

# TuffTrak<sup>®</sup>

## Heavy Duty Road Mat

### Recommended Installation, Handling & Storage Guide

This guide is based on direct experience gained from numerous projects undertaken globally and across a wide range of ground and weather conditions.

These recommendations will provide a safer and more effective temporary road or access area and an efficient and professional job.

For Health and Safety reasons and efficient performance, connectors should **ALWAYS** be used when installing mats.

Please read the following guide in conjunction with Zigma<sup>®</sup> Ground Solutions' standard Terms and Conditions.

**START** **TRAFFIC**

## Lifting, Deployment & Connection



### 1. TuffTrak® Lifting

Lifting is carried out using four point lifting chains. The hooks are inserted into the four lifting points on the sides of the TuffTrak®.

### 2. TuffTrak® Lifting

A truck mounted crane (HIAB) is used to carefully lift the mat from the trailer.

### 3. TuffTrak® Deployment

The mat is lowered into the required position. The second and subsequent mats are placed next to one another for manual connection into temporary roadways or pad layout. Typically, no ground preparation is required prior to installation.



### 4. TuffTrak® Connection

TuffTrak® has pre-inserted, threaded ferrules in each corner, with bolts on either side.

4.1 To install, simply unscrew the bolt, place the required connector on top of the metal reinforcement plate and screw back in. There are two connection options for TuffTrak®:

#### Metal connector -

the metal connector should be used for most ground conditions and equipment.

#### Orange high tensile hi-viz 'flex' connector -

the flex connector should be used where there is highly undulating ground, allowing ease of installation and providing a firm, yet flexible, connection.

4.2 DO NOT OVER TIGHTEN THE BOLTS

4.3 The above process is reversed for de-installation.

Threaded Ferrule with bolt ▶



Orange high tensile hi-viz 'flex' connector ▶



▶ Metal Connector



## 5. TuffTrak® Configuration

TuffTrak® can be installed in a variety of different layouts.

- To create single track roadway 2.5 or 3m in width
- To create double track roadways measuring 5m or of 6m width.
- Alternatively, to create large working areas or pads.



## Health & Safety - Connection

Like all temporary access, roadway and ground protection solutions, it is strongly advised that TuffTrak® is **CONNECTED AT ALL TIMES** with one of the recommended connectors.

## Steel Tracked Vehicles

Steel tracked plant and vehicles can traverse TuffTrak®, however, as is the case with **ALL** composite mats, it is recommended that steel tracked plant and vehicles only traverse in a forward and reverse direction in order to minimise damage to the mat surface.

To deliver full protection when running steel tracked plant and vehicles over TuffTrak® it is advised, where possible, that thick rubber sheets be used to cover the TuffTrak® (please note that this is a requirement where TuffTrak® is on hire – clause 10.4 of Zigma® Ground Solutions' Terms and Conditions) or alternatively that the pedestrian surface of the mat be used.

Zigma® Ground Solutions Ltd will not accept responsibility for damage to TuffTrak® caused by steel tracked vehicles.



# Storage and Handling Guide

## 1. Stacking and storage

TuffTrak® should be stacked on 3m x 2.5m pallets with no part of the TuffTrak® extending over the pallet edge. After every job TuffTrak® needs to be stacked upside down to allow the TuffTrak® 'memory' to return the mats to their original shape. TuffTrak® can be stored on their pallets and can be stacked on top of each other to a height of 5 pallets of 5 TuffTrak®.

## 2. Transport

Each pallet should be double strapped when being transported. TuffTrak® should be loaded / unloaded by fully qualified fork lift drivers using extended forks.

## 3. Cleaning

No specialist equipment is required to clean TuffTrak®. They can be cleaned using a pressure washer and cold water. If heavily soiled, excess mud should be brushed off before being pressure washed.

## 4. Installation

This product is made from thermoplastic material that expands or contracts according to increases or decreases in temperature. Allowance should be made for this during installation by leaving sufficient gaps between adjacent mats and by not over-tightening connection bolts

## 5. Health & Safety

- Protective clothing and gloves should be worn when handling TuffTrak®.
- Correct lifting procedures should be adopted when handling / lifting TuffTrak®. It is advised that each TuffTrak® is moved and lifted with suitable equipment by a two man team. (see Lifting Chain Certification - Available online at [www.zigmagroundsolutions.com/TuffTrak-additional-documentation](http://www.zigmagroundsolutions.com/TuffTrak-additional-documentation))
- Steel toe cap boots should be worn when moving and installing TuffTrak®.
- Hi-visibility jackets should be worn throughout the installation and de-installation process and at all times in the storage depot.

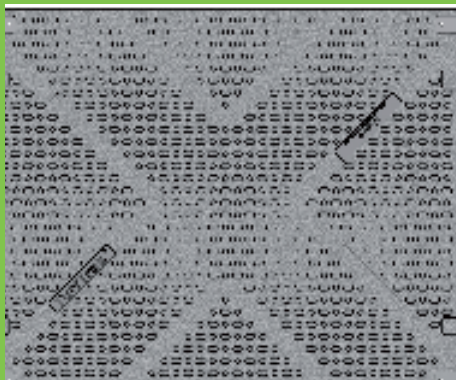
## 6. Speed limit

TuffTrak® is designed to give safe movement, ground access and protection for plant and vehicles moving over the mats at a **MAXIMUM SPEED OF 5 mph**. This is a strict speed limit **which should be observed at all times**.

The information contained herein is based on current knowledge and does not therefore guarantee certain properties or performance of Tufftrak® under all conditions. This guide must be considered in conjunction with Zigma® Ground Solutions' standard Terms and Conditions particularly, but not limited to, those Terms and Conditions relating to use, installation and Zigma® Ground Solutions' Limitation of Liability.



## TuffTrak® Technical Information



### Key Information

- Designed in the UK and manufactured in Europe
- Solid one piece construction
- Quality batch control / mat identification
- 3000mm x 2500mm x 38mm
- Weight: 295kg
- Materials: 100% recycled or virgin High Density Polyethylene (HDPE) or Ultra High Molecular Weight Polyethylene (UHMWPE)
- Unique 'Dual Grip' traction surface - high profile chevron traction® design and low profile traction surface
- Connection and lifting lugs
- 'Drop-In' bolt

### Chevron Traction® Surface

- Engineered chevron traction® surface nub design delivering ultimate grip for heavy plant, equipment and multiple vehicles up to 150 tonnes
- Reduces sideways movement and slippage
- Helps dispel mud as vehicles traverse over mat
- Sand blasted finish provides 'micro-traction'<sup>TM</sup>



### Low Profile Traction Surface

- Reversible surface with low profile pattern
- Ideal for drilling rigs, work pads, depot areas and helipads
- Good traction for vehicular use
- Sand blasted finish provides 'micro-traction'<sup>TM</sup>
- Low trip hazard for pedestrian use



### Connecting and Lifting

- Fast to install with standard M16 'drop-in' bolts assists one man operation
- Range of connectors including high tensile, hi-viz 'flex' connectors for increased safety and deployment over undulating ground
- Lifting point / ferrule – factory tested with 1 tonne load
- Low profile traction surface incorporates areas for positioning vacuum lifting pads



\* tested at National Physical Laboratory UK

# TuffTrak<sup>®</sup> Standard Heavy Duty Road Mat

## Spacing Guide for Mat Installation – Northern Hemisphere

TuffTrak<sup>®</sup> temporary road mats are made from premium recycled polyethylene. Polyethylene like all thermoplastic material reacts to changes in temperature; as temperature goes up they expand in size, as temperature goes down they contract in size.

The following provides guidance on the spacing that should be left between TuffTrak before they are connected.

The amount of spacing will depend on the month and season and is based on the highest temperature that may occur during the time TuffTrak are being used.



On **COLD SUNNY** days - Leave **10-15mm** spacing



On **WARM SUNNY** days - Leave **15-20mm** spacing



On **HOT SUNNY** days - Leave **20-30mm** spacing

To allow for conditions during warm - hot sunny days a 'break' in connection after every 10 mats is recommended.

## Connecting TuffTrak<sup>®</sup> Standard

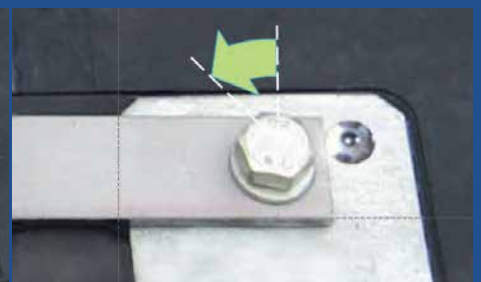
Insert M16 bolt through connector into TuffTrak<sup>®</sup>



Tighten M16 bolt fully in clockwise direction

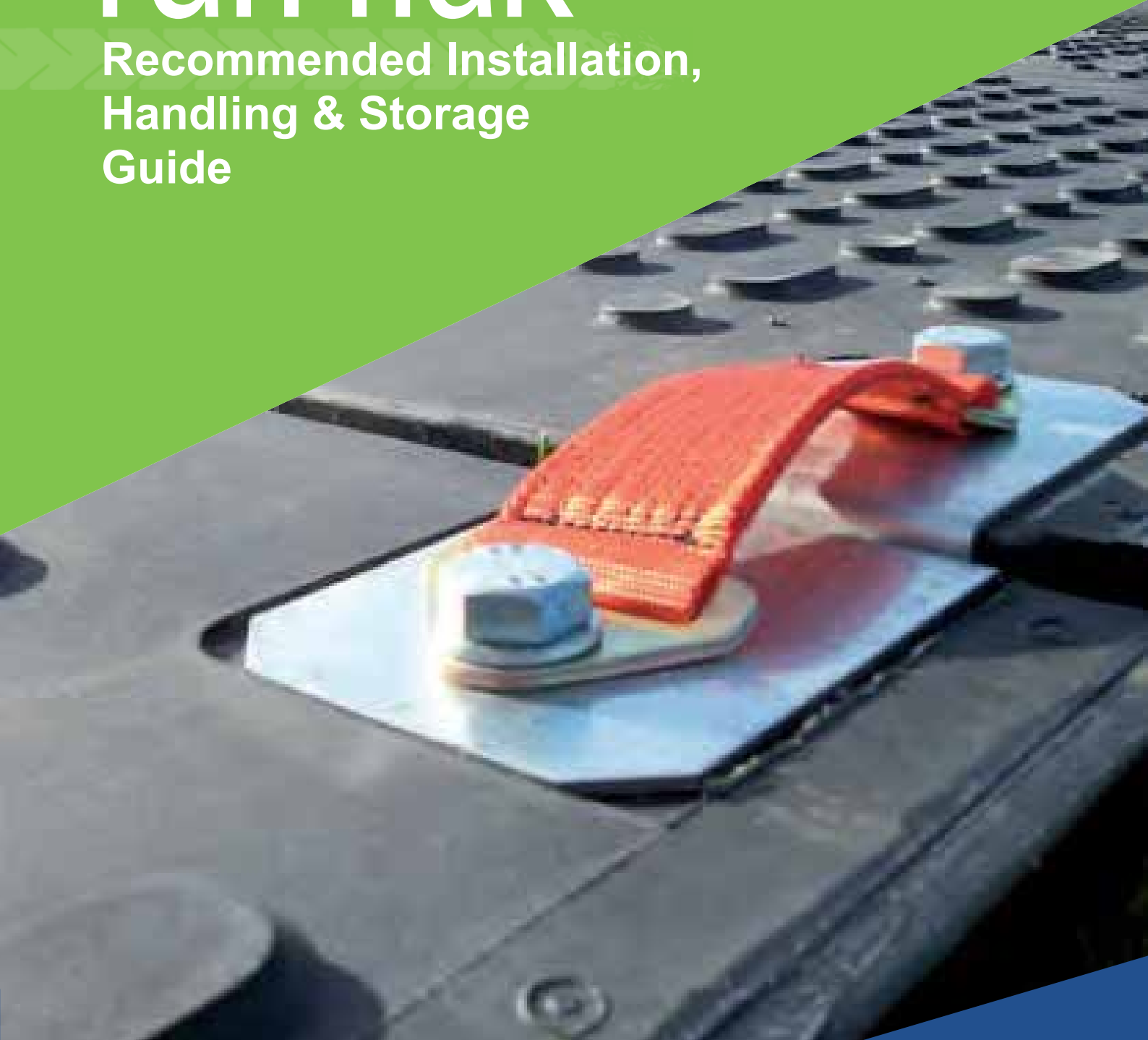


Slacken by 1/32 of a turn c/clockwise to allow movement



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