

Triple E Ltd



Equipment Engineered for Entertainment

Triple E, the industry standard and first choice.



STAGE CURTAIN AND
SCENERY TRACKING
SYSTEMS



VARIABLE
ACOUSTICS

PRECISION
ENGINEERING

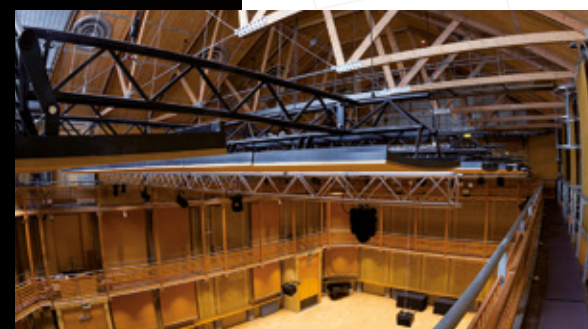


BESPOKE
STRUCTURES



www.triplee.ltd

Triple E Ltd was formed in 1984 to supply the entertainment industry with mechanical products to aid the assembly and construction of stage scenery.



Triple E Ltd

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Monday to Thursday: 9:00 - 17:30
Friday: 9:00 - 17:00

TRACK RECORD

Contact us now to discuss your requirements:

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Our first product was the Loose Pin Hinge which won the Association of British Theatre Technicians (ABTT) Product of the Year Award in 1984 and we have won four more ABTT awards since then.

In 1988, the unique, fabricated I beam style UniTrack was developed and it's aluminium extrusion sibling UniBeam was released a few years later, both of which have become the industry standard for silent, heavy duty track.

We manufacture six track ranges, all designed by our in-house engineers to exactly meet the demands of the entertainment industry: they are smooth, durable, quick to install, silent and are all powder coated or anodized black as standard. UniTrack, UniBeam, ChainTrack, ChainBeam, Erail and 2Way each fulfil a different requirement in the market place; from simple walkalong masking tracks to complex motorised ChainTracks that allow a huge curtain to disappear through a tiny slot in a wall to bespoke variable acoustics in concert halls, we have a system for every situation both on and off stage.

We are proud to be the industry's premier track company, offering superb turnaround times on both stock and custom systems. By consistently adding to

and refining our product range, we produce systems that offer superior performance and reliability.

Our customisable acoustic products, VariRoller and VariBanner, are specified and installed in prominent venues across the world such as the Sydney Opera House, Battersea Arts Centre and the Royal Horticultural Halls, enabling accurate, bespoke acoustic variance at the touch of a button.

Triple E Ltd



Triple E, the industry standard and first choice.

In 2018 we invested in a larger warehouse as well as an expanded machine shop which, combined with our design engineers, gives us over 150 years of combined expertise in conception, design, manufacture and continuous improvement of mechanical products.

As European distributor of the unique ModTruss range we're also experienced in designing and building custom structures such as portable theatres, viewing/entertaining platforms and fun stuff like helter skelters!

Contents

Triple E track has a reputation for simple design, rugged construction and ease of installation. By consistently adding to and refining our product range, we produce systems that offer superior performance and reliability. Learn about our products below.

UniBeam 6

Durable and strong with a UDL of over a tonne per metre, UniBeam can carry the heaviest scenic items and LED walls with ease.

UniTrack 9

UniTrack is our original track. It's a welded steel track, designed to withstand the hard life of a touring show and operate smoothly a high load capacity.

Erail 10

Erail is an I beam aluminium extrusion for small to medium size venues that can be corded, motorised and rolled to a 500 mm radius.

2Way 13

2Way is a channel style aluminium extrusion for walkalong systems such as perimeter tracks, masking, cycloramas or even office spaces.

ChainTrack 14

ChainTrack utilises a compact aluminium extrusion with a driven chain running through a UHMW insert to allow curtains to be quickly and precisely moved across stage. ChainTrack allows storage of large drapes in small spaces using either a spiral or serpentine stacking system.

ChainBeam 17

ChainBeam is a variant on our UniBeam system. Using the same runners, scenery carriers and suspension from UniBeam combined with a chain drive it can easily move extremely heavy fabrics and scenery without the risk of rope stretch.

SDrive motor 18

The SDrive motor has been specifically designed for Erail, providing a cost effective motorised solution perfect for smaller venues and schools.

TDrive motor 19

Designed to fit UniTrack and UniBeam, the TDrive has a load capacity to match and can move up to 300 kg.

VariBanner 20

Venetian blind style variable acoustic banners, vertical movement and no width or height restrictions.

VariRoller 23

Roller blind style variable acoustic banners, vertical movement and restricted width from 1.5 m to 5 m.

ModTruss 24

ModTruss is a unique, reusable, modular construction system for the construction of scenery, structures and even buildings, limited only by your imagination.

Precision Engineering 28

We have a fully equipped precision engineering workshop with CNC machining centres and the facilities to mill, turn and profile aluminium, steel, plastics and composites on site.

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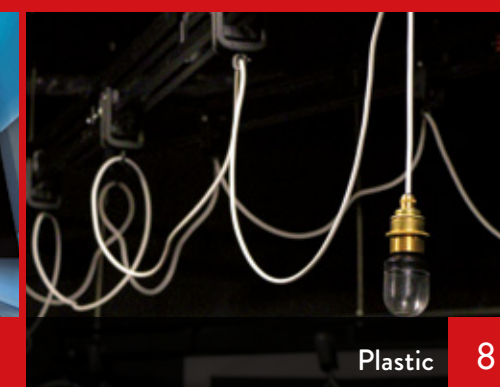
We do more than just track at Triple E. See this section for our range of UniJacks and curtain hooks. Did you know we invented the Loose Pin Hinge? Read more about it here.

Smooth Solutions

Triple E track has been the industry standard since 1984, used across the globe in theatre, opera, musicals, TV studios, cruise ships and recital halls and more. Read about how Triple E products have been used around the world in the Case Studies below.



The Crystal 7



Plastic 8



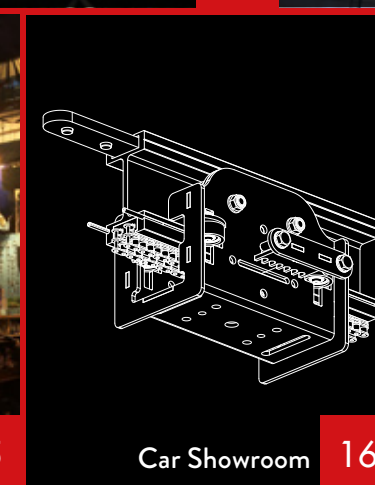
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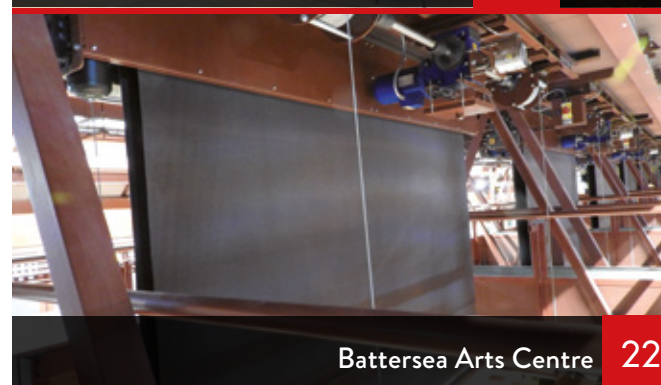
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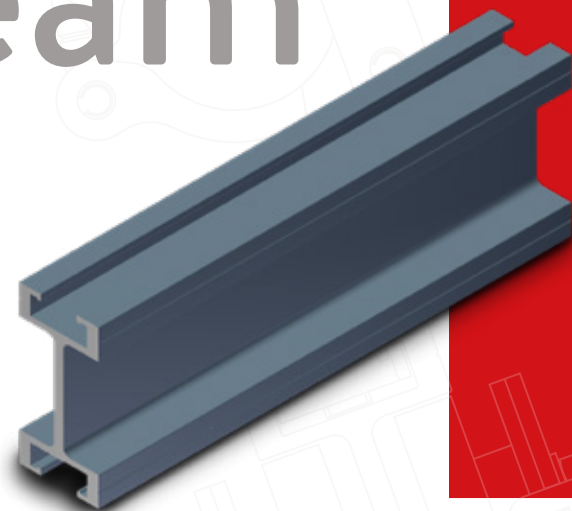
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UniBeam

UniBeam is our heavy duty aluminium extruded, black anodised track designed for the heaviest and most demanding uses in main stage venues, TV studios and site specific requirements.



At A Glance Facts

Best Used For

- Large curtains
- Scenery
- TV and Film studios

Max Piece Length

6.10 m

Minimum Radius

2.00 m

Standard Carrier WLL

25 kg

1 m Max Point Load

535 kg

1 m Max Uniformly Distributed Load

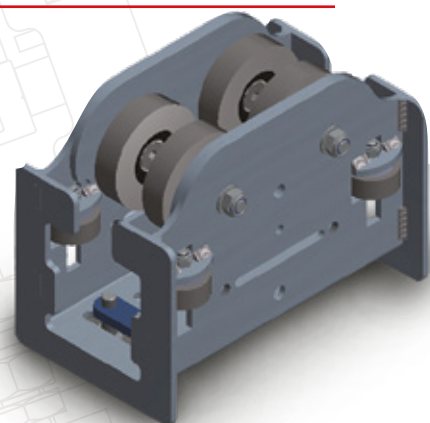
1070 kg

Suspension Methods

Hook clamps, wall brackets, studding and incorporation into custom structures

Colourways

Satin black or custom colours



UniBeam is the only choice for complex or unusual requirements. It can be used horizontally or vertically; for performer flying; tracking lanterns or even as a fly bar.

With its unrivalled range of uses and strength UniBeam is a track without comparison for its potential applications within the entertainment and built environment industries.

Dimensionally identical to UniTrack, (100 mm x 50 mm) UniBeam shares many common components. The track is available in up to 6.10 m (20') lengths and can be pre-rolled to a minimum radius of 2.00 m (6'6").

Steel plates and grub screws are used to join and align separate track sections. UniBeam incorporates a

tee slot in its upper and lower webs that accept standard channel nuts and allows it to be used either way up.

Our TRA code ball raced runners and scenery carriers can be used on UniTrack and UniBeam systems and are supplemented by the unsurpassed UniBeam scenery carrier for loads up to 385 kg.

There are 17 cording methods for UniBeam and, with the addition of one of our Plug-and-Play motors, each one can become a fully motorised system.

Flexible and strong, UniBeam is the ultimate track for the most challenging of requirements on and off stage.

Flexible and strong, UniBeam is the ultimate track for the most challenging of requirements on and off stage.

The Crystal

Innovative design and build house Shape Studio approached Triple E to provide custom tracking for the high end, prestige fit out for 'The Crystal', Siemens new headquarters in London.



Designed by Jotta and Jump Architects, with the detailing and realisation of the concept enabled by Shape Studio, the need was for a high load, no maintenance tracking system that had to be quieter and smoother than common industrial alternatives.

Substantial bespoke Bencore panels move to open or close the interactive meeting space within the larger boardroom environment which had to be easy and smooth to move with the track radius precisely matching that of the Italian made panels.

Triple E's ability to accurately curve our UniBeam track in-house with

our CNC controlled machinery enabled us to meet the specification of sizing and load capacity for the design and to integrate with the other components of the project.

A series of pre-production samples were made for testing prior to the final pre-build and testing at the Shape Studios workshop in Bristol and then installed on site in early 2018.

The result is an easy to operate, robust and slick operating system that gives a truly stunning result that shows how Triple E products can be incorporated into design and build projects by innovative creators in differing industries.

At A Glance Facts

Location

British and Royal Victoria Dock, London, UK

Used For

Easy push operation of custom Bencore panels on curved tracks

Suspension Method

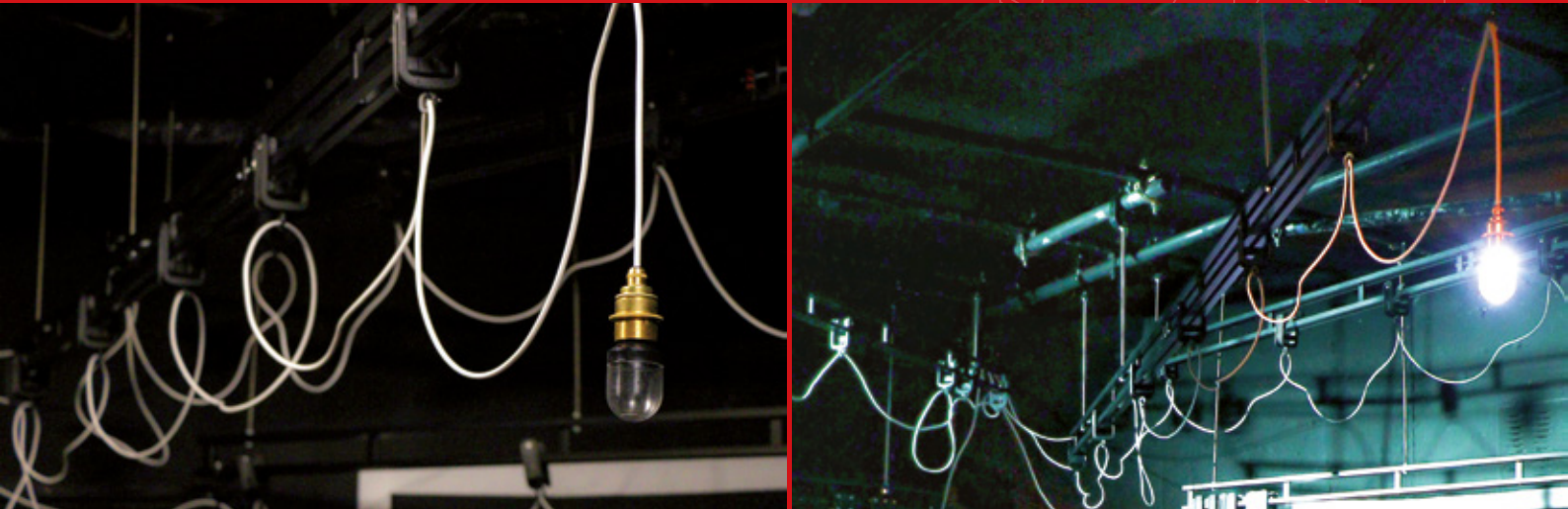
M12 Studding and channel nuts

Colourways

Stock satin black finish

‘Plastic’

Multiple Off-West End Theatre Award nominees and winners of Vault Festival’s ‘Show of the Year’ award, Poleroid Theatre are a champion of exciting new writing on stage and required a special solution for the design of their touring show ‘Plastic’ in 2018.



At A Glance Facts

| |
|---|
| Location |
| Old Red Lion Theatre, London & Mercury Theatre, Colchester |
| Used For |
| Cast operated walkalong tracks to move lighting elements across the stage on tour |
| Suspension Method |
| Studding drops of varying lengths from theatre grid |
| Colourways |
| Satin black |

Lighting Designer Peter Small approached Triple E about how to realise Designer Sophie Thomas’ vision for a show. The main design feature was a series of lightbulbs at various heights that could be rapidly moved across the stage by the cast.

UniTrack perfectly matched the brief of a track that is easy to transport and rig, that was near silent in operation and robust enough for use on-stage by the cast.

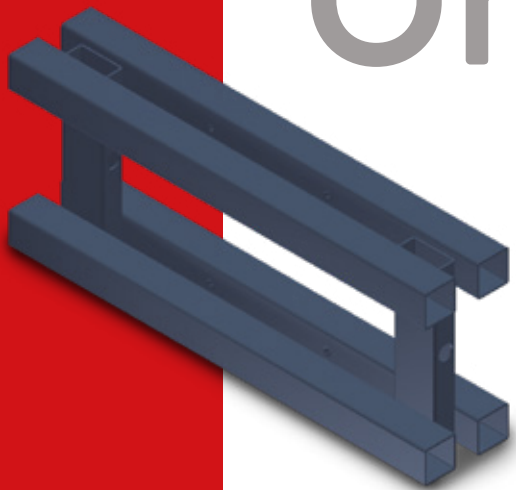
Slave runners were used to trail the necessary power cabling to

each lightbulb and a simple system of different lengths of studding bolted directly into the top of the tracks provided the various heights required for the tracks to cross over each other whilst running to a vanishing point upstage.

The lightbulbs themselves were fixed to scenery carriers to give a smooth, silent performance, particularly important in such small venues, that could take robust handling by the cast during the fast-moving scenes, all whilst being easy to fit up and move between venues.

UniTrack perfectly matched the brief of a track that is easy to transport and rig, that was near silent in operation and robust...

UniTrack



UniTrack is our original track. It’s a welded steel construction, black powder coated, designed for smooth operation, high weight capacity, quick installation, rugged durability and modular flexibility making it the perfect track system to take on tour or keep in stock for rep.

This fabricated I beam track is available in four lengths – 0.25 m, 0.50 m, 1.00 m and 2.00 m and it’s external dimensions are 51 mm wide x 100 mm high. UniTrack’s unique joining system uses four spigots and a single bolt allowing for fast fit-ups on stage and on site. Ball raced runners combined with nylon sheaves and capstans give a smooth, silent operation suitable for live performance in even the smallest venues. The master runner is 116 mm wide and the standard runner is 41 mm wide.

solutions with standard parts but we also design bespoke components to meet any requirements such as curved track, motors and pulleys.

With scenery carriers able to take 50 kg or 125 kg each, UniTrack is the perfect system for the movement of large curtains, scenery, screens or LED panels.

Drape and scenery heavy shows can be made easier with our side cording system which allows two items to be independently controlled on

This is the track for touring or where future flexibility of size or function is required.

With a TDrive, TDrive HD or TracDrive plug-and-play motor you can motorise any system for both curtains and scenery with corded or wireless control. UniTrack has a comprehensive range of components for curved, rearfold, frontfold, wipe, centre opening or side cord operation with 17 standard cording methods.

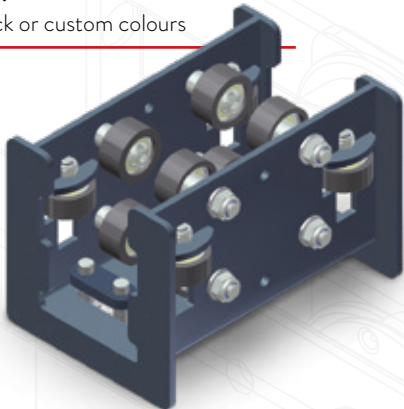
UniTrack’s versatility and simplicity mean that we can provide most

one track, reducing the amount of equipment and grid space required.

As the quickest main house track to install on the market, UniTrack continues to be used for permanent stages and forms the basis of hires stocks around the world for theatre, TV/Film and the wider entertainment industry. This is the track for touring or where future flexibility of size or function is required.

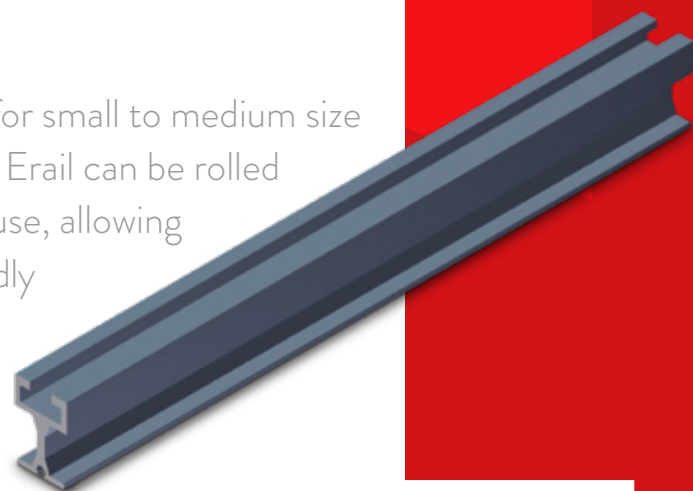
At A Glance Facts

| |
|--|
| Best Used For |
| ■ Large curtains |
| ■ Scenery |
| ■ Motorised curtain control |
| ■ Touring |
| Max Piece Length |
| 2.00 m |
| Minimum Radius |
| 1.00 m |
| Standard Carrier WLL |
| 25 kg |
| 1 m Max Point Load |
| 200 kg |
| 1 m Max Uniformly Distributed Load |
| 400 kg |
| Suspension Methods |
| Hook clamps, studding and incorporation into structures. |
| Colourways |
| Satin black or custom colours |



Erail

Erail is a compact aluminium extrusion for small to medium size venues with optional motorised control. Erail can be rolled to a minimum radius of 500 mm in-house, allowing our customers to navigate tight and weirdly shaped corners, create a serpentine system or a complete circle.



At A Glance Facts

Best Used For

- Curtains up to 8.00 m tall
- Motorised curtain control
- Cost efficient, reliable corded systems

Max Piece Length

6.10 m

Minimum Radius

500 mm

Standard Carrier WLL

15 kg

1 m Max Point Load

35 kg

1 m Max Uniformly Distributed Load

70 kg

Suspension Methods

Studding direct to track, drop brackets, hook clamps or incorporation into custom structures

Colourways

Satin black or custom colours



Available at a price point to appeal to smaller venues such as schools and community halls, Erail comes with ball raced runners, pulleys and capstans as standard for smooth, silent operation that is usually only found on larger systems.

With the ability to add the SDrive or TracDrive plug-and-play motors,

various mounting brackets, hook clamps and studding options available.

Erail's impressive 12-wheel master runner is used on straight and curved tracks, taking curves as tight as a 500 mm radius and curtains as tall as 8 m. The 12-wheel master runner is 89 mm wide, the two wheel runner is 24 mm wide.

Embodying Triple E's trademark smooth, silent, rugged flexibility with an economic price

even the smallest of venues can have a motorised track with corded or wireless control and Erail is available with a comprehensive range of component parts that enable it to be used in every environment.

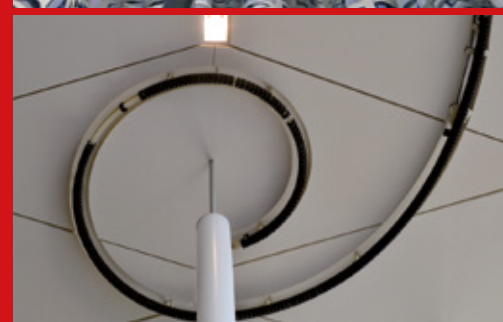
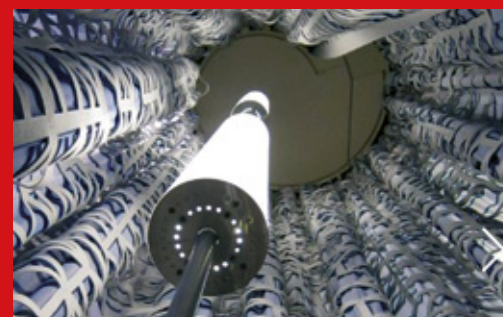
Erail's external dimensions are 25 mm wide x 37 mm high. The extrusion is comprised of an I beam lower section with tee slot above. The I beam features a keyhole slot on it's lower face that accepts a steel roll pin to align the running surfaces at a joint. The tee slot accepts an M8 channel nut to suspend the track from the

Each joint set comprises two flat plates with four countersunk socket screws that fit into and over the tee slot and one roll pin. The top plate of the joint set is black powder coated to ensure it cannot be seen by the audience and the countersunk screws ensure there are no unsightly screw heads protruding from the top of the track.

Embodying Triple E's trademark smooth, silent, rugged flexibility with an economic price, Erail is a high-end quality track that sits comfortably between other walkalong and full-size track systems.

Chazen Museum of Art

Erail is one of the most compact motorised stage tracks' on the market which, combined with its clean look, makes it a popular choice for public areas that need motorised control as well as its more common on-stage use.



At A Glance Facts

Location

Chazen Museum of Art,
University of Wisconsin,
Madison, Wisconsin,
United States of America

Used For

Motorised, custom curved track to store and display

Suspension Method

Standard suspension brackets to ceiling within finished ceiling décor.

Colourways

Custom RAL colour to match interior finishes

The Chazen Museum of Art at the University of Wisconsin-Madison opened an 86,000 square foot extension to its original building with a new lobby that serves as both an entrance and an events space.

The extension has an expansive glass facade so the Museum wanted to find a way to separate the outside courtyard and the lobby and also give privacy when required. Internationally recognised textile designer Petra Blaisse's firm, Inside Outside, created a multi-layered, mixed material knotted drape 65 foot long and 22 foot wide.

Requiring something a bit more special and in-keeping with their pieces, the drape doesn't disappear

into a wall cavity but instead stacks spirally around a central column mounted with a linear light that provides the drape with floor to ceiling backlight when in it's open position.

Easily rolled to the required radius and provided in a custom colourway, the Erail track discretely blends into the crisp, modern look of the building itself, along with a custom motor mounting arrangement hiding the motor from view above the ceiling.

Designed and installed by our long-term north America distributor Rose Brand, Erail was the perfect solution to achieve the design and performance requirements of the artist and clients.

Erail was the perfect solution to achieve the design and performance requirements of the artist and clients.

South Bank Centre

2Way tracks were selected by the South Bank centre and experienced installers Hiykon to equip a renovated café and bar space in the Queen Elizabeth Hall complex, enabling it to be used for public and private functions with controlled light levels and to display custom printed art work drapes.

At A Glance Facts

Location
South Bank Centre, Queen Elizabeth Hall, London

Used For
Walkalong operation of masking and printed drapes in public event space

Suspension Method
Studding direct to track from wall brackets

Colourways
Mill finish aluminium and custom powder coat to match the industrial exposed aesthetic



The need for an economical track and walkalong operation that would stand up to use by front of house staff and be exposed to the public was matched by the qualities of the 2Way system which offers rugged reliability and discrete looks.

Almost 100 m of mill finish 2Way track was hung in two parallel runs

from Triple E wall brackets to allow spacing and height adjustment.

Custom radius and angled curves, manufactured quickly in house to the requirements of the building, allowed the tracks to hug the unusually shaped room and give the top of the drapes a clean line around the top of the refurbished seating areas.

As required by the venue architects, custom powder coating was used on components such as the wall brackets to match existing finishes within the room.

Hiykon completed the installation in just two days due to the ease of install inherent in Triple E tracks which are designed to reduce your time on site.

As required by the venue architects, custom powder coating was used on components such as the wall brackets to match existing finishes within the room.

2Way



2Way is a channel style aluminium extrusion for walkalong systems such as perimeter tracks, masking, cycloramas or office spaces.

Available in black anodised or silver mill finish, 2Way is equally at home masking technical areas such as fly floors; preventing light leak from doors and windows; covering windows, mirrors and barres in rehearsal studios; or in offices and shops to create delineated areas such as meeting areas or to hang a product display.

with 2W30 ceiling clips. At the bottom corners of the extrusion are 2 keyhole slots that accept roll pins to precisely align the running surfaces when the track sections are joined.

Each joint set comprises a flat plate with four grub screws that fits into the top slot and 2 roll pins.

Smooth, maintenance free walkalong operation.

The external dimensions are 35 mm wide x 40 mm high. The lower part of the track is a channel that accepts two-wheel runners that can be plain or ball raced, with a Working Load Limit of 15 kg each and are 22 mm wide. The leading carrier is 66 mm wide and this can be fitted with an overlap arm if required.

The upper channel accepts the same 8 mm threaded tee nut as Erail's upper channel with which to suspend the track. There are 2 L shaped slots in the side of the track for attaching the track flush to a soffit or ceiling

Robust but compact, the 2Way system bridges the gap between domestic tracks that don't last in our demanding performance environment and larger fully featured tracks.

The flat sides of 2Way are perfect for attaching a fascia or decorative pelmet with Velcro or other adhesive.

At A Glance Facts

Best Used For
■ Walkalong operation
■ Perimeter tracks
■ Acoustic curtain track
■ Cyclorama track

Max Piece Length
6.10 m

Minimum Radius
500 mm

Standard Carrier WLL
15 kg

1 m Max Point Load
44 kg

1 m Max Uniformly Distributed Load
88 kg

Suspension Methods
Studding direct to track, drop brackets, hook clamps, flush ceiling clips or incorporation into custom structures

Colourways
Satin black, mill finish or custom colours

ChainTrack

ChainTrack is an aluminium extrusion with a continuous UHMW insert in which the upper half of a duplex chain runs. Curtains or small scenic items can be hung from the lower half of the chain.



At A Glance Facts

Best Used For

- Compact stacking areas for large curtains hidden offstage
- Systems where a low maintenance, high lifespan product is required
- Heavy duty cycle systems where continuous operation is required

Max Piece Length

6.10 m

Chain Track Minimum Radius

30 mm

Chain Track 1m Uniformly

Distributed Load Max

20 kg

Colourways

Satin black or mill finish aluminium

ChainTrack systems use a 3-phase motor of at least 0.4 kW which can be altered to meet the specific requirements of each system. The motor can be mounted in a variety of positions and orientations to suit space requirements.

Able to turn just 30 mm radius corners ChainTrack is our most flexible system and is able to tackle challenging drape storage issues such as those found on acoustic treatments

Able to turn just 30 mm radius corners this is our most flexible system.

and multi-use performance spaces. ChainTrack stacking areas can be serpentine or spiral and can be used to store a large drape in a small area out of sight of an audience.

As chain is a non-slip drive system, extremely precise positioning can be achieved with encoders. As the chain is rigid the cloth does not fold as it moves into its storage location,

perfect for decorative drapes in delicate materials.

Curtains generally attach to the chain every 95 mm using a purpose designed stainless steel hook and metal wire strop.

All chain sprockets have two ball raced bearings and have proven on our test track to have a life expectancy in excess of 50 000 cycles, based on a 25 m long track.

The system is virtually maintenance free with infrequent light lubrication and tensioning required.

By combining ChainTrack's standard components – extrusion and carriers – with custom platingwork, guides, motors and controllers, we are able to offer bespoke solutions at competitive prices for the most complex specifications.

Arthur Beale

ChainTrack is renowned for its consistent, long lasting performance and is designed with Triple E's standard push button operation. These qualities make it ideal for operation by non-technical staff from other industries such as retail.



Arthur Beale, the 500-year-old yacht and expedition chandlery in central London, used a Triple E ChainTrack Christmas window display, keeping company with Selfridges and Lapland UK who are just some of the clients that have needed an automated track system to move displayed goods around a shop, a window or a display.

Arthur Beale required a track to move 'swimming' fish around their shop window as part of a '20,000 Leagues Under the Sea' theme involving a submarine, sea bed present display and a diver!

The track needed to run continuously for almost 2000 hours and needed a simple installation, adjustable speed control during fitting and push button operation for staff to switch it on and off when required.

The hand painted luminous fish were suspended from the lower portion of the duplex chain with stainless steel micro wires that provided almost invisible suspension to complete the 'fish tank' look of the display.

Triple E ChainTrack is the perfect solution to build a spectacular moving centre piece.

The addition of moving elements such as wrapped presents, gifts for loved ones and swimming fish always draws attention from the competition and has the potential to delight and excite.

"Triple E was able to provide a simple 'plug and play' system which

At A Glance Facts

Location

Arthur Beale Yacht Chandlery
Shaftesbury Avenue, London

Used For

Continuously running track for a Christmas window display

Suspension Method

Eyebolts and suspension wires

Colourways

Mill finish aluminium

was rigged quickly and easily into our window, with minimal disruption and provided a solution to match our specifications perfectly."

Triple E ChainTrack is the perfect solution to build a spectacular

moving centre piece of any shop window or retail environment and this is the latest eye-catching example of a system that can easily scale up from the small to the large and has been used to carry almost anything including drapes, banners, model submarines and Christmas presents.

Car Showroom

‘...as we take you into our modern private viewing facility where the sliding doors will finally open to reveal your new supercar...’

At A Glance Facts

Location
United Kingdom

Used For
Movement of a pair of curved doors each weighing 500 kg to create a grand reveal for a specialist product.

Suspension Method
Custom bracketry to hide system within ceiling void

Colourways
Satin Black

Working with a specialist client, Triple E was tasked with creating a tracking system to move substantial doors as part of a grand reveal worthy of the engineering hidden behind it.

Using the stock UniBeam profile with ChainBeam UHMW, a custom

a high level of consistent use and low maintenance requirements, perfect for a ‘show’ that can happen several times a day.

Using as many stock pieces as possible to keep costs in check, the project nonetheless required several bespoke components such as

The heavy doors, each over 500 kg, which wrap around the space and meet in the middle are carried on our unique UniBeam scenery carrier (385 kg WLL). With a 5:1 factor of safety these carriers are suitable for scenic elements like these curved doors that are the size of walls.

A pair of specially programmed motors in custom mountings, to reduce the height of the system, open and close the doors at speeds of up to 0.50 m/s with a ramp up and down to ensure crisp but dramatic operation.

The only visible signs of the substantial system was the discrete slot in the ceiling and the custom operating panel, all of which was kept to an absolute minimum at the client’s request.

Designed and manufactured by our in house team.

The S-shaped 12 m long track was designed by our in-house engineers to be hidden within the ceiling structure of the existing room.

ChainBeam should be used for precise movements of large and heavy scenic elements for permanent installations that require

mountings and sprockets to enable such a substantial system to fit into a restricted space. Designed by our in-house team and manufactured by our in-house machine shop we were able to produce these bespoke parts quickly and complete the job on a very short lead time to suit the client’s schedule.

ChainBeam

ChainBeam is a variant on our UniBeam system. It takes the extrusion, runners and scenery carriers from UniBeam with a UHMW profile inserted into the lower channel of the track to provide a route for either a single or double run of duplex chain.

Laser profiled drive comb attachments link the master or scenery carriers to the chain, allowing for fine adjustment and removal during commissioning and tensioning.

The high load capacity of UniBeam enables ChainBeam to move heavy or specialist loads such as huge LED screens, lighting fixtures, flying performers or moving punching bags.

ChainBeam can be curved to a minimum radius of 2 m and requires no components to divert the drive, unlike other our track systems, greatly reducing the components needed for permanent curved track systems.

As chain is a non-slip drive system, extremely precise positioning can be achieved with either direct struck limits, belt driven limit switches or encoders, maintaining a reliably high degree of accuracy with the chain driving the load and the weight taken by the runners and scenery carriers.

The full range of UniTrack and UniBeam carriers and components are compatible with ChainBeam, allowing you to maximise your load capacity for curtains and scenery - over 800 kg UDL at 1 m centres - whilst utilising the added benefits of low maintenance, faster movement and accurate positioning a chain driven system provides.

ChainBeam has minimal maintenance requirements, needing only irregular light lubrication and tensioning.

At A Glance Facts

Best Used For

- Compact stacking areas on large stages
- Large scenery movements
- Acoustic curtain track
- Very long lifespan requirements

Max Piece Length
6.10 m

ChainBeam Minimum Radius
2.00 mm

ChainBeam 1m Uniformly Distributed Load Max
1070 kg

Colourways
Satin black or mill finish aluminium

As chain is a non-slip drive system, extremely precise positioning can be achieved.

SDrive Motor

The SDrive motor has been specifically designed for Erail and mounts to the end of the track, keeping it out the way of the busy stage floor. The SDrive can be used to motorise all corded Erail systems.



At A Glance Facts

Physical Size
0.70 m x 0.14 m x 0.14 m

Physical Weight
15 kg

Maximum Pull
150 kg

Power Input
230 V, 13 A, 50 Hz

Motor Spec
0.4 kW, 50 Hz

Max Speed
0.70 m/s

Warranty
2 years

As a plug-and-play unit with incorporated control and a 13 A power requirement, the SDrive can be easily mounted to the track and quickly brought into service without the need for an electrician making it ideal for upgrades of pre-existing Erail systems and new installations.

Supplied with pre-wired mechanical limit switches, a power cable and control pendant, all components

usually done during commissioning but can be done at any time. We can also provide a speed pot pendant for quick speed adjustment and a key switch pendant to prevent unwanted operation of the system.

A second pendant can be used to allow for secondary control positions and a wireless remote is also available which gives wireless control up to 150 m with line of sight from the system.

The SDrives' near silent operation is suitable for the stage, studios, drama spaces and schools.

connect to the SDrive with easy XLR connections so an electrician is not required. The SDrive is the fastest and simplest track motor system to install.

The standard SDrive pendant is open/stop/close and the speed can be adjusted using the rotary pot inside the control cover. This is

The SDrive exerts continuous tension on the rope to ensure smooth, snag free operation.

Upgraded for 2019, the improved SDrive is capable of moving drapes of up to 150 kg on a straight system and its near silent operation is suitable for the stage, studios, drama spaces and schools.



TDrive Motor

Designed to fit UniTrack and Unibeam, the TDrive range provides huge flexibility - including the TDrive, the control-less TracDrive and the TDriveHD there's a motor for every scenario.

Pre-wired control, power and limit switches with XLR connections mean the motor unit can be installed quickly, either mounted directly to the track, to a wall or the floor.

The standard TDrive pendant is open/stop/close with variable speed. A second pendant or wireless control can be supplied to give a second operating position. Wireless control can be used up to 150 m with line of sight from the motor.

For even larger load capacity, the TDrive HD has a capacity of up to 400 kg and has all the features of the standard TDrive.

Also available is the TracDrive motor which uses the motor, gear box, mounting and pre-wired limit switches of the TDrive but comes without control, allowing the end user to incorporate the drive into a third-party control system.

Our TDrive motor can be used with all 17 cording methods for UniTrack and UniBeam.

The TDrive is able to move drapes and scenery of up to 300 kg with near silent operation. It's fast fit up time and capacity make it suitable for all touring and permanent applications on stage, in studios and other high demand requirements.

Our TDrive motor can be used with all 17 cording methods for UniTrack and UniBeam.

At A Glance Facts

Physical Size
0.70 m x 0.22 m x 0.22 m

Physical Weight
25 kg

Maximum Pull
300 kg

Power Input
230 V, 13 A, 50 Hz

Motor Spec
0.4 kW, 50 Hz

Max Speed
0.70 m/s

Warranty
2 years

VariBanner

Variable acoustic banners are now a key part of modern performance space design and Triple E can apply its fabric management expertise to meet the requirements of every venue – multi-use community spaces, post-fire rebuilds of historic venues, through to new build opera houses and concert halls.

With a product portfolio that includes our rope-operated and chain-driven tracks we are able to produce acoustic banners of both venetian and roller types and we can design systems with either horizontal or vertical travel.

Working with acousticians and designers we can build systems designed to be installed discretely into seating circle overhangs, roof voids and wall cavities to name a few.

Working with acousticians and designers we can build systems designed to be installed discretely into seating circle overhangs, roof voids and wall cavities to name a few.

The Triple E VariBanner, a Venetian type banner that has two layers

of fabric, commonly wool serge, hanging vertically, spaced apart and held by horizontal slats, is a popular choice for venues requiring acoustic treatments in a variety of fabric choices.

The VariBanners are raised and lowered with a flat stainless steel band around a pile-on winch. The band runs through the slats, hidden from view by the face fabric and attaches to the bottom slat which gathers the fabric layers up as it raises into its housing.

Casings can be wall or ceiling mounted and can be finished to either be hidden behind fascias or to complement a design scheme. Panels can be removed for fitting and maintenance using hidden fixings.

The motor is fitted with a brake and can have an integrated inverter to allow for speed control. Limit switches are fitted according to the specification of each project and include normal, over travel and slack band detection. An encoder can be fitted if a number of intermediate positions need to be accurately repeated.

Symphony Hall

Ever since our first VariBanner installation in 1999 for the City of Birmingham Symphony Orchestra where eighteen banners were used to tune and match the rehearsal and second performance space to the main performance hall, VariBanners have been an important part of our product range.



At A Glance Facts

| | |
|-------------------|--|
| Location | CBSO Centre – Birmingham |
| Used For | Variable acoustic tuning for rehearsal and performance space |
| Suspension Method | Custom bracketry |
| Colourways | Industrial galvanisation to architect's specification |

Roger Fox, of the world recognised theatre consultants Theatreplan, wanted to find a company to design, build and install eighteen double-sided, 12 m long by 2.5 m wide banners which allow the tuning of the space in line with the specifications set by Acoustician Russell Johnson of Artec.

Artec, who also engineered the sound for the Birmingham Symphony Hall, required the double face wool serge banners to

cover much of the wall space in the venue which provides rehearsal and administrative facilities for the orchestra, it's players and it's choruses along with a 300 seat performance capacity.

A single wall mounted control panel, custom built for the project, is able to select any combination of banners with each motor individually controllable with both integrated top and bottom limits while also allowing for any

intermediate position to be set, enabling the maximum flexibility in the space, all of which was designed and installed by our in-house electrical engineers and fitters.

We are incredibly proud of our involvement in this project as our banners have been in constant use since 1999 and Birmingham Symphony Hall have never had to contact us for a service or maintenance.

Battersea Arts Centre

After the terrible blaze at Battersea Arts Centre in 2015 destroyed much of the building infrastructure and the roof of the Grand Hall, Theatreplan and acousticians Gillerion Scott were tasked with engineering a variable acoustics solution for the Grand Hall.

At A Glance Facts

Location
Battersea Arts Centre, Grand Hall
London

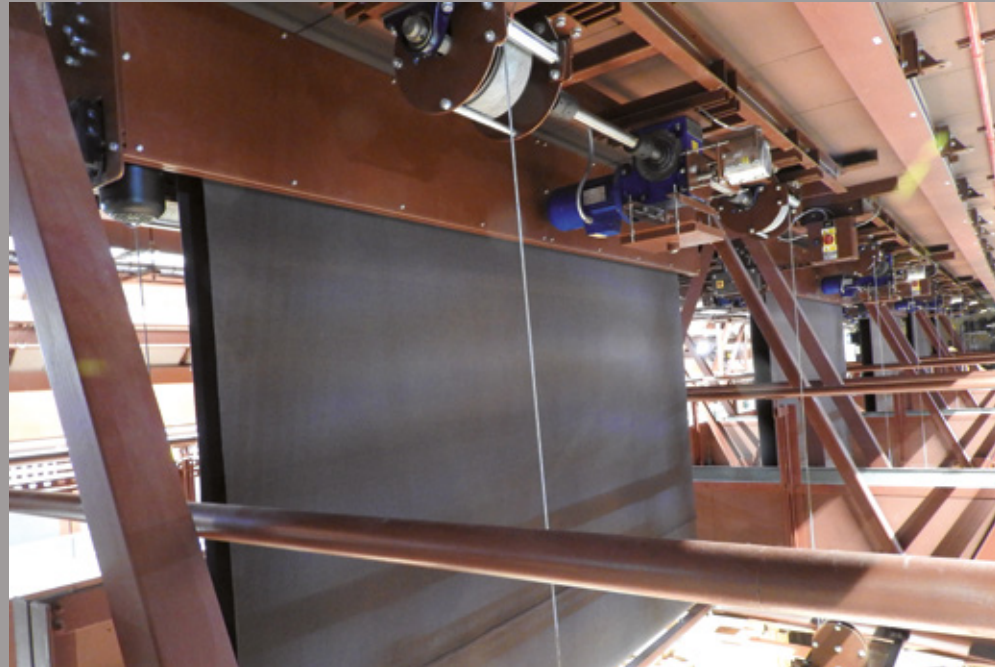
Used For
Variable acoustic tuning of roof void

Suspension Method
Unistrut fixings to casing

Colourways
Custom RAL powder coating to
architects specification

Roger Fox, Director of theatre consultants Theatreplan said: "A major part of this rebuild was developing the roof structure and fitting all the technical elements, including a requirement for variable acoustics, into a tight roof environment. Triple E's VariRollers seemed the answer and we were delighted to work alongside Triple E as we are well aware of their ingenuity and their willingness, and capabilities when it comes to working in challenging and unusual spaces."

The 18 VariRoller banners were purchased by Centre Stage Engineering who carried out the installation in the roof space of Battersea Arts Centre's Grand Hall which had to be completed prior to the fitting of the intricate decorative lattice roof structure designed by architects Haworth Tompkins. The drop-in nature of the product allowed this and gives the space a huge



amount of flexibility to absorb, echo and reverb, varying the acoustic requirements.

Darren Green, Project Manager for Centre Stage Engineering explains that "Triple E offers a turnkey solution – from design service through to the delivery of the product ready to install. This comprehensive service allows a seamless working relationship with Triple E alongside the theatre consultant for each project. The team at Triple E are very accommodating, and good communicators which helps us to achieve our collective goals for each bespoke design."

Jack Champion, Head of Production and Technical at Battersea Arts

Centre is delighted with the outcome of the VariRoller installation in the Grand Hall. "These variable acoustic banners have enabled us to open up the Grand Hall to a variety of different performances and events that otherwise we would not have been able to access. The VariRoller system has brought a new versatility to the Grand Hall...they allow us to totally change the acoustics of a very large space with the touch of a button.

"Triple E are reliable, approachable and professional. They offer products which are well made and well supported, and they have a great approach to problem-solving in order to ensure the overall aim of the project is delivered. It makes this kind of complex installation all the easier from an end client perspective!"

VariRoller

VariRoller banner mechanisms utilise the same principle of spacing fabric to increase it's acoustic properties and also create a clean, crisp edge when the banners are deployed for a performance.

The bottom tumbler tube and minimal seams give the fabric a taut, sharp look; the fabric can be supplied in a variety of materials and colours with both plain and printed options available.

VariRoller banners can be driven by conventional or tubular motors as required by the specification, access and installation restrictions and we can use our extensive experience to advise on the best option.

Like the VariBanner, the VariRoller also employs motors with integrated brakes for security and inverters for speed control. Limit switches and encoders are fitted as appropriate to ensure precise repeatable positioning of the banners with the whole operation being virtually silent.

Each VariRoller and VariBanner system has it's own custom control system built specially for each project so highly customised control and remote and wireless options are available to suit the needs of the venue

As with all our acoustic solution products, a variety of finishes can

be used to match to the interior of a venue or to enable the mechanism to hide within a building's wall or ceilings.

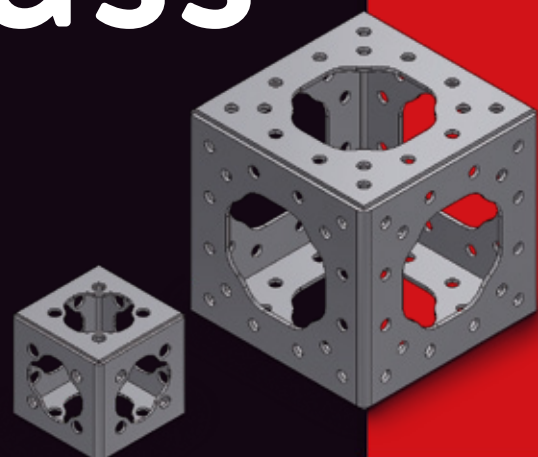
The VariRoller banners are available as custom builds between 1.5 m and 5 m wide.

As with all our acoustic solution products, a variety of finishes can be used to match to the interior of a venue or to enable the mechanism to hide within a building's wall or ceilings.

Recent commissions have included the new roof void acoustic treatments for the Grand Hall at Battersea Arts Centre - London, Sherborne School – Dorset and Storey's Field Centre – Cambridge University.

ModTruss

Since 2015, when we launched the ModTruss range in Europe at the ABTT Theatre Show, we've used it on a variety of jobs that includes staging, scenery, viewing platforms, trade show stands, theatre buildings and even fairground rides!



ModTruss is a unique, modular construction system that is only limited by your imagination. With its lightweight aluminium construction and patented repetitive hole pattern, it can create endless configurations whilst offering tremendous strength and stability.

ModTruss is available in 12 inch x 12 inch and 6 inch x 6 inch cross sections in lengths from 6 inches to 10 foot.

ModTruss is unlike any other traditional trussing or building system as it has no specific corner modules. This means you're not limited to where and how you make connections and those connections require no awkward or unsightly external protrusions such as locking pins.

It's industrial design and repeating hole pattern give it a pleasing visual look that can be lit and projected onto, but also allows for easy dressing in either soft fabrics or hard cladding such as MDF, ply or other sheet materials.

Huge weight loading possibilities can be obtained by laminating sections together to achieve up to four times the load of a single piece.

It's ability to span large spaces far exceeds anything traditional stage decking modules can achieve and without the tell-tale legs every 4 foot across the stage. Create clear spans that match what the designer wants and allow clear access under the structure.

ModTruss has a wide range of accessories to expand its capabilities including automation, hinges, hydraulics and telescoping tubes and, of course, Triple E tracks can easily be integrated into the structure with bolts, no additional fixings are required.

Beside

Seeking to fully utilise their available spaces at their sites in London and Edinburgh, Fringe Festival powerhouse Pleasance commissioned Triple E to design and build 'Beside'.



Photo: Nick Ward

Beside is a portable performance space that changes size to suit its two homes - in London it is a small incubator space for new material and in Edinburgh it's a mid-size Fringe venue showing a medley of performance styles.

The ModTruss system with its repeating hole pattern allowing for the easy reconfiguration of the structure was perfect for the project as it broke down into easily handled parts and sub-assemblies, a major plus given the restricted access sites.

A major requirement of this project was to build a venue that felt like a proper theatre as most Fringe venues have restricted height which badly affects the lighting design. The internal height was increased to

4.00 m, scaff pipe was rigged easily with pipe adaptors and services and stage tracking were incorporated into the structure, all features which set Pleasance Beside apart from other Fringe venues traditionally constructed from Portakabins or containers.

Triple E's design work includes a self climbing roof to minimise lifts and work at height and a proprietary curtain walling system for the wall and roof panels.

'Beside' is a unique venue designed to function as a full performance space whilst giving the owners, Pleasance, the ability to endlessly reconfigure the structure, audience layout and specification as future needs arise.

At A Glance Facts

Location

London and Edinburgh, UK

Used For

Unique modular portable performance space

Capacity

80-120

Depending on site and layout

Build Time

Two days with six crew

Sip & Slide

Sometimes its fun to do fun things, right? Well that's how Triple E came about designing, building and owning a unique ModTruss helter skelter!



At A Glance Facts

Location

Edinburgh, UK

Used For

Fully licensed fairground attraction with future use potential

Capacity

30 people on the top deck

Build Time

Three days with six crew

Sip & Slide is a helter skelter with no comparison, combining an impressive and eye catching structure, an elevated deck capable of hosting events, a bar, viewing platform and also a super fun slide!

Working with our Fringe Festival friends Assembly, the structure is designed to be an eye catching and crowd pleasing addition to their Edinburgh venues list and certainly draws people in with over 8,000 sliders in 2018.

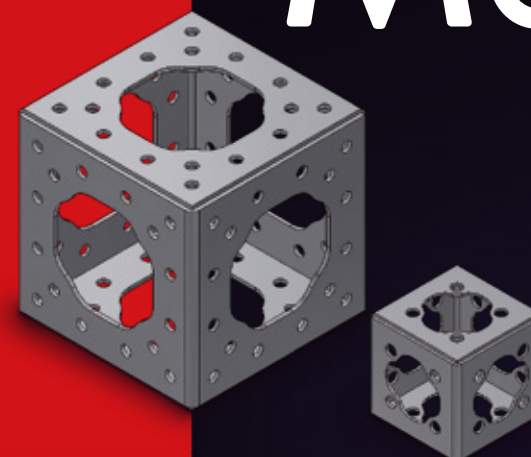
The ModTruss system allows Sip & Slide to travel on just two vehicles as sub-assemblies ready for erection on site with the stair column travelling as one piece to be lifted into position.

The entire structure was pre-built at our workshop in order to be inspected and certified for public use before being disassembled to travel to Edinburgh.

With a total weight of 4 t, Sip & Slide can withstand 120 mph winds and, by using the ModTruss system, it is over 400 times stronger than a conventional helter skelter even when used to its full potential as a venue in the sky.

For 2020 we hope to further utilise the flexibility of ModTruss by producing a top deck area that can be completely enclosed to weather proof it (it is Edinburgh in the summer after all) and takes advantage of its one of a kind visual look with further adaptations.

ModTruss and beyond



Lightweight aluminium construction and patented repetitive hole pattern, it can create endless configurations whilst offering tremendous strength and stability.

Pipe adaptors interface ModTruss with lighting and scaffolding; stair products take ModTruss to new heights while the ModPanel can serve as decking, walls or roofs and more; while joist hangers allow inexpensive flooring modules to be created in a matter of minutes.

miles or a small stage that tours the UK, Triple E have experience of a range of unusual requirements. The wider ModTruss network also allows us to call upon experience of other ModTruss dealers in the USA with further experience in areas such as industrial design and aeronautics maintenance.

Triple E is the only major source for the rental or purchase of ModTruss outside of North America and is leading the way in its innovative use in scenic construction applications.

Examples of ModTruss accessories, Joist hanger, Bolted connection

ModTruss' modular, flexible design reduces the need for custom 'one off' fabrication and thus tremendously cuts down on waste.

Pulley blocks and other equipment can be easily mounted directly to the structure to allow for flown bars or custom lifting points for other uses such as performer flying.

ModTruss' modular, flexible design reduces the need for custom 'one off' fabrication and thus tremendously cuts down on waste.

Whether it is a major project like a portable theatre that moves 400



Precision Engineering

The formal acquisition of Thorley Engineering, a name familiar to some within our industry, now gives us a fully equipped precision engineering workshop with CNC machining centres and the facilities to mill, turn and profile aluminium, steel, plastics and composites on site.

This has enabled us to increase our product range and further reduce our turnaround times on our stock, custom motors and chain driven track systems by producing our own sprockets, shafts and pulleys as we continue to engage in more complex works required by our customer base.

Our experience includes manufacturing winch drums for entertainment engineering clients; precision work for museum and

looking for a helpful service in producing manufactured goods to the highest finish - from a small batch of awards for a ceremony right through to an air horn component on every train in the south of England.

Rapid, low cost prototyping can also be achieved in-house with our 3D printing facilities, allowing you to quickly get hands on with your latest

We continue to engage in more complex works required by our custom base.

exhibition display fit outs; batch runs for manufacturers such as turned and machined gas burner nozzles; research and development work; we will even manufacture runs as short as 1 for prototyping at competitive prices.

Alongside our internal work we work with designers, artists and engineers

design, whether it's scaled items for a model box or a 1:1 prototype. Printed in the carbon fibre reinforced material Onyx, we can create items that are accurate to your design, dimensionally precise and functional as we can pause the printing and insert fixings such as nuts to allow you to test a working product.



Additional Parts

Tried and tested design that stand up to the demands of the performance environment, to move, to secure, to assemble.

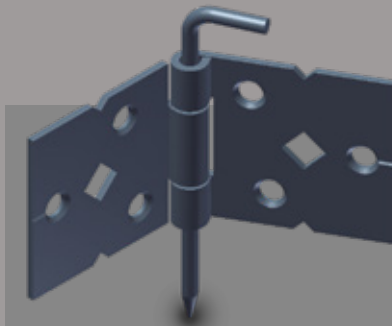


UniJack

The UniJack™ was a major building block in the Triple E product range and has seen several thousand units built over the years. UniJacks are the most robust method of braking and/or moving large scenic elements and trucks around the stage.

UniJacks come in two sizes of the basic unit, both operated by foot, and offer some additional accessories such as castors, brake block attachments and lift off studs to allow easy handling of the heaviest scenery pieces.

Although originally designed for scenery, the UniJack can also be used for all types of industrial equipment such as machinery and workbenches as well as seating blocks, pews, display cabinets and counters. All can be moved and braked with ease.



Loose Pin Hinge

One of the principle methods of joining scenic elements on stage and used on everything from rostra to flattage, the Loose Pin Hinge was invented by Triple E Managing Director David Edelstein and has revolutionised quick scene changes the world over.

Triple E Loose Pin Hinges can be used straight from the bag without any modifications and have been a favourite of scenery workshops for over 35 years since its introduction as our very first product, winning the ABTT Product of the Year Award in 1984.

Our original, oft copied design features an easy to locate and secure tapered pin, alignment notches and offset screw holes to prevent splitting the timber. Uniquely, it also has a central squared hole suitable for an M6 coach bolt for ultra-secure fixing.



Tab Hooks & Twin Hooks

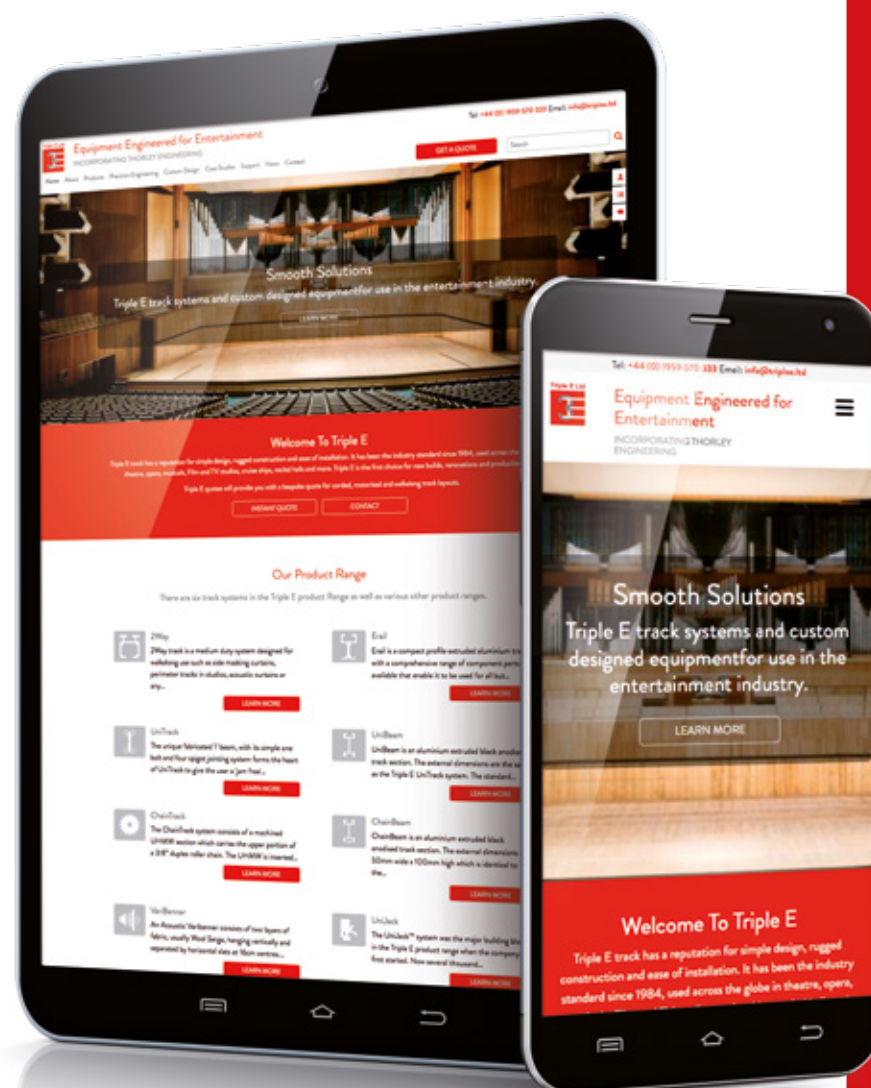
The original pattern Tab and Twin Hooks fell off the market in 2017 so we stepped in to invest in brand new tooling and a slightly more pliable material to ensure these popular and crucial items remain available. These are available as packs of 10, 100, 1000, 3000 or 5000.

Where to buy Triple E products

Triple E Ltd sell direct and also utilise a growing network of knowledgeable distributors, re-sellers and installers for their core product range whilst undertaking special projects themselves. For the full list of distributors, re-sellers and installers please visit Triple E's website.

At A Glance Benefits

- View all products and accessories
- Locate distributors, re-sellers and installers
- Create an account
- Build and generate a quote
- Read the latest Case Studies and industry news
- Access a comprehensive range of downloads



www.triplee.ltd

All information and dimensions correct at time of going to press.
Due to constant evaluation of our products for optimum performance, details may be changed from time to time.
Please call or check our website for the most up to date information.

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Equipment Engineered for Entertainment

Triple E track has a reputation for simple design, rugged construction and ease of installation. It has been the industry standard since 1984, used across the globe in theatre, opera, musicals, TV studios, cruise ships and recital halls and more. Triple E is the first choice for new builds. For a robust, silent, reliable system choose Triple E.

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