Energy Absorbers

Material Specifications
Tear webbing: Polyester
Backer: Polyester
Cover: Clear PVC Shrink Tube
Wear Pads: Webbing or PVC
Body Length: Approx. 17-20”
Connector Compliance:
ANSI-Z359.12-2009 CSA-Z259.12-11
3,600lb(16kN) Gate Strength.

WARNING HAZARD EXPOSURE
DO NOT CONTACT Absorber or Lanyards with:
- Sharp or abrasive edges, cutting tools.
- Electrical sources or power lines.
- Open flame, high heat, hot asphalt.
- Solvents, caulking, paint or stains.

DO NOT USE for hoisting, towing, or animal tether or link two connectors together unless engineered by a qualified person.

Specification of Use

Fall Arrest or Work Positioning for one person with a maximum body weight as specified in Table 3 including tools and equipment. Designed as a single use component that once deployed or damaged must be removed from service. Free Falls of 6ft(1.8m) or more can generate peak forces of more than 3,000lbs(13.6kN). Energy absorbers are designed to limit those forces to tolerable levels of 900 to 1800lb maximum, but may be less in an actual free fall. WARNING! Failure to use an energy absorber can result in PPE component failure and serious injury or death when subjected to a free fall.

Function

When a fall occurs the absorber tear webbing will deploy as shown at Fig.3.1, gradually reducing the fall velocity to a complete stop (fall arrest). The backer webbing limits the maximum deployment length in the event that a free fall exceeds the tear webbing specifications.

Absorber Types

Auxiliary absorbers are designed to be attached or removed from other PPE components with Class 1 connectors on each end. **Integral Component** absorbers have the “B” end factory attached to a rope grab as shown at Figs.3.5-3.6 or a lifeline Fig.3.0. Do not remove factory attached components from each other.

Deployment/Static Loading

Energy absorbers will sustain force loads of 250-450lbs before the tear webbing begins to deploy. For that reason it is not recommended to use a web type energy absorber in tension or suspension.
Deployment Length: Absorbers have a tear webbing deployment length that is longer than the backer webbing. If the free fall length and/or users wt. are greater than the absorbers tear webbing length, the backer webbing will engage. Extreme force can cause the backer webbing, it’s box stitches, or other components attached to the absorber to fail resulting in the fall victim striking the ground or a lower level. For that reason, careful adjustments in the fall protection equipment must be made to limit free falls to 6ft or less and to comply with the absorbers user wt. specification.

Inspection Before Each Use

Absorbers and any factory attached components, are required to pass inspection before each use. Remove from service any equipment that does not pass inspection, has been subjected to a free fall or the fall indicator is visible as shown at Fig.3.1. Remove from service immediately and dispose of in a way that prevents further use.

User Supplied Class 1 Connectors
Class 1 connectors specified in this manual are double locking snaphooks and carabiners that auto-lock or thread lock. User supplied connectors must comply with current ANSI and CSA industrial safety standards.

Fig.3.1
Absorber Deployed Ⓐ

Fig.3.0
Maxima Fall Arrester™
Lifeline + Energy Absorber

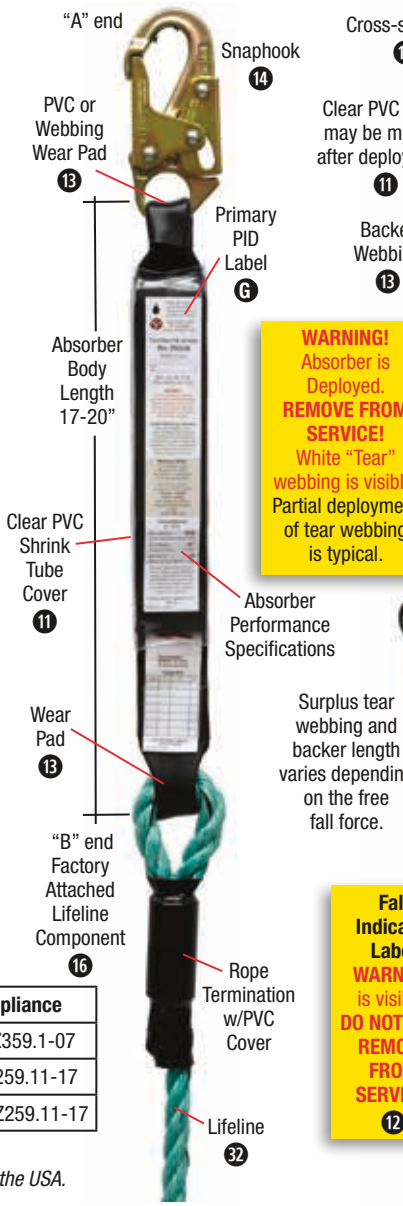

Fig.3.2
Absorber Fall Indicator Inspection

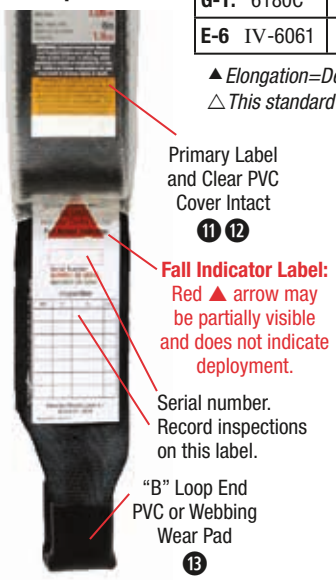

Table 3.0: SAS mfg. Energy Absorbers

Model	Max. User Wt.	MAF	▲Elongation	Compliance
E-4 I6061/k	130-310lb(59-140kg)	900lb(4kN)	42”(1.06m)	ANSI Z359.1-07
G-1: 6180C	119-282lb(54-128kg)	1,800lb(8kN)	42”(1.06m)	CSA Z259.11-17
E-6 IV-6061	200-340lb(90-154kg)	1,300lb(6kN)	69”(1.75m)	△CSA Z259.11-17

▲ *Elongation=Deployment Length*
△ *This standard is no longer valid for CSA as of June 2018. But may be used in the USA.*

Absorber Component Connections:

Fig.3.3
Removable Auto-Lock Aluminum Carabiner. 14

Fig.3.4
Double Lock Snaphook Factory Attached 14

Fig.3.5
Factory Attached ADP Fall Arrester 4015-C/4015-Z. 15

Fig.3.6
Integral Adjuster 4015-M Factory Attached 15