transpo® Type A and B Female Anchors are embedded in concrete flush with the top surface of the foundation. Minimum tensile load capacity of each anchor type is shown below. Actual pullout strengths may vary, depending on foundation design and concrete properties.

<u>Transpo Anchor</u>	<u>Min. Ultimate Tensile Strength</u>
Type A	133 kN (30,000 lbs.)
Type B	267 kN (60,000 lbs)

Breakaway Couplings: Break-Safe® Type A and B Breakaway Couplings are threaded into the corresponding Anchor Type. Minimum tensile load capacity of each coupling type is shown below.

<u>Break-Safe® Coupling</u>	<u>Min. Ult. Tensile Strength</u>
Type A	84 kN (18,900 lbs.)
Type B	179 kN (40,400 lbs.)

Sign Post Brackets: Break-Safe® Type A and B Brackets provide a connection from the signpost to the breakaway couplings, and incorporate a load-concentrating member, which is precisely located to maximize performance of the system. Break-Safe® Brackets are used to determine the proper positioning of the foundation anchors.

Hinge Plates: Break-Safe® Hinge Plates connect the upper and lower sections of each post in multi-post sign installations. When only one post of a multi-post sign is impacted, the Break-Safe® Hinge Plates allow the lower post section to swing out away from the vehicle, while the non-impacted posts remain intact. Minimum tensile load capacity of each hinge plate type is shown below.

<u>Break-Safe® Hinge Plate</u>	<u>Min. Ult. Tensile Strength</u>
Type A	32 kN (7100 lbs.)
Type B525	50 kN (11,300 lbs.)
Type B650	76 kN (17,000 lbs.)

Hardware: Break-Safe® hardware component specifications are shown in the Parts List for each Break-Safe® Model.

Installation:

Installation of Break-Safe® shall be performed in strict conformance with the manufacturers written instructions.

Certification:

Each Break-Safe® shipment contains a *Materials Certificate*, indicating that all materials, procedures and test results meet the manufacturer’s written design requirements, and all steel components are of U.S. origin and manufacture.