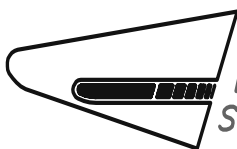


QUADGUARD[®] CEN



**ENERGY ABSORPTION
SYSTEMS, INC.**

SCT02g

SHEET NO.

DATE:

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4/15/05

INTENDED USE

The QuadGuard® CEN consists of energy absorbing cartridges surrounded by a framework of steel Quad-Beam™ guardrail which telescopes rearward during head-on impacts. The QuadGuard® CEN has a center monorail, which will resist lateral movement during side angle impacts, and a backup, which will resist movement during head-on impacts. The nose assembly consists of a flexible nose wrap and does not contain an energy absorbing cartridge. Transitions are available and may be required depending on site conditions.

The QuadGuard® CEN is capable of meeting the Impact Test Acceptance Criteria stipulated in European Standard EN 1317:2000, for velocity classes of 68 mph [110 km/h], 62 mph [100 km/h], and 50 mph [80 km/h], for vehicles weighing between 1,984 [900 kg] and 3,307 [1500 kg]. The 8 bay, 6 bay & 5 bay QuadGuard® CEN Systems are designed for velocity classes 68 mph [110 km/h], 62 mph [100 km/h], and 50 mph [80 km/h], respectively. A properly installed and maintained QuadGuard® CEN is capable of performing its functions of stopping or containing and redirecting the test vehicles to the European Standard EN 1317:2000 requirements.

Contact Information

Corporate Offices:
35 East Wacker Dr., 11th Floor
Chicago, IL 60601-2076
Telephone: (312) 467-6750
FAX: (312) 467-1356
<http://www.energyabsorption.com/>

QUADGUARD® CEN SYSTEM

SCT02g

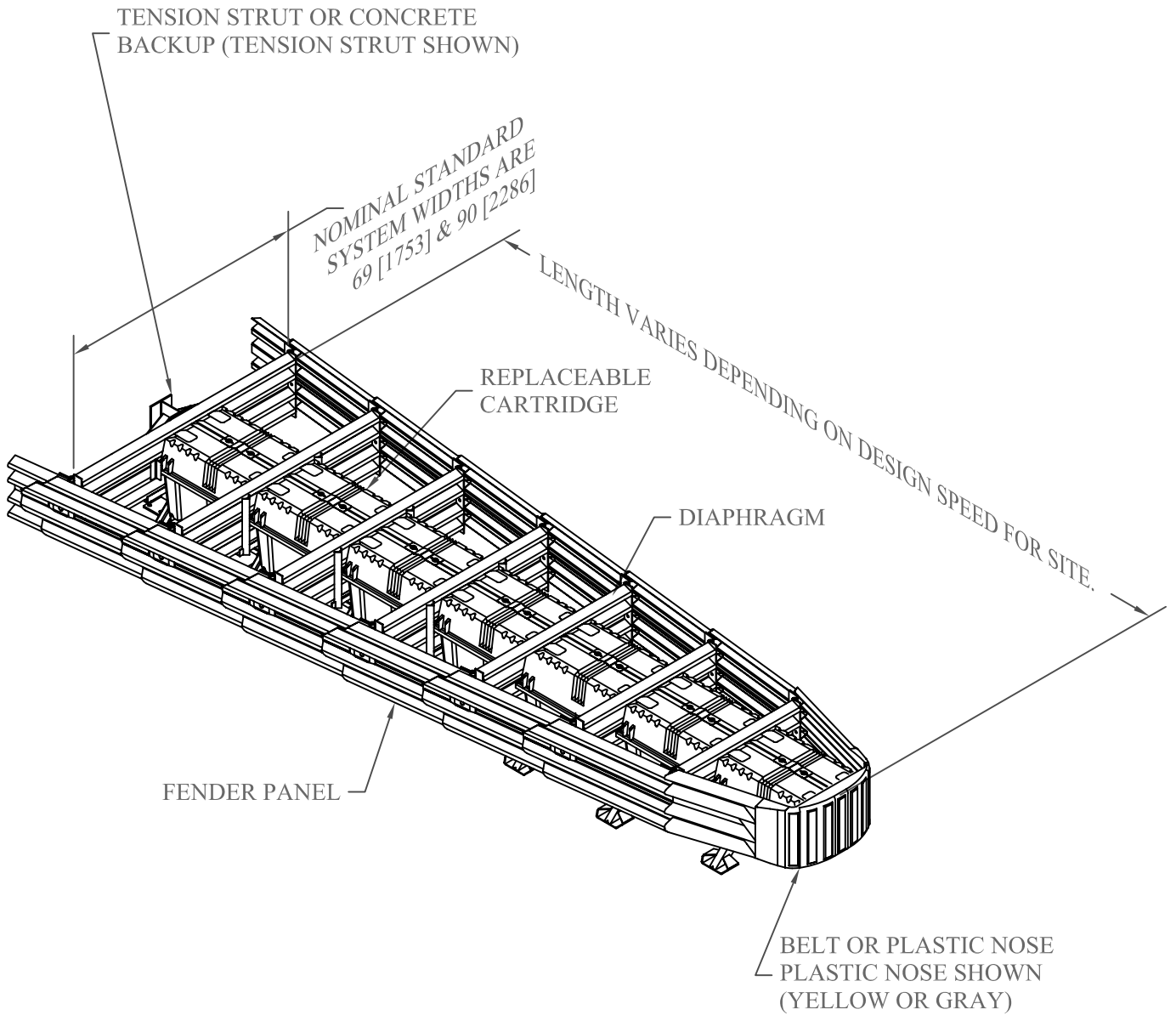
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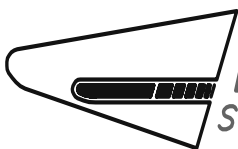
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4/15/05





QUADGUARD[®] SYSTEM (69 OR 90)



**ENERGY ABSORPTION
SYSTEMS, INC.**

SCT02h

SHEET NO.

DATE:

1 of 2

4/19/05

INTENDED USE

The QUADGUARD[®] 69/90 is a member of the QUADGUARD[®] Family designed to shield wider hazards. The QUADGUARD[®] 69/90 offers impact protection for both light and heavy vehicles. The system is perfect for gore areas, bifurcations and wide hazards such as bridge piers and tollbooths. It is effective against head-on and angle hits at typical highway speeds.

When hit head-on, a series of cartridges, placed between QuadBeam[™] diaphragms and surrounded by telescoping fender panels, are crushed. This action absorbs the kinetic energy from the impacting vehicle, bringing the vehicle to a stop. Hit along the side at an angle, the system redirects the vehicle away from the hazard.

The QUADGUARD[®] 69/90 System has successfully passed the complete NCHRP 350, Test Level 3 matrix with both the light car and the high center-of-gravity pickup truck at speeds up to 62 mph [100 km/h] at angles up to 20 degrees.

Only the cartridges and nose assembly are expended during a design speed crash. Two types of cartridges are required, permitting convenient stocking of these easily replaceable elements. The QUADGUARD[®] 69/90 is available for head-on design speeds up to 75 mph [120 km/h], for hazards up to 90 in [2286 mm] in width.

- | | | |
|----------------------|----------------|----------------------------------|
| • Non-gating | Length = | 13.12 ft [4.0 m] (3 bay) to |
| • Redirecting | | 40.12 ft [12.23 m] (12 bay) |
| • Non-pocketing | Width = | (standard)69 in [1753mm] Min |
| • Bidirectional or | | (standard)90 in [2286mm] Max |
| Unidirectional | Design Speed = | variable up to 75 mph [120 km/h] |
| • Partially Reusable | | |

APPROVALS:

http://safety.fhwa.dot.gov/roadway_dept/road_hardware/barriers/pdf/cc42a.pdf

Contact Information

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QUADGUARD[®] 69/90 SYSTEM

#SCT02h

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