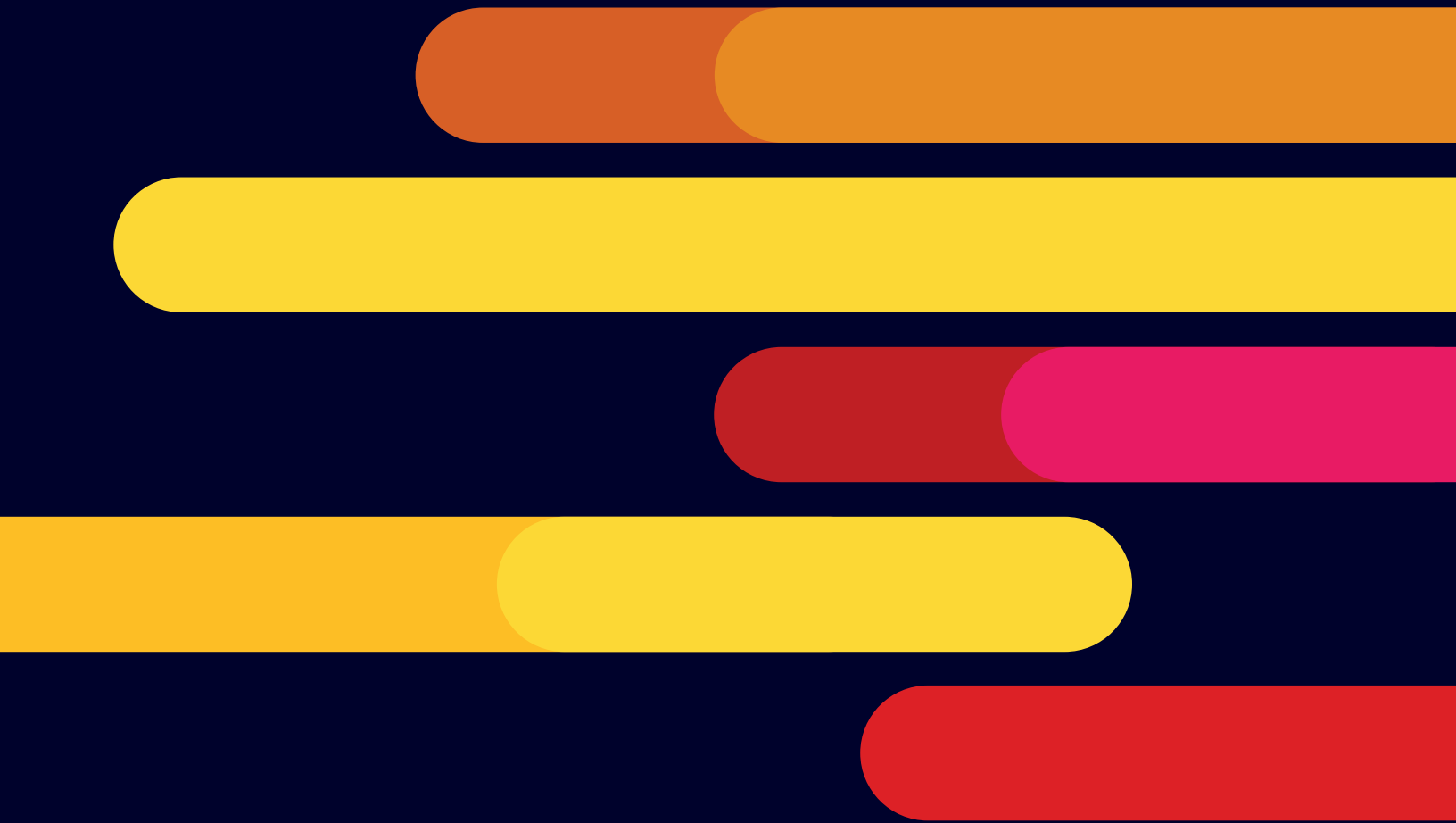


A TIER ABOVE

# MASH PRODUCTS BROCHURE



# INDEX

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In 2009, AASHTO introduced new testing criteria for roadside hardware with the Manual for Assessing Safety Hardware (MASH) and a 2nd Edition released in 2016. MASH provides testing guidelines like NCHRP Report 350, but takes today's vehicle fleet and road designs into consideration. Valtir is **A TIER ABOVE**<sup>®</sup>, actively developing new products to the MASH testing standards. Offering numerous roadside solutions, Valtir fully supports the AASHTO/FHWA agreement to transition to MASH.

## SoftStop<sup>®</sup> System END TERMINALS

The SoftStop<sup>®</sup> System is a tangent, single-sided, energy absorbing, redirective and gating end terminal. The SoftStop System is tested to MASH 2016 Test Level 3 criteria and may be used in Test Level 1, Test Level 2, and Test Level 3 applications.

During head-on impacts within MASH criteria, the SoftStop<sup>®</sup> System is designed to dissipate energy by the head traveling down the anchored W-Beam panels. During length-of-need side impacts within MASH criteria, the SoftStop<sup>®</sup> System is designed to contain and redirect the impacting vehicle.



### FEATURES

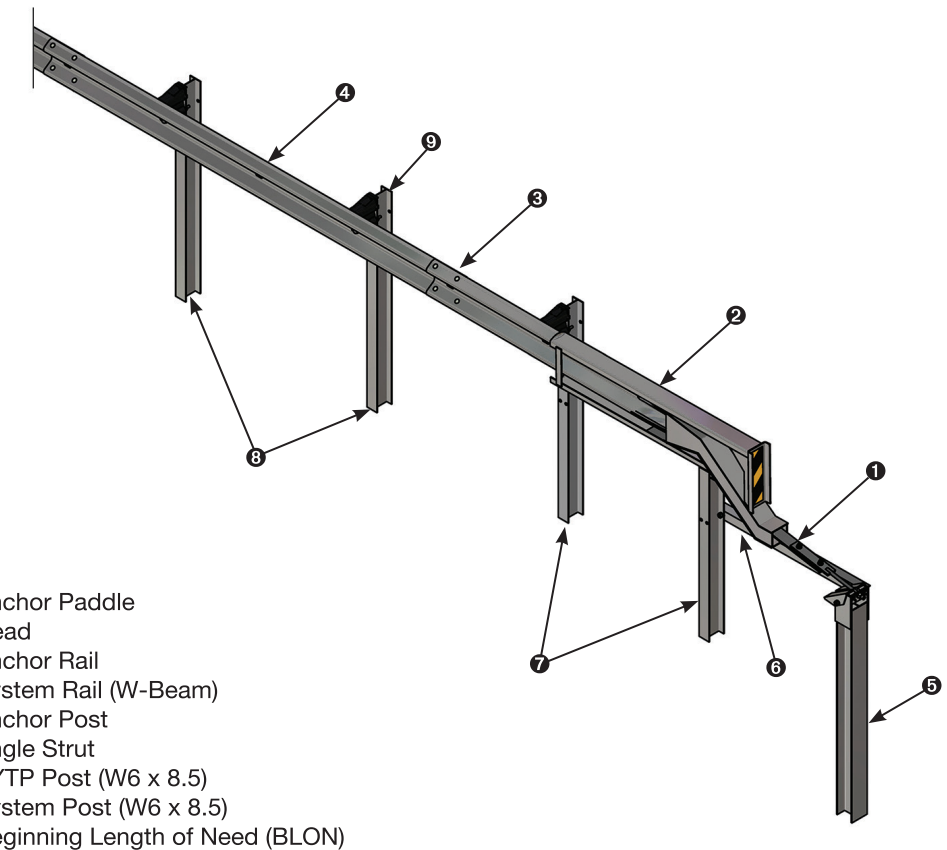
- The front anchorage is designed to allow the W-Beam guardrail panels to remain anchored during end-on impacts within MASH criteria.
- Narrow head design helps minimize nuisance impacts from vehicles and maintenance operations, such as mowing and snow removal.

### SPECIFICATIONS

- Tangent
- Redirective & Gating
- BLON: 16' 6" (at Post 3)
- Head Width: 7"

### SYSTEM LENGTH

- 50' 9 1/2" (Test Level 3)
- 38' 3 1/2" (Test Level 2)
- 25' 9 1/2" (Test Level 1)



- ① Anchor Paddle
- ② Head
- ③ Anchor Rail
- ④ System Rail (W-Beam)
- ⑤ Anchor Post
- ⑥ Angle Strut
- ⑦ SYTP Post (W6 x 8.5)
- ⑧ System Post (W6 x 8.5)
- ⑨ Beginning Length of Need (BLON)



# MATT™ MEDIAN ATTENUATING TREND TERMINAL END TERMINALS

MATT™ is a tangent, double-sided, redirective/gating and energy absorbing attenuator/end terminal, for use with various longitudinal highway barriers in either unidirectional or bidirectional traffic applications – to include roadside, shoulder, median and gore installations.

MATT™ is tested to MASH-2nd Edition (with 2020 Errata) Test Level 3 criteria and may be used in Test Level 1, Test Level 2, and Test Level 3 applications – when installed at the full Test Level 3 system length of 34' 4-1/2" [10.48 m].

During head-on impacts within MASH criteria, MATT™ is designed to dissipate energy by engaging the energy absorbing technology of the device.

During length-of-need side impacts within MASH criteria, MATT™ is designed to contain and redirect the impacting vehicle.

## FEATURES

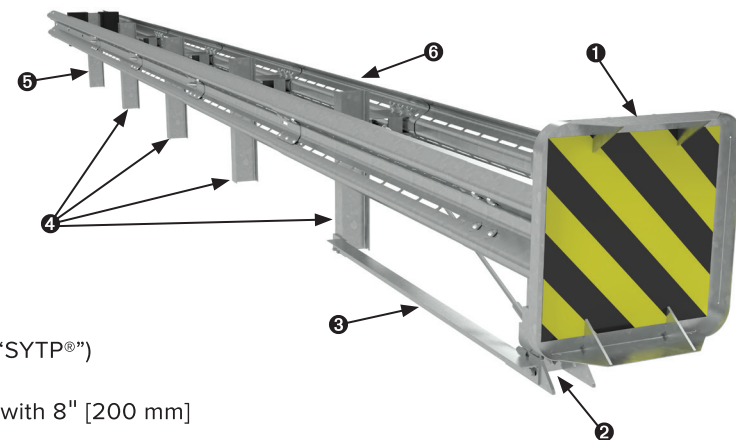
- Shortest MASH tested Median Terminal.
- Galvanized steel components reduce weather/UV related issues.
- During testing, debris field was significantly contained.
- Utilizes patented TREND® technology to absorb energy.
- ALL post spacings are 6' 3" [1.905 m] on center.
- Connects directly to double-sided Midwest Guardrail Systems ("MGS") W-beam with 8" (200 mm) blockouts.
- Applications include Median, Roadside, Shoulder and Gore installations, for both approach and departure installations.

- 1 MATT™ Impact Head.
- 2 Cable Release Post ("CRP"), at Post 1.
- 3 Angle Strut, between Post 1 and 2.
- 4 W6 x 8.5# [W150 x 13 kg] Steel Yielding Terminal Posts ("SYTP") used at Posts 2-5.
- 5 W6 x 8.5# [W150 x 13 kg] System Post utilized at Post 6, with 8" [200 mm] Composite Offset Blocks.
- 6 Patented slotted TREND W-beam guardrail panels.



## SPECIFICATIONS

- System Weight: ~1,525 lbs. [~692 kg]
- System Length: 34' 4-1/2" [10.48 m]
- System Width (at impact head): 2' 5" [737 mm]
- System Height (except impact head): 31", +1", -0" [787 mm, +25 mm, -0 mm]
- Beginning Length-of-Need ("BLON") established during MASH Test 3-35 at Post #3, 12' 6" [3.81 m] from Post 1.



# REACT® M CRASH CUSHIONS

The REACT™ M system is a redirective, non-gating, crash cushion that consists of six high density polyethylene (HDPE) cylinders attached to a steel backup and basetrack assembly. It is tested to MASH 16 Test Level 3.

The REACT™ M system includes a self-contained backup structure that is designed to resist movement during head-on and side impacts and can protect hazards up to 30" (762 mm) wide. The REACT™ M system has shown self-restoring characteristics when impacted within MASH 16 crash test standards.



## FEATURES

- HDPE cylinders.
- Various cylinder wall thicknesses designed to help withstand impact by light cars or heavier, high-center-of-gravity vehicles.

## ASSEMBLY AND MAINTENANCE

- Units arrive assembled.
- Installs on new or existing concrete pad.
- Crash testing results have shown that the system may regain much of its original shape and capacity when impacted within MASH 16 crash test standards.\*
- Major components are potentially reusable when impacted within MASH 16 crash test standards.\*

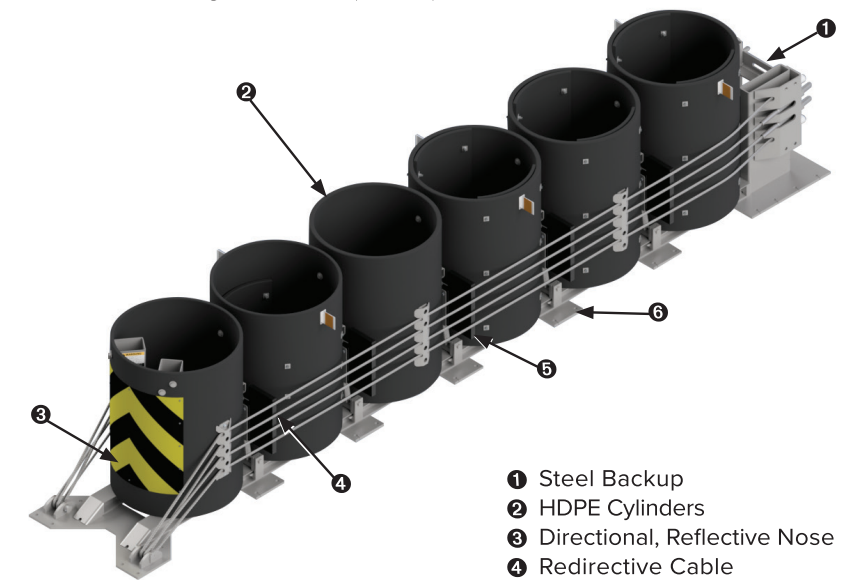
## BACKUP STRUCTURE AND ATTACHMENTS

- Self-contained, steel backup
- Portable or permanent concrete barrier(s)
- Bridge pier(s)
- Bridge parapet(s)
- Square block(s)

## SPECIFICATIONS

### Test Level 3 System

- Length: 22' 2 3/4" (6.78 m)
- Cylinder Width (w/Cable Guides): 38 3/4" (0.98 m)
- Base Track Width: 41 3/4" (1.06 m)
- Height: 52 3/4" (1.34 m)



- 1 Steel Backup
- 2 HDPE Cylinders
- 3 Directional, Reflective Nose
- 4 Redirective Cable
- 5 Diaphragm
- 6 Simple Anchorage

\*After an impact, the product must be inspected and evaluated per the direction of the specifying roadway authority. The ultimate decision on reusability rests with the specifying roadway authority and/or state DOT.



# QuadGuard® M10 CRASH CUSHIONS

The QuadGuard® M10 is a redirective, non-gating crash cushion that consists of an engineered steel nose and crushable, energy absorbing cartridges surrounded by a framework of steel Quad-Beam™ panels. The system is tested to the Manual for Assessing Safety Hardware (MASH) Test Level 3 and Test Level 2. It can be used to shield fixed objects up to 24" (610 mm). A wide Test Level 3 system, the QuadGuard® M Wide, is also available for fixed objects up to 69" (1.75 m).

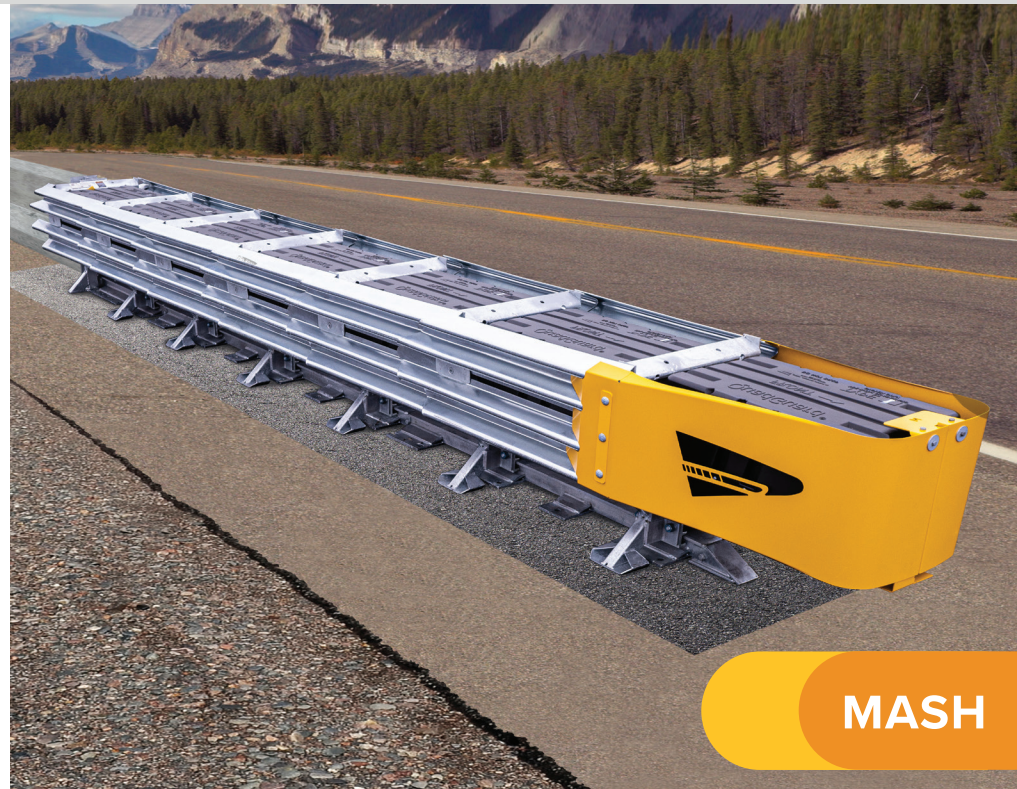
The QuadGuard® M10, as a member of the QuadGuard® family of crash cushions, consists of many of the same components as the original Test Level 3 QuadGuard® platform and framework in addition to an engineered steel nose and monorail shims.

## FEATURES

- Self-supporting steel nose.
- Tension strut backup.
- Monorail guide stabilizers.
- Anchorage in concrete.
- High strength Quad-Beam™ panels.
- Does not use anchoring chains or tension cables.

## ASSEMBLY AND MAINTENANCE

- Damaged cartridges are replaceable.
- Potentially reusable after an impact within MASH crash test standards.\*



MASH

## SPECIFICATIONS

### QuadGuard M10 Test Level 3 System

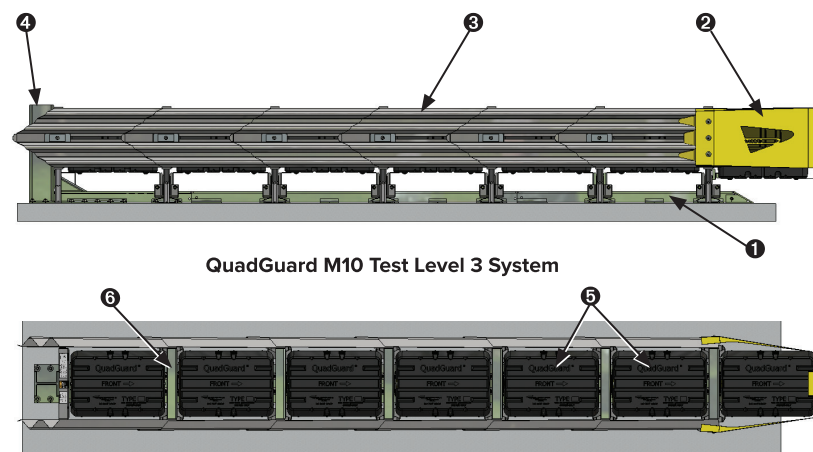
- System Length – 22' 0" (6.71 m)
- System Width – 24" (610 mm)

### QuadGuard M Wide Test Level 3 System (not shown)

- System Length – 22' 0" (6.71 m)
- System Width – 69" (1.75 m)

### QuadGuard M10 Test Level 2 System

- System Length – 13' 0" (3.96 m)
- System Width – 24" (610 mm)



- 1 Monorail Base
- 2 Engineered Steel Nose
- 3 Telescoping Quad-Beam Fender Panel
- 4 Backup
- 5 Cartridge
- 6 Diaphragm

# QuadGuard® Elite M10 CRASH CUSHIONS

The QuadGuard® Elite M10 is a redirective, non-gating crash cushion that consists of a flex-belt nose, and High Density Polyethylene (HDPE) cylinders surrounded by a framework of steel Quad-Beam™ panels. The system is tested to the Manual for Assessing Safety Hardware (MASH) Test Level 3. The QuadGuard® Elite M10 is available in 24" or 69" wide configurations and has transitions to concrete barrier, guardrail, and other roadside hazards.

The QuadGuard® Elite M10, as a member of the QuadGuard® family of crash cushions, consists of many of the same components as the QuadGuard®.

## FEATURES

- Flex-belt nose.
- Tested to MASH TL-3.
- High strength Quad-Beam™ panels.

## ASSEMBLY AND MAINTENANCE

- Cylinders are potentially reusable after an impact within MASH crash test standards.\*
- Anchorage options include: asphalt, concrete.

## BACKUP STRUCTURE AND ATTACHMENTS

- Bridge pier(s) and parapet(s)
- Square block(s)
- Temporary and permanent concrete barrier(s)
- Thrie-beam
- W-beam

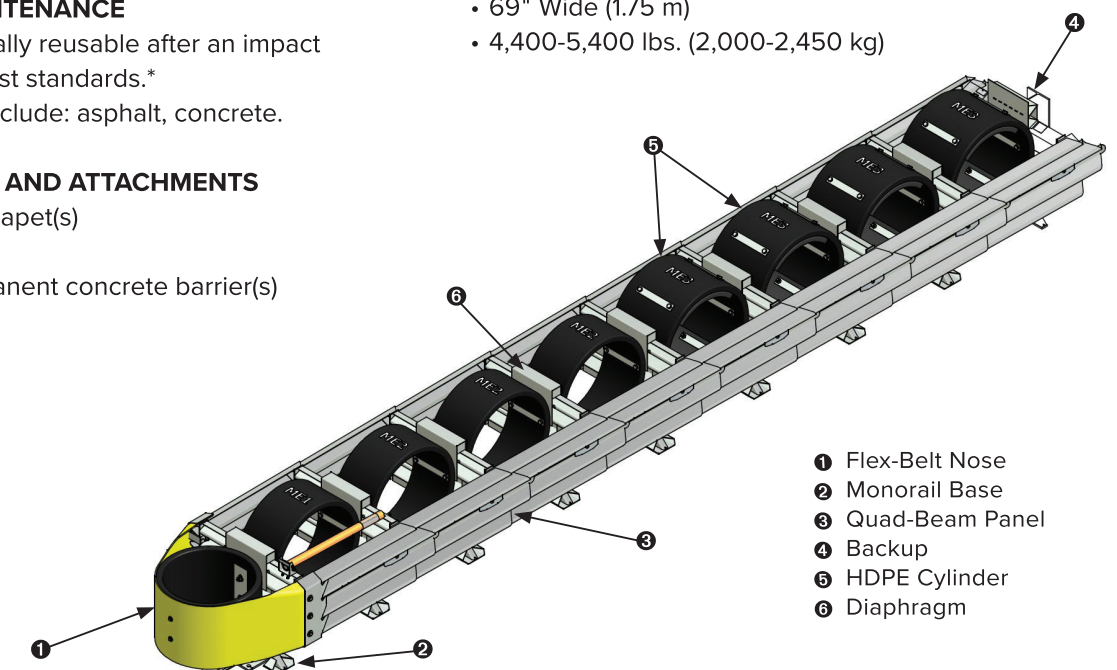


MASH

## SPECIFICATIONS

### Typical Test Level 3 Eight-Bay Unit:

- 24" System Length: 27' 2"
- 24" Wide (610 mm)
- 69" System Length: 27' 1"
- 69" Wide (1.75 m)
- 4,400-5,400 lbs. (2,000-2,450 kg)



- 1 Flex-Belt Nose
- 2 Monorail Base
- 3 Quad-Beam Panel
- 4 Backup
- 5 HDPE Cylinder
- 6 Diaphragm



# Energite® III CRASH CUSHIONS

The ENERGITE® III sand barrel array is a gating, non-redirective crash cushion consisting of a configuration of sand-filled modules. Each module in the array consists of a one-piece barrel, a lid, and in some cases, a cone insert. The ENERGITE® III is tested to both NCHRP Report 350 and MASH 2016 Test Level 3. It can be installed in both permanent and work zone applications and can be used to shield fixed objects in low frequency areas.



MASH

## FEATURES

- Cone insert adjusts sand capacity and height.
- Stackable barrel design for easier storage.
- Solid barrel bottom helps facilitate lifting and transporting of barrels when assembled and filled.
- Tested to both MASH 2016 and NCHRP 350.

## ASSEMBLY AND MAINTENANCE

- Two or three parts per module.
- One-piece barrel design helps facilitate installation.

Nominal Mass		Outer Container Model	Cone Model	Lid
kg	lb			
90	200	640	90/180	x
180	400	640	90/180	x
320	700	640	320	x
640	1400	640	-	x
960	2100	960	-	x

# SS180® M TRUCK MOUNTED ATTENUATOR

The SS180® M is a truck mounted attenuator for use on stationary or moving shadow or support vehicles. It is tested to MASH Test Level 3. The unit is comprised of two lightweight aluminum cartridges contained in a potentially reusable steel support frame, and a 180° tilt feature which folds at the center to stack the two cartridge sections on top of each other.\*

The SS180® M is designed to help absorb rear-end impacts at speeds up to 62 mph (100 km/h) when impacted within MASH crash test standards.



MASH

## FEATURES

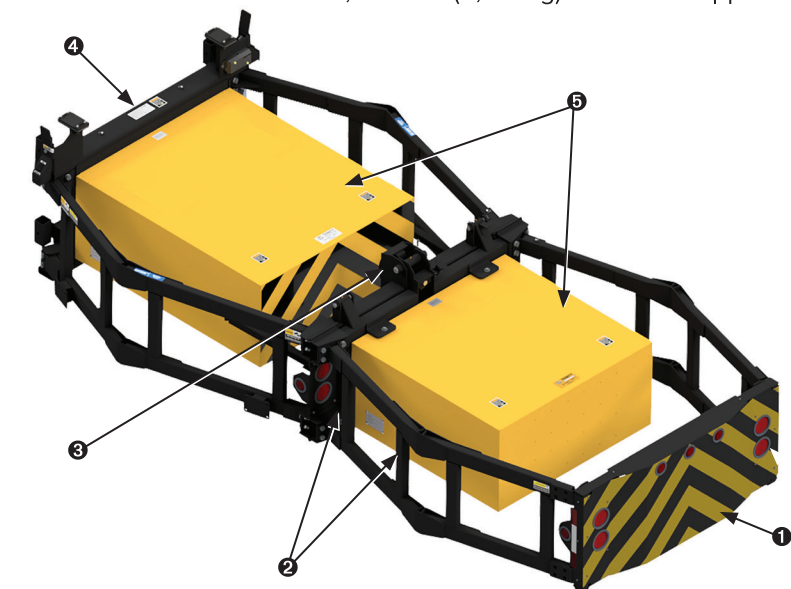
- Short height while in storage mode ideal for garage storage and low overpasses.
- Replaceable, energy absorbing cartridges.
- Potentially reusable steel support frame.\*
- Designed to help minimize damage from low-speed nuisance hits up to 6 mph (10 km/h).

## ASSEMBLY AND MAINTENANCE

- Multiple attachment options for standard trucks.
- Attaches to existing Safe-Stop TMA® mounts for standard and tailgate operations.

## SPECIFICATIONS

- 2,033 lbs. (922 kg) Weight
- 7' 9" (2.35 m) Length Folded
- 14' 7" (4.46 m) Length Deployed
- 6' 10" (2.09 m) Width
- 78-3/4" (2 m) Height Folded
- 37-3/4" (1.32 m) Height Deployed
- 13,500 lbs. (6,125 kg) Minimum Support Vehicle Weight



- 1 Impact Face
- 2 SS180 M Collapsible Frame
- 3 180° Tilt Feature
- 4 Support Structure
- 5 SS180 M Cartridges

\*After an impact, the product must be inspected and evaluated per the direction of the specifying roadway authority. The ultimate decision on reusability rests with the specifying roadway authority and/or state DOT.



# VORTEQ® M

## TRAILER MOUNTED ATTENUATOR

The VORTEQ® M is a trailer-mounted attenuator for use on stationary or moving shadow support vehicles with a minimum weight of 12,153 lbs. (5,526 kg) and an unlimited maximum weight (Infinite Weight). It is tested to MASH 2016 Test Level 3. The unit is comprised of a lightweight tube frame rail and a wheel/axle assembly. The VORTEQ® M is designed to help absorb rear-end impacts at speeds up to 62 mph (100 km/h) when impacted within MASH 2016 crash test standards.



MASH

### FEATURES

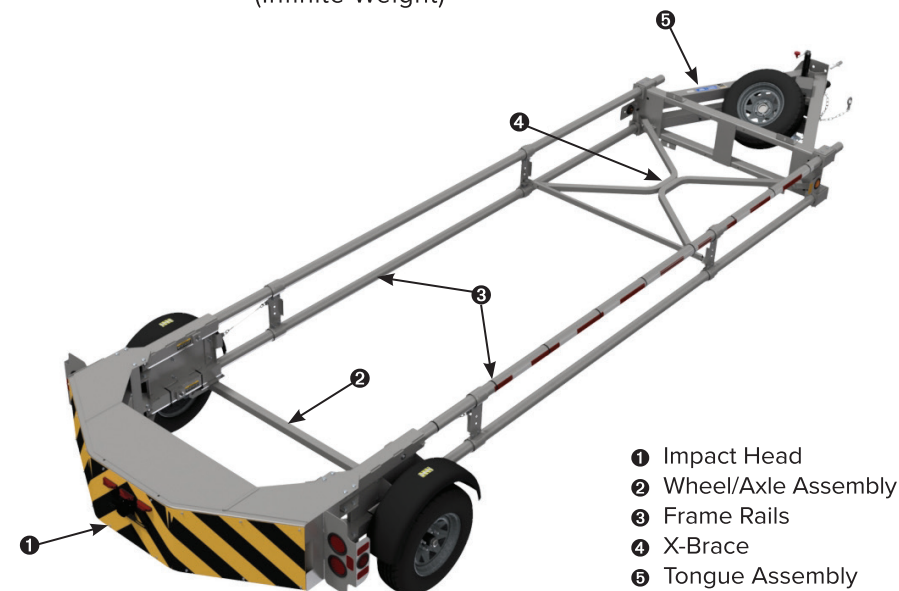
- Integrated anti-rotation capabilities.
- Open frame design helps facilitate inspection, maintenance, or repair.
- Contained debris field after an impact within MASH 2016 crash test standards.
- Multiple Impact Face striping patterns available.
- Arrow board mounting systems available.
- Spare Tire and Battery Box options available.
- Can be configured with strobe warning lights.

### ASSEMBLY AND MAINTENANCE

- Attaches to most support vehicles with a 20 ton pintle hook and 7 pin lighting connector.
- Wheels and axle are designed to stay connected so that the damaged unit can be driven away.

### SPECIFICATIONS

- 24' 6" (7.37 m) Long
- 91" (2.3 m) Wide
- 31" (0.79 m) High
- 540 lbs. (245 kg) Tongue Weight
- 1,690 lbs. (767 kg) Unit Weight (Nominal)
- 12,153 lbs. (5,526 kg) Support Vehicle Minimum Weight
- Unlimited Maximum Support Vehicle Weight (Infinite Weight)



- 1 Impact Head
- 2 Wheel/Axle Assembly
- 3 Frame Rails
- 4 X-Brace
- 5 Tongue Assembly

# SMT®

## TRAILER MOUNTED ATTENUATOR

The SMT® is a trailer mounted attenuator for use on stationary or moving shadow support vehicles. It is tested to the Manual for Assessing Safety Hardware (MASH) Test Level 3. The system is comprised of two lightweight aluminum cartridges contained in a steel support frame and heavy duty Torflex® axle and wheels. The SMT® is designed to help absorb rear-end impacts at speeds up to 62 mph (100 km/h) when impacted within MASH crash test standards.\*



MASH

### FEATURES

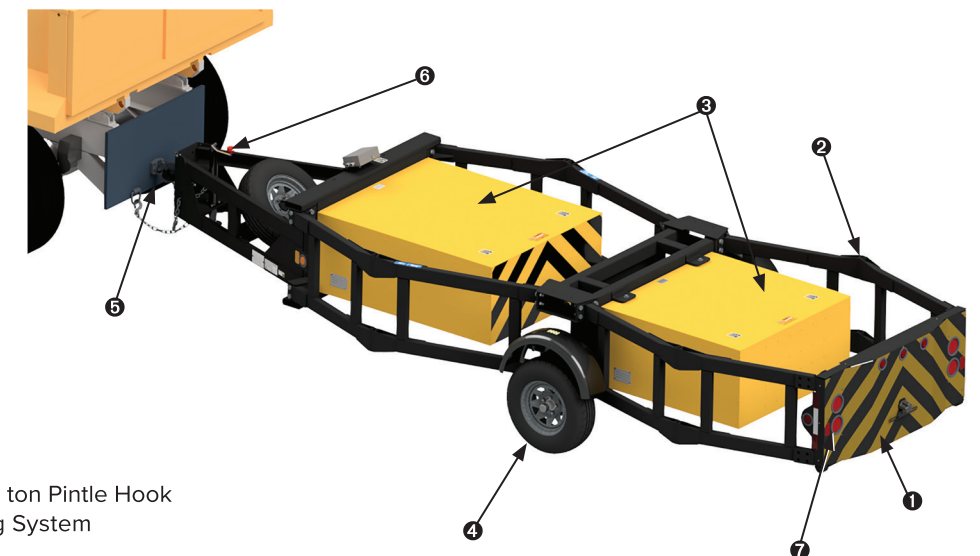
- Trailer system for more efficient deployment and truck fleet utilization.
- Heavy duty Torflex® axle and wheels.
- Arrow board mounting systems available.
- All LED lighting.
- Potentially reusable steel frame after an impact within MASH crash test standards.\*

### ASSEMBLY AND MAINTENANCE

- Attaches to a standard minimum 20 ton pintle hook.
- Damaged aluminum cartridges are replaceable.

### SPECIFICATIONS

- 20' 2" (6.15 m) Length Back to Center of Pintle
- 88" (2.25 m) Width at Fenders
- 40" (1 m) Height
- 2,370 lbs. (1,080 kg)
- 12,000 lbs. (5,454 kg) Minimum Support Vehicle Weight



- 1 Impact Face
- 2 SMT Collapsible Frame
- 3 SMT/SS180M Cartridges
- 4 Heavy Duty Torflex Axle and Wheels
- 5 Standard Attachment to a Minimum 20 ton Pintle Hook
- 6 Standard Breakaway Electric Braking System
- 7 Standard LED Lighting System



# HighwayGuard™ Barrier

## STEEL BARRIERS

The HighwayGuard™ Barrier is a portable, longitudinal redirecting steel barrier made of lightweight, galvanized steel segments. It is tested to MASH 16 Test Level 3 and Test Level 4.

The HighwayGuard™ Barrier can be used in work zone applications with other compatible end treatments such as the QuadGuard®.



### FEATURES

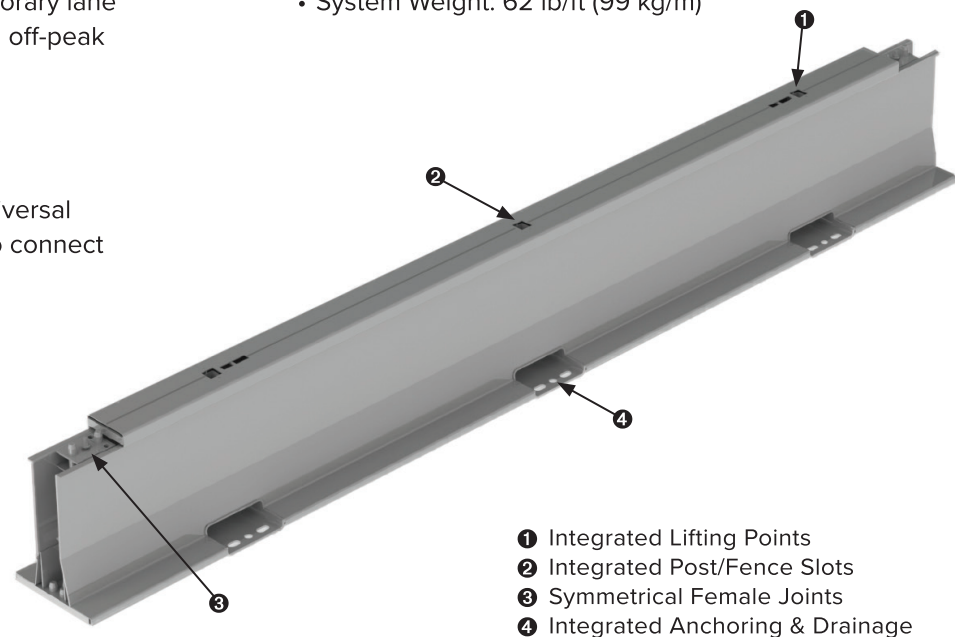
- Deployable in either single 20' segments or dual 40' segments.
- Standard or Lowest Deflection Systems available for applications where space is limited.
- Designed to help reduce work zone congestion in high traffic areas by creating temporary lane shifts and work zone closures during off-peak or weekend hours.
- Tested to MASH 16 TL-3 and TL-4.

### ASSEMBLY AND MAINTENANCE

- Symmetrical barrier sections with universal T-connectors allow for any section to connect to one another, in either direction, significantly lowering installation time and operational costs and reducing inventory.
- Multiple lifting points and grab options for minimizing labor and enhancing safety.
- Narrow barrier profile allows up to 827 linear feet to be transported on a single truckload.

### SPECIFICATIONS

- Length: 19.68' (6.00 m)
- Height: 31.50" (0.80 m)
- Width: 21.25" (0.54 m)
- Module Weight: 1217 lbs. (552 kg)
- T-Connector Weight: 95 lbs. (43 kg)
- System Weight: 62 lb/ft (99 kg/m)



- 1 Integrated Lifting Points
- 2 Integrated Post/Fence Slots
- 3 Symmetrical Female Joints
- 4 Integrated Anchoring & Drainage

# CASS® S3 M10

## CABLE BARRIERS

The CASS® S3 M10 cable barrier system assists in redirecting errant vehicles that would otherwise traverse the median of a roadway. The post employs a unique wave-shaped slot, which works in tandem with a strategically positioned, widened cable spread designed to help restrain various types of vehicles that impact the system within the Manual for Assessing Safety Hardware (MASH) crash test standards.

The slot and post are designed to help lower deflections as shown in crash tests by minimizing the length of unsupported cables. CASS® S3 M10 is tested to MASH Test Level 3 and Test Level 4.



### FEATURES

- Utilizes an S3 X 5.7 lb. LF I-Beam.
- Four-cable, high tension system.
- Widened cable spread from 17" to 42".
- Can use standard or pre-stretched cables.
- Top two cables positioned in unique slot and two bottom cables retained with hook bolts.
- MASH TL-3 can be used on 4:1 or flatter slopes, roadside or median.
- MASH TL-4 can be used on 10:1 or flatter slopes.
- FHWA letters B-232 and B-232A.

### ASSEMBLY AND MAINTENANCE

- Can be used with multiple anchor options.
- Driven socket, driven post, or concreted socket.
- Can use 3/4" or 1" fittings.
- Pre-stretched and tensioned cables require once yearly maintenance.\*
- Cables provided in convenient preassembled 1,000' lengths (305 meters).

### SPECIFICATIONS

- Pre-stretched (recommended) or Standard Cables: 3/4" (19 mm)
- S3 x 5.7 lb. (S75 x 8.5) I-Beam
- Post Spacing: 10.5' (3.2 m)

### CABLE HEIGHTS

- 17.4" (442 mm)
- 29.5" (749 mm)
- 38" (965 mm)
- 42.4" (1,077 mm)



\*After an impact, the product must be inspected and evaluated per the direction of the specifying roadway authority. The ultimate decision on reparability rests with the specifying roadway authority and/or state DOT.



# King MASH® 8" Composite Block GUARDRAIL

King MASH Composite Blocks® are injection molded guardrail offset blocks composed of Recycled High Density Polyethylene (HDPE) and tested to AASHTO's MASH, 2nd Edition (2016), Test Level 3 specifications.

The King MASH Composite Block® is offered as an alternative to 8" (200 mm) depth wood blocks on W-Beam guardrail systems, utilizing standard W6x8.5# / 9# (W150x12.6 kg / 13.5 kg) steel posts.



## FEATURES

- Eligible for reimbursement under the Federal-aid highway program, per FHWA letter HSST-1/B-342, dated 3 June 2020, as a MASH 2016 device.
- Self-hanging fingers.
- Self-aligning side rails.
- Lightweight - only 4.6 lbs. (2.1 kg)
- Weighs less than other 8" MASH blocks.
- Bottom tab supports rail during installation.

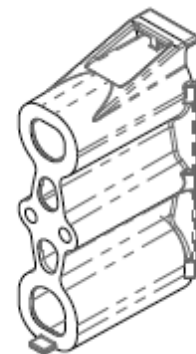
## ASSEMBLY AND MAINTENANCE

- Self-hanging fingers minimize the need for assistance by end-users during installation.
- Self-aligning side rails are designed to hold block in place and resist rotation.
- King Blocks are designed to retain their original size over time, which helps reduce the frequency of retightening guardrail post bolts.
- Formulated with UV inhibitors, to reduce long-term degradation.
- Weather-resistant materials minimize damage related to rain, snow, and extreme cold/heat.
- Blocks are composed of durable materials resulting in less damage by ongoing roadway operations - such as snowplowing and mowing.
- HDPE offers superior resistance to solvents, alcohols, acids and alkalis.

## SPECIFICATIONS

### 8" King MASH Block

- 4"W x 14"L x 7.5"D, 4.6 lbs. (2.1 kg)  
(100 mm x 355 mm x 190 mm)



# King MASH® 12" Composite Block GUARDRAIL

King MASH Composite Blocks® are injection molded guardrail offset blocks composed of Recycled High Density Polyethylene (HDPE) and tested to AASHTO's MASH, 2nd Edition (2016), Test Level 3 specifications.

The King MASH Composite Block® is offered as an alternative to 12" (305 mm) depth wood blocks on W-Beam guardrail systems, utilizing standard W6x8.5# / 9# (W150x12.6 kg / 13.5 kg) steel posts.



## FEATURES

- Eligible for reimbursement under the Federal-aid highway program, per FHWA letter HSST-1/B-353, dated 21 December 2020, as a MASH 2016 device.
- Self-hanging fingers.
- Self-aligning side rails.
- Lightweight - only 7.0 lbs. (3.2 kg)
- Weighs less than other 12" MASH blocks.
- Bottom tab supports rail during installation.

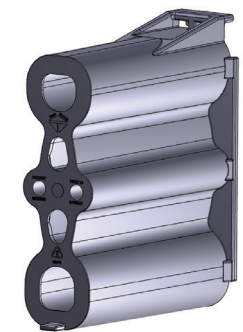
## ASSEMBLY AND MAINTENANCE

- Self-hanging fingers minimize the need for assistance by end-users during installation.
- Self-aligning side rails are designed to hold block in place and resist rotation.
- King Blocks are designed to retain their original size over time, which helps reduce the frequency of retightening guardrail post bolts.
- Formulated with UV inhibitors, to reduce long-term degradation.
- Weather-resistant materials minimize damage related to rain, snow, and extreme cold/heat.
- Blocks are composed of durable materials resulting in less damage by ongoing roadway operations - such as snowplowing and mowing.
- HDPE offers superior resistance to solvents, alcohols, acids and alkalis.

## SPECIFICATIONS

### 12" King MASH Block

- 4"W x 14"L x 11.5"D, 7.0 lbs. (3.2 kg)  
(100 mm x 355 mm x 292 mm)





# T-31™ Guardrail

## GUARDRAIL

T-31™ Guardrail is a strong post W-Beam system tested to both NCHRP Report 350 Test Level 3 and MASH Test Level 3. In the 31" system height, the W-Beam attaches directly to Steel Yielding Line Posts (SYLP™) and does not use offset blocks.

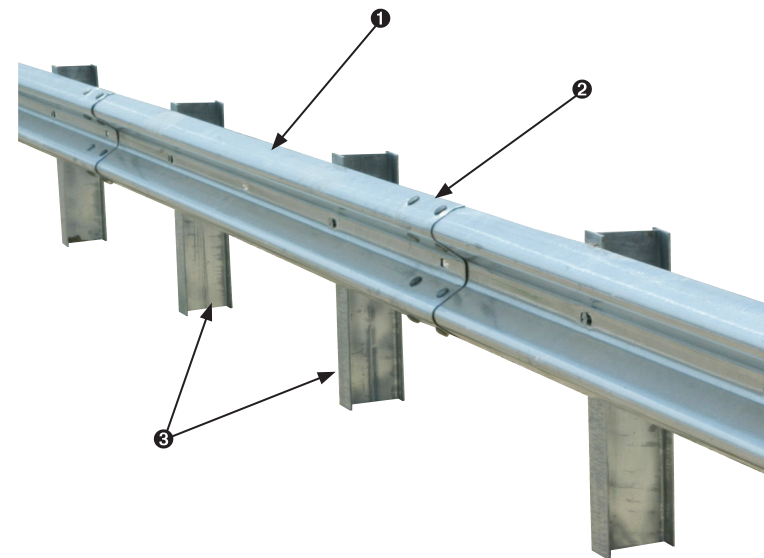


### FEATURES

- Strong posts with weakening holes at the ground line.
- Does not use offset blocks which helps reduce site grading.
- Countersunk-head bolts and Post Flange Protectors.
- Mid-span splices between adjacent posts.
- Single-Face application.

### SPECIFICATIONS

- Standard W-beam Guardrail
- Steel Yielding Line Post (SYLP™): W6 x 8.5 x 6' 0" (W150 x 13.0 x 1.83 m)
- W-beam Guardrail Height: 31" (787 mm)
- Post Spacing: 6' 3" (1.9 m)
- Countersunk Head Bolts: 5/8" x 1 3/4" (16 mm x 45 mm)
- W-beam Flange Protector at Each Post



- ❶ T-31 Guardrail
- ❷ Mid-span Splices
- ❸ SYLP Posts

# TGS™ Guardrail

## GUARDRAIL

The TGS™ is a 31" high W-Beam, no blockout system. The Standard Strong Line Posts are spaced at 6' 3" with splices either on the posts or between the posts. The TGS™ is tested to both NCHRP Report 350 Test Level 3 and MASH Test Level 3.

With the 31" system height, the W-Beam attaches directly to the post, and does not use offset blocks which helps reduce site grading.

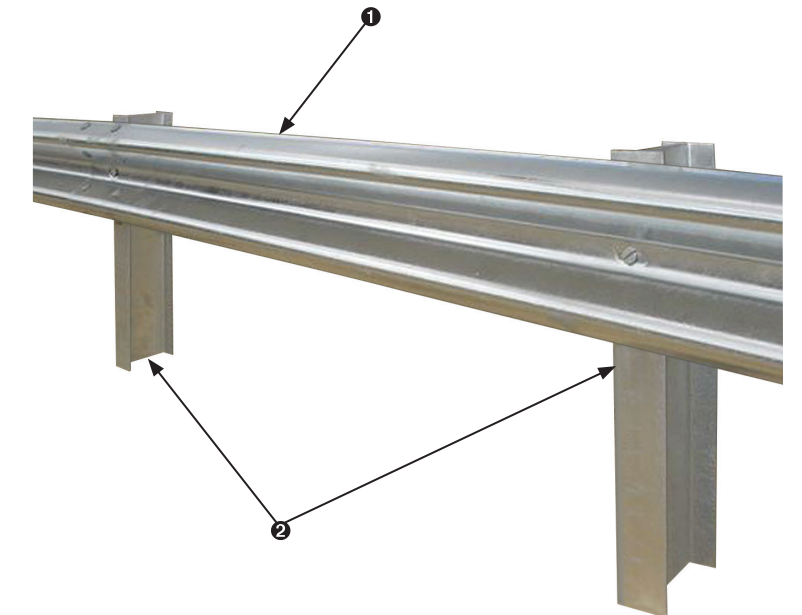


### FEATURES

- Standard strong posts.
- Does not use offset blocks which helps reduce site grading.
- Countersunk head bolts.
- Splices either at post or at mid-span.

### SPECIFICATIONS

- Standard W-Beam Guardrail W6 x 8.5 x 6' 0" (W150 x 13.0 x 1,830 mm)
- W-Beam Guardrail Height: 31" (787 mm)
- Post spacing: 6' 3" (1,905 mm)
- Countersunk Head Bolts: 5/8" x 1 3/4" (16 mm x 45 mm)



- ❶ W-Beam Guardrail
- ❷ Standard Posts



# NU-GUARD™ -31 Guardrail

## GUARDRAIL

NU-GUARD™-31 is a strong post guardrail system available for use without offset blocks for 31" rail height applications. The system is crash-test proven to guard against collisions with fixed objects or hazards.



### FEATURES

- Crashworthy to NCHRP 350 and MASH criteria.
- Does not require offset blocks.
- FHWA accepted for use on roads with design speeds up to 65 mph. (Ref. B-162)
- RIB-BAK 5 lb./ft. U-Channel post is easier and faster to install than wood or I-beam posts.
- RIB-BAK U-Channel posts available galvanized or powder coated.
- Approved for both roadside and median applications.
- Median configurations for 31" rail height applications.
- The narrow profile of this barrier is valuable when roadside space is limited.
- Through-bolt slot works to maintain rail height during impact.

### SPECIFICATIONS

- Guardrail: Use with standard w-beam (AASHTO M-180, Class A or B, Type II)
- W-Beam Height: 31" for Roadside and Median
- RIB-BAK U-Channel: 5 lb./ft.; 6' 6"; Nucor Grade SP-80
- Post Spacing: 6' 3" Typical
- Offset Blocks: Not Required
- Slope: 6 to 1 or less
- NCHRP 350 Tested: TL-3 and TL-4 Compliant
- MASH Tested: MASH TL-3 Compliant



# Yodock® 2001

## LONGITUDINAL CHANNELIZING DEVICES

The Yodock® 2001 Barricade is a plastic, water-filled Longitudinal Channelizing Device (LCD) used for traffic and pedestrian channelization, road and street closures, or perimeter fencing for vertical construction. When deployed as an LCD, the units are attached end-to-end using a plastic coupler.

Additional application specific accessories are also available for the Yodock® 2001 Barricade.



### FEATURES

- Lightweight system enables convenient positioning by hand.
- Can be accessorized for longitudinal barrier, perimeter fencing, road closure, and temporary sign support applications.
- Stackable for more efficient transportation and storage.
- Made of Low Density Polyethylene (LDPE).
- Convenient forklift access for maneuverability.
- Available in custom colors.

### FHWA ELIGIBILITY

#### MASH

- Longitudinal Channelizing Device (LCD); Test Level 3

#### NCHRP 350

- Longitudinal Channelizing Device (LCD)
- Work Zone Barricade
- Temporary Sign Support
- Longitudinal Barrier (When used with Steel Rail Kit)

### APPLICATIONS

- Temporary Work Zones
- Temporary Sign Support
- Perimeter Fencing
- Airport Construction & Maintenance
- Parking Facilities
- Municipal & Public Utilities
- Security Checkpoints
- Events & Crowd Control

### SPECIFICATIONS

- 6' Length
- 24" Width
- 46" Height
- Empty Weight: 130 lbs.

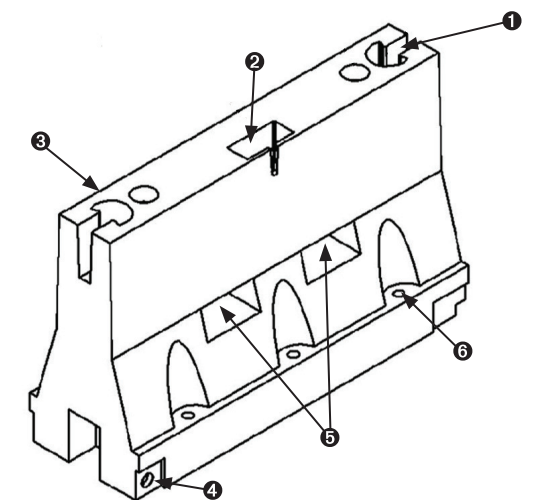
#### MASH

- Ballast Capacity: 75 gal.
- Ballasted Weight: 750 lbs.

#### NCHRP 350

- Ballast Capacity: 180 gal.
- Ballasted Weight: 1,500 lbs.

- 1 Interlocking Coupler
- 2 Light Box Recess
- 3 Fill Hole
- 4 Drain Holes
- 5 Forklift Access
- 6 Ground Mounting Ports





# Yodock® 2001M

## LONGITUDINAL CHANNELIZING DEVICES

The Yodock® 2001M Barricade is a plastic, water-filled Longitudinal Channelizing Device (LCD) used for traffic and pedestrian channelization, road and street closures, or perimeter fencing for vertical construction. When deployed as an LCD, the units are attached end-to-end using a plastic coupler.

Additional application specific accessories are also available for the Yodock® 2001M Barricade.

### FEATURES

- Lightweight system enables convenient positioning by hand.
- Can be accessorized for longitudinal barrier, perimeter fencing, road closure, and temporary sign support applications.
- Stackable for more efficient transportation and storage.
- Made of Low Density Polyethylene (LDPE).
- Convenient forklift access for maneuverability.
- Available in custom colors.

### FHWA ELIGIBILITY

#### MASH

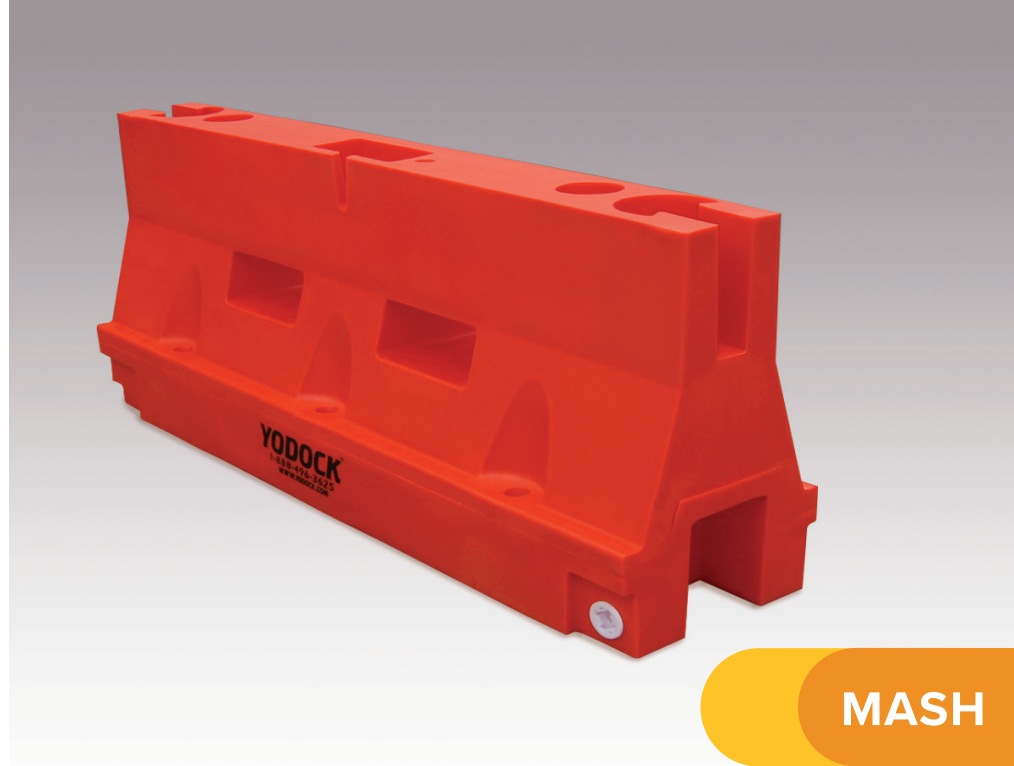
- Longitudinal Channelizing Device (LCD); Test Level 2

#### NCHRP 350

- Longitudinal Channelizing Device (LCD)
- Work Zone Barricade
- Temporary Sign Support
- Longitudinal Barrier (When used with Steel Rail Kit)

### APPLICATIONS

- Construction & Temporary Work Zones
- Longitudinal Channelizer
- Temporary Sign Support
- Perimeter Fencing
- Airport Construction & Maintenance
- Parking Facilities
- Municipal & Public Utilities
- Security Checkpoints
- Events & Crowd Control
- Parks & Recreational Facilities



### SPECIFICATIONS

- 6' Length
- 18" Width
- 32" Height
- Empty Weight: 75 lbs.

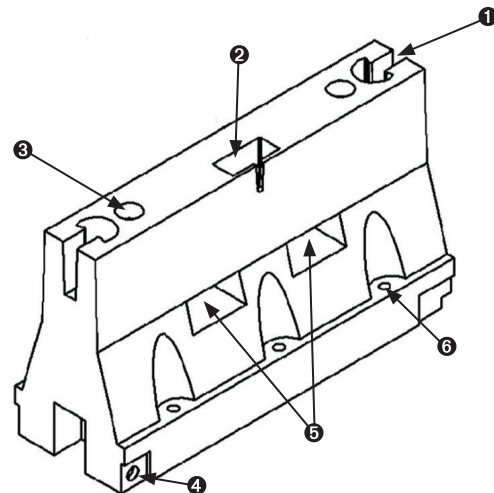
### MASH

- Ballast Capacity: 55 gal.
- Ballasted Weight: 534 lbs.

### NCHRP 350

- Ballast Capacity: 80 gal.
- Ballasted Weight: 750 lbs.

- 1 Interlocking Coupler
- 2 Light Box Recess
- 3 Fill Hole
- 4 Drain Holes
- 5 Forklift Access
- 6 Ground Mounting Ports



# Yodock® 2001MB

## LONGITUDINAL CHANNELIZING DEVICES

The Yodock® 2001MB Barricade is a plastic, water-filled Longitudinal Channelizing Device (LCD) used for traffic and pedestrian channelization, road and street closures, or perimeter fencing for vertical construction. When deployed as an LCD, the units are attached end-to-end using a plastic coupler.

Additional application specific accessories are also available for the Yodock® 2001MB Barricade.

### FEATURES

- Lightweight system enables convenient positioning by hand.
- Can be accessorized for longitudinal barrier, perimeter fencing, road closure, and temporary sign support applications.
- Stackable for more efficient transportation and storage.
- Made of High Density Polyethylene (HDPE).
- Convenient forklift access for maneuverability.
- Available in custom colors.

### FHWA ELIGIBILITY

#### MASH

- Longitudinal Channelizing Device (LCD); Test Level 2

#### NCHRP 350

- Longitudinal Channelizing Device (LCD)
- Work Zone Barricade
- Temporary Sign Support
- Longitudinal Barrier (When used with Steel Rail Kit)

### APPLICATIONS

- Construction & Temporary Work Zones
- Longitudinal Channelizing Device
- Perimeter Fencing
- Airport Construction & Maintenance
- Parking Facilities
- Municipal & Public Utilities
- Security Checkpoints
- Events & Crowd Control
- Parks & Recreational Facilities



### SPECIFICATIONS

- 6' Length
- 18" Width
- 32" Height
- Empty Weight: 85 lbs.

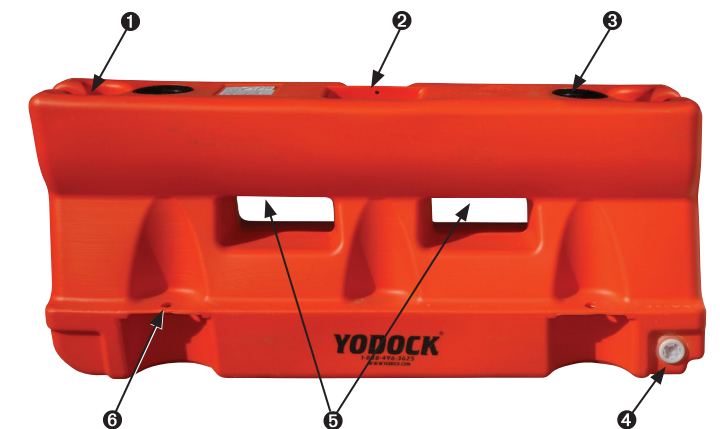
### MASH

- Ballast Capacity: 60 gal.
- Ballasted Weight: 583 lbs.

### NCHRP 350

- Ballast Capacity: 100 gal.
- Ballasted Weight: 900 lbs.

- 1 Interlocking Coupler
- 2 Light Box Recess
- 3 Fill Hole
- 4 Drain Holes
- 5 Forklift Access
- 6 Tie Down Flanges











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