

### **SPECIFICATIONS**

#### Performance Criteria:

- Double-Neck<sup>™</sup> Pole-Safe<sup>®</sup> conforms to AASHTO
   "Standard Specifications for Structural Supports for
   Highway Signs, Luminaires and Traffic Signals."
- 2. Double-Neck<sup>™</sup> Pole-Safe<sup>®</sup> 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."
- 3. Maximum Allowable Pole Mass = 450 kg (992 lb) (total, including fixtures).

#### Physical Properties per Coupling:

- 1. Ultimate Tensile Strength = 221.5 kN (49.8 kips), minimum.
- 2. Tensile Yield Strength = 192.0 kN (43.2 kips), minimum.
- 3. Ultimate Restrained Shear Strength = 16.9 kN (3.8 kips), minimum.
- 4. Ultimate Restrained Shear Strength = 24.4 kN (5.5 kips), maximum.

#### **Corrosion Protection:**

1. All Double-Neck<sup>TM</sup> Pole-Safe<sup>®</sup> couplings, nuts, bolts, and washers are galvanized after fabrication in accordance with ASTM A153. All leveling shims are galvanized after fabrication in accordance with ASTM A653.

Pole-Safe® Model No. 4125
Breakaway Support System for Light Poles



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# Pole-Safe® Model No. 4125 Breakaway Support System for Light Poles

## **INSTALLATION INSTRUCTIONS**

**NOTE:** Proper Installation is essential for the Pole-Safe Breakaway Support System to function correctly as designed.

- 1. Surface of foundation around anchor bolts must be smooth, flat and free of debris.
- Existing anchor bolts MUST be sized to the proper projection height as shown on the reverse side of these instructions. Then, anchor bolts shall be cleaned, and if necessary, coated with cold galvanizing material prior to installing Pole-Safe couplings.
- 3. Install lower flat washers, and thread Pole-Safe couplings on to anchor bolts.
- 4. If needed, shims are provided for leveling of the pole base plate, and may be installed at the base of the coupling(s). No more than 2 shims shall be installed on any one coupling. For larger adjustments that may be required, install no more than one additional flat washer under the base plate, on the top shank of the coupling(s).
- 5. <u>Use lower wrench flats</u> to tighten Pole-Safe couplings on to the anchor bolts. Secure couplings as tight as possible using conventional wrenches. <u>Do not use a pipe wrench</u>. Couplings must be seated squarely on the washers, and washers must be seated uniformly on top of the foundation. If necessary, remove coupling and reduce the anchor bolt projection height to allow proper seating of the couplings.
- 6. Install a flat washer on top of each Pole-Safe coupling, and set the pole with base plate on top of the couplings.
- 7. Install a flat washer and nut on to each Pole-Safe coupling extended through the pole base plate. If pole is not plumb, install shims and/or washers for proper leveling as described in Step 4 above.
- 8. Tighten each nut on to pole base plate. Pole-Safe couplings must be held with an additional wrench on the upper wrench flats to prevent an induced torque stress across the necked portion of the couplings. Nuts shall be tightened using the turn-of-nut method in accordance with American Institute of Steel Construction (AISC) procedures (for ASTM A325 and A490 anchor bolts, 1/3 rotation past "snug tight").