



**TOUGH TRAC™**

**SOLAR THERMAL BALLAST SYSTEM**



*The TOUGH TRAC solution for solar thermal installers. A mid angle system for flat roof or ground mounting features a ballast design for a penetration free installation.*

For applications requiring a penetration free mounting for flat roofs or ground, the TOUGH TRAC Solar Thermal Ballast flat roof design features a up to 45 degree tilt angle mount with a penetration free ballast system. Available with the TOUGH TRAC Standard Rail, our Solar Thermal Ballast Set can span any length you need and can mount collectors up 96" tall.

Each ballast tray is designed to hold up to 16 concrete blocks from 4-8 inches for the required weight needed. Rear and side cross braces keep the frame structure solid. In addition, designed with our C-rail angle arm, any size Collector can be mounted to provide ultimate flexibility. Consult your installer, architect, or engineer to determine your roof structure max weight loads.



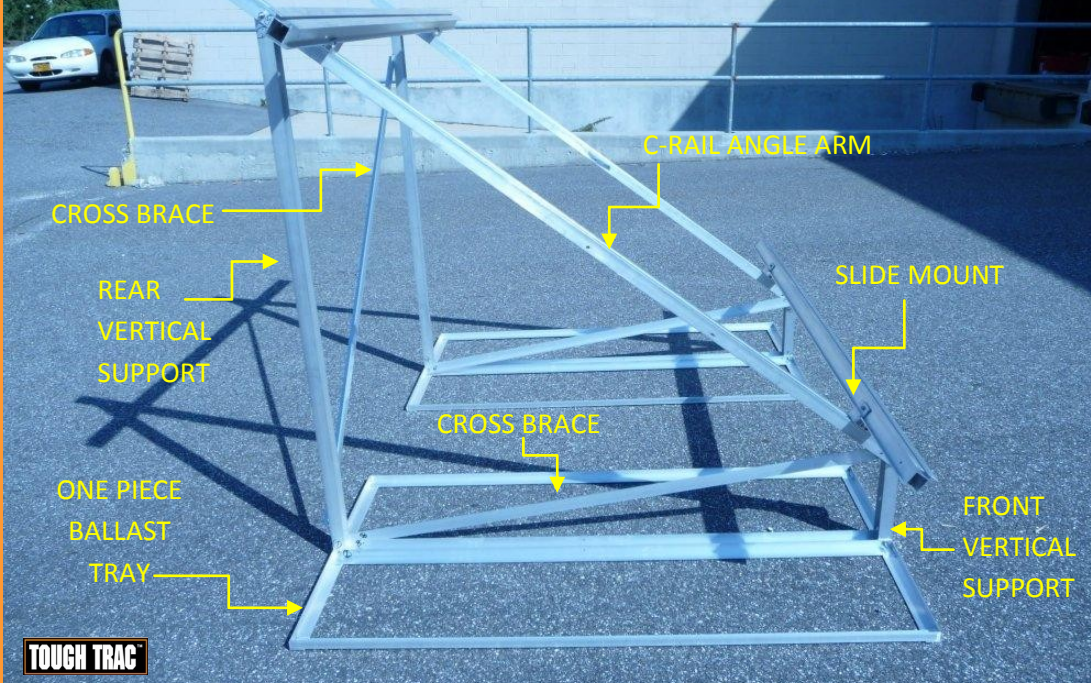
FACTORY PRODUCTION FACILITIES: Made in the USA & China

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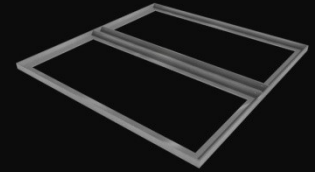


## SOLAR THERMAL BALLAST SECTION

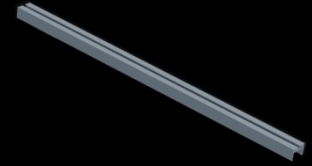


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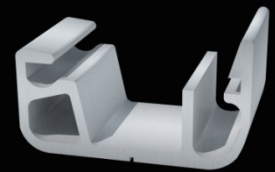
STBS Parts



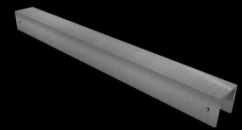
BALLAST TRAY



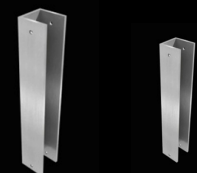
C-RAIL ANGLE ARM



STD RAIL SLIDE MOUNT



JOINING BRACE



VERTICAL SUPPORTS

Standard Solar Thermal Ballast System comprises the following parts:

- One Piece Ballast Trays
- C Rail Angle Arms
- Click Mounts
- Front & Rear Vertical Supports
- Cross Braces
- Standard Rail
- Connector Tubes
- Top Mount End Clamps
- Top Mount Mid Clamps
- Large & Small Rail Stainless Steel Bolts/Washers/Nuts
- 1/4" x 3" Stainless Steel Bolts/Washers/Nuts
- 1/4" x 2" Stainless Steel Bolts/Washers/Nuts
- T Bolts Stainless Steel Bolts/Washers/Nuts
- Set Screws #14 x 1" Stainless



RAIL BOLTS



STANDARD RAIL



CONNECTOR TUBE



TOP MOUNT CLAMPS



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**TOUGH TRAC**

## Component Specifications

**Aluminum Rail & Parts:** 6005 Aluminum USA (Mill Finish)

**Hardware Parts:** 300 & 400 Series Stainless Steel

**Ballast Tray:** One Piece Welded

## Code Compliant

PE Certified  
TUV Tested  
ISO Certified

## Warranty

20 Years Limited Warranty

## Technical Support

Installation Manual & Videos  
Layout Design & Bill of Materials Calculated

## Key Benefits:

- Only Solar Thermal Ballast System in the market.
- Simple Installation and Ordering.
- Designed with One Piece Ballast Tray for easy install & can hold up to 16 blocks.
- Can be Custom designed to mount any size solar thermal collector.
- Designed with 8"+ clearance in front end to avoid snow.
- Designed to accommodate a continuous row of solar thermal collectors.
- Best in class spans for Standard Rail.
- Standard rail spans 96" for 120mph wind zones
- Side & Rear Cross Braces keep structure solid.
- 100% all Aluminum Components and Stainless Steel Hardware.
- 20 Year Limited Warranty.



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