



# MASSH-400

### Multi-Directionally Activated Sign Support Hardware

Telespar<sup>®</sup> is proud to introduce the MASSH-400 ground mounted sign support system. The sign support post is a 4-inch square x 8 gauge steel tube with a superior Gatorshield<sup>®</sup> finish to prevent corrosion. The MASSH-400 system is designed to be impacted from any direction unlike typical beam posts, and is field fit ready with the ability to hold up to 72 ft<sup>2</sup> of sign area per post in a 90 mph wind zone.

The MASSH-400 utilizes a unique, patent pending Redi-Torque multi-directional triangular slip base and Omni-directional hinge system in accordance with AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals", sixth edition. The MASSH-400 has been successfully crash tested and meets the required MASH (Manual for Assessing Safety Hardware) Test Level 3 breakaway criteria and is eligible for reimbursement of funds on Federal-aid projects on the National Highway System.

The slip base and hinge have the strength to support a large sign area during normal conditions, yet allows the post to disengage from the stub with minimal force upon impact by an errant vehicle. The pivoting action of the hinge assembly aids in permitting the post to bend and/or pivot out of the way of the vehicle, allowing the vehicle to pass under the sign after impact.

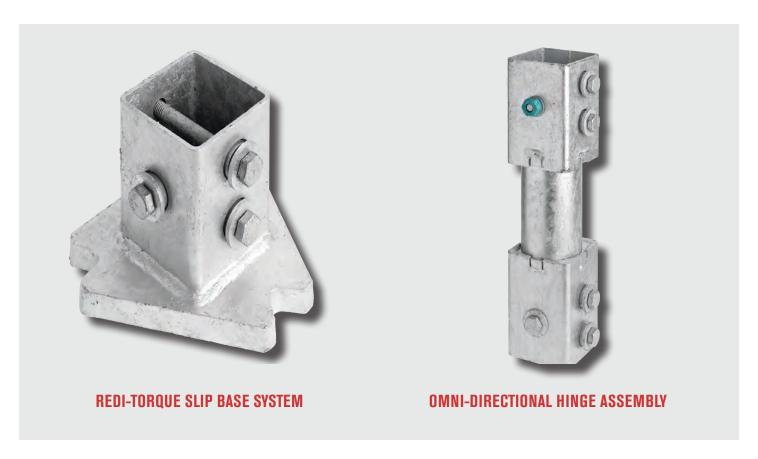
The MASSH-400 will save time and money as well as provide a safer environment for everyone on the roadway before, during and after a traffic incident.

### **FEATURES & BENEFITS**

#### DESIGNED TO BE IMPACTED FROM ANY DIRECTION

The Redi-Torque multi-directional triangular slip base is designed to be impacted from any direction and breakaway at impact. Redi-Torque bolts can easily be installed in high impact areas, without the need for a torque wrench and still provide the necessary holding strength for the post they are supporting.

The Omni-directional hinge assembly for multiple posts assists the structure in moving out of the way of a vehicle caused by an impact and helps reduce damage to the sign panel and vehicle.



#### MEETS MASH TL-3, FHWA ELIGIBILITY LETTER SS-180

The MASSH-400 has been crash tested by an accredited independent third-party facility and meets the required MASH Test Level 3 criteria in the AASHTO Manual for Assessing Safety Hardware.

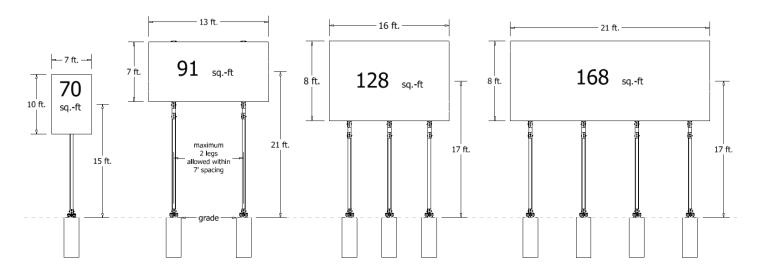
#### **INCREASED SAFETY**

Simple product design, fewer parts and the ability to pre-cut posts reduces the installation time, which will minimize worker's exposure to traffic. The MASSH-400 also offers vehicle protection with its Omni-directional hinge assembly allowing the vehicle to safely pass under the sign after impact.



#### HOLDS LARGE SIGN AREAS AT FAIRLY HIGH SIGN CENTROIDS

The MASSH-400 can handle up to 72 ft<sup>2</sup> of sign area at a 14 ft. sign centroid on a single post in a 90 mph wind zone and larger sign areas at higher sign centroids on multi-post installations. The MASSH-400 has been approved to allow two posts in a 7 ft. span, and one can use 3, 4, or even 5 posts if the sign width allows. The system can hold substantially large signs, commonly mounted on W6x9, W6x12, W6x15, and in some cases even W8x18 beam posts.



#### **QUICK & EASY INSTALLATION**

The MASSH-400 is not location specific. Once required lengths are determined, the square posts can be cut to length in the field and installed immediately. The simplicity of the product design allows for a quick and easy installation with fewer parts and fewer trips than other sign support systems.

With a stock of spare posts, hinges and hardware, reinstallation can be performed once a sign crew is available. This process will eliminate the need to wait for special fabrication. In most situations, the majority of the MASSH-400 components are undamaged after impact and can be reinstalled quickly with few replacement parts, which will minimize the need for temporary supports.

#### **MATERIAL SAVINGS**

- Replacement costs are reduced, as damaged posts are easily salvaged and cut in smaller useful lengths.
- The hinge is designed to be rebuilt eliminating the need to purchase a new hinge assembly, which will lower Department of Transportation (DOT) maintenance costs.
- The MASSH-400 requires fewer parts to stock, and can be used for virtually every installation.

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The MASSH-400 system is suitable for signs in many categories including: guide, logo, hospital, recreational, cultural interest and more!



#### The MASSH-400 Advantage

- Elevation can be measured and sign support
  system installed in one trip
- Designed to deliver minimal damage upon impact to vehicle and installation
- Hinge assembly is designed to be rebuilt saving time and money
- Torque wrenches or other special tools are not required
- All components are made, melted & coated in the USA
- Increased worker and driver safety!

The MASSH-400 enhances the performance of large sign post systems as well as generate material and labor savings.

#### Choose the MASSH-400 today!

The MASSH-400 is manufactured by Allied Tube & Conduit® in cooperation with Xcessories Squared. For more information and step-by-step installation instructions visit www.atc-mechanical.com/telespar.



TUBE & CONDUIT®



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