



Mr. Peter Bergendahl, Trinity Highways Products LLC

Crash Cushions
and
What They Are Supposed To Do
by
Peter Bergendahl



Rigid Obstacle at the Roadside

Remove



Rigid Obstacle at the Roadside

Remove








Make It Breakaway



BA-4 / TSCR-700 / TSB2 / SF24-OCT** (3" O.D. Smooth Breakway Pole w/ Street Sign Mount and Octagon Sign Frame)

Poles available in the following heights:
14 ft. • 12 ft. • 10 ft. • 8 ft.


How to Order: Example:
BA-4** / TSCR-700 / TSB2 / SF24-OCT-8ft.
Post / Street Sign Mount / Post Topper / SF24-OCT-Color
(* Indicates pole height)

<p>BA-4** Revolvable Smooth Pole - 3" O.D. Smooth Post - Made of Extruded Aluminum - 10% Wall Thickness - Direct Drive</p>	
<p>TSCR-700 - Single Street Sign Mount - Mounts to any 3" O.D. pole - Can be rotated to hold any size sign blade - Made of Extruded Aluminum - Has Single Pole Accessory for use for product specifications</p>	
<p>TSB2 - Custom Rod Post Topper - Decorative Post Topper that fits 3" O.D. round post. - Made of Cast Aluminum - 3.34" wide x 4.28" tall</p>	   
<p>SF24-OCT Sign Frame - Fits around 24" Stop Sign - Has a 1" square edge on all sides - Made of Cast Aluminum</p>	

Additional Post Topper Options: TSCR, TSB2, TSB3, TSB4

Finish:
- The Finish will be Grained with a premium quality fluoropolymer powdercoat for a durable finish.

Installation Instructions for Direct Drive Posts:



SPECIAL LITE 301 Lincoln Drive Road • Lynchburg, VA 24501 • Phone (703) 337-4711 • Fax (703) 337-4712
www.specialliteproducts.com • customer_service@specialliteproducts.com

Rigid Obstacle at the Roadside

Remove

Make It Breakaway

Shield







5/10/2007 8:23:09 AM



TL-1 (50 km/h = 31 mph)
 TL-2 (70 km/h = 43.5 mph)
 TL-3 (100 km/h = 62.1 mph)

NCHRP 350 TEST MATRIX

TERMINALS & CRASH CUSHIONS

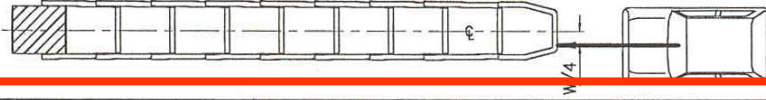
REDIRECTIVE NONGATING

← = 820C
 ← = 2000P

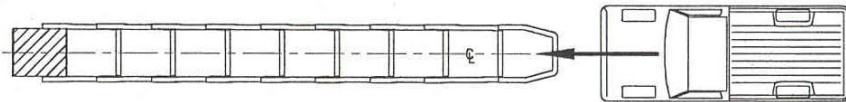
(e.g. G-R-E-A-T/HEX-FOAM SANDWICH)

* F FOR TL-2 & TL-3; G FOR TL-1

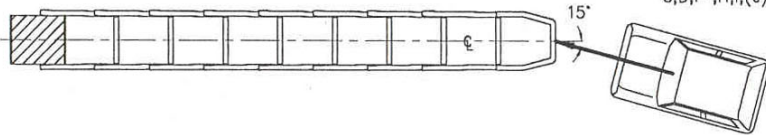
TEST 30
 820C/___km/h/0°
 C,D,F*,H,I,(J),K,N



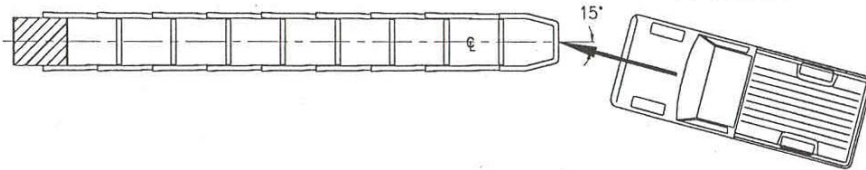
TEST 31
 2000P/___km/h/0°
 C,D,F*,H,I,(J),K,N



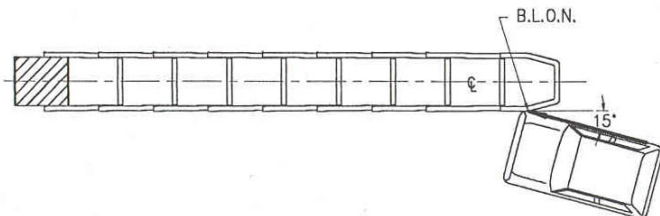
TEST 32
 820C/___km/h/ 15°
 C,D,F*,H,I,(J),K,N



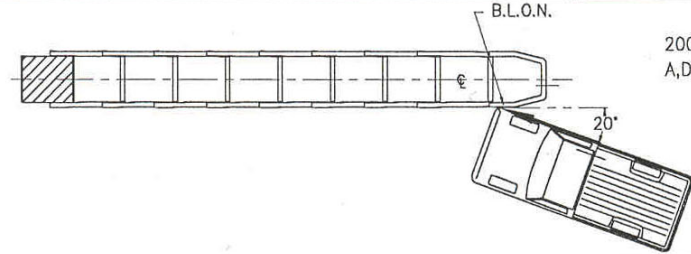
TEST 33
 2000P/___km/h/ 15°
 C,D,F*,H,I,(J),K,N



TEST 36
 820C/___km/h/ 15°
 A,D,F*,H,I,(J),K,M

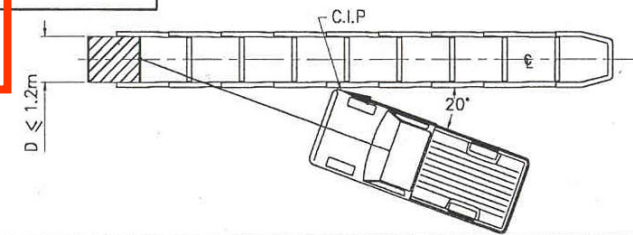


TEST 37
 2000P/___km/h/ 20°
 A,D,F*,K,L,M



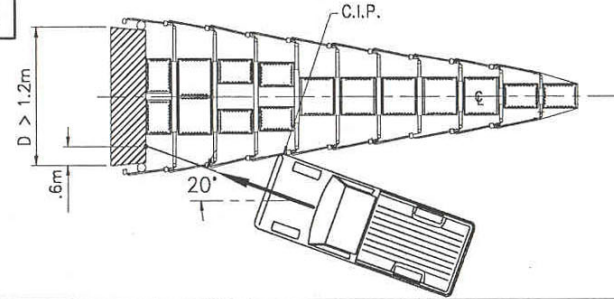
NARROW

TEST 38
 2000P/___km/h/ 20°
 A,D,F*,K,L,M

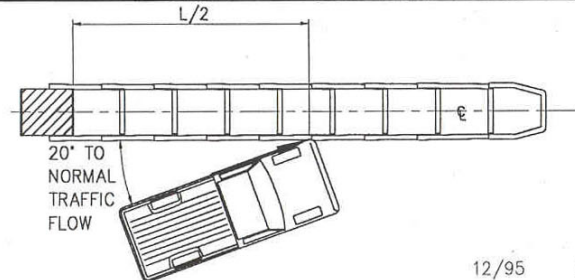


WIDE

TEST 38
 2000P/___km/h/ 20°
 A,D,F*,K,L,M



TEST 39
 2000P/___km/h/ 20°
 C,D,F*,K,L,M,N



Energy Absorbing Technic

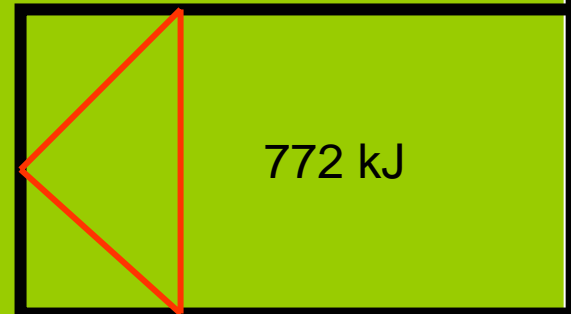
- Deformation
- Cutting
- Compression
- Elasticity



2,000 kg, 100 km/h, 0 degree



X meter



772 kJ

VTI 2005-05-25
EN 1317-3 Test TC 1.3.110

Trinity Industries Inc
EURO-TRACC

TL-1 (50 km/h = 31 mph)
 TL-2 (70 km/h = 43.5 mph)
 TL-3 (100 km/h = 62.1 mph)

NCHRP 350 TEST MATRIX

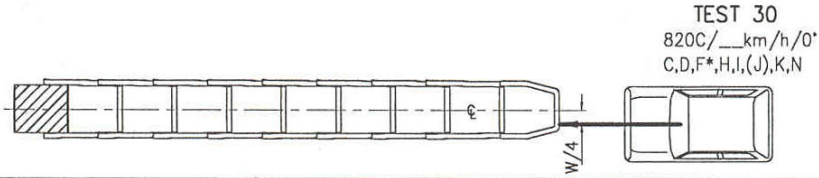
TERMINALS & CRASH CUSHIONS

REDIRECTIVE NONGATING

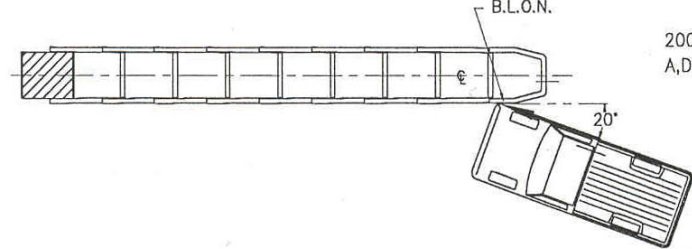
← = 820C
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(e.g. C R E A T/HEX FOAM SANDWICH)

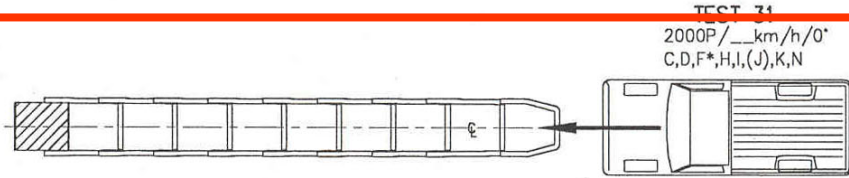
* F FOR TL-2 & TL-3; G FOR TL-1



TEST 30
 820C/___km/h/0°
 C,D,F*,H,I,(J),K,N

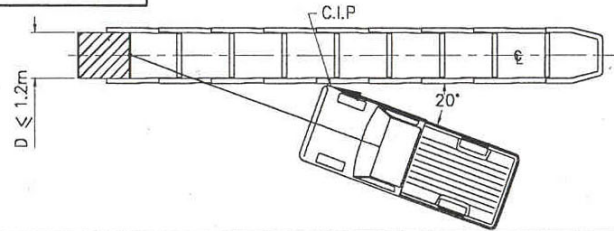


TEST 37
 2000P/___km/h/ 20°
 A,D,F*,K,L,M

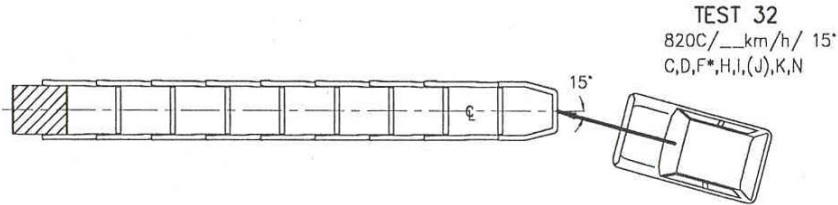


TEST 31
 2000P/___km/h/0°
 C,D,F*,H,I,(J),K,N

NARROW

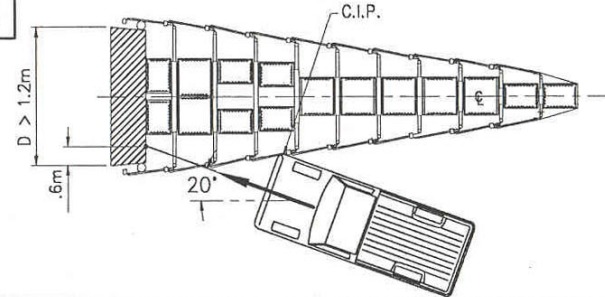


TEST 38
 2000P/___km/h/ 20°
 A,D,F*,K,L,M

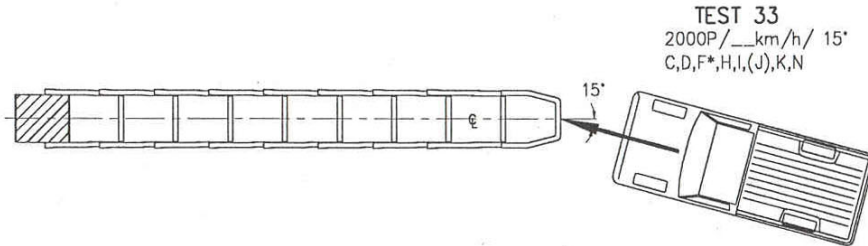


TEST 32
 820C/___km/h/ 15°
 C,D,F*,H,I,(J),K,N

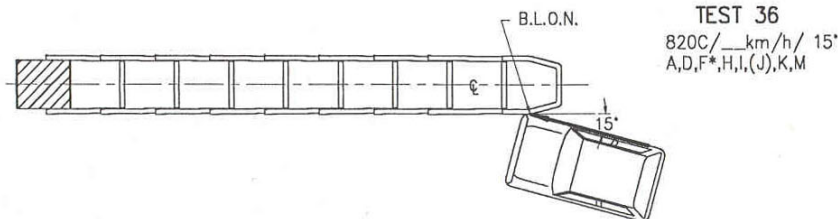
WIDE



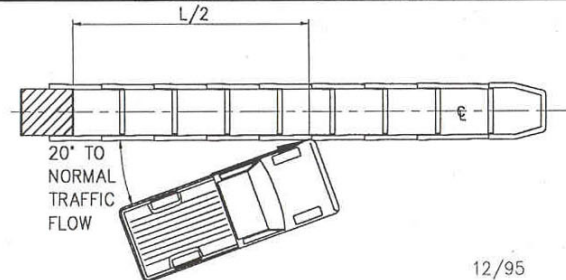
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TEST 33
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TEST 36
 820C/___km/h/ 15°
 A,D,F*,H,I,(J),K,M

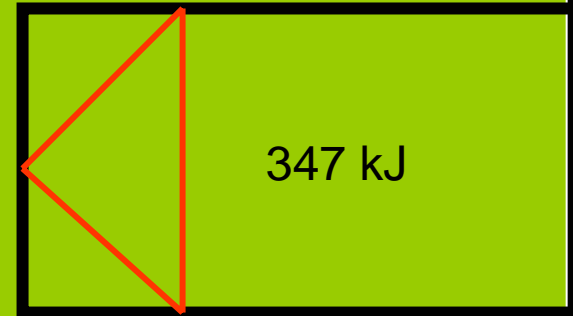


TEST 39
 2000P/___km/h/ 20°
 C,D,F*,K,L,M,N

900 kg, 100 km/h, 0 degree, 1/4 offset



Appr. 8 meter



Max 20 g

VTI 2005-05-26
EN 1317-3 Test TC 2.1.100

Trinity Industries Inc
EURO-TRACC

TL-1 (50 km/h = 31 mph)
 TL-2 (70 km/h = 43.5 mph)
 TL-3 (100 km/h = 62.1 mph)

NCHRP 350 TEST MATRIX

TERMINALS & CRASH CUSHIONS

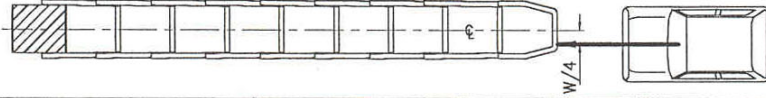
REDIRECTIVE NONGATING

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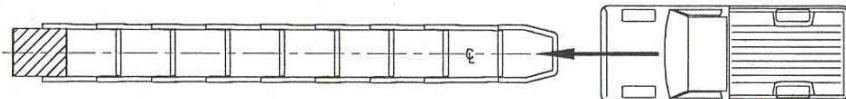
(e.g. G-R-E-A-T/HEX-FOAM SANDWICH)

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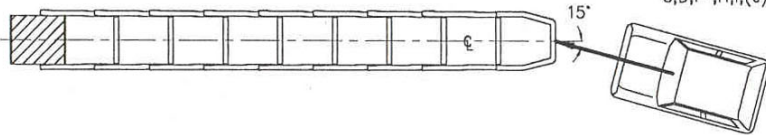
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 820C/___km/h/0°
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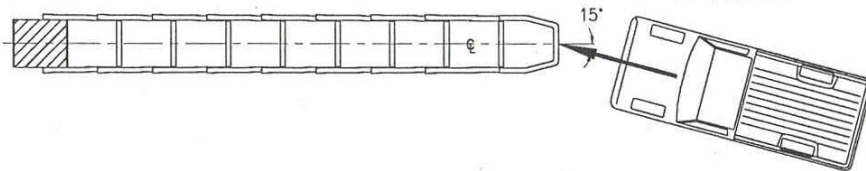
TEST 31
 2000P/___km/h/0°
 C,D,F*,H,I,(J),K,N



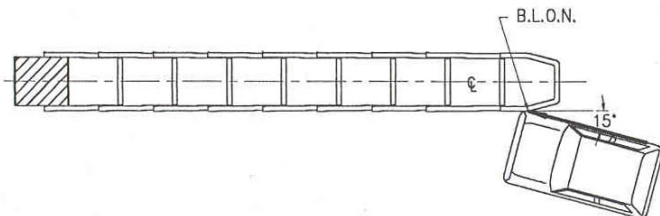
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 820C/___km/h/ 15°
 C,D,F*,H,I,(J),K,N



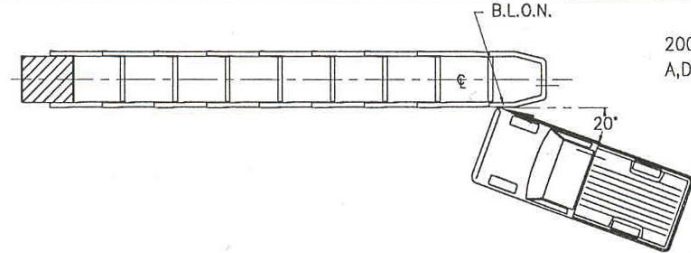
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 C,D,F*,H,I,(J),K,N



TEST 36
 820C/___km/h/ 15°
 A,D,F*,H,I,(J),K,M

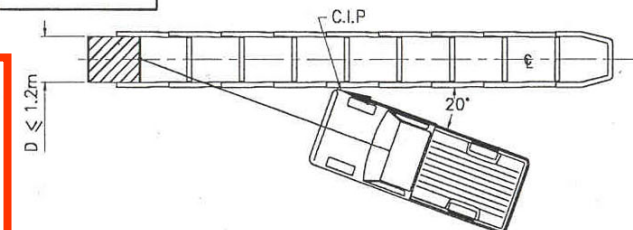


TEST 37
 2000P/___km/h/ 20°
 A,D,F*,K,L,M



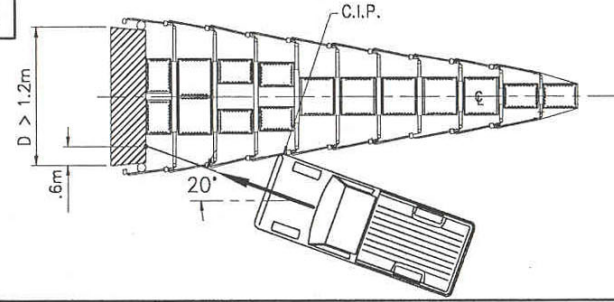
TEST 38
 2000P/___km/h/ 20°
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NARROW

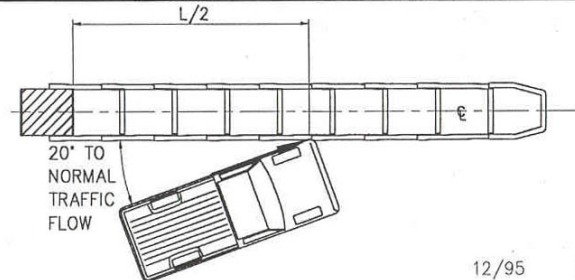


TEST 38
 2000P/___km/h/ 20°
 A,D,F*,K,L,M

WIDE



TEST 39
 2000P/___km/h/ 20°
 C,D,F*,K,L,M,N



VTI 2005-05-18
EN 1317-3 Test TC 3.3.110

Trinity Industries Inc
EURO-TRACC

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 TL-2 (70 km/h = 43.5 mph)
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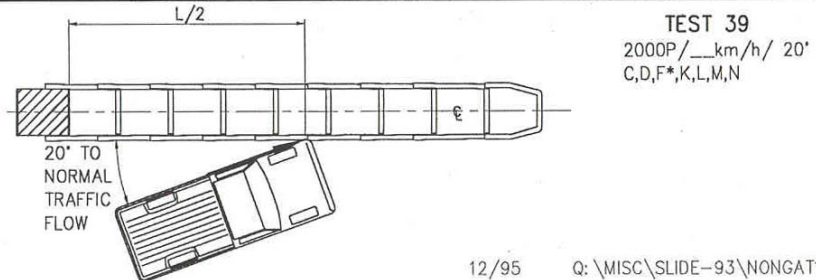
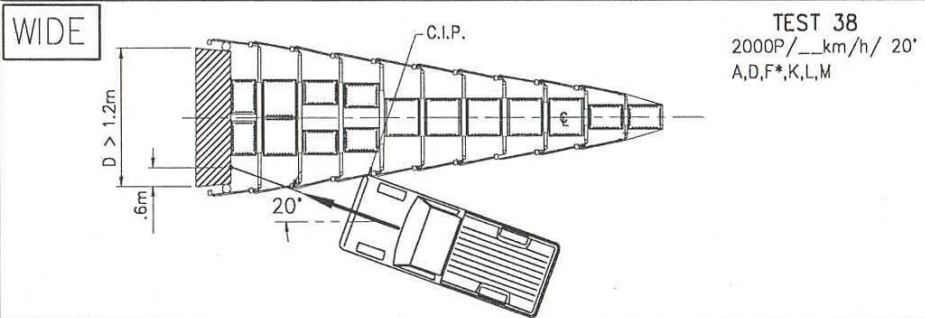
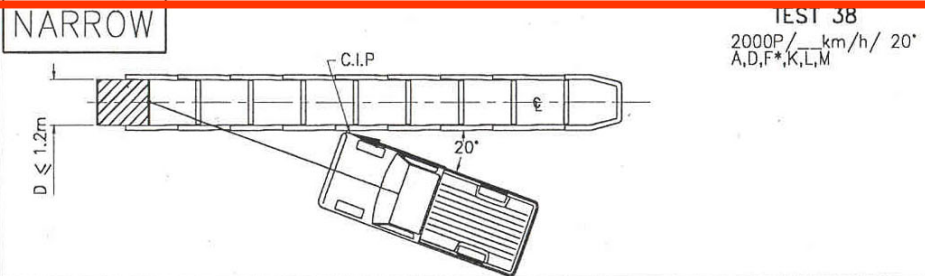
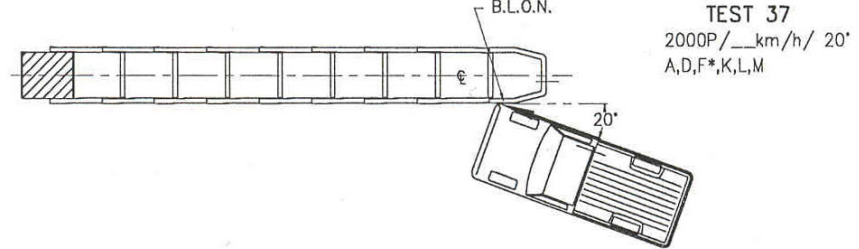
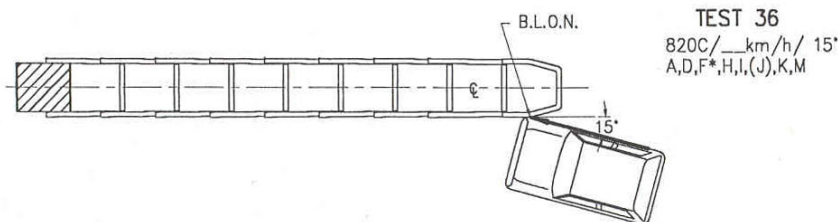
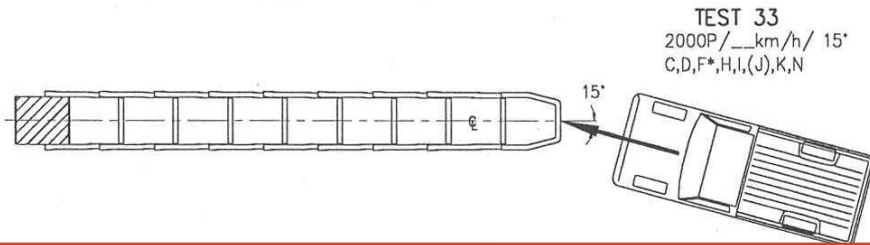
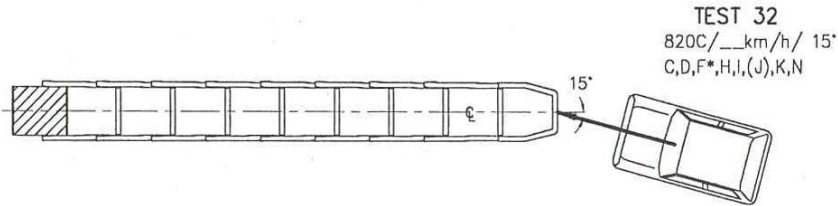
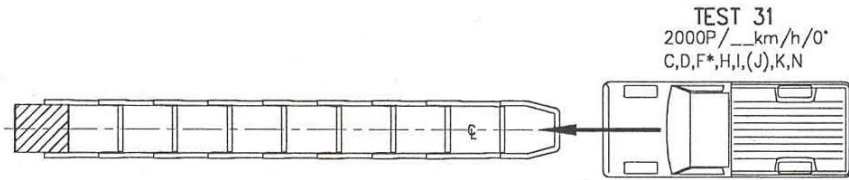
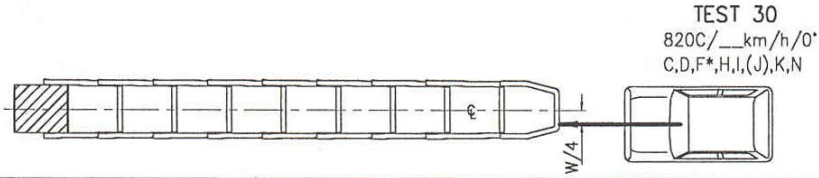
NCHRP 350 TEST MATRIX

TERMINALS & CRASH CUSHIONS

REDIRECTIVE NONGATING

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 ← = 2000P

(e.g. G-R-E-A-T/HEX-FOAM SANDWICH)



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NCHRP 350 TEST MATRIX

TERMINALS & CRASH CUSHIONS

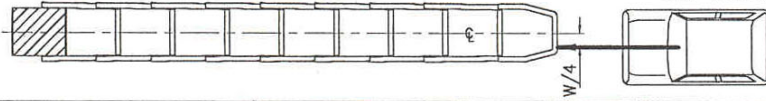
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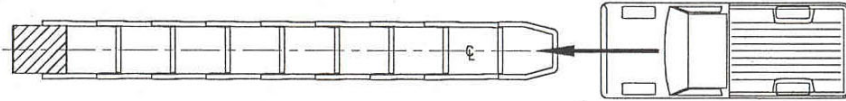
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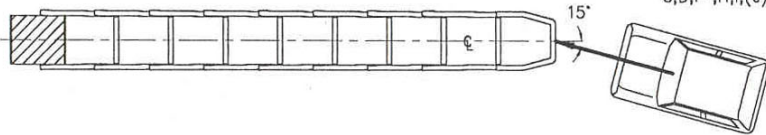
TEST 30
 820C/___km/h/0°
 C,D,F*,H,I,(J),K,N



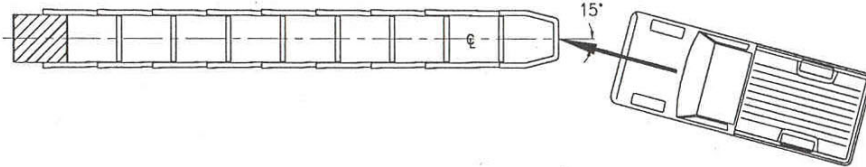
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 2000P/___km/h/0°
 C,D,F*,H,I,(J),K,N



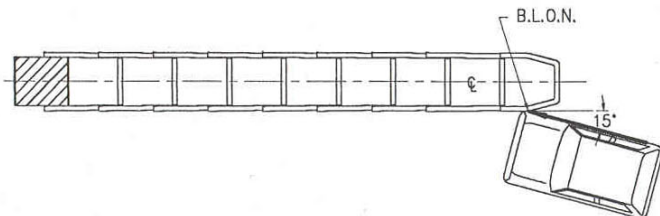
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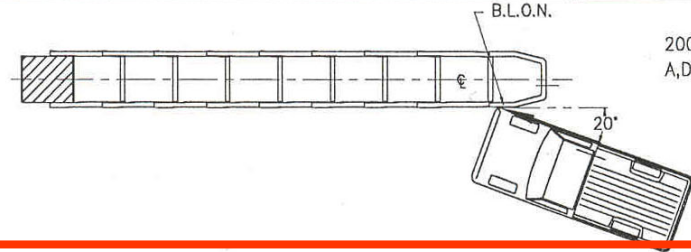
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TEST 36
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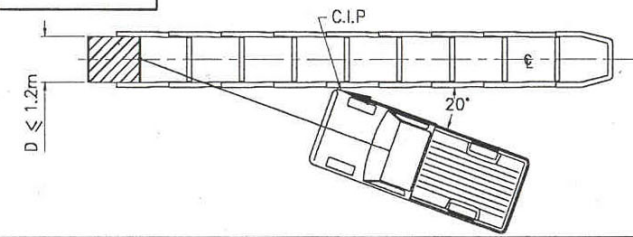


TEST 37
 2000P/___km/h/ 20°
 A,D,F*,K,L,M



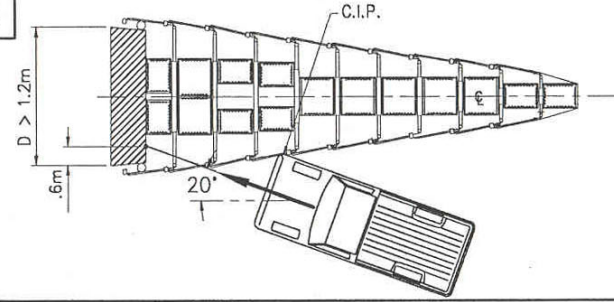
NARROW

TEST 38
 2000P/___km/h/ 20°
 A,D,F*,K,L,M

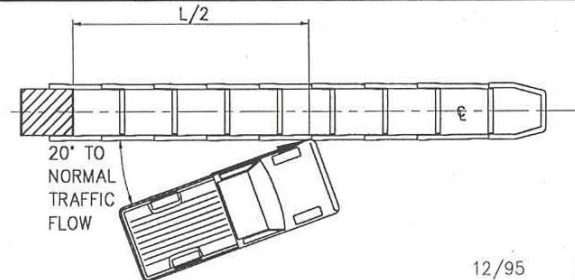


WIDE

TEST 38
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 A,D,F*,K,L,M



TEST 39
 2000P/___km/h/ 20°
 C,D,F*,K,L,M,N





VTI 2005-05-19
EN 1317-3 Test TC 4.3.110

Trinity industries Inc
EURO-TRACC

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NCHRP 350 TEST MATRIX

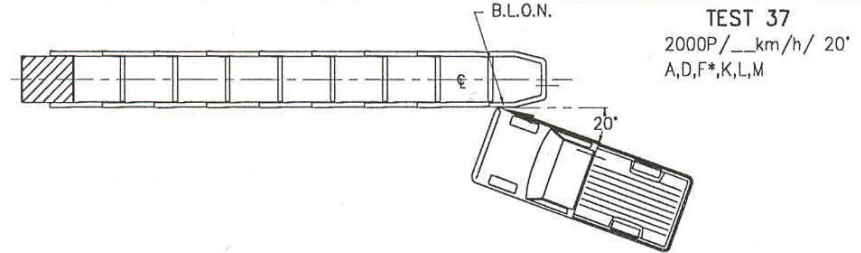
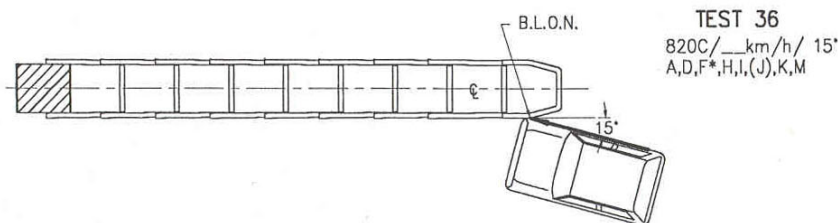
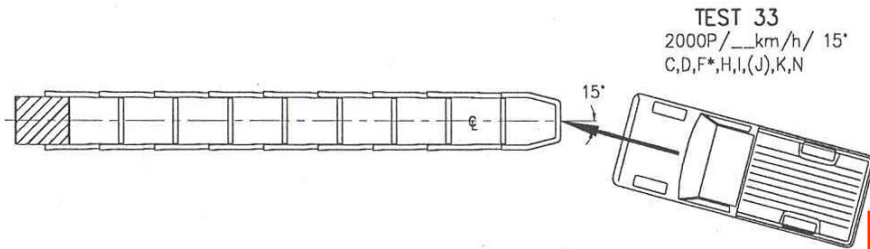
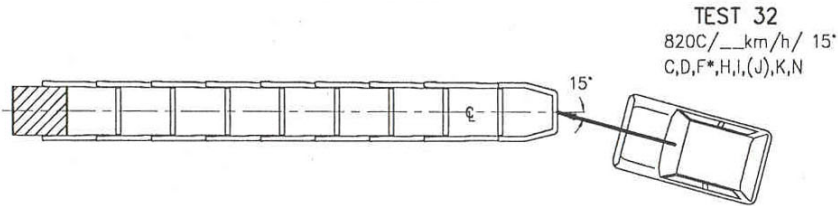
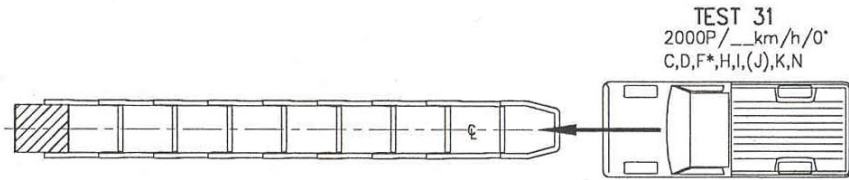
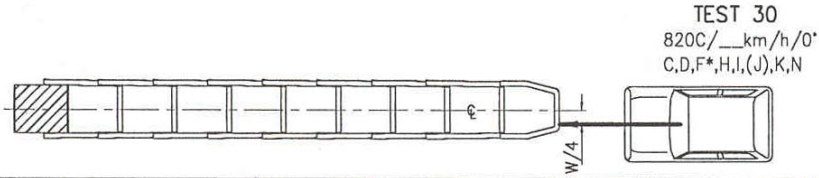
TERMINALS & CRASH CUSHIONS

REDIRECTIVE NONGATING

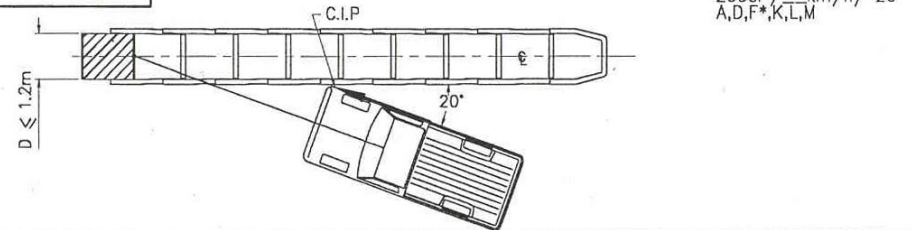
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(e.g. G-R-E-A-T/HEX-FOAM SANDWICH)

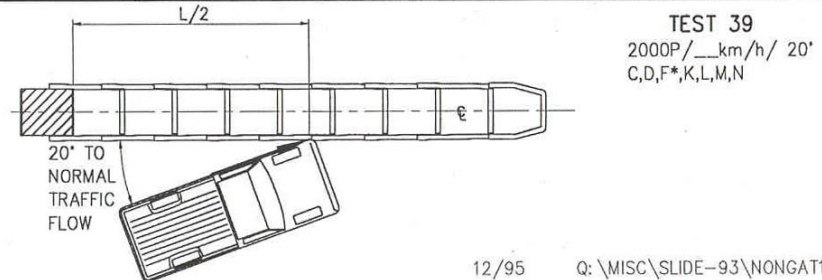
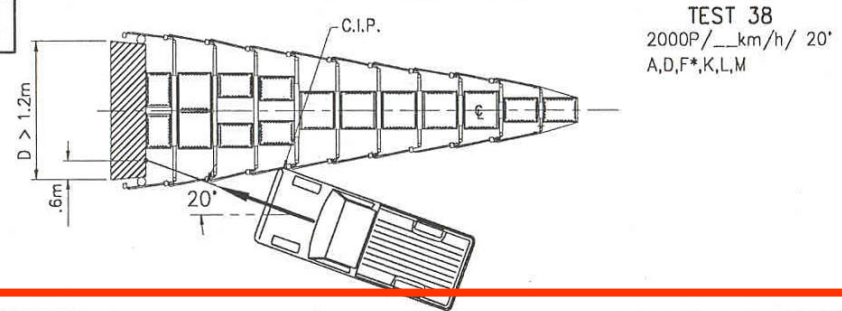
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NARROW



WIDE



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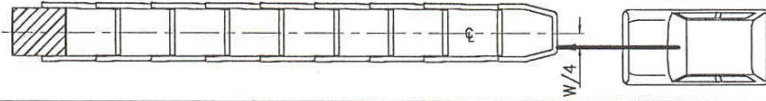
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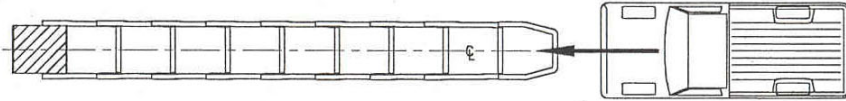
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820C/___km/h/0°
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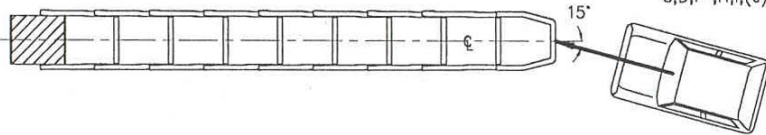
TEST 31

2000P/___km/h/0°
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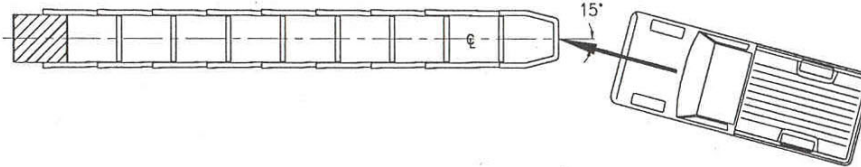
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820C/___km/h/ 15°
 C,D,F*,H,I,(J),K,N



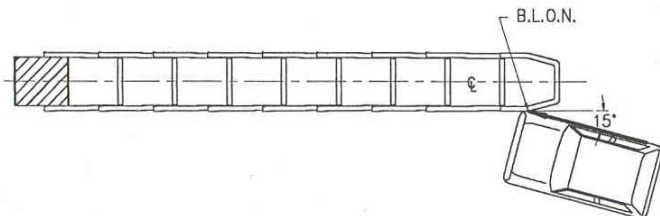
TEST 33

2000P/___km/h/ 15°
 C,D,F*,H,I,(J),K,N



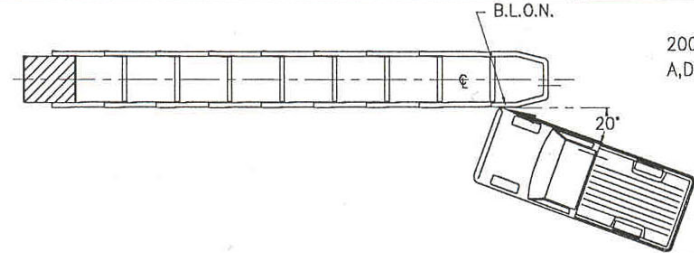
TEST 36

820C/___km/h/ 15°
 A,D,F*,H,I,(J),K,M

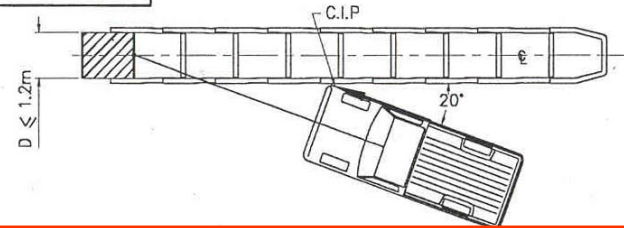


TEST 37

2000P/___km/h/ 20°
 A,D,F*,K,L,M



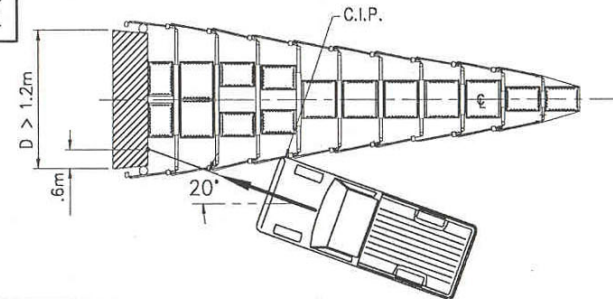
NARROW



TEST 38

2000P/___km/h/ 20°
 A,D,F*,K,L,M

WIDE

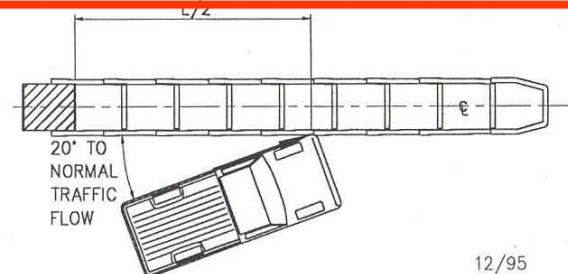


TEST 38

2000P/___km/h/ 20°
 A,D,F*,K,L,M

TEST 39

2000P/___km/h/ 20°
 C,D,F*,K,L,M,N







Thank you for listening!

Questions?