

POLYSTAR, INCORPORATED

TRI-STAR SYSTEM *Product Specification*

PURPOSE: The TRI-STAR System is a super duty, rigid, modular system designed to contain incidental spills of liquids that occur during truck transfer operations or when vehicles are used as storage tanks.

SCOPE: This product specification covers materials, construction and workmanship, physical properties, chemical resistance and methods of testing.

MATERIAL: The TRI-STAR is a fiberglass-encapsulated steel structure. Durable fiberglass laminations are bonded to a nominal 1/4" thick steel plate. Fiberglass offers great physical strength, excellent corrosion resistance and flexibility. Fiberglass mat and industrial grade isophthalic or vinyl ester resin as manufactured by *Ashland Chemical* or equivalent are used. A gelcoat surface resin of equal chemical resistance, with the additive antimony trioxide for flame retardance and U.V. protection is included. The flame spread rating is Class II. Tested by ASTM E-84.

STRUCTURE: The TRI-STAR's side walls are a unique *tri-linear* design. Steel plate is welded 45° to the floor and wall, making the walls into triangular tubes. For maximum structural support, steel gussets are welded underneath the steel plate along the entire wall length. This design prevents the side walls from being damaged if a driver accidentally drives over them during system entry or exit. The ability of TRI-STAR systems to absorb high levels of static and dynamic loading provides positive assurance of spill containment. In addition, fiberglass provides the utmost in non-porous, corrosion protection against attack by a wide variety of industrial chemicals and liquid hydrocarbons.

Fiberglass reinforced construction is formed by combining resin with controlled amounts of fiberglass mat and woven roving. Polystar ensures that a corrosion barrier of not less than 30 mils as specified by industry standard PS 15-69 is provided to ensure consistency of product quality. The technical properties of a reinforced fiberglass laminate are:

Property at 73.4°F (23°C)	1/8" to 1/4" Thickness
Ultimate minimum tensile strength (PSI)	9,000
Flexural minimum strength (PSI)	16,000
Flexural minimum modulus of elasticity (tangent, in PSI)	700,000

TRI-STAR Systems are manufactured in two designs. The **TRI-STAR OPS** is a one piece system measuring 11'11" x 40' x 10". The **TRI-STAR MAX** must be assembled. It comes in panels that are bolted, gasketed and sealed together. The base size is 13' x 42' x 9". It can be made longer by adding additional 13' x 7' panels.

Each 20' long section weighs approximately 2,500 pounds.

OPERATING TEMPERATURE: The maximum operating temperature for fiberglass is 200°F with excursions through 225°F.

QUALITY ASSURANCE: CAMEL Systems are manufactured and tested according to industry standards PS 15-69 and 41-GP-22, Canadian and *SPI/MTI Quality Assurance Report for FRP Corrosion Resistant Equipment*.

RAMP SPECIFICATION: Each heavy duty, steel ramp is a welded steel fabrication consisting of a 3/8" thick steel web supporting frame and a 3/8" thick steel diamond plate surface. The maximum load bearing for a ramp sited on a proper substrate is 40,000 pounds. Each ramp is a single piece construction that drops over the end wall. Each ramp weighs approximately 1,200 pounds. Integral to each ramp are two steel pockets and PVC guideposts. These guideposts help drivers align their vehicles when entering and exiting the system.

WARRANTY: TRI-STAR Systems are warranted against defects in workmanship and materials for a period of one (1) year from the date of purchase. Repair or replacement is at the discretion of the manufacturer. Customer or third party damage is excluded from warranty coverage.