# ECS Composites
# TSC Composite Standard Transit Cases
## *Features and Performance Highlights*

### *Photo Highlights*

- ***Conventional "Clam Shell" and Removable Cover Transit Case Configurations***
- ***TSC Composite Exteriors***
- ***Optional Removable Cover or Hinged Cover***
- ***External Draw Pull Latches and Cam Action Latches***
- ***Water Tight Closures***
- ***Recessed and Surface Mounted Hardware***
- ***Molded-in Stacking Features***
- ***Foam Cushions***
- ***Casters and Tote Handles***

**TSC Composite Transit Cases**

***TSC Composite Transit Cases – Maximum Durability, Light Weight –***TSC Composite cases are available in a number of standard sizes for military and industrial applications. TSC composite transit cases provide the ultimate in rugged durability and the light-weight advantage of high-pressure compression molded TSC thermoplastic composite materials. TSC composite transit cases have repeatedly proven their superiority in providing protection for an immense variety of military and commercial equipment.

***The Ultimate Composite Case Material – TSC*** – Standard TSC transit cases are manufactured in removable lid designs, hinged clam-shell designs and toteable versions. Using compression molding presses up to 1,200-tons in capacity, ECS manufactures these cases of the same composite materials used for car bumpers and military truck components. TSC case shells provide extraordinary impact resistance and rugged durability at temperatures which exceed a range of -65º F to +185º F. TSC composite materials are very rigid under heavy stacking loads, but resilient during impacts. Approximately one third of all impact energy is absorbed by the deflection of the TSC enclosure walls before impact forces are transferred to the foam cushions or shock mounts that provide the final shock and vibration attenuation required to protect the enclosed equipment.

***Total Protection From The World's Environments –*** Water tight TSC rackmount cases provide protection from moisture, salt spray, sand and dust throughout the world's climate extremes. Impervious to fuels, oils and solvents, they can also be decontaminated if exposed to chemical warfare agents.

***Standard Case Sizes and Depths –*** TSC cases are compression molded with male and female TSC closure features included as integral parts of the molded case shells. Each TSC mold is capable of making only one specific part, either a top shell or a bottom shell, and this limits dimensional flexibility in the manufacturing of TSC transit cases. However, TSC molds allow much greater design flexibility than FRP composite molds, so special features, caster pockets, hardware protection ribs and other complex case shapes can be incorporated into the molds when they are manufactured by ECS. There are fewer TSC transit case sizes than the number of FRP composite case sizes and Loadmaster rotomolded transit case sizes. However, TSC composite transit cases fulfill a unique set of very challenging case performance requirements.

***Foam Cushions and Shock Mounts for Equipment Protection –*** Fabricated foam cushions are frequently used in TSC transit cases to contain individual pieces of equipment and to provide shock and vibration protection. ECS has sophisticated foam cushion design and manufacturing capabilities which include CAD/CAM controlled foam cutting machinery and water-jet foam cutting equipment. There are virtually no limits to the range of foam cushion materials or the shapes and sizes of fabricated foam cushions that can be manufactured by ECS. Shock mounts are not the most common form of shock and vibration control for standard transit cases, but ECS can install shock mounts and/or shock mounted equipment platforms inside any TSC transit case. Optional shock mount configurations and spring rates can be provided to support a broad range of equipment weights and equipment centers-of-gravity.


**ECS Composites ▪ 3560 Rogue River Highway ▪ Grants Pass, Oregon 97527 ▪ Tel (541) 476-8871 ▪ ecs@ecscase.com**

# ECS Composites
# TSC Composite Standard Transit Cases
## *Features and Performance Highlights*

***Fast Container Opening and Resealing –*** TSC transit cases are available with numerous latch styles, including externally mounted cam-action latches, recess mounted draw-pull latches and lever-action latches. All TSC latching solutions permit rapid opening of sealed cases and rapid reinstallation and resealing of covers. None of the ECS latch or closure designs requires the use of tools for opening or closing TSC containers or enclosures.

***Stainless Steel Hardware –*** Exterior latches, handles, custom brackets and rivets are stainless steel and are recessed for maximum protection. Interior aluminum extrusions are anodized to prevent corrosion. An automatic air pressure relief valve protects the case and enclosed electronic equipment from rapid compression and decompression during transportation.

***Colors and Options –*** TSC transit cases are available in military colors. Available options include tote handles, casters, and interior bracketry.

***Military Grade –*** TSC composite cases exceed the requirements of military specifications for transportable cases. Performance verification testing to MIL-STD 810 is routinely performed at ECS Composites.

| TSC Composite Transit Case Mold Numbers | Outside Case Length Without Hardware (Inch) | Outside Case Width Without Hardware (Inch) | Outside Case Depth (Inch) | Outside Bottom Depth (Inch) | Outside Top Depth (Inch) | Vertical Outside Radius (Inch) | Horizontal Outside Radius (Inch) | Weight (Lb) |
|---|---|---|---|---|---|---|---|---|
| MM138 / MM139 | 10.00 | 9.63 | 6.32 | 2.53 | 3.79 | 1.75 | 0.75 | 5.83 |
| MM189A / MM189B | 11.50 | 7.50 | 6.80 | 3.40 | 3.40 | 1.00 | 0.75 | 4.25 |
| MM106A / MM106B | 13.33 | 13.33 | 16.50 | 9.25 | 7.25 | 0.50 | 0.82 | 9.74 |
| MM113AB / MM114 | 14.04 | 12.68 | 17.44 | 12.38 | 5.06 | 0.94 | 1.00 | 10.28 |
| MM133 / MM134 | 15.96 | 13.89 | 13.42 | 10.42 | 3.00 | 1.48 | 0.75 | 14.05 |
| MM107A / MM107B | 16.46 | 10.50 | 6.08 | 3.04 | 3.04 | 0.81 | 1.00 | 6.50 |
| MM207 / MM206 | 17.36 | 13.92 | 6.03 | 3.37 | 2.66 | 0.75 | 0.63 | 7.30 |
| MM161 / MM162 | 18.50 | 11.76 | 9.37 | 4.25 | 5.12 | 1.25 | 0.50 | 10.12 |
| MM219 / MM168 | 18.63 | 17.89 | 9.00 | 5.50 | 3.50 | 0.50 | 1.00 | 11.28 |
| MM165 / MM168 | 18.63 | 18.10 | 7.00 | 3.50 | 3.50 | 0.63 | 1.00 | 8.50 |
| MM195 / MM196 | 21.99 | 13.87 | 8.71 | 6.21 | 2.50 | 1.15 | 0.48 | 16.45 |
| MM143 / MM144 | 23.48 | 17.78 | 3.74 | 1.87 | 1.87 | 0.76 | 0.25 | 9.03 |
| MM175 / MM174 | 23.85 | 14.87 | 8.50 | 7.09 | 1.41 | 1.00 | 0.88 | 14.60 |
| MM175 / MM190 | 23.85 | 14.86 | 13.09 | 7.09 | 6.00 | 1.00 | 1.00 | 15.65 |
| MM158 / MM157 | 25.49 | 11.89 | 13.64 | 5.09 | 8.55 | 1.29 | 0.75 | 11.65 |
| MM192 / MM191 | 25.16 | 13.01 | 15.13 | 8.37 | 6.76 | 0.85 | 1.00 | 11.20 |
| MM112A / MM112B | 26.55 | 21.48 | 16.04 | 5.25 | 10.79 | 1.12 | 1.00 | 45.13 |
| MM118 / MM119 | 28.04 | 22.24 | 16.59 | 13.44 | 3.15 | 1.00 | 1.12 | 26.95 |
| MM211 / MM210 | 34.00 | 23.00 | 17.30 | 14.15 | 3.15 | 1.12 | 1.12 | 28.85 |
| MM221 / MM220 | 34.17 | 25.42 | 13.57 | 5.17 | 8.40 | 1.12 | 1.12 | 23.00 |
| MM120 / MM121 | 36.19 | 22.24 | 16.59 | 13.44 | 3.15 | 1.06 | 0.96 | 34.95 |
| MM502 / MM503 | 36.00 | 28.99 | 20.46 | 13.48 | 6.98 | 1.00 | 1.12 | 47.50 |


ECS Composites ▪ 3560 Rogue River Highway ▪ Grants Pass, Oregon 97527 ▪ Tel (541) 476-8871 ▪ ecs@ecscase.com